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Financial Planning and Counseling Scales

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Foreword by Dorothy Bagwell Durband

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Foreword

It is a pleasure to write a foreword for this new book. John Grable, Kristy Archuleta, and Roudi Nazarinia have produced the first known volume that brings together the scales and measurements that have been developed in financial counseling and planning.

Financial counseling and planning forms one facet within the interdisciplinary profession of personal finance. The profession is focused on equipping consumers and families with the skills and knowledge to make informed financial choices to improve their quality of life. The disciplines of economics, sociology, and psychology have informed the pedagogy, research, and practice of personal finance. Organizations and journals focusing on personal finance were formed in the late 1980s and early 1990s. For a detailed commentary on the history of the profession, see Schuchardt et al.[1]

The publication of this book is exciting for several reasons. First and foremost, a need has existed for a compilation of valid and reliable measures in personal finance. Previous research has typically been based on theoretical frameworks from economics, family studies, sociology, psychology, and business. Other fields have published collections of research while personal finance has not. This book fills a void and at the same time provides a much needed starting point.

Through this volume, the authors provide a window into the measurements that have been developed. Even if this work has been previously presented, it is often unpublished or time consuming to find. This compilation is a useful tool for researchers looking for assessments to use in their next study or for students who are studying the subject areas. Educators and practitioners applying research findings in their work with consumers and families are encouraged to engage in mutually beneficial dialogue with researchers to ultimately integrate practice with theory. Such conversations may result in the development of diagnostic tools that may be used in working with clients.

The importance of behavioral research outcomes in understanding societal issues and providing public policy recommendations is both evident and necessary.

[1] Schuchardt, J. et al. (2007). Personal finance: An interdisciplinary profession. *Financial Counseling and Planning*, *18*(1), 61–69.

Individual characteristics and decision making, financial knowledge and behaviors, and financial security are all critical issues in improving the well-being of consumers and families. Many questions need answers and the tools that are provided in this book will allow current and future researchers to begin approaching or advancing some of these questions.

The likelihood of future editions of this book is anticipated as key research methodologies are continually tested, presented, revised, and standardized. Personal finance scholars are encouraged to develop theory to drive their research. This book stands as a shining example of how scholars create, use, and test valid and reliable items, including indices and scales to further the research and advance the profession.

Lubbock, Texas
January 2010

Dorothy Bagwell Durband

Preface

A colleague recently asked, with an expression of intense interest, “Why this volume and why now?” Almost at once, as a team, we pounced on the question and excitingly detailed our academic field’s need for additional research resources. Handbooks, manuals, and textbooks devoted specifically to facilitating research and education in the financial planning and counseling domain are few and far between. This has meant that much of the research that has been conducted has been done in a piecemeal fashion, often borrowing tools and techniques from other disciplines. There has been very little organized sharing of concepts and assessment tools between and among researchers, students, practitioners, and policy makers. The obstacles associated with this lack of sharing have resulted in a stifling of creativity and sometimes an underestimation of the excellent work that has been conducted to date in the field. This volume was envisioned as a contribution to help fill this need.

Even though our professional training is quite diverse (i.e., a financial planner, a marriage and family therapist, and a family life educator), we are united in seeing ourselves as applied researchers. We conduct survey and clinical research in an attempt to answer basic attitudinal and behavioral questions as they relate to the interaction of individuals, families, and households in the personal finance domain. Our profession[1] lacks many of the basic reference resources that are very common in other fields. The paucity of resources has caused great frustration in terms of conducting research and training of graduate students.

The personal, household, and consumer finance field is growing quite rapidly, especially as universities and policy makers see the need for additional research and clinical application in this dynamic area of study. Unlike other more established disciplines, the broad field of study, known as financial planning and counseling, is relatively new. Like almost all other professional endeavors, financial planning and counseling has moved through stages of development. Currently, the profession is advancing toward the final stage of specialized maturity where professional

[1] The profession has been defined in a variety of ways, including financial planning and counseling, personal finance, consumer finance, household finance, and family and consumer economics.

practice becomes increasingly tied to academic research underlying standardized procedures.

A need exists *today* for a compilation of financial planning and counseling scales and instruments for practitioner and researcher use. Unlike other disciplines that have manuals and handbooks of measures (e.g., marriage and family therapy, psychology, marketing), those interested in conducting financial planning and counseling research, or applying assessment techniques in clinical settings, have had no place to turn to find listings of previously used instruments that have been designed especially for financial planning and counseling research purposes. There has also been no resource that provides information about the validity and reliability of such measurements. Until the publication of this volume, researchers and clinicians had to either create their own assessment tools or conduct a thorough literature review in search of existing measures. This has resulted in needless duplication and a lack of theory development based on standardized instruments and assessment techniques.

The answer to our colleague's question of "Why this volume and why now?" is simple; this book fills a research resource void that has limited the scope and reach of financial planning and counseling research. The purpose of this volume is to provide educators, researchers, clinicians, students, practitioners, and policy makers with a number of psychometrically designed and tested personal assessment scales, measurements, and instruments that can be used to evaluate individuals in a wide variety of settings. The scales and instruments chosen for inclusion in the book come primarily from the key peer-reviewed journals in the financial planning and counseling field (i.e., personal, household, and consumer finance), including

Family and Consumer Sciences Research Journal

Financial Services Review

Journal of Consumer Affairs

Journal of Consumer Education

Journal of Financial Counseling and Planning

Journal of Family and Economic Issues

Journal of Financial Planning

Journal of Personal Finance

Consumer Interest Annual

Scales and instruments from other journals (e.g., *Family Relations*, *Journal of Behavioral Finance*, *Journal of Youth Adolescence*), when previously used by those working in the field, have also been included when appropriate. The key difference between this volume and similar ones is that the material presented here is almost entirely new. That is, the majority of instruments described in this book have not been included in currently published manuals or handbooks.

It is our sincere hope that you find this volume not only helpful, but also an ongoing essential reference source to help guide your research and inquiries. If you have a scale, measurement item, or assessment instrument that you feel should be included in a potential future edition of this book please send the reference to jgrable@ksu.edu. We are certain that we likely overlooked a few measures during our multi-year literature review. If something has been omitted, it was not purposely done. We are anxious to know of other tools that can help further the development of financial counseling and planning as a professional academic discipline.

Listing Descriptives and Definitions

Each measurement tool listed in this volume is illustrated with a series of headings. These headings are described and defined as follows:

Title

The actual instrument title, if provided by the author(s) is used. It is important to note, however, that the majority of measures were not named or titled. In these situations a descriptive title, based on the item(s) and narrative description, was chosen by the editorial team.

Key Words

Key words were chosen by the editorial team as a way of categorizing each instrument.

Authors

The author heading provides the full name of each author as listed in the source reference.

Source

The source provides the paper, book, article, or dissertation/thesis reference from which the instrument was obtained.

Description

The description provides the intended purpose of the instrument. Additional details are provided whenever information from the source reference was available.

Test Sample

Information under this heading describes the sample that was used to test either the instrument or the sample that was asked to complete the instrument as part of a research project.

Scoring

Information about the way in which the instrument is scored, including reverse coding, is provided under this heading.

Reliability

The Cronbach's alpha is normally provided whenever appropriate and whenever reported by the source authors.

Validity

Indicators of validity are reported whenever validity notes were explicitly noted in the source reference or when it was possible to draw a validity inference.

Source Reference

In some cases, the instrument shown was either adopted or adapted from a previously published scale, item, or measure. In these situations, the original source of the instrument is shown. In some situations, multiple references are noted, indicating that the instrument might be sourced from a combination of references.

Note(s)

Special notes about the use or application of a particular instrument can be found under this heading. Typically, issues related to copyright, usage costs, or reference requirements are noted.

Item(s)

The actual scale, item, or measure is shown under this heading. Scoring, as described in the source document, is generally indicated as well.

Acknowledgments

Unique features of this book, which we are particularly proud of, are the contributions written by our colleagues. Dr. Dottie Durband graciously wrote the foreword. Dr. Durband runs what many consider to be the nation's premier on-campus financial counseling center at Texas Tech University. It was partially through her encouragement that this volume moved from concept to completion.

Farrell J. Webb, Ph.D. contributed Chapter 1. Dr. Webb is a community sociologist and social psychologist. He serves as an associate professor of family studies in the School of Family Studies and Human Services at Kansas State University. He has taught courses in diversity in families, family studies, family theory, statistics (basic and advanced), sampling, research methods, advanced research methods, program evaluation, and computerized data analysis. He recently completed post-doctoral/sabbatical training at The Pennsylvania State University – University Park in the Center for Human Development and Family Research in Diverse Contexts in the areas of ethnography, spatial demography, and epidemiological research methods. He has extensive experience in data collection, including accessing hidden communities, and has served as the principal investigator on CDC studies that examined HIV knowledge, attitudes, behaviors, and risk taking among MSM, IDU, and heterosexuals. His upcoming publications focus on the role of families in the production of prejudice across race, ethnic and sexually varying groups, the influences of race and gender on financial satisfaction in rural households, and the influence of community on risk taking attitudes toward sexual practices in rural/frontier communities. He recently applied his knowledge of risk taking to investigations focused on behavioral intentions in future financial matters among working and working poor people in rural communities; and to the issue of health, safety and death risk factors among major rural/frontier occupations.

Dr. Michael Roszkowski, of LaSalle University, and Dr. Scott Spreat, of Behavioral Health at Woods Services, Inc., contributed Chapter 2. Dr. Roszkowski, after completing a B.S. degree in psychology at St. Joseph's University, worked as an Inland Marine Underwriter. Subsequently, he earned a masters degree (with certification) in school psychology and a Ph.D. in educational psychology from Temple University. During his doctoral studies, he was employed as an evaluation specialist at The Woodhaven Center, a residential facility for developmentally disabled individuals managed by Temple University. After receiving his doctorate, Dr. Roszkowski went to work at The American College, where he served as an associate professor of psychology and the director of marketing research. Currently, he is the director of Institutional Research at La Salle University. He has been on the board of editors for the *Journal of Genetic Psychology* since 1984 and is also on the advisory board for *Behavioral & Experimental Economics Abstracts* and serves on the Scientific Review Committee of the Delaware Valley Science Fairs, Inc. In 2005, he was presented with the Distinguished Reviewer Award by Buros Institute of Mental Measurements.

Dr. Scott Spreat is currently vice president for behavioral health at Woods Services Incorporated. His primary responsibility is overseeing the operation of a 200+ bed residential program for children with intellectual disability concomitant with significant behavioral challenges. A licensed psychologist, Dr. Spreat holds a doctorate in educational psychology from Temple University and a bachelor's degree from Dickinson College. In addition to his administrative and clinical responsibilities, Dr. Spreat has taught at both Drexel University and Temple University. Dr. Spreat is a member of the American Association on Intellectual and Developmental Disability task force on terminology and classification that recently released the new definition of intellectual disability.

This volume could not have been developed without the leadership and professional contributions of individuals who, over the years, have volunteered their time, effort, energy, and skill in supporting the publication and dissemination of financial planning and counseling research. Individuals like Professors Sherman Hanna, Fran Lawrence, Herb Rotfeld, Joan McFadden, Jing Xiao, Conrad Ciccotello, and Stuart Michelson have helped set the standard for journal editing. We are also indebted to the support of Sharon Burns and Gordon Genovese who serve as executive directors of the American Council on Consumer Interests and the Association for Financial Counseling and Planning Education, respectively. The future of the profession looks bright under the guidance of these individuals and professional standard-bearers.

Finally, we would like to thank our families for their support and encouragement as this book moved from conceptualization to reality.

> To Emily, three down and more to come; the future looks good. John

> To Cory and Kyden: Thank you for all of your support and encouragement during the development of this book. I appreciate your patience and all the many things you have done to help make this dream possible. Love, Kristy, a.k.a. Mom

> To Donovan, thank you for always being there for me. Roudi

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About the Editors

Professor John E. Grable, CFP® holds the Vera Mowery McAninch Professor of Human Development and Family Studies professorship at Kansas State University. He received his undergraduate degree in economics and business from the University of Nevada, an MBA from Clarkson University, and a Ph.D. from Virginia Tech. He is the Certified Financial Planner™ Board of Standards, Inc. and International Association of Registered Financial Consultants registered undergraduate and graduate program director at Kansas State University. Dr. Grable also serves as the director of The Institute of Personal Financial Planning and co-director of the Financial Therapy Clinic at K-State. Dr. Grable served as the founding editor for the *Journal of Personal Finance*, a rigorous peer-reviewed research journal. His research interests include financial risk-tolerance assessment, financial planning help-seeking behavior, and financial therapy/counseling. He has been the recipient of several research and publication awards and grants and is active in promoting the link between research and financial planning practice where he has published more than 75 refereed papers and co-authored two bestselling financial planning textbooks. Dr. Grable has served on the board of directors of the International Association of Registered Financial Consultants (IARFC), as president and treasurer for the American Council on Consumer Interests (ACCI), and on the Research Advisory Council of the Take Charge America Institute (TCAI) for Consumer Education and Research at the University of Arizona. In 2004, he won the prestigious Cato Award for Distinguished Journalism in the Field of Financial Services, and in 2006 he was honored with the IARFC Founders Award. In 2007, Dr. Grable was awarded the Dawley-Scholer Award for Faculty Excellence in Student Development. In 2010, he helped found the Financial Therapy Association and currently serves as the organization's treasurer and co-editor of the Journal of Financial Therapy.

Kristy L. Archuleta, Ph.D., LMFT, is an assistant professor in the Personal Financial Planning Program at Kansas State University, project coordinator of Women Managing the Farm, co-director of the Financial Therapy Clinic at Kansas State University, and a licensed marriage and family therapist in a private psychotherapy practice. Dr. Archuleta earned her Ph.D. and M.S. degrees in marriage and family therapy and a certificate degree in personal financial planning from Kansas State University. She received her B.S. degree in family relations and child development and minor in business management from Oklahoma State University. Dr. Archuleta works from a systems theory perspective and has experience working with individuals, couples, families, and business organizations. She specializes in providing services to rural and farm families and those experiencing financial distress. Dr. Archuleta's career objective is to bridge financial planning and relationship therapy, where financial planners and relationship therapists work together to provide comprehensive treatment for clients experiencing financial distress. Her research interests include rural and farm families, dyadic processes influencing financial satisfaction and marital satisfaction, empirical based treatment for couples experiencing financial difficulties, and theoretical development to understand the connections between financial planning and couple relationships and how to work with them. She currently serves on the Financial Therapy Association's Board of Directors. She is also the co-editor of the Journal of Financial Therapy.

R. Roudi Nazarinia, Ph.D. is an assistant professor in the School of Family Studies and Human Services at Kansas State University. She received her B.A. in psychology and an M.A. in family studies from the University of British Columbia. She earned her Ph.D. in Family Studies from Kansas State University. With experience in both quantitative and qualitative research methods, her area of research interest is couples' relationship satisfaction and the transition to parenthood. Dr. Nazarinia also has experience in the social services field where she practiced as a child and youth worker, family support worker, and most recently as the coordinator of the *Family Project: Children Who Witness Abuse Support Program in British Columbia, Canada*. In that capacity, she facilitated groups for children aged 3–18 and for mothers who had experienced domestic violence; she also conducted community presentations and advocated for families.

Chapter 1
Measurement in Practice

Farrell J. Webb

The use of scales in social sciences has been considered an important element in the development of ideas. Indeed, many common diagnoses in the mental health field have been aided by some very distinct and robust measures (e.g., the CIDI (Andrews & Peters, 1998) and the Beck Depression inventories (Beck, 2006)). The now-famous concepts and ideas such as social distance (Bogardus, 1933) and anomie (Srole, 1956) all find support on well-established social scales. Still others such as the BEM Sex Inventory (Bem, 1974), the Kansas Marital Satisfaction (Schumm, 2001), or Herek (1984) scale on attitudes toward lesbians and gays all share one very important trait—good design and methodological sophistication. This is not to say that each measure is without error, clearly they are not, but it is to say that the developmental approaches used by the authors reflected a level of concern and sophistication that renders these scales as useful and adaptable measures across a variety of subjects and in numerous cultural settings. With some important modifications, these instruments endure. In short, these measures meet the criteria of scale construction by providing a concrete measurement of abstract theoretical ideas. The questions then become, what are scales, how are they composed, why do they work, and how can one be sure that the scale is really an appropriate measure of the theoretical construct under examination? Throughout this book, these issues will be addressed in great detail. The purpose of this chapter is to provide some insight into these issues and offer an overview of the process. Let me begin with a very critical caveat—No scale is without its problems and not all elements can be combined to make a scale no matter the reliability score. Good research methodology along with logic and good sense must always accompany any measure worth its weight.

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Understanding the Elements of Scales

Simply put, a scale is a collection of items designed to measure a construct or an idea. In a reasonable scale, items are interchangeable. Failure to have interchangeability among items will result in problems. For example, let us say one is trying to measure attitudes toward government spending. The items, the specific elements one uses to help generate the scale, consist of feelings about spending on (a) public welfare, (b) the military, (c) health care, (d) education, and (e) agricultural subsidies to bee farmers. While it is clear that the loss of any of items “a” through “d” might change but not significantly alter our scale, item “e” is simply not able to be interchanged appropriately. All the items ask about spending; so why is item “e” a problem? In truth, item “e” fails to meet the criterion that all items in a scale must be able to query the same construct. The specific nature of item “e” about bee farmers removes the generalized idea about spending and sets a specific focus, one that is neither interchangeable with the other elements nor one that captures the general sense about government spending, which was the intention of the scale items. No amount of manipulation of this item could make it appropriate enough to fit our general idea. Although this may seem to be a small issue, it is very important and it is one that is often made by researchers who are anxious about making their ideas acceptable. The general idea of summing the results and using the mean score might actually allow one to assume the scale is useful; a failure to adequately check and logically examine links between and among items in a scale can result in a disastrous finding only to be uncovered later.

Understanding the Elements of Indices

Related to the idea of specific items is the notion of indices—a collection of related items not yet defined nor initially established around some central concept. More specifically, the way an index or its plural indices are used in social science refers to some mathematically derived number based on a series of elements, items, or observations that result in a tangible score. The utility of an index is that it can be mathematically manipulated. Some of the most famous indices include those used in stock and commodities markets (e.g., DowJones, FTSE, DAX, NASDAQ) or the more widely recognized US governmental indices (e.g. CPI or the Cost of Living). Another widely used but most likely misunderstood index is the so-called FICO score that guides the lives of most American consumers. Still others would suggest that measures such as IQ could be considered an index measure—Indeed it is often applied in that manner. No matter what criteria are used for an index, they all share the trait of being mathematically manipulated and rely on some sound psychometric or mathematical principles for their results. By their very nature, indices are much more difficult to establish and require solid training in mathematics or statistics, preferably coupled with some social science training in the area where one desires to generate an index. For example, training in financial planning and counseling, finances, economics, or econometrics would be extremely useful if one were to generate an index of financial stability.

Determining Reliability and Validity of Scale Items

Scales are widely used throughout the social science literature. In fact, this handbook examines over 200 scales. It is clear that there is no shortage of ideas or individuals available to examine financial planning and counseling and counseling constructs, models, and hypotheses. Yet, despite the proliferation of ideas, some scales remain constant, supported in part by two features. All good scales need reliability and validity. Scales are said to be reliable if over time and with continuous application, the same or very similar results occur. By extension, a scale is valid if it measures the theoretical construct it is meant to gauge. Sometimes scales can be reliable but not valid. For example, one may wish to measure how religious a person may be. The common practice is to measure how often one attends religious services. Over time this can be considered a reliable measure, as those who are more devout and religious are more likely to attend services. This may be so, but is it true? Does how often one attends services measures one's devotion or religiousness? What happens if a person's faith has daily services, as does Catholicism? Does going only once a week serve as an accurate measure as it does for someone whose faith has services only once a week or several times a day? In this scenario, the measure is clearly reliable but not valid. This dilemma does occur quite often in the reverse as well. We shall talk more about this later in this chapter, but for now it is sufficient to note that the type of items, the conceptualization of the items, and the theoretical construct surrounding the ideas as one develops a scale are all critical elements related to the basic idea of validity and reliability.

How Do Scales Work?

When specific attention to detail is paid and a full examination of element is evoked, along with sound methodological practices, one can create a scale that has great value. Scales allow researchers and practitioners to examine important ideas as measured across a series of items based on some theoretical construct of great utility, for example, well-being. This construct is based on many theories and is examined across a number of life domains, including psychological, economic, social, and physical health. Each of the scales associated with the various domains of well-being presented in this book are considered both valid and reliable. Each scale has been utilized in numerous investigations, several texts on scale construction, and *oeuvres* on well-being.

Issues in Scale Construction

Validity

Construction is perhaps the most important aspect in creating a useful scale. Failure to pay attention to basic ideals will result in a poor scale—one that may be reliable and yet not very useful. *Ceteris paribus*, a good scale should first have its validity tested. If the items do not accurately measure the construct under question, then what good is it? Researchers are generally aware of the problems with validity. However, few ever test for validity, something that could be easily done through a series of correlation tests. This is true depending on what type of validity is being examined. In most scales, the focus is on construct validity—the one that examines the level to which the item represents the underlying construct. In the earlier example of religiousness, using knowledge of whether or not one knew what rogation[1] was as a measure of religiousness would not be a good construct measure. There are few people who would know the meaning of rogation; therefore it would not serve as an accurate construct measure. The idea of rogation might exhibit some criterion validity, because it could be shown to be strongly related to the idea of religiousness, but it would fail the test of face validity since the construct itself is so obtuse that it could not appear to be appropriate as a measure of religiousness. Since items related to rogation lack construct as well as face validity, it is difficult to believe that they would exhibit either congruent or divergent validity. It is unlikely that the items would be related to other items in the scale, and if they were not related, it is doubtful that there would be a nonrandom pattern to their divergence. Despite all of these issues with validity, the scale could still be tested for reliability and in some cases found to be valid, especially if the offending items were slated for removal. This type of analytical work can be conducted relatively easily by using one of the outcome measures provided by SPSS through its RELIABILITY procedure and in the PROC CORR ALPHA procedure available in SAS.

Reliability

The reliability of a scale can be determined mathematically. Results are measured on a scale from 0 to 1, just as in simple correlation but with no negative values.

[1] Rogation comes from the *Latin* verb *rogare*, meaning “to ask.” It is the process confined to 4 days traditionally set apart for solemn processions to invoke God’s mercy. The concept is found among Roman Catholics and Anglicans. It is the practice of fasting and asking for mercy and is practiced just before the Easter holidays.

The closer the score is to one (1), the better the reliability measure.[2] As with other measures using correlation, sample size is an important consideration in reliability testing. Most researchers rely on computer programs to establish reliability scores. Actually, there are a number of ways to measure reliability. One can use the split-halves method, in which the scale items are divided and a score is calculated for each half and a correlation between the two halves is generated; this is often offered as an option on most statistical software programs.

In establishing the scale, one could use a test-retest methodology although you may find some inconsistencies in a way respondents react to the items from time_1 *to* time_2. Another useful, but costly method, is to have alternate or parallel forms. This approach is similar to test-retest, but it requires the use of different equivalent forms. Reliability is achieved by conducting correlation tests between the scale items from the two different forms. The most common way to test for reliability is estimate alpha (α) (Cronbach, 1951), which is a test readily available in statistical packages. In fact, the criteria for the value of reliability testing are centered on the α-score generated by these tests.

The value of Cronbach's alpha (α) is related to, as with any reliability measure, the number of items in the scale. Too few items will often generate a lower score, while too many items will have little effect after a certain level is achieved. It is generally not a good idea to have less than four or more than 20 items in a particular scale or subscale. The same logic holds true for sample size. One needs to have a sufficiently large enough sample for the results to be considered reliable. The minimum recommended number of people is about 30—and that number is in dispute with some authors saying as few as 20 or at least a minimum of 50. Finding a number somewhere in between should satisfy most.

As with most estimated measures, a low score does not necessarily mean that the results are bad; rather it says something about the sample and thus what type of inferences may be ultimately drawn from the final results. In other words, a low α-score on a reliability measure does not necessarily mean that the measure is unacceptable.

Cross-sectional and Longitudinal Research

Equally important to scale and index construction is the opportunity to collect the data in cross-sectional, cohort, panel, or longitudinal designs. Each of these methods has its unique advantages. Most can be accomplished with systematic planning and an excellent source of long-term funding. For the most part, it is possible for people to have a simple short-term cohort or panel design and or a larger cross-sectional

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[2] Several texts describe what appropriate levels for reliability scores are. Generally speaking, reliability scores begin to be considered valuable if they fall between 0.60 and 0.69. These scores are common in exploratory research and are considered acceptable; adequate = 0.70–0.76; good scale = 0.77–0.84, and excellent = 0.85 and above.

sample. Few have the opportunity to engage in true longitudinal[3] studies. The question is how to conduct longitudinal analyses on scale data. What can or should one do? The answer is not so simple. If one is fortunate enough to have actual longitudinal data then there are some things that can be done. If one is collecting data using a cross-sectional design over a number of years, as is done in the General Social Survey (GSS),[4] then one can assume that each year there is a new sample. The sophisticated sampling methodologies employed in the GSS make generating statistically valid results nonproblematic for the most part. This is true with most probability samples; the only problem will be how your software handles complex samples, especially for future versions of the GSS.

There are several scaled items in the GSS,[5] already that are repeated over a number of years off and on depending on the issue. Social science research journals are replete with a variety of examples of how long-term analyses should be conducted. The aim here is just to reinforce the idea that whatever technique you use, some care should be taken as to its appropriateness, your own skill level, and the relevance of the findings. For each of the things described below, there are numerous examples in the social science literature, in fact, too many to describe here.

One method for testing the items found in the literature is the repeated-measure ANOVA test on the items. Although these items are collected at different times and from different samples, the robust nature of ANOVA and the correction factors combined within the tests will allow for such testing to occur. Ordinary Least Squares Regression is also another popular technique that has been employed to test trends over time with data collected from different samples utilizing the same questions asked over time. Certainly, the use of correlation as a basic tool for econometric analysis points toward the utility of such techniques when examining elements across time.

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[3] I should state for the record that longitudinal research for me and others consists of at least a 20-year period or 20 time points for data collection. Nearly all people who claim to do longitudinal studies are often deficient in the time points and are usually conducting repeated cross-sectional surveys over at least three time points—This is NOT longitudinal research as they often state. I think that the misuse or misapplication of the term has now become systemic, but in an absolute sense, data collected from three time points, unless the time period is twenty years, are not considered longitudinal. It is this lack of precision and overuse of expressions that point toward a fundamental problem within the basic research design and hence most probably in the measurements as well.

[4] The GSS is now working on establishing panels within the sample which will allow for short-term testing of measures over a limited number of years using the sample. Thus one can get a baseline and at least two follow-up periods according to the new design specifications. Until 2004, the GSS was designed as a repeated cross-sectional survey. Beginning 2006, a panel component was added to the GSS design. Through the use of appropriate sampling weights, however, each biennial GSS will provide nationally representative estimates of distributions of survey items measuring a wide variety of social and political attitudes, opinions, and behaviors of US adults.

[5] There is an ongoing call for proposals by the National Opinion Research Center (NORC) for researchers to add specific items to the GSS. The instructions and criteria are listed on their homepage, which can be found by doing a global search for NORC. There is a need for financial measurements, and the GSS can provide a window to a national sample with the possibility for long-term and ongoing measurement of critical elements deemed vital to the nation's well-being.

Indeed, with some of the more sophisticated techniques available, pseudo-time series or across-time studies have been conducted using logistic regression, log-linear analyses, and techniques using structural equation modeling. Perhaps the most important point to make about all of this is that the research scientist should be well prepared to examine the data and that this preparation should occur as part of the original training, experiences, and scientific growth that has happened over time. In addition, the researcher should examine what has been done, what contribution they wish to make, how they can make it, what techniques would benefit them as they attempt to explore the phenomenon, and how all of this can be related to the user who would ultimately use the product and findings with their clients. Sometimes, a little forward thinking about what can and will be done with the work would dictate how and what type of analysis should occur. Whether one is using cross-sectional data, panel, cohort, or longitudinal sample, specific care about and attention to how and what is being or has been done will result in the most appropriate and relevant findings, the true ultimate goal.

How Can Scales Be Used in the Financial Planning and Counseling Arena

The use of scales in developing an understanding of how people understand and value money and its importance to their lives is one very important area where financial planning and counseling researchers and practitioners could make significant inroads. Clearly, if people had a better understanding of money and how they value it in their lives, fewer people would have been victims of crushing financial recessions and ongoing economic difficulties at the household and macroeconomic level. Traditional thought has always concluded that people value money in a very similar way and that what was considered an important amount of money would seem to be the same for most people. Such a narrow view and focus is one reason contributing to the large unbanked trend in the United States, and that is why such organizations as “short-term payday loans” or “payday lenders” have been able to find such a foothold in the US economy. Apparently, there is little consensus about what is an important amount of money—and it is the failure of those studying financial planning and counseling issues that they have not fully acknowledged this despite their work in this arena. The question then becomes, why has it been overlooked? One answer is that the research tools and assessment techniques commonly used to test research questions have not allowed or permitted researchers to gain a valid and reliable view of the less than well-financially heeled as a viable population. So, if financial planners and counselors intend to do better work, they must develop instruments and ideas that are more general in focus. These tools will allow researchers, practitioners, and policy makers to develop a better understanding of how money is valued in all sectors of society.

Whether or not you agree with this analysis is not important; what is valuable about this position is that financial planners and counselors must expand their heuristic viewpoints to realize that while money matters; however, people matter first. The amount of money is not nearly as important as what a person can be shown to do with that money. Before we get to this step, it is vital for the professional to develop a better understanding of how people value money. In fact, the need for a relative value of money and understanding of assets is one area where scale and index development can be and should be constructed and expanded. Well-developed financial scales can also be created using two populations that are generally overlooked by the field, both of which do not earn much money but are responsible for large expenditures—the adolescents and working poor in our society. The value and understanding of money, assets, expenditures, and saving patterns remains unexplored among these groups. In addition, the interrelationship between parents' patterns and their children's behaviors involving money remains largely unexamined. Those studying personal and household finance topics need to borrow from other social sciences, specifically when it comes to learning to diversify its populations and its beliefs about how people differ across many commonly held beliefs and domains of life, we are not all alike; nor do we perceive issues, especially those around finances, to be the same. Exploring these differences is the hallmark of contemporary social sciences, and if we wish to keep up and make contributions, we need to have some synergy in this area.

To that end, new scales need to reflect sensitivity to the use of theory, application, and practice. In other words, there is a strong likelihood that one will have to integrate other approaches into the work. However, scales and indices that do not find a basis in practical thought should be eschewed, especially when examining the needs of people for whom some of the factors may not be present. Let us take, for example, risk taking. If one is working with an adolescent population, it is important to note that risk may not be centered on financial aspects; therefore, wondering whether one would take a bet of $50 may not be the best measure of financial risk for this population. In the case of a working poor person, the amount of money rather than issue of risk may be the key factor. Asking questions such as "would you be willing to bet $2.00 on a lottery ticket every week?" would signify a level of risk that they could be considered safe. If the question were asked in stages or degrees, such as, "if you had a chance of winning $50,000.00, would you wager $10.00 a week?" even greater assessment possibilities might exist. Experiments could be conducted to find thresholds for these groups. Different elements such as how much one would be willing to pay for "a computer," "a car," or other things may appear as necessities for some populations but may not be for adolescents or the working poor. There are a variety of ways in which financial planners and counselors could make inroads in uncovering ways to assist clients to reach their goals. One thing is certain from the social science data: Once people learn appropriate habits and practices, they are less likely to deviate from those things no matter the circumstances. Human beings are incredibly adaptive and resilient. They make appropriate adjustments according to their needs and resources. Why this has not been more carefully explored in the financial planning and counseling arena, especially for these limited resource populations, is one thing that continues as an enigma about the field in general.

Furthermore, there is a strong need for integration of theory and practice when developing attitudinal and behavioral assessment tools. Speaking from personal experience, it is possible to adapt and modify work that offers a framework for how household hypotheses can be studied and processed (Lavee & Dollahite, 1991). My own work has added considerations about how scale and index construction should be developed. These are suggestions and in no way meant to set in stone some policy about how things should be done.

An important consideration for all new work conducted in the financial planning and counseling field should be sample design. One needs to be very clear about how the sample is gathered. The idea of inference should always be of utmost importance to researchers because it allows one to make important statements about their work. In addition, one should always be clear about how a sample was drawn; so its subsequent use and application can be tested and retested in a variety of environments in an ongoing effort to ascertain its validity and reliability. It is incumbent on each researcher to try and make the greatest effort to ensure that their sample mimics the population. It is in this regard where the importance of one's work and the strength of how it will be seen and responded to by policy makers can and do make a great difference. It is also the element that gives life to a research project. The need to continue and expand upon ideas as one increases and refines the sample is an important step (see Table 1.1).

Table 1.1 Important issues of sampling and theory that should be considered in scale and index construction

	Sample Type Issues		
	Random		Nonrandom
	Small		Convenience
	Medium		Student
	Large		Student/Other
		Theory Issues	
	Implicit	Explicit	Atheoretical
Practice	o	$\surd$	x
Application	o	$\surd$	x
Reality Based	o	$\surd$	x

$\surd$ = desirable condition; o = somewhat acceptable condition; x = undesirable condition

Equally important to financial planners in their efforts to gain the pulse on the nation's economic heart is the ability to determine that they are clear about their findings and can relate them back to people in a meaningful and useful way. In short, the work should have implications for practices, have some meaningful applicability, and be able to find a basis in the social realities of the clients served. The recommended standard is that one strives to be explicit on all three points related to the use of theory. Sometimes the reality of social science data may not allow for one to always be as explicit as one likes, or one of the outcomes may contain an implicit link to the theoretical construct. No matter how theory is viewed in the outcomes, it is never acceptable to do atheoretical work. Social science must build ideas and generate new thoughts. Research should reflect a responsible link to some higher order thinking. New theory can be developed from work. Old theory can be refined or redefined, but to pursue work where the ultimate goal does not add to existing knowledge or build new knowledge is pointless and is more likely than not to produce stagnation and a lack of understanding of the very problems, issues, and populations that we seek to examine. By integrating ideas from multiple disciplines and incorporating new groups into the arena of study, financial planners can continue to make valuable contributions to the economic future of this country and the global community of which it is part.

Other Issues

There are always other things to consider when embarking on the generation of new ideas and refining work of others. The elements mentioned above are important enough to be expanded. Even when a researcher/practitioner finds a scale that is both valid and reliable, the work does not end there. Since most of the validity and reliability will have been derived from a sample or pilot group, it will be necessary to review and refine the elements of the scale. There are other issues to consider at all times. For example, are the items in the scale explicitly, implicitly, or serendipitously related to the construct? The latter is often discovered when more sophisticated correlation or factor analyses takes place. If the items are not linked theoretically, are they still relevant? Can you make a case for why the items should be included?

Issues of scale complexity are other elements that need to be considered. What is the power level at which the items need to be interpreted? Have you tested this or left it undone for others to do? What are the ranges of the reliability scores for the overall scale and subscales? How do you intend to link the scale back to the theory and then back to the literature of your specific discipline?

Sampling is an important issue in scale construction and testing. It is also perhaps the one most violated procedure, especially in most developmental work such as scale construction. Problems with sampling occur for three reasons: (a) costs, (b) time, and (c) randomness of availability, and yet these three elements are the hallmark of good inferential sampling that allows us to make connections between our research and the world we are examining. Most scales begin with some nonrandom convenience sample composed primarily of student volunteers. In a university sample, we are not likely to see much diversity, which is one reason why most scales, even some of the ones in this volume, do not report on the demographics of their norming populations. Although these data are not generally revealed, study after study continues to use scales and assume that as long as the general findings are similar, then there is no problem. Lack of awareness does not excuse a research scientist from his/her responsibility to explore.

One of the complementary problems to sampling is the failure to acknowledge some weaknesses or flaws in established instruments when using with atypical populations. For example, up until very recently, financial planners have not focused on the working class and poor people. Clearly, many of the instruments in this book were developed eschewing people from the working and lower classes. The types of questions asked, the frameworks used, and the samples themselves systematically excluded these groups because of the inherent belief that working and lower class people do not have money sense and could not use the traditional services of most financial planners. This myopic focus has led to problems of applicability and interpretation. In both cases, there are few critics of works done, sampling issues, overstated findings—for example, α-scores of 0.94 and above—a virtual impossibility when more appropriate sampling is used. The lack of diversity in race/ethnicity, gender, sexual orientation, and social class is problematic at best and simply egregious at its worst. This remains a problem because using one lens to focus on multiple groups means that we only see one thing. The narrow focus does not allow us to develop a better understanding of how people are differentially impacted by economic realities.

Future Steps: What Can Be Done

The scales, items, and measures in this book represent some of the finest and well-developed ideas in the field. These scales are typically theory derived and driven. They have the potential for improving how financial attitudes, beliefs, and practices influence how we make decisions that have life-altering consequences.

Readers are encouraged to use these scales, measures, and instruments in a variety of settings with people from all social classes, race/ethnicity, gender, and sexual orientation groups. The results generated from this activity could have a great impact on how the field of financial planning and counseling develops in an ever-changing world that is linked to global economic realities.

Readers are also encouraged to branch out and try new things, engage new samples, focus on more unique populations, and use new statistical techniques to integrate ideas in ways not previously examined before in the field. These are challenges presented to you, and they are ones that you can meet. Use this text and its ideas as a starting point for your continuing contributions to the field.

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Chapter 2
Issues to Consider When Evaluating "Tests"

Michael J. Roszkowski and Scott Spreat

Proper measurement of various client characteristics is an essential component in the financial planning process. In this chapter, we will present an overview of how to go about evaluating the quality of a "test" that one may be using or considering, including the meaning of important underlying concepts and the techniques that form the basis for assessing quality. We will present the reader with the tools for making this evaluation in terms of commonly accepted criteria, as reported in *Standards for Educational and Psychological Testing,* a document that is produced jointly by the American Educational Research Association (AERA), the National Council on Measurement in Education (NCME), and the American Psychological Association (APA) (American Psychological Association, American Educational Research Association, and the National Council on Measurement in Education (Joint Committee), 1985). Conceptually similar guidelines for test development and usage are published by the International Test Commission (ITC), a multinational association of test developers, users, and the agencies charged with oversight of proper test use (see http://www.intestcom.org/).

What Is a Test?

A commonly accepted definition of measurement in the social sciences and business, first formulated by Stevens (1946, p. 667), is that it is "the assignment of numerals to objects or events according to some rule." Strictly speaking, a test is a procedure that allows for the evaluation of the correctness of something or how much of a given quality it reflects. Broadly defined, however, a "test" can be any systematic procedure for obtaining information about a person, object, or situation. Thus, a test can be any scale meant to gauge some quality, and this term can include instruments such as questionnaires, inventories, surveys, schedules, and checklists in addition to the (dreaded) assessment devices that first come to mind when one hears

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the word "test." *As used here, a test refers to any procedure that collects information in a uniform manner and applies some systematic procedure to the scoring of the collected data.*

Advantage of Tests. In contrast to informal interviews, tests are generally a bit more standardized. One can standardize a test by using the same instructions, same questions, and same response possibilities. The standardization is the quality of tests that creates consistency in collecting the data and scoring and allows for the scores to be meaningfully compared across different administrations of the instrument.

Level of Measurement. The type of information available on a test is determined by the level of measurement of the question: (a) nominal, (b) ordinal, (c) interval, and (d) ratio. Nominal variables permit classifications only (e.g., sex: male versus female); there is no hierarchy of any sort to the answers. Ordinal variables allow one to rank objects as to whether one object has more (or less) of a given characteristic, but we can't tell how much more of that quality one thing has over the other (e.g., gold, silver, and bronze medals for an Olympic running event, without consideration of the time differences). On interval-level variables, the differences between the ranked objects are assumed to be equal (e.g., Fahrenheit temperature: 70 versus 80 is the same as 80 versus 90, namely 10°), and so one can consider size of differences when comparing groups or events. The most informative are variables on the ratio scale, where not only are the differences between any two objects of the same magnitude, but the scale has an absolute zero point (e.g., temperature measured on a Kelvin scale). Scales of measurement are important because the type of statistical tests one can perform on the test data is a function of the level of measurement (as well as other factors), although the same techniques apply to interval as to ratio scales (the latter are quite rare in the behavioral sciences).

Interpretation of Scores. Test scores are yardsticks. The ruler can be created on the basis of a criterion-reference or a norm-reference. Criterion-referenced tests describe performance against some pre-set absolute standard (proficiency or mastery). Norm-referenced tests, on the other hand, provide information in relative terms, giving you the person's position in some known distribution of individuals. In other words, the score has no meaning unless it is benchmarked against how other people like the ones being tested perform on this test. In general, the closer the match between the characteristics of the reference group and the person you are assessing, the more confidence one can have that the test will produce meaningful comparative scores. It is therefore necessary for the test user to compare the reference group with the individuals being tested in terms of demographic characteristics such as sex, age, ethnicity, cultural background, education, and occupation. For example, a test on knowledge of investment concepts requiring command of the English language would not be an appropriate measure of such knowledge for a newly arrived immigrant since he or she would be benchmarked against native speakers.

Published or Unpublished. Tests are either "published" or "unpublished." Published means that the instrument is available commercially from a company that charges for its use. In contrast, generally unpublished tests are not sold. Typically, they are found in journal articles, books, and other types of reports. However, their use too can be restricted based on the copyright laws, in which case it is prudent for the test user to obtain written permission to administer the test, unless a blanket permission has been given by the copyright holder. At the very least, the test user has an ethical obligation to give proper credit to the test author in whatever written documents result from the test's use (for guidelines, see http://www.apa.org/science/programs/testing/find-tests.aspx#). Although the information that will allow one to evaluate the quality of a published test is more readily available (typically in test manuals), the principles for evaluating the quality of a test remain the same for both published and unpublished instruments.

Many published tests, including ones meant for use by businesses, have been evaluated by measurement professionals for the Buros Institute of Mental Measurements, and these reviews can provide an additional source for the decision about whether to use the particular test (see http://buros.unl.edu/buros/jsp/search.jsp). Given the choice of a published test with known (good) properties and an unpublished one without any information about its psychometric quality, one would be wise to select the former, unless there are extenuating circumstances. One such factor may be that there is no published counterpart to the test one is seeking.

Is It a Good Test?

When using a test, the typical person is concerned about whether the test is a "good" one. However, a test can be good in one respect and yet bad in another, and good for one purpose and bad for another. To professionals who design tests, the quality is determined in terms of the concepts of "reliability" and "validity." A good test is one that is both reliable and valid. Without these two qualities, it cannot provide the information one seeks to learn by using it. Stated succinctly, a test is reliable if it measures something consistently, and it is valid if it actually measures what it claims to assess. It may help to think of reliability as *precision* and validity as *accuracy*. With a reliable test, a person would be expected to obtain a similar score if he or she were to take the test again, provided that there were no changes in his or her circumstances that would be expected to produce a change. The measurement would be precise because the score did not change. However, even if the score were to be identical on the two occasions, it does not necessarily mean that the test is valid. The test could be measuring some characteristic other than the intended one, even if it measures it consistently. So, if the test is not capturing the information you are seeking, it cannot be accurate. A test that is not reliable cannot be valid. However, one that is reliable may not be valid for its intended purpose. In other words, reliability is a necessary but not sufficient requirement for having validity.

It is incumbent on the test user to ensure that the test has adequate reliability and validity for the planned use. Although it is necessary that there be supporting evidence of both reliability and validity, the latter is clearly the "bottom line" when it comes to test selection. If a test is published, then the test distributor should make available such evidence and allow for an independent scrutiny and verification of any claims. Most test users expect that a test publisher will provide a manual that instructs them on how to administer, score, and interpret the test results. Less recognized is the need for the publisher to make available the supporting technical background information necessary for making an informed decision as to whether the test is suitable for one's intended purpose. The latter can be either a section of a general manual or a separate document. Often, with unpublished tests, this evidence may not exist at all or it may not be readily available or open to independent scrutiny (Hinkin, 1995; Hogan & Angello, 2004). For example, an analysis of the American Psychological Association's *Directory of Unpublished Experimental Measures* revealed that only 55% reported any sort of validity information (Hogan & Angello, 2004). When using tests without this information, one is essentially sailing into uncharted waters and should proceed with caution.

Reliability

The old carpentry adage of "measure twice, cut once" comes to mind. A test is reliable to the extent that an individual gets the same score or retains the same general rank on repeated administrations of the test. A more professional statement of the concept is that reliability refers to the repeatability of measurement or, more specifically, the extent to which test scores are a function of systematic sources of variance rather than error variance (Thorndike & Hagen, 1961). A test score comprises the test taker's true level of the characteristic that the test intends to measure, plus or minus some error component. In other words, the observed test score does not reflect precisely the degree to which the person possesses that characteristic because this error element accompanies any test score. Any given score may overestimate or underestimate an individual's true level. However, tests that have acceptable levels of reliability tend to have lower amounts of error than do tests with less acceptable levels of reliability. Therefore, a reliable test yields higher quality information to the user than does a less reliable test because it is more precise.

What Produces This Error? It could be due to various random events. On tests of ability, people frequently attribute things to "luck" when guessing on an answer. Because luck is a random event that can be either good or bad, the actual obtained score will fluctuate above or below the true ability score. Other factors leading to error include misinterpretation of the instructions, one's mood, distractions, and various other idiosyncratic conditions under which the testing occurred that particular day. A major reason for the error is unclear wording of the questions (DeVellis, 2003). For instance, it is known that statements containing "double negatives" often confuse people (e.g., having to agree or disagree with the statement: "I am not incompetent in money management"). Also problematic are "double barreled" items, which contain two-part statements, such as "I am good at saving money and making investments." If one requires a respondent to agree or disagree with this statement, it is a frustrating task for the test taker. One can be good at saving and bad in investing, so only a person who is good or bad at both tasks will be able to correctly answer it. Often, the basis for the agreement/disagreement is one part of the question and it is impossible to tell with which part of the statement the person is agreeing or disagreeing. That part may not be the same one if the test is given again, hence the inconsistency.

What Is an Acceptable Level of Reliability? Reliability is typically expressed as a correlation coefficient, which is called a "reliability coefficient" when used for this purpose, although there are other statistics with which to quantify reliability. Typically reported are Pearson correlations and Spearman correlations; the difference between them is that the latter is used with ordinal-level data, whereas the former is most appropriate with interval- or ratio-level data. The values of both types of correlation coefficients may range from –1.0 to +1.0, and reliability coefficients vary along this same dimension. A reliability coefficient of +1.0 indicates perfect reliability; the test yields exactly the same rankings on repeated administrations. Conversely, a reliability coefficient of 0 indicates that the test scores obtained on repeated administrations are entirely unrelated (and therefore perfectly unreliable). Negative reliability coefficients are possible but exceedingly rare and would suggest a major problem with a test. For all practical intents and purposes, reliability varies on a dimension from 0 to 1.0, with higher values being suggestive of greater test reliability.

The literature regarding test and scale construction suggests that an acceptable level of reliability is a function of the intended use of the test results. If a test is to be used to make decisions about an individual, it is important for that test to be highly reliable. This need for higher levels of reliability goes up as the risk associated with a poor decision based on the test increases. For example, if a stress test was being administered to determine the need for open heart surgery, one would certainly hope that the stress test was highly reliable. The same logic pertains in the investment world, even though life and death might not be in the balance. If one were attempting to assess the risk tolerance of an investor in order to develop an investment plan, the financial advisor would certainly want to know that the risk-tolerance scale yielded highly reliable data before taking action based on the results of the test. The consequences of developing such an investment plan based on unreliable risk-tolerance data could be economically catastrophic to both the investor and the advisor.

Nunnally (1967) recommended that when a test or scale is used to make decisions about individuals, the reliability coefficients should be at least 0.90. It has been pointed out by others that while it is possible to get such reliability for tests measuring intellectual skills and knowledge (in the professional jargon, so-called cognitive domains), it is much more difficult to achieve this level of precision with tests assessing personality and feelings (known to testing professionals as "affective" variables). Consequently, others are somewhat less conservative, suggesting that a reliability coefficient of 0.80 is acceptable for a test or scale that will be used for making decisions about an individual (Batjelsmit, 1977). The US Department of Labor (Saad, Carter, Rothenberg, & Israelson, 1999) suggests the following interpretations: 0.90 or higher = excellent, 0.80 to 0.89 = good, 0.70 to 0.79 = adequate, and 0.69 and below = may have limited applicability. Obviously, both the test taker and the researcher are safer with higher levels of reliability, and for that reason readers should follow Nunnally's advice whenever possible. It should be noted that when test or scale data from a single individual are supplemented by other forms of information regarding the characteristic that is being measured by the scale, these stringent reliability requirements can be relaxed somewhat.

Lower levels of reliability are acceptable when a test or scale is to be used for research purposes or to describe the traits of groups of individuals. The risks associated with a single flawed piece of datum are minimized because the random errors of measurement tend to cancel each other out. Overestimates on some people are balanced and therefore canceled out by underestimates on other people. When data are aggregated for research purposes, the main risk associated with lower reliability is that it will become harder to detect "truly" significant differences via statistical analysis. (The failure to detect "truly" significant differences is sometimes called a Type 2 error.)

Approaches to Assessing Reliability

Reliability can be estimated from multiple administrations of a test to the same group, and it can also be estimated from one administration of a test to a single group. Each approach will be discussed below.

Test-Retest Reliability. Test-retest reliability is conceptually derived from the basic notion of reliability. That is, if a test is administered two times to the same group of individuals, it should generally yield the same results. In order to estimate test-retest reliability, a test or scale is administered twice within a relatively short time period (typically two weeks) to the same group of individuals. The scores obtained from test administration #1 are correlated with those of administration #2 to yield a reliability index that will typically range from 0 to 1.0. Because it measures stability over time, this reliability estimate is sometimes called a "coefficient of stability" or "temporal stability."

It should be noted that while test-retest methodology is an entirely acceptable means with which to estimate reliability, it does contain threats that may confound results. For example, if the same test is administered twice, an individual may remember certain items, and this will give the same answer for that reason. Further, if the time period between test administrations is more than a couple of days, the test taker's performance may be influenced by learning or development. External events entirely unrelated to the test but that occur between the two administrations can impact the assessment of reliability. Suppose one were assessing the reliability of a new risk-tolerance scale, and there was a major stock market crash immediately after the first test administration. One would have to assume that this event would affect the results obtained on the second test administration and, in turn, render the reliability estimate questionable. While test-retest reliability is an acceptable form of reliability, it can be negatively affected by memory for items or external events unrelated to the test.

Another word of caution must be given here. It is necessary to distinguish between "absolute stability" and "relative stability" (Caspi, Roberts, & Shiner, 2005). Absolute stability deals with consistency of the actual scores when measured across occasions. It addresses the question: "Did the individual score the same or differently each time?" Relative stability involves the consistency of an individual's rank order within a group when tested multiple times. In this case, the question asked is: "Did the individual maintain her or his position in a group?" The absolute level of the characteristic measured can change over time, but the rank-ordering of individuals can remain the same; so a change in absolute stability does not preclude rank-order stability. For example, Roszkowski and Cordell (2009) studied the temporal stability of financial risk tolerance in a sample of students enrolled in an undergraduate financial planning program, finding that relative stability was around 0.65 after a period of about a year and a half. In terms of absolute stability, however, there was an average increase of about eight points.

The traditional Pearson product moment and Spearman rank-order correlation procedures that are taught in all introductory statistics courses have a bit of a limitation when used as reliability coefficients. While both of them are sensitive to changes in relative performance, they are insensitive to a uniform change that affects all test takers. Thus, if each test taker scored exactly five points more on the second administration of some test, the reliability would appear to be perfect (1.0), even though no one had the same exact score. While this is generally not a significant threat, some psychometricians recommend the use of the intraclass correlation for the estimation of absolute reliability coefficients because it is sensitive to those situations in which all test takers improve or decline by the same amount, and this will reduce the reliability estimate of the instrument accordingly.

Internal Consistency Reliability. Because of the above-described threats to estimating reliability via test-retest methodology, as well as the cost of a second test administration, an alternate procedure was sought that would enable one to estimate reliability from a single test administration. It was reasoned that a sufficiently lengthy scale might be divided in half, and the two resultant scales (for example, odd-numbered items and even-numbered items) might be correlated. This approach to assessing reliability is called "split-half reliability." It is meant to correct for the threats associated with the test-retest method. It should be noted that reliability is partially a function of the length of a scale (Stanley, 1971). Dividing the scale in half thus reduces the scale length and, in turn, the reliability of the instrument. When using split-half reliability, it is therefore necessary to correct for the test length via the Spearman–Brown formula in order to obtain an estimate that pertains to the full length of the test.

Because the split-half reliability may depend on which items are placed into which half, psychometricians have also developed mathematical formulas to determine the hypothetical "average" reliability that would have resulted had all possible different combinations of items been explored in such split halves. One such formula is known as the "Kuder–Richardson 20," but it is only appropriate for nominal-level items that are scored dichotomously, such as yes-no or correct-incorrect. Cronbach's "alpha" (Cronbach, 1951) is a more versatile and sophisticated variant of this approach, which can be used for items that are scored with any number of continuous-answer options. Cronbach's alpha too is the average correlation for all possible split halves of a given test (not just the odds versus evens), corrected for scale length. There is some debate among measurement specialists about whether the variable has to be on an interval scale of measurement to use Cronbach's alpha or whether it can be legitimately applied to ordinal-level data as well.

Internal consistency reliability is the most frequently reported estimate of reliability, probably because it requires only one sample for its derivation, but it has been argued that internal consistency approaches to estimating reliability can be misleading and not entirely useful. Cattell (1986) contended that it is possible for a test to yield an excellent test-retest reliability estimate and yet be much less impressive in terms of an estimate based on internal consistency. This assertion is true, but any scale that yielded such results would be in violation of basic guidelines for test construction. Specifically, the test or scale would have to have been constructed of unrelated items. An example of such a scale might be a two-item scale consisting of the items: (1) What is your cholesterol level? and (2) How much did you invest with Bernie Madoff? While test-retest reliability is likely to be good on this two-item scale, the independence (unrelatedness) of the two items would suggest a likely poor internal consistency. One must wonder why anyone would attempt to build a scale of such unrelated items.

However, combining unrelated items does sometimes make sense under some circumstances, as when an "index" is developed. It is necessary to differentiate between a "scale" and an "index." Although frequently the two terms are used interchangeably, conceptually there is a distinction between the two. The similarity is that both are composite measures, consisting of a sum of some sort of multiple items. However, a scale consists of the sum of *related* items attempting to measure a *unidimensional* (*single*) construct. In contrast, an index is a summary number derived from combining a set of possibly *unrelated* variables to measure a *multidimensional* construct. Good *scale* construction generally strives for items that are modestly related to each other but strongly related to the total scale score, and internal consistency reliability is a relevant basis for estimating reliability of scales. However, in concert with Cattell's (1986) reservations, internal consistency may not be an appropriate standard for the estimation of reliability of an index because it may comprise unrelated items, each of which measures a *different* attribute or dimension.

One example of an index is a "life events' scale that measure how much stress one is experiencing, based on a count of recent traumatic events occurring in one's life, such as the death of a spouse, a job loss, moving, etc. Although the events may be related in some instances (e.g., my wife died; so I sold our house and moved to another city to be closer to the kids, and I got a new job there), but it is unreasonable to expect that these events necessarily have to typically be connected to each other. Even though the individual components may not be highly correlated, the combination does produce meaningful information, such a predicting stress-related illness. Another example is socioeconomic status, which is derived from consideration of one's occupation, income, wealth, education, and residence (admittedly, here, there is some correlation between the items).

Inter-rater Reliability. On certain types of tests, a rater has to determine subjectively the best option among those offered to describe someone on the items constituting the test (in this case, a rating scale). For example, one's job performance may be appraised by a supervisor, subordinates, peers, and clients. Differences in ratings among the raters will produce variations in test scores. For scales that require a subjective judgment by raters, inter-rater reliability thus becomes an issue. Inter-rater reliability indicates the degree of agreement between different judges evaluating the same thing. Typically, inter-rater reliability coefficients are smaller than test-retest or internal consistency reliability coefficients. One has to be especially careful in how the questions are phrased in ratings scales to be used by multiple informants so as to reduce any chance that the raters will interpret things differently. Although some differences are due to the perspectives of the different classes of raters, frequently the reliability can be improved if raters are trained on how to go about this task (Woehr & Huffcutt, 1994).

In addition to the Pearson correlation and the Spearman correlation, the procedures often employed to determine this type of reliability include Cohen's kappa, Kendall's coefficient of concordance, and the intraclass correlation. If the things to be rated cannot be ranked because they constitute discrete categories (nominal level measurement), then Cohen's kappa is appropriate. Kendall's procedure indicates the extent of agreement among judges when they have to rank the people or objects being rated (ordinal level measurement). When the data are in a form in which the scores indicate equal differences (interval level measurement), the intraclass coefficient may be used to check on the inter-rater reliability. There are six versions of the intraclass coefficient, and the results may differ depending on which version was used in the calculation.

Standard Error of Measurement

As noted earlier, an individual′s performance on a test or a scale is a function of his or her skill plus or minus chance factors. Sometimes these chance events will inflate a score and deflate it other times. Chance, of course, is really measurement error, and measurement error detracts from the reliability of a test or scale. It is possible to estimate the extent to which an individual's score would be expected to fluctuate as a function of such random events (unreliability) via a statistic called the Standard Error of Measurement (SEM).

If one were to administer the FinaMetrica Risk-Tolerance scale an infinite number of times to an individual, we would expect the scores for that individual to vary somewhat. In fact, we would expect these obtained scores to take on the form of the bell curve (a normal distribution). Most of the time, the individual would score in the middle of the range of scores, with more divergent scores being predictably less frequent. The standard deviation calculated from that distribution is the SEM. Of course, we can't administer a test an infinite number of times; so one cannot directly calculate the SEM. It must be estimated using information about the reliability of the test and the standard deviation of the distribution of scores of people who took the test.

The utility of the standard error of measurement is that it permits the user to establish confidence intervals around a given test score, based on the known properties of the normal curve. It is commonly known that 95% of all scores fall within ± 1.96 standard errors of measurement of the mean. This fact can be used to establish confidence intervals surrounding obtained scores. Consider the FinaMetrica measure of financial risk tolerance (www.riskprofiling.com), which has an SEM of 3.16. Multiplying 3.16 by 1.96, we get 6.2. Thus, we can be 95% confident that with an obtained score of 50, the true score will be within plus or minus 6.2 points of the observed score. That is, the true (error free) score will be in a range somewhere between about 43.8 and 56.2. Reschly (1987) referred to this range as the "zone of uncertainty." We can be 95% confident that the individual's true score lies within that range, but we can't be certain where. If we wanted to be 99% confident, the zone of course would be much wider. Some test makers suggest reporting confidence ranges rather than individual scores because individual scores imply a level of precision that is beyond the capabilities of most psychological instruments.

Length of Test and Reliability

Reliability is at least partially a function of the number of items within a scale (Stanley, 1971). A longer scale, in general, will be more reliable than a shorter scale. The logic behind this is similar to, but somewhat more complicated than, the logic that underlies the sampling strategies used in polling. In polling, the margin of error (which is a measure of reliability) varies primarily by the number of persons being polled. The margin declines as the number of persons polled goes up (to a point of diminishing returns). Similarly, by increasing the number of items used to measure a given construct, one increases the likelihood of getting a precise measure. Precision is increased by using longer scales.

So predictable is this relationship between scale length and scale reliability that a mathematical formula, the Spearman–Brown prophecy, can predict the degree to which reliability can be increased by simply adding items of equal or similar reliabilities to the test. For example, Spreat and Connelly (1996) used the Spearman–Brown prophecy formula to illustrate how an insufficiently reliable psychological test could be made sufficiently reliable by simply adding more items. They reported that quadrupling the length of the Motivation Assessment Scale would increase the reliability sufficiently to support independent decision making based on the results of that scale. In other words, an unreliable scale could be made into a reliable one.

Achieving the correct balance in the number of items can be quite tricky. Too few, and one faces the prospect of low reliability; too many, and there is the threat of fatiguing the test taker. It could be a good test from a psychometric perspective, but impractical because few people would want to take it given the time commitment required. There is a family of models called "item response theory" (IRT) that is used to develop and to score ability and achievement tests, such as the Certified Public Accountant (CPA) exam. Tests developed with IRT models can be shorter when administering through adaptive testing, where the questions are tailored to the test taker's ability level. All examinees are first given questions of medium difficulty. If an examinee does well on the items of intermediate difficulty, she or he will then be presented with more difficult questions. If he or she performs poorly at the intermediate level, easier questions are administered. This tailoring is possible because on the basis of pre-testing, questions are classified on three dimensions: (1) difficulty (how hard or easy is the question), (2) discrimination (the degree to which the question differentiates between people who know the material and those who do not), and (3) guessing (the probability that the question can be answered correctly without knowledge of the material).

In the CPA exam for instance, there are three different multiple choice versions of the test, called "testlets." Depending on how well they score on the first "testlet," which has a medium level of difficulty, the candidates next take either another testlet of medium difficulty (if did poorly) or a more difficult testlet (if did well). The third testlet is again of either medium or high difficulty, and the decision as to which version will be administered depends on the person's performance on the two previous testlets. Thus, two candidates can answer the same number of questions correctly, but get different scores because the questions on their respective exams were weighted differently on the basis of these three characteristics. IRT allows one to estimate an individual's proficiency on the latent trait (i.e., construct) that the test is designed to measure as well as the standard error of measurement at that level of proficiency. This is a departure from the notion of standard error measurement found in what is now known as the "classical psychometric model," where the standard error is the same across the different test scores. In IRT, the standard error of estimate can be a continuous function that may vary over the possible range of scores. The drawback to developing tests using IRT is that it requires huge samples.

Validity

From a validity perspective, one first needs to compare the recommended use of the test with one's intended purpose. Some authorities argue that it is preferable to speak about the validity of test *scores* rather than the test *itself* because validity is a property of the test scores in a particular context. The same test can be valid for one purpose and invalid for another. Likewise, it may be valid for one type of individual and not for another. Consequently, proof of validity for different applications needs to be produced. The evidence for validity can be gathered using three strategies: content validation, construct validation, and criterion-related validation.

Approaches to Assessing Validity

Content Validity. Content validity provides evidence that the scope of the test is sufficient, so that it covers comprehensively the attribute it intends to measure. For example, a test meant to measure the competency to be a CPA would be judged on whether it assesses all the important characteristics that make for a successful accountant. Generally, subject matter experts determine if a test has content validity by comparing the items in the test with the known universe of such items and checking for item clarity. For example, practicing CPAs and staff at the AICPA review the questions on the CPA exam. According to Rudner (1994), the questions to ask oneself when evaluating a test for content validity include the following:

1. Was a rational approach used to make sure that the items provide sufficient coverage of the desired attributes to be tested?
2. Is there a match between what one wants to test and the items on the test?
3. What were the qualifications of the panel of experts that examined the adequacy?

Unfortunately, there does not exist a generally accepted quantitative index of content validity; it is matter of judgment by experts. It is important to understand that content validity is not the same thing as what is called "face validity." Face validity does not involve any type of scientific procedure for validation. If someone states that a test has face validity, all it means is that the test appears (on the face of it) to be valid. While this is not a proof of validity, it sometimes helps if the potential test user tries out the test herself or himself in order to see whether it "feels right" since it has been shown that having face validity may increase a test taker's acceptance of the results. Hinkin (1995) found that only about 17% of the unpublished scales mentioned in business journal articles discussed the content validity of the measures. He also concluded that for many of these unpublished tests, the item development process leaves a lot to be desired. Many of the scales had low reliability (and hence validity) because of poorly designed items and/or too few items.

Construct Validity. In order to understand construct validity, one first has to know what is meant by a construct. A construct is an abstract theoretical concept, such as "intelligence," for instance. An IQ test should measure intelligence and not something else, such as amount of education. The process for establishing construct validity involves the accumulation of a variety of evidence to show that the test captures the intended concept. The more methods and samples used for construct validation, the greater the confidence one can have that the test is valid from a construct validity perspective. Published tests generally deal with construct validity issues. However, in Hinkin's (1995) review of the use of unpublished scales in business journal articles, fewer than a quarter of the studies mentioned evidence for construct validity of their scales.

A popular method of construct validation is to show that the items on the test are measuring the same thing, as determined by means of a statistical technique called "factor analysis." A factor is a group of items that are measuring the same underlying characteristic. The higher an item "loads" on the factor, the stronger the relationship between the item and the underlying construct that the factor represents in the "real world." One aims to show that all items on the test load on the factor that the test intends to measure.

Another proof is when one can show that the groups known to differ on the construct score in accordance with these expectations. Further supporting evidence can come from studies reporting that people low on a particular construct on a pretest measure improve on the post-test measure following an intervention meant to raise the scores.

Another technique for construct validation involves a demonstration that the test has a strong relationship with other constructs known to be related to it (e.g., intelligence with academic achievement) and a weak(er) relationship with constructs not expected to correlate with it as strongly (e.g., intelligence with income). The terms "convergent validity" are sometimes used to denote the high correlations with similar constructs and "divergent validity" for the low correlations with unrelated constructs. Studies using what is called a "multitrait-multimethod" approach to examine convergent and discriminant validity provide especially strong evidence of construct validity because multiple methods are used to assess a given characteristic (trait). It has been found that some of the correlation between two measures can be inflated when the same method is used to collect the data (technical name: "method-specific variance") on both measures. The multitrait-multimethod analysis allows the researcher to determine the role that method-specific variance plays in the correlation.

Criterion-Related Validity. To household researchers and financial advisors, perhaps the most persuasive evidence is criterion-related validity. Criterion-related validation involves the demonstration of a relationship between test results and some relevant criterion measure. Evidence for criterion-related validity is most often presented in terms of correlation coefficients, which in this type of context are called "validity coefficients." It involves correlating the test (called a predictor) with the criterion. For example, a valid risk-tolerance scale should show a correlation with actual investing behavior. In other words, investors who scored high on the risk-tolerance test would be expected to hold riskier assets than investors who scored low on the test. When the criterion is available at approximately the same time as the test is given, showing such a relationship is called evidence of "concurrent validity." If the criterion is obtained in the future, it is called "predictive validity." For instance, if one gave a risk-tolerance test to a group of investors and compared the resultant scores with the riskiness of their investment portfolios at that particular point in time, it would constitute a concurrent validation strategy. On the other hand, if the test was administered to a group of people before they held any investments and their risk-tolerance test scores were then compared with their investment behaviors once they started investing, then finding a correlation between the riskiness of their portfolios and the test score would be evidence for predictive validity.

What Is an Acceptable Level of Validity? Validity coefficients can range from 0 (no relationship) to 1 (a perfect relationship). The higher the validity coefficient, the more useful is the test. Saad et al. (1999) offered the following guidelines for evaluating the magnitude of a validity coefficient:

above 0.35 = very beneficial
0.21–0.35 = likely to be useful
0.11–0.20 = depends on circumstances
below 0.11 = unlikely to be useful

Some readers may find it perplexing that such low correlations are considered proof of validity, when the requirement for reliability coefficients is so much higher. Generally, validity coefficients for any given test are going to be lower than the reliability coefficients, and this should be expected for a number of reasons. For example, the validity coefficient for a risk-tolerance test relating the test score to investing behavior should not be expected to be very high because there are numerous other factors that influence an investor's choice of investment vehicles besides the person's level of risk tolerance. It has been reported that people have perceptions and notions about the riskiness of investment decisions that may not be based on risk defined strictly by variance in returns (Weber & Milliman, 1997; Weber, Blais, & Betz, 2002; Weber, Shafir, & Blais, 2004). Moreover, portfolio allocation is subject to factors unrelated to risk tolerance, such as holding investments that were gifts and inheritances as well as inertia in making changes to investments they bought themselves (Yao, Gutter, & Hanna, 2005).

Also, in many instances, such as when the criterion is another test, the other test has some unreliability, and this attenuates the size of the correlation. If the reliability of the criterion is low, even a valid test can produce a low-validity coefficient due to the problem with the criterion. The size of the maximum possible correlation between any two tests is limited by their respective reliabilities. All other things being equal, when the reliability of the criterion is good, the validity coefficient will be higher than when the reliability of the criterion is poor. The mathematical formula to calculate the maximum possible correlation between a predictor and a criterion involves (1) multiplying the two reliability coefficients and next (2) taking the square root of the product. For example, if our predictor test has a reliability coefficient of 0.80 and the criterion has a reliability of 0.90, the largest possible validity coefficient is the square root of 0.8 times 0.7, which is about 0.85 (rounded). In contrast, if the predictor has a reliability of 0.80 and the criterion only has a reliability of 0.50, then the maximum possible validity coefficient shrinks to approximately 0.63. As you can see, this example illustrates how the validity coefficient depends on the precision of the criterion as well as the precision of the predictor.

Therefore, when evaluating a test, consider not only the size of the reported validity coefficients but also the nature of the criterion. Also take into consideration the characteristics of the samples used to derive these coefficients. If the individuals who will be taking the test given by you are different from the sample used in the validation studies, the level of validity may not be the same for these test takers.

Sensitivity and Specificity. No discussion of criterion-related validity would be complete unless the reader was made aware of the concepts of sensitivity and specificity. Obviously, the results of a test can be either right or wrong. However, in order to be able to determine the correctness of the test, one needs some way to tell what the reality is. The method for assessing the real state of events is called the "gold standard." In medicine, pathologic findings from an invasive procedure such as surgery, tissue biopsy, or autopsy can provide the "gold standard," but in financial advising and household financial assessment, it may be necessary for the gold standard to be another test. Typically this will be a test that is known to be a reliable and valid measure of the characteristic of interest.

When the results of the test are compared with the actual situation (as determined by the gold standard), there are the four possible outcomes as illustrated in Table 2.1. Note that in addition to having verbal descriptors, the four cells in the table are labeled with the letters A, B, C, and D. This specification will allow for an easy way to illustrate the formulas for calculating sensitivity and specificity.

Table 2.1 Test Outcomes

	Condition present	Condition absent	
Test positive	True positive: A	False positive: B	(A + B)
Test negative	False negative: C	True negative: D	(C + D)
	(A + C)	(B + D)	

The four possible outcomes are as follows:

- **True positive**: when test indicates that the characteristic is present and it really is.
- **False positive**: when test indicates that the characteristic is present and it really is not.
- **False negative**: when test indicates the characteristic is not present and it really is present.
- **True negative**: when test indicates that the characteristic is not present and it really is not present.

"Sensitivity" shows the degree to which a particular test correctly identifies the presence of the characteristic. It is the proportion of people known to have the characteristic by some other means (A + C) who are correctly identified by the test (A). Stated differently, sensitivity is calculated by dividing the number of true positives by the number of individuals who have the characteristic. Expressed as a formula, it is

$$\text{Sensitivity} = \text{A}/(\text{A} + \text{C}) = \text{True Positive}/(\text{True Positive} + \text{False Negative}).$$

In contrast, "specificity" is the proportion of people without the characteristic (B + D) who have a negative test result (D). One determines specificity by dividing the number of true negatives by the number of people with the characteristic. The equation is

$$\text{Specificity} = \text{D}/(\text{C} + \text{D}) = \text{True Negative}/\text{False Negative} + \text{True Negative}$$

A test's "accuracy" is a function of both its sensitivity and its specificity. It is defined as the proportion of the cases that the test correctly identified (called "hits") as either having or not having the characteristic (A + D) from the base of all cases (A + B + C + D). Shown as an equation, it is

$$\text{Accuracy} = (A + D)/(A + B + C + D) = (\text{True Positive} + \text{True Negative})/(\text{True Positive} + \text{False Positive} + \text{False Negative} + \text{True Negative})$$

A test can be good in terms of sensitivity, yet bad in terms of specificity, and vice versa. The perfect test would be one in which both sensitivity and specificity are 100%, meaning that it would only classify people as either true positive (A) or true negative (D).

Predictive Value. Sensitivity and specificity are useful concepts for evaluating test validity, but when a new individual is tested, the person's real status is unknown at that point. Consequently, it may be more helpful for the decision maker to determine the likelihood of the characteristic being present given the test results. To help with this decision, one needs to consider the "positive predictive value" (PPV) and the "negative predictive value" (NPV) of the diagnostic test on the basis of the data shown in the 2×2 table used to calculate sensitivity and specificity. The PPV answers the question: "Given that this test is positive, what is the probability that this person actually possesses the characteristic?" Likewise, the NPV provides an answer to corresponding question when the results are negative: "What is the probability that the person does NOT possess the characteristic?" The ideal test would have both a PPV and an NPV of 100%. In calculating specificity and sensitivity, we were working with the columns in the table. For the PPV and NPV calculations, one needs to focus on the rows. The two equations are: PPV = A/(A + B) and NPV=D/(C + D).

Example. To help the reader understand these concepts, we present a concrete example with some numbers and a context. Suppose that a test was developed that could determine whether a client would terminate his/her business relationship with a financial advisor in the face of a financial downturn. Assume that it was tried out on 310 clients, and the results of the trial are shown in Table 2.2.

Table 2.2 Test Outcome Example

	Did terminate (positive)	Did not terminate (negative)	
Test indicates that will terminate (positive)	25 (A)	60 (B)	85 (A + B)
Test indicates that will not terminate (negative)	25 (C)	200 (D)	225 (C + D)
	50 (A + C)	260 (B + D)	310

For this hypothetical case, the indices of the various facets of criterion-related validity are as follows:

- Sensitivity = A/(A + C) =25/(25 + 25)= 25/50 = 50%
- Specificity = D/(B + D) = 200/(60 + 200) = 200/260 = 77%
- Accuracy = (A + D)/(A + B + C + D) = (25 + 200)/(25 + 60 + 25 + 200) = 225/310 = 73%
- Positive Predictive Value (PPV) = A/(A + B) = 25/(25 + 60) =25/85 = 29%
- Negative Predictive Value (NPV) = D/(C + D) =200/(25 + 200) = 200/225 = 89%

Sometimes, one will see reports of overall "hit rates" for a diagnostic test and nothing else. The overall hit rate is the same thing as the Accuracy. But the overall accuracy index can mask marked differences between Sensitivity and Specificity and thus could be a misleading indicator of test validity. The Accuracy of the test in our hypothetical example was 73%, but there was a distinct difference in its Sensitivity (50%) and its Specificity (77%). The test is clearly better at identifying who WILL NOT terminate (i.e., continue to be a client) than identifying who WILL terminate. Likewise, in concert with this, the NPV (89%) was higher than the PPV (29%). In other words, there is less than a 1 in 3 chance (29%) that the client will terminate if the test indicates he or she will do so, but close to 9 in 10 (89%) chance that the client will continue if the test indicates that he or she will not terminate.

Cut Scores. The above example deals with a test that has only two possible outcomes (positive or negative). In the case of many tests, particularly psychological ones, the results are continuous rather than discrete in nature. Therefore, one has to establish a "cut score," and where it is set will impact the specificity versus sensitivity results. The cut point decision can be made using a number of criteria, but a popular technique is to explore what happens to specificity and sensitivity when different test scores are the basis for making the cut between positive (condition present) and negative (condition absent) cases. The accuracy of any given value for the cut-point can be analyzed by the probability of a true positive (sensitivity) and the probability of a true negative (specificity). To determine the optimal value, the cut points are plotted on "Sensitivity" versus "1-Specificty" over all possible cut points. The resultant line is known as the Receiver Operating Characteristics (ROC) curve.

One method for summarizing the information from ROC is "Youden's *J*" statistic (Youden, 1950), which captures the performance of a diagnostic test with single number: J = [(sensitivity + specificity) – 1]. Had the cut scores in our hypothetical example been based on a certain cut point from a nondiscrete test result, $J = [(0.5 + 0.77) - 1] = 0.27$. The values of the Youden index can range from 0 to 1. A value of $J = 0$ means that there is total overlap between the positive cases and the negative cases, whereas $J = 1$ indicates that complete separation was obtained between the positive and the negative cases. The optimal cut-point based on J (not without its critics) is the value that maximizes *J* (Greiner, Pfeiffer, & Smith, 2000). Again, the one number may mask things. Different types of misclassification errors may carry different associated costs, depending on the particular context. Whether to maximize specificity or sensitivity can be context dependent.

Concluding Remarks

Tests are helpful tools when carefully developed and validated. Proper test development is a laborious process. If a test already exists for what you want to measure, see if you can apply it to your situation rather than attempt to develop a "homegrown" instrument. When searching for a test, focus on the instruments with the most comprehensive documentation, and from these, select the one with the best reliability and validity. You are more likely to find validity information for a published test than for similar unpublished test. Realize, however, that even a good test will not provide totally error-free information. If you want to use a test for a purpose other than for what is was intended, it is prudent to gather evidence that the test is also valid for this new purpose.

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Chapter 3
The Future of Financial Planning and Counseling: An Introduction to Financial Therapy

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The purpose of this chapter is fourfold. First, the chapter defines what is generally meant when practitioners and researchers talk about financial planning and counseling as a field of study and practice. Second, the process and theoretical underpinnings of financial planning and counseling are discussed. Third, a review of the historical development of marriage and family therapy is presented. Last, a new emerging field of study, namely, financial therapy is introduced. Specifically, financial therapy is defined and reviewed. An overview of the history and theoretical development of financial therapy is also provided. The chapter concludes with a discussion on how assessment of tools and techniques can be useful to practitioners, researchers, clinicians, and educators in the field of financial therapy, and how assessment can help this new discipline find grounding and gain respect among already established fields.

What Does It Mean to Be a Financial Planner or Counselor

Imagine that a gentleman comes to a financial planner's office seeking financial advice. The planner learns that the client's wife has recently passed away. After a short discussion, the planner learns that the client had been married for 20 years, and that the client and his wife worked closely together in a family business – a business that his wife had inherited. The client tells how his wife was primarily in charge of bookkeeping and records management. He was the "people person" and, because of his skills, he was able to attract many new customers. As he sits in the planner's office, he relays a story of difficulty. Now that his wife has passed away he can hardly bring himself to go to work. The pain of losing his wife has been very difficult and he misses her very much. The business is a reminder of the life

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they shared. He has considered selling the business, but feels guilty at the thought of liquidating the operation that his wife's family worked so hard to build. And, after all, he loves the business too.

Now imagine that a couple walks into a financial counselor's office. The counselor asks them to have a seat. They too have come seeking financial advice. The counselor begins by asking the couple about their financial goals. They each hesitate but then the husband starts listing off *his* top five financial objectives. The wife does not speak. She looks at her husband with a frustrated gaze on her face. She then looks directly at the counselor. The financial counselor can sense something is wrong but is hesitant to ask because the financial counselor is unsure how to handle the situation. Then, as if out of nowhere, the wife stands up and yells, "I don't know why we are here; you can't stick to a budget anyway. I'm tired of you spending all of our money. Don't you know we need to have a larger retirement nest egg!" Taking a breath she continues: "Why do you make all of the financial decisions without my participation? We had dreams of traveling and moving into a bigger house, but we will never be able do these things because of you!" She then bursts into tears. The financial counselor is a bit taken back, and asks themself, "How did the situation get to this point?"

These two case scenarios are not fictional accounts, but rather examples of experiences that have taken place in our university financial counseling center. These cases represent just a small fraction of situations that financial planners and counselors face on a daily basis. The commonality between the two situations is that at the core of the financial scenario there is a relationship dynamic. It is often the interaction of individuals who are involved in intimate relationships that causes frustration on the part of financial planners and counselors. As is acknowledged by nearly all practitioners, the financial decision-making process is easily complicated by interactions within relationships.

Even though professional advisors might, in fact, be the first to acknowledge that interrelationship issues impact financial decisions made by couples, few advisors have been trained to adjust their planning and counseling approach to account for these interactions. In truth, none of the major financial planning or counseling educational registration/accrediting bodies requires marriage and family therapy, psychology, social services, or relationship training. This leaves the solution of case scenarios, such as those described above, up to each advisor's relative professional expertise. Whether or not such expertise is founded on clinically proven methods or simple hunches are something that no one will ever know. The real dilemma is where the financial planning and counseling profession needs to go next in order to match current advisory methods with proven tools and techniques that can be used to address financial situations that encompasses relationship dynamics.

Referring back to the two case scenarios discussed above, it may be easiest to encourage the widower to sell the business. Complex calculations can be conducted to show the income and estate tax benefits of such a move, but does this recommendation address the concerns that impact the overall financial health and well-being of the client? In the case of the couple, it may be easiest to ask the couple to return after they have discussed their goals together. But, will they even be able to discuss their goals collectively? And, will they return to obtain help? The answer to all three questions is, "no." A simple buy or sell analysis does not help the widower achieve overall financial health. Asking the married clients to go home and think about their goals does not facilitate such a discussion, and in actuality, it is unlikely that they will return for a second meeting. So, how can financial planners and counselors provide comprehensive financial care to clients who are facing extremely difficult emotional, behavioral, and relational issues? *Financial therapy* is a new emerging discipline that can help advisors address planning and counseling issues that intersect financial, relational, and psychological needs of individuals, couples, and families.

This chapter introduces a new emerging field called *financial therapy*. The chapter defines what is meant by financial planning and financial counseling, while providing a historical review of these fields as related to financial therapy. Following this discussion, financial therapy is defined and reviewed. An overview of the history and theoretical underpinnings of financial therapy, how assessment can be useful to practitioners, researchers, and educators in working in the discipline of financial therapy, and how assessment can help this new field find grounding and gain respect among already established disciplines is presented.

Financial Planning Defined

Issues related to household financial security and economic well-being have been of interest to researchers and policy makers for over a century. However, the development of a professional discipline consisting of practitioners focused exclusively on improving the financial lives of clients is relatively more recent. According to Lytton, Grable, and Klock (2006), the field of *financial planning* emerged from a meeting of financial services professionals in 1969. These industry leaders, primarily from the insurance and mutual fund industry, recognized that consumers would be better served by working with professionals who followed a standardized code of ethics and practice standards. Williams (1991) was among the first to define financial planning as a field of study and practice. She characterized financial planning as an activity designed to help consumers change or reposition their financial assets to meet financial goals and objectives.

Financial planners use a process of planning that begins by establishing the client relationship and ends with implementation and monitoring of recommendations. In general, the process of financial planning results in a product or service being purchased by a consumer. According to Altfest (2004), financial planning is a process that incorporates "all items of financial interest to an individual" (p. 54) in the following topic areas: tax planning, cash flow planning, investments, risk management, retirement planning, and estate planning. Others would include specialized topics such as business and education planning (Lytton et al., 2006).

Financial Counseling Defined

Occurring at approximately the same time as the development of financial planning as a professional endeavor, a group of individuals were contemplating the formation of a field of study and practice that would focus on helping consumers improve their financial management skills and decision-making behavior. The *financial counseling* profession emerged during the late 1970s and early 1980s as an offshoot from traditional family and consumer economics disciplines. [1] During the formative years of the profession, financial counselors sometimes explored the same client issues as financial planners, but in most cases the focus was on helping consumers utilize skills and family resources to help meet financial objectives. According to Langrehr (1991), financial counselors typically help clients with limited resources (e.g., income, time, assets, etc.) work through both simple and complex financial issues. When working with clients, a financial counselor tends to spend the majority of their time dealing with budgeting, debt management, access to public and charitable esources, buying behavior, and similar household issues.

Similarities and Differences Between Planning and Counseling

Today, financial planning and financial counseling can be thought of as distinct approaches to helping consumers change financial behavior and resulting outcomes. Financial planners work in a very proactive manner. That is, planning begins with an individual's or family's financial goal(s) and then uses products (e.g., insurance or investments) or services (e.g., tax preparation and asset management) to help the consumer reach their financial objective(s). The financial counseling process begins by assessing a consumer's problem or concern. In this sense, financial counseling tends to be reactionary, or what Pulvino and Lee (1979) called remedial and preventive. In other words, financial counselors are most often engaged in assisting consumers change their negative situations and behaviors in order to achieve financial stability in the present. This differs from the future orientation of financial planning.

The Planning and Counseling Process

While financial planning and financial counseling differ in terms of client outcomes, both approaches rely on a similar process. For those unfamiliar with these emerging professions, this point is of critical importance. In essence, financial planning and counseling are process driven (i.e. following a series of steps), rather than

[1] Financial counseling, as used in this chapter, differs from the commercial use of the term, which means debt restructuring. While financial counselors may help a client refinance or restructure their debt payments, financial counseling encompasses other important areas of a person's financial life.

theory determined. There are several ways in which the process of planning and counseling can be conceptualized. One of the earliest approaches was described by Williams (1991). She summarized the process this way: "Collection of relevant data, assessment of economic position and current resources, clarification of misconceptions, identification of changes and decisions, provision of information, generation of alternatives, and implementation of plans" (p. 1). The Certified Financial Planner Board of Standards, Inc. requires CFP® certificants to follow a similar six step process, as shown below:

1. Establishing and defining the client-planner relationship;
2. Gathering client data, including goals;
3. Analyzing and evaluating your financial status;
4. Developing and presenting financial planning recommendations and/or alternative;
5. Implementing the financial planning recommendations; and
6. Monitoring the financial planning recommendations.

Lytton and her associates (2006) expanded the CFP® Board of Standards, Inc. process by providing more detail at step three. Specifically, they noted that a financial planner, in particular, needs to determine and quantify planning needs, document and evaluate current planning efforts, review prospective change behavior strategies, and develop client-based recommendations. While acknowledging client situational and planner-specific factors as potential mediators in the process, their approach still centered on one major assumption, namely, reality is objective and behavior can be changed systematically.

The common thread among the processes (i.e. a series of steps) described by Williams (1991), CFP® Board, and Lytton et al. (2006) is the linear form of action taken to facilitate behavior change and the hypothesis that future action must be dictated by a thorough analysis of past attitudes and behaviors. This is not unexpected. Unlike other help providing professions (e.g., marriage and family therapy, psychology, social work, etc.), financial planning and counseling has yet to develop its own unique theory or model. At the current date, the process, as described above, marks the furthest point that those working in the field have achieved in defining their approach to working with clients.

Theories, Processes, and Models

The lack of a discipline-specific theoretical basis for planning–counseling stands in stark contrast to other professional fields. Consider marriage and family therapy (MFT) as an example. When first conceptualized, working with the family as a group in a psychological setting was considered somewhat revolutionary. Those psychologists and social workers who felt more could be accomplished by working jointly with family members, rather than individuals alone, were in the minority of their profession. Like financial planners and counselors today, however, these early MFT professionals had an existing process to guide their work. Early adopters of the MFT method adapted the series of actions (i.e., processes) most widely used by psychologists when working with clients. What they lacked was relevant theory (i.e., a set of testable hypotheses to explain a phenomenon) to guide their practice and development of their field, which if it were to grow, needed specific models (i.e., frameworks for analysis) guided by theory and clinical testing. Moving from process to models was a huge undertaking by the founders of MFT, but the result has been one of major importance. Those studying MFT at the graduate level have not just one process to follow, but a myriad of theoretical models that can be used to help their clients.

This is not to say that there have been no efforts to move beyond process thinking (i.e., series of steps) in the fields of financial planning and counseling. Instead, it means that there have been few methodical approaches applied consistently across time and subjects designed to assess the effectives of planning and counseling models. As such, the way in which financial planners and counselors are trained and work is based more on professional judgment than on empirically based research.

Williams (1991, p. Introduction), whom many consider to be the financial counseling profession's first and foremost scholar, argued that the process of planning and counseling provides the context for action and that particular models of activity can be developed for each of the following 20 areas of client need:

1. Financial problem analysis;
2. Financial crisis intervention;
3. Debt adjustment;
4. Financial analysis, cost projections, and decisions;
5. Cash-flow or current spending analysis;
6. Housing counseling;
7. Divorce financial counseling;
8. Consumer complaint resolution;
9. Group financial counseling or seminars;
10. Counseling individuals in specific circumstances or in transition;
11. Employee counseling;
12. Comprehensive financial counseling;
13. Tax analysis;
14. Insurance analysis;
15. Investment and portfolio analysis and management;
16. Retirement planning and employee benefits;
17. Estate planning;
18. Executive counseling;
19. Self-employment and small business decisions; and
20. Comprehensive financial planning.

Unfortunately, little effort has been put into place by academicians or practitioners over the past 20 years to develop testable theories and teachable models of practice as envisioned by Williams. The current state of teaching and practice in the planning and counseling fields has halted at the prospect of moving beyond process thinking. Some of the hesitation to build theory and models that can be taught and assessed in a reliable fashion stems from the diverse perspective of those who teach, conduct research, and practice financial planning and counseling. That is, there are a number of leading figures in these disciplines that strongly believe that the theoretical framework(s), and as such, practice models, that drive planner–counselor–client interactions exist in affiliated fields. This line of reasoning even goes as far as stating that neither financial planning or financial counseling are unique fields of practice, but instead, simply extensions of, say, finance or economics.

This type of argument was also used by psychologists and psychoanalysts when researchers and practitioners started to work with couples and families jointly. Although the origins of marriage and family therapy, for example, are clearly grounded in psychosocial frameworks, the early family practitioners and theorists could see a need for theory that described dyadic and family interrelationships. Furthermore, they understood that in order to meet the requirements of families, different models of practice and intervention needed to be developed. Rather than argue that their emerging discipline was statically linked to traditional psychosocial frameworks, the early marriage and family therapist leaders forged ahead and completed important theory and model building work.

It is reasonable to ask if the fields of financial planning and financial counseling stand at a similar theoretical junction in their historical development. These fields are just over 40 years old, which is approximately the same point of development when family therapists split from traditional psychology and psychoanalysis tracks. Historically speaking, the time is right for a new direction based on theory and modeling that is directly applicable to the planning and counseling work undertaken today by practitioners when they work with clients. This means that the days of teaching the planning–counseling process as the exclusive practice management approach may be at an end. In its place will come practice management models that are designed to meet the specific needs of different clientele and situations. Furthermore, these models will be based on theory unique to the planning and counseling fields, with each model having empirical evidence to support its use in training and practice situations. Obviously, this is little more than a conjecture at this time. One way to begin the movement towards this vision involves understanding the theoretical origins of both financial planning and financial counseling. The following discussion presents an overview of the developmental tracks that have influenced the way financial planning–counseling is taught and practiced in the USA.

The Family Economics and Resource Management Approach

Williams (1991) contended that "financial counseling and planning has emerged as a professional service, which is the delivery system for family economics and resource management theories" (p. 1). This helps explain why theory is missing as a basis of financial planning–counseling. That is, rather than worry about developing theories to explain household behavior, she and other influential academicians felt that the underlying theories of family and consumer economics could be used as the basis of financial planning and counseling models. This was a major assumption. In effect, what Williams and others claimed is that the economic model of normative behavior could be used to guide the planning and counseling process. It also follows that the planning–counseling process itself would be linear in nature, progressing from one step to the next. This insight also illuminates the long-held assumption that behavioral change for clients occurs only after a thorough evaluation of the client's past, particularly previous behaviors and long-held attitudes and beliefs.

Consider the list of 20 areas of client needs from above. Williams (1991, pp. 1 and 2) provided examples of ways the financial planning and counseling process could be applied to address these issues. For example, the planner or counselor could look for ways to:

1. increase client income;
2. reduce client expenses;
3. adjust debts;
4. clarify wants, needs, and goals;
5. help clients make decisions;
6. establish a system of household financial management;
7. increase knowledge of consumer rights;
8. optimize household resources; and
9. champion change.

What makes this list unique among helping professionals is the emphasis on the role of the planner–counselor. It is inherent in the theory of economics (both generally and within the sub-discipline of family economics) and resource management that men and women act rationally, and if given the correct information and knowledge, individuals will make coherent decisions to change their behavior for the positive. It is simply the role of the planner–counselor to be the catalyst, working through the steps of the process, of behavior change. In other words, economic security for individuals and families is a "function of various components that could be estimated with empirical analysis of survey data and enhanced by financial counselors/planners" (Williams, 1991, p. 5). Some of these factors include a client's income, financial assets, attitudes about money, and control of financial affairs.

The Classical Economics Approach

Sometimes it is easy to overlook the historical reality that the disciplines of financial planning and counseling have their roots in the family and consumer economics tradition, even though, as Overton (2008) pointed out, the earliest work on budgeting, cash flow tracking, debt management, and other topics that today would fall in the domains of financial planning and counseling were first studied by home economists. Names such as Dorothy Brady and Margaret Reid don't hold as much public attention as Milton Friedman or Henry Markowitz; nonetheless, it was researchers such as Brady and Reid who first applied economic and production theory to household activities. As a result, much of what is now studied in relation to financial planning or counseling started out as a primarily female studied endeavor, usually in colleges of home economics. Given historical biases within higher education and society, such research was deemed secondary to male-dominated academic pursuits (Fritzsche & Ferrell, 1980).

Some have argued that the development of financial planning and financial counseling, as professional academic fields, was hampered by the gender orientation of those who studied these topics in the foundational years of the academic domain. Had financial planning and counseling issues been initially studied in colleges of business administration, it is likely that the profession would have grown much faster. As suggested by Overton (2008), the result has been an overlapping of conceptual work and empirical research because there are now "two traditions that contribute to financial planning" (p. 15). That is, from the turn of the twentieth century to the early- to mid-1970s, assessments of financial planning and counseling processes and outcomes were examined almost exclusively from a family economics and resource management perspective (i.e., by home economists). Beginning in the late 1970s and early 1980s, researchers in colleges of business administration and other disciplines (e.g., psychology and marketing) "discovered" what seemed to be an understudied area. Following the assumption that these topics had not been rigorously examined (in fact, there was a long historical record of financial planning and counseling research), many of those studying planning and counseling topics today have not been exposed to this literature, and as such, they typically assume that the fields have their roots in finance, as an offshoot of classical economic theory.

Altfest (2004) represents a large segment of the financial planning and counseling community who tacitly acknowledge the work of home economists, but who, in the final evaluation, tend to favor the argument that planning and counseling obtained status and creditability only after being studied from a pure economic theory perspective rather than a household or family production theoretical viewpoint. In effect, the prevailing theoretical assumption underlying the financial planning and counseling process, which has resulted in one universally applied model, is that financial difficulties arise and persist because of unlimited wants but limited resources. Because of the scarcity of household resources (e.g., money, time, abilities, knowledge, etc.) and the unlimited wants of household members, some individuals and families make bad financial decisions that reduce functioning abilities. This working assumption, held by nearly all practicing financial planners and counselors, is exemplified by the type of economic theories used to study household and personal finance topics, including the Theory of Information Processing, Life Cycle Theory, Theory of Consumption, the Permanent Income Hypothesis, and the Relative Income Hypothesis.

The Modern Portfolio Theory Approach

There are many practicing financial planners and academicians who hold the viewpoint that the emergence of financial planning, in particular, as a professional endeavor mirrored the development and adoption by Wall Street of Modern Portfolio Theory (MPT), as described by Markowitz (1952). According to Overton (2008), "MPT is a normative theory that asserts that investors should choose investments based on discounted future expected returns and that for maximum risk adjusted returns investors should diversify across industries and asset classes" (p. 17). Black, Ciccotello, and Skipper (2002) argued that MPT is one of the primary foundational theories of the financial planning field.

The key argument here is that financial planning "helps individuals consider the totality of their wealth, not just their accounting net worth wealth as measured by holdings in readily marketable financial assets" (Black et al., 2002, p. 3). Using this conceptual framework as a guide, it is possible to include the value of nontraditional assets in the risk-return tradeoff for a household. Assets such as human capital, expected inheritances, and insurance must, therefore, be included in optimization models. By including all family assets and resources into models of planning, MPT predicts the combination of assets that will produce the most efficient household portfolio given the risk tolerance of family members. The MPT approach places the financial planner–counselor in the role of client coordinator. The role of the coordinator is to act as generalist, rather than a planning specialist. While the MPT approach has advocates within the fields of planning and counseling, there are detractors as well. One problem associated with this method of practice and research is the lack of evidence suggesting that nontraditional assets can be included in optimization models. Furthermore, the MPT approach fails to describe the way in which planners–counselors work with clients beyond a process-oriented technique. The apparent weakness of using MPT outside of the investment decision framework was dismissed by Black and his associates (2002) by stating that future research would confirm the theory.

The Strategic Management Approach

Overton (2008) was among the first practitioner–researcher writers to advocate a noneconomic/finance theoretical foundation for the study of financial planning. She noted that financial planning, as it has been conceptualized and practiced, relies on a goals and values-based process. Overton concluded that the process of financial planning is simply an extension of the strategic management planning process—i.e., an activity that is focused on results and outcomes, not necessarily with strategic decision making. That is, she argued that financial planning, and by extension financial counseling, has its theoretical roots in strategic planning, not economics.

Overton (2008) based her observation on the parallel growth of financial planning with the academic acceptance of strategic planning. She used personal interviews with the founders of the Certified Financial Planner Board of Standards, Inc. to confirm the founders' intention to apply strategic planning to the practice of financial planning. When the financial planning process is compared to the strategic planning process, the similarities are indeed striking. Environmental scanning is similar to data gathering. Objective setting corresponds to goal setting. Distinctive competence selection is akin to analyzing and evaluating client data. Power distribution is analogous to developing the financial plan. Resource allocation matches well with plan implementation. Finally, monitoring and controlling outcomes is the same as monitoring financial planning recommendations.

Those who agree with Overton (2008), by definition, accept the assertion that the fields of financial planning and counseling are process oriented. All actions must follow from a strategic inclination that is designed to be linear and hierarchical. Aspects of assessing a client's financial strengths, weaknesses, opportunities, and threats (i.e., SWOT analysis) encompass much of a planner–counselor's activities when developing recommendations, implementing plans, and monitoring outcomes.

Cognitive and Behavioral Approaches

With time, practitioners, in particular, and some academicians have noted that normative family and consumer economics, classical economics, and MPT predictions often vary from what is actually observed. That is, individuals and households often behave differently than what is predicted by economic theory. Because of this, some financial planners and counselors have adopted a cognitive-behavioral approach to planning and counseling. Although a different lens from which to view client situations, it is important to note that behavioralists generally believe that the planning and counseling process is sufficient to guide their work. In other words, even though the philosophical perspective is different, both behavioralists and traditional financial planners–counselors tend to believe that if the process of planning and counseling is followed, client behavior can be changed.

Those who adopt a cognitive theoretical approach believe a person's perceptions, attitudes, expectations, and beliefs influence behavior. Someone who uses this framework accepts as true that it is possible to substitute negative thoughts that lead to poor financial behavior with positive attitudes, which should result in improved financial outcomes. The behavioral theoretical framework is similar; however, behavioralists believe that individuals act in conditioned ways. For example, a compulsive shopper might engage in repetitive shopping behavior as a response to work stress. One way to change the action is to provide mechanisms to alter negative behavior, such as to reinforce positive achievement and punish negative outcomes. Today, those planners and counselors who are not in the economic theory camp tend to blend cognitive and behavioral theoretical approaches.

In relation to the cognitive behavioral perspective, there is the growing field of behavioral finance economics. Behavioral economists, as the name implies, attempt to apply economic theory to everyday situations by loosening various classical economic restraints. The notion of perfect rationality is replaced by the concept of mental processing with all of this concept's inherent defects. The role of cognition, heuristics, and mental accounting illustrate the grudging acceptance among some economists that emotions can have an effect on "cognitive processing" (Altfest, 2004, p. 57).

The Psychoanalytic Approach

There are a few financial planners and counselors who eschew traditional approaches when working with clients. These planners–counselors typically use some form of psychoanalytic theory to inform their approach. Although quite rare, some planners and counselors apply a Freudian approach. Others use Gestalt Theory, Humanistic-Existential Theory, or Adlerian Theory (Williams, 1991). It is important to note, however, that few clinical studies have ever been conducted and published in peer-reviewed journals regarding the effectiveness of these approaches.

Similarities and Differences Among the Approaches

The lack of one or more financial planning–counseling theories specifically constructed and tested for the use by practitioners, researchers, and clinicians can be attributable to several factors. The first of these factors being the relative youth of these fields as professional endeavors. The earliest practitioners were devoted to building a presence different from competing financial services organizations. Logically, they adopted a planning process approach and went on to establish successful practices. From this early work emerged training programs for planners and counselors. It has only been within the past 10 years that graduate education in financial planning–counseling has emerged. In time, graduate education will undoubtedly lead to theory building and practice model applications. The second factor that has lead to a lack of theory is that nearly all past and current practitioners, and those studying the field, have gravitated from other academic disciplines—e.g., finance, psychology, and consumer economics, etc. As such, these individuals have adapted theories from a diverse set of academic disciplines to meet their operational needs. Working from an assumption that planning–counseling is simply an extension of an existing field, by default, limits theory building. These two factors, plus others, have left a large void in the practice and teaching of financial planning and counseling techniques and outcomes.

Table 3.1 summarizes the models most commonly used by financial planning and counseling practitioners. These models, broadly defined, are most closely affiliated with a theoretical perspective couching financial planning–counseling as an extension of an existing field of study. A careful examination of these approaches illustrates a developmental gap in the fields of planning and counseling. Specifically, none of the models are unique to financial planning and counseling. In fact, the

Table 3.1 Financial planning and counseling models

Approach	Key issues	Application
Economic and resource management approach	Assumption—clients are rational and if given guidance will change behavior optimally Negative financial behaviors are a result of too few household resources and too many wants People can change if they are trained to be better managers Planner–counselor is agent of change	Applies the financial planning and counseling process Focus on obtaining and analyzing quantitative data—e.g., cash flow, net worth, debt, etc Provide information and advice to change behavior
Classical economics approach	Assumption—clients are rational and they choose among alternatives based on objectively defined risk-return and cost-benefit trade-offs Household finance deficits are a result of too many financial demands and limited financial and ancillary resources	Increasing financial resources or reducing financial expenditures results in improved financial outcomes Quantitative analysis is a prerequisite to understanding a client's financial distress Clients can change behavior only after receiving normative instructions from an expert or trusted advisor Most financial planning–counseling solutions (i.e., interventions) are based on group or national norms
Modern portfolio theory approach	Assumption—because almost all financial planning decisions involve investments, MPT can be used to balance return and risk decisions, regardless of the assets included in the household allocation model Clients and planner–counselors are assumed to make rational decisions based on relevant and known data The planner–counselor is an expert employed to allocate client assets	Applies models of investment risk and return to client planning and counseling decisions Quantitative in application, focusing on risk and return trade-offs
Strategic management approach	Assumption—a client's goals and values drive the client–planner–counselor relationship. Conducting a SWOT analysis provides a starting point in the planning process. Planner–counselor works as a consultant.	Applies the financial planning and counseling process Focus on obtaining and analyzing quantitative data—e.g., cash flow, net worth, debt, etc.

Table 3.1 (continued)

Approach	Key issues	Application
Cognitive-behavioral approach	Assumption—a person's thoughts are as important as their actions (past and present) Behavior can be controlled by altering thoughts and actions	Applies the financial planning and counseling process Concentration on modifying and changing cognitions was well as interactions Utilizes learning theory Contingency contracts Reinforcement Punishment Extinction
Psychoanalytic approach	Assumption—unconscious conflicts influence behavior	Varies depending on theoretical approach Focus on increasing a person's self-actualization and knowledge Relies on an examining the underlying issues and/or causes of negative actions

economic-resource management, classical economics, MPT, strategic management, the cognitive-behavioral, and psychoanalytic approaches have each been adapted from other professional fields. According to Altfest (2004), the fields of planning and counseling lack a separate theory. Unlike MFT, for example, that emerged from the discipline of psychology and over time built its own theories and models of intervention, the fields of financial planning and counseling have no unifying theory or unique model. The profession, as it is, is based on a process—a series of linear steps that are assumed to lead to behavioral change. The premise underlying the process, regardless of the theoretical foundation adopted by a particular practitioner, is the same, namely, a client's financial situation changes only through a linear transformation guided by the planner–counselor.

Marriage and Family Therapy: An Overview

Not only are financial planners–counselors hampered in their practice by the lack of specific field theories and models, nearly all lack training in helping skills and attributes. Even among graduates of personal and family financial planning–counseling programs around the country, the workplace is where most advisors receive interpersonal skills training. There is no recognized training handbook, procedure, or certification system in place to ensure that financial planning–counseling practitioners apply uniform standard of client care. In many respects, clients must rely on their own best judgment to assess the training level of a practitioner. Even among those professionals who hold a designation or certification, such as the Certified Financial Planner (CFP®) mark, the Chartered Financial Consultant (ChFC) certification, or the Accredited Financial Counselor (AFC) mark, the average consumer is at a disadvantage in evaluating a practitioner's competence beyond minimal quantitative skills. None of the major credentialing or designation organizations requires students to study theory, practice models, or interpersonal dynamics. While the process of financial planning–counseling is requisite knowledge, there is rarely any mention within curriculums about the appropriate planning–counseling techniques needed to work with clients. Furthermore, documentation regarding the effectiveness of one advisor's method versus another's approach of client interaction is generally missing. Lastly, there is a paucity of research to document the clinical effectiveness of most financial planning–counseling methods.

This stands in stark contrast to other helping relationship fields, including marriage and family therapy (MFT). Pinsof and Wynne (1995) defined MFT in their groundbreaking review of efficacy and effectiveness as

> . . . any psychotherapy that directly involves family members in addition to an index patient and/or explicitly attends to the interaction among family members. Marital therapy, a subclass of family therapy, directly involves both spouses and/or explicitly attends to their interaction *(p. 586).*

The field of MFT is deeply rooted in systems theory. Nichols and Schwartz (2007) described families as a "system," which is "an organic whole whose parts function in a way that transcends their separate characters" (p. 7). Furthermore, human behavior is shaped by its social context. Family therapists need to understand and motivate clients and influence their interactions to create long-lasting psychological change. Therefore, the focus of MFT is on the interactions within the family or couple system that has shaped the dynamics, emotions, behavior, and attitudes of an individual and/or couple.

MFTs are trained in models that, like any theoretical model in any field, have been scrutinized. However, foundational models such as Bowen Family Systems Therapy, Structural Family Therapy, Cognitive-Behavioral Family Therapy, and Strategic Family Therapy provided a new way of looking at human behavior and interactions rather than falling back on assumed causal factors, such as blaming parents. These theoretical-based models allowed therapists to see their clients in a new light, as part of a larger system, and work with their clients in a consistent and coherent manner. The roots of more modern forms of therapy, such as Solution Focused and Narrative therapies can be traced to foundational MFT models. This shows that the MFT field is evolving and continues to be progressive and influential in the mental health arena. In 2009, MFTs received licensing status in all 50 US states and the District of Columbia, which was considered an impossible goal for many early practitioners.

Individual state law governs the licensure requirements needed to practice as an MFT, which usually entails the following: attending graduate school, accumulating both graduate and post graduate clinical hours, passing a licensing exam, and undergoing supervision by an approved American Association of Marriage and Family Therapy (AAMFT) supervisor. The Commission on Accreditation for Marriage and Family Therapy Education (COAMFTE) accredits MFT graduate programs. Accreditation involves rigorous training in which therapists-in-training are required to be grounded in MFT theory, assessment, psychopathology, and research, as well as having to complete 500 face-to-face contact hours with clients, which includes a required 250 hours of relational therapy and 100 hours of supervision with an approved AAMFT supervisor.

While in graduate school at the master's level, therapists-in-training learn to distinguish "process" from "content" when working with clients. Therapists use the term "process" quite differently than financial planners and counselors. Whereas financial planners and counselors refer to process as a step-by-step approach, therapists refer to process as the ability to observe dynamics and patterns in the family system that motivate behavior rather than concentrating on the facts and detail that clients present. The advantage of being able to observe process and distinguish it from content is that this approach facilitates working with the underlying issues that clients present to therapy. Oftentimes, when clients present one issue to therapy, there is usually a compounding variable or underlying issue that has manifested and exacerbated the situation, which has either influenced or intensified the current problem. For example, a conflictual couple may present communication problems to therapy. A skilled therapist, after listening to the clients' complaint, assessing and observing the interaction of the couple in the therapy room, may determine that the couple has engaged in a parent–child relationship where one partner has taken more responsibility in the relationship. The other partner, in reaction, has distanced himself/herself because he/she does not know how to interact with his/her partner. As a result, they have engaged in the "blame game" where each spouse blames the other for the difficulties in their relationship. Certainly providing the couple with communication skills training would be recommended, if not required, to help the couple to learn how to communicate more effectively. However, if a therapist focused solely on content, then the therapist would have a very difficult time moving the couple beyond the presenting conflict and helping them create long-lasting change.

The issue of distinguishing process from content is readily apparent in relation to financial planning and counseling issues. Some MFTs dismiss the need for therapists to understand the planning–counseling process and associated client-centered solutions because they see financial problems and questions as merely outcomes of a more pressing issue. For example, rather than viewing money as an issue of argument, some MFTs view money arguments as a symptom of fundamental communication problems. The fact that an argument encompasses a monetary issue is, in this case, irrelevant. While not all MFTs take this view, those who would like to be more proactive in addressing family financial issues within a MFT context find the task to be challenging. In regard to MFT training at the graduate level, there are no requirements or restrictions on financial planning and counseling education. The choice to engage in, say, financial counseling type issues is an individual therapist's choice, which is most often driven by the DSM-IV-TR—the primary assessment handbook in the field. The DSM-IV-TR currently does not include financial issues as a diagnosis, which limits a therapist's ability to obtain insurance company reimbursement for services. Furthermore, because of rigorous training requirements, MFT programs find it difficult to rationalize the need for financial planning and counseling training. In many programs, such as at Kansas State University and the University of Georgia, MFT graduate students are encouraged to learn about financial issues but it's usually left to the individual student to seek such training. This institutional push for more exposure to financial issues by a MFT graduate program is certainly not the national norm.

A New Model: Financial Therapy Defined

Financial therapy is the phrase that has been debated among scholars and practitioners in recent years to describe the collaboration and the synthesis among the fields of personal finance, financial planning, financial counseling, marriage and family therapy, and psychology. On November 22, 2008 in Anaheim, CA, a diverse group of financial planners, counselors, therapists, psychologists, and educators gathered in a seminal meeting to discuss forging a new field of study. They choose the term *financial therapy* to describe the new field. The meeting was promoted as the Financial Therapy Forum. Those in attendance were invited because of their interest and commitment to facilitating a closer association between those practicing traditional financial planning and counseling and those working in the therapy field. What emerged from the meeting was a consensus that a blending of financial planning and counseling with traditional couple and family therapy models (primarily rooted in Systems Theory) was not only a possibility, but also a crucial step in developing a new field of study. Three major outcomes emerged from the meeting. The first was the organization of the Financial Therapy Association (www.financialtherapyassocation.org). The second was the introduction of the *Journal of Financial Therapy*, a peer-reviewed journal devoted exclusively to publishing papers and reports directly related to financial therapy topics. The third was a definition of what financial therapy entails, namely, financial therapy is the study of cognitive, emotional, behavioral, relational, economic, and integrative aspects of financial health.

Financial Therapy: The Next Frontier

According to Klontz, Kahler, and Klontz (2008), financial planners and counselors "have been given little or no training in how to help clients with the emotional factors involved in financial planning and managing money. Therapists and coaches have not been trained to consider clients' relationships with money, and indeed have not been encouraged to even think of finances as a legitimate area of concern for either their clients or themselves" (p. xv). This has resulted in a serious divide between the work conducted by financial planners and counselors and the services provided by therapists. Klontz and his associates summarized the situation as follows: "Because finances and therapy have been seen as two separate fields, the significant area where they overlap has largely been disregarded" (p. xv). The result is a reluctance among the majority of planners and counselors to deal with aspects of a client's situation that are not quantitative in nature, and a hesitancy among therapists to discuss financial issues as a key factor related to a therapy's impact of a client's quality of life.

Unless a client is fortunate enough to find an advisor, either a planner–counselor or therapist, who is willing and able to blend financial concepts with therapy models, it is highly unlikely that relationship issues will be a primary component of a financial counseling session or that financial planning concepts will be discussed in a therapy session. This is unfortunate for several reasons. First, the way in which a person deals with his or her money both impacts and is impacted by aspects of their life that are not directly finance related. Providing planning–counseling advice for a money issue, without accounting for the client's motivations for behavior, leaves out potentially large factors that have an impact on the advice. Therapists who shy away from addressing finance issues head-on may leave a client feeling better about their situation but no more prepared to deal with an immediate financial concern. Either way, the planner–counselor and therapist may miss a primary element related to the client's overall health. Second, the myopic focus on either finance or therapy issues may result in practice models that are too rigid. For financial planners and counselors, this may mean that advice is directed toward behavioral action – i.e., doing something immediately; whereas, for a therapist, the action might be too delayed because of efforts to better understand the underlying determinants of behavior. A blended approach will likely help planners–counselors become more effective by addressing overlapping financial and nonfinancial client concerns. That is, a blended model can facilitate immediate action and enhanced client understanding.

The Roots of Financial Therapy

The roots of financial therapy stem from two distinct branches. The first branch is tied most closely with the practice of financial counseling and, to a lesser extent, financial planning. Of the theoretical perspectives described at the outset of this chapter, the *Family Economics and Resource Management* approach helps define the actual practice of financial therapy. The second intellectual branch of financial therapy lies in what Cade (2007) identified as:

> . . . ideas that arose in the middle of the last century as well as in the practical experiences of therapists becoming increasingly aware of the influence of the context in which social and psychiatric problems arose and were maintained. Central to the thinking of those early therapists and theoreticians were general systems theory, cybernetics, and, to a lesser degree, information theory and game theory (pp. 30–31).

The application of systems theory and cybernetic thinking to financial therapy invokes a departure away from traditional financial planning and counseling linear forms of process thinking. Regardless of which conceptualization of financial planning and counseling one reviews (e.g., economic, cognitive-behavioral, etc.), the general assumption is one of cause and effect. That is, addressing the cause of a financial problem will impact the client's outcome associated with the issue. Systems theory, as originally conceptualized by Bertalanffy (1968), takes a different perspective. According to Gladding (2002),

> In systems theory, a system is a set of elements standing in interaction with one another. Each element in the system is affected by whatever happens to any other element. Thus, the system is only as strong as its weakest part. Likewise, the system is greater than the sum of its parts (p. 68).

Circular causality takes the places of linear thinking within a system's perspective. Systems theory can be modeled as a series of circles that interact at multiple levels.

When applied in a personal finance context, systems theory allows a financial therapist to "examine events broadly and in light of their complexity" (Gladding, 2002, p. 61). The result is a counseling approach that focuses on solutions that are interactive, rather than being simplistically linear (e.g., "don't use a credit card because credit is expensive"). In other words, it is assumed that one change in a client's situation will have a ripple effect on other areas of not only their own life, but also the lives of others within the person's system. Alternatively, outside events, often beyond the control of the individual, can have a profound, sometimes positive and other times negative, affect on a person's financial situation. By taking into account the myriad interrelationships within the individual and family system, a financial therapist can better influence behavioral and attitudinal change.

Closely related to systems theory is the concept of cybernetics. Cybernetics hypothesizes that systems, be they physical or social, work similarly to a closed loop signal system (Bateson, 1979). In practice, this means that a change in one part of the system will cause a modification in other parts of the system. Through the use of information feedback, the system constantly attempts to maintain balance or something called homeostatic maintenance. Like models described by systems theory, a cybernetic system is nonlinear. When applied to a personal finance situation, a cybernetic approach to financial therapy places the planner–counselor clearly within the system. This means that what the therapist does or does not do when helping the client has an impact on the client and the environment that the client lives and works in on a daily basis.

Financial therapy borrows an important element from cybernetics, namely, the application of negative and positive feedback as a means for creating change. Grable, Britt, and Cantrell (2007) illustrated how these concepts can be used to guide financial therapy research. Positive feedback occurs when changes within a system reinforce defects in the system (i.e., a self-fulfilling prophecy). Negative feedback works to force a system back into a state of homeostasis. Grable and his colleagues showed how household income can be used to pay family expenses; this has an effect on the financial satisfaction of a family member. If family income is insufficient and cannot meet family expenses, financial satisfaction will likely fall. They hypothesized that financial satisfaction, in this example, is a source of information that provides feedback on the distress of family members; distress about not only monetary issues but also the marital relationship. For those family members who experience negative feedback, there will be an attempt to return the family system to a normal state of homeostasis. How? Grable et al. suggested that family rules could be applied. For example, a "rule" might suggest that when faced with financial stress, a family member ought to take an additional job to increase income for the family. Without rules to bring a system back into alignment, further stress will occur. In this example, the lack of income will increase marital stress, which will have an impact on the further earning and spending of household income; the outcome will be reduced financial satisfaction. The process will continue until the system fails.

Models of Financial Therapy

When discussing financial counseling and interpersonal relationships, Williams (1991) stressed "accurate assessment of *behavior* in a specific situation is the first step to be taken in a counseling situation" (p. 32). It is likely that financial planners–counselors would interpret Williams' recommendation by focusing on quantitative monetary assessments, such as reviewing income and expenditures, assets and liabilities, legal documents, tax returns, and other financial papers. The types of documentation asked for from a client would therefore be behavioral in form. If a marriage and family therapist were asked what should be assessed first when working with a client the answer is just as likely to be nonbehavioral. Whereas financial planners–counselors often jump right to a client's financial situation by assessing past behaviors that have led to asset accumulation issues, the build-up of debt, or spending problems, therapists often start the client–therapist relationship by assessing qualitative factors underlying behaviors. While the difference is subtle, the outcomes associated with planning–counseling and therapist interventions are markedly different. Financial planners–counselors typically are trained to provide financial guidance, advice, and knowledge to clients as a way to change behavior. While there may be a few initial steps to assess qualitative personal attitudes (e.g., risk tolerance and financial satisfaction), almost all planning and counseling, as it is conducted today, is premised on the concept of assessing financial behavior and making recommendations to adjust future behavior. Therapists, on the other hand, while also working to change behavior, almost always begin the change process by joining with clients and thoroughly measuring all aspects of a client's situation that are qualitative in nature.[2]

In recent years, almost all therapy models have emphasized the importance of joining or forming a trusting therapist–client relationship. Empirical literature has shown that the client–therapist relationship is one of the most important factors in

[2] An anticipated outcome from this handbook is to provide financial planners and financial counselors with scales and other assessment measures that can be used to evaluate a client's financial attitudes, knowledge, and behaviors.

creating client behavior change (Asay & Lambert, 2003). The therapy model, in general, then emphasizes holistic assessment of the client's situation that is usually integrated into the joining process. Assessment is the process of collecting data verbally, written, or observational using nonstandardized and/or standardized methods. This assessment process begins by evaluating the attitudinal and emotional determinants of behavior, which has advantages over the traditional financial behavioral approach employed by financial planners and counselors. There is very little evidence, in fact, within the planning and counseling literature to indicate that collecting overt financial behavior assessments (e.g., identifying credit card debt, expense tracking, investment allocation) at the outset of the client–planner–counselor relationship actually results in or facilitates meaningful long-lasting positive behavioral change. The financial behavioral approach might work in practice, but there is simply limited empirically based evidence to support the assertion. There is, on the other hand, an extensive literature base indicating that the approach used by most therapists is effective, efficient, and long-lasting. Much of this literature is premised on clinical and experimental studies. Very few clinical and/or experimental studies exist in relation to financial planning and counseling methods.

The general lack of evidence to suggest that financial planning and counseling—as it is currently taught and practiced—results in behavioral change greater than what might occur without financial advice has led the financial planning and counseling professions to a major turning point. The bull market in stocks that ended in 2008, resulting in trillions of dollars in losses, shed a light on the inherent weaknesses of eschewing attitudinal and emotional assessments in favor of quantitative client evaluations. Had financial planners-–counselors known more about their clients' attitudes and expectations, better planning and counseling might have prevented client losses in real estate, stocks, and mutual funds. A better understanding of the determinants of behavior might have also mitigated the enormous negative repercussions associated with excessive debt. The emerging field of financial therapy provides an arena for practitioners, researchers, and policy makers to explore alternatives to the traditional process-based planning-–counseling approach. The use of attitudinal assessment and the application of therapeutic techniques, as described in Table 3.2, are some of the immediate ways that differentiate financial therapists in the marketplace. The scales, measures, and instruments provided in this handbook are tools that can facilitate client-centered thinking if incorporated into practice.

The Bridge to Cross

Financial therapy is truly a multidisciplinary field that is merely in the infancy stage of development. Many practitioners across the USA are attempting to blend aspects of financial planning, financial counseling, and therapy together as they see the importance of assessing and treating the whole person and its system in order to create long-lasting behavior change rather than only giving financial advice and

Table 3.2 Financial therapy models

Approach	Key Issues	Application
Solution-focused therapy	Assumption—constructivism: reality is not an objective entity but a reflection of observation and experience The past in not important Short-term therapy approach Clients are considered competent to define solutions to their problems – the best expert for a person is the person himself or herself Language important Some financial therapists use a team approach No difference between short- and long-term problems and goals	Therapy is focused on breaking repetitive nonproductive behavioral patterns by setting up situations in which individuals take a more positive view of a situation and actively participate in developing a solution Financial therapist must avoid developing behavioral hypotheses; instead, they focus on solutions Use of: Miracle question Focus on exception rules Scaling questions Compliments Clues Listening skills crucial Goal identification important Focus on resolving a concrete objective Financial therapist should pay no attention to history
Behavioral therapy	Based on work of B. F. Skinner Assumption: family rules and patterned communication processes lead to function outcomes Social exchange theory fits with this approach	Focus is on changing present behavior, not dealing with historical developments Educational approach Didactic lectures Visual aids Books Handouts Discussions Coaching Classical conditioning Communication and problem solving skills Short-term treatment Focus on improving skills
Cognitive behavioral therapy	An off-shoot of behavioral therapy Attention focuses on *what* individuals and family members are thinking, not only on how they are feeling and behaving Limited emphasis on feelings	Concentration on modifying and changing cognitions as well as interactions Utilizes learning theory Contingency contracts Reinforcement Punishment Extinction

Table 3.2 (continued)

Approach	Key Issues	Application
Strategic therapy	Brief therapy is premised on the assumption that the counselor needs to evaluate client solutions that have already been implemented or attempted. After the evaluation new and different strategies are attempted Sometimes new counseling/therapy conflicts with previous solutions Telling people what to do is not helpful Concentrates on one problem at a time	Financial therapists concentrate on: Family rules Family homeostasis Quid pro quo Redundancy principles Punctuation Symmetrical relationships Circular causality Financial therapists provides directives Financial therapist creates paradoxes Restraining Prescribing Redefining Financial therapist creates ordeals
Psychodynamic and Bowenian family therapy	Assumption: the past is active in the present Applied psychoanalysis Interlocking pathology Unconscious forces in life	Genograms Systematic therapy that looks at historical intergenerational patterns Financial therapist acts as coach, teacher, and catalyst
Experiential therapy	Assumes that clients are unaware of their emotions; if they are aware they suppress emotions Categorizes people as Blamer Placater Distracter Rational analyzer	Designed to allow clients to freely express themselves Focus on developing self-awareness Choreography Play therapy Filial therapy Props and touch Family drawings Puppet interviews
Structural therapy	Assumes that every family has a structure; the structure is invisible, and as such, the financial therapist works to discover the structure	Focus on financial therapist creating a mental map Financial Therapist acts like a theater director
Systemic therapy	Offshoot of strategic therapy	Financial therapist attempts to have client create/change rituals

Adapted from Nichols (2007)

expecting the client to follow it. Furthermore, financial planners and counselors are increasingly becoming aware of the role that gender and environment play in the development of a trusting relationship between the planner–counselor and the client. The study of financial therapy is a way to bring these factors together into theories and practice models that can be tested and applied to client situations.

Because of the lack of empirical evidence and theoretical frameworks in this area, practitioners are doing the best they can to develop methods and practices through the use of anecdotal evidence. Today, these practitioners must rely on their experiences to develop and implement plans to create financial behavior change. Unfortunately, they have very little hard evidence that their methods are actually working for their clients. Their methods may work in practice, but relying solely on experience can lead to lack of consistency and coherency in the way practitioners work with their clients.

Academic researchers and practitioners, in the fields of financial planning, financial counseling, marriage and family therapy, psychology, social work and related fields, are just now beginning to collaborate to build the bridge between financial planning–counseling and relational therapies to establish the field of financial therapy. An established field is imperative in order to build a strong reputation with potential clients to enhance trusting planner–counselor–client relationships, develop accurate assessments, and apply effective models of financial therapy. Borrowing existing working frameworks of therapy, (e.g., models described in Table 3.2) and utilizing them in the field of financial therapy are the first steps in building the field.

There are a few academic institutions that are helping to bridge the gap between planning–counseling and therapy. Two universities have taken proactive steps to address financial therapy issues from a multidisciplinary perspective. The Institute of Personal Financial Planning at Kansas State University houses the only known clinical research facility dedicated to personal financial planning and counseling and the blending with marriage and family therapy techniques in the USA. Work conducted at the Institute is unique because financial planning and counseling faculty work alongside marriage and family therapists in clinical studies. Another example is the University of Georgia where faculty members have been conducting research with graduate students in the financial planning and marriage and family therapy programs. The University of Georgia faculty pair financial planning students with a marriage and family therapy students to work with clients who present with financial issues.

In the private sector, Klontz Consulting has teamed up with a financial planner, Rick Kahler from Kahler Financial Group, to provide group therapy and financial planning to individuals with financial addiction issues. They are presently conducting outcome research on the effectiveness of their work. In addition, Brad Klontz, Ted Klontz, and Rick Kahler continue to develop clinical assessments that are being tested for reliability, validity, and usefulness, in addition to authoring the primary texts in the field.

These institutions and individuals represent a sampling of the work of individuals who are actively striving to develop the financial therapy field. Those who are dedicated to building a bridge where financial planners–counselors and mental health/relational therapist can meet to provide evidence-based practices for working with clients in a holistic way by addressing both financial issues and emotional, relational, and behavioral issues that compound the problem have an opportunity to change the financial planning and counseling professions. Such a bridge will allow professionals to help clients, like the widower and the conflictual couple in the scenarios at the outset of the chapter, find as well as utilize the skills needed to bring about long-lasting behavioral change to increase emotional, relational, and financial well-being.

Assessment in Financial Therapy

Assessment tools and techniques provide a beginning point for both financial planners–counselors and therapists to construct a conceptual bridge linking planning–counseling with therapy. Scales, measures, and instruments allow practitioners to evaluate a situation and identify issues to address, develop a plan of action, select appropriate strategies to employ, and evaluate client progress. Corcoran and Fischer (2000) stated, "It is measurement of the client's problems that allows feedback on the success or failure of treatment efforts, indicating when changes in the intervention program are necessary. Measurement procedures help standardize and objectify both research practice" (p. 8). The development and use of valid and reliable assessment tools and techniques help practitioners and researchers communicate more effectively, allowing them to compare different methods of interventions.

According to L'Abate and Bagarozzi (1993), "assessment instruments used for diagnosis and outcome evaluation should be rooted in theory..." (p. 250). Theoretically based diagnostic and assessment strategies and procedures should specifically target those individual and household structures and processes that are central to the work conducted by financial therapists, financial planners, and financial counselors. In other words, theory and assessment should be closely linked and multidimensional. Not all methods or treatments may be appropriate for specific issues. A one size fits all approach may not be recommended for every client. Consider the example of the widower and conflictual couple given at the beginning of the chapter. Would it be appropriate to approach each client in the exact same way? Or, would different assessment methods, theoretical orientations, or approaches to client dynamics be pertinent and prudent? Utilizing a different approach to meet the unique needs of clients is likely to generate better outcomes. It might be possible, for example, to utilize the *Shared Goals and Values Scale* that can be found in this handbook as an assessment tool to gain insights into couple interactions that might influence financial decision making. Distinguishing between problems would be a beneficial starting point for mapping a plan for progress (i.e., treatment plan). In regard to the widower, it may be important to assess for depression, grief, and risk tolerance. These assessments may help the client determine if his or her risk tolerance is high enough to have sole ownership of a business. Risk-tolerance scales are available in this handbook. Depression and grief assessments may help determine if the widower is so overwhelmed by his wife's loss that he may need to seek specific treatment from a grief counselor before making financial decisions about the business.

Other reasons that L'Abate and Bagarozzi (1993) stated as important for MFTs, and by extension, financial therapists, to engage in empirically based evaluation that can be related to financial planning and counseling and more specifically associated to financial therapy include

(1) to create a baseline from which to assess progress or the lack thereof, (2) to identify interaction patterns not otherwise available or visible to the therapist, (3) to account in part for outcome effectiveness or deterioration, (4) to assign couples and families to appropriate treatments, (5) to serve as corrective feedback to therapists, and (6) to help locate client families on a function–dysfunctional continuum (p. 251).

Incorporating the practice of assessment into training curriculum is imperative to the establishment and development of financial therapy as a professional field of study and practice, as well as to the growth of financial planning and counseling. Academic programs ought to be encouraged to teach students how to effectively use assessment instruments as they are linked to theory. When students enter the workforce they will be equipped with the necessary skills to implement assessment and theory into their practice in order to provide better services, produce long-lasting change, and evaluate their methods of working with clients.

Conclusion

If you have browsed through this handbook, you have probably noticed a plethora of measurement scales, items, instruments, and questions from diverse studies. The choice and selection of these instruments was not a by-chance occurrence. The primary journals in the fields of financial planning and counseling, as well as other disciplines, such as family studies and marriage and family therapy, were reviewed to identify measurements and scales that may be of relevance to financial therapists, financial planners, financial counselors, and therapists working with clients experiencing financial issues. Although it was impossible to include all scales and measurements, this handbook provides the first outlet for researchers and practitioners to access financially related assessment instruments or research questions in one place so that they can be utilized in a way to further promote not only the fields of financial counseling and planning but also the field of financial therapy. In the financial planning and counseling domains, as well as the financial therapy field, practitioners, researchers, and clinicians must pose the same questions that L'Abate and Bagarozzi asked in 1993 about marriage and family therapy, "How can therapeutic practices improve if we do not validate their effectiveness with valid and reliable measures? Why should our consumers believe us if we don't produce data that justify and support our practice" (p. 251). Answering these questions will lead to domain-specific theories, practical client-centered treatment techniques, and an overall advancement of the financial planning and counseling and financial therapy professions.

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Chapter 4
Measures of Financially Related Attitudes and Behaviors

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Title

Financial Behavior Change Scale

Key Words

Financial Behavior, Behavioral Change

Author(s)

Sharon M. Danes, Catherine Huddleston-Casas, and Laurie Boyce

Source

Danes, S. M., Huddleston-Casas, C., & Boyce, L. (1999). Financial planning curriculum for teens: Impact evaluation. *Financial Counseling and Planning, 10*(1), 25–38.

Description

This scale was designed to assess post-financial education outcomes. Scale questions were asked 3 months after the students had received education.

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J.E. Grable et al. (eds.), *Financial Planning and Counseling Scales*,
DOI 10.1007/978-1-4419-6908-8_4,

Test Sample

The scale was tested with a sample of 4,107 teenager students living in the upper-Midwestern United States.

Scoring

A five-point Likert-type scale was used as follows: 1 = Almost Never; 2 = Seldom; 3 = About Half the Time; 4 = Often; and 5 = Almost Always. Higher scores suggest larger behavioral changes resulting from education.

Reliability

Not reported

Validity

According to the authors, this self-reported scale removes response-shift bias and increases validity.

Source Reference(s)

None

Note(s)

None

Item(s)

Financial behavioral change scale

Items	Scoring
I tracked some or all of my expenses	1 = Almost never 2 = Seldom 3 = About half the time 4 = Often 5 = Almost always

Financial behavioral change scale (continued)

Items	Scoring
I compared prices when I shopped	1 = Almost never 2 = Seldom 3 = About half the time 4 = Often 5 = Almost always
I set aside money for future needs/wants	1 = Almost never 2 = Seldom 3 = About half the time 4 = Often 5 = Almost always
I used a spending plan/budget	1 = Almost never 2 = Seldom 3 = About half the time 4 = Often 5 = Almost always
I repaid the money I owed on time	1 = Almost never 2 = Seldom 3 = About half the time 4 = Often 5 = Almost always
I wrote goals for managing my money	1 = Almost never 2 = Seldom 3 = About half the time 4 = Often 5 = Almost always
I generally achieved my money management goals	1 = Almost never 2 = Seldom 3 = About half the time 4 = Often 5 = Almost always
I discussed money management with my parents	1 = Almost never 2 = Seldom 3 = About half the time 4 = Often 5 = Almost always

Title

Financial Behavior Change Index

Key Words

Behavior Change, Financial Behavior, Financial Satisfaction

Author(s)

E. Thomas Garman, Jinhee Kim, Constance Y. Kratzer, Bruce Brunson, and So-hyun Joo

Source

Garman, E. T., Kim, J., Kratzer, C. Y., Brunson, B. H., & Joo, S. (1999). Workplace financial education improves personal financial wellness. *Financial Counseling and Planning, 10*(1), 79–88.

Description

This brief scale was designed to assess post-financial education outcomes. The scale was used to compare individuals who had received financial education against those who had not.

Test Sample

The scale was tested with a sample of 181 workers who had participated in four different types of personal financial planning educational workshops. Workers who received financial education reported more agreement with scale questions.

Scoring

A dichotomous 1 = Agree and 0 = Disagree scoring system is used with this index.

Reliability

Not reported

Validity

Not reported

Source Reference(s)

None

Note(s)

None

Item(s)

Financial behavior change index

Item	Scoring
Since the financial education, I have made better financial decisions	1 = Agree 0 = Disagree
Because of the financial education, I am more confident when making investment decisions	1 = Agree 0 = Disagree
I changed my investment strategy by diversifying or being more aggressive in my choices	1 = Agree 0 = Disagree
Due to the financial education, I increased the amount of my retirement contribution	1 = Agree 0 = Disagree
Due to the financial education, I started contributing to the 401I(k) retirement plan	1 = Agree 0 = Disagree

Title

Budgeting Behavior Scale

Key Words

Budgeting Behavior, Income, Expenditures

Author(s)

Gladys G. Shelton and Octavia L. Hill

Source

Shelton, G. G., & Hill, O. L. (1995). First-time homebuyers programs as an impetus to change in budget behavior. *Financial Counseling and Planning, 6*(1), 83–92.

Description

This scale is intended for use in assessing a person's financial behavior related to budgeting household income.

Test Sample

The scale was developed and tested using a sample of 35 first-time homebuyers living in Macon and Athens, Georgia in the early 1990s.

Scoring

A four-point Likert-type scale is used for scoring, where 1 = never, 2 = rarely, 3 = some of the time, and 4 = all of the time. Higher summed scores indicate better budgeting behavior.

Reliability

The Cronbach's alpha for the scale ranges from 0.84 to 0.96.

Validity

Scale scores were associated with increased knowledge, obtained through home buying workshops. Those with increased knowledge exhibited better budgeting behavior.

Source Reference(s)

None

Note(s)

None

Item(s)

Budgeting behavior scale

Items	Scoring
1. Do you have some kind of written spending plan to pay basic expenses?	1 = Never 2 = Rarely 3 = Some of the time 4 = All of the time
2. Do you keep written records of what you spend?	1 = Never 2 = Rarely 3 = Some of the time 4 = All of the time
3. Do you compare what you plan to spend to what you actually spend?	1 = Never 2 = Rarely 3 = Some of the time 4 = All of the time
4. Do you add up the value of the things you own?	1 = Never 2 = Rarely 3 = Some of the time 4 = All of the time
5. Do you add up the amount of all your bills?	1 = Never 2 = Rarely 3 = Some of the time 4 = All of the time
6. Do you have a place to keep financial records?	1 = Never 2 = Rarely 3 = Some of the time 4 = All of the time
7. Do you have written spending goals for this year?	1 = Never 2 = Rarely 3 = Some of the time 4 = All of the time
8. Do you have written spending goals for the next couple of years?	1 = Never 2 = Rarely 3 = Some of the time 4 = All of the time
9. Do you save money for emergency expenses?	1 = Never 2 = Rarely 3 = Some of the time 4 = All of the time
10. Do you save money for things you would like to do in the future?	1 = Never 2 = Rarely 3 = Some of the time 4 = All of the time

Budgeting behavior scale (continued)

Items	Scoring
11. Do you write down income and expenses to see if your expenses are less than or equal to your income?	1 = Never 2 = Rarely 3 = Some of the time 4 = All of the time
12. If your expenses are more than your income, do you try to out something?	1 = Never 2 = Rarely 3 = Some of the time 4 = All of the time
13. Do you pay your bills on time?	1 = Never 2 = Rarely 3 = Some of the time 4 = All of the time
14. Have you tried to think of ways to increase your income?	1 = Never 2 = Rarely 3 = Some of the time 4 = All of the time
15. Have you tried to think of ways to decrease your expenses?	1 = Never 2 = Rarely 3 = Some of the time 4 = All of the Time

Title

Budgeting Practices Measures

Key Words

Budgeting, Financial Behavior

Author(s)

Elizabeth P. Davis and Ruth Ann Carr

Source

Davis, E. P., & Carr, R. A. (1992). Budgeting practices over the life cycle. *Financial Counseling and Planning, 3*(1), 3–16.

Description

The questions were developed to assess a person's method for budgeting and the formality of the budgeting process. The authors noted that younger individuals are more likely to have a formal written budget.

Test Sample

These questions were used with a sample of 672 rural residents living in Kansas in 1984.

Scoring

See Table

Reliability

Not reported

Validity

Not reported

Source Reference(s)

None

Note(s)

None

Item(s)

Budgeting practices measures

Items	Scoring
1. Do you generally make some kind of plan before spending your money?	1 = Yes 0 = No
2. Is the spending plan mental or written, or both?	1 = No plan 2 = Completely mental 3 = Mainly mental 4 = Mental and written 5 = Mainly written 6 = Completely written
3. How long a time period does this plan cover?	1= No plan 2 = A week 3 = 2 weeks 4 = A month 5 = Several months 6 = A year

Title

Cash Flow Management Behavior Scale

Key Words

Cash Flow, Financial Management Behavior, Financial Behavior

Author(s)

Deborah D. Godwin and Joan C. Koonce

Source

Godwin, D. D., & Koonce, J. C. (1992). Cash flow management of low-income newlyweds. *Financial Counseling and Planning, 3*(1), 17–42.

Description

According to the authors, "The most fundamental aspect of family financial management is family cash flow management, defined here as the planning, implementing and evaluating of families involved in allocating the family's flow of income toward meeting their tacit or explicit financial goals over the short term" (p. 19).

Test Sample

The scale was developed using factor analysis techniques with 106 newlywed couples living in Georgia in 1990. The sample was representative of a wide range of family incomes (i.e., high, moderate, and low). The scale was pretested with 10 newlywed couples. The published scale consists of five factors: (a) keeping records, (b) monitoring and income spending, (c) projecting budget, (d) assessing balance sheet status, and (e) balancing budget.

Scoring

A five-point Likert-type scale ranging from 1 = Never and 5 = All the Time is used when scoring the scale.

Reliability

Not reported

Validity

Scale scores were shown to be associated with differences in newlywed incomes.

Source Reference(s)

None

Note(s)

None

Item(s)

Cash flow management behavior scale

Items	Scoring
Keeping records subscale	1 = Never
How frequently have you . . .	5 = All the time
1. Recorded in writing most spending	
2. Recorded in writing your actual income	
3. Assessed the amount of money you spent of fixed expenses	
4. Recorded every dollar of spending	
5. Assessed your total amount of debt	
6. Assessed the amount of money you spent on flexible expenses	
Monitoring income and spending subscale	1 = Never
7. Monitored you spending to see if it is within your income	5 = All the time
8. Monitored your spending to see if it is going for the things you wanted	
9. Monitored your income to see if it is in line with what you expected	
10. Thought of ways to increase your future income to match your needs or wants	
11. Tried to think of ways to decrease your expenses to match your income	
Projecting budget subscale	1 = Never
12. Estimated your fixed expenses (like rent, car, payments, etc.) during some future period	5 = All the Time
13. Estimated your income expected during some future period	
14. Estimated your flexible expenditures (like food, clothing, recreation, etc.)	
15. Set a financial goal that you hoped to reach within 5 or 10 years	

Cash flow management behavior scale (continued)

Items	Scoring
Assessing balance sheet status subscale	
16. Assessed the value of things you own	1 = Never
17. Set a financial goal that you hoped to reach within a year	5 = All the time
18. Assessed the amount of money you can use during an emergency	
Balancing budget subscale	1 = Never
19. Re-estimated your future expenditures after finding that they will exceed your estimated income	5 = All the time
20. Assessed whether the expenditures you'll need to make are less than or equal to your income	

Title

Compulsive Buying Behavior Scale

Key Words

Buying Behavior, Compulsive Buying

Author(s)

Elizabeth A. Edwards

Source

Edwards, E. A. (1993). Development of a new scale for measuring compulsive buying behavior. *Financial Counseling and Planning, 4*(1), 67–84.

Description

This scale can be used to determine whether a person is a compulsive buyer and how compulsive or addictive the person is in practice.

Test Sample

The 13-item scale was developed by surveying 104 self-identified compulsive buyers and 101 general population control group respondents. The majority of compulsive buying respondents (82%) were women. The scale was developed using confirmatory factor analysis techniques.

Scoring

A five-point Likert-type agreement scale can be used with this scale. High average scores represent a high level of the compulsive buying tendency.

Reliability

The 13-item scale is comprised of five sub-factors:

1. Tendency to Spend (Items 4, 5, 6, 7, and 12): Cronbach's alpha 0.76
2. Compulsion/Drive to Spend (Items 1 and 13): Cronbach's alpha 0.90
3. Feelings about Shopping and Spending (Items 2 and 3): Cronbach's alpha 0.86
4. Dysfunctional Spending (Items 8 and 10): Cronbach's alpha 0.78
5. Post-Purchase Guilt (Items 9 and 11): Cronbach's alpha 0.79

Total Scale Cronbach's alpha: 0.91

Validity

Construct validity was assessed by comparing scores on the full- and five sub-scales across the compulsive buying respondents and the control group. Those in the general population scored lower on the scales.

Source Reference(s)

Edwards, E. A. (1992). *The measurement and modeling of compulsive consumer buying behavior.* Published Dissertation. The University of Michigan: University Microfilms.

Note(s)

The scale was based on work conducted by Edwards (1992) who classified consumers according to their level of compulsiveness in buying: (a) normal/noncompulsive, (b) recreational, (c) borderline, (d) compulsive, and (e) addicted.

Important Note: the author has requested that she be contacted prior to using the scale.

Item(s)

Compulsive buying behavior scale

Item	Scale
1. I feel driven to shop and spend, even when I don't have the time or money	1 = Strongly disagree 5= Strongly agree
2. I get little or no pleasure from shopping[a]	1 = Strongly disagree 5= Strongly agree
3. I hate to go shopping[a]	1 = Strongly disagree 5= Strongly agree
4. I go on buying binges	1 = Strongly disagree 5= Strongly Agree
5. I feel "high" when I go on a buying spree	1 = Strongly disagree 5= Strongly agree
6. I buy things even when I don't need anything	1 = Strongly disagree 5= Strongly agree
7. I go on a buying binge when I'm upset, disappointed, depressed, or angry	1 = Strongly disagree 5= Strongly agree
8. I worry about my spending habits but still go out and shop and spend money	1 = Strongly disagree 5= Strongly agree
9. I feel anxious after I go on a buying binge	1 = Strongly disagree 5= Strongly agree
10. I buy things even though I cannot afford them	1 = Strongly disagree 5= Strongly agree
11. I feel guilty or ashamed after I go on a buying binge	1 = Strongly disagree 5= Strongly agree
12. I buy things I don't need or won't use	1 = Strongly disagree 5= Strongly agree
13. I sometimes feel compelled to go shopping	1 = Strongly disagree 5= Strongly agree

[a]Reverse coded items

Title

Credit Card Misuse Scale

Key Words

Credit, Credit Cards, Financial Behavior

Author(s)

Jeffery R. Hibbert, Ivan F. Beutler, and Todd M. Martin

Source

Hibbert, J. R., Beutler, I. F., & Martin, T. M. (2004). Financial prudence and next generation financial strain. *Financial Counseling and Planning, 15*(2), 51–60.

Description

This scale was developed to assess the credit card management behavior of college students.

Test Sample

The scale was tested with a sample of 537 graduate and undergraduate students at two universities in the western and southeastern United States. The sample was representative of higher education populations (e.g., 54% female, 90% non-Hispanic white, 79% credit card holders, etc.).

Scoring

A five-item Likert-type scoring scale is used with the measure, with 1 = Never, 2 = Seldom, 3 = Sometimes, 4 = Usually, and 5 = Always. Scores are summed. Higher scores indicate a greater tendency to exhibit credit card misuse behavior.

Reliability

Cronbach's alpha = 0.66.

Validity

Scores on the scale were found to be positively associated with financial strain.

Source Reference(s)

None

Note(s)

None

Item(s)

Credit card misuse scale

Items	Scoring
I use my credit card as a convenient way to get a loan	1 = Never 2 = Seldom 3 = Sometimes 4 = Usually 5 = Always
I carry a balance on my credit card	1 = Never 2 = Seldom 3 = Sometimes 4 = Usually 5 = Always
I have used student loans to pay credit card bills	1 = Never 2 = Seldom 3 = Sometimes 4 = Usually 5 = Always

Title

Debt Avoidance Behavior Scale

Key Words

Debt, Financial Behavior

Author(s)

Jeffery R. Hibbert, Ivan F. Beutler, and Todd M. Martin

Source

Hibbert, J. R., Beutler, I. F., & Martin, T. M. (2004). Financial prudence and next generation financial strain. *Financial Counseling and Planning, 15*(2), 51–60.

Description

This scale was developed to assess the debt and buying behavior of college students.

Test Sample

The scale was tested with a sample of 537 graduate and undergraduate students at two universities in the western and southeastern United States. The sample was representative of higher education populations (e.g., 54% female, 90% non-Hispanic white, 79% credit card holders, etc.).

Scoring

A five-item Likert-type scoring scale is used with the measure, with 1 = Never, 2 = Seldom, 3 = Sometimes, 4 = Usually, and 5 = Always. Scores are summed. Higher scores are indicative of better borrowing behavior.

Reliability

Cronbach's alpha = 0.65.

Validity

Not reported

Source Reference(s)

None

Note(s)

None

Item(s)

Debt avoidance behavior scale

Items	Scoring
I buy what I want without considering my budget[a]	1 = Never 2 = Seldom 3 = Sometimes 4 = Usually 5 = Always
Before borrowing money, I take extra time to think about it	1 = Never 2 = Seldom 3 = Sometimes 4 = Usually 5 = Always
I have tried to minimize my expense to reduce my need for student loans	1 = Never 2 = Seldom 3 = Sometimes 4 = Usually 5 = Always

[a]Item reverse coded

Title

Financial Attitude and Behavior Scale

Key Words

Financial Behavior, Financial Attitudes, Financial Management Behavior

Author(s)

So-Hyun Joo and Vanda W. Pauwels

Source

Joo, S.-H., & Pauwels, V. W. (2002). Factors affecting workers' retirement confidence: A gender perspective. *Financial Counseling and Planning, 13*(1), 1–10.

Description

The authors use the 1999 Retirement Confidence Survey (RCS) to construct this scale. The items were part of the original RCS and were combined using a factor analysis technique to create this scale.

Test Sample

The scale was created and tested using data from the RCS. The sample was delimited to include only respondents who were employed either full- or part-time.

Scoring

A four-point Likert-type scale, with 1 = Strongly Disagree and 4 = Strongly Agree is used with this scale. Higher scores indicate a positive financial attitude and behavior profile

Reliability

Not reported

Validity

Not reported

Source Reference(s)

Employee Benefit Research Institute. (n.d./2001). The 1999 retirement confidence survey summary of findings. Download available at: http://www.ebri.org/pdf/surveys/rcs/1999/rcssummary.pdf

Note(s)

None

Item(s)

Financial attitude and behavior scale

Items	Scoring
I am disciplined at saving	1 = Strongly disagree 4 = Strongly agree
Just when I think I have a handle on my finances, something always happens that sets me back from my financial goals[a]	1 = Strongly disagree 4 = Strongly agree
I pay off my credit cards at the end of every month	1 = Strongly disagree 4 = Strongly agree
I enjoy financial planning	1 = Strongly disagree 4 = Strongly agree
I always research and plan for a big purchase	1 = Strongly disagree 4 = Strongly agree
I frequently spend money when I do not plan to buy anything[a]	1 = Strongly disagree 4 = Strongly agree

[a] Item reverse coded

Title

Financial Behavior Index

Key Words

Financial Behavior, Debt

Author(s)

Masud Jariah, A. R. Husniyah, P. Laily, and Sonya Britt

Source

Jariah, M., Husniyah, A. R., Laily, P., & Britt, S. (2004). Financial behavior and problems among university students: Need for financial education. *Journal of Personal Finance, 3*(1), 82–96.

Description

This 13-item index was developed to assess a respondent's agreement/disagreement with financial behavior statements.

Test Sample

According to the authors, "A self-administered questionnaire was used to collect the data in this study. Ten percent of all students receiving student loans from one public university participated in this study. The data was collected during three days the students were receiving their loan warrants in December for the 2002 semester . . . One out of every tenth student was given the questionnaire to be completed while they were waiting for their loan voucher. Students were asked to complete the questionnaire and return it on their way out of the hall. Eighteen hundred questionnaires were distributed and fifteen hundred were returned and usable" (p. 86).

Scoring

An agree/disagree scoring system is used with this index. Agreements are coded 1, otherwise 0. Scores are summed. Higher scores indicate weaker (negative) financial behavior.

Reliability

Not reported

Validity

Not reported

Source Reference(s)

None

Note(s)

None

Item(s)

Financial behavior index

Items	Scoring
Please indicate if you agree or disagree with the following statements: 1. Hide spending habits from family 2. Debt creates problems 3. Buy things cannot afford 4. Spending habits create problems 5. Buy things not planned 6. I enjoy shopping 7. Main hobby is shopping 8. Buy as often as I can 9. Attracted to buy things on sale 10. Tempted to buy even lack of time 11. Spend and buy to celebrate 12. Buy things never used 13. Buy things not needed	Agree = 1 Disagree = 0

Title

Financial Behavior Scale

Key Words

Financial behavior, Financial Management

Author(s)

John E. Grable and So-hyun Joo

Source

Grable, J. E., & Joo, S. (2001). A further examination of financial help-seeking behavior. *Financial Counseling and Planning, 12*(1), 55–66.

Description

This eight-item scale was designed to assess the extent to which a person engages in positive daily financial behavior.

Test Sample

The authors adapted this scale from (Rosenberg, 1965) and tested it with a sample of 406 employees of a university.

Scoring

A four-point Likert-type scale is used with this measure, with 1 = Never, 2 = Sometimes, 3 = Usually, and 4 = Always. Scores are summed. Higher scores indicate that the person engages in positive financial behavior activities. Scores can range from 8 to 32. The average response was 24.2 (*SD* = 4.6).

Reliability

Cronbach's alpha = 0.74.

Validity

Those with higher scores on this measure were more likely to seek help for a financial problem from a professional financial advisor.

Source Reference(s)

None

Note(s)

None

Item(s)

Financial behavior scale

Items	Scoring
I set aside money for savings	1 = Never 2 = Sometimes 3 = Usually 4 = Always
I set money aside for retirement	1 = Never 2 = Sometimes 3 = Usually 4 = Always
I had a plan to reach my financial goals	1 = Never 2 = Sometimes 3 = Usually 4 = Always
I had a weekly or monthly budget that I followed	1 = Never 2 = Sometimes 3 = Usually 4 = Always
I paid credit card bills in full and avoided finance charges	1 = Never 2 = Sometimes 3 = Usually 4 = Always
I reached the maximum limit on a credit card[a]	1 = Never 2 = Sometimes 3 = Usually 4 = Always
I spent more money than I earned[a]	1 = Never 2 = Sometimes 3 = Usually 4 = Always
I used a credit card to get a cash advance[a]	1 = Never 2 = Sometimes 3 = Usually 4 = Always
Interest paid on credit cards is tax-deductible	1 = Never 2 = Sometimes 3 = Usually 4 = Always

[a]Reverse coded

Title

Financial Behavior Scale

Key Words

Financial Behavior, Financial Satisfaction

Author(s)

E. Thomas Garman, Jinhee Kim, Constance Y. Kratzer, Bruce Brunson, and So-hyun Joo

Source

Garman, E. T., Kim, J., Kratzer, C. Y., Brunson, B. H., & Joo, S. (1999). Workplace financial education improves personal financial wellness. *Financial Counseling and Planning, 10*(1), 79–88.

Description

This brief scale was designed to assess a person's current financial behavior. The scale was used to compare individuals who had received financial education against those who had not.

Test Sample

The scale was tested with a sample of 181 workers who had participated in four different types of personal financial planning educational workshops. Workers who scored lower on this scale tended to exhibit daily money problems.

Scoring

A four-point Likert-type scaling system is used with the scale: 1 = Never; 2 = Sometimes; 3 = Usually; and 4 = Always. A high scale score indicates better financial behaviors.

Reliability

Not reported

Validity

Not reported

Source Reference(s)

None

Note(s)

None

Item(s)

Financial behavior scale

Item	Scoring
I set money aside for savings	1 = Never 2 = Sometimes 3 = Usually 4 = Always
I set money aside for retirement	1 = Never 2 = Sometimes 3 = Usually 4 = Always
I had a plan to reach my financial goals	1 = Never 2 = Sometimes 3 = Usually 4 = Always
I had a weekly or monthly budget that I followed	1 = Never 2 = Sometimes 3 = Usually 4 = Always
I kept spending records to check	1 = Never 2 = Sometimes 3 = Usually 4 = Always
I paid credit card bills in full and avoided financial charges	1 = Never 2 = Sometimes 3 = Usually 4 = Always
I reached the maximum limit on a credit card[a]	1 = Never 2 = Sometimes 3 = Usually 4 = Always
I had to cut living expenses[a]	1 = Never 2 = Sometimes 3 = Usually 4 = Always
I had to use a credit card because I did not have money in the bank or cash available[a]	1 = Never 2 = Sometimes 3 = Usually 4 = Always

[a]Items are reverse coded

Title

Financial Behavior Scale

Key Words

Financial Behavior, Financial Knowledge

Author(s)

Sharon M. Danes and Heather R. Haberman

Source

Danes, S. M., & Haberman, H. R. (2007). Teen financial knowledge, self-efficacy, and behavior: A gendered view. *Financial Counseling and Planning, 18*(2), 48–60.

Description

This eight-item scale was designed to evaluate the types of financial behavior exhibited by a young person.

Test Sample

This scale was tested with data from 5,329 "high school students who studied one [financial education] curriculum available to teach personal finance" (p. 51). A Delphi methodology was used to evaluate the items in the scale.

Scoring

The scale is scored with a five-point Likert-type system, with 1 = Almost Never and 5 = Almost Always. Scores are summed. Higher scores are indicative of better financial behavior.

Reliability

Not reported

Validity

Differences between male and female teens were noted, as hypothesized in the literature.

Source Reference(s)

None

Note(s)

None

Item(s)

Financial behavior scale

Items	Scoring
I track my expenses	1 = Almost never 5 = Almost always
I compare prices when I shop	1 = Almost never 5 = Almost always
I set aside money for future needs/wants	1 = Almost never 5 = Almost always
I use a budget	1 = Almost never 5 = Almost always
I repay the money I owe on time	1 = Almost never 5 = Almost always
I make goals for managing my money	1 = Almost never 5 = Almost always
I achieve my money management goals	1 = Almost never 5 = Almost always
I discuss money management with my family	1 = Almost never 5 = Almost always

Title

Financial Behavior Index

Key Words

Financial Behavior, Financial Goal, Spending Plan

Author(s)

Joan C. Koonce, Yoko Mimura, Teresa A. Mauldin, A. Michael Rupured, and Jenny Jordan

Source

Koonce, J. C., Mimura, Y., Mauldin, T. A., Rupured, A. M., & Jordan, J. (2008). Financial information: Is it related to savings and investing knowledge and financial behavior of teenagers? *Journal of Financial Counseling and Planning, 19*(2), 19–28.

Description

This brief index was designed to assess the financial behavior of teenagers. The focus of the instrument is on gauging spending plans and actions.

Test Sample

This scaled was tested using a sample of 253 teenagers aged 14–19 who participated in a Georgia 4-H event in 2006.

Scoring

Items in the index are scored dichotomously, with 1 = yes and 0 = no. Scores are summed. Higher scores are indicative of better financial behavior.

Reliability

Not reported

Validity

Not reported

Source Reference(s)

None

Note(s)

None

Item(s)

Financial behavior index

Items	Scoring
Do you have a spending plan?	1 = Yes 0 = No
Do you keep up with you spend your money?	1 = Yes 0 = No
Do you usually set financial goals?	1 = Yes 0 = No
Do you save any or all of you earnings?	1 = Yes 0 = No
Do you save any or all of your allowance?	1 = Yes 0 = No

Title

Financial Behavior Index

Key Words

Financial Behavior, Financial Attitudes

Author(s)

Lewis Mandell and Linda S. Klein

Source

Mandell, L., & Klein, L. S. (2009). The impact of financial literacy education on subsequent financial behavior. *Journal of Financial Counseling and Planning, 20*(1), 15–24.

Description

This index was designed to assess a person's level of financial behavior subsequent to taking a course in personal financial management. This index can be used as both a pre- and post-test item.

Test Sample

The index was tested using a sample of 39 high school student graduates between 2001 and 2004 who had taken a course in personal financial management while in high school and 40 who had not. The purpose of the survey was to determine if high school personal finance education ultimately changed financial behavior. The index was included in JumpStart surveys of high school students.

Scoring

The index is scored using a dichotomous scale, with 1 = Yes and 0 = No. Although the item was designed to provide a descriptive measure of a person's financial behavior, the items can be summed into a financial behavior index. Higher scores indicate better financial behavior. In this study, the mean score of the seven items was 3.62.

Reliability

Not reported

Validity

Not reported

Source Reference(s)

Mandell, L. (2006). *Financial literacy: Improving education results of the 2006 national Jump$tart survey*. Washington, DC: Jumpstart Coalition.

Note(s)

None

Item(s)

Financial behavior index

Items	Scoring
Always pay credit card in full	1 = Yes 0 = No
Never make late credit card payment	1 = Yes 0 = No
Never bounce a check	1 = Yes 0 = No
Balance checkbook at least weekly	1 = Yes 0 = No
Do own income tax	1 = Yes 0 = No
Have savings and investment adequate for needs	1 = Yes 0 = No
Never worry about debt	1 = Yes 0 = No

Title

Financial Behaviors and Attitudes Scale

Key Words

Financial Behavior, Financial Attitudes

Author(s)

So-hyun Joo and John E. Grable

Source

Joo, S., & Grable, J. E. (2005). Employee education and the likelihood of having a retirement savings program. *Financial Counseling and Planning, 16*(1), 37–50.

Description

This scale can be used to assess a person's savings discipline, general financial behavior, and attitudes towards financial activities.

Test Sample

The authors used questions from the ninth annual Retirement Confidence Survey (RCS) in a factor analysis with varimax rotation to develop this scale. The ninth annual RCS included 751 workers and 251 retirees surveyed between January and February 1999. The sample was deemed to be nationally representative. The authors delimited the sample to include only employed workers.

Scoring

Each question is measured with a four-point Likert-type scale, with 1 = not at all, 2 = not too well, 3 = well, and 4 = very well. Possible scores range from 6 to 24. The mean score for the sample was 16.85. Higher scores suggest better financial behaviors and strong financial attitudes.

Reliability

Not reported

Validity

Scale scores were found to be positively associated with having a retirement savings program.

Source Reference(s)

None

Note(s)

The Retirement Confidence Survey, co-sponsored by the Employee Benefit Research Institute, the American Savings Education Council, and Matthew Greenwald and Associates should be referenced whenever this scale is reproduced.

Item(s)

Financial behaviors and attitudes scale

Items	Scoring
I am disciplined at saving	1 = Not at all 2 = Not too well 3 = Well 4 = Very well
I pay off my credit cards at the end of every month	1 = Not at all 2 = Not too well 3 = Well 4 = Very well
Just when I think I have a handle on my finances, something always happens that sets me back from my financial goal[a]	1 = Not at all 2 = Not too well 3 = Well 4 = Very well
I always research and plan for a big purchase	1 = Not at all 2 = Not too well 3 = Well 4 = Very well
I enjoy financial planning	1 = Not at all 2 = Not too well 3 = Well 4 = Very well
I frequently spend money when I do not plan to buy anything[a]	1 = Not at all 2 = Not too well 3 = Well 4 = Very well

[a]Item is reversed coded

Title

Financial Management Behavior

Key Words

Financial Behavior, Financial Goals, Financial Statements, Financial Management Behavior

Author(s)

Frances C. Lawrence, Renee H. Thomasson, Patricia J. Wozniak, and Aimee D. Prawitz

Source

Lawrence, F. C., Thomasson, R. H., Wazniak, P. J., & Prawitz, A. D. (1993). Factors relating to spousal financial arguments. *Financial Counseling and Planning, 4*(1), 85–93.

Description

Test Sample

The scale was first used with a sample of 133 married respondents randomly selected from a Louisiana Department of Motor Vehicles list of residents from seven Louisiana cities.

Scoring

The scale uses the following four-point Likert-type scoring system: 1 = Never; 2 = Seldom; 3 = Sometimes; 4 = usually. Higher scores represent better financial behaviors.

Reliability

The scale consists of the following eight factors:

1. Goals and Savings: Cronbach's alpha 0.85
2. Record Keeping: Cronbach's alpha 0.74
3. Delaying Tactics: Cronbach's alpha 0.68
4. Apparel Cost-Cutting Strategies: Cronbach's alpha 0.86
5. Controlling Expenditures: Cronbach's alpha 0.76
6. Financial Statements: Cronbach's alpha 0.61
7. Do-it-yourself Techniques: Cronbach's alpha 0.60
8. Cost-cutting Techniques: Cronbach's alpha 0.50

Validity

The scale was validated by comparing scores to the level of argument reported by married respondents. The scale was also correlated with demographic factors, such as age. According to the authors, "Particularly, educators and financial advisors might strongly emphasize in their educational programs the importance of setting goals, accumulating savings, and keeping records" (p. 92).

Source Reference(s)

Mitchell, G. H., & Zalenski, P. (1985, August). *Inflation, recession, and economic change: How some Virginia households adjusted*. (Publication No. 354–180). Virginia Cooperative Extension Service.

Note(s)

Items in the scale were based on "Financial Planning and Management (Home) Adult Questionnaire Impact Study Project of Virginia Citizens about Their Changes and Attitudes" developed by Mitchell and Zalenski (1985).

Item(s)

Financial management behavior

Categories and items	Scoring
1. Goals and savings	
Save money for long term goals (1 year or more)	1 = Never; 2 = Seldom; 3 = Sometimes; 4 = Usually
Save money for short term goals (less than 1 year)	1 = Never; 2 = Seldom; 3 = Sometimes; 4 = Usually
Plan ahead for large purchases	1 = Never; 2 = Seldom; 3 = Sometimes; 4 = Usually
Save a set amount of income per month	1 = Never; 2 = Seldom; 3 = Sometimes; 4 = Usually
Have an adequate emergency fund	1 = Never; 2 = Seldom; 3 = Sometimes; 4 = Usually
Set long term financial goals (1 year or more)	1 = Never; 2 = Seldom; 3 = Sometimes; 4 = Usually
Have an emergency fund equal to at least 3 months of take-home income	1 = Never; 2 = Seldom; 3 = Sometimes; 4 = Usually
Set short term financial goals (less than 1 year)	1 = Never; 2 = Seldom; 3 = Sometimes; 4 = Usually
Put money in savings before paying bills	1 = Never; 2 = Seldom; 3 = Sometimes; 4 = Usually

Financial management behavior (continued)

Categories and items	Scoring
2. Record keeping	
Keep records of expenditures and income	1 = Never; 2 = Seldom; 3 = Sometimes; 4 = Usually
Can find financial records when needed	1 = Never; 2 = Seldom; 3 = Sometimes; 4 = Usually
Use filing system for important receipts and canceled checks	1 = Never; 2 = Seldom; 3 = Sometimes; 4 = Usually
Keep records of bills paid	1 = Never; 2 = Seldom; 3 = Sometimes; 4 = Usually
Have a record keeping system that tells exactly what important financial documents I have and where they are kept	1 = Never; 2 = Seldom; 3 = Sometimes; 4 = Usually
3. Delaying tactics	
Put off medical checkups or treatments	1 = Never; 2 = Seldom; 3 = Sometimes; 4 = Usually
Put off dental checkups or treatments	1 = Never; 2 = Seldom; 3 = Sometimes; 4 = Usually
Put off car repairs	1 = Never; 2 = Seldom; 3 = Sometimes; 4 = Usually
Contact creditors if bills are to be late	1 = Never; 2 = Seldom; 3 = Sometimes; 4 = Usually
4. Apparel cost-cutting strategies	
Sew clothing to save money	1 = Never; 2 = Seldom; 3 = Sometimes; 4 = Usually
Sew household items to save money	1 = Never; 2 = Seldom; 3 = Sometimes; 4 = Usually
Sew household items to save money	1 = Never; 2 = Seldom; 3 = Sometimes; 4 = Usually
Do clothing repairs or renovation	1 = Never; 2 = Seldom; 3 = Sometimes; 4 = Usually
5. Controlling expenditures	
Immediately record deposits, withdrawals, and checks	1 = Never; 2 = Seldom; 3 = Sometimes; 4 = Usually
Balance checkbook monthly	1 = Never; 2 = Seldom; 3 = Sometimes; 4 = Usually

Financial management behavior (continued)

Categories and items	Scoring
Can pay all basic living expenses from income	1 = Never; 2 = Seldom; 3 = Sometimes; 4 = Usually
6. Financial statements	
Use expenditure records to determine monthly shortage or extra	1 = Never; 2 = Seldom; 3 = Sometimes; 4 = Usually
Use a computer program to manage personal finances	1 = Never; 2 = Seldom; 3 = Sometimes; 4 = Usually
Follow a written budget	1 = Never; 2 = Seldom; 3 = Sometimes; 4 = Usually
Prepare a net worth statement once a year	1 = Never; 2 = Seldom; 3 = Sometimes; 4 = Usually
7. Do-it-yourself techniques	
Do own auto maintenance in areas I am skilled	1 = Never; 2 = Seldom; 3 = Sometimes; 4 = Usually
Do own household repairs in areas I am skilled	1 = Never; 2 = Seldom; 3 = Sometimes; 4 = Usually
Exchange or swap for goods or services	1 = Never; 2 = Seldom; 3 = Sometimes; 4 = Usually
8. Cost-cutting techniques	
Use cents-off coupons	1 = Never; 2 = Seldom; 3 = Sometimes; 4 = Usually
Purchase second-hand goods, e.g., clothing, toys, at garage sales, etc	1 = Never; 2 = Seldom; 3 = Sometimes; 4 = Usually
Switch to a lower cost place for buying groceries	1 = Never; 2 = Seldom; 3 = Sometimes; 4 = Usually
Try to buy generic drugs	1 = Never; 2 = Seldom; 3 = Sometimes; 4 = Usually

Title

Financial Management Behavior Scale

Key Words

Financial Management Behavior

Author(s)

Jodi L. Parrotta and Phyllis J. Johnson

Source

Parrotta, J. L., & Johnson, P. J. (1998). The impact of financial attitudes and knowledge on financial management and satisfaction of recently married individuals. *Financial Counseling and Planning, 9*(2), 59–74.

Description

According to the authors, "A 38-item scale was constructed by combining selected items from pre-existing scales and indices (Fitzsimmons et al., 1993; Godwin & Carroll, 1986; Porter & Garman, 1993; Titus et al., 1989). This measure was designed to reflect the six dimensions of Porter and Garman's (1993) construct of financial management, including cash management, credit management, capital accumulation, risk management, retirement/estate planning, and general management" (p. 65).

Test Sample

The scale was tested with a sample of Canadians living in a western city. Respondents included 565 individuals who had previously attended a marriage preparation class in 1992. Factor analysis was used to verify the conceptual dimensions of the scale.

Scoring

The scale is scored using a five-point Likert-type scoring system, with 1 = Not Typical and 5 = Very Typical. Higher scores mean that a person is exhibiting better financial behavior.

Reliability

The Cronbach's alpha for the scale is 0.86.

Validity

Financial knowledge was shown to be associated with financial attitudes and financial behavior.

Source Reference(s)

Fitzsimmons, V. S., Hira, T. K., Bauer, J. W., & Hafstrom J. L. (1993). Financial management: Development of scale. *Journal of Family and Economic Issues, 14*, 257–274.

Godwin, D. D., & Carroll, D. D. (1986). Financial management attitudes and behavior of husbands and wives. *Journal of Consumer Studies and Home Economics, 10*, 77–96.

Porter, N. M., & Garman, E. T. (1993). Testing a conceptual model of financial well-being. *Financial Counseling and Planning, 4*(1), 135–164.

Titus, P. M., Fanslow, A. M., & Hira, T. K. (1989). Net worth and financial satisfaction as a function of household money managers' competencies. *Home Economics Research Journal, 17*, 309–317.

Note(s)

The source references should be cited whenever the scale is used.

Item(s)

Financial management behavior scale

Items	Scoring
Cash management	1 = Not typical
1. I follow a weekly or monthly budget	5 = Very typical
2. I use banking accounts that pay me interest	
3. Sometimes I write bad cheques or ones with insufficient funds	
4. I pay for yearly expenses out of current income or savings (not with a loan)	
5. I usually live from paycheque to paycheque	
6. I save receipts for major purchases	
7. I compare my chequing account records with my monthly statement	
8. I estimate household income and expenses	
9. About once a year, I estimate household net worth (that is, total assets minus total debts)	
10. I review and evaluate my spending habits	
11. I sometimes receive overdue notices because of late or missed payments	

Financial management behavior scale (continued)

Items	Scoring
12. I write down where money is spent	
13. I regularly set aside money for large expected expenses (like insurance or taxes)	
Credit management	
1. I often spend more money than I have	1 = Not typical 5 = Very typical
2. I usually do not pay the total balance on my credit card, but instead, just make a partial payment	
3. I get myself into more debt each year	
4. I obtain cash advances in order to pay other credit balances	
5. I rarely pay finance charges	
6. I pay bills as due	
7. I make payments on large debts as scheduled	
8. I compare my credit card receipts with my monthly purchases	
Retirement and Estate Planning	1 = Not typical
1. I plan out how I want my belongings divided up in case something ever happens to me (e.g., use a will)	5 = Very typical
2. I review my will periodically	
3. I contribute annually to a retirement savings plan (e.g., RRSP)	
Risk management	1 = Not typical
1. I regularly set money aside for possible unexpected expenses	5 = Very typical
2. I adequately insure my personal property (such as home, furnishings, or other personal possessions)	
3. Each year I review the adequacy of the insurance coverage I have	
General management	1 = Not typical
1. I create financial goals	5 = Very typical
2. I make plans to how to reach my financial goals	
3. I set specific financial goals for the future (e.g., buy a new care in 2 years)	
4. I often make financial decisions without much thought	
5. I review my total financial situation on a regular basis	
6. I regularly discuss financial goals with my spouse	
Capital accumulation	1 = Not typical
1. I regularly set aside money for savings	5 = Very typical
2. Each year I put money in higher return investments such as stocks, bonds, or mutual funds	

Negatively worded items should be recoded

Title

Financial Management Practices

Key Words

Financial Management, Budgeting

Author(s)

Elizabeth P. Davis and Judith A. Weber

Source

Davis, E. P., & Weber, J. A. (1990). Patterns and obstacles to financial management. *Financial Counseling and Planning, 1*(1), 41–51.

Description

The Financial Management Practices instrument was developed to assess four practices: budgeting, record keeping, budget record comparisons, and balance sheet preparation.

Test Sample

The instrument was used with a sample ($N = 672$) of Kansas residents using a two-stage cluster sampling procedure. The instrument was effective when given to mid-life and older married individuals.

Scoring

Dichotomous coding; yes = 1 and no = 0

Reliability

Not reported

Validity

Presumably, individuals who answer yes to each practice are considered to be exhibiting better financial management practices than others. The validity of the item is not known.

Source Reference(s)

None

Note(s)

The authors of the instrument recommend that users also assess the degree of implementation associated with the four practices and possible reasons why each practice was implemented or not implemented (see Obstacles of Financial Management Scale).

Item(s)

Financial management practices

Practice	Yes	No
Budgeting. Do you generally make some kind of plan before spending your money?		
Record keeping. Do you generally keep written records of what you've spent?		
Comparing records to budget. Every so often, do you compared what you planned to spend to what you actually spent to see if any changes need to be made?		
Estimating net worth. Every so often, do you estimate your household's net worth, that is, do you add up the value of everything you own, then add up all your debts, and compare the two in order to see how you're doing financially?		

Title

Financial Practices Scale

Key Words

Financial Practices, Financial Behavior

Author(s)

Cazilia Loibl, Tahira K. Hira, and Michael Rupured

Source

Loibl, C., Hira, T. K., & Rupured, M. (2006). First time versus repeat filers: The likelihood of completing a Chapter 13 bankruptcy repayment plan. *Financial Counseling and Planning, 17*(1), 23–33.

Description

Seven items were developed to assess a respondent's likelihood of adopting positive financial behaviors/practices. Note that the scale was originally used to evaluate behavior among first-time and repeat Chapter 13 bankruptcy filers.

Test Sample

The index was tested with a sample of 466 Chapter 13 bankruptcy filers living in Georgia between July 2002 and March 2003.

Scoring

According to the authors, "The responses to each item were measured on a 5-point scale ranking from *unlikely* = 1, *less likely* = 2, *unsure* = 3, *somewhat likely* = 4, to *more likely* = 5. The responses were summed to create the variable *financial practices* for the regression analysis" (p. 27). Higher scores are indicative of increased likelihood of adopting better financial behaviors/practices.

Reliability

Not reported

Validity

According to the authors, "The main finding of the present study is that repeat filers reported being more likely to engage in adopting financial practices than first-time filers. Specifically, repeat filers were more likely to adopt six of the seven financial practices as compared to first time filers' who intended to adopt only one financial practice. For repeat filers, only one variable, starting an emergency fund, was not related to their likelihood of successfully completing a Chapter 13 repayment" (p. 31).

Source Reference(s)

None

Note(s)

None

Item(s)

Financial practices scale

Items	Scoring
Please indicate how likely you are to adopt the following financial practices: 1. Keep track of spending 2. Pay your bills on time every month 3. Reduce spending for one or more expenses 4. Start an emergency savings fund 5. Develop a written plan for spending 6. Talk with your family about your expenses 7. Get your financial records more organized	1 = Unlikely 2 = Less likely 3 = Unsure 4 = Somewhat likely 5 = More likely

Title

Financial Prudence Scale

Key Words

Saving, Financial Behavior

Author(s)

Jeffery R. Hibbert, Ivan F. Beutler, and Todd M. Martin

Source

Hibbert, J. R., Beutler, I. F., & Martin, T. M. (2004). Financial prudence and next generation financial strain. *Financial Counseling and Planning, 15*(2), 51–60.

Description

This scale, adopted from work originally conducted by Lee et al. (1997), can be used to assess various areas of family financial functioning. Specifically, the scale measures how well a respondent and his/her family manage their personal financial situation.

Test Sample

The scale was tested with a sample of 537 graduate and undergraduate students at two universities in the western and southeastern United States. The sample was representative of higher education populations (e.g., 54% female, 90% non-Hispanic white, 79% credit card holders, etc.).

Scoring

A five-item Likert-type scoring scale is used with the measure, with 1 = Never, 2 = Seldom, 3 = Sometimes, 4 = Usually, and 5 = Always. Scores are summed. Higher scores indicate greater financial prudence; that is, better savings and spending behavior.

Reliability

Cronbach's alpha = 0.82.

Validity

Scores on the scale were found to be negatively associated with financial strain.

Source Reference(s)

Lee, T., Burr, W., Beutler, I., Yorgason, F., Harker, B., & Olsen, J. (1997). The family profile II: A self-scored brief family assessment tool. *Psychological Reports, 81*, 467–477.

Note(s)

The source reference should be noted whenever this scale is used.

Item(s)

Financial prudence scale

Items	Scoring
We saved money	1 = Never 2 = Seldom 3 = Sometimes 4 = Usually 5 = Always
We lived within our means	1 = Never 2 = Seldom 3 = Sometimes 4 = Usually 5 = Always
We paid our bills on time	1 = Never 2 = Seldom 3 = Sometimes 4 = Usually 5 = Always
We were in debt for many things that were not necessary[a]	1 = Never 2 = Seldom 3 = Sometimes 4 = Usually 5 = Always

[a]Item reverse coded

Title

Frequency of Financial Management Scale

Key Words

Financial Management, Financial Behavior

Author(s)

Barbara C. Kerkmann, Thomas R. Lee, Jean M. Lown, and Scot M. Allgood

Source

Kerkmann, B. C., Lee, T. R., Lown, J. M., & Allgood, S. M. (2000). Financial management, financial problems and marital satisfaction among recently married university students. *Financial Counseling and Planning, 11*(2), 55–64.

Description

This scale measures how often a person engages in positive/negative financial behavior.

Test Sample

The scale was tested with a sample of 310 students enrolled at Utah State University.

Scoring

The following five-point Likert-type scale is used with this scale: 1 = Never and 5 = Most of the Time. High scores indicate better financial behavior.

Reliability

Alpha reliability = 0.84 to 0.89.

Validity

According to the authors, “Content and criterion validity were established through evaluation by family resource management specialists as well as establishing theoretical links to economic well-being through utility theory” (p. 57).

Source Reference(s)

Fitzsimmons, V. S., Hira, T. K., Bauer, J. L., & Hafstrom, J. L. (1993). Financial management: Development of scales. *Journal of Family and Economics Issues, 14*, 257–274.

Note(s)

This brief scale is based on a scale originally created by Fitzsimmons et al. (1993). The source reference should be quoted whenever this scale is used.

Item(s)

Frequency of financial management scale

Items	Scoring
How often do you: 1. Make plans on how use your money 2. Write down where money is spent 3. Evaluate spending on a regular basis 4. Use a written budget	1 = Never 5 = Most of the time

Title

Frequency of Financial Problems Scale

Key Words

Financial Behavior, Financial Management, Financial Problems

Author(s)

Barbara C. Kerkmann, Thomas R. Lee, Jean M. Lown, and Scot M. Allgood

Source

Kerkmann, B. C., Lee, T. R., Lown, J. M., & Allgood, S. M. (2000). Financial management, financial problems and marital satisfaction among recently married university students. *Financial Counseling and Planning, 11*(2), 55–64.

Description

This scale was designed to assess how often a person's engages in daily financial behavior with negative outcomes.

Test Sample

The scale was tested with a sample of 310 students enrolled at Utah State University.

Scoring

The following five-point Likert-type scale is used with this scale: 1 = Never and 5 = Most of the Time. High scores indicate increased financial problems.

Reliability

Alpha reliability = 0.67 to 0.76.

Validity

According to the authors, "Content and criterion validity were established through evaluation by family resource management specialists as well as establishing theoretical links to economic well-being through utility theory" (p. 57).

Source Reference(s)

Fitzsimmons, V. S., Hira, T. K., Bauer, J. L., & Hafstrom, J. L. (1993). Financial management: Development of scales. *Journal of Family and Economics Issues, 14*, 257–274.

Note(s)

This brief scale is based on a scale originally created by Fitzsimmons et al. (1993). The source reference should be quoted whenever this scale is used.

Item(s)

Frequency of financial problems scale

Items	Scoring
How often do you have the following problems?	1 = Never
1. Cannot afford to buy adequate insurance	5 = Most of the time
2. Do not have enough money to pay for health insurance	
3. Do not have enough money for doctor, dentist, or medicine	
4. Cannot afford to buy new shoes or clothes	
5. Cannot afford to pay for utilities	
6. Cannot afford to keep cars running	

Title

Household Financial Management Practices

Key Words

Financial Management, Budgeting

Author(s)

Elizabeth Scannell

Source

Scannell, E. (1990). Dairy farm families' financial management. *Financial Counseling and Planning, 1*(1), 133–146.

Description

The Household Financial Management Practices instrument was developed to assess daily money management practices at the household level.

Test Sample

The instrument was based on a financial management questionnaire originally proposed by Davis (1986). The final instrument was tested with a sample of 154 dairy farmers living in Vermont.

Scoring

Dichotomous coding; yes = 1 and no = 0

Reliability

Not reported

Validity

Individual items were correlated with respondent debt-to-asset ratios and a scale of well-being. Those who were financially distressed scored exhibited the lowest instrument scores.

Source Reference(s)

Davis, E. P. (1986). Measuring financial satisfaction. In R. Berry (Ed.), *Proceedings of the western region home management family economic educators 26th annual conference: Investing in Human Capital* (pp. 9–13). (26th, San Francisco, California, November 13–15, 1986). Volume 1.

Note(s)

According to the author, "the highest percentages were found for making a spending plan, keeping written records, and storing records. Seventy-seven percent of the participants responded affirmatively to the question, "Do you generally make some kind of spending plan before spending your money?" Keeping written records was indicated by 93% of the respondents. Ninety-five percent reported having some form of desk or filing cabinet in the home where they kept bills, receipts, and records" (p. 137).

Item(s)

Household financial management practices

Do you . . .	Yes	No
Make a spending plan		
Keep written records		
Compare planned to actual expenses		
Estimate net worth		
Have place for financial records		
Separate utility expenses		
Separate telephone expenses		
Separate electricity expenses		
Separate auto fuel expenses		
Separate auto insurance expenses		
Separate auto repair expenses		
Separate other joint expenses, such taxes and insurance		

Title

Negative Financial Events Index

Key Words

Financial Behavior, Financial Stress

Author(s)

Barbara O'Neill, Benoit Sorhaindo, Jing Jian Xiao, and E. Thomas Garman

Source

O'Neill, B., Sorhaindo, B., Xiao, J. J., & Garman, E. T. (2005). Financially distressed consumers: Their financial practices, financial well-being, and health. *Financial Counseling and Planning, 16*(1), 73–88.

Description

This index was developed to assess the level and magnitude of financial stress experienced by a respondent.

Test Sample

The instrument was tested with a sample ($N = 3{,}121$) of financially distressed consumers who telephoned a national credit counseling organization.

Scoring

Items in the index are scaled as follows: 0 = Never, 1 = Once, and 2 = More than Once. Scores can be summed to create a financial stress index, with higher scores suggesting more negative financial events experienced by the respondent, and as a result, increased financial stress.

Reliability

Not reported

Validity

Individuals who score highly on this index also tend to report lower levels of physical health.

Source Reference(s)

None

Note(s)

None

Item(s)

Negative financial events index

Items	Scoring
Received an overdue notice from a creditor	0 = Never 1 = Once 2 = More than once
Paid one or more utility bills late	0 = Never 1 = Once 2 = More than once
Paid a credit card bill late	0 = Never 1 = Once 2 = More than once
Paid a late fee for paying a bill late	0 = Never 1 = Once 2 = More than once
Received a phone call from a creditor about a past due bill	0 = Never 1 = Once 2 = More than once
Received a call from a collection agency about an overdue bill	0 = Never 1 = Once 2 = More than once
Reached the maximum limit on a credit card	0 = Never 1 = Once 2 = More than once

Negative financial events index (continued)

Items	Scoring
Did not have enough money to pay for a minor emergency	0 = Never 1 = Once 2 = More than once
Could not afford to go out when desired	0 = Never 1 = Once 2 = More than once
Could not afford to make vehicle payments	0 = Never 1 = Once 2 = More than once
Bounced a check	0 = Never 1 = Once 2 = More than once

Title

Past Financial Experiences Index

Key Words

Financial Comparisons, Financial Management, Financial Behavior

Author(s)

Nancy M. Porter and E. Thomas Garman

Source

Porter, N. M., & Garman, E. T. (1993). Testing a conceptual model of financial well-being. *Financial Counseling and Planning, 4*(1), 135–164.

Description

Porter and Garman (1993) developed this 15-item index to evaluate a person's perceptions of household and personal financial advancement.

Test Sample

The index was based on a sample of 466 Virginia citizens.

Scoring

The index uses the following scoring system: 1 = Decreased; 2 = Remained the Same; 3 = Increased.

Reliability

Not reported

Validity

Scores on the index were compared to self-assessed financial well-being. Past financial experiences were used to predict self-reported levels of well-being (satisfaction).

Source Reference(s)

None

Note(s)

None

Item(s)

Past financial experiences index

Items	Scoring
Compared to 5 years ago...	
My total income has...	1 = Decreased; 2 = Remained the Same; 3 = Increased
My financial assets have...	1 = Decreased; 2 = Remained the Same; 3 = Increased

Past financial experiences index (continued)

Items	Scoring
My total financial situation has. . .	1 = Decreased; 2 = Remained the Same; 3 = Increased
My retirement “nest egg” has. . .	1 = Decreased; 2 = Remained the Same; 3 = Increased
My standard of living, the things that I purchase, such as housing, food, transportation, and recreation has. . .	1 = Decreased; 2 = Remained the Same; 3 = Increased
Compared to 2 years ago. . .	
100. My ability to meet my usual monthly living expenses has. . .	1 = Decreased; 2 = Remained the Same; 3 = Increased
The amount that I am able to save and invest has. . .	1 = Decreased; 2 = Remained the Same; 3 = Increased
My ability to meet unexpected expenses has...	1 = Decreased; 2 = Remained the Same; 3 = Increased
The total consumer debt that I owe has. . .	1 = Decreased; 2 = Remained the Same; 3 = Increased
The total amount of income I have has. . .	1 = Decreased; 2 = Remained the Same; 3 = Increased
How often I worry about the amount of money I am required to pay on my monthly debts has. . .	1 = Decreased; 2 = Remained the Same; 3 = Increased
The property insurance coverage I have has. . .	1 = Decreased; 2 = Remained the Same; 3 = Increased
My standard of living, the things that I purchase, such as housing, food, transportation, and recreation has. . .	1 = Decreased; 2 = Remained the Same; 3 = Increased
My total financial situation has. . .	1 = Decreased; 2 = Remained the Same; 3 = Increased
My use of credit cards has. . .	1 = Decreased; 2 = Remained the Same; 3 = Increased

Title

Perceived Behavioral Control Scale

Key Words

Financial Behavior, Debt, Perceived Behavioral Control

Author(s)

Jing Jian Xiao and Jiayun Wu

Source

Xiao, J. J., & Wu, J. (2008). Completing debt management plans in credit counseling: An application of the Theory of Planned Behavior. *Journal of Financial Counseling and Planning, 19*(2), 29–45.

Description

This scale was designed to meet a specification within the Theory of Planned Behavior (Ajzen, 1991). Specifically, this scale measures a respondent's perceived behavioral control (over their situation) towards staying in a debt management program in order to reduce debt.

Test Sample

This brief scale was developed and tested "based on the theory of planned behavior and the literature on consumer satisfaction" (p. 33). According to the authors:

> "With assistance of a national credit counseling agency, we pre-tested the questionnaire with six clients of DMPs [debt management program] to improve its readability. Data collection had two steps. First, we recruited clients enrolling in a DMP administered by a national credit counseling agency. The agency issued a recruiting announcement to its clients in their monthly statements, and 356 clients who were interested in the survey contacted us via telephone, email, or fax with their contact information. We sent out only 326 surveys because 29 clients provided incomplete contact information. The questionnaires were sent between November 2005 and February 2006 via email to those with an email address or by postal mail to those without an email address. After submitting a completed survey, respondents received $10 for their participation. The second step of data collection occurred 3 months after the survey. With the assistance of the credit counseling agency, we received participants' plan completion status data and matched the survey data with the

status data. This technique allowed us to measure the actual DMP completion behavior of the consumers who participated in the survey. The total number of surveys we received was 210, with an overall response rate of 64% (210/326). The response rates varied by types of contacts. Fifty out of the 88 clients receiving the mail survey replied, achieving a response rate of 57%; 160 out of the 238 clients receiving the email survey responded, achieving a response rate of 67%. Twenty observations had missing values in psychological variables and were excluded, resulting in a sample of 190 used in data analyses" (p. 33).

Scoring

The items in the scale are measured using seven-point bipolar adjective scales. The first item is measured with 1 = Extremely Difficult and 7 = Extremely Easy. The second item is measured with 1 = Extremely False and 7 = Extremely True. Scores are summed and averaged. Higher scores are indicative of a stronger perceived behavioral control (i.e., more positive) on the part of the respondent.

Reliability

Not reported

Validity

The two items were positively correlated ($r = 0.64$).

Source Reference(s)

Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes, 50*, 179–211.

Note(s)

None

Item(s)

Perceived behavioral control scale

	Scoring						
Item	Please rate the difficulty of staying in the debt management program.						
	Extremely difficult	Quite difficult	Slightly difficult	Neither	Slightly easy	Quite easy	Extremely easy
Item	If I wanted to, I could easily stay in the debt management program.						
	Extremely false	Quite false	Slightly false	Neither	Slightly true	Quite true	Extremely true

Title

Perceived Financial Management Behavior

Key Words

Financial Management, Financial Behavior, Financial Management Behavior

Author(s)

Nancy M. Porter and E. Thomas Garman

Source

Porter, N. M., & Garman, E. T. (1993). Testing a conceptual model of financial well-being. *Financial Counseling and Planning, 4*(1), 135–164.

Description

Porter and Garman (1993) developed six conceptual areas of personal financial management behavior to test their measure of financial well-being. This scale represents one of those six conceptual areas. The scale can be used in conjunction with the Porter and Garman Financial Management Behavior scale.

Test Sample

On the basis of a sample of 506 Virginia citizens, a factor analysis was used to identify the sub-factors within the scale.

Scoring

The scale uses a Likert-type scoring system as follows: 1 = Disagree; 2 = Tend to Disagree; 3 = Tent to Agree; 4 = Agree.

Reliability

Not reported

Validity

Scores on the scale were compared to self-assessed financial well-being. Those who reported high levels of well-being (satisfaction) also reported higher perceived financial behaviors. Also perceived financial behaviors were positively associated with self-reported behaviors.

Source Reference(s)

None

Note(s)

None

Item(s)

Perceived financial management behavior
Cash management
I have enough savings and reserve funds to maintain my present lifestyle if I lost my income for a period of 3–6 months
I would be able to handle a financial emergency that would cost $500–$1,000
I don't worry about being able to meet my normal monthly living expenses
Credit management
I am concerned about the total amount I have to repay on my debts each month, such as on credit cards, car payments, and other loans
I would have trouble borrowing $2,000 cash if I needed it
Capital accumulation
I am satisfied with the amount of money that I am able to save and invest each year
I can't save as much as I would like to save

Perceived financial management behavior (continued)

Retirement/estate planning
I probably will have a financially secure retirement
General management
I am satisfied with my present standard of living, that is, the goods and services that I can purchase like my housing, food, transportation, and recreation
My total income is enough for me to meet my monthly living expenses
I have developed a sound plan that should enable me to achieve my financial goals
No matter how fast my income goes up, I never seem to get ahead

Title

Financial Management Behavior

Key Words

Financial Management, Financial Behavior, Cash Management

Author(s)

Nancy M. Porter and E. Thomas Garman

Source

Porter, N. M., & Garman, E. T. (1993). Testing a conceptual model of financial well-being. *Financial Counseling and Planning, 4*(1), 135–164.

Description

Porter and Garman (1993) developed six conceptual areas of personal financial management behavior to test their measure of financial well-being. This scale represents one of those six conceptual areas.

Test Sample

On the basis of sample of 506 Virginia citizens, a factor analysis was used to identify the sub-factors within the scale.

Scoring

The scale uses a Likert-type scoring system as follows: 1 = Not Typical; 5 = Very Typical.

Reliability

Not reported

Validity

Scores on the scale were compared to self-assessed financial well-being. Those who reported high levels of well-being (satisfaction) also reported exhibiting the best financial behaviors.

Source Reference(s)

None

Note(s)

None

Item(s)

Financial management behavior

Categories and items	Scoring
Cash management	
I have a weekly or monthly budget that I follow	1 = Not typical 5 = Very typical
My checking account pays me interest	1 = Not typical 5 = Very typical
I never write bad checks or ones with insufficient funds	1 = Not typical 5 = Very typical
In the recent past, I have received overdue notices because of late or missed payments	1 = Not typical 5 = Very typical

Financial management behavior (continued)

Categories and items	Scoring
Credit management	
I usually do not pay the total balance due on my credit card, but instead just make a partial payment	1 = Not typical 5 = Very typical
I often spend more money than I have	1 = Not typical 5 = Very typical
Overall, I am more in debt than this time last year	1 = Not typical 5 = Very typical
In the recent past, I have obtained cash advances to pay money toward other credit balances	1 = Not typical 5 = Very typical
Compared to a year ago, my use of credit cards has increased	1 = Not typical 5 = Very typical
Capital accumulation	
I regularly set money aside for savings	1 = Not typical 5 = Very typical
This year, I invested some money in stocks, bonds, or mutual funds	1 = Not typical 5 = Very typical
Risk management	
I have trouble meeting monthly health care expenses, including premiums for health insurance	1 = Not typical 5 = Very typical
My auto is adequately insured	1 = Not typical 5 = Very typical
I have a homeowner's or renter's insurance policy	1 = Not typical 5 = Very typical
Retirement/estate planning	
In the past year I made a financial contribution to a private retirement program, such as an IRA or 401-k	1 = Not typical 5 = Very typical
I have a legal, written will	1 = Not typical 5 = Very typical
General management	
I have an overall plan that will enable me to reach my financial goals	1 = Not typical 5 = Very typical
I often make financial decisions without much analysis	1 = Not typical 5 = Very typical
I have some *specific* financial goals for the future (for example, to buy a new car in 2 years)	1 = Not typical 5 = Very typical
I rarely discuss my personal financial matters with family or friends	1 = Not typical 5 = Very typical

Title

Savings Behavior Measure

Key Words

Savings, Expenses

Author(s)

Arthur B. Kennickell, Martha Starr-McCluer, and Annika E. Sunden

Source

Kennickell, A. B., Starr-McCluer, M., & Sunden, A. E. (1997). Saving and financial planning: Some findings from a focus group. *Financial Counseling and Planning, 8*(1), 1–8.

Description

This item indicates a households' income and expense situation.

Test Sample

This measure was used as a pretest to the 1995 Survey of Consumer Finances (SCF), which is a triennial survey of household behavior, assets, liabilities, and demographic/socioeconomic characteristics. The SCF is sponsored by the Federal Reserve Board. Focus group participants were recruited from Chicago. Those in the focus group had income exceeding $250,000 or net worth higher than $600,000.

Scoring

Nominal coding; select one answer

Reliability

Not reported

Validity

Not reported

Source Reference(s)

None

Note(s)

This measure is part of the triennial SCF.

Item(s)

Savings behavior measure

Item
Description of saving last year . . . A. Spending was less than income B. Spending equaled income C. Spending exceeded income

Title

Savings Behavior II Measure

Key Words

Savings, Expenses

Author(s)

Arthur B. Kennickell, Martha Starr-McCluer, and Annika E. Sunden

Source

Kennickell, A. B., Starr-McCluer, M., & Sunden, A. E. (1997). Saving and financial planning: Some findings from a focus group. *Financial Counseling and Planning, 8*(1), 1–8.

Description

This item indicates if a household has a savings plan.

Test Sample

This measure was used as a pretest to the 1995 Survey of Consumer Finances (SCF), which is a triennial survey of household behavior, assets, liabilities, and demographic/socioeconomic characteristics. The SCF is sponsored by the Federal Reserve Board. Focus group participants were recruited from Chicago. Those in the focus group had income exceeding $250,000 or net worth higher than $600,000.

Scoring

Nominal coding; select one answer

Reliability

Not reported

Validity

Not reported

Source Reference(s)

None

Note(s)

This measure is part of the triennial SCF.

Item(s)

Savings behavior II measure

Item
Usual savings behavior . . . A. Save regularly, put money aside each month B. Spend regular income, save other income C. Spend income of one family member, saving the other D. No regular plan E. Don't save

Title

Self-Perceived Financial Behavior Item

Key Words

Financial Behavior, Financial Attitude, Perception

Author(s)

Barbara O'Neill, Benoit Sorhaindo, Jing Jian Xiao, and E. Thomas Garman

Source

O'Neill, B., Sorhaindo, B., Xiao, J. J., & Garman, E. T. (2005). Financially distressed consumers: Their financial practices, financial well-being, and health. *Financial Counseling and Planning, 16*(1), 73–88.

Description

This single-item question was developed to assess a respondent's self-evaluation for their financial behavior.

Test Sample

The instrument was tested with a sample ($N = 3{,}121$) of financially distressed consumers who telephoned a national credit counseling organization.

Scoring

Respondents are asked to choose one of the following answers: 4 = Very Good, 3 = Good, 2 = Satisfactory, and 1 = Poor. Higher scores suggest an elevated perception of appropriate financial behavior.

Reliability

Not reported

Validity

Not reported

Source Reference(s)

None

Note(s)

None

Item(s)

Self-Perceived Financial Behavior Item
"On the whole, how would you characterize your financial behaviors?"

Title

Spending Behavior Scale

Key Words

Financial Behaviors, Financial Management

Author(s)

Tahira K. Hira and Olive M. Mugenda

Source

Hira, T. K., & Mugenda, O. M. (1998). Predictors of financial satisfaction: Difference between retirees and nonretirees. *Financial Counseling and Planning, 9*(2), 75–84.

Description

This scale, adapted from Edwards (1993), measures excessive spending behavior.

Test Sample

The scale was tested with a sample of 529 Iowans in 1995.

Scoring

A four-point Likert-type scale was used, with 1 = Strongly Disagree and 4 = Strongly Agree. Higher scores are indicative of a person engaging in uncontrolled spending and excessive spending.

Reliability

Cronbach's alpha = 0.87.

Validity

Excessive spending behavior (indicated by a high scale score) was shown to be negative associated with financial satisfaction.

Source Reference(s)

Edwards, E. A. (1993). Development of a new scale for measuring compulsive buying behavior. *Financial Counseling and Planning, 4*(1), 67–84.

Note(s)

None

Item(s)

Spending behavior scale

Items	Scoring
I buy without need	1 = Strongly disagree 4 = Strongly agree
I feel driven to shop	1 = Strongly disagree 4 = Strongly agree
I cannot resist sales	1 = Strongly disagree 4 = Strongly agree
I buy things as often as I can	1 = Strongly disagree 4 = Strongly agree
I am preoccupied with shopping	1 = Strongly disagree 4 = Strongly agree
I buy unplanned items	1 = Strongly disagree 4 = Strongly agree
My spending habits create chaos	1 = Strongly disagree 4 = Strongly agree
I buy what I cannot afford	1 = Strongly disagree 4 = Strongly agree
My spending creates debt problems	1 = Strongly disagree 4 = Strongly agree
I have secretive shopping habits	1 = Strongly disagree 4 = Strongly agree
I shop to celebrate	1 = Strongly disagree 4 = Strongly agree

Title

Economic Adjustment Strategy Scale

Key Words

Economic Stress, Income, Expenses, Stress

Author(s)

Sharon M. Danes and Kathryn D. Rettig

Source

Danes, S. M., & Rettig, K. D. (1995). Economic adjustment strategies of farm men and women experiencing economic stress. *Financial Counseling and Planning, 6*(1), 59–74.

Description

This scale, consisting of four sub-factors, measures "adjustment strategies that were indicators of the implementation of resource allocation decisions" (p. 64). That is, the scale assesses a person's ability to adjust to changes in income and income demands.

Test Sample

The scale was tested with a sample of 337 individuals who were assumed to be under economic distress because of a loan default and participation in a mandatory state mediation process. According to the authors, "The strategies were developed by theoretical criteria and verified by factor and reliability analyses. Four subscales were created to represent various modes of resource adjustment: increasing and extending money income, decreasing money expenditures, increasing household labor income, and increasing household management income" (p. 64).

Scoring

Respondents are instructed to read the following narrative prior to completing the scale:

> "People adjust in different ways when there are changes in income or expenses. We would like to know what strategies you have used since you received the Mediation notice [FILL IN SITUATION THAT FITS SURVEY NEED]. Think about any changes you may have made in your personal financial management since you entered mediation [ENTER SITUATION]. These strategies do not apply to your business operation."

A Likert-type scale is used with seven point scoring system as follows: 0 = not done before or after mediation [ENTER SITUATION] 1 = done a lot less since mediation [ENTER SITUATION] began; 2 = done less since mediation [ENTER SITUATION] began; 3 = still done with the same amount of frequency; 4 = done more since mediation [ENTER SITUATION] began; 5 = done a lot more since mediation [ENTER SITUATION] began; 6 = done the most that can be done.

The following simplified scoring system may be used as well: 0 = Not Done; 1 = A Lot Less; 2 = Less; 3 = Same; 4 = More; 5 = A Lot More; 6 = The Most.

Reliability

The overall scale Cronbach's alpha = 0.91; the four subscale alphas are: (a) Increasing and Extending Money Income = 0.78; (b) Decreasing Money Expenditures = 0.72; (c) Increasing Household Labor Income = 0.78; (d) Increasing Household Management Income = 0.72.

Validity

The authors determined that "respondents who perceived their incomes as inadequate did more of all four types of adjustment activities than those who perceived their incomes as adequate.

Source Reference(s)

None

Note(s)

None

Item(s)

Economic adjustment strategy scale

Items	Scoring
Increasing and extending money income subscale	0 = Not done
Having additional family members work	1 = A lot less
Working additional hours	2 = Less
Buying few clothes	3 = Same
Turning down heat in winter	4 = More
Shopping at discount stores	5 = A lot more
Using savings for current needs	6 = The most
Buying things in quantity	
Buying on sale	
Trading services	
Exchanging clothing	
Sharing household/yard equipment	
Selling clothing/household items	
Decreasing money expenditures	0 = Not done
Delaying major purchases	1 = A lot less
Buying clothes of lower quality	2 = Less
Eating meals at home, not in restaurants	3 = Same
Buying food of lower quality	4 = More
Delaying doctor appointments	5 = A lot more
Eating smaller amounts	6 = The most
Cutting vacation costs	
Taking trips to see family/friends	
Delaying car repairs	
Using free entertainment and parks	

Economic adjustment strategy scale (continued)

Items	Scoring
Increasing household labor income	0 = Not done
Repairing/reconditioning clothes	1 = A lot less
Sewing clothes	2 = Less
Growing vegetables for family meals	3 = Same
Canning/freezing own foods	4 = More
Doing own home repairs	5 = A lot more
Doing own vehicle repairs	6 = The most
Raising animals for meals	
Repairing items instead of throwing them away	
Increasing household management income	0 = Not done
Planning spending carefully	1 = A lot less
Clarifying priorities about money use	2 = Less
Planning meals carefully	3 = Same
Coordinating clothing	4 = More
Coordinating trips to town	5 = A lot more
Involving children in financial decisions	6 = The most
Helping children learn financial matters	

Title

Financial Knowledge Change Scale

Key Words

Financial Knowledge, Behavioral Change

Author(s)

Sharon M. Danes, Catherine Huddleston-Casas, and Laurie Boyce

Source

Danes, S. M., Huddleston-Casas, C., & Boyce, L. (1999). Financial planning curriculum for teens: Impact Evaluation. *Financial Counseling and Planning, 10*(1), 25–38.

Description

This scale was designed to assess post-financial education outcomes. Scale questions were asked 3 months after the students had received education.

Test Sample

The scale was tested with a sample of 4,107 teenager students living in the upper-Midwestern United States.

Scoring

A five-point Likert-type scale was used as follows: 1 = Almost Never; 2 = Seldom; 3 = About Half the Time; 4 = Often; and 5 = Almost Always. Higher scores suggest larger knowledge changes resulting from education.

Reliability

Not reported

Validity

According to the authors, this self-reported scale removes response-shift bias and increases validity.

Source Reference(s)

None

Note(s)

None

Item(s)

Financial knowledge change scale

Items	Scoring
I knew the cost of buying on credit	1 = Almost never 2 = Seldom 3 = About half the time 4 = Often 5 = Almost always
I knew key questions to ask when shopping for auto insurance	1 = Almost never 2 = Seldom 3 = About half the time 4 = Often 5 = Almost always
I knew about investments (stocks, mutual funds, bonds, etc.)	1 = Almost never 2 = Seldom 3 = About half the time 4 = Often 5 = Almost always

Title

Shopping Behavior Scale

Key Words

Financial Behavior, Shopping, Impulse Purchase

Author(s)

Karen P. Varcoe, Allen Martin, Zana Devitto, and Charles Go

Source

Varcoe, K. P., Martin, A., Devitto, Z., & Go, C. (2005). Using a financial education curriculum for teens. *Financial Counseling and Planning, 16*(1), 63–72.

Description

This scale was developed to assess a respondent's shopping behavior.

Test Sample

The scale was evaluated with a sample of 114 high school students' ages 13 through 20, with data collected over 6 months in 2002. The sample consisted of students living in southern California.

Scoring

A four-point Likert-type scale, with 1 = strongly disagree and 4 = strongly agree, is used with this instrument. Scores can range from 3 to 12. Summed scores are developed by adding scores. High scores indicate better shopping behavior.

Reliability

Not reported

Validity

Not reported

Source Reference(s)

None

Note(s)

None

Item(s)

Shopping behavior scale

Items	Scoring
When I go shopping, I . . .	1 = Strongly disagree
1. compare prices	4 = Strongly agree
2. I impulse buy[a]	
3. I wait to buy times on sale	

[a]Item reverse coded

Title

Financial Decision Making Style

Key Words

Decision Making Style, Decision Preference, Financial Management

Author(s)

Kathryn D. Rettig and Catherine L. Schultz

Source

Rettig, K. D., & Schulz, C. L. (1991). Cognitive style preferences and financial management decision styles. *Financial Counseling and Planning, 2*(1), 25–54.

Description

This instrument provides conceptual clustering of survey respondents by their cognitive style preference: analyst, synthesist, idealist, realist, and pragmatist.

Test Sample

The Inquiry Modes Questionnaire (Harrison & Bramson, 1982a, b)[1] and the Financial Decision Making Styles Instrument were administered to 300 County Extension Agents in one Midwestern U.S. state in 1987. Complete data from 80

[1] According to the authors, "The Harrison and Bramson Inquiry Modes Questionnaire . . . is based on the modes of inquiry outlined in five philosophical methodologies which are related to the five styles of thinking: analyst, synthesist, idealist, realist, and pragmatist. Leibniz's symbolic logic, a scientific methodology developed by Descartes, corresponds to the analyst thinking style, Hegel's dialectic phenomenology closely corresponds to the synthesist thinking style, while Kant's philosophical idealism is related to the idealist style. Locke's empiricism and its central idea of utilitarianism is like the realist thinking style, while Singer's philosophical pragmatism is correlated to the pragmatist style (Harrison & Bramson, 1982b, p. 179). The most productive thinkers are those who are capable of thinking effectively in all five dimensions" (p. 29).

respondents was used to norm the instrument. Items were tested for variance and skewness, internal consistency, and correlation and co-variance with subscales of the Inquiry Modes Questionnaire. The authors were unable to conduct a factor analyses because the sample size was too small for the number of items on the inventory.

Scoring

1 = not like me due to resources available, too many or too few
2 = not all like me
3 = generally not like me
4 = slightly like me
5 = a lot like me
6 = exactly like me

Reliability

Reliability for the instrument was not reported. Only reliability estimates for the subscales was reported as follows:

Analyst: 0.80
Synthesist: 0.53
Realist: 0.63
Pragmatist: 0.62
Analyst-Synthesist: 0.81
Realist-Pragmatist: 0.75

Validity

Each item was correlated with sub-scales within the Inquiry Modes Questionnaire. "Results indicate that at least ten items representing the analyst approach to financial decision making were good measures. There were no good measures of the idealist approach to financial decision making and few which accurately represented realist and pragmatist financial decision style preferences" (p. 38).

Source Reference(s)

Harrison, A. F., & Bramson, R. M. (1982a). *Styles of thinking*. New York: Doubleday.

Harrison, A. F., & Bramson, R. M. (1982b). *The art of thinking*. New York: Berkley Books.

Note(s)

The use of the terms analyst, synthesist, idealist, realist, and pragmatist were adopted from Harrison and Bramson (1982). Score can be interpreted as follows:

1. "Good" financial management practices assume the financial manager has a high preference for and a high level of competence in the use of an analytical style of thinking.
2. Financial management styles of individuals will vary according to their cognitive style preferences and abilities.
3. Individuals with high levels of competency in the analyst thinking style may show evidence of more effective financial planning and decision making.
4. Financial decision making is more difficult and unpleasant for individuals with lower preferences for the analyst thinking style and/or lower competency with the style.
5. Individuals with analyst cognitive style preferences may be more likely to do their own financial planning, rather than consult a financial professional.
6. Persons with realist thinking style preferences may be most likely to consult financial professionals.
7. The person with a preference for the analyst cognitive style will approach financial decision making as a well-formulated problem that can be solved; seek detailed, factual information; use quantitative data, formulas and objective methods for analyzing alternatives; use a logical, methodological approach in facing a problem situation; and prefer cautious, predictive, and factual planning (p. 33).

Item(s)

Financial decision making styles instrument

Analyst	Scoring
1. I prefer to make current spending decisions based on a long-range financial plan	1 2 3 4 5 6
2. I want to consider as many detailed facts as possible before I make a financial decision	1 2 3 4 5 6
3. After financial alternatives seem clear, I try to figure out what could go wrong if I went ahead with them	1 2 3 4 5 6
4. I plan financial decisions by gathering as much detailed information as possible to try for a more predictable outcome	1 2 3 4 5 6
5. I have carefully estimated my financial needs for retirement and know what resources I will create for that purpose	1 2 3 4 5 6
6. It is very important for me to consider how a financial strategy will affect the other people involved	1 2 3 4 5 6
7. When I am making an important financial decision, I develop a weighting system to analyze the pros and cons	1 2 3 4 5 6

Financial decision making styles instrument (continued)

Analyst	Scoring
8. I carefully study my financial progress by making a yearly chart of net worth changes	1 2 3 4 5 6
9. I save a given percentage of my income on a regular basis	1 2 3 4 5 6
10. I can usually look over the financial situation from several points of view and see what needs to be done	1 2 3 4 5 6
11. I usually study last month's expenditures to check on over and underspending	1 2 3 4 5 6
12. My spending goals for this year are in writing	1 2 3 4 5 6
13. My financial records are detailed and accurate	1 2 3 4 5 6
14. I calculate changes in the ratio of my total net worth to total assets on a regular basis	1 2 3 4 5 6
15. I use the formulas for future and present value to help me decide about savings and investment choices	1 2 3 4 5 6
16. I calculate changes in my liquid assets to current debts ratio on a regular basis	1 2 3 4 5 6
17. I use the formula for my marginal tax rate to decide whether or not to invest in taxable and nontaxable alternatives	1 2 3 4 5 6
SYNTHESIST	
18. I like to contrast two opposite investment possibilities until the answer becomes clear in my mind	1 2 3 4 5 6
19. I like to consider unusual solutions in order to think more creatively about financial issues	1 2 3 4 5 6
20. I prefer to get a financial professional's help when I have trouble deciding what to do	1 2 3 4 5 6
21. I have a financial plan with strategies in case of long life, disability, or premature death	1 2 3 4 5 6
22. I give all of my money to someone else to manage	1 2 3 4 5 6
23. I have definite financial goals for 10 years from now	1 2 3 4 5 6
REALIST	
24. Once I have made a decision about finances, I immediately take action	1 2 3 4 5 6
25. I avoid long-term financial planning	1 2 3 4 5 6
26. I can see the overall financial picture, but do not make detailed written plans	1 2 3 4 5 6
27. I make spending plans, but I have trouble disciplining myself to carry them out	1 2 3 4 5 6
28. I save money, but not a fixed percentage on a regular schedule	1 2 3 4 5 6
PRAGMATIST	
29. When it comes to financial decisions, I do what my intuition suggests is best	1 2 3 4 5 6
30. I would rather talk to a friend than read a financial report to help me decide about an investment	1 2 3 4 5 6
31. I dislike keeping records of spending so much that it doesn't get done unless someone else does it	1 2 3 4 5 6
32. If an unexpected financial opportunity arises, I am likely to seize it rather than consider a master plan	1 2 3 4 5 6
33. I prefer to take advantage of immediate opportunities, rather than make an overall savings plan	1 2 3 4 5 6

Financial decision making styles instrument (continued)

Analyst	Scoring
34. I regularly think about how to reposition assets to fit the economic conditions	1 2 3 4 5 6
35. I have at least 3 months' living expenses in an emergency savings fund	1 2 3 4 5 6
36. I know the financial outcomes I want, but prefer to have someone else carry out the strategies	1 2 3 4 5 6
ITEMS CONSIDERED FOR FUTURE ELIMINATION[a,b,c,d]	
37. I have a general idea about my savings goals[a,c]	1 2 3 4 5 6
38. I usually have written savings goals with time deadlines for accomplishment[a,c]	1 2 3 4 5 6
39. When it seems difficult to reach a goal, I make a list of all resources in order to think of a new way to do it[a,c]	1 2 3 4 5 6
40. When analyzing financial strategies, my only concern is: Will it work?[a,c]	1 2 3 4 5 6
41. I use credit cards without knowing exactly how much money I owe until the bill arrives[a,c,b]	1 2 3 4 5 6
42. I prefer someone else in the family to make decisions about money use (28)[a,c,b]	1 2 3 4 5 6
43. I make certain that monthly spending is consistent with my important values and goals[a,c]	1 2 3 4 5 6
44. A small decrease in my income or an unusual expense would seriously affect my financial stability[a,c]	1 2 3 4 5 6
45. I begin making financial plans, but have trouble deciding what to do[a,c]	1 2 3 4 5 6
46. I often borrow money to pay monthly bills	1 2 3 4 5 6
47. I plan for vacations several years ahead but have not yet planned for retirement[a,c]	1 2 3 4 5 6
48. I write checks but don't record them, so I don't know the daily account balance[a,b,c]	1 2 3 4 5 6
49. I assume there is enough money to buy what I want, but I don't really know the amount I currently have[a,b,c]	1 2 3 4 5 6
50. I put my financial ideas into practice quickly without worrying about their absolute correctness	1 2 3 4 5 6

[a]Items with lack of discriminant validity on correlations
[b]Items with lack of variance
[c]Items with poor face validity
[d]Items with low correlations with all thinking styles

Title

Economic Well-Being Index

Key Words

Well-Being, Financial Satisfaction

Author(s)

Celia R. Hayhoe and Mari S. Wilhelm

Source

Hayhoe, C. R., & Wilhelm, M. S. (1995). Discriminating between primary family financial managers and other adults in the family. *Financial Counseling and Planning, 6*(1), 75–82.

Description

This brief scale measures an individual's subjective view of the household's financial situation or the judgment of his/her economic situation.

Test Sample

The scale was used with a sample of 395 heterosexual couples from data collected in 1988.

Scoring

Each item is answered with a five-point Likert-type scale, ranging from 1 = very dissatisfied and 5 = very satisfied. Scores are summed to create an economic well-being index. Higher scores indicate increased economic well-being (satisfaction).

Reliability

Not reported

Validity

Not reported

Source Reference(s)

None

Note(s)

None

Item(s)

Economic well-being index

Items	Scoring
How satisfied are you with . . . 1. Current family income 2. Resources available to meet emergencies 3. Material things 4. Amount of the family's net worth	1 = Very dissatisfied 5 = Very satisfied

Title

Perceived Financial Progress Scale

Key Words

Financial Progress, Expectations

Author(s)

Mari S. Wilhelm, Karen Varcoe, and Angela H. Fridrich

Source

Wilhelm, M. S., Varcoe, K., & Fridrich, A. H. (1993). Financial satisfaction and assessment of financial progress: Importance of money attitudes. *Financial Counseling and Planning, 4*(1), 181–198.

Description

The authors conceptualized perceived financial progress to include one question regarding expectations and another question evaluating past progress.

Test Sample

The scale was normed using a sample of 280 males and 279 females living in Arizona and California.

Scoring

Each item was scored with a five-point Likert-type scale, with 1 = much worse and 5 = much better. Scores from the two items were summed to create a financial progress scale score.

Reliability

Not reported

Validity

Perceived financial progress was found to be positively related to a person's financial beliefs and behaviors, gross income, and value of assets.

Source Reference(s)

None

Note(s)

None

Item(s)

Perceived financial progress scale

Items	Scoring
What is your perception of your financial progress compared to 5 years ago?	1 = Much worse 5 = Much better
What is your expectation of financial progress 5 years into the future?	1 = Much worse 5 = Much better

Title

Financial Satisfaction Scale

Key Words

Financial Satisfaction, Financial Well-Being, Satisfaction

Author(s)

Deborah D. Godwin

Source

Godwin, D. D. (1994). Antecedents and consequences of newlyweds' cash flow management. *Financial Counseling and Planning, 5*(1), 161–190.

Description

This scale was developed to assess the financial well-being of survey respondents.

Test Sample

The scale was employed in a test of newlyweds' cash flow management behaviors. newlywed couples ($N = 256$) living in Georgia in 1992 responded to the scale questions.

Scoring

A scale scored is derived by summing the scores on the five Likert-type items, where a 1 = Very Dissatisfied and a 5 = Very Satisfied. Higher scores suggest greater financial satisfaction.

Reliability

Cronbach's alpha = 0.87

Validity

The financial satisfaction scale was used as an outcome variable in the study. The validity of the scale was supported by statistically significant positive associations noted between sources of income, income certainty, feelings of control, time horizons, and record keeping. A negative relationship was noted between satisfaction and income changes during the year. The nature of these relationships was as expected.

Source Reference(s)

None

Note(s)

None

Item(s)

Financial satisfaction scale

Items	Scoring
How satisfied are you . . .	
With the way you manage your money	1 = Very dissatisfied
With your financial situation	5 = Very satisfied
Compared to where you thought you would be, financial situation	
Compared to other families you know, financial situation	
With the way you divide up financial management tasks	

Title

Money Attitude Scale

Key Words

Money Attitudes

Author(s)

Celia R. Hayhoe and Mari S. Wilhelm

Source

Hayhoe, C. R., & Wilhelm, M. S. (1995). Discriminating between primary family financial managers and other adults in the family. *Financial Counseling and Planning, 6*(1), 75–82.

Description

The scale was modified from Furnham's (1984) Money Beliefs and Behaviors scale. This scale can be used to assess a person's beliefs concerning money issues.

Test Sample

The scale was used with a sample of 395 heterosexual couples from data collected in 1988.

Scoring

Each item is answered with a five-point Likert-type scale, ranging from 1 = strongly disagree and 5 = strongly agree. The scale has five subscales: (a) Obsession, (b) Retention, (c) Effort/Ability, (d) Inadequacy, and (e) Power/Spending.

Reliability

Not reported

Validity

Not reported

Source Reference(s)

Furnham, A. (1984). Many sides of the coin: The psychology of money usage. *Personality and Individual Differences, 5*, 501–509.

Note(s)

None

Item(s)

Not illustrated in article.

Title

Money Beliefs and Behavior Scale

Key Words

Money Attitudes, Money Beliefs, Financial Behavior

Author(s)

Mari S. Wilhelm, Karen Varcoe, and Angela H. Fridrich

Source

Wilhelm, M. S., Varcoe, K., & Fridrich, A. H. (1993). Financial satisfaction and assessment of financial progress: Importance of money attitudes. *Financial Counseling and Planning, 4*(1), 181–198.

Description

The Money Beliefs and Behavior scale was developed by modifying the Money Beliefs and Behaviors scale originally created by Furnham (1984). On the basis of the money beliefs, scale scores can be used to differentiate among individuals .

Test Sample

The scale was normed using a sample of 280 males and 279 females living in Arizona and California. A factor analysis was conducted to further reduce Furnham's scale. On the basis of the scale, the authors determined that "money beliefs contribute more to predicting an individual's financial satisfaction than to perception of financial progress. Results also indicate gender differences in the role of money beliefs in predicting financial satisfaction and perception of financial progress" (p. 181).

Scoring

Each item in the scale is scored using a five-point Likert-type response, where 1 = strongly disagree and 5 = strongly agree.

- High scores on the obsession factor reflect a preoccupation with the status of money.
- High scores on the retention factor indicate difficulty with spending money.
- High scores on the spend factor reflect a need to spend money to boost self-esteem.
- High scores on the effort/ability factor suggest a belief that the amount of income earned is deserved.

Reliability

Four factors were identified. Cronbach's alpha scores for each factor are shown below:

1. Obsession: 0.82
2. Retention: 0.64
3. Power/Spending: 0.74
4. Effort/Ability: 0.75

Validity

The authors noted gender differences based on scale scores. Men scored higher on obsession; women scored higher on the retention and spend factors. These findings help confirm the validity of the measure.

Source Reference(s)

Furnham, A. (1984). Many sides of the same coin: The psychology of money usage. *Personal and Individual Differences, 5*, 501–509.

Title

Financial Inhibition Scale (FIS)

Key Words

Financial, Financial Inhibition, Retirement, Savings, Motivation Personality

Author(s)

Kirstan A. Neukam & Douglas A. Hershey

Source

Neukam, K. A., & Hershey, D. A. (2003). Financial inhibition, financial activation, and saving for retirement. *Financial Services Review*, *12*, 19–37.

Description

The Financial Inhibition Scale (FIS) "was designed to assess fear-based motives believed to hinder the process of saving for retirement" (p. 19). The scale consists of two sub-scales, "financial worry" and "planning worry."

Test Sample

The scale were tested on two samples, the first sample consisted of "150 working adults 25–45 years of age, living in North Central Oklahoma at the time" (p. 22). The second sample included 270 working adults, consisting of 154 men and 116 women. The "data was obtained from a larger national study on psychological determinants of retirement planning among young and middle-aged working adults" (p. 28).

Scoring

Items are scored on a Likert-type scale from one to seven. A score of one indicates "strongly disagree" and a score of seven indicates "strongly agree.

Reliability

Reasonable internal consistency was found with an alpha score of 0.90.

Validity

The scale was found to be correlated with the BIS and BAS created by Carver & White (1994).

Source Reference(s)

Carver, C.S., & White, T. L., (1994). Behavioral inhibition, behavioral activation, and affective responses to impending reward and punishment: the BIS/BAS scales. *Journal of Personality and Social Psychology, 67*, 319–333.

Note(s)

Item(s)

Financial inhibition scale (FIS)

Items	Scoring
Financial worry subscale	1 = Strongly disagree 7 = Strongly agree
1. I worry about my finances in retirement	
2. I am concerned about being dependent upon friends or family members for financial support after I retire	
3. I often find myself concerned about not having enough money in retirement	
4. I worry about making mistakes in my financial preparations for retirement	
5. I am concerned about being financially stable in retirement	
6. I often feel that something bad will happen in retirement for which I will not have adequately saved	
Planning worry subscale	
7. Compared to my friends, I have a lot of fears involving financial planning for retirement	
8. I feel nervous and hesitant when doing financial planning for retirement	
9. I am hesitant about making retirement investment decisions because I am worried about making a mistake	

Title

Pessimistic Retirement Attitude Scale

Key Words

Financial Behavior, Financial Attitude, Retirement

Author(s)

So-hyun Joo and John E. Grable

Source

Joo, S., & Grable, J. E. (2005). Employee education and the likelihood of having a retirement savings program. *Financial Counseling and Planning, 16*(1), 37–50.

Description

This scale can be used to evaluate a person's attitude toward planning for retirement. This scale can be used in conjunction with the Optimistic Retirement Attitude Scale from the same study

Test Sample

The authors used questions from the ninth annual Retirement Confidence Survey (RCS) in a factor analysis with varimax rotation to develop this scale. The ninth annual RCS included 751 workers and 251 retirees surveyed between January and February 1999. The sample was deemed to be nationally representative. The authors delimited the sample to include only employed workers.

Scoring

Each question is measured with a four-point Likert-type scale, with 1 = not at all, 2 = not too well, 3 = well, and 4 = very well. Possible scores can range from 2 to 8. The mean score for the sample was 5.29. Higher scores suggest a pessimistic (i.e., negative) attitude towards planning and savings for retirement.

Reliability

Not reported

Validity

Scale scores were found to be negatively associated with having a retirement savings program.

Source Reference(s)

None

Note(s)

The Retirement Confidence Survey, co-sponsored by the Employee Benefit Research Institute, the American Savings Education Council, and Matthew Greenwald and Associates should be referenced whenever this scale is reproduced.

Item(s)

Pessimistic retirement attitude scale

Items	Scoring
I think preparing for retirement takes too much time and effort	1 = Not at all 2 = Not too well 3 = Well 4 = Very well
I feel it is pointless to plan for retirement because it is too far away to know what I need	1 = Not at all 2 = Not too well 3 = Well 4 = Very well

Title

Propensity to Plan Scale

Key Words

Personal Finance; Pensions and Retirement Planning; Financial Planning; Risk Tolerance; Employee Benefits; Investments

Author(s)

Richard Deaves, E. Theodore Veit, Gokul Bhandari, John Cheney

Source

Deaves, R. (2007). The savings and investment decisions of planners: A cross-sectional study of college employees. *Financial Services Review, 16*, 117–133.

Description

The instrument is made up of six items that assess the propensity to plan for retirement decision-making skills. Four of the questions assess "hypervigilance" "procrastination," "buck-passing," and "rationalization" strategies for making decisions in regards to retirement. Two questions assess for level of confidence in their investment knowledge and skills as it relates to retirement planning.

Test Sample

The scale was tested on 236 employees who were "faculty and staff at an American college that provides a 403(b) defined contribution plans its only pension alternative" (p. 119).

Scoring

Six items financial knowledge and skill, overall interest in personal finance, and the tendency to procrastinate are scored on a Likert-type scale, ranging from one to seven. Seven denotes strongly agree and one denotes strongly disagree for each item. High scores on four of the six items (3,4,5,6) and low scores on two of the items (1,2) indicate "planner temperament." Opposite scores indicate an "avoider mindset."

Reliability

The six items related to propensity to plan were found to be highly correlated through a factor analysis.

Validity

N/A

Source Reference(s)

Note(s)

Item(s)

Propensity to Plan Scale

1. I have a good understanding of the financial aspects of retirement planning.
2. I believe I have good investment skills.
3. It is too early to begin planning for retirement
4. I enjoy dealing with personal finances.
5. I am actively involved in all my financial decisions and retirement planning.
6. I tend to put off making financial decisions.

Title

Optimistic Retirement Attitude Scale

Key Words

Financial Behavior, Financial Attitude, Retirement

Author(s)

So-hyun Joo and John E. Grable

Source

Joo, S., & Grable, J. E. (2005). Employee education and the likelihood of having a retirement savings program. *Financial Counseling and Planning, 16*(1), 37–50.

Description

This scale can be used to evaluate a person's attitude toward planning for retirement. This scale can be used in conjunction with the Pessimistic Retirement Attitude Scale from the same study.

Test Sample

The authors used questions from the ninth annual Retirement Confidence Survey (RCS) in a factor analysis with varimax rotation to develop this scale. The ninth annual RCS included 751 workers and 251 retirees surveyed between January and February 1999. The sample was deemed to be nationally representative. The authors delimited the sample to include only employed workers.

Scoring

Each question is measured with a four-point Likert-type scale, with 1 = not at all, 2 = not too well, 3 = well, and 4 = very well. Possible scores can range from 2 to 8. The mean score for the sample was 3.21. Higher scores suggest an optimistic (i.e., positive) attitude towards planning and savings for retirement.

Reliability

Not reported

Validity

Scale scores were found to be positively associated with having a retirement savings program; however, the relationship was not significant at the $p < 0.05$ level.

Source Reference(s)

None

Note(s)

The Retirement Confidence Survey, co-sponsored by the Employee Benefit Research Institute, the American Savings Education Council, and Matthew Greenwald and Associates should be referenced whenever this scale is reproduced.

Item(s)

Optimistic retirement attitude scale

Items	Scoring
If I just save some money each month, I will be fine in my retirement	1 = Not at all 2 = Not too well 3 = Well 4 = Very well
I think anyone can have a comfortable retirement, if they just plan and save	1 = Not at all 2 = Not too well 3 = Well 4 = Very well

Title

Financial Confidence Scale

Key Words

Financial Strain, Financial Behavior, Emergency Fund

Author(s)

Jing Jian Xiao, Barbara M. Newman, Janice M. Prochaska, Berta Leon, Robert L. Bassett, and Janet L. Johnson

Source

Xiao, J. J., Newman, B. M., Prochaska, J. M., Leon, B., Bassett, R. L., & Johnson, J. L. (2004). Applying the Transtheoretical Model of Change to consumer debt behavior. *Financial Counseling and Planning, 15*(2), 89–100.

Description

This scale was designed to assess a respondent's confidence in meeting a financial emergency.

Test Sample

The scale was tested using a sample of individuals who were clients of a regional consumer credit counseling service. Respondents were offered a $25 incentive for completing the survey and scale. In addition, 263 students from a large southwestern university were included in the sample. A principal component factor analysis technique, using Varimax rotation, was employed to confirm that the items in the scale were theoretically similar. According to the authors, "The final Confidence scale included six items with factor loadings ranging from 0.61 to 0.74. This single factor accounted for 47.5% of the variance" (p. 92).

Scoring

Although not reported in the article, a four- or five-point Likert-type scoring system will work with this scale.

Reliability

Cronbach's alpha = 0.77.

Validity

According to the authors, the confidence scale "showed good psychometric properties with strong reliability and content validity" (p. 96).

Source Reference(s)

None

Note(s)

None

Item(s)

Financial confidence scale

Items
Please indicate your ability to meet the following financial expenses:
1. Your car breaks down
2. You become ill
3. It's the holidays
4. You are feeling stressed
5. Your financial situation changes
It is taking longer than expected to get rid of your credit card debt

Title

Financial Decision Involvement Scale

Key Words

Financial Decisions, Financial Management, Family Business

Author(s)

Sharon M. Danes, Nita Fitzgerald, and Kevin C. Doll

Source

Danes, S. M., Fitzgerald, N., & Doll, K. C. (2000). Financial and relationship predictors of family business goal achievement. *Financial Counseling and Planning, 11*(2), 43–54.

Description

This scale indicates who in a dyadic relationship is involved in discussions about seven family *farm* business financial decisions.

Test Sample

According to the authors, "There were statistically significant differences between husbands and wives on five out of the seven decision process questions. Husbands had higher means for the decision situations of buying or selling more land, whether to borrow money, and which farm operation bills to pay compared to the means for wives in those decision situations. Wives had higher means for how much money to allocate to family living and which family living bills to pay compared to the husbands" (p. 47). The range of scores for husbands and wives was 0–42, with mean scores for men of 29 ($SD = 11$) and 28 ($SD = 11$) for women.

Scoring

A Likert-type scale, with 0 = Not at All and 6 = Very Much is used with this scale. Typically, both partners in a relationship are asked the same questions. Responses are compared. High scores suggest greater financial decision involvement.

Reliability

Alpha reliability for husbands = 0.86; alpha reliability for wives = 0.88.

Validity

The scale was found to be positively associated with locus of control, adequacy of income perceptions, and financial decision tension. Negative associations between the scale and age, education, off-farm employment, having separate financial accounts, and frequency of managing family finances were noted.

Source Reference(s)

None

Note(s)

None

Item(s)

Financial decision involvement scale

Items	Scoring
Many discussions take place each day about decisions that need to be made within the family and the farm business. On a scale from 'not at all' (0) to 'very much' (6), circle the number that best reflects how much you are involved in discussions about the following kinds of decisions:	0 = Not at all 6 = Very much
1. How to record keeping is to be done	
2. Whether to borrow money	
3. Which farm operation bills to pay	
4. Whether to buy or sell land	
5. Whether to improve the house versus invest in the business	
6. How much money is allocated to family living	
7. Which family living bills to pay	

Title

Financial Expectations Index

Key Words

Financial Expectations, Financial Management, Financial Behavior

Author(s)

Nancy M. Porter and E. Thomas Garman

Source

Porter, N. M., & Garman, E. T. (1993). Testing a conceptual model of financial well-being. *Financial Counseling and Planning, 4*(1), 135–164.

Description

Porter and Garman (1993) developed this eight-item index to assess whether a survey respondent expects their financial situation to be better, worse, or about the same 5 years in the future.

Test Sample

The index was based on a sample of 491 Virginia citizens.

Scoring

The index uses the following scoring system: 1 = Probably be Worse; 2 = Be the Same; 3 = Probably be Better.

Reliability

Not reported

Validity

Scores on the index were used to predict self-reported levels of well-being (satisfaction).

Source Reference(s)

None

Note(s)

None

Item(s)

Financial expectations index

Items	Scoring
In 5 years I expect. . .	
My total amount of income will. . .	1 = Probably be worse; 2 = Be the same; 3 = Probably be better
My ability to save and invest will. . .	1 = Probably be worse; 2 = Be the same; 3 = Probably be better
My ability to meet large emergency expenses will. . .	1 = Probably be worse; 2 = Be the same; 3 = Probably be better

Financial expectations index (continued)

Items	Scoring
My retirement "nest egg" will...	1 = Probably be worse; 2 = Be the same; 3 = Probably be better
The amount of debt I have will...	1 = Probably be worse; 2 = Be the same; 3 = Probably be better
My total financial situation will...	1 = Probably be worse; 2 = Be the same; 3 = Probably be better
My insurance coverage will...	1 = Probably be worse; 2 = Be the same; 3 = Probably be better
My standard of living, the things I purchase such as housing, food, transportation, and recreation will...	1 = Probably be worse; 2 = Be the same; 3 = Probably be better

Title

Financial Management Satisfaction Item

Key Words

Financial Satisfaction, Financial Management, Financial Behavior

Author(s)

Barbara C. Kerkmann, Thomas R. Lee, Jean M. Lown, and Scot M. Allgood

Source

Kerkmann, B. C., Lee, T. R., Lown, J. M., & Allgood, S. M. (2000). Financial management, financial problems and marital satisfaction among recently married university students. *Financial Counseling and Planning, 11*(2), 55–64.

Description

This one-item was designed to assess a person's level of satisfaction with their financial management abilities. The question is intended to be used with married couples.

Test Sample

The scale was tested with a sample of 310 students enrolled at Utah State University.

Scoring

A five-point Likert-type scale is used with this item; 1 = Much Worse than Most and 5 = Much Better than Most.

Reliability

Not reported

Validity

Not reported

Source Reference(s)

None

Note(s)

None

Item(s)

Financial satisfaction item

Item	Scoring
Comparing yourself with other couples you know, how well are finances managed in your relationship	1 = Much worse than most 5 = Much better than most

Title

Financial Satisfaction Scale

Key Words

Financial Satisfaction, Well-Being, Debt

Author(s)

Tahira K. Hira and Olive M. Mugenda

Source

Hira, T. K., & Mugenda, O. M. (1999). The relationships between self-worth and financial beliefs, behavior, and satisfaction. *Journal of Family and Consumer Sciences, 91*(4), 76–82.

Description

This scale was created to evaluate a respondent's satisfaction with their current financial situation.

Test Sample

The scale was tested with a sample of 540 respondents living in Iowa in 1995. The majority of respondents were male with a median income of $45,000. The majority of respondents were married and employed. No additional information regarding the developmental process was provided.

Scoring

Each item is scored using the following Likert-type scoring system: 1 = Very Dissatisfied; 2 = Dissatisfied; 3 = Neither Dissatisfied or Satisfied; 4 = Satisfied; and 5 = Very Satisfied. Scores are summed. Scores can range from a low of 6 to a high of 30. Higher scores suggest greater financial satisfaction.

Reliability

Cronbach's alpha = 0.89.

Validity

Scores on the scale were used to differentiate respondents in terms of financial attitudes and behaviors. Generally, those with lower scores exhibited worse attitudes and behaviors.

Source Reference(s)

None

Note(s)

None

Item(s)

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Title

Financial Satisfaction Index

Key Words

Financial Satisfaction, Savings, Financial Emergencies

Author(s)

Jean M. Lown and In-Sook Ju

Source

Lown, J. M., & Ju, I.-S. (1992). A model of credit use and financial satisfaction. *Financial Counseling and Planning, 3*(1), 105–124.

Description

This six-item index, originally conceptualized by Berger, Powell, and Cook (1988) and Krannich, Riley, and Leffler (1988) was used by the authors to assess respondents' satisfaction with their current financial situation.

Test Sample

Index scores were used as the outcome variable among a sample ($N = 500$) of community credit union members in Utah.

Scoring

Likert-type scoring is used, with 1 = Very Dissatisfied and 6 = Very Satisfied. Higher summed scores indicate high financial satisfaction.

Reliability

Berger et al. (1988) reported a Cronbach's alpha = 0.87; Krannich et al. (1988) reported an alpha of 0.91. In this study, the calculated index alpha was 0.89.

Validity

As predicted by the Resource Management conceptual framework used in the study, financial satisfaction was associated with certain socioeconomic characteristics, attitudes toward credit, and actual credit practices.

Source Reference(s)

Berger, P. S., Powell, J., & Cook, A. S. (1988). The relation of economic factors to perceived stress in mobile families. *Lifestyles: Family and Economics Issues, 9*(4), 297–313.

Krannich, R., Riley, P., & Leffler, A. (1988). Perceived stress among non-metropolitan Utah residents. *Lifestyles: Family and Economic Issues, 9*(4), 281–294.

Note(s)

None

Item(s)

Financial satisfaction index

Items	Scoring
Please indicate your level of satisfaction with your ...	
Level of income	1 = Very dissatisfied 6 = Very satisfied
Money for family necessities	1 = Very dissatisfied 6 = Very Satisfied
Ability to handle financial emergencies	1 = Very dissatisfied 6 = Very satisfied
Amount of money owed	1 = Very dissatisfied 6 = Very satisfied
Level of savings	1 = Very dissatisfied 6 = Very satisfied
Money for future needs	1 = Very dissatisfied 6 = Very satisfied

Title

Financial Satisfaction Scale

Key Words

Financial Satisfaction, Financial Well-Being

Author(s)

Sharon A. DeVaney, Elizabeth E. Gorham, Janet C. Bechman, and Virginia A. Haldeman

Source

DeVaney, S. A., Gorham, E. E., Bechman, J. C., & Haldeman, V. A. (1996). Cash flow management and credit use: Effect of a financial information program. *Financial Counseling and Planning, 7*(1), 71–80.

Description

This scale provides an assessment of a person's level of satisfaction with their household financial situation.

Test Sample

This scale was used with a sample of women ($N = 196$) who participated in the Women's Financial Information Program (WFIP) in Indiana, Nevada, Utah, and Virginia in 1993 and 1994. WFIP was a 7-week program designed to help women increase their financial management skills. The normed mean score is 29.80.

Scoring

A four-point Likert-type scoring system is used with this scale; 1 = Very Dissatisfied and 4 = Very Satisfied. Higher scores indicate a higher level of financial satisfaction.

Reliability

The reported alpha is 0.89.

Validity

Scales scores were shown to be positively associated with having a spending and savings plan.

Source Reference(s)

None

Note(s)

None

Item(s)

Financial satisfaction scale

Items	Scoring
1. Level of household income	1 = Very dissatisfied
2. Money for family necessities	4 = Very satisfied
3. Money for family emergencies	
4. Current level of savings	
5. Amount of money owed	
6. Amount for future needs	
7. Way money handled in family	
8. Who handles family money	

Title

Financial Satisfaction Scale

Key Words

Financial Satisfaction, Financial Behavior

Author(s)

Tahira K. Hira and Olive M. Mugenda

Source

Hira, T. K., & Mugenda, O. M. (1998). Predictors of financial satisfaction: Difference between retirees and nonretirees. *Financial Counseling and Planning, 9*(2), 75–84.

Description

This brief scale was designed to measure a respondent's satisfaction with "various aspects of their financial situation" (p. 77).

Test Sample

The scale was tested with a sample of 529 Iowans in 1995.

Scoring

A five-point Likert-type scale was used, with 1 = Very Dissatisfied and 5 = Very Satisfied. A high score indicates increased financial satisfaction.

Reliability

Cronbach's alpha = 0.89.

Validity

In general, nonretirees were shown to be more dissatisfied with their level of savings, current debt level, financial situation, ability to meet long-term goals, ability to meet financial emergencies, and money management skills.

Source Reference(s)

None

Note(s)

None

Item(s)

Financial satisfaction scale

Items	Scoring
Please indicate your level of satisfaction with the following: 1. Regular monetary savings 2. Current debt levels 3. Family's current financial situation 4. Ability to meet long-term financial goals 5. Ability to meet financial emergencies 6. Money management skills	1 = Very dissatisfied 5 = Very satisfied

Title

Financial Satisfaction Scale

Key Words

Financial Satisfaction, Financial Behavior

Author(s)

E. Thomas Garman, Jinhee Kim, Constance Y. Kratzer, Bruce Brunson, and So-hyun Joo

Source

Garman, E. T., Kim, J., Kratzer, C. Y., Brunson, B. H., & Joo, S. (1999). Workplace financial education improves personal financial wellness. *Financial Counseling and Planning, 10*(1), 79–88.

Description

This brief scale was designed to assess a person's satisfaction with their current financial situation.

Test Sample

The scale was tested with a sample of 181 workers who had participated in four different types of personal financial planning educational workshops. Workers who scored lower on this scale tended to exhibit daily money problems.

Scoring

A four-point Likert-type scaling system is used with the scale: 1 = Strongly Agree; 2 = Tend to Agree; 3 = Tend to Disagree; and 4 = Strongly Disagree. A low score indicates high financial satisfaction.

Reliability

Not reported

Validity

Not reported

Source Reference(s)

None

Note(s)

None

Item(s)

Financial satisfaction scale

Item	Scoring
I am satisfied with the amount of money that I am able to save	1 = Strongly agree 2 = Tend to agree 3 = Tend to disagree 4 = Strongly disagree
I have difficulty living on my income	1 = Strongly agree 2 = Tend to agree 3 = Tend to disagree 4 = Strongly disagree
I worry about being able to pay monthly living expenses	1 = Strongly agree 2 = Tend to agree 3 = Tend to disagree 4 = Strongly disagree
I worry about how much money I owe	1 = Strongly agree 2 = Tend to agree 3 = Tend to disagree 4 = Strongly disagree
I feel confident about saving for a comfortable retirement	1 = Strongly agree 2 = Tend to agree 3 = Tend to disagree 4 = Strongly disagree
I think I will have enough income to live comfortably throughout retirement	1 = Strongly agree 2 = Tend to agree 3 = Tend to disagree 4 = Strongly disagree

Note: Negatively worded items are reverse coded

Title

Financial Strain Scale

Key Words

Financial Strain, Financial Behavior, Stress, Insolvency

Author(s)

Steven G. Aldana and Wendy Liljenquist

Source

Aldana, S. G., & Liljenquist, W. (1998). Validity and reliability of a financial strain survey. *Financial Counseling and Planning, 9*(2), 11–18.

Description

This scale measures financial strain by allowing researchers the opportunity to gauge five factors of strain leading to the need for financial counseling.

Test Sample

The scale was developed following a review of the financial behavior literature and a Delphi-type survey of financial professionals. The final scale was developed using a principal component analysis with a sample of 86 employed individuals who had gone to a Consumer Credit Counseling center and 67 individuals living in Utah. The Utah sample was used as a control group in the study. Five factors were identified in the scale: education, relationships, physical, credit, and obligations. The mean and standard deviation score for each factor are as follows: Education 8.65 and 2.06; Relationships 9.27 and 3.41; Physical 9.97 and 3.88; Credit 5.29 and 2.57; Obligations 9.55 and 3.96.

Scoring

A Likert-type scoring system is used, with 1 = Never, 2 = Rarely, 3 = Sometimes, 4 = Often, and 5 = Always. Scores of 43 or higher indicate financial strain and the need for financial counseling; scores lower than 43 suggest less need for counseling.

Reliability

The reliability of the entire scale was not reported; however, Cronbach alpha estimates for the five sub-factors were reported as follows: Education = 0.62; Relationships = 0.87; Physical = 0.89; Credit = 0.82; and Obligations = 0.87.

Validity

Individuals with a financial strain scale score of 43 or higher differed significantly from the control group. Specifically, those exhibiting financial strain had higher debt to income ratios, worse relationships, worse physical health, worse credit card usage, and a more difficult time meeting financial obligations.

Source Reference(s)

None

Note(s)

None

Item(s)

Financial strain scale

Items	Scoring
Education	1 = Never
1. I know how interest works on my current debts	2 = Rarely
2. I feel financially educated	3 = Sometimes
3. I feel well informed about financial matters	4 = Often
	5 = Always
Relationships	1 = Never
1. There are disagreements about money in my home	2 = Rarely
2. I tend to argue with others about money	3 = Sometimes
3. Financial problems hurt my relationships	4 = Often
4. My relationships with others are affected by financial problems	5 = Always
Physical	1 = Never
1. Are you ever unable to sleep well because of financial worries?	2 = Rarely
2. Do you ever get headaches from worry over money matters?	3 = Sometimes
3. Do your muscles get tense when you add up your bills?	4 = Often
4. Does your financial situation cause you to feel heartburn or an upset stomach?	5 = Always

Financial strain scale (continued)

Items	Scoring
Credit card use	1 = Never
1. I take on more debt to get nicer things	2 = Rarely
2. I get new credit cards to pay off old ones	3 = Sometimes
3. I make purchases on credit cards hoping that I will have the money later	4 = Often
	5 = Always
Meeting obligations	1 = Never
1. I pay my bills on time	2 = Rarely
2. I find it difficult to pay my bills	3 = Sometimes
3. Many of my bills are past due	4 = Often
4. I don't have enough money to pay my bills	5 = Always

Title

Financial Strain Scale

Key Words

Financial Strain, Financial Behavior, Financial Satisfaction

Author(s)

Lauren J. Leach, Celia R. Hayhoe, and Pamela R. Turner

Source

Leach, L. J., Hayhoe, C. R., & Turner, P. R. (1999). Factors affecting perceived economic well-being of college students: A gender perspective. *Financial Counseling and Planning, 10*(2), 11–22.

Description

This brief scale was designed to assess a person's level of financial strain in daily money matters.

Test Sample

The scale was tested with a sample of 426 college students enrolled at State University of New York College at Oneonta, University of Kentucky, University of Northern Iowa, Kansas State University, and University of Rhode Island.

Scoring

The questions are scored 1 = Yes and 0 = No.

Reliability

Not reported

Validity

Source Reference(s)

Note(s)

Item(s)

Title

Financial Strain Scale

Key Words

Financial Strain, Financial Worry, Financial Behavior

Author(s)

Jeffery R. Hibbert, Ivan F. Beutler, and Todd M. Martin

Source

Hibbert, J. R., Beutler, I. F., & Martin, T. M. (2004). Financial prudence and next generation financial strain. *Financial Counseling and Planning, 15*(2), 51–60.

Description

This scale was developed to assess the level of worry of respondents about financial behaviors and debt.

Test Sample

The scale was tested with a sample of 537 graduate and undergraduate students at two universities in the western and southeastern United States. The sample was representative of higher education populations (e.g., 54% female, 90% non-Hispanic white, 79% credit card holders, etc.).

Scoring

A five-item Likert-type scoring scale is used with the measure, with 1 = Never, 2 = Seldom, 3 = Sometimes, 4 = Usually, and 5 = Always. Scores are summed. Higher scores are indicative of greater financial strain and worry.

Reliability

Cronbach's alpha = 0.84.

Validity

Scale scores were negatively associated with financial prudence and positively related to credit card misuse.

Source Reference(s)

None

Note(s)

None

Item(s)

Financial strain scale

Items	Scoring
I worry about the ability to pay back the debt I owe	1 = Never 2 = Seldom 3 = Sometimes 4 = Usually 5 = Always
In light of the student loans I owe, I worry about my expected financial condition 5 years from now	1 = Never 2 = Seldom 3 = Sometimes 4 = Usually 5 = Always
I worry about where the money will come from to pay my expenses	1 = Never 2 = Seldom 3 = Sometimes 4 = Usually 5 = Always

Title

Financial Stress Item

Key Words

Financial Stress, Stress, Well-Being

Author(s)

Barbara O'Neill, Benoit Sorhaindo, Jing Jian Xiao, and E. Thomas Garman

Source

O'Neill, B., Sorhaindo, B., Xiao, J. J., & Garman, E. T. (2005). Financially distressed consumers: Their financial practices, financial well-being, and health. *Financial Counseling and Planning, 16*(1), 73–88.

Description

This single-item question was developed to evaluate a respondent's self-reported level of financial well-being and stress.

Test Sample

The instrument was tested with a sample (N = 3,121) of financially distressed consumers who telephoned a national credit counseling organization.

Scoring

The item is scored as follows: 1 = Low, 2 = Moderate, 3 = Severe, and 4 = Overwhelming. High scores are indicative of financial stress.

Reliability

Not reported

Validity

Not reported

Source Reference(s)

None

Note(s)

None

Item(s)

Financial Stress Item
"What do you feel is the level of your financial stress today?"

Title

Well-Being Index

Key Words

Well-Being, Financial Management, Financial Behavior

Author(s)

Nancy M. Porter and E. Thomas Garman

Source

Porter, N. M., & Garman, E. T. (1993). Testing a conceptual model of financial well-being. *Financial Counseling and Planning, 4*(1), 135–164.

Description

Porter and Garman (1993) developed this index to "provide a single measure of a respondent's perception of general well-being and life satisfaction" (p. 153).

Test Sample

The index was based on a sample of 483 Virginia citizens.

Scoring

The index uses a semantic differential method of assessment. According to the authors, "The responses to the eight semantic-differential items were summed and the sum divided by eight. The response to the single items asking, "How satisfied are you with your life as a whole these days" was multiplied by 1.1 and added to the average of the semantic-differential items to create a single variable" (p. 153).

Reliability

Not reported

Validity

Scores on the index were used to predict self-reported levels of well-being (satisfaction).

Source Reference(s)

None

Note(s)

None

Item(s)

Well-being index

I think my life is. . .	Scoring
Boring/interesting	1 2 3 4 5 6 7
Enjoyable/miserable	1 2 3 4 5 6 7
Useless/worthwhile	1 2 3 4 5 6 7
Friendly/lonely	1 2 3 4 5 6 7
Full/empty	1 2 3 4 5 6 7
Discouraging/hopeful	1 2 3 4 5 6 7
Disappointing/rewarding	1 2 3 4 5 6 7
Brings out the best in me/doesn't give me much chance	1 2 3 4 5 6 7
How satisfied are you about your life as a whole these days?	Completely dissatisfied(1) Completely satisfied(7)

Title

Financial Well-Being Scale

Key Words

Well-Being, Financial Satisfaction

Author(s)

Mari S. Wilhelm, Karen Varcoe, and Angela H. Fridrich

Source

Wilhelm, M. S., Varcoe, K., & Fridrich, A. H. (1993). Financial satisfaction and assessment of financial progress: Importance of money attitudes. *Financial Counseling and Planning, 4*(1), 181–198.

Description

The authors conceptualized financial well-being to include four self-perception factors.

Test Sample

The scale was normed using a sample of 280 males and 279 females living in Arizona and California.

Scoring

Each item was scored with a five-point Likert-type scale, with 1 = very dissatisfied and 5 = very satisfied. According to the authors, "The four items were summed with a higher score indicating a higher level of overall financial satisfaction" (p. 187).

Reliability

Not reported

Validity

Financial well-being/satisfaction was found to be positively related to a person's financial beliefs and behaviors and negatively associated with the amount of debt reported by respondents.

Source Reference(s)

None

Note(s)

None

Item(s)

Financial well-being scale

Items	Scoring
How satisfied are you with your . . .	
Level of income	1 = Very dissatisfied 5 = Very satisfied
Material goods	1 = Very dissatisfied 5 = Very satisfied
Resources to meet financial emergencies	1 = Very dissatisfied 5 = Very satisfied
Net worth	1 = Very dissatisfied 5 = Very satisfied

Title

Financial Well-Being Scale

Key Words

Financial Well-Being, Financial Satisfaction

Author(s)

Lauren J. Leach, Celia R. Hayhoe, and Pamela R. Turner

Source

Leach, L. J., Hayhoe, C. R., & Turner, P. R. (1999). Factors affecting perceived economic well-being of college students: A gender perspective. *Financial Counseling and Planning, 10*(2), 11–22.

Description

This brief scale was designed to assess a person's satisfaction with their financial situation and economic well-being.

Test Sample

The measure was tested with a sample of 426 college students enrolled at State University of New York College at Oneonta, University of Kentucky, University of Northern Iowa, Kansas State University, and University of Rhode Island.

Scoring

The items are scored on a five-point Likert-type scale with 1 = Terrible and 5 = Being Delighted. Scores can range from 6 to 30, with higher scores representing satisfaction with one's economic well-being (i.e., financial satisfaction).

Reliability

Not reported

Validity

According to the authors, "female students who scored high on perceived economic well-being had favorable comparisons of economic outcomes and low levels of strain" (p. 17).

Source Reference(s)

None

Note(s)

The authors added the following single item measure to the items to arrive at a summated score that could be scored from 7 to 36, with higher scores indicating financial satisfaction: "Please indicate your feelings about your economic and financial security with 1 = being extremely insecure and 6 = extremely secure."

Item(s)

Financial well-being scale

Items	Scoring
Please indicate your perception of the following items: 1. Level of income 2. Money of necessities 3. Ability to handle financial emergencies 4. Level of debt 5. Level of saving 6. Money for future needs	1 = Terrible 5 = Being delighted

Title

Financial Well-Being Measure

Key Words

Financial Well-Being, Financial Satisfaction

Author(s)

Lauren J. Leach, Celia R. Hayhoe, and Pamela R. Turner

Source

Leach, L. J., Hayhoe, C. R., & Turner, P. R. (1999). Factors affecting perceived economic well-being of college students: A gender perspective. *Financial Counseling and Planning, 10*(2), 11–22.

Description

This one-item measure was designed to assess a person's satisfaction with their financial situation and economic well-being.

Test Sample

The measure was tested with a sample of 426 college students enrolled at State University of New York College at Oneonta, University of Kentucky, University of Northern Iowa, Kansas State University, and University of Rhode Island.

Scoring

The question is scored on a six-point Likert-type scale with 1 = Extremely Insecure and 6 = Extremely Secure. Scores can range from 1 to 6, with higher scores representing satisfaction with one's economic well-being (i.e., financial satisfaction).

Reliability

Not reported

Validity

According to the authors, "female students who scored high on perceived economic well-being had favorable comparisons of economic outcomes and low levels of strain" (p. 17).

Source Reference(s)

None

Note(s)

None

Item(s)

Financial Well-Being Measure

"Please indicate your feelings about your economic and financial security with 1 = being extremely insecure and 6 = extremely secure."

Title

Health Status Item

Key Words

Health, Perception

Author(s)

Barbara O'Neill, Benoit Sorhaindo, Jing Jian Xiao, and E. Thomas Garman

Source

O'Neill, B., Sorhaindo, B., Xiao, J. J., & Garman, E. T. (2005). Financially distressed consumers: Their financial practices, financial well-being, and health. *Financial Counseling and Planning, 16*(1), 73–88.

Description

This single-item question was developed to assess a respondent's self-reported physical health status.

Test Sample

The instrument was tested with a sample (N = 3,121) of financially distressed consumers who telephoned a national credit counseling organization.

Scoring

The item is scored as follows: 1 = Poor, 2 = Satisfactory, 3 = Good, and 4 = Very Good.

Reliability

Not reported

Validity

According to the authors, this type of question is commonly used in the sociological, psychological, and medical literature (p. 78).

Source Reference(s)

None

Note(s)

None

Item(s)

Health Status Item
"Overall, would you say your health is very good, good, satisfactory, or poor?"

Title

Satisfaction Scale

Key Words

Financial Behavior, Debt, Satisfaction

Author(s)

Jing Jian Xiao and Jiayun Wu

Source

Xiao, J. J., & Wu, J. (2008). Completing debt management plans in credit counseling: An application of the Theory of Planned Behavior. *Journal of Financial Counseling and Planning, 19*(2), 29–45.

Description

This scale was designed to meet a specification within the Theory of Planned Behavior (Ajzen, 1991). Specifically, this scale measures a respondent's satisfaction with the debt management program/plan they are currently using.

Test Sample

This brief scale was developed and tested "based on the theory of planned behavior and the literature on consumer satisfaction" (p. 33). According to the authors:

> With assistance of a national credit counseling agency, we pre-tested the questionnaire with six clients of DMPs [debt management program] to improve its readability. Data collection had two steps. First, we recruited clients enrolling in a DMP administered by a national credit counseling agency. The agency issued a recruiting announcement to its clients in their monthly statements, and 356 clients who were interested in the survey contacted us via telephone, email, or fax with their contact information. We sent out only 326 surveys because 29 clients provided incomplete contact information. The questionnaires were sent between November 2005 and February 2006 via email to those with an email address or by postal mail to those without an email address. After submitting a completed survey, respondents received $10 for their participation. The second step of data collection occurred 3 months after the survey. With the assistance of the credit counseling agency, we received participants' plan completion status data and matched the survey data with the status data. This technique allowed us to measure the actual DMP completion behavior of the consumers who participated in the survey. The total number of surveys we received was 210, with an overall response rate of 64% (210/326). The response rates varied by types of contacts. Fifty out of the 88 clients receiving the mail survey replied, achieving a response rate of 57%; 160 out of the 238 clients receiving the email survey responded, achieving a response rate of 67%. Twenty observations had missing values in psychological variables and were excluded, resulting in a sample of 190 used in data analyses (p. 33).

Scoring

The items in the scale are measured using seven-point bipolar adjective scales. The first item is measured with 1 = Extremely Agree and 7 = Extremely Disagree. The second item is measured with 1 = Extremely Good and 7 = Extremely Bad. Scores are summed and averaged. Higher scores are indicative of a stronger satisfaction (i.e., more positive) on the part of the respondent.

Reliability

Not reported

Validity

The two items were positively correlated ($r = 0.83$).

Source Reference(s)

Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes, 50*, 179–211.

Note(s)

None

Item(s)

Satisfaction scale

	Scoring						
Item	I am satisfied with the debt management program's service[a]						
	Extremely agree	Quite agree	Slightly agree	Neither	Slightly disagree	Quite disagree	Extremely disagree
Item	I rate my relationship with the debt management program as ___________[a]						
	Extremely good	Quite good	Slightly good	Neither	Slightly bad	Quite bad	Extremely bad

[a]Items reverse coded

Title

Self-Perceived Health Status Item

Key Words

Financial Behavior, Health, Perception

Author(s)

Barbara O'Neill, Benoit Sorhaindo, Jing Jian Xiao, and E. Thomas Garman

Source

O'Neill, B., Sorhaindo, B., Xiao, J. J., & Garman, E. T. (2005). Financially distressed consumers: Their financial practices, financial well-being, and health. *Financial Counseling and Planning, 16*(1), 73–88.

Description

This single-item question was developed to assess the relationship between perceived health status and financial problems.

Test Sample

The instrument was tested with a sample ($N = 3{,}121$) of financially distressed consumers who telephoned a national credit counseling organization.

Scoring

The item is scored with a Yes (1) or No (0) answer.

Reliability

Not reported

Validity

Not reported

Source Reference(s)

None

Note(s)

None

Item(s)

Self-Perceived Health Status Item
"Do you feel your health has been affected by your financial problems?"

Title

Teen Saving Measure

Key Words

Financial Behavior, Saving

Author(s)

Joan C. Koonce, Yoko Mimura, Teresa A. Mauldin, A. Michael Rupured, and Jenny Jordan

Source

Koonce, J. C., Mimura, Y., Mauldin, T. A., Rupured, A. M., & Jordan, J. (2008). Financial information: Is it related to savings and investing knowledge and financial behavior of teenagers? *Journal of Financial Counseling and Planning, 19*(2), 19–28.

Description

This single-item measure was designed to assess how much money teenagers save.

Test Sample

This scaled was tested using a sample of 253 teenagers aged 14–19 who participated in a Georgia 4-H event in 2006.

Scoring

Scoring is based on categorical coding; refer to table for scoring.

Reliability

Not reported

Validity

The item was found to be highly correlated with financial behaviors, such as having a spending plan, keeping track of expenses, setting financial goals, saving earnings, and saving allowances.

Source Reference(s)

None

Note(s)

None

Item(s)

Teen saving measure

Item	Scoring
How much money have you saved?	
1. Less than $100	1
2. Between $101 and $200	2
3. Between $201 and $300	3
4. Between $301 and $400	4
5. Between $401 and $500	5
6. Between $501 and $1,000	6

Title

Recommended Financial Behaviors for Children Index

Key Words

Financial Behavior, Children

Author(s)

Alice M. Crites, Patricia A. Behal, Virginia A. Haldeman, and Kymberley K. Bennett

Source

Crites, A. M., Behal, P. A., Haldeman, V. A., & Bennett, K. K. (2001). Changing financial behaviors through home study. *Financial Counseling and Planning, 12*(2), 15–22.

Description

The index was designed to indicate what activities changed as the result of educational workshops.

Test Sample

This index was tested with a sample of parents who wanted to teach their children money management concepts. The families lived in Nevada and Washington. Overall, 179 boys and 166 girls participated in the study.

Scoring

The following coding was used: (a) Yes (changed as a result of lessons), (b) Working on It, (c) No (did not change), (d) Already Done Before Class, and (e) No Response.

Reliability

Not reported

Validity

Not reported

Source Reference(s)

None

Note(s)

None

Item(s)

Recommended financial behaviors for children index

Items	Scoring
My family discusses our financial goals and allows input from all members	(a) Yes (changed as a result of lessons) (b) Working on It (c) No (did not change) (d) Already done before class (e) No response
My children understand why they cannot have everything they want	(a) Yes (changed as a result of lessons) (b) Working on it (c) No (did not change) (d) Already done before class (e) No response

Recommended financial behaviors for children index (continued)

Items	Scoring
My children understand the difference between a need and a want	(a) Yes (changed as a result of lessons) (b) Working on it (c) No (did not change) (d) Already done before class (e) No response
My children receive allowances	(a) Yes (changed as a result of lessons) (b) Working on it (c) No (did not change) (d) Already done before class (e) No response
My children use a "spending plan"	(a) Yes (changed as a result of lessons) (b) Working on It (c) No (did not change) (d) Already done before class (e) No response
My children manage their allowances without my interfering	(a) Yes (changed as a result of lessons) (b) Working on It (c) No (did not change) (d) Already done before class (e) No response
My family avoids using money as a reward or punishment	(a) Yes (changed as a result of lessons) (b) Working on it (c) No (did not change) (d) Already done before class (e) No response
My children have their own savings accounts	(a) Yes (changed as a result of lessons) (b) Working on it (c) No (did not change) (d) Already done before class (e) No response
My children save for goals	(a) Yes (changed as a result of lessons) (b) Working on it (c) No (did not change) (d) Already done before class (e) No response

Recommended financial behaviors for children index (continued)

Items	Scoring
My children have some understanding of advertising techniques	(a) Yes (changed as a result of lessons) (b) Working on it (c) No (did not change) (d) Already done before class (e) No response

Title

Teenagers' Perceptions of Spending

Key Words

Spending, Teenager, Financial Behavior

Author(s)

M. J. Alhabeeb

Source

Alhabeeb, M. J. (1996). Teenagers' money, discretionary spending and saving. *Financial Counseling and Planning, 7*(1), 123–132.

Description

This measure provides an assessment of a young person's perceptions about their spending behavior.

Test Sample

A sample of 423 teenagers going to school in Springfield, Massachusetts responded to the item. Approximately 66% of teens report being content with their spending; 20% believe that they spend too little; one-sixth believe they spend too much.

Scoring

When used in an analysis, the items should be recoded dichotomously. In general, someone indicating contentment is satisfied with their spending level.

Reliability

Not reported

Validity

Not reported

Source Reference(s)

None

Note(s)

According to the author, teens spend more money on entertainment when they have higher income (p. 130). Teenagers who believe that they spend less actually spend more on entertainment than teens who believe that they spend too much.

Item(s)

Teenagers' perceptions of spending items

Item
How do you feel about the amount of money you spend on food, drink and snacks? 1. Spending too little 2. Content with the amount of money spent 3. Spending too much
How do you feel about the amount of money you spend on clothing and personal care? 1. Spending too little 2. Content with the amount of money spent 3. Spending too much
How do you feel about the amount of money you spend on entertainment? 1. Spending too little 2. Content with the amount of money spent 3. Spending too much

Title

Teenagers' Perceptions of Peers' Spending

Key Words

Spending, Teenager, Financial Behavior

Author(s)

M. J. Alhabeeb

Source

Alhabeeb, M. J. (1996). Teenagers' money, discretionary spending and saving. *Financial Counseling and Planning, 7*(1), 123–132.

Description

This measure provides an assessment of a young person's perceptions about their friends' spending.

Test Sample

A sample of 423 teenagers going to school in Springfield, Massachusetts responded to the item. Approximately 32% of teens believe their peers spend about the right amount; 6% believe that their friends spend too little; 62% believe that their peers spend too much.

Scoring

When used in an analysis, the items should be recoded dichotomously.

Reliability

Not reported

Validity

Not reported

Source Reference(s)

None

Note(s)

According to the author, teens spend more money on entertainment when they have higher income (p. 130). Teenagers who believe that they spend less actually spend more on entertainment than teens who believe that they spend too much.

Item(s)

Teenagers' perceptions of peers' spending items

Item
How do you feel about the amount of money your friends spend on food, drink and snacks? 4. Spend too little 5. Spend about the right amount 6. Spend too much
How do you feel about the amount of money your friends spend on clothing and personal care? 4. Spend too little 5. Spend about the right amount 6. Spend too much
How do you feel about the amount of money your friends spend on entertainment? 4. Spend too little 5. Spend about the right amount 6. Spend too much

Title

Retirement Confidence Scale

Key Words

Retirement, Confidence, Financial Attitude

Author(s)

So-hyun Joo and John E. Grable

Source

Joo, S., & Grable, J. E. (2005). Employee education and the likelihood of having a retirement savings program. *Financial Counseling and Planning, 16*(1), 37–50.

Description

This scale can be used to assess a person's confidence in reaching their retirement goal(s). The authors used the scale to determine what the impact of having a retirement savings program had on retirement confidence.

Test Sample

The authors used questions from the ninth annual Retirement Confidence Survey (RCS) in a factor analysis with varimax rotation to develop this scale. The ninth annual RCS included 751 workers and 251 retirees surveyed between January and February 1999. The sample was deemed to be nationally representative. The authors delimited the sample to include only employed workers.

Scoring

Each question is measured with a four-point Likert-type scale, with 1 = not at all confident, 2 = not too confident, 3 = confident, and 4 = very confident. Scores are summed. Possible scores can range from 5 to 20. Individuals without a retirement savings program scored 2.42 on average; those with a retirement program scored 3.06, on average. Higher scores indicate increased retirement confidence.

Reliability

Not reported

Validity

Scale scores were found to be positively associated with having a retirement savings program.

Source Reference(s)

None

Note(s)

The Retirement Confidence Survey, co-sponsored by the Employee Benefit Research Institute, the American Savings Education Council, and Matthew Greenwald and Associates should be referenced whenever this scale is reproduced.

Item(s)

Retirement confidence scale

Items	Scoring
Please indicate your level of confidence associated with the following statements:	1 = Not at all confident
1. Overall retirement confidence	2 = Not too confident
2. Doing a good job of preparing financially for retirement	3 = Confident
3. Will have enough money to take care of basic expenses during retirement	4 = Very confident
4. Will have enough money to take care of basic expenses during retirement	
5. Will have enough money to support retirement, no matter how long I live	

Title

Retirement Confidence Scale

Key Words

Financial Behavior, Financial Attitudes, Retirement

Author(s)

So-Hyun Joo and Vanda W. Pauwels

Source

Joo, S-H., & Pauwels, V. W. (2002). Factors affecting workers' retirement confidence: A gender perspective. *Financial Counseling and Planning, 13*(2), 1–10.

Description

The authors use the 1999 Retirement Confidence Survey (RCS) to construct this scale. The items were part of the original RCS.

Test Sample

The scale was created and tested using data from the RCS. The sample was delimited to include only respondents who were employed either full- or part-time. Scores can range from 5 to 20. According to the authors, "The mean score for the female worker sample was 14.1, and the mean score for the male worker sample was 15.0. Gender differences were found to be statistically significant.

Scoring

A four-point Likert-type scale, with 1 = Not at all Confident and 4 = Very Confident, is used with this scale. Higher scores indicate an increased level of retirement confidence.

Reliability

Not reported

Validity

Not reported

Source Reference(s)

Employee Benefit Research Institute. (n.d./2001). The 1999 Retirement Confidence Survey summary of findings. Download available at: http://www.ebri.org/pdf/surveys/rcs/1999/rcssummary.pdf

Note(s)

None

Item(s)

Retirement confidence scale

Items	Scoring
Please indicate your level of confidence associated with the following:	1 = Not at all confident
1. Confidence about having enough money to live comfortably in retirement	4 = Very confident
2. Confidence about financial preparation	
3. Confidence about having enough money to cover medical expenses	
4. Confidence about having enough money to take care of basic expenses	
5. Confidence about having enough money to support yourself throughout your life, no matter how long you live	

Title

Financial Well-Being

Key Words

Financial Well-Being, Financial Satisfaction, Economic Well-Being

Author(s)

Nancy M. Porter and E. Thomas Garman

Source

Porter, N. M., & Garman, E. T. (1993). Testing a conceptual model of financial well-being. *Financial Counseling and Planning, 4*(1), 135–164.

Description

This measurement provides researchers with a single item that can be used to assess a person's level of financial well-being (satisfaction).

Test Sample

The instrument was developed using data from a sample of 506 Virginia citizens.

Scoring

Respondents are asked to "Imagine the best financial situation as forming the upper end of the scale and the worst possible financial situation as forming the lower end of the scale. "After the ladder become self-anchored in this manner, the respondent is asked to locate an estimate of his/her current financial situation along the ladder between these two extremes. Thus, a self-perception of financial well-being is revealed by each person responding to the single question concerning financial satisfaction" (p. 139).

Reliability

Not reported

Validity

Scores on the item were compared to six conceptual areas of personal financial behavior. These comparisons indicated that individuals who self-reported higher well-being exhibited better financial behavior.

Source Reference(s)

Note(s)

The item was developed using Cantril's (1965) self-anchoring striving scale as a base measure.

Item(s)

Financial well-being

The best possible financial situation

11

10

9

8

7

6

5

4

3

2

1

The Worst Possible Financial Situation

Title

Thrift Perception Measure

Key Words

Thrift, Financial Behavior, Savings

Author(s)

Lewis Mandell and Linda S. Klein

Source

Mandell, L., & Klein, L. S. (2009). The impact of financial literacy education on subsequent financial behavior. *Journal of Financial Counseling and Planning, 20*(1), 15–24.

Description

This measure was designed to assess a person's self-perception of thrift and saving.

Test Sample

The item was tested using a sample of 39 high school student graduates between 2001 and 2004 who had taken a course in personal financial management while in high school and 40 who had not. The purpose of the survey was to determine if high school personal finance education ultimately changed financial behavior. The item was included in JumpStart surveys of high school students.

Scoring

The item was designed to provide a descriptive view of a person's thrift attitude. Presumably, an ordinal scale could be used based on the numbering of the answers (reverse coded).

Reliability

Not reported

Validity

Not reported

Source Reference(s)

Mandell, L. (2006). *Financial literacy: Improving education results of the 2006 national Jump$tart survey*. Washington, DC: Jumpstart Coalition.

Note(s)

None

Item(s)

Thrift Perception Measure

"Some people tend to be very thrifty, saving money whenever they have the chance, while others are very spending-oriented, buying whenever they can and even borrowing to consumer more. How would you classify yourself?"

1. Very thrifty, saving money whenever I can
2. Somewhat thrifty, often saving money
3. Neither thrifty nor spending-oriented
4. Somewhat spending-oriented, seldom saving money
5. Very spending-oriented, hardly ever saving money

Title

Optimistic Attitude Toward Debt and Future Scale

Key Words

Financial Attitude, Debt, Time Preference

Author(s)

Cassandra Wells

Source

Wells, C. (2007). Optimism, intertemporal choice, and college student debt. *Journal of Personal Finance, 5*(4), 44–66.

Description

This brief scale was developed to evaluate a college student respondent's optimism about the use of credit and their financial future.

Test Sample

A sample ($N = 150$) college-aged students from several colleges campuses in one southeastern U.S. city were used to test the scale.

Scoring

See table for item scoring characteristics. Once scored, items are summed. Higher scores suggest a more positive attitude toward debt and the future. The man composite score for respondents was 3.23.

Reliability

Cronbach's alpha = 0.79.

Validity

Not reported

Source Reference(s)

None

Note(s)

None

Item(s)

Optimistic attitude toward debt and future scale

Items	Scoring
How concerned are you that your current credit status will affect your future?	1 = Not very concerned 5 = Very concerned
What level of influence does your present debt have on your financial decisions?[a]	1 = No influence 5 = Total influence
I am worried about being able to pay off my school loans in timely fashion[a]	1 = Strongly disagree 5 = Strongly agree
The debt I incur in college will impact my financial stability in the future[a]	1 = Strongly disagree 5 = Strongly agree
I often think about the effect of my present debt situation on my future[a]	1 = Strongly disagree 5 = Strongly agree

[a]Reverse coded

Title

Financial Attitude Scale

Key Words

Financial Attitude, Financial Management Behavior, Satisfaction

Author(s)

Jodi L. Parrotta and Phyllis J. Johnson

Source

Parrotta, J. L., & Johnson, P. J. (1998). The impact of financial attitudes and knowledge on financial management and satisfaction of recently married individuals. *Financial Counseling and Planning, 9*(2), 59–74.

Description

This scale was developed to measure attitudes related to cash flow management, credit management, retirement and estate planning, risk management, general financial management, and capital accumulation.

Test Sample

The scale was tested with a sample of Canadians living in a western city. Respondents included 565 individuals who had previously attended a marriage preparation class in 1992. Factor analysis was used to verify the unidimensional nature of the scale. The mean and standard deviation scores were 4.18 and 0.36, respectively.

Scoring

The scale is scored using a five-point Likert-type scoring system, with 1 = Strongly Disagree and 5 = Strongly Agree. Higher scores indicate a more positive attitude toward the concept and when summed, an elevated financial attitude.

Reliability

The Cronbach's alpha for the scale is 0.75.

Validity

Financial knowledge was shown to be predicted by financial attitudes. Those with better attitudes exhibited better financial behavior.

Source Reference(s)

Godwin, D. D., & Carroll, D. D. (1986). Financial management attitudes and behavior of husbands and wives. *Journal of Consumer Studies and Home Economics, 10*, 77–96.

Note(s)

None

Item(s)

Financial attitude scale

Items	Scoring
It is important for a family to develop a regular pattern of saving and stick to it	1 = Strongly disagree 5 = Strongly agree
Keeping record of financial matters is too time-consuming to worry about	1 = Strongly disagree 5 = Strongly agree
Families should have written financial goals that help them determine priorities in spending	1 = Strongly disagree 5 = Strongly agree
A written budget is absolutely essential for successful financial management	1 = Strongly disagree 5 = Strongly agree
Saving is not really important	1 = Strongly disagree 5 = Strongly agree
As long as one meets monthly payments there is no need to worry about the length of time it will take to pay off outstanding debts	1 = Strongly disagree 5 = Strongly agree
Families should really concentrate on the present when managing their finances	1 = Strongly disagree 5 = Strongly agree
Financial planning for retirement is not really necessary for assuring one's security during old age	1 = Strongly disagree 5 = Strongly agree
Having a financial plan makes it difficult to make financial investment decisions	1 = Strongly disagree 5 = Strongly agree

Financial attitude scale (continued)

Items	Scoring
Having a savings plan is not really necessary in today's world in order to meet one's financial needs	1 = Strongly disagree 5 = Strongly agree
It is really essential to plan for the possible disability of a family wage earner	1 = Strongly disagree 5 = Strongly agree
Planning is an unnecessary distraction when families are just trying to get by today	1 = Strongly disagree 5 = Strongly agree
Planning for spending money is essential to successfully managing one's life	1 = Strongly disagree 5 = Strongly agree
Planning for the future is the best way of getting ahead	1 = Strongly disagree 5 = Strongly agree
Thinking about where you will be financially in 5 or 10 years in the future is essential for financial success	1 = Strongly disagree 5 = Strongly agree

Negatively worded items should be recoded

Title

Peer Reference Group Index

Key Words

Financial Comparisons, Financial Management, Financial Behavior

Author(s)

Nancy M. Porter and E. Thomas Garman

Source

Porter, N. M., & Garman, E. T. (1993). Testing a conceptual model of financial well-being. *Financial Counseling and Planning, 4*(1), 135–164.

Description

Porter and Garman (1993) developed this six-item index to evaluate a person's perceptions of their financial situation compared to their peer financial reference group.

Test Sample

The index was based on a sample of 475 Virginia citizens.

Scoring

The index uses the following scoring system: 1 = Less Desirable; 2 = About the Same; 3 = More Desirable.

Reliability

Not reported

Validity

Scores on the index were compared to self-assessed financial well-being. Peer reference group evaluations were used to predict self-reported levels of well-being (satisfaction).

Source Reference(s)

None

Note(s)

None

Item(s)

Peer reference group index

Items	Scoring
Compared to…	
People I work with, my ability to meet a financial emergency of \$500–\$1,000 is…	1 = Less desirable; 2 = About the same; 3 = More desirable
My friends, the likelihood that I will be able to have a financially secure retirement is…	1 = Less desirable; 2 = About the same; 3 = More desirable

Peer reference group index (continued)

Items	Scoring
My parents' financial situation when they were my age, my financial situation is. . ..	1 = Less desirable; 2 = About the same; 3 = More desirable
Other people I know with similar incomes, the amount of debt that I owe is. . .	1 = Less desirable; 2 = About the same; 3 = More desirable
Other people my age, my life, health, disability insurance coverage is. . .	1 = Less desirable; 2 = About the Same; 3 = More desirable
Most of my friends, my standard of living, the things I purchase such as housing, food, transportation, and recreation is. . .	1 = Less desirable; 2 = About the same; 3 = More desirable

Title

Financial Feelings Scale

Key Words

Financial Well-Being, Financial Satisfaction, Confidence

Author(s)

Sharon A. DeVaney, Elizabeth E. Gorham, Janet C. Bechman, and Virginia A. Haldeman

Source

DeVaney, S. A., Gorham, E. E., Bechman, J. C., & Haldeman, V. A. (1996). Cash flow management and credit use: Effect of a financial information program. *Financial Counseling and Planning, 7*(1), 71–80.

Description

This scale provides an assessment of a person's feelings and attitudes about their personal financial management skills.

Test Sample

This scale was used with a sample of women ($N = 196$) who participated in the Women's Financial Information Program (WFIP) in Indiana, Nevada, Utah, and Virginia in 1993 and 1994. WFIP was a 7-week program designed to help women increase their financial management skills. The normed mean score is 26.06.

Scoring

A four-point Likert-type scoring system is used with this scale; 1 = Strongly Disagree and 4 = Strongly Agree. Higher scores indicate enhanced feelings and attitudes about personal finances.

Reliability

The reported alpha is 0.90.

Validity

Not reported

Source Reference(s)

None

Note(s)

None

Item(s)

Financial feelings scale

Items	Scoring
1. Confident managing money	1 = Strongly disagree
2. Anxious about finances	4 = Strongly agree
3. Comfortable about spending	
4. Confident to set priorities	
5. Easy to make decisions	
6. Know where to get assistance	
7. Ability to solve problems	
8. Identify appropriate goals	
9. Achieve goals I set	
10. Skills top positively affect	

Title

Attitude Toward Human Interaction Scale

Key Words

Investment Confidence, Investment Risk Preference, Price Sensitivity, Attitude Towards Human Interaction and Attitude Towards Investment Advice

Author(s)

Yinghao M. Li, Jinkook Lee, and Brenda J. Cude

Source

Li, Y. M., Lee, J., & Cude, B. J. (2002). Intention to adopt online trading: Identifying the future online traders. *Financial Counseling and Planning, 13*(2), 49–64.

Description

This brief scale was developed as part of a study designed to differentiate between future and nonfuture adopters of online investment trading. This scale measures a person's confidence when making an investment decision.

Test Sample

The scale was tested with an investor sub-sample of 3,759 MacroMonitor database. "MacroMonitor is a biennial survey conducted by the Consumer Finance Decision section of SRI Consulting Corporation. It focuses on retail financial services and covers attitudes, behaviors, and motivations related to financial services" (p. 52). According to the authors, "Since confidence, investment risk preference, price sensitivity, attitude toward human interaction, and attitude toward using investment advice were measured with multiple items, factor analysis was used. Principle component factor analysis was conducted, and using varimax rotation, an orthogonal factor structure was obtained to avoid multicollinearity" (pp. 52–53).

Scoring

Scale questions were coded on a 4-point Likert-type scale ranging from 1 = mostly disagree to 4 =mostly agree. A positive score indicates that a respondent desires personal interactions when making investment decisions.

Reliability

Not reported

Validity

Not reported

Source Reference(s)

None

Note(s)

None

Item(s)

Attitude toward human interaction scale

Items	Scoring
Chatting with the people I know at financial institutions is an important part of doing financial business for me	1 = Mostly disagree 4 = Mostly agree
The less I talk to financial institution personnel the better[a]	1 = Mostly disagree 4 = Mostly agree
I prefer to do most of my financial business in person	1 = Mostly disagree 4 = Mostly agree

[a]Reverse code item

Title

Attitude Scale

Key Words

Financial Behavior, Debt, Attitude Toward Debt

Author(s)

Jing Jian Xiao and Jiayun Wu

Source

Xiao, J. J., & Wu, J. (2008). Completing debt management plans in credit counseling: An application of the Theory of Planned Behavior. *Journal of Financial Counseling and Planning, 19*(2), 29–45.

Description

This scale was designed to meet a specification within the Theory of Planned Behavior (Ajzen, 1991). Specifically, this scale measures a respondent's attitude towards staying in a debt management program in order to reduce debt.

Test Sample

This brief scale was developed and tested "based on the theory of planned behavior and the literature on consumer satisfaction" (p. 33). According to the authors:

> "With assistance of a national credit counseling agency, we pre-tested the questionnaire with six clients of DMPs [debt management program] to improve its readability. Data collection had two steps. First, we recruited clients enrolling in a DMP administered by a national credit counseling agency. The agency issued a recruiting announcement to its clients in their monthly statements, and 356 clients who were interested in the survey contacted us via telephone, email, or fax with their contact information. We sent out only 326 surveys because 29 clients provided incomplete contact information. The questionnaires were sent between November 2005 and February 2006 via email to those with an email address or by postal mail to those without an email address. After submitting a completed survey, respondents received $10 for their participation. The second step of data collection occurred 3 months after the survey. With the assistance of the credit counseling agency, we received participants' plan completion status data and matched the survey data with the status data. This technique allowed us to measure the actual DMP completion behavior of the consumers who participated in the survey. The total number of surveys we received was 210, with an overall response rate of 64% (210/326). The response rates varied by types of contacts. Fifty out of the 88 clients receiving the mail survey replied, achieving a response rate of 57%; 160 out of the 238 clients receiving the email survey responded, achieving a response rate of 67%. Twenty observations had missing values in psychological variables and were excluded, resulting in a sample of 190 used in data analyses" (p. 33).

Scoring

The items in the scale are measured using seven-point bipolar adjective scales. The first item is measured with 1 = Extremely Good and 7 = Extremely Bad. The second item is measured with 1 = Extremely Wise and 7 = Extremely Foolish. Scores are summed and averaged. Higher scores are indicative of a stronger attitude (i.e., more positive) on the part of the respondent.

Reliability

Not reported

Validity

The two items were positively correlated ($r = 0.59$).

Source Reference(s)

Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes, 50*, 179–211.

Note(s)

None

Item(s)

Attitude scale

	Scoring						
Item	My being in the debt management plan to reduce debt is:						
	Extremely good	Quite good	Slightly good	Neither	Slightly bad	Quite bad	Extremely bad
Item	My being in the debt management plan to reduce debt is:						
	Extremely wise	Quite wise	Slightly wise	Neither	Slightly foolish	Quite foolish	Extremely foolish

Title

Intention Scale

Key Words

Financial Behavior, Debt, Intention

Author(s)

Jing Jian Xiao and Jiayun Wu

Source

Xiao, J. J., & Wu, J. (2008). Completing debt management plans in credit counseling: An application of the Theory of Planned Behavior. *Journal of Financial Counseling and Planning, 19*(2), 29–45.

Description

This scale was designed to meet a specification within the Theory of Planned Behavior (Ajzen, 1991). Specifically, this scale measures a respondent's intention to stay in a debt management program in order to reduce debt.

Test Sample

This brief scale was developed and tested "based on the theory of planned behavior and the literature on consumer satisfaction" (p. 33). According to the authors:

> "With assistance of a national credit counseling agency, we pre-tested the questionnaire with six clients of DMPs [debt management program] to improve its readability. Data collection had two steps. First, we recruited clients enrolling in a DMP administered by a national credit counseling agency. The agency issued a recruiting announcement to its clients in their monthly statements, and 356 clients who were interested in the survey contacted us via telephone, email, or fax with their contact information. We sent out only 326 surveys because 29 clients provided incomplete contact information. The questionnaires were sent between November 2005 and February 2006 via email to those with an email address or by postal mail to those without an email address. After submitting a completed survey, respondents

received $10 for their participation. The second step of data collection occurred 3 months after the survey. With the assistance of the credit counseling agency, we received participants' plan completion status data and matched the survey data with the status data. This technique allowed us to measure the actual DMP completion behavior of the consumers who participated in the survey. The total number of surveys we received was 210, with an overall response rate of 64% (210/326). The response rates varied by types of contacts. Fifty out of the 88 clients receiving the mail survey replied, achieving a response rate of 57%; 160 out of the 238 clients receiving the email survey responded, achieving a response rate of 67%. Twenty observations had missing values in psychological variables and were excluded, resulting in a sample of 190 used in data analyses" (p. 33).

Scoring

The items in the scale are measured using seven-point bipolar adjective scales. The first item is measured with 1 = Extremely Weak and 7 = Extremely Strong. The second item is measured with 1 = Extremely Unlikely and 7 = Extremely Likely. Scores are summed and averaged. Higher scores suggest stronger intention on the part of the respondent.

Reliability

Not reported

Validity

The two items were positively correlated ($r = 0.71$).

Source Reference(s)

Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes, 50*, 179–211.

Note(s)

None

Item(s)

Intention scale

	Scoring						
Item	My intention to staying in the debt management program to reduce debt is:						
	Extremely strong	Quite strong	Slightly strong	Neither	Slightly weak	Quite weak	Extremely weak
Item	I will stay in the debt management program to reduce my debt till it ends						
	Extremely likely	Quite likely	Slightly likely	Neither	Slightly unlikely	Quite unlikely	Extremely unlikely

Title

Financial Self-Efficacy Item

Key Words

Self-Efficacy, Financial Behavior

Author(s)

Sharon M. Danes and Heather R. Haberman

Source

Danes, S. M., & Haberman, H. R. (2007). Teen financial knowledge, self-efficacy, and behavior: A gendered view. *Financial Counseling and Planning, 18*(2), 48–60.

Description

This one-item can be used to assess a "person's feeling of being able to deal effectively with a situation" (p. 52).

Test Sample

The item was tested with data from 5,329 "high school students who studied one [financial education] curriculum available to teach personal finance" (p. 51). A Delphi methodology was used to evaluate the item.

Scoring

The item is scored with a five-point Likert-type system, with 1 = Strongly Disagree and 5 = Strongly Agree. Higher scores are indicative of increased financial self-efficacy.

Reliability

Not reported

Validity

Differences between male and female teens were noted, as hypothesized in the literature.

Source Reference(s)

None

Note(s)

None

Item(s)

Financial self-efficacy item

Item	Scoring
I believe the way I manage my money will affect my future	1 = Strongly disagree 5 = Strongly agree

Title

Financial Self-Efficacy Item

Key Words

Self-Efficacy, Financial Behavior

Author(s)

Sharon M. Danes and Heather R. Haberman

Source

Danes, S. M., & Haberman, H. R. (2007). Teen financial knowledge, self-efficacy, and behavior: A gendered view. *Financial Counseling and Planning, 18*(2), 48–60.

Description

This one-item can be used to assess a "person's feeling of being able to deal effectively with a situation" (p. 52).

Test Sample

The item was tested with data from 5,329 "high school students who studied one [financial education] curriculum available to teach personal finance" (p. 51). A Delphi methodology was used to evaluate the item.

Scoring

The item is scored with a five-point Likert-type system, with 1 = Almost Never and 5 = Almost Always. Higher scores are indicative of increased financial self-efficacy.

Reliability

Not reported

Validity

Differences between male and female teens were noted, as hypothesized in the literature.

Source Reference(s)

None

Note(s)

None

Item(s)

Financial self-efficacy item

Item	Scoring
I feel confident about making decisions that deal with money	1 = Almost never 5 = Almost always

Title

Social Liberation Scale

Key Words

Behavioral Change, Transtheoretical Model of Change

Author(s)

Jing Jian Xiao, Barbara M. Newman, Janice M. Prochaska, Berta Leon, Robert L. Bassett, and Janet L. Johnson

Source

Xiao, J. J., Newman, B. M., Prochaska, J. M., Leon, B., Bassett, R. L., & Johnson, J. L. (2004). Applying the Transtheoretical Model of Change to consumer debt behavior. *Financial Counseling and Planning, 15*(2), 89–100.

Description

This scale was designed to assess an important aspect of the Transtheoretical Model of Change. According to the authors, social liberation refers to "realizing that social norms are changing in the direction of supporting the healthy behavior change" (p. 90).

Test Sample

The scale was tested using a sample of individuals who were clients of a regional consumer credit counseling service. Respondents were offered a $25 incentive for completing the survey and scale. In addition, 263 students from a large southwestern university were included in the sample. An exploratory factor analysis, using a structural equation modeling technique was used to design the scale. According to the authors (p. 94), "Due to the underlying complexity of the processes of change, the exploratory phase of development involved using Structural Equation Modeling to explore the structure of the items and constructs. Maximum Likelihood (ML) was used as the estimator of model fit due to the robustness of this estimator with slightly non-normal data (Harlow, 1985). The analysis was conducted on the matrix of inter-item covariances. Due to the nature of the analyses, items were forced to load on a priori proposed constructs. Several iterations of models were tested in order to attain better fitting models. Items were either removed or reorganized based on high residuals, the Lagrange Multiplier test, the Wald test, factor correlations, Cronbach's coefficient alpha with and without individual items, and item content and component interpretability. Again component interpretability involved keeping the strongest items while maintaining the breadth of the construct as with the Decisional Balance and Confidence scales. This series of steps was completed several times before an appropriate fitting model of the processes was agreed upon."

Scoring

A five-point Likert-type scaling system is used with this scale, with 1 = Never, 2 = Seldom, 3 = Occasionally, 4 = Often, and 5 = Repeatedly. Scores are summed. A high scale scores is indicative of higher social liberation.

Reliability

Cronbach's alpha = 0.78.

Validity

The items scales were found to be theoretically consistent with the Transtheoretical Model of Change.

Source Reference(s)

None

Note(s)

The third item refers to a specific company. Researchers who use this scale should consider modifying this item.

Item(s)

Social liberation scale

Items	Scoring
How often did you notice agencies that are willing to help?	1 = Never 2 = Seldom 3 = Occasionally 4 = Often 5 = Repeatedly
How often did you notice that there are places that can assist with credit card debt such as cooperative extensions and consumer credit counseling services?	1 = Never 2 = Seldom 3 = Occasionally 4 = Often 5 = Repeatedly
How often were you aware of AmeriDebt and other such credit card consolidation commercials?	1 = Never 2 = Seldom 3 = Occasionally 4 = Often 5 = Repeatedly

Title

Reinforcement Management Scale

Key Words

Behavioral Change, Transtheoretical Model of Change, Debt

Author(s)

Jing Jian Xiao, Barbara M. Newman, Janice M. Prochaska, Berta Leon, Robert L. Bassett, and Janet L. Johnson

Source

Xiao, J. J., Newman, B. M., Prochaska, J. M., Leon, B., Bassett, R. L., & Johnson, J. L. (2004). Applying the Transtheoretical Model of Change to consumer debt behavior. *Financial Counseling and Planning, 15*(2), 89–100.

Description

This scale was designed to assess an important aspect of the Transtheoretical Model of Change. According to the authors, reinforcement management refers to "increasing the rewards for the positive behavior change and decreasing the rewards of the unhealthy behavior" (p. 90).

Test Sample

The scale was tested using a sample of individuals who were clients of a regional consumer credit counseling service. Respondents were offered a $25 incentive for completing the survey and scale. In addition, 263 students from a large southwestern university were included in the sample. An exploratory factor analysis, using a structural equation modeling technique was used to design the scale. According to the authors (p. 94), "Due to the underlying complexity of the processes of change, the exploratory phase of development involved using Structural Equation Modeling to explore the structure of the items and constructs. Maximum Likelihood (ML) was used as the estimator of model fit due to the robustness of this estimator with slightly non-normal data (Harlow, 1985). The analysis was conducted on the matrix of inter-item covariances. Due to the nature of the analyses, items were forced to load on a priori proposed constructs. Several iterations of models were tested in order to attain better fitting models. Items were either removed or reorganized based on high residuals, the Lagrange Multiplier test, the Wald test, factor correlations, Cronbach's coefficient alpha with and without individual items, and item content and component interpretability. Again component interpretability involved keeping the strongest items while maintaining the breadth of the construct as with the Decisional Balance and Confidence scales. This series of steps was completed several times before an appropriate fitting model of the processes was agreed upon."

Scoring

A five-point Likert-type scaling system is used with this scale, with 1 = Never, 2 = Seldom, 3 = Occasionally, 4 = Often, and 5 = Repeatedly. Scores are summed. A high scale scores is indicative of higher reinforcement management.

Reliability

Cronbach's alpha = 0.58.

Validity

The items scales were found to be theoretically consistent with the Transtheoretical Model of Change.

Source Reference(s)

None

Note(s)

None

Item(s)

Reinforcement management scale

Items	Scoring
How often did family and friends provide encouragement for your efforts in reducing credit card risk?	1 = Never 2 = Seldom 3 = Occasionally 4 = Often 5 = Repeatedly
How often did you reinforce yourself with positive statements like, "I can do this?"	1 = Never 2 = Seldom 3 = Occasionally 4 = Often 5 = Repeatedly
How often did you find the work of getting out of credit card debt rewarding?	1 = Never 2 = Seldom 3 = Occasionally 4 = Often 5 = Repeatedly

Title

Environmental Reevaluation Scale

Key Words

Behavioral Change, Transtheoretical Model of Change

Author(s)

Jing Jian Xiao, Barbara M. Newman, Janice M. Prochaska, Berta Leon, Robert L. Bassett, and Janet L. Johnson

Source

Xiao, J. J., Newman, B. M., Prochaska, J. M., Leon, B., Bassett, R. L., & Johnson, J. L. (2004). Applying the Transtheoretical Model of Change to consumer debt behavior. *Financial Counseling and Planning, 15*(2), 89–100.

Description

This scale was designed to assess an important aspect of the Transtheoretical Model of Change. According to the authors, environmental relief refers to "realizing the negative impact of the unhealthy behavior or the positive impact of the healthy behavior on one's proximal social and physical environment" (p. 90).

Test Sample

The scale was tested using a sample of individuals who were clients of a regional consumer credit counseling service. Respondents were offered a $25 incentive for completing the survey and scale. In addition, 263 students from a large southwestern university were included in the sample. An exploratory factor analysis, using a structural equation modeling technique was used to design the scale. According to the authors (p. 94), "Due to the underlying complexity of the processes of change, the exploratory phase of development involved using Structural Equation Modeling to explore the structure of the items and constructs. Maximum Likelihood (ML) was used as the estimator of model fit due to the robustness of this estimator with slightly non-normal data (Harlow, 1985). The analysis was conducted on the matrix of inter-item covariances. Due to the nature of the analyses, items were forced to load on a priori proposed constructs. Several iterations of models were tested in order to attain better fitting models. Items were either removed or reorganized based on high residuals, the Lagrange Multiplier test, the Wald test, factor correlations, Cronbach's coefficient alpha with and without individual items, and item content and component interpretability. Again component interpretability involved keeping the strongest items while maintaining the breadth of the construct as with the Decisional Balance and Confidence scales. This series of steps was completed several times before an appropriate fitting model of the processes was agreed upon."

Scoring

A five-point Likert-type scaling system is used with this scale, with 1 = Never, 2 = Seldom, 3 = Occasionally, 4 = Often, and 5 = Repeatedly. Scores are summed. A high scale scores is indicative of higher environmental reevaluation.

Reliability

Cronbach's alpha = 0.66.

Validity

The items scales were found to be theoretically consistent with the Transtheoretical Model of Change.

Source Reference(s)

None

Note(s)

None

Item(s)

Environmental reevaluation scale

Items	Scoring
How often did you realize you would be setting a good example for others if you got out of credit card debt?	1 = Never 2 = Seldom 3 = Occasionally 4 = Often 5 = Repeatedly
How often did you think society would be better off with less money caught up in debt?	1 = Never 2 = Seldom 3 = Occasionally 4 = Often 5 = Repeatedly
How often did you consider others would be relieved if you didn't have credit card debt?	1 = Never 2 = Seldom 3 = Occasionally 4 = Often 5 = Repeatedly

Title

Dramatic Relief Scale

Key Words

Behavioral Change, Transtheoretical Model of Change

Author(s)

Jing Jian Xiao, Barbara M. Newman, Janice M. Prochaska, Berta Leon, Robert L. Bassett, and Janet L. Johnson

Source

Xiao, J. J., Newman, B. M., Prochaska, J. M., Leon, B., Bassett, R. L., & Johnson, J. L. (2004). Applying the Transtheoretical Model of Change to consumer debt behavior. *Financial Counseling and Planning, 15*(2), 89–100.

Description

This scale was designed to assess an important aspect of the Transtheoretical Model of Change. According to the authors, dramatic relief refers to "experiencing the negative emotions that go along with unhealthy behavior risks" (p. 90).

Test Sample

The scale was tested using a sample of individuals who were clients of a regional consumer credit counseling service. Respondents were offered a $25 incentive for completing the survey and scale. In addition, 263 students from a large southwestern university were included in the sample. An exploratory factor analysis, using a structural equation modeling technique was used to design the scale. According to the authors (p. 94), "Due to the underlying complexity of the processes of change, the exploratory phase of development involved using Structural Equation Modeling to explore the structure of the items and constructs. Maximum Likelihood

(ML) was used as the estimator of model fit due to the robustness of this estimator with slightly non-normal data (Harlow, 1985). The analysis was conducted on the matrix of inter-item covariances. Due to the nature of the analyses, items were forced to load on a priori proposed constructs. Several iterations of models were tested in order to attain better fitting models. Items were either removed or reorganized based on high residuals, the Lagrange Multiplier test, the Wald test, factor correlations, Cronbach's coefficient alpha with and without individual items, and item content and component interpretability. Again component interpretability involved keeping the strongest items while maintaining the breadth of the construct as with the Decisional Balance and Confidence scales. This series of steps was completed several times before an appropriate fitting model of the processes was agreed upon."

Scoring

A five-point Likert-type scaling system is used with this scale, with 1 = Never, 2 = Seldom, 3 = Occasionally, 4 = Often, and 5 = Repeatedly. Scores are summed. A high scale scores is indicative of higher dramatic relief.

Reliability

Cronbach's alpha = 0.62.

Validity

The items scales were found to be theoretically consistent with the Transtheoretical Model of Change.

Source Reference(s)

None

Note(s)

None

Item(s)

Dramatic relief scale

Items	Scoring
How often were you worried about getting harassed by bill collectors?	1 = Never 2 = Seldom 3 = Occasionally 4 = Often 5 = Repeatedly
How often were you worried that you might need to declare bankruptcy?	1 = Never 2 = Seldom 3 = Occasionally 4 = Often 5 = Repeatedly
How often were you upset by sad stories about the pain caused to others by credit card debt?	1 = Never 2 = Seldom 3 = Occasionally 4 = Often 5 = Repeatedly

Title

Decisional Balance Scale

Key Words

Financial Strain, Debt, Financial Decision Making, Financial Behavior

Author(s)

Jing Jian Xiao, Barbara M. Newman, Janice M. Prochaska, Berta Leon, Robert L. Bassett, and Janet L. Johnson

Source

Xiao, J. J., Newman, B. M., Prochaska, J. M., Leon, B., Bassett, R. L., & Johnson, J. L. (2004). Applying the Transtheoretical Model of Change to consumer debt behavior. *Financial Counseling and Planning, 15*(2), 89–100.

Description

This eight-item scale measures an individual's relative weighing of the pros and cons of changing. The scale consists of two sub-scales: 'pro' and 'con.'

Test Sample

The scale was tested using a sample of individuals who were clients of a regional consumer credit counseling service. Respondents were offered a $25 incentive for completing the survey and scale. In addition, 263 students from a large southwestern university were included in the sample. A principal component factor analysis technique, using Varimax rotation, was employed to confirm that the items in the scale were theoretically similar. According to the authors, "Parallel analysis indicated two factors. Two items were removed due to low factor loadings and loading complexity. The final pros scale included four items with factor loadings ranging from 0.60 to 0.79. The cons scale consisted of four items with loadings that ranged from 0.58 to 0.79. These two factors accounted for 48.4% of the variance" (p. 92).

Scoring

Although not reported in the article, a four- or five-point Likert-type scoring system will work with this scale.

Reliability

Cronbach's alpha = 0.62 for the "pros" sub-scale; alpha = 0.63 for the "cons" subscale.

Validity

According to the authors, "decisional balance showed good psychometric properties with strong reliability and content validity" (p. 96).

Source Reference(s)

None

Note(s)

None

Item(s)

Decisional balance scale

Items
Pros
Getting rid of credit card debt would increase your self-esteem
You would increase your family's security
You would have less stress
You would set a good example for others
Cons
Getting rid of credit card debt may not allow you to keep up with "the neighbors" on status purchases
Getting rid of credit card debt may create more tension in your home
Getting rid of credit card debt may make family members unhappy
Getting rid of credit card debt could limit family activities

Title

Consciousness Raising Scale

Key Words

Behavioral Change, Transtheoretical Model of Change

Author(s)

Jing Jian Xiao, Barbara M. Newman, Janice M. Prochaska, Berta Leon, Robert L. Bassett, and Janet L. Johnson

Source

Xiao, J. J., Newman, B. M., Prochaska, J. M., Leon, B., Bassett, R. L., & Johnson, J. L. (2004). Applying the transtheoretical model of change to consumer debt behavior. *Financial Counseling and Planning, 15*(2), 89–100.

Description

This scale was designed to assess an important aspect of the Transtheoretical Model of Change. According to the authors, "consciousness raising refers to "finding and learning new facts, ideas, and tips that support the health behavior change" (p. 90).

Test Sample

The scale was tested using a sample of individuals who were clients of a regional consumer credit counseling service. Respondents were offered a $25 incentive for completing the survey and scale. In addition, 263 students from a large southwestern university were included in the sample. An exploratory factor analysis, using a structural equation modeling technique was used to design the scale. According to the authors (p. 94), "Due to the underlying complexity of the processes of change, the exploratory phase of development involved using Structural Equation Modeling to explore the structure of the items and constructs. Maximum Likelihood (ML) was used as the estimator of model fit due to the robustness of this estimator with slightly non-normal data (Harlow, 1985). The analysis was conducted on the matrix of inter-item covariances. Due to the nature of the analyses, items were forced to load on a priori proposed constructs. Several iterations of models were tested in order to attain better fitting models. Items were either removed or reorganized based on high residuals, the Lagrange Multiplier test, the Wald test, factor correlations, Cronbach's coefficient alpha with and without individual items, and item content and component interpretability. Again component interpretability involved keeping the strongest items while maintaining the breadth of the construct as with the Decisional Balance and Confidence scales. This series of steps was completed several times before an appropriate fitting model of the Processes was agreed upon."

Scoring

A five-point Likert-type scaling system is used with this scale, with 1 = Never, 2 = Seldom, 3 = Occasionally, 4 = Often, and 5 = Repeatedly. Scores are summed. A high scale scores is indicative of a person's willingness to find and learn new facts, ideas, and tips that support healthy behavior change.

Reliability

Cronbach's alpha = 0.74.

Validity

The items scales were found to be theoretically consistent with the Transtheoretical Model of Change.

Source Reference(s)

None

Note(s)

None

Item(s)

Consciousness raising scale

Items	Scoring
How often did you look for information on getting rid of credit card debt?	1 = Never 2 = Seldom 3 = Occasionally 4 = Often 5 = Repeatedly
How often did you read literature or magazine articles on reducing debt?	1 = Never 2 = Seldom 3 = Occasionally 4 = Often 5 = Repeatedly
How often did you hear about how to get rid of credit card debt?	1 = Never 2 = Seldom 3 = Occasionally 4 = Often 5 = Repeatedly

Title

Counter Conditioning Scale

Key Words

Behavioral Change, Transtheoretical Model of Change, Debt

Author(s)

Jing Jian Xiao, Barbara M. Newman, Janice M. Prochaska, Berta Leon, Robert L. Bassett, and Janet L. Johnson

Source

Xiao, J. J., Newman, B. M., Prochaska, J. M., Leon, B., Bassett, R. L., & Johnson, J. L. (2004). Applying the transtheoretical model of change to consumer debt behavior. *Financial Counseling and Planning, 15*(2), 89–100.

Description

This scale was designed to assess an important aspect of the Transtheoretical Model of Change. According to the authors, counter conditioning refers to "substituting healthy alternative behaviors and cognitions for the unhealthy behaviors" (p. 90).

Test Sample

The scale was tested using a sample of individuals who were clients of a regional consumer credit counseling service. Respondents were offered a $25 incentive for completing the survey and scale. In addition, 263 students from a large southwestern university were included in the sample. An exploratory factor analysis, using a structural equation modeling technique was used to design the scale. According to the authors (p. 94), "Due to the underlying complexity of the processes of change, the exploratory phase of development involved using Structural Equation Modeling to explore the structure of the items and constructs. Maximum Likelihood (ML) was used as the estimator of model fit due to the robustness of this estimator with slightly non-normal data (Harlow, 1985). The analysis was conducted on the matrix of inter-item covariances. Due to the nature of the analyses, items were forced to load on a priori proposed constructs. Several iterations of models were tested in order to attain better fitting models. Items were either removed or reorganized based on high residuals, the Lagrange Multiplier test, the Wald test, factor correlations, Cronbach's coefficient alpha with and without individual items, and item content and component interpretability. Again component interpretability involved keeping the strongest items while maintaining the breadth of the construct as with the Decisional Balance and Confidence scales. This series of steps was completed several times before an appropriate fitting model of the processes was agreed upon."

Scoring

A five-point Likert-type scaling system is used with this scale, with 1 = Never, 2 = Seldom, 3 = Occasionally, 4 = Often, and 5 = Repeatedly. Scores are summed. A high scale scores is indicative of better counter conditioning.

Reliability

Cronbach's alpha = 0.70.

Validity

The items scales were found to be theoretically consistent with the Transtheoretical Model of Change.

Source Reference(s)

None

Note(s)

None

Item(s)

Counter conditioning scale

Items	Scoring
When you felt stressed about getting out of credit card debt how often did you tell yourself it is going to be worth it in the end?	1 = Never 2 = Seldom 3 = Occasionally 4 = Often 5 = Repeatedly
When feeling discouraged how often did you remind yourself about the benefits of getting rid of credit card debt?	1 = Never 2 = Seldom 3 = Occasionally 4 = Often 5 = Repeatedly
How often did you push away negative thoughts about the difficulties of getting rid of credit card debt?	1 = Never 2 = Seldom 3 = Occasionally 4 = Often 5 = Repeatedly

Title

Sensation-Seeking Scale

Key Words

Personality, Sensation-Seeking

Author(s)

John E. Grable and So-hyun Joo

Source

Grable, J. E., & Joo, S. (2004). Environmental and biopsychosocial factors associated with financial risk tolerance. *Financial Counseling and Planning, 15*(1), 73–88.

Description

This scale was developed to assess a person's willingness to seek excitement and fun. The scale was based on work originally conducted by Arnett (1994).

Test Sample

The scale was tested using a sample of 460 faculty and staff from two Midwestern U.S. universities.

Scoring

A four-point Likert-type scale is used to score each item. Responses to each item are as follows: (a) not at all, (b) somewhat, (c) fairly well, and (d) very well. Responses are coded as 1, 2, 3, or 4, respectively, and a summated score is generated for each subject. The average score is 10.16, with a standard deviation of 2.27. Higher scores represent a greater willingness to seek sensations.

Reliability

Cronbach's alpha = 0.50.

Validity

Not reported

Source Reference(s)

Arnett, J. (1994). Sensation seeking: A new conceptualization and a new scale. *Personality and Individual Differences 16*, 289–296.

Note(s)

None

Item(s)

Sensation-seeking scale

Items	Scoring
It's fun and exciting to perform or speak before a group	1 = Not at all 2 = Somewhat 3 = Fairly well 4 = Very well
I would prefer to ride the roller coaster or other fast rides at an amusement park	1 = Not at all 2 = Somewhat 3 = Fairly well 4 = Very well
I would like to travel to places that are strange and far away	1 = Not at all 2 = Somewhat 3 = Fairly well 4 = Very well
I think it's best to order something familiar when eating in a restaurant[a]	1 = Not at all 2 = Somewhat 3 = Fairly well 4 = Very well
If I have to wait in a long line, I am usually patient about it[a]	1 = Not at all 2 = Somewhat 3 = Fairly well 4 = Very well
Upset when have to wait for anything	1 = Not at all 2 = Somewhat 3 = Fairly well 4 = Very well

[a]Items reverse coded

Title

Type-A Personality Scale

Key Words

Personality, Type-A

Author(s)

John E. Grable and So-hyun Joo

Source

Grable, J. E., & Joo, S. (2004). Environmental and biopsychosocial factors associated with financial risk tolerance. *Financial Counseling and Planning, 15*(1), 73–88.

Description

This brief scale was developed to assess a segment of a person's personality – Type A personality. The scale was based on work originally conducted by Eaker and Castelli (1988).

Test Sample

The scale was tested using a sample of 460 faculty and staff from two Midwestern U.S. universities.

Scoring

A four-point Likert-type scale is used to score each item. Responses to each item are as follows: (a) not at all, (b) somewhat, (c) fairly well, and (d) very well. Responses are coded as 1, 2, 3, or 4, respectively, and a summated score is generated for each subject. The average Type A/B score is 14.72, with a standard deviation of 3.32. Higher scores represented a greater likelihood of exhibiting Type A personality traits.

Reliability

Cronbach's alpha = 0.70.

Validity

Not reported

Source Reference(s)

Eaker, E. D., & Castelli, W. P. (1988). Type A behavior and coronary heart disease in women: Fourteen-year incidence from the Framingham study. In B. K. Houston, & C.R. Snyder (Eds.), *Type A behavior pattern: Research, theory, and intervention*. New York: Wiley.

Note(s)

None

Item(s)

Type-A personality scale

Items	Scoring
Being bossy or dominating	1 = Not at all 2 = Somewhat 3 = Fairly well 4 = Very well
Having a strong need to excel (be best) in most things	1 = Not at all 2 = Somewhat 3 = Fairly well 4 = Very well
Usually feeling pressed for time	1 = Not at all 2 = Somewhat 3 = Fairly well 4 = Very well
Being hard driving and competitive	1 = Not at all 2 = Somewhat 3 = Fairly well 4 = Very well
Eating too quickly	1 = Not at all 2 = Somewhat 3 = Fairly well 4 = Very well
Upset when have to wait for anything	1 = Not at all 2 = Somewhat 3 = Fairly well 4 = Very well

Title

Self-Esteem Scale

Key Words

Self-Esteem, Self-Worth

Author(s)

John E. Grable and So-hyun Joo

Source

Grable, J. E., & Joo, S. (2001). A further examination of financial help-seeking behavior. *Financial Counseling and Planning, 12*(1), 55–66.

Description

This scale measures a person's level of self-esteem or self-worth.

Test Sample

The authors adapted this scale from (Rosenberg, 1965) and tested it with a sample of 406 employees of a university.

Scoring

A four-point Likert-type scale, with 1 = Strongly Disagree, 2 = Tend to Disagree, 3 = Tend to Agree, and 4 = Strongly Agree, is used with this scale. Scores are summed. Higher scores indicate a more positive self-esteem. Scores can range from 10 to 40, with 13 being the lowest score reported in the test. The average response was 33.9 (SD = 4.7).

Reliability

Cronbach's alpha = 0.89.

Validity

Higher self-esteem scores were associated with seeking professional financial planning assistance.

Source Reference(s)

Rosenberg, M. (1965). *Society and the adolescent self-image*. Princeton, NJ: Princeton University Press.

Note(s)

The source reference should be noted whenever the scale is used.

Item(s)

Self-esteem scale

Items	Scoring
At times I think I am no good at all[a]	1 = Strongly disagree 2 = Tend to disagree 3 = Tend to agree 4 = Strongly agree
I take a positive attitude toward myself	1 = Strongly disagree 2 = Tend to disagree 3 = Tend to agree 4 = Strongly agree
I feel that I'm a person of worth, at least on an equal basis with others	1 = Strongly disagree 2 = Tend to disagree 3 = Tend to agree 4 = Strongly agree
I feel that I have a number of good qualities	1 = Strongly disagree 2 = Tend to disagree 3 = Tend to agree 4 = Strongly agree
All in all, I am inclined to feel that I am a failure[a]	1 = Strongly disagree 2 = Tend to disagree 3 = Tend to agree 4 = Strongly agree
I certainly feel useless at times[a]	1 = Strongly disagree 2 = Tend to disagree 3 = Tend to agree 4 = Strongly agree

Self-esteem scale (continued)

Items	Scoring
I am able to do things as well as most other people	1 = Strongly disagree 2 = Tend to disagree 3 = Tend to agree 4 = Strongly agree
I feel I do not have much to be proud of [a]	1 = Strongly disagree 2 = Tend to disagree 3 = Tend to agree 4 = Strongly agree
I wish I could have more respect for myself [a]	1 = Strongly disagree 2 = Tend to disagree 3 = Tend to agree 4 = Strongly agree
On the whole, I am satisfied with myself	1 = Strongly disagree 2 = Tend to disagree 3 = Tend to agree 4 = Strongly agree

[a] Item reverse coded

Title

Financial Self-Efficacy Change Scale

Key Words

Financial Self-Efficacy, Self-Esteem, Behavioral Change

Author(s)

Sharon M. Danes, Catherine Huddleston-Casas, and Laurie Boyce

Source

Danes, S. M., Huddleston-Casas, C., & Boyce, L. (1999). Financial planning curriculum for teens: Impact Evaluation. *Financial Counseling and Planning, 10*(1), 25–38.

Description

This scale was designed to assess post-financial education outcomes. "Self-efficacy refers to a feeling of being able to deal effectively with a situation" (p. 30). Scale questions were asked 3 months after the students had received education.

Test Sample

The scale was tested with a sample of 4,107 teenager students living in the upper-Midwestern United States.

Scoring

A five-point Likert-type scale was used as follows: 1 = Almost Never; 2 = Seldom; 3 = About Half the Time; 4 = Often; and 5 = Almost Always. Higher scores suggest larger knowledge changes resulting from education.

Reliability

Not reported

Validity

According to the authors, this self-reported scale removes response-shift bias and increases validity.

Source Reference(s)

None

Note(s)

None

Item(s)

Financial self-efficacy change scale

Items	Scoring
I believed the way I managed my money would affect my future	1 = Almost never 2 = Seldom 3 = About half the time 4 = Often 5 = Almost always
I felt confident about making decisions that dealt with money	1 = Almost never 2 = Seldom 3 = About half the time 4 = Often 5 = Almost always

Title

Self-Image Scale

Key Words

Self-Image, Self-Esteem

Author(s)

Tahira K. Hira and Olive M. Mugenda

Source

Hira, T. K., & Mugenda, O. M. (1998). Predictors of financial satisfaction: Difference between retirees and nonretirees. *Financial Counseling and Planning, 9*(2), 75–84.

Description

This brief scale was designed to measure a respondent's self perceptions; the scale may be used as a proxy for self-esteem.

Test Sample

The scale was tested with a sample of 529 Iowans in 1995.

Scoring

A five-point Likert-type scale was used, with 1 = Strongly Disagree and 5 = Strongly Agree. A high score indicates a high self-image.

Reliability

Cronbach's alpha = 0.87.

Validity

Self-image was shown to be positively associated with financial satisfaction.

Source Reference(s)

None

Note(s)

None.

Item(s)

Self-image scale

Items	Scoring
Indicate your level of agreement with the following statements: 1. I take a positive attitude toward myself 2. I am a person of worth 3. I am able to do things as well as other people 4. On the whole, I am satisfied with myself	1 = Strongly disagree 5 = Strongly agree

Title

Locus of Control

Key Words

Locus of Control, Financial Attitude

Author(s)

Deborah D. Godwin and Joan C. Koonce

Source

Godwin, D. D., & Koonce, J. C. (1992). Cash flow management of low-income newlyweds. *Financial Counseling and Planning, 3*(1), 17–42.

Description

This 12-item scale was developed to assess a person's level of locus of control – i.e., either an internal or external perspective.

Test Sample

The scale was developed using factor analysis techniques with 106 newlywed couples living in Georgia in 1990. The sample was representative of a wide range of family incomes (i.e., high, moderate, and low). The published scale consists of five factors: (a) control of life's direction, (b) control as planning efficacy, (c) control of job and getting ahead, (d) absence of luck in life, and (e) role of skills in success.

Scoring

A five-point Likert-type scale ranging from 1 = Strongly Disagree and 5 = Strongly Agree is used when scoring the scale. High scores indicate an internal locus of control perspective. Low scores indicated external locus of control.

Reliability

Not reported

Validity

Scale scores were shown to be associated with differences in newlywed incomes.

Source Reference(s)

None

Note(s)

None

Item(s)

Locus of control scale

Items	Scoring
Control of life's direction subscale	1 = Strongly disagree
1. There are times when I haven't been sure my life would work out the way I wanted it to	5 = Strongly agree
2. I've usually felt pretty sure my life would work out the way I want it to	
3. Sometimes I feel that I don't have enough control over the direction my life is taking	
4. Many times I feel that I have little influence over the things that happen to me	
Control as Planning Efficacy Subscale	1 = Strongly disagree
5. I believe that what happens to me is my own doing	5 = Strongly agree
6. It is not always wise to plan too far ahead because many things turn out to be a matter of good luck or bad luck anyhow	
Control of job and getting ahead Subscale	1 = Strongly disagree
7. Knowing the right people is important in deciding whether a person will get ahead	5 = Strongly agree
8. Getting a job depends mainly on being in the right place at the right time	
9. When I make plans, I am almost certain that I can make them work	
Absence of luck in life subscale	1 = Strongly disagree
10. Becoming a success is a matter of hard work; luck has little or nothing to do with it	5 = Strongly agree
11. It is impossible for me to believe that chance or luck play an important role in my life	
Role of skills in success subscale	1 = Strongly disagree
12. People will get ahead in life if they have the skills and do a good job	5 = Strongly agree

Negatively worded items should be reverse coded

Title

Locus of Control Item

Key Words

Locus of Control

Author(s)

Vicki S. Fitzsimmons and Satomi Wakita

Source

Fitzsimmons, V. S., & Wakita, S. (1993). Expectations of future financial condition: Are men and women different. *Financial Counseling and Planning, 4(*1), 165–180.

Description

A single item question used to assess locus of control.

Test Sample

The item was used with a sample of 2,510 individuals from Arizona, California, Illinois, Indiana, Iowa, Kansas, Michigan, and Minnesota in 1988.

Scoring

Responses were coded using a Likert-type scale, where 1 = strongly disagree and 5 = strongly agree. A high score represents an internal locus of control perspective.

Reliability

Not reported

Validity

Not reported

Source Reference(s)

None

Note(s)

None

Item(s)

“When I make plans, I am almost certain that I can make them work.”

Title

Willingness to Manage Feelings of Control Scale

Key Words

Locus of Control, Feelings

Author(s)

Deborah D. Godwin

Source

Godwin, D. D. (1994). Antecedents and consequences of newlyweds’ cash flow management. *Financial Counseling and Planning, 5*(1), 161–190.

Description

This scale measures the extent to which a person feels that their lives are under their own control.

Test Sample

The scale was employed in a test of newlyweds’ cash flow management behaviors. 256 newlywed couples living in Georgia in 1992 responded to the scale questions. The author used a factor analysis with 20 items adapted from a previous pilot study. The analysis yielded four factors. The Willingness to Manage Feelings of Control scale is one of these scales.

Scoring

The scales is scored with a Likert-type measure, with 1 = Strongly Disagree and 5 = Strongly Agree. Higher scores represent an internal locus of control perspective.

Reliability

Cronbach's alpha = 0.70

Validity

The scale was used as a predictor of cash flow management behavior. A positive relationship with goal-setting assessment and record-keeping was noted.

Source Reference(s)

None

Note(s)

None

Item(s)

Willingness to manage feelings of control scale

Items	Scoring
I don't have enough control over the direction my life is taking[a]	1 = Strongly disagree 5 = Strongly agree
I am pretty sure my life would work out the way I want it to	1 = Strongly disagree 5 = Strongly agree
I haven't always been sure that my life would work as I planned[a]	1 = Strongly disagree 5 = Strongly agree
I have little influence over things that happen to me[a]	1 = Strongly disagree 5 = Strongly agree

[a]Items reverse coded

Title

Financial Locus of Control Item

Key Words

Locus of Control, Financial Locus of Control

Author(s)

Tahira K. Hira and Olive M. Mugenda

Source

Fitzsimmons, V. S., & Wakita, S. (1993). Expectations of future financial condition: Are men and women different. *Financial Counseling and Planning, 4*(1), 165–180.

Description

A single item question used to assess financial locus of control.

Test Sample

The item was used with a sample of 2,510 individuals from Arizona, California, Illinois, Indiana, Iowa, Kansas, Michigan, and Minnesota in 1988.

Scoring

Responses were coded using a Likert-type scale, where 1 = strongly disagree and 5 = strongly agree. A high score represents an external locus of control perspective.

Reliability

Not reported

Validity

Not reported

Source Reference(s)

None

Note(s)

None

Item(s)

Financial Locus of Control Item
“My financial situation depends on my control of the situation.”

Title

Self-Worth Scale

Key Words

Self-Worth, Self-Esteem, Self-Concept, Satisfaction

Author(s)

Tahira K. Hira and Olive M. Mugenda

Source

Hira, T. K., & Mugenda, O. M. (1999). The relationships between self-worth and financial beliefs, behavior, and satisfaction. *Journal of Family and Consumer Sciences, 91*(4), 76–82.

Description

This scale was designed to assess a person's level of self-worth. Scale scores can be evaluated as self-worth, self-concept, or self-esteem, which is an emotional self appraisal.

Test Sample

The scale was tested with a sample of 540 respondents living in Iowa in 1995. The majority of respondents were male with a median income of $45,000. The majority of respondents were married and employed. No additional information regarding the developmental process was provided.

Scoring

Each item is scored using the following Likert-type scoring system: 1 = Strongly Disagree; 2 = Disagree; 3 = Agree; and 4 = Strongly Agree. Scores are summed. Scores can range from a low -of 4 to a high of 16. The sample mean was 12.4. Higher scores indicate a higher self-concept. The authors determined that a score of 11.0 can be used to split a sample into low and high self-worth groups.

Reliability

Cronbach's alpha = 0.87.

Validity

Scores on the scale were used to differentiate respondents in terms of financial satisfaction, attitudes, and behaviors. Generally, those with lower scores exhibited worse attitudes and behaviors.

Source Reference(s)

None

Note(s)

None

Item(s)

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Title

Emergency Fund Satisfaction Item

Key Words

Emergency Fund, Resources, Expenditures, Satisfaction

Author(s)

Vicki S. Fitzsimmons and Satomi Wakita

Source

Fitzsimmons, V. S., & Wakita, S. (1993). Expectations of future financial condition: Are men and women different. *Financial Counseling and Planning, 4(*1), 165–180.

Description

A single item question used to assess satisfaction with resources available to meet a financial emergency.

Test Sample

The item was used with a sample of 2,510 individuals from Arizona, California, Illinois, Indiana, Iowa, Kansas, Michigan, and Minnesota in 1988.

Scoring

Responses were coded using a Likert-type scale, where 1 = strongly very satisfied and 5 = strongly agree.

Reliability

Not reported

Validity

Not reported

Source Reference(s)

None

Note(s)

None

Item(s)

Emergency Fund Satisfaction Item

"How satisfied are you with the level resources available to meet a financial emergency?"

Title

Net Worth Satisfaction Item

Key Words

Net Worth, Assets, Liabilities, Satisfaction

Author(s)

Vicki S. Fitzsimmons and Satomi Wakita

Source

Fitzsimmons, V. S., & Wakita, S. (1993). Expectations of future financial condition: Are men and women different. *Financial Counseling and Planning, 4*(1), 165–180.

Description

A single item question used to assess satisfaction with family (household) net worth.

Test Sample

The item was used with a sample of 2,510 individuals from Arizona, California, Illinois, Indiana, Iowa, Kansas, Michigan, and Minnesota in 1988.

Scoring

Responses were coded using a Likert-type scale, where 1 = strongly very satisfied and 5 = strongly agree.

Reliability

Not reported

Validity

Not reported

Source Reference(s)

None

Note(s)

None

Item(s)

Net Worth Satisfaction Item

"How satisfied are you with the amount of family's net worth (all assets minus debts)?"

Title

Income Satisfaction Item

Key Words

Income, Satisfaction

Author(s)

Vicki S. Fitzsimmons and Satomi Wakita

Source

Fitzsimmons, V. S., & Wakita, S. (1993). Expectations of future financial condition: Are men and women different. *Financial Counseling and Planning, 4*(1), 165–180.

Description

A single item question used to assess satisfaction with family (household) income.

Test Sample

The item was used with a sample of 2,510 individuals from Arizona, California, Illinois, Indiana, Iowa, Kansas, Michigan, and Minnesota in 1988.

Scoring

Responses were coded using a Likert-type scale, where 1 = strongly very satisfied and 5 = strongly agree.

Reliability

Not reported

Validity

Not reported

Source Reference(s)

None

Note(s)

None

Item(s)

Income Satisfaction Item
"How satisfied are you with current total family income?"

Title

Consumption Satisfaction Item

Key Words

Consumption, Expenditures, Satisfaction

Author(s)

Vicki S. Fitzsimmons and Satomi Wakita

Source

Fitzsimmons, V. S., & Wakita, S. (1993). Expectations of future financial condition: Are men and women different. *Financial Counseling and Planning, 4*(1), 165–180.

Description

A single item question used to assess satisfaction with family (household) consumption/expenditures.

Test Sample

The item was used with a sample of 2,510 individuals from Arizona, California, Illinois, Indiana, Iowa, Kansas, Michigan, and Minnesota in 1988.

Scoring

Responses were coded using a Likert-type scale, where 1 = strongly very satisfied and 5 = strongly agree.

Reliability

Not reported

Validity

Not reported

Source Reference(s)

None

Note(s)

None

Item(s)

Consumption Satisfaction Item

"How satisfied are you with the level of consumption (material things; e.g., food, clothing, housing, and transportation)?"

Title

Decision Making Process Scale

Key Words

Financial Behavior, Decision Making

Author(s)

David J. Block and Robert J. Sweeney

Source

Block, D. J., & Sweeney, R. J. (2004). Six steps to financial well being engaging professional advice. *Journal of Personal Finance, 3*(2), 75–89.

Description

According to the authors, "In order to help an individual realize how she or he approaches major decisions in life, a short questionnaire is presented that, once answered, will provide a basis for the six steps on the road to financial success" (p. 77).

Test Sample

The scale was tested with a sample of employees at a university who were offered early retirement benefit in 2001.

Scoring

The scale is completed by having respondents answer seven questions, with 1 = you would rather plan on your own; 2 = you would plan using the Internet or computer software; and 3 = you would plan using the expertise of others. Scores are summed. According to the authors, “An individual with a score of 9 or less would be considered a do-it-yourselfer who seldom relies on outside assistance in making decisions. A score of 10–14 indicates the individual often seeks additional information from outside sources prior to making decisions. A score of 15 or more indicates the individual finds it valuable to rely on the expertise of other people/professionals when making decisions” (p. 78).

Reliability

Not reported

Validity

Not reported

Source Reference(s)

None

Note(s)

The authors stated the following (p. 78): “More insightful than the total score are the responses to questions 3 and 6. These questions involve more significant decisions, for which a mistake in judgment could be crucial. In turn, if an individual answered either or both of these questions with a score of three, they should consider using the expertise of a financial planner to assist them in making prudent decisions about their financial well being.”

Item(s)

Decision making process scale

Instructions
Award one point if you would rather plan on your own
Award two points if you would plan using the Internet or computer software
Award three points if you would plan using the expertise of others

Number	Question	Answer
1	If you had to sell your automobile how would you learn what price to ask?	
2	How would you precede getting information to help you decide if you should refinance your home?	
3	How would you plan for an extended family vacation that includes international destinations?	
4	When buying insurance, how would you determine the amount of coverage that is appropriate for you?	
5	When investing for college, retirement or some other goal, how would you determine the appropriate amount to set aside each month? How would you determine your risk tolerance?	
6	If you felt you might be seriously ill, how would you go about seeking treatment?	
7	How would you determine at what age to retire?	
	Total points	

Title

Personal Fable Scale

Key Words

Personal Fable, Risk Tolerance, Risk Aversion, Risk Assessment

Author(s)

Amy Alberts, David Elkind, and Stephen Ginsberg

Source

Alberts, A., Elkind, D., & Ginsberg, S. (2007). The personal fable and risk-taking in early adolescence. *Journal of Youth Adolescence, 36*, 71–76.

Description

This 12-item scale was designed to be used with youths to assess egocentrism. The scale differentiates between people in terms of age, gender, and risk taking. Generally, younger people, men, and risk takers exhibit a tendency to build personal fables to shield themselves from negative environmental impacts.

Test Sample

The scale was tested with a sample of 119 middle school students (66 boys) living in New England. A factor analysis technique was used to identify two subscales: invulnerability and specialty, each having six items

Scoring

A five-point Likert-type scoring system is used, with 1 = Never True for Me and 5 = Always True for Me. Sub-scores are calculated by summing responses to each item. Scores can range from 6 to 30 for the invulnerability and specialty subscales. A total personal fable scores is calculated by summing responses to all items. Scores can range from 12 to 60. Higher scores represent a tendency to exhibit a personal fable orientation.

Reliability

Cronbach's alpha = 0.60.

Validity

According to the authors, the scale has been used to test gender and age group differences in adolescent egocentrism, finding that males score higher than females. The authors of this study found a strong correlation between fable scores and risk-taking attitudes.

Source Reference(s)

None

Note(s)

None

Item(s)

Title

Financial Worry Scale

Key Words

Financial Problems, Financial Worry, Financial Attitude

Author(s)

Tahira K. Hira and Olive M. Mugenda

Source

Hira, T. K., & Mugenda, O. M. (1999). The relationships between self-worth and financial beliefs, behavior, and satisfaction. *Journal of Family and Consumer Sciences, 91*(4), 76–82.

Description

This scale was designed to assess how worried a person is in regards to their financial situation.

Test Sample

The scale was tested with a sample of 540 respondents living in Iowa in 1995. The majority of respondents were male with a median income of $45,000. The majority of respondents were married and employed. No additional information regarding the developmental process was provided.

Scoring

Each item is scored using the following Likert-type scoring system: 1 = Never; 2 = Sometimes; 3 = Occasionally; 4 = Often; and 5 = Very Often. Scores are summed. Scores can range from a low of 3 to a high of 15. Higher scores suggest greater financial worries.

Reliability

Cronbach's alpha = 0.84.

Validity

Scores on the scale were used to differentiate respondents in terms of financial satisfaction, attitudes, and behaviors. Generally, those with lower scores exhibited worse attitudes and behaviors.

Source Reference(s)

None

Note(s)

None

Item(s)

Contact authors and journal publisher for reprinting permissions.

Title

Financial Activation Scale (FAS)

Key Words

Financial Motives, Retirement, Savings, Motivation Personality

Author(s)

Kirstan A. Neukam & Douglas A. Hershey

Source

Neukam, K. A., & Hershey, D. A. (2003). Financial inhibition, financial activation, and saving for retirement. *Financial Services Review*, *12*, 19–37.

Description

The Financial Activation Scale (FAS) was "designed to assess goal-based motives that facilitate savings practices" (p. 19). The scale consists of two subscales, "planning drive" and "financial freedom."

Test Sample

The scale were tested on two samples, the first sample consisted of "150 working adults 25–45 years of age, living in North Central Oklahoma at the time" (p. 22). The second sample included 270 working adults, consisting of 154 men and 116 women. The "data was obtained from a larger national study on psychological determinants of retirement planning among young and middle-aged working adults" (p. 28).

Scoring

Items are scored on a Likert-type scale from one to seven. A score of one indicates "strongly disagree" and a score of seven indicates "strongly agree.

Reliability

Reasonable internal consistency was found with an alpha score of 0.85.

Validity

The scale was found to be correlated with the BIS and BAS created by Carver & White (1994).

Source Reference(s)

Carver, C. S., & White, T. L., (1994). Behavioral inhibition, behavioral activation, and affective responses to impending reward and punishment: The BIS/BAS scales. *Journal of Personality and Social Psychology, 67*, 319–333.

Note(s)

Item(s)

Financial activation scale (FAS)

Items	Scoring
Planning drive subscale	1 = Strongly disagree
1. When it comes to financial planning for retirement, I use a "no holds barred" approach	7 = Strongly agree
2. When doing financial planning for retirement, I feel excited and energized.	
3. I go out of my way when it comes to financial planning for retirement	
4. I am highly active in my pursuits toward financial planning for retirement	
5. When I see the chance to further my retirement investments, I move on it right away	
Financial freedom subscale	
6. I desire financial freedom when I retire	
7. I have the desire to be able to do what I want financially in retirement	
8. When I retire, I want to have enough money to be able to participate in any leisure activities I desire	
9. I want to have enough in retirement to be able to purchase the items I wish without being concerned about financial security	

Title

Feelings About Credit Obligations Item

Key Words

Credit, Debt, Satisfaction

Author(s)

Jean M. Lown and In-Sook Ju

Source

Lown, J. M., & Ju, I-S. (1992). A model of credit use and financial satisfaction. *Financial Counseling and Planning, 3*(1), 105–124.

Description

This single-item measure provides an indication of a person's feeling about the amount of credit/debt they are using.

Test Sample

The item was used with a sample ($N = 500$) of community credit union members in Utah in the early 1990s.

Scoring

See Table below

Reliability

Not reported

Validity

Concern about debt/credit was found to be negatively associated with financial satisfaction.

Source Reference(s)

None

Note(s)

None

Item(s)

Feelings about credit obligations item

Item	Scoring
How do you feel about the amount of credit you are using, considering the repayment of all your credit obligations including mortgages and home equity loans?	3 = Very concerned 2 = Somewhat concerned 1 = Not at all concerned 0 = No credit obligations n.a. = Missing

Title

Identity Theft Risk Assessment Quiz

Key Words

Identity Theft, Risk, Credit, Debt

Author(s)

Barbara O'Neill

Source

O'Neill, B. (2003). Give your clients (and yourself!) an identity theft risk assessment. *Journal of Personal Finance, 2*(2), 26–38.

Description

This 20-item quiz/scale was developed to help consumers and their financial advisors evaluate their likelihood of being a victim of identity theft. The higher the score, the fewer opportunities the consumer is providing for identity thieves to steal key pieces of identifying information or for evidence of identity theft to go unnoticed.

Test Sample

Not reported

Scoring

Questions are answered with the following scale: 1= I never do this; 2= I rarely (every once in a while) do this; 3= I do this about 50 percent of the time; 4= I usually (almost always) do this; and 5= I always do this. Scores are summed. The following guidelines provide an insight into how likely a person is to be the victim of identity theft:

80–100 Points – You have demonstrated a higher than average awareness of the risks associated with identity theft. Congratulations. Don't let your guard down, however. Identity thieves are always out there looking for their next victim.

50–79 Points – You have indicated some weaknesses in your security consciousness, which increases your odds of becoming the victim of identity theft, especially if you have good credit. Pay particular attention to the quiz questions that you answered with a "1" or "2."

0–49 Points – You are at high risk for identity theft. Start shredding sensitive personal and financial documents immediately and pay more attention to ways that you are vulnerable to having your personal information stolen (questions that you answered with a "1" or "2" on the quiz).

Reliability

Not reported

Validity

Not reported

Source Reference(s)

None

Note(s)

This quiz is available online at www.rce.rutgers.edu/money/identitytheft/default.asp

Item(s)

Title

Attitude Toward Planning Scale

Key Words

Financial Planning, Future

Author(s)

Deborah D. Godwin

Source

Godwin, D. D. (1994). Antecedents and consequences of newlyweds' cash flow management. *Financial Counseling and Planning, 5*(1), 161–190.

Description

This scale measures a person's attitude toward planning financially for the future.

Test Sample

The scale was employed in a test of newlyweds' cash flow management behaviors. Newlywed couples ($N = 256$) living in Georgia in 1992 responded to the scale questions. The author used a factor analysis with 20 items adapted from a previous pilot study. The analysis yielded four factors. The Attitude Toward Planning scale is one of these scales.

Scoring

The scales is scored with a Likert-type measure, with 1 = Strongly Disagree and 5 = Strongly Agree. Higher scores represent a positive attitude toward financial planning.

Reliability

Cronbach's alpha = 0.63

Validity

The scale was used as a predictor of cash flow management behavior. A positive relationship with budgeting/monitoring, goal-setting assessment, and record-keeping was noted.

Source Reference(s)

None

Note(s)

None

Item(s)

Attitude toward planning scale

Items	Scoring
Planning is essential to successfully managing one's life	1 = Strongly disagree 5 = Strongly agree
Thinking about where you will be financially in 5–10 years is essential for financial success	1 = Strongly disagree 5 = Strongly agree
Planning for the future is the best way of getting ahead	1 = Strongly disagree 5 = Strongly agree

Title

Financial Planning Attitudes Scale

Key Words

Financial Planning, Financial Attitudes, Decision Making Style

Author(s)

David J. Block and Robert J. Sweeney

Source

Block, D. J., & Sweeney, R. J. (2004). Six steps to financial well being engaging professional advice. *Journal of Personal Finance, 3*(2), 75–89.

Description

The scale was developed to assess the following factors: attitude about financial planning in general, belief concerning financial planning, level of exposure and/or education in financial planning, basic understanding of investments, risk tolerance, confidence with meeting individual/family retirement goals, and understanding of changes in expenses that occur once retired.

Test Sample

The scale was tested with a sample of employees at a university who were offered early retirement benefit in 2001.

Scoring

A five-point Likert-type scoring system is used with this scale, as follows: 1 = Strongly Disagree, 2 = Somewhat Disagree, 3 = Neutral, 4 = Somewhat Agree, and 5 = Totally Agree. Scores are summed. Higher scores are indicative of enhanced financial planning attitudes.

Reliability

Not reported

Validity

Not reported

Source Reference(s)

None

Note(s)

Item(s)

Financial planning attitudes scale

Items	Scoring
I am comfortable with my understanding of my financial future after retirement	1 = Strongly disagree 2 = Somewhat disagree 3 = Neutral 4 = Somewhat agree 5 = Totally agree
I do not need financial planning	1 = Strongly disagree 2 = Somewhat disagree 3 = Neutral 4 = Somewhat agree 5 = Totally agree
A computer-driven financial plan would improve my knowledge concerning my financial future	1 = Strongly disagree 2 = Somewhat disagree 3 = Neutral 4 = Somewhat agree 5 = Totally agree
Consulting with a financial planner would improve my knowledge concerning my financial future	1 = Strongly disagree 2 = Somewhat disagree 3 = Neutral 4 = Somewhat agree 5 = Totally agree
I know the optimum age for me to retire for the best cost/benefit.	1 = Strongly disagree 2 = Somewhat disagree 3 = Neutral 4 = Somewhat agree 5 = Totally agree

Financial planning attitudes scale (continued)

Items	Scoring
Comprehensive financial planning is an effective way to involve both spouses in planning for the future	1 = Strongly disagree 2 = Somewhat disagree 3 = Neutral 4 = Somewhat agree 5 = Totally agree
I feel good about my knowledge of investing	1 = Strongly disagree 2 = Somewhat disagree 3 = Neutral 4 = Somewhat agree 5 = Totally agree

Title

Saving Scale

Key Words

Savings, Financial Behavior

Author(s)

Karen P. Varcoe, Allen Martin, Zana Devitto, and Charles Go

Source

Varcoe, K. P., Martin, A., Devitto, Z., & Go, C. (2005). Using a financial education curriculum for teens. *Financial Counseling and Planning, 16*(1), 63–72.

Description

This scale was developed to evaluate reported saving behavior of teenagers.

Test Sample

The scale was evaluated with a sample of 114 high school students who age 13 through 20, with data collected over 6 months in 2002. The sample consisted of students living in southern California.

Scoring

A four-point Likert-type scale, with 1 = strongly disagree and 4 = strongly agree, is used with this instrument. Scores can range from 9 to 36. Summed scores are developed by adding scores. The mean reported score for the sample was 24.20 for males and 26.70 for females.

Reliability

Cronbach's alpha = 0.81.

Validity

Females report better saving behavior than males.

Source Reference(s)

None

Note(s)

None

Item(s)

Saving scale

Items	Scoring
I'm likely to save money by packing my lunch instead of buying it out	1 = Strongly disagree 4 = Strongly agree
I'm likely to save money by going to matinee movies instead of prime-time shows	1 = Strongly disagree 4 = Strongly agree
I'm likely to save money by buying clothes off-season or on sale for lower prices	1 = Strongly disagree 4 = Strongly agree
I'm likely to save money by sharing a magazine subscription with a friend	1 = Strongly disagree 4 = Strongly agree
I'm likely to save money by shopping for the best long-distance phone rates	1 = Strongly disagree 4 = Strongly agree
I'm likely to save money by depositing gift of money into a savings account	1 = Strongly disagree 4 = Strongly agree
Saving money for the future is something I think about	1 = Strongly disagree 4 = Strongly agree
When I get money, I save some of it no matter what	1 = Strongly disagree 4 = Strongly agree
I do a good job of budgeting my money	1 = Strongly disagree 4 = Strongly agree

Title

Savings Purpose Measure

Key Words

Savings, Expenses

Author(s)

Arthur B. Kennickell, Martha Starr-McCluer, and Annika E. Sunden

Source

Kennickell, A. B., Starr-McCluer, M., & Sunden, A. E. (1997). Saving and financial planning: Some findings from a focus group. *Financial Counseling and Planning, 8*(1), 1–8.

Description

This item indicates the reasons why a household saves money.

Test Sample

This measure was used as a pretest to the 1995 Survey of Consumer Finances (SCF), which is a triennial survey of household behavior, assets, liabilities, and demographic/socioeconomic characteristics. The SCF is sponsored by the Federal Reserve Board. Focus group participants were recruited from Chicago. Those in the focus group had income exceeding $250,000 or net worth higher than $600,000.

Scoring

Respondent indicates percentage of savings dedicated to each alternative

Reliability

Not reported

Validity

Not reported

Source Reference(s)

None

Note(s)

This measure is part of the triennial SCF.

Item(s)

Savings purpose measure

Item
Stated reasons for saving (may sum to more than 100%) . . . A. Retirement B. Emergencies C. Major purchase D. Family E. Buy a home F. Investments G. Education

Title

Consumer Complaining Behavior Indexes

Key Words

Financial Behavior, Financial Stress, Complaint

Author(s)

Jinkook Lee and Horacio Soberon-Ferrer

Source

Lee, J., & Soberon-Ferrer, H. (1999). An empirical analysis of elderly consumers' complaining behavior. *Family and Consumer Sciences Research Journal, 27*, 341–371.

Description

The questions included in the indexes were developed to assess a person's both situations in which a complaint had occurred and specific complaint behavior.

Test Sample

According to the authors, "The data used for this study came from the 1993 Survey of Consumer Behavior commissioned by the AARP. The survey used telephone interviews of a national sample of 957 adults age 18 or older. Special sampling techniques were used to ensure that a large number of older consumers would be interviewed, and weights were sued in order for the final sample to be representative of the U.S. population.

Scoring

Situations in which a complaint had occurred are measured with a binary variable, with 1 = yes and 0 = no. A binary complaint variable is created by assigning a person who answers yes to any of the items as being dissatisfied (coded 1). If a respondent answers no to all of the questions, he/she is coded 0. Dissatisfied respondents are then requested to answer the second set of index questions. The total number of actions is used as an indicator of complaint behavior, with higher scores suggesting increased complaining behavior.

Reliability

Reliability was shown by a strong correlation between the number of consumer complaint behaviors taken after the last bad experience and the number of consumer complaint behavior actions taken. The correlation coefficient was 0.35.

Validity

Age differences in complaint behavior were noted.

Source Reference(s)

American Association of Retired Persons (AARP). (1994). *The behavior of older consumers: A report on the 1993 survey of older consumer behavior*. Washington, DC: Author.

Note(s)

The AARP (1994) citation should be included whenever this instrument is used.

Item(s)

Consumer complaining behavior indexes

Items	Scoring
Index 1: In the past year have any of the following things happened to you when buying any kind of product or service?	1 = Yes 0 = No
1. A product was defective or did not work properly?	
2. A product warranty or guarantee was not honored by the company?	
3. You were given false information about a product?	
4. You tried to cancel a credit card purchase made over the telephone and were told to could not be canceled?	
5. A product or service you bought was not received in the time it was promised?	
6. You were given a written estimate for repair work, but the final bill turned out to be much higher than the estimate?	
7. A salesperson convinced you to buy something you did not really need?	
8. A product you ordered from a catalog or television shopping serve looked very different from its picture when it was delivered to you?	
9. Any other kind of bad experience?	
Index 2: If you answered "yes" to any on the items above please think about your last unsatisfactory buying experience and indicate what action, if any, you took as a result:	
1. Did nothing	
2. Stopped buying from company	
3. Told friend and others not to buy from a company again	
4. Complained to salesperson, manager, or owner of companies that sold product or service	
5. Asked for a replacement or a refund	
6. Stopped payment or refused to pay	
7. Complained to a better business bureau	
8. Complained to a consumer agency or a consumer help line	
9. Complained to the state attorney general's office	
10. Complained to a federal agency like the federal trade commission	
11. Took legal action	
12. Complained to someone else	
13. Took some other action	

Title

Satisfaction with Level of Living Item

Key Words

Satisfaction, Level of Living

Author(s)

Sharon M. Danes

Source

Danes, S. M. (1998). Multiple roles, balance between work and leisure, and satisfaction with level of living. *Family and Consumer Sciences Research Journal, 4*, 401–424.

Description

This item was developed to assess a person's satisfaction with their level of living. Level of living refers to an individual's current financial situation. This contrasts with standard of living, which describes an aspirational level of financial standard.

Test Sample

The item was used in a study 513 farm women living in Minnesota in the mid-1980s.

Scoring

The question is answered using a seven-point self-anchoring scale, where 1 = extremely dissatisfied and 7 = extremely satisfied. In the study, 3.7% of respondents indicated being extremely dissatisfied, 9.2% were dissatisfied, 13.3% were somewhat dissatisfied, 18.7% were mixed, 22.4% were somewhat satisfied, 26.5% were satisfied, and 6.2% were extremely satisfied.

Reliability

Not reported

Validity

Satisfaction scores were found to be positive correlated with self-esteem and locus of control.

Source Reference(s)

None

Note(s)

None

Item(s)

Satisfaction with level of living item

Please indicate your satisfaction with your current level of living

1 Extremely Dissatisfied	2	3 Mixed	4	5	6 Extremely	7

Title

Job Stress Item

Key Words

Stress, Job Stress

Author(s)

Stephan M. Wilson, Jeffry H. Larson, & Katherine L. Stone

Source

Wilson, S. M., Larson, J. H., & Stone, K. L. (1993). Stress among job insecure workers and their spouses. *Family Relations, 42*, 74–80.

Description

"Job stress as a result of job insecurity was measured by a single item which asked, '(The University) has been experiencing financial problems due to government-imposed budget cuts and threats of eliminating programs and resources. How stressful do you find these problems to be to you, personally?'" (p. 77)

Test Sample

Questionnaires were collected from 111 couples from staff and faculty members at a university experiencing a budgetary cut-back.

Scoring

Respondents circled a number on a 7-point continuum that ranged from 1 for not stressful to 7 for very stressful.

Reliability

None

Validity

Pearson Correlation Coefficient of 0.46 ($p<0.001$) between perceived stress and job stress.

Source Reference(s)

None

Note(s)

None

Item(s)

Job Stress Item

Items	Scoring
"(The university) has been experiencing financial problems due to government-imposed budget cuts and threats of eliminating programs and resources. How stressful do you find these problems to be to you, personally?"	1 = Not stressful 7= Very stressful

Title

Vanity Scale

Key Words

Vanity, Cross-Cultural

Author(s)

Srinivas Durvasula, Steven Lysonski, and John Watson

Source

Durvasula, S., Lysonski, S., & Watson, J. (2001). Does vanity describe other cultures? A cross-cultural examination of the vanity scale. *The Journal of Consumer Affairs, 35*, 180–199.

Description

The Vanity Scale is described by the authors as an instrument that measures the psychological construct of vanity which is a person's excessive concern with physical appearance or achievement. The scale reportedly has four subcategories, including 1) physical concern; 2) physical view; 3) achievement concern; and 4) achievement view.

Norms

The scale was evaluated with a cross-cultural sample of 475 respondents ranging in age from nineteen to 26 in the countries of New Zealand, India, and China.

Scoring

Each item was measured using a 7-point Likert-Type scale ranging from "strongly disagree" (1) to "strongly agree" (7).

Reliability

All sub-scales had acceptable internal consistency. Composite reliability ranged from 0.67 to 0.91.

Validity

Discriminant validity of the four sub-scales was supported.

Source Reference(s)

Netemeyer, R., Burton, S., & Lichtenstein, D. R. (1995). Trait aspects of vanity: Measurement and relevance to consumer behavior. *Journal of Consumer Research, March*, 612–625.

Note(s)

Item(s)

Items	Scoring
Physical concern	Likert-type scale
1. The way I look is extremely important to me	Range 1–7
2. I am very concerned about my appearance	1= Strongly disagree
3. I would feel embarrassed if I was around people and did not look my best	7 = Strongly agree
4. Looking my best is worth the effort	
5. It is important that I always look good	
Physical-view items	
6. People notice how attractive I am	
7. My looks are very appealing to others	
8. People are envious of my good looks	
9. I am a very good-looking individual	
10. My body is sexually appealing	
11. I have the type of body that people want to look at	
Achievement-concern items	
12. Professional achievements are an obsession with me	
13. I want others to look up to me because of my accomplishments	
14. I am more concerned with professional success than most people know	
15. Achieving greater success than my peers is important to me	
Achievement-view items	
16. In a professional sense, I am a very successful person	
17. My achievements are highly regarded by others	
18. I am an accomplished person	
19. I am a good example of professional success	
20. Others wish they were as successful as me	

Title

Consumer Styles Inventory

Key Words

Consumer Decision Making Style, Decision Making Style, Buying Behavior, Cross-Cultural

Author(s)

George B. Sproles and Elizabeth L. Kendall

Source

Sproles, G. B., & Kendall, E. L. (1986). A methodology for profiling consumers' decision-making styles. *The Journal of Consumer Affairs, 20*(2), 267–279.

Description

The Consumer Styles Inventory (CSI) developed in this study was an eight factor model utilizing eight dimensions such as (1) Perfectionistic, High Quality Conscious Consumer; (2) Brand Conscious, "Price equals Quality" Consumer; (3) Novelty-Fashion Conscious Consumer; (4) Recreational, Hedonistic Consumer; (5) Price Conscious Consumer; (6) Impulsive, Careless Consumer; (7) Confused by Overchoice Consumer; (8) Habitual, Brand-Loyal Consumer

The Perfectionistic, High Quality Conscious Consumer factor identifies consumers who are "in search for the very best quality in products." Those with higher scores appear to shop more carefully for products versus those with lower scores.

The Brand Conscious Consumer refers to the importance of brand names to consumers. Consumers with higher scores on this dimension are interested in purchasing brand-name products that receive much attention through advertising outlets.

The Novelty-fashion Conscious Consumer factor measures the importance consumers place on fashion and novelty. Those who score higher on this scale "are likely to gain excitement and pleasure from seeking out new things."

The Recreational and Hedonistic Shopping Conscious factor identifies to how shopping is perceived by consumers. Consumers with higher scores tend to enjoy shopping and perceive shopping as a recreational activity. Those who score lower tend to spend less time and energy shopping.

Price conscious consumers are those who watch how much money they spend. Consumers who score higher than those with lower scores on this dimension tend to shop for the lowest prices by comparing prices at various locations and among different brands.

Impulsive, Careless Consumers appear not to plan their shopping. They tend to be "unconcerned about how much they spend or about the 'best buys.'"

The Confused by Overchoice Consumer factor measures how well consumers utilize product information when making purchase decisions. Consumers who score higher on this dimension tend to feel overwhelmed by many choices products and store locations whereas those who score lower are likely to utilize product information to make the best choice for them.

The Habitual, brand-loyal Consumer factor measures a consumer's likelihood to have formed habits buying favorite brands.

Norms

The scale was initially evaluated with a sample of 501 high school students enrolled in 29 home economic classes in five high schools in the Tucson, AZ area.

Scoring

Each item was measured using a 5-point Likert-Type scale ranging from "strongly disagree" to "strongly agree."

Reliability

The scale has good reliability. Cronbach's alpha reliability tests resulted in 0.74 for perfectionistic, 0.75 for brand conscious, 0.74 for novelty-fashion conscious, 0.76 for recreational shopping conscious, 0.48 for price consciousness, 0.48 for impulsive, 0.55 for confused by overchoice, and 0.53 for habitual, brand-loyal.

Validity

Not reported

Source Reference(s)

Note(s)

The CSI scale was developed into a Profile of Consumer Style (PCS) by using the first three questions of each subcategory (see "Items" section below). The original reference has more information about the PCS:

Sproles, G. B., & Kendall, E. L. (1986). A methodology for profiling consumers' decision-making styles. *The Journal of Consumer Affairs, 20*(2), 267–279:

The CSI scale has been tested in other samples and cross-culturally. The scale has shown to have varying agreement on the number of dimensions the scale actually contains, see the following references for more information.

Durvasula, S., Lysonski, S., & Andrews, C. (1993). Cross-cultural generalizability of a scale for profiling consumers' decision-making styles. *The Journal of consumer Affairs, 27*(1), 55–65

Fan, J. X., & Xiao, J. J. (1998). Consumer decision-making styles of young-adult Chinese. *The Journal of Consumer Affairs*, *32*(2), 275–294.

Hafstrom, J. J., Chae, J. S., & Chung, Y. S. (1992). Consumer decision-making styles: Comparison between United States and Korean young consumers. *The Journal of Consumer Affairs, 26*(1), 146–158.

Hiu, A. S. Y., Sui, N Y. M., Wang, C, C. L., & Chang, L. K. (2001). An investigation of decision-making styles of consumers in China. *The Journal of Consumer Affairs, 35*(2), 326–345.

Lysonski, S., Durvasula, S., & Zotos, Y. (1996). Consumer decision-making styles: A multi-country investigation. *European Journal of Marketing, 30*(12), 10–21.

Item(s)

Items	Scoring
Perfectionistic, high quality conscious consumer	Likert-type scale
1. Getting very good quality is very important to me	Range 1–5
2. When it comes to purchasing products, I try to get the very best or perfect choice	1= Strongly Disagree
3. In general, I usually try to buy the best overall quality	5 = Strongly Agree
4. I make special effort to choose the very best quality products	
5. I really don't give my purchases much thought or care.	
6. My standards and expectations for products I buy are very high	
7. I shop quickly, buying the first product or brand I find that seems good enough.	
8. A product doesn't have to be perfect, or the best, to satisfy me.	
Brand conscious, price equals quality consumer	
9. The well-known national brands are best for me	
10. The more expensive brands are usually my choices	
11. The higher the price of a product, the better its quality	
12. Nice department and specialty stores offer me the best products	
13. I prefer buying the best-selling brands	
14. The most advertised brands are usually very good choices.	
15. A product doesn't have to be perfect, or the best, to satisfy me	
Novelty-fashion conscious consumer	
16. I usually have one or more outfits of the very newest style	
17. I keep my wardrobe up-to-date with the changing fashions	
18. Fashionable, attractive styling is very important to me.	

(continued)

Items	Scoring
19. To get variety, I shop different stores and choose different brands	
20. It's fun to buy something new and exciting	
Recreational, hedonistic consumer	
21. Shopping is not a pleasant activity to me	
22. Going shopping is one of the enjoyable activities of my life	
23. Shopping the stores wastes my time	
24. I enjoy shopping just for the fun of it	
25. I make my shopping trips fast	
Price conscious, "value for money" consumer	
26. I buy as much as possible at sale prices	
27. The lower the price products are usually my choice	
28. I look carefully to find the best value for the money	
Impulsive, careless consumer	
29. I should plan my shopping more carefully than I do	
30. I am impulsive when purchasing	
31. Often I make careless purchases I later wish I had not.	
32. I take the time to shop carefully for best buys	
33. I carefully watch how much I spend	
Confused by overchoice consumer	
34. There are so many brands to choose from that often I feel confused	
35. Sometimes it's hard to choose which stores to shop	
36. The more I learn about products, the harder it seems to choose the best	
37. All the information I get on different products confuses me	
Habitual, brand-loyal consumer	
38. I have favorite brands I buy over and over	
39. Once I find a product or brand I like, I stick with it	
40. I go to the same stores each time I shop	
41. I change brands regularly	

Title

Attitudes of Apparel Manufacturing Scale

Key Words

Buying Behavior, Consumer Behavior, Attitude toward Apparel, Knowledge of Apparel

Author(s)

Marsha A. Dickson

Source

Dickson, M. A. (2001). Utility of no sweat labels for apparel consumers: Profiling label users and predicting their purchases. *Journal of Consumer Affairs, 35*, 96–119.

Description

The author stated that a questionnaire was developed to measure beliefs about apparel manufacturing practices in the U.S. and in foreign countries, perceived knowledge of apparel industry and working conditions, concern about issues affecting apparel industry workers, and for socially responsible businesses and potential actions against apparel manufacturers. Five variables, including Support, Beliefs about Foreign Industry, Beliefs about U.S. Industry, Knowledge, and Concern were identified using a factor analysis.

Norms

The scale was evaluated with a cross-cultural sample of 475 respondents ranging in age from nineteen to 26 in the countries of New Zealand, India, and China.

Scoring

Each item was measured using a 7-point Likert-Type scale ranging from “strongly disagree” (1) to “strongly agree” (7).

Reliability

Cronbach’s alpha was 0.86 for the variable of Support, 0.81 for Beliefs about Foreign Industry, 0.79 for Beliefs about U.S. Industry, 0.76 for Knowledge, and 0.78 for Concern.

Validity

Not reported

Source Reference(s)

Dickson (1991) as cited in Dickson, 2001.

Note(s)

Item(s)

Attitudes of apparel manufacturing scale

Items	Scoring
Support 21. Buying clothing for myself from socially responsible business is good 22. I would buy clothing from socially responsible businesses to help support their business practices 23. I believe in the ideals of socially responsible clothing businesses 24. I would go out of my way to buy clothing from a socially responsible business 25. I would like it if clothing had a No Sweat label assuring that it was made in safe and fair conditions Beliefs about Foreign Industry 26. Clothing manufacturers located n foreign countries generally provide safe workplaces for their employees 27. Clothing manufacturers located in foreign countries generally pay their employees at least the local minimum wage 28. Clothing manufacturers located in foreign countries generally require their employees work no more than 40 h per week 29. Child labor is generally not used by clothing manufacturers located in foreign countries Beliefs about U.S. industry 30. Clothing manufacturers located in the U.S. generally pay their employees at least the local minimum wage 31. Clothing manufacturers located in the U.S. generally provide safe workplaces for their employees 32. Child labor is generally not used by clothing manufacturers located in the US 33. Clothing manufacturers located in the U.S. generally require their employees work no more than 40 h per week Knowledge 34. I believe that I am informed about issues in the U.S. clothing manufacturing business 35. I am knowledgeable about sweatshop issues in the clothing business 36. How aware are you of the efforts of some clothing businesses to be more socially responsible? Concern 1. I am concerned about issues affecting workers in U.S. clothing manufacturing businesses 2. I am concerned with issues affecting workers in foreign clothing manufacturing businesses	Likert-type scale Range 1–7 1= Strongly disagree 7 = Strongly agree

Title

Degree of Irrational Credit Card Use Scale

Key Words

Credit Cards, Buying Behavior

Author(s)

James A. Roberts

Source

Roberts, J. A., (1998). Compulsive buying among college students: An investigation of its antecedents, consequences, and implications for public policy. *The Journal of Consumer Affairs, 32*(2), 295–319.

Description

The six item scale identifies credit card use and buying behavior when making a purchase using a credit card.

Norms

The scale was initially evaluated by d'Astous utilizing a sample of 190 Canadian residents in the mid-sized city of Sherbrooke.

Scoring

Each item was measured using a 3-point Likert-Type scale with choice of 1= Never, 2= Sometimes, 3=Often.

Reliability

Cronbach's alpha = 0.66.

Validity

Not reported

Source Reference(s)

d'Astous, A. (1990). An inquiry into the compulsive side of 'normal' consumers. *Journal of Consumer Policy, 13*, 15–31.

Note(s)

Item(s)

Degree of irrational credit card use scale

Items	Scoring
1. I use the totality of my card's credit limit 2. I have been told that my current credit limit is insufficient to pay for my purchases 3. When I get my credit card bill, I pay the amount in totality 4. When I use my credit card, I have enough money available at the bank 5. With a credit card, price is not important 6. When I shop with my credit card(s), I tend to make unplanned purchases	Likert-type scale Range 1–3 1= Never 3 = Often

Title

Attitudes towards Long-Term Care Facilities and Living Situations Index

Key Words

Attitude towards Long-Term Care, Long-Term Care, Living Arrangements

Author(s)

Karen Martin Gibler, James. R. Lumpkin, George P. Moschis

Source

Gibler, K. M., Lumpkin, J. R., & Moschis, G. P. (1997). Mature consumer awareness and attitudes toward retirement housing and long-term care alternatives. *The Journal of Consumer Affairs, 31*,113–138.

Description

The Attitudes toward Long-Term Care Facilities and Living Situations is described by the authors as an instrument to gage respondents' degree of agreement with 34 statements concerning attitudes in 8 subscales, including (1) Living with Children would Create Conflict; (2) Living with Children Would Make Me a Burden; (3) Living with Children Because They Want Me; (4) Nursing Home is Last Resort; (5) Nursing Homes Too Structured and Lack Privacy; (5) Nursing Homes Provide Security, Services, and Companionship; (6) Live-in Help is Too Expensive or Not Available; (7) Nothing Prolongs Independence; and (8) Assistance Needed in Daily Living Activities.

Norms

This index was initially evaluated with a national sample of 4,800 households age 60 and older and who are members of the Market Facts Consumer Mail Panel.

Scoring

Each item was measured using a 5-point Likert-Type scale ranging from "strongly disagree" (1) to "strongly agree" (5).

Reliability

Cronbach's alpha reliability tests resulted in 0.81 for Living with Children Would Create Conflict; 0.50 for Living with Children Would Make Me a Burden; 0.76 for Nursing Home is Last Resort; 0.70 for Nursing Homes Too Structured and Lack Privacy; 0.65 for Nursing Homes Provide Security, Serives, and Companionship; 0.70 for Live-In Help is Too Expensive or Not Available; 0.60 for Nothing Prolongs Independence; and 0.60 for Assistance Needed in Daily Living Activities. The Living with Children Because They Want Me subscale included only one item and therefore no alpha coefficient was reported.

Validity

Not reported

Source Reference(s)

Note(s)

Item(s)

Attitudes towards long-term care facilities and living situations index

Items	Scoring
Living with children would create conflict	Likert-type scale
1. In-home care wouldn't be fair to my children	Range 1–5
2. Living with children would threaten our relationship	1= Strongly disagree
3. Different generations do not mix well	
4. In-home care would cause conflict within my children's family	5 = Strongly agree
5. I believe that it isn't right to live with children	
6. I don't want to live with my children	
Living with Children Would Make Me a Burden	
7. I don't want to be a burden to anyone	
8. I believe my children have a right to their independence	
Living with children because they want me	
9. My children want me to live with them	
Nursing home is last resort	
10. Nursing homes have bad reputations	
11. A nursing home is the last resort	
12. Once you enter a nursing home you may never leave	
13. I would rather die than enter a nursing home	
14. People in nursing homes usually retain their dignity.	
15. Nursing homes have improved in recent years	
Nursing homes too structured and lack privacy	
16. I want the privacy of my own home	
17. I don't feel ready for a nursing home yet	
18. There are too many restrictions at a nursing home	
19. Moving to a nursing home will make me feel old	
20. In-home care lets me retain my dignity	
Nursing homes provide security, services, and companionship	
21. I desire the services provided by a nursing home	
22. I want to live with people my own age	
23. I want the security of knowing I'll be cared for	
24. I expect to spend my old age in a nursing home	

Attitudes towards long-term care facilities and living situations index (continued)

Items	Scoring
Live-in help is too expensive or not available	
25. I will not be able to afford a nursing home	
26. Having someone live with me would be too expensive	
27. Not many people want to live-in with someone else	
28. Finding someone who cares to live-in is almost impossible	
Nothing prolongs independence	
29. There is little I can do to remain independent	
30. Special products designed for seniors to prolong independence are too expensive	
31. Special products designed to prolong are only for the very old	
Assistance needed in daily living activities	
32. I currently require assistance in daily living activities	
33. I have no problem in getting around	

Title

Homogeneity of Organizational Religious Participation Item

Key Words

Couples Religious Practices, Religiosity, Participation in Religion.

Author(s)

Brown, E., Orbuch, T. L., & Bauermeister, J. A.

Source

Brown, E., Orbuch, T. L., & Bauermeister, J. A. (2008). Religiosity and marital stability among Black American and White American couples. *Family Relations, 57*, 186–197.

Description

This one item measure evaluates the joint service attendance domain of religiosity.

Test Sample

373 same race couples (199 Black American and 174 White American) who applied for the first marriage license in Michigan from April to June 1986.

Scoring

Categorical: “Both go,” “Go without spouse” or “Neither goes”.

Reliability

None Reported

Validity

None Reported

Source Reference(s)

Note(s)

Item(s)

Subjective Religious Participation Item

“When you go to religious services, do you go with your (wife/husband) or do you go without (him/her)?”

Title

Life Happiness Item

Key Words

Life Happiness.

Author(s)

Dush, C. M. K, Taylor, M. G., & Kroeger, R. A. (2008)

Source

Dush, C. M. K, Taylor, M. G., & Kroeger, R. A. (2008). Marital happiness and psychological well-being across the life course. *Family Relations, 57*, 211–226.

Description

This single item measures the respondent's amount of life happiness.

Test Sample

Data in this analysis is based on the study of Marital Instability over the Life Course (Booth, Johnson, Amato, & Rogers, 2003). A national sample of 2,034 married individuals 55 years of age or younger participated in telephone interviews through a random digital dialing procedure in 1980. In addition to Wave 1 data there were 5 more waves of data collection: Wave 2 (N = 1,592) took place in 1983, Wave 3 (N = 1,341) in 1988, Wave 4 (N = 1,183) in 1992, Wave 5 (N = 1,077) in 1997 and Wave 6 (N = 962) in 2000.

Scoring

Responses to this one item measure

Reliability

None Reported

Validity

None Reported

Source Reference(s)

None

Note(s)

None

Item(s)

Life happiness item

Items	Scoring
"Overall, how happy would you say you are these days?"	Would you say you are: 1 = Very happy 2 = Pretty happy 3 = Not very happy

Title

Organizational Religious Participation Item

Key Words

Organizational Religion, Religiosity, Participation in Religion.

Author(s)

Brown, E., Orbuch, T. L., & Bauermeister, J. A.

Source

Brown, E., Orbuch, T. L., & Bauermeister, J. A. (2008). Religiosity and marital stability among Black American and White American couples. *Family Relations, 57*, 186–197.

Description

This one item measure evaluates the organizational religious participation domain of religiosity.

Test Sample

373 same race couples (199 Black American and 174 White American) who applied for the first marriage license in Michigan from April – June 1986.

Scoring

0 = Never 1 = A few times a year, 2 = Once or twice a month, 3 = Almost every week, 4 = Every week.

Reliability:

Validity

Source Reference(s)

Note(s)

Item(s)

Subjective Religious Participation Item
"How often do you attend religious services"

Title

Religiosity Item

Key Words

Religious Attitudes, Religious Values, Religiosity.

Author(s)

Claire M. Kamp Dush, Miles G. Taylor, & Rhiannon A. Kroeger

Source

Dush, C. M. K, Taylor, M. G., & Kroeger, R. A. (2008). Marital happiness and psychological well-being across the life course. *Family Relations, 57*, 211–226.

Description

This one-item question was developed to assess participant's religious values and attitudes.

Test Sample

Data in this analysis is based on the study of Marital Instability over the Life Course (Booth, Johnson, Amato, & Rogers, 2003). A national sample of 2,034 married individuals 55 years of age or younger participated in telephone interviews through a random digital dialing procedure in 1980. Data on this item was only collected during the first Wave of this six Wave study.

Scoring

Possible responses ranged from 1 = none to 5 = very much

Reliability

None

Validity

Not Reported

Source Reference(s)

None

Note(s)

None

Item(s)

Religiosity item

Items	Scoring
In general, how much do your religious beliefs influence your daily life?	1 = None 5 = Very much

Title

Subjective Religious Participation Item

Key Words

Religiosity

Author(s)

Brown, E., Orbuch, T. L., & Bauermeister, J. A.

Source

Brown, E., Orbuch, T. L., & Bauermeister, J. A. (2008). Religiosity and marital stability among Black American and White American couples. *Family Relations, 57*, 186–197.

Description

This one item measure evaluates the subjective religious participation domain of religiosity.

Test Sample

373 same race couples (199 Black American and 174 White American) who applied for the first marriage license in Michigan from April to June 1986.

Scoring

1 = Not at all important, 2 = Somewhat important, or 3 = Very important

Reliability

None Reported

Validity

None Reported

Source Reference(s)

Note(s)

Item(s)

Subjective Religious Participation Item
"How important is religion to you personally"

Title

Financial Distress/Well-Being Scale

Key Words

Financial Wellness, Financial Well-Being, Financial Distress

Author(s)

Aimee D. Prawitz, E. Thomas Garman, Benoit Sorhaindo, Barbara O'Neill, Jinhee Kim, and Patricia Drentea

Source

Prawitz, A. D., Garman, E. T., Sorhaindo, B., O'Neill, B., Kim, J., & Drentea, P. (2006). InCharge financial distress/financial well-being scale: Development, administration, and score interpretation. *Financial Counseling and Planning, 17*(1), 34–50.

Description

According to the authors, the scale was developed to "measure the level of stress and wellbeing emanating from one's personal financial condition. To this end, we have defined the construct as financial distress/financial well-being, indicating that the construct represented a continuum extending from negative to positive feelings about and reactions to the financial condition" (p. 36). Furthermore, the scale "is an eight-item self-report subjective measure of financial distress/financial well-being. The IFDFW Scale provides a score representing the combination of responses to eight individual indicators; the score validly and reliably measures the latent construct of perceived financial distress/financial well-being. As with all composite measures, the IFDFW Scale employs correlates or indicators of the variable rather than the variable itself; thus, this measure of perceived financial distress/financial well-being is indirect and provides an approximation of the "real" measurement of the construct" (p. 38).

Norms

A three-stage qualitative Delphi method was used to develop the initial instrument. A beta version of the scale and survey was administered to a panel of 355 consumer credit counseling clients in 2000, a panel of 3,121 clients in 2003, and faculty at selected universities during that time. The final version of the scale was tested with a two samples. The first consisting of 1,097 individuals from the U.S. population; the second including 590 financially distressed individuals.

Scoring

According to the authors, "standards were established for scale scores on a continuum from 1 to 10, where 1 = overwhelming financial distress/lowest financial well-being and 10 = no financial distress/highest financial wellbeing. The mean score of 5.7 (SD = 2.4) for the general population was located at approximately the midpoint on the continuum, since the midpoint of the range of possible scores1 is 5.5

Reliability

Cronbach's alpha = 0.96.

Validity

The authors undertook several tests to confirm the face, content, concurrent, predictive, convergent, and discriminant validity of the instrument.

Source Reference(s)

None

Note(s)

Permission is required to use the instrument (©Copyright by InCharge Education Foundation (http://www.inchargefoundation.org/) and E. Thomas Garman (http://www.PersonalFinanceFoundation.org), 2005.

Item(s)

Refer to the source reference Appendix for a copy of the scale.

Title

Self-Esteem Scale

Key Words

Self-Esteem

Author(s)

John E. Grable and So-hyun Joo

Source

Grable, J. E., & Joo, S. (2004). Environmental and biopsychosocial factors associated with financial risk tolerance. *Financial Counseling and Planning, 15*(1), 73–88.

Description

This ten-item scale was developed to assess a person's core evaluation of self-worth. The scale was based on work originally conducted by Rosenberg (1965).

Norms

The scale was tested using a sample of 460 faculty and staff from two Midwestern U.S. universities.

Scoring

A four-point Likert-type scale is used to score each item. Responses to each item are as follows: (a) strongly agree, (b) tend to agree, (c) tend to disagree, and (d) strongly disagree. Responses are coded as 1, 2, 3, or 4, respectively, and a summated score is generated for each subject. Note that higher scores indicate a more positive subject self-esteem. The average score for respondents is 16.11, with a standard deviation of 4.66.

Reliability

Cronbach's alpha = 0.89.

Validity

Scale scores were shown to be positively associated with financial risk tolerance.

Source Reference(s)

Rosenberg, M. (1965). *Society and the adolescent self-image*. Princeton, NJ: Princeton University Press.

Note(s)

None

Item(s)

Self-esteem scale

Item	Scoring
At times I think I am no good at all[a]	1 = Strongly agree 2 = Tend to agree 3 = Tend to disagree 4 = Strongly disagree
I take a positive attitude toward myself	1 = Strongly agree 2 = Tend to agree 3 = Tend to disagree 4 = Strongly disagree
I feel that I'm a person of worth, at least on an equal basis with others	1 = Strongly agree 2 = Tend to agree 3 = Tend to disagree 4 = Strongly disagree
I feel that I have a number of good qualities	1 = Strongly agree 2 = Tend to agree 3 = Tend to disagree 4 = Strongly disagree
All in all, I am inclined to feel that I am a failure[a]	1 = Strongly agree 2 = Tend to agree 3 = Tend to disagree 4 = Strongly disagree
I certainly feel useless at times	1 = Strongly agree 2 = Tend to agree 3 = Tend to disagree 4 = Strongly disagree
I am able to do things as well as most other people	1 = Strongly agree 2 = Tend to agree 3 = Tend to disagree 4 = Strongly disagree
I feel I do not have much to be proud of [a]	1 = Strongly agree 2 = Tend to agree 3 = Tend to disagree 4 = Strongly disagree
I wish I could have more respect for myself[a]	1 = Strongly agree 2 = Tend to agree 3 = Tend to disagree 4 = Strongly disagree
On the whole, I am satisfied with myself	1 = Strongly agree 2 = Tend to agree 3 = Tend to disagree 4 = Strongly disagree

[a]Item reverse coded

Title

Adaptive Behavior Scale

Key Words

Consumer Behavior, Consumer Privacy, Knowledge Privacy, Privacy

Author(s)

George R. Milne, Lauren I. Labrecque, and Cory Cromer

Source

Milne, G. R., Labrecque, L. I., & Cromer, C. (2009). Toward an understanding of the online consumer's risky behavior and protection practices. *The Journal of Consumer Affairs, 43*, 449–473.

Description

A six-item scale adapted from Westin (2005) to measure likelihood of perceived online threat.

Norms

The scale was evaluated with 449 participants who were known to be internet shoppers in the United States.

Scoring

The scale is summated using a dichotomous "yes" or "no" response.

Reliability

Cronbach's alpha = 0.96.

Validity

Not reported

Source Reference(s)

Westin, A. (2004). *Harris interactive poll: Online privacy*, June 10, 2004.

Note(s)

Item(s)

Adaptive behavior scale

Items	Scoring
Adaptive behavior *In the past year, have you...* 1. Asked an online business to remove your name and address from any lists they use for marketing purposes? 2. Asked an online business not to sell or give your name and address to another company? 3. Asked an online business to see what personal information, besides billing information, they had about you in their records? 4. Refused to give information to an online business because you thought it was not really needed or was too personal? 5. Decided not to use or purchase something from an online business because you weren't sure how they would use your personal information? 6. Decided not to register at a website to get information or to shop there because you found their privacy policy too complicated or unclear?	Yes/No

Title

Attitude toward the Product Class (Mutual Funds)

Key Words

Attitude towards Investing, Consumer Behavior, Satisfaction with Investing, Investment

Author(s)

John Kozup, Elizabeth Howlett, and Michael Pagano

Source

Kozup, J., Howlett, E., & Pagano, M. (2008). The effects of summary information on consumer perceptions of mutual fund characteristics. *The Journal of Consumer Affairs, 42*, 37–59.

Description

A seven-item measure that assesses attitude toward product class (mutual funds).

Norms

The measurement was tested with 338 participants of an internet research panel.

Scoring

Scoring for the company rating used a seven-point Likert-type scale ranging from 1-"Strongly Disagree" to 7-"Strongly Agree."

Reliability

Cronbach's alpha = 0.92.

Validity

Not reported

Source Reference(s)

Note(s)

Item(s)

Attitude toward the product class (mutual funds)

Items	Scoring
1. Overall, the thought of investing in a fund causes me to be concerned with experiencing some kind of loss 2. All things considered, I think I would be making a mistake if I invested in a mutual fund 3. When all is said and done, I really feel that investing in a mutual fund poses problems for me that I just don't need 4. My investing in a mutual fund would be a bad way to invest my money 5. If I invested in a mutual fund, I would be concerned that the financial investment I would make would not be wise 6. As I consider investing in a mutual fund, I worry about whether the product will really perform as well as it is supposed to 7. If I were to invest in a mutual fund, I am concerned that the mutual fund will not provide the level of performance that I would be expecting	Seven-point Likert-type scale 1 = Strongly disagree 7 = Strongly agree

Title

Buying Intentions Scale

Key Words

Buying Behavior, Consumer Behavior

Author(s)

Robert Larose and Nora J. Rifon

Source

Larose, R., & Rifon, N. J. (2008). Promoting i-Safety: Effects of privacy warnings and privacy seals on risk assessment and online privacy behavior. *The Journal of Consumer Affairs, 41*, 127–149.

Description

A two-item scale, which assesses an individual's intentions to purchase on the web.

Norms

The scale was evaluated with 227 students in telecommunication, advertising, and packaging at a major Midwestern University.

Scoring

Seven-point agree/disagree Likert-type scale.

Reliability

Cronbach's alpha = 0.87.

Validity

Not reported

Source Reference(s)

Note(s)

Item(s)

Buying intentions scale

Items	Scoring
Buying intentions 1. I would use my credit card to purchase from this web site 2. I am very likely to buy products from this web site	Seven-point Likert-type scale ranging from agree to disagree 1 = Strongly disagree 7 = Strongly agree

Title

Consumer Self-Confidence Scale

Key Words

Consumer Behavior, Self-confidence, Information Search

Author(s)

Cazilla Loibl, Soo Hyun Cho, Florian Diekmann, and Marvine T. Batte

Source

Loibl, C., Cho, S. H., Diekmann, F., & Batte, M. T. (2009). Consumer self-confidence in search for information. *The Journal of Consumer Affairs, 39*, 173–194.

Description

A group of measurements designed to assess consumers self-confidence in regards to information search using five categories including (1) information acquisition, (2) consideration set formation, (3) personal outcome, (4) social outcome, and (5) persuasion knowledge.

Norms

The measurement was tested with 787 individuals residing in Ohio.

Scoring

Scoring for the company rating used a seven-item Likert-type scale ranging from "Strongly Disagree" (1) to "Strongly Agree" (7).

Reliability

Cronbach's alpha was reported for each subscale. Information Acquisition = 0.890; Consideration Set Formation = 0.888; Personal Outcome = 0.850; Social Outcome = 0.900; and Persuasion Knowledge = 0.872.

Validity

Not reported

Source Reference(s)

Bearden, W. O., Hardesty, D. M., & Rose, R. L. (2001). Consumer self-confidence: Refinements in conceptualization and measurement. *Journal of Consumer Research, 28*(June), 121–134.

Note(s)

Item(s)

Consumer self-confidence scale

Items	Scoring
Information acquisition	Company rating
1. I know where to find the information I need prior to making a decision	Seven-item Likert-type scale
2. I know where to look to find the information I need	1 = Strongly disagree
3. I am confident in my ability to research important decisions	7 = Strongly agree
4. I know the right questions to ask when looking for information	
5. I can focus easily on a few good sources of information when making a decision	
Consideration Set Formation	
1. I am confident in my ability to recognize sources of information worth considering	
2. I can tell which sources of information meet my expectations	
3. I trust my own judgment when deciding which source of information to consider	
4. I never seem to find the right information for me	
5. Too often the sources of information I use are not satisfying	
Personal Outcome	
1. I often have doubts about the sources of information I use	
2. I frequently agonize over which sources of information to consider	
3. I often wonder if I've chosen the right source of information	
4. I have the skills required to obtain needed information before making important decisions	
5. I know where to look for information	

Consumer self-confidence scale (continued)

Items	Scoring
Social Outcome	
1. My friends are impressed with my ability to find useful information	
2. I impress people with the sources of information I know	
3. My family admires my ability to find information	
4. I have the ability to give good advice	
5. I get compliments from others on my sources of information	
Persuasion Knowledge	
8. I know when a source of information is "too good to be true."	
9. I can tell when an information source has strings attached	
10. I have no trouble understanding the bargaining tactics used by salespeople	
11. I know when salespeople are pressuring me to believe them	
12. I can see through sales gimmicks used to get consumers to buy in	
13. I can separate fact from fantasy in advertising	

Title

Consumer Sentiment toward Marketing Scale

Key Words

Attitude towards Buying, Buying Behavior, Consumer Behavior, Marketing

Author(s)

Lois A. Mohr, Doğan Eroğlu, and Pam Scholder Ellen

Source

Mohr, L. A., Eroğlu, D., & Scholder Ellen, P. (1998). The development and testing of a measure of skepticism toward environmental claims in marketers' communications. *The Journal of Consumer Affairs, 27*, 258–283.

Description

A twenty-item instrument developed to measure consumer attitudes toward four marketing areas: product quality, price of products, advertising for products, and retailing and selling.

Norms

The measurement was tested with 301 students at a large southeastern university with a very high proportion of nontraditional students. See Gaski and Etzel (1976) for original norms.

Scoring

Consumer Sentiment toward Marketing is scored on a five-point Likert-type scale for each marketing area. Product quality ranged from –9 to 10, price ranged from –10 to 10, advertising ranged from –10 to 10, and retailing/selling ranged from –10 to 10. See Gaski and Etzel (1976) for more details.

Reliability

Cronbach's alpha for each marketing scale was as follows: product quality = 0.68; price of products = 0.78; advertising for products = 0.74; and retailing and selling = 0.80, as reported by Gaski and Etzel (1976).

Validity

Not reported

Source Reference(s)

Gaski, J. F., & Etzel, M. J. (1976). The index of consumer sentiment toward marketing. *Journal of Consumer Research, 16*(March), 433–441.

Note(s)

Item(s)

Consumer sentiment toward marketing scale

Items	Scoring
Consumer sentiment toward marketing	
Product quality	
1. I am satisfied with most of the products I buy	
2. Most products I buy wear out too quickly	
3. Too many of the products I buy are defective in some way	
4. The companies that make products I buy don't care enough about how well they perform	
5. The quality of products I buy has consistently improved over the years	
Price of products	
1. Most products I buy are overpriced	
2. Businesses could charge lower prices and still be profitable	
3. Most prices are reasonable given the high cost of doing business	
4. Most prices are fair	
5. In general, I am satisfied with the prices I pay	
Advertising for products	
1. Most advertising is very annoying	
2. Most advertising makes false claims	
3. If most advertising were eliminated, consumers would be better off	
4. I enjoy most ads	
5. Most advertising is intended to deceive rather than inform	
Retailing or selling	
1. Most retail stores serve their customers well	
2. Because of the way retailers treat me, most of my shopping is unpleasant	
3. I find most retail salespeople to be very helpful	
4. When I need assistance in a store, I am usually not able to get it	
5. Most retailers provide adequate service	

Title

Perceived Cost, Benefits and Involvement Scale

Key Words

Consumer, Behavior

Author(s)

Rosemary J. Avery

Source

Avery, R. J. (1996). Determinants of search for nondurable goods: An empirical assessment of information theory. *The Journal of Consumer Affairs, 30*, 390–420.

Description

This questionnaire was developed as part of a mail survey, which contained "attitude statements regarding consumers' perceived cost of search, perceived benefits of search, and purchase involvement." The items listed below measure concepts including, perceived time constraints, perceived budget constraints, perceived mobility constraints, beliefs about price competitiveness, beliefs about overall price and quality variability between stores, beliefs about price variability of individual items between stores, knowledge of grocery stores. The authors note that many of the items were adapted from previous surveys.

Norms

The questionnaire was used with 373 respondents in a large Midwestern city.

Scoring

Each attitude or behavior is measured on a five-point Likert-type scale ranging from strongly agree to strongly disagree.

Reliability

Not reported

Validity

Not reported

Source Reference(s)

Note(s)

Item(s)

Perceived cost, benefits and involvement scale

Items	Scoring
Perceived time constraints	Likert-type scale
1. I never have enough time	Range 1–5
2. Everything I do is rushed	
3. I am always busy doing things	
4. I am not very good at time management	
Perceived budget constraints	
5. I frequently have problems making ends meet	
6. My budgeting is always tight	
7. I often have to spend more money than I have available	
Perceived mobility constraints	
8. I do not have a lot of energy to do things	
9. My health restricts my activities	
10. I do not have reliable transportation to get out and about	
11. I find driving stressful	
Beliefs about price competiveness	
12. The city grocery market competes a lot on price	
13. There is price competition between my local grocery stores	
14. The city grocery stores do a lot of price advertising	
15. City grocery stores offer a lot of price specials	
Beliefs about overall price and quality variability between stores	
16. A cart full of the same groceries bought from each of my local grocery stores will vary substantially in price	
17. There is a lot of variability between prices of grocery stores	
18. Some grocery stores in the city have a lot lower prices than others	
19. The prices of meats and produce varies a lot between the city's grocery stores	
20. The quality of meats and produce varies a lot between the city's grocery stores	
Beliefs about price variability of individual items between stores	
21. A grocery store I do not regularly shop at often has great price specials	
22. The price of individual items often varies a lot between stores	
23. Different grocery stores seldom have price specials on the same items at the same time	
Knowledge of grocery stores	
24. I know a lot about the city grocery stores	
25. I know which grocery stores have the lowest prices	
26. I know which grocery stores have the best specials	
27. I know which grocery stores have the highest quality produce	
28. I know which grocery stores are closest to my home	
29. I know which grocery stores have the best bakery	
30. I know which grocery stores have the best meat department	
31. I know which grocery stores have the best deli	

Title

Cynicism Scale

Key Words

Attitude towards Cynicism

Author(s)

Lois A. Mohr, Doğan Eroğlu, and Pam Scholder Ellen

Source

Mohr, L. A., Eroğlu, D., & Ellen, P. S. (1998). The development and testing of a measure of skepticism toward environmental claims in marketers' communications. *The Journal of Consumer Affairs, 27*, 258–283.

Description

A six-item instrument developed to measure an individual's doubt in communication and motivations behind the communication.

Norms

The measurement was tested with 301 students at a large southeastern university with a very high proportion of nontraditional students. See Kanter and Mirvis (1989) for original norms.

Scoring

Cynicism is scored on a four-point Likert-type scale with a summative score ranging from 6 to 24. See Kanter and Mirvis (1989) for more details.

Reliability

Cronbach's alpha = 0.78, as reported by Kanter and Mirvis (1989).

Validity

Not reported

Source Reference(s)

Kanter, D. L., & Mirvis, P. H. (1989). *Cynical Americans: Living and working in an age of discontent and disillusionment.* San Francisco: Jossey-Bass Publishers.

Note(s)

Item(s)

Cynicism scale

Items	Scoring
Cynicism 1. Most people will tell a lie if they can gain by it 2. People pretend to care more about one another than they really do 3. It's pathetic to see an unselfish person in today's world because so many people take advantage of him or her 4. Most people are just out for themselves 5. Most people inwardly dislike putting themselves out to help other people 6. Most people are not really honest by nature	Four-point Likert-type scale

Title

Expectation for the Future Financial Situation Item

Key Words

Financial Behavior, Financial Management, Financial Management Behavior, Future Planning

Author(s)

Tahira K. Hira and Cazilla Loibl

Source

Hira, T. K., & Loibl, C. (2005). Understanding the impact of employer-provided financial education on workplace satisfaction. *The Journal of Consumer Affairs, 39*, 173–194.

Description

A one-item measurement used to assess an individual's expectations for their future financial situation.

Norms

The measurement was tested with 1,486 individuals in "West Central" U.S.

Scoring

Response categories are "get worse," "stay the same," or "get better."

Reliability

Not reported

Validity

Not reported

Source Reference(s)

Note(s)

Item(s)

Expectation for the future financial situation item

Items	Scoring
1. In the next 5 years, do you expect that your household's financial situation will get worse, stay the same, or get better?	Response categories are coded as the following: 1 = Get worse 2 = Stay the same 3 = Get better

Title

External Locus of Control Scale

Key Words

Locus of Control

Author(s)

Vanessa G. Perry and Marlene D. Morris

Source

Perry, V. G., & Morris, M D. (2005). Who is in Control? The role of self-perception, knowledge, and income in explaining consumer financial behavior. *The Journal of Consumer Affairs, 39*, 299–313.

Description

The authors report that the External Locus of Control scale was a seven-item version of the Rotter's Locus of Control Scale (1975).

Norms

The scale was part of the 1999 Freddie Mac Consumer Credit Survey of which 10,997 individuals between the ages of 20–40 years old with income less than $75,000 responded the survey.

Scoring

Responses ranges from “Almost Never” to “Almost Always.”

Reliability

Cronbach’s alpha = 0.87.

Validity

Not reported

Source Reference(s)

Rotter, J. B. (1975). Some problems and misconceptions related to the construct of internal versus external control of reinforcement. *Journal of Consulting and Clinical Psychology, 43*(2), 56–67.

Note(s)

The scale was included in the 1999 Freddie Mac Consumer Credit Survey, which collected information on individual and household characteristics of consumers.

The scale has been used in other studies such as:

Grable, J. E., Park, J., & Joo, S. (2009). Explaining financial management behavior for Koreans living in the United States. *Journal of Consulting and Clinical Psychology, 43*(2), 56–67.

Item(s)

External locus of control scale

Items	Scoring
How often do you feel...? 1. There is really no way I can solve some of my problems 2. I am being pushed around in life 3. There is little I can do to change the important things in my life 4. I can do anything I set my mind to 5. What happens to me in the future depends on me 6. Helplessness in dealing with the problems of life 7. I have little control over the things that happen to me.	Responses are “almost never” to “almost always” then coded as the following 1 = Almost never 2 = Seldom 3 = Sometimes 4 = Often 5 = Almost always

Title

Gambling Scale

Key Words

Attitude towards Gambling, Gambling

Author(s)

Oswald A. J. Mascarenhas

Source

Mascarenhas, O. A. J. (1991). Spousal ethical justifications of casino gambling: A psychometric analysis. *The Journal of Consumer Affairs, 25*, 122–143.

Description

A sixteen-item measurement used to assess individual beliefs about positive benefits of casino gambling and social costs. The author notes that because "casino gambling can mean different things to different people" that "respondents were primed to one scenario of casino gambling, specifically the one the city was planning to adopt."

Norms

The measurement was tested with 569 individuals in an "eight-county metrohousehold pane of a Midwestern state where casino gambling prospects were actively considered."

Scoring

Scoring for the company rating used a four-item Likert scale ranging from "I 100 percent believe in this statement" to "I 100 percent disbelieve this statement."

Reliability

Cronbach's alpha = 0.92.

Validity

Not reported

Source Reference(s)

Note(s)

Item(s)

Gambling scale

Items	Scoring
Gambling scale *Casino gambling in my city or state would:* 1. Develop its entertainment industry 2. Encourage local residents to enjoy casinos within the state 3. Attract more attendance at local sports events 4. Create more than 50,000 new jobs for city residents 5. Reduce the number of city households on welfare 6. Reduce illegal gambling in the city and state 7. Generate more revenues for inner-city improvements 8. Offer year-round jobs for its metro youth 9. Increase contributions to church and charitable causes 10. Increase contributions to church and charitable causes 11. Increase unorganized small crime in the metro area (reverse scored) 12. Disrupt family life in the metro area 13. Increase substance abuse in the metro area 14. Impact negatively on the metro youth 15. Beneficial if a fixed percent of its surplus annual revenues was earmarked for financing local public programs 16. Be more acceptable if a fixed portion of its net profits was spent on inner-city improvements.	Four-item Likert scale 1 = I 100 percent disbelieve in this statement 2 = I 50 percent disbelieve in this statement 3 = I 50 percent believe in this statement 4 = I 100 percent believe in this statement

Title

Health Consciousness Scale

Key Words

Consumer, Behavior, Health

Author(s)

Stephen J. Gould

Source

Gould, S. J. (1988). Consumer attitudes toward heath and health care: A differential perspective. *The Journal of Consumer Affairs, 22*, 96–118.

Description

The nine item scale measures health consciousness and according to the authors was mainly adapted from the Self-Consciousness Scale (Fenigstein, Scheier, & Buss, 1975).

Norms

The questionnaire was used with 373 respondents in a large Midwestern city.

Scoring

Each attitude or behavior is measured on a "five-point Likert-type scale (strongly agree to strongly disagree)."

Reliability

Cronbach's alpha = 0.92.

Validity

The authors reported that the scale offers adequate internal consistency and validity.

Source Reference(s)

Note(s)

Item(s)

Health consciousness scale

Items	Scoring
1. I reflect about my health a lot 2. I'm very self-conscious about my health 3. I'm generally attentive to my inner feelings about my health 4. I'm constantly examining my health 5. I'm alert to changes in my health 6. I'm usually aware of my health 7. I'm aware of the state of my health as I go through the day 8. I notice how I feel physically as I go through the day 9. I'm very involved with my health	Likert-type scale Range 0–4 0 = Does not describe you at all 1 = Describes you a little 2 = Describes you about fifty–fifty 3 = Describes you fairly well 4 = describes you very well

Title

Identity Theft Prevention Scale

Key Words

Identity Theft, Prevention, Consumer Behavior

Author(s)

George R. Milne

Source

Milne, G. R. (2003). How well do consumers protect themselves from identity theft. *The Journal of Consumer Affairs, 37*(2), 388–402.

Description

Thirteen questions were developed to measure consumer's risk for identify theft based on the Federal Trade Commission's recommendations. The questionnaire was designed so that eight items would increase the probability and five items would decrease the probability of being an identity theft victim.

Norms

The scale was tested with two groups. The first group was a sample of 61 junior and senior college students from across two sections of an internet marketing course at a large northeastern university. The second group consisted of 50 diverse nonstudents, who were recruited to attend commercial focus groups on the west coast conducted by a lifestyle marketing organization."Overall, the average number of preventative behaviors practiced by students was 7.3. The average number of preventative behaviors practiced by nonstudents was 7.7" (p. 393).

Scoring

"A summated index of preventative behavior was formed by first reverse scoring the items that would increase the likelihood of becoming a victim of identity theft, and then adding up the affirmative responses across all 13 items. High numbers on the scale suggest behavior that minimizes risk of being a victim and low numbers suggest a person who is at risk" (p. 393).

Reliability

KR – 20 for Student Sample = 0.79; KR-20 for Nonstudent sample = 0.86

Validity

Not reported

Source Reference(s)

Note(s)

Item(s)

Identity theft prevention scale

Items	Scoring
1. I have ordered a copy of my credit report within the last year	Yes/No
2. When I order new checks I have the bank mail them to me	
3. I carry my social security card with me in my wallet or purse	
4. When asked to create a password, I have used either my mother's maiden name, or my pet's name, or my birth date, or the last four digits of my social security number, or a series of consecutive numbers	
5. I always deposit my outgoing mail in post office collection boxes or at a local post office	
6. Before I reveal any personal identifying information I always find out how marketers are going to use it	
7. I carry more credit cards than I need in my wallet	
8. I sometimes toss my credit card receipts in a public trash container without shredding them into tiny pieces	
9. I always check each time in my billing statements for mistakes and report these immediately	
10. If asked by a merchant, I provide my social security number so they can write it on my check	
11. I sometimes leave my mail in my mailbox	
12. I sometimes leave mail in my mailbox (at home) for a day or two before I pick it up	
13. I sometimes leave my mail in my mailbox (at home) for a day or two before I pick it up	
14. I always shred or tear up the credit card offers I receive in the mail before throwing them in the trash	
15. I keep a copy of my PIN number and passwords in my wallet or purse in case I forget them	

Title

Store Characteristics Scale

Key Words

Buying Behavior, Time Management

Author(s)

Rosemary Polegato and Judith L. Zaichkowsky

Source

Polegato, R., & Zaichkowsky, J. L. (1994). Understanding the impact of employer-provided financial education on workplace satisfaction. *The Journal of Consumer Affairs, 28*, 278–299.

Description

A five item instrument used to measure "the frequency with which the respondents used unit pricing, coupons, and shopping lists and the way they travelled the store aisles."

Norms

The measurement was tested 86 respondents who could be paired with their husband or wife.

Scoring

Scoring for the task management strategies measurement was assessed by frequency of using a particular strategy, ranging from "never" to "four out of the last four shopping trips."

Reliability

Cronbach's alpha for wives = 0.56. Cronbach's alpha for husbands = 0.49.

Validity

Not reported

Source Reference(s)

This measurement were adapted from the following sources:

Donegan, P. (1986). The myth of the male shopper. *Progressive Grocer,* May, 36–42.

Joyce, M., & Guiltinan, J., (1978). The professional woman: A potential market segment for retailers. *Journal of Retailing, 54*(2), 58–70.

Progressive Grocer 54th Annual Report (1987). *Consumers, April*, 40–45.

Note(s)

Item(s)

Store characteristics scale

Items	Scoring
In-store strategies 1. I did not back track while I was doing the food shopping for regular family meals, that is, I went through the store without having to go back to an aisle which I had already passed 2. I used the same route in the food store each trip when I did this shopping 3. I use unit pricing for all the groceries I buy 4. I bought only the food items which on my list when I did the shopping for regular family meals 5. I used coupons when I did the food shopping for regular family meals	Frequency of occurrence: 1 = Never 5 = Four out of the last four shopping trips

Title

Intentions to Disclose Personally Identifying Information

Key Words

Consumer Behavior, Knowledge of Privacy, Privacy

Author(s)

Robert Larose and Nora J. Rifon

Source

Larose, R., & Rifon, N. J. (2008). Promoting i-Safety: Effects of privacy warnings and privacy seals on risk assessment and online privacy behavior. *The Journal of Consumer Affairs, 41*, 127–149.

Description

A six-item scale, which assesses an individual's intentions to supply personally identifying information to the Web.

Norms

The scale was evaluated with 227 students in telecommunication, advertising, and packaging at a major Midwestern University.

Scoring

Not reported.

Reliability

Cronbach's alpha = 0.87.

Validity

Not reported

Source Reference(s)

Note(s)

Item(s)

Intentions to disclose personally identifying information

Items	Scoring
Intentions to disclose personally identifying information 1. My last name 2. My street address 3. My telephone number 4. My email address 5. My credit card number 6. My social security number	

Title

Intentions to Disclose Personally Typifying Information

Key Words

Consumer Behavior, Knowledge of Privacy, Privacy

Author(s)

Robert Larose and Nora J. Rifon

Source

Larose, R., & Rifon, N. J. (2008). Promoting i-Safety: Effects of privacy warnings and privacy seals on risk assessment and online privacy behavior. *The Journal of Consumer Affairs, 41*, 127–149.

Description

A three-item scale, which assesses an individual's intentions to supply personally typifying information to the Web.

Norms

The scale was evaluated with 227 students in telecommunication, advertising, and packaging at a major Midwestern University.

Scoring

Not reported.

Reliability

Cronbach's alpha = 0.89.

Validity

Not reported

Source Reference(s)

Note(s)

Item(s)

Intentions to disclose personally typifying information

Items	Scoring
Intentions to disclose personally typifying information	
1. My favorite snack food	
2. My favorite TV program	
3. My favorite hobby	

Title

Knowledge of Privacy Index

Key Words

Knowledge of Privacy, Privacy

Author(s)

Joseph Turow, Michael Hennessy, and Amy Bleakley

Source

Turow, J., Hennessy, M., & Bleakley, A. (2008). Consumers' understanding of privacy rules in the marketplace. *The Journal of Consumer Affairs, 42*, 37–59.

Description

Seven statements that examine individual's knowledge regarding their privacy. The authors state, "the relationships among the responses to the seven statements indicated a unidimensionality that conforms to a Guttman scale."

Norms

The scale was evaluated with 1,500 Americans.

Scoring

Responses categories for the measurement were True and False. The correct answers are in parentheses below.

Reliability

Not reported

Validity

The authors reported high internal consistency.

Source Reference(s)

Note(s)

Item(s)

Knowledge of privacy index

Items	Scoring
1. Companies today have the ability to follow my activity across many sites on the Web (True)	True/False
2. A Web site is allowed to share information about me with affiliates without telling the names of the affiliates (True)	
3. When I subscribe to a magazine, by law that magazine cannot sell my name to another company unless I give it permission (False)	
4. My supermarket is allowed to sell other companies information about what I buy (True)	
5. When I give money to charity, by law that charity cannot sell my name to another charity unless I give it permission (False)	
6. A video store is not allowed to sell information about the titles I have rented (True)	
7. When a Web site has a privacy policy, it means the site will not share my information with other Web sites or companies (False)	

Title

Maladaptive Behavior

Key Words

Maladaptive Behavior, Consumer Behavior.

Author(s)

George R. Milne, Lauren I. Labrecque, and Cory Cromer

Source

Milne, G. R., Labrecque, L. I., & Cromer, C. (2009). Toward an understanding of the online consumer's risky behavior and protection practices. *The Journal of Consumer Affairs, 43*, 449–473.

Description

A five-item scale developed to assess maladaptive behaviors when shopping online.

Norms

This index was evaluated with 449 participants who were known to be internet shoppers in the United States.

Scoring

The scale is summated using a dichotomous "yes" or "no" response.

Reliability

Cronbach's alpha = 0.77.

Validity

Not reported

Source Reference(s)

Note(s)

Item(s)

Maladaptive behavior index

Items	Scoring
Maladaptive behavior	Yes/No
In the past year, have you. . .	
1. Avoided online shopping to avoid risk?	
2. Felt out of control while shopping online?	
3. Encouraged others you know not to shop online?	
4. Felt hopeless about being able to protect yourself while shopping online?	
5. Shifted your shopping to stores that are not online?	

Title

Likelihood of Negative Outcomes Scale

Key Words

Consumer Perceptions, Privacy

Author(s)

Robert Larose and Nora J. Rifon

Source

Larose, R., & Rifon, N. J. (2008). Promoting i-Safety: Effects of privacy warnings and privacy seals on risk assessment and online privacy behavior. *The Journal of Consumer Affairs, 41*, 127–149.

Description

A six-item scale in which the authors state "measured the perceived likelihood of negative consequences occurring as a result of providing personal information to the Web site associated with the privacy statement the respondent had just read.

Norms

The scale was evaluated with 227 students in telecommunication, advertising, and packaging at a major Midwestern University.

Scoring

Seven-point Likert-type scale ranging from "Very Unlikely" to "Very Likely."

Reliability

Cronbach's alpha = 0.90.

Validity

Not reported

Source Reference(s)

Note(s)

Item(s)

Likelihood of negative outcomes scale

Items	Scoring
Negative outcomes 1. I'll be the victim of an online scam 2. Information will be captured that could be used against me in my future life 3. Someone will hack into the site and steal my personal information 4. Someone will use the information to harass me 5. I'll get unauthorized charges on my credit card 6. My identity will get stolen	Seven-point Likert-type scale ranging from very unlikely to very likely 1 = Very unlikely 7 = Very likely

Title

Online Shopping Self-Efficacy Scale

Key Words

Consumer Behavior, Online Buying Behavior, Self-efficacy

Author(s)

George R. Milne, Lauren I. Labrecque, and Cory Cromer

Source

Milne, G. R., Labrecque, L. I., & Cromer, C. (2009). Toward an understanding of the online consumer's risky behavior and protection practices. *The Journal of Consumer Affairs, 43*, 449–473.

Description

A four-item scale adapted from Kim and Kim (2005) and Hsu and Chiu to measure self-efficacy when shopping online.

Norms

The scale was evaluated with 449 participants who were known to be internet shoppers in the United States.

Scoring

The scale scored on five-point Likery-type sclae ranging from "strongly disagree" to "strongly agree."

Reliability

Cronbach's alpha = 0.89.

Validity

Not reported

Source Reference(s)

Note(s)

Item(s)

Online shopping self-efficacy scale

Items	Scoring
Self-efficacy 1. I am skilled at avoiding dangers while shopping online. 2. I am active in securing my environment when shopping online. 3. I am confident that I can remove any hazards while shopping online. 4. I have the ability to protect myself from the dangers of shopping online.	Five-point Likert-type scale 1 = Strongly disagree 5 = Strongly agree

Title

Other Consumers' Public Behavior Scale

Key Words

Consumer, Behavior

Author(s)

Charles L. Martin

Source

Martin, C. L. (1996). Consumer-to-consumer relationships: Satisfaction with other consumers' public behavior. *The Journal of Consumer Affairs, 30*, 146–169.

Description

A questionnaire developed to investigate consumers' satisfaction with 32 behaviors in which other consumers may engage when in public business environments. Seven factors were found including: (1) Gregarious, (2) Grungy, (3) Inconsiderate, (4) Crude, (5) Violent (6) Malcontent (7) Leisurely.

Norms

The scale was initially evaluated with a sample of 554 people using two versions of the questionnaire: (1) restaurant and (2) a bowling center.

Scoring

Each behavior was examined completing the phrase, "When other customers _____, I feel . . .." on a 7-point Likert-type scale, ranging from 1 = Terrible to 7 = Delighted.

Reliability

Not reported

Validity

Not reported

Source Reference(s)

Note(s)

Item(s)

Other consumers' public behavior scale

Items	Scoring
When other customers __(insert behavior)__, I feel. . .	
Behaviors:	Feelings:
1. Hold the door for me	Likert-type scale
2. Introduce themselves	Range 1–7
3. Congratulate me for (making a good selection from the menu) (converting a split or other difficult spare)	1 = Terrible 2 = Unhappy
4. Ask about the well-being of my family	3 = Mostly dissatisfied
5. Shake my hand	4 = Mixed
6. Begin a conversation with me, even though we've never met	5 = Mostly satisfied

Other consumers' public behavior scale (continued)

Items	Scoring
6. Begin a conversation with me, even though we've never met	6 = Pleased
7. Drink alcoholic beverage near me	7 = Delighted
8. Offer me unsolicited (suggestions about what to order) (bowling tips)	
9. Tell "dirty" jokes	
10. Display affection in the (restaurant) (bowling center) by kissing one another	
11. Become upset after receiving poor service	
12. Are not ready (order when I am) (bowl when it is their turn)	
13. Smoke cigars or cigarettes near me	
14. Complain about the (food or service) (lane conditions)	
15. Seem more interested in socializing than in (eating) (bowling)	
16. Tell racial or ethnic jokes	
17. Shout loudly enough to be heard several (tables) (lanes) away	
18. Prop their feet up on the table	
19. Use profanity loud enough for me to overhear	
20. Arrive late at the (restaurant) (bowling center)	
21. (Break in line at the salad bar) (step onto the approach adjacent to my lane when I am already on the approach preparing to bowl)	
22. Quarrel with another customer	
23. Don't wear shoes	
24. Wear dirty clothing	
25. Cannot pay for their (meal) (bowling)	
26. Allow their young children to run throughout the restaurant) (bowling center) without supervision	
27. Don't wear a shirt	
28. (Break a promise to dine with me at the restaurant) (promise to bowl, but then fail to arrive at the bowling center)	
29. Become noticeably drunk	
30. In anger, hit the (table) (scoretable) with their fist	
31. (Deliberately kick a chair) (Kick the ball return)	
32. Smell as if they had not showered in several days	

Title

Perceived Online Threat Likelihood Scale

Key Words

Consumer Privacy, Knowledge of Privacy, Privacy

Author(s)

George R. Milne, Lauren I. Labrecque, and Cory Cromer

Source

Milne, G. R., Labrecque, L. I., & Cromer, C. (2009). Toward an understanding of the online consumer's risky behavior and protection practices. *The Journal of Consumer Affairs, 43*, 449–473.

Description

A five-item scale adapted from Woon, Tan and Low (2005) to measure likelihood of perceived online threat.

Norms

The scale was evaluated with 449 participants who were known to be internet shoppers in the United States.

Scoring

The scale is scored on a five-point Likert-type scale ranging from "Very Unlikely" to "Very Likely."

Reliability

Cronbach's alpha = 0.96.

Validity

Not reported

Source Reference(s)

Woon, I., Tan, G., & Low, R. (2005). A protection motivation theory approach to home wireless security. *Proceedings of the Twenty-Sixth International Conference on Information Systems,* Las Vegas, 367–380.

Note(s)

Item(s)

Perceived online threat likelihood scale

Items	Scoring
Perceived likelihood 1. How likely is it that one's identity can be stolen while shopping online? 2. How likely is it for one's privacy to be invaded while shopping online? 3. How likely is it for one's financial information to be stolen while shopping online? 4. How likely is it for one's personal information to NOT be secured while shopping online? 5. How likely is it for one's personal information to be shared with others while shopping online?	Five-point Likert-type scale 1 = Very unlikely 5 = Very likely

Title

Perceived Threat Scale

Key Words

Consumer Privacy, Knowledge of Privacy, Privacy

Author(s)

George R. Milne, Lauren I. Labrecque, and Cory Cromer

Source

Milne, G. R., Labrecque, L. I., & Cromer, C. (2009). Toward an understanding of the online consumer's risky behavior and protection practices. *The Journal of Consumer Affairs, 43*, 449–473.

Description

A four-item scale adapted from Woon, Tan and Low (2005).

Norms

The scale was evaluated with 449 participants who were known to be internet shoppers in the United States.

Scoring

The scale is scored on a five-point Likert-type scale ranging from "Strongly Disagree" to "Strongly Agree."

Reliability

Cronbach's alpha = 0.93.

Validity

Not reported

Source Reference(s)

Woon, I., Tan, G., & Low, R. (2005). A protection motivation theory approach to home wireless security. *Proceedings of the Twenty-Sixth International Conference on Information Systems,* Las Vegas, 367–380.

Note(s)

Item(s)

Perceived threat scale

Items	Scoring
Perceived threat 1. I am concerned about having my identity stolen while shopping online 2. I am concerned about e-mail eavesdropping while shopping online 3. I am concerned about losing my data privacy while shopping online 4. I am concerned about losing financial information while shopping online	Five-point Likert-type scale 1 = Strongly disagree 5 = Strongly agree

Title

Perceived Benefits of Information Disclosure Index

Key Words

Information Disclosure, Consumer Behavior

Author(s)

Seounmi Youn

Source

Youn, S. (2009). Determinants of online privacy concern and its influence on privacy protection behaviors among young adolescents. *The Journal of Consumer Affairs, 43*, 389–418.

Description

Ten benefits of disclosing information were identified from prior studies on teens' Internet use. Respondents were asked to indicate benefits they may receive in exchange for submitting their personal information to a website.

Norms

The scale was evaluated with 144 middle school students, ages 12–13 in a public school in a northeastern United States.

Scoring

Respondents were rated with a "yes" or "no" dichotomous format. These items were indexed by adding the number of "yes" responses, with more benefits resulting in higher values.

Reliability

Cronbach's alpha = 0.58.

Validity

Not reported

Source Reference(s)

Prior studies cited to assist in the development of the scale are:

Lenhart, A., Raine, L., & Lewis, O. (2005). Teen life online: The rise of the Instant Message Generation and the internet's impact on friendship and family relationships, Pew Internet & American Life Project. Retrieved November 1, 2010 from http://www.pewinternet.org/~/media//Files/Reports/2001/PIP_Teens_Report.pdf.pdf

Youn, S. (2005). Teenagers' perceptions of online privacy and coping behaviors: A risk-benefit appraisal approach. *Journal of Broadcasting and Electronic Media, 49*(1), 86–110.

Note(s)

For the complete instrument, please contact the author.

Item(s)

Perceived benefits of information disclosure index

Items	Scoring
Respondents were asked to indicate benefits they may receive in exchange for submitting their personal information to a website	Yes/No
Perceived benefits of information disclosure	
1. Listen to music or download music files onto your computer	
2. Play games online or download or download games	
3. Buy things online, such as books, clothing, or music	
4. Research information about products	
5. Get news about events	
6. Join clubs, groups, or teams	
7. Enter contents or sweepstakes	
8. Communicate with friends online like chat rooms or pen pals	
9. Send "instant messages" to someone who is also online	
10. Get a free email address	

Title

Perceived Expertise Scale

Key Words

Financial Behavior, Financial Management, Financial Management Behavior, Information Search

Author(s)

Jinkook Lee and Jinsook Cho

Source

Lee, J., & Cho, J. (2005). Consumers use of information intermediaries and the impact on their information search behavior in the financial market. *The Journal of Consumer Affairs, 39*, 95–120.

Description

A three-item measurement used to assess the perceived value of using information intermediaries.

Norms

Scoring

The scale is a four-point Likert-type scale ranging from “Mostly Agree” to “Mostly Disagree.”

Reliability

Cronbach’s alpha = 0.67.

Validity

Not reported

Source Reference(s)

Note(s)

The measurement was used in the 200/2001 MacroMonitor data set which the authors report as a biennial survey conducted by the Consumer Finance Decision section of SRO Consulting Corporation. The survey focuses on retail financial services and collects information about consumers' attitudes, behaviors, and motivations as related to financial services. The measurement was evaluated with 3,759 U.S households.

Item(s)

Perceived expertise scale

Items	Scoring
Perceived expertise 1. My household knows how to choose the financial products and services that are best for us (reverse coded) 2. I do a very good job of keeping my financial affairs in order (reverse coded) 3. Often I'm not sure whether the financial decisions I've made are the right ones 4. I feel qualified to make my own investment decisions (reverse coded) Risk Propensity 1. It is very important to me to have both a guaranteed interest rate and federal insurance on my savings. 2. I am willing to accept some risk of losing money if an investment is likely to come out ahead of inflation in the long run (reverse coded) 3. It is wise to put some portion of savings in uninsured investments to get a high yield (reverse coded) 4. I am willing to take substantial risks to realize substantial financial gains from investments (reverse coded)	Four-point Likert-type scale 1 = Mostly agree 4 = Mostly disagree

Title

Perceived Vulnerability to Privacy Risks Scale

Key Words

Consumer Behavior, Knowledge of Privacy, Privacy

Author(s)

Seounmi Youn

Source

Youn, S. (2009). Determinants of online privacy concern and its influence on privacy protection behaviors among young adolescents. *The Journal of Consumer Affairs, 43*, 389–418.

Description

A six-item scale in which the authors state was developed from prior studies addressing risk perceptions caused by privacy invasion among teens.

Norms

The scale was evaluated with 144 middle school students who age 12–13 in a public school in a northeastern United States.

Scoring

The authors stated, "respondents were asked to indicate the likelihood they felt each risk would occur to them. Items were all rated with a 5-point Likert scale from 'not at all likely' to 'very likely'" (p. 402).

Reliability

Cronbach's alpha = 0.80.

Validity

Not reported

Source Reference(s)

Prior studies cited to assist in the development of the scale are:

Turow, J., & Nir, L. (2000). *The internet and the family 2000: The view from parents, the view from kids*. Philadelphia, PA: The Annenberg Public Policy Center. http://www.appcpenn.org/Downloads/Information_And_Society/20000516_Internet_and_family/20000516_Internet_and_family_report.pdf.

Lenhart, (2005). Protecting teens online. *Pew Internet and American Life Project*, http://www.pewinternet.org/PPF/r/152/report_display.asp

Liau, A. K, Khoo, A., & Ang, P. H. (2005). Factors influencing adolescents engagement in risky internet behavior. *CyberPsychology and Behavior, 8*, 513–520.

Youn, S. (2005).Teenagers' perceptions of online privacy and coping behaviors: A risk-benefit appraisal approach. *Journal of Broadcasting and Electronic Media, 49*, 86–110.

Grant, I. C. (2006). Young peoples' relationships with online marketing practices: An intrusion too far? *Journal of Marketing Management, 21*, 607–623.

Note(s)

Item(s)

Perceived vulnerability to privacy risks scale

Items	Scoring
Perceived vulnerability to private risks *Respondents are to indicate the likelihood that each of the following will occur to them* 1. Feeling uncomfortable (e.g., feeling anxious, guilty, or regretful) 2. Having conflicts with parents 3. Getting junk email or unwanted mail 4. Experiencing a feeling that my personal information may be misused 5. Experiencing financial loss 6. Experiencing identify theft	Five-point Likert-type scale 1 = Not at all likely 5 = Very likely

Title

Predictors of Smoking Scale

Key Words

Attitude Towards Smoking, Behavior of Smoking

Author(s)

Karen H. Smith and Mary Ann Stutts

Source

Stutts, M., & Smith, K. H. (1999). Factors that influence adolescents to smoke. *The Journal of Consumer Affairs, 33*, 321–357.

Description

A questionnaire developed to identify predictors of adolescent smoking behavior in areas such as prior belief variables, prior beliefs about getting in trouble for smoking, prior beliefs about smoking being cool, siblings' smoking behavior, parents smoking behavior, friends' smoking behavior, reaction of your friends to your smoking, pressure to smoke, pressure not to smoke, likelihood of exposure to cigarette advertisement, attention paid to cigarette advertisements, familiarity with cigarette characters and brand names, and familiarity with antismoking information/ads.

Norms

The questionnaire was given to 264 junior high/middle school, high school, and college level students in a medium-sized metropolitan area in the Southwest U.S.

Scoring

See chart below.

Reliability

Cronbach's alpha was reported as follows for each of the measures:
Prior Belief Variables = 0.54
Prior beliefs about getting in trouble for Smoking = 0.74
Prior Beliefs about Smoking being Cool = 0.65
Siblings' Smoking Behavior = 0.60
Parents Smoking Behavior = n.a.
Friends' Smoking Behavior = 0.69
Reaction of your Friends to your Smoking = 0.66
Pressure to Smoke = 0.50
Pressure not to Smoke = 0.62
Likelihood of exposure to Cigarette Advertisement = 0.80
Attention paid to Cigarette Advertisements = 0.86
Familiarity with Cigarette Characters and Brand Names = 0.73
Familiarity with Antismoking Information/Ads = 0.64

Validity

Not reported

Source Reference(s)

Note(s)

Item(s)

Predictors of smoking scale

Items	Scoring
Prior beliefs about the dangers of smoking	5-Point Likert-type scale ranging from
7. Smokers endanger their health (reverse coded)	
8. Once you start smoking, it's hard to quit (reverse coded)	1 = Strongly disagree
9. It's relatively easy to quit smoking	5 = Strongly agree
Prior beliefs about getting in trouble for smoking	
1. If I get caught buying cigarettes, I'll get into trouble with the law	5-Point Likert scale 1 = Strongly disagree
2. If I get caught buying cigarettes, I'll get into trouble with my parents	5 = Strongly agree

Predictors of smoking scale (continued)

Items	Scoring
Prior beliefs about smoking being cool	5-Point Likert scale
1. Smoking makes you look more mature	1 = Strongly disagree
2. Smoking is cool	5 = Strongly agree
3. The popular students smoke	
Siblings' smoking behavior	3-Point Likert-type scale
1. Do your brothers/sisters smoke?	1 = None smoke
2. I have been offered cigarettes by my	2 = At least one of my
brothers/sisters	brothers/sisters smokes
Parents smoking behavior	3 =More than one of my
1. Do your parents/guardians smoke?	brothers/sisters smoke
Friends' smoking behavior	4 = I have no
1. Most of my friends smoke	brothers/sisters smoke
2. I have been offered cigarettes by my friends	3-Point Likert scale
3. How many of your ten closest friends have tried a	1 = No
cigarette?	2 = Yes, but only once or
Reaction of your friends to your smoking	twice
1. How would your best same-sex friend react to your	3 = Yes, more than twice
smoking cigarettes?	3-Point Likert-type scale
2. How would your other friends react to your smoking	1 = Neither smokes
cigarettes?	2 = One smokes
Pressure to smoke	3 = Both smoke
1. I have felt pressured to smoke by my friends.	5-Point Likert-type scale
2. I have felt pressured to smoke by my brothers/sisters.	1 = Strongly disagree
Pressure not to smoke	5 = Strongly agree
1. I have felt pressured NOT to smoke by my friends	3-Point Likert scale
2. I have felt pressured NOT to smoke by my	1 = No
brothers/sisters	2 = Yes, but only once or
Likelihood of exposure to cigarette advertisement	twice
1. How likely are you to see cigarette advertisements on	3 = Yes, more than twice
billboards?	5-Point scale
2. How likely are you to see cigarette advertisements in	1 = None
the magazines you read?	2 = 1–2 Friends
3. How likely are you to see cigarette advertisements at	3 = 3–5 Friends
other places (such as concerts, auto races, and store	4 = 6–8 Friends
check-out counters)?	5 = 9–10 Friends
Attention paid to cigarette advertisements	5-Point scale
1. To what extent do you pay attention to cigarette ads	1 = Strongly disapprove
on billboards	5 = Strongly approve
2. To what extent do you pay attention to cigarette ads in	5-Point Likert scale ranging
magazines?	from
3. To what extent do you pay attention to cigarette ads in	1 = Strongly disagree
other places (such as concerts, auto races, and store	5 = Strongly agree
check-out counters)?	5-Point Likert scale ranging
Familiarity with cigarette characters and brand names	from
1. How familiar are you with characters that appear in	1 = Strongly disagree
cigarette advertisements, such as Joe Camel?	5 = Strongly agree
	5-Point Likert scale ranging
	from
	1 = Very unlikely
	5 = Very likely
	5-Point Likert-type scale

Predictors of smoking scale (continued)

Items	Scoring
2. How familiar are you with specific brands of cigarettes such as Camel or Marlboro?	1 = I never pay attention to them 5 = I always pay attention to them
Familiarity with antismoking information/ads 1. How familiar are you with antismoking advertisements?	5-Point Likert-type scale 1 = Not at all familiar 5 = Very familiar
2. To what extent have you received antismoking information at school?	5-Point Likert-type scale 1 = Not at all familiar 5 = Very familiar
3. How familiar are you with the American Cancer Society's campaign to stop teen smoking?	5-Point Likert-type scale 1 = I have not received any antismoking information at school 5 = I have received a lot of antismoking information at school
4. How familiar are you with teenage antismoking campaigns by the cigarette companies?	5-Point Likert-type scale 1 = Not at all familiar 5 = Very familiar

Title

Privacy Concern Item

Key Words

Consumer Privacy, Privacy

Author(s)

Seounmi Youn

Source

Youn, S. (2009). Determinants of online privacy concern and its influence on privacy protection behaviors among young adolescents. *The Journal of Consumer Affairs, 43*, 389–418.

Description

A one-item measure to assess concern with sharing personal information with companies on the internet.

Norms

The item was evaluated with 144 middle school students, ages 12–13 in a public school in a northeastern United States.

Scoring

Privacy concern was assess on a five-point Likert-type scale ranging from "not at all concerned" to "very concerned."

Reliability

Not reported

Validity

Not reported

Source Reference(s)

Prior studies cited to assist in the development of the scale are:

Milne, G. R., & Boza, M. J. (1999). Trust and concern in consumers' perceptions of marketing information management practices. *Journal of Interactive Marketing, 13*(1), 5–24.
Milne, G. R., & Boza, M. J. (1999). Trust and concern in consumers' perceptions of marketing information management practices. *Journal of Interactive Marketing, 13*(1), 5–24.
Phelps, J., Nowak, G., & Ferrell, E. (2000). Privacy concerns and consumer willingness to provide personal information. *Journal of Public Policy and Marketing, 19*(Spring), 27–41.

Phelps, J., D'Souza, G., & Nowak, G. (2001). Antecedents and consequences of consumer privacy concerns: An empirical investigation. *Journal of Interacting Marketing, 15*(4), 2–17.

Note(s)

Item(s)

Privacy concern item

Items	Scoring
Privacy concern 1. How concerned are you about the ways that companies collect and use personal information about you on the Internet?	Five-point Likert-type scale 1 = Not at all concerned 5 = Very concerned

Title

Privacy Self-Efficacy Scale

Key Words

Consumer Behavior, Consumer Privacy, Knowledge of Privacy, Privacy, Self-efficacy

Author(s)

Robert Larose and Nora J. Rifon

Source

Larose, R., & Rifon, N. J. (2008). Promoting i-Safety: Effects of privacy warnings and privacy seals on risk assessment and online privacy behavior. *The Journal of Consumer Affairs, 41*, 127–149.

Description

A ten-item scale in which the authors state was designed to "measure a respondent's perceived ability to protect their privacy on the Internet."

Norms

The scale was evaluated with 227 students in telecommunication, advertising, and packaging at a major Midwestern University.

Scoring

Seven-point Likert-type scale ranging from Strongly Agree to Strongly Disagree.

Reliability

Cronbach's alpha = 0.83.

Validity

Not reported

Source Reference(s)

Note(s)

Item(s)

Privacy self-efficacy scale

Items	Scoring
Privacy self-efficacy 1. It's easy to figure out which sites you can trust on the Internet 2. I am confident I know how to protect my credit card information online 3. I know how to identify sites with secure serves 4. I know how to evaluate online privacy policies 5. It's easy to set up dummy email account to shield my identify 6. I know how to change the security settings of my browser to increase my privacy 7. I know how to use a virus-scanning program 8. I am able to protect myself against the release of personal information 9. I know how to block unwanted E-mails 10. Overall, I am confident that I can protect my privacy online	Seven-point Likert-type scale ranging from strongly agree to strongly disagree 1 = Strongly disagree 7 = Strongly agree

Title

Protection Behaviors Scale

Key Words

Protection Behavior, Consumer Behavior, Privacy, Knowledge of Privacy

Author(s)

Seounmi Youn

Source

Youn, S. (2009). Determinants of online privacy concern and its influence on privacy protection behaviors among young adolescents. *The Journal of Consumer Affairs, 43*, 389–418.

Description

The author stated, "protective behaviors in handling privacy risks were measured with items assessing three coping strategies: fabricate, seek, and refrain. These three coping strategies were each rated using two items." The items were developed from prior studies on privacy protection behaviors.

Norms

The scale was evaluated with 144 middle school students, ages 12–13 in a public school in a northeastern United States.

Scoring

Responses were rated using a five-point Likert-type scale ranging from "Never" to "Very Often."

Reliability

Not reported

Validity

Not reported

Source Reference(s)

Prior studies cited to assist in the development of the scale are:

Milne, G. R., & Culnan, M. J. (2004). Strategies for reducing online privacy risks: Why consumers read (Or don't read) online privacy notices. *Journal of Interactive Marketing, 18*(3), 15–29.

Milne, G. R., & Culnan, M. J. (2004). Strategies for reducing online privacy risks: Why consumers read (Or don't read) online privacy notices. *Journal of Interactive Marketing, 18*(3), 15–29.

Milne, G. R., Rohm, A. J., & Bahl, S. (2004). Consumers' protection of online privacy and identity. *Journal of Consumer Affairs, 38*(Winter), 217–232.

Moscardelli, D. M., & Divine, R. (2007). Adolescents' concern for privacy when using the internet: An empirical analysis of predictors and relationships with privacy-protecting behaviors. *Family and Consumer Sciences Research Journal, 35*, 232–252.

Sheehan, K. B., & Hoy, M. G. (1999). Flaming, complaining abstaining: How online users respond to privacy concerns. *Journal of Advertising, 28*(3), 37–51.

Youn, S. (2005). Teenagers' perceptions of online privacy and coping behaviors: A risk-benefit appraisal approach. *Journal of broadcasting and Electronic Media, 49*(1), 86–110.

Note(s)

Item(s)

Protection behaviors scale

Items	Scoring
Protection behaviors	Five-point Likert-type scale 1 = Never 5 = Very often
Fabricate: 2. I use false name or false ID 3. I provide incomplete information about me	
Seek: 1. I ask somebody (e.g., parents and teachers) what I should do 2. I read the privacy statement provided by the site	
Refrain: 1. I go to other Web sites that do not ask my personal information 2. Usually I do nothing and leave the Web site.	

Title

Responsible Financial Behavior Scale

Key Words

Financial Behavior, Financial Management, Financial Management Behavior

Author(s)

Vanessa G. Perry and Marlene D. Morris

Source

Perry, V. G., & Morris, M. D. (2005). Who is in Control? The role of self-perception, knowledge, and income in explaining consumer financial behavior. *The Journal of Consumer Affairs, 39*, 299–313.

Description

The authors report that the Responsible Financial Behavior scale is a five-item measurement of a respondent's self-assessed ability to budget, save money, and control spending. These responsible financial behaviors include controlling spending, paying bill on time, planning for one's financial future, saving money, and providing for one's self and family.

Norms

The scale was part of the 1999 Freddie Mac Consumer Credit Survey of which 10,997 individuals between the ages of 20–40 years old with income less than $75,000 responded the survey.

Scoring

Responses ranges from "Poor" to "Excellent." Summated scores range from 5 to 25 with higher scores reflecting higher levels of responsible financial behavior.

Reliability

Cronbach's alpha = 0.83.

Validity

The authors reported establishing internal consistency and validity.

Source Reference(s)

Note(s)

The scale was included in the 1999 Freddie Mac Consumer Credit Survey, which collected information on individual and household characteristics of consumers.

Item(s)

Responsible financial behavior scale

Items	Scoring
How do you grade yourself in the following areas? 1. Controlling my spending 2. Paying my bills on time 3. Planning for my financial future 4. Providing for myself and my family 5. Saving money	Responses are checked from Poor to Excellent then coded as the following. 1 = Poor 2 = Fair 3 = Okay 4 = Good 5 = Excellent

Title

Skepticism Scale

Key Words

Environmental Skepticism

Author(s)

Lois A. Mohr, Doğan Eroğlu, and Pam Scholder Ellen

Source

Mohr, L. A., Eroğlu, D., & Scholder Ellen, P. (1998). The development and testing of a measure of skepticism toward environmental claims in marketers' communications. *The Journal of Consumer Affairs, 27*, 258–283.

Description

A four item instrument developed to measure "skepticism toward environmental claims in marketers' communications."

Norms

The measurement was tested with 301 students at a large southeastern university with a very high proportion of nontraditional students.

Scoring

Skepticism is score on a 7-point Likert-type scale with a score ranging from 4 to 26.

Reliability

Cronbach's alpha = 0.79.

Validity

The authors reported strong discriminant validity and convergent validity.

Source Reference(s)

Note(s)

Item(s)

Skepticism scale

Items	Scoring
Skepticism	
1. Most environmental claims made on package labels or in advertising are true (Reverse coded)	
2. Because environmental claims are exaggerated, consumers would be better off if such claims on package labels or in advertising were eliminated	
3. Most environmental claims on package labels or in advertising are intended to mislead rather than to inform consumers	
4. I do not believe most environmental claims made on package labels or in advertising	

Title

Store Characteristics Scale

Key Words

Buying Behavior, Time Management

Author(s)

Rosemary Polegato and Judith L. Zaichkowsky

Source

Polegato, R., & Zaichkowsky, J. L. (1994). Understanding the impact of employer-provided financial education on workplace satisfaction. *The Journal of Consumer Affairs, 28*, 278–299.

Description

Nineteen items were used to measure the importance of certain store attributes.

Norms

The measurement was tested 86 respondents who could be paired with their husband or wife.

Scoring

Scoring for the store characteristics measurement was assessed using a Likert-type scale ranging from "very unimportant" to "very important."

Reliability

Cronbach's alpha for wives = 0.74. Cronbach's alpha for husbands = 0.82.

Validity

Not reported

Source Reference(s)

This measurement were adapted from the following sources:

Donegan, P. (1986). The myth of the male shopper. *Progressive Grocer,* May, 36–42.

Joyce, M., & Guiltinan, J., (1978). The professional woman: A potential market segment for retailers. *Journal of Retailing, 54*(2), 58–70.

Progressive Grocer 54th Annual Report (1987). *Consumers,* April, 40–45.

Note(s)

Item(s)

Store characteristics scale

Items	Scoring
Store characteristics	Seven-point Likert-type scale
1. Not usually overcrowded	
2. Does not run short of items on special	1 = Very unimportant
3. Helpful personnel in service departments	
4. Frequent 'sales" or "specials"	7 = Very important
5. Easy to drive to	
6. Accurate, pleasant checkout clerks	
7. Convenient parking	
8. Short wait for checkout	

Store characteristics scale (continued)

Items	Scoring
9. Shelves usually kept well-stocked	
10. Good deli department	
11. Has restrooms	
12. Good assortment of nonfoods	
13. Good drugs and toiletries sections	
14. Able to do all shopping in one store	
15. Convenient location	
16. Double-value coupons	
17. Open late hours	
18. Attractive décor	
19. Low prices	
In-store strategies	Frequency of occurrence: 1 = Never 5 = Four out of the last four shopping trips
6. I did not back track while I was doing the food shopping for regular family meals, that is, I went through the store without having to go back to an aisle which I had already passed	
7. I used the same route in the food store each trip when I did this shopping	
8. I use unit pricing for all the groceries I buy	
9. I bought only the food items which on my list when I did the shopping for regular family meals	
10. I used coupons when I did the food shopping for regular family meals	

Title

Store Loyalty Scale

Key Words

Buying Behavior, Time management

Author(s)

Rosemary Polegato and Judith L. Zaichkowsky

Source

Polegato, R., & Zaichkowsky, J. L. (1994). Understanding the impact of employer-provided financial education on workplace satisfaction. *The Journal of Consumer Affairs, 28*, 278–299.

Description

A five-item instrument used to measure the extent to which individuals switch stores or shopped around for specials. Respondents complete the sentence, "Over the past four food shopping trips. . ."

Norms

The measurement was tested 86 respondents who could be paired with their husband or wife.

Scoring

Scoring for the store loyalty measurement was assessed using a Likert-type scale ranging from "strongly disagree" to "strongly agree."

Reliability

Cronbach's alpha for wives = 0.54. Cronbach's alpha for husbands = 0.65.

Validity

Not reported

Source Reference(s)

This measurement were adapted from the following sources:

Donegan, P. (1986). The myth of the male shopper. *Progressive Grocer, May*, 36–42.

Joyce, M., & Guiltinan, J., (1978). The professional woman: A potential market segment for retailers. *Journal of Retailing, 54*(2), 58–70.

Progressive Grocer 54th Annual Report (1987). *Consumers, April*, 40–45.

Note(s)

Item(s)

Store loyalty scale

Items	Scoring
Store loyalty *Over the last four food shopping trips...* 1. I shopped at the same food store each trip when I did this shopping 2. I shopped at only one food store when I did this shopping 3. I did this shopping at a store which was conveniently located 4. I made a special trip to another store for bargains or specials 5. I hate to change food stores	Five-point Likert-type scale 1 = Strongly disagree 5 = Strongly agree

Title

Task Management Strategies Scale

Key Words

Buying Behavior, Time Management

Author(s)

Rosemary Polegato and Judith L. Zaichkowsky

Source

Polegato, R., & Zaichkowsky, J. L. (1994). Understanding the impact of employer-provided financial education on workplace satisfaction. *The Journal of Consumer Affairs, 28*, 278–299.

Description

A five-item instrument used to identify "specific actions with regard to how the respondent prepared for a food shopping trip."

Norms

The measurement was tested 86 respondents who could be paired with their husband or wife.

Scoring

Scoring for the task management strategies measurement was assessed by frequency of using a particular strategy, ranging from "never" to "four out of the last four shopping trips."

Reliability

Cronbach's alpha for wives was 0.71. Cronbach's alpha for husbands was 0.58.

Validity

Not reported

Source Reference(s)

This measurement were adapted from the following sources:

Allan, G. (1985). *Family life*. Oxford, UK: Basil Blackwell Ltd.

Bartos, R. (1978). What every marketer should know about women. *Harvard Business Review, 56*, 73–85.

Hall, D. T. (1972). A model of coping with role conflict: The role behavior of college educated women. *Administrative Science Quarterly, 17*, 471–486.

Nickols, S. Y., & Fox, K D. (1983). Buying time and saving time: Strategies for managing household production. *Journal of Consumer research, 10*(September), 197–208.

Strober, M. H., & Weinberg, C. B. (1980). Strategies used by working and nonworking wives to reduce time pressures. *Journal of Consumer research, 6*(March), 338–348.

Zeithaml, V. (1985). The new demographics and market fragmentation. *Journal of Marketing, 49*(Summer), 64–75.

Note(s)

Item(s)

Task management strategies scale

Items	Scoring
Task management strategies 1. I used a list when I went shopping for food for regular family meals 2. I made a shopping list 3. I budget a certain amount of money for food shopping 4. I compared prices among different food stores 5. I read the newspaper grocery ads	Frequency of occurrence: 1 = Never 5 = Four out of the last four shopping trips

Title

Time Management Strategies Scale

Key Words

Buying Behavior, Time Management

Author(s)

Rosemary Polegato and Judith L. Zaichkowsky

Source

Polegato, R., & Zaichkowsky, J. L. (1994). Understanding the impact of employer-provided financial education on workplace satisfaction. *The Journal of Consumer Affairs, 28*, 278–299.

Description

An eleven-item instrument used to measure time management strategies such as priorities, scheduling, standards, and time-buying and time-saving strategies.

Norms

The measurement was tested 86 respondents who could be paired with their husband or wife.

Scoring

Scoring for the time management strategies measurement was assessed by frequency of using a particular strategy, ranging from "never" to "four out of the last four shopping trips."

Reliability

Cronbach's alpha for wives = 0.81. Cronbach's alpha for husbands = 0.79.

Validity

Not reported

Source Reference(s)

This measurement were adapted from the following sources:

Allan, G. (1985). *Family Life*. Oxford, UK: Basil Blackwell Ltd.

Bartos, R. (1978). What every marketer should know about women. *Harvard Business Review, 56*, 73–85.

Hall, D. T. (1972). A model of coping with role conflict: The role behavior of college educated women. *Administrative Science Quarterly, 17*, 471–486.

Nickols, S. Y., & Fox, K. D. (1983). Buying time and saving time: Strategies for managing household production. *Journal of Consumer research, 10*(September), 197–208.

Strober, M. H., & Weinberg, C. B. (1980). Strategies used by working and nonworking wives to reduce time pressures. *Journal of Consumer research, 6*(March), 338–348.

Zeithaml, V. (1985). The new demographics and market fragmentation. *Journal of Marketing, 49*(Summer), 64–75.

Note(s)

Item(s)

Time management strategies scale

Items	Scoring
Time management strategies 1. I did the food shopping for regular family meals on the same day each trip 2. I took about the same amount of time each trip when I did this shopping 3. I did this shopping during the same hour of the day for each trip 4. I devoted all the time and energy necessary to do this shopping the way my family expected me to do it 5. This activity had priority in terms of how I spent my time 6. When I was doing this task I devoted my full attention to it, that is, I did not let other activities infringe on my time while I was doing this task 7. I arranged my time so that I would be able to get this task done myself 8. I planned for the time to do this shopping 9. I did this shopping during store hours which tended not to be busy. 10. I looked for ways to reduce the number of things I had to do to get this task done so that I could get it done in less time 11. I lowered my standards for how well I did this task so that I could spend less time on it and more time on other things.	Frequency of occurrence: 1 = Never 5 = Four out of the last four shopping trips

Title

Workplace Satisfaction Scale

Key Words

Workplace Satisfaction

Author(s)

Tahira K. Hira and Cazilla Loibl

Source

Hira, T. K., & Loibl, C. (2005). Understanding the impact of employer-provided financial education on workplace satisfaction. *The Journal of Consumer Affairs, 39*, 173–194.

Description

A one-item measurement used to assess an employee's satisfaction of their work organization using two items, company rating and company support.

Norms

The measurement was tested with 1,486 individuals in "West Central" U.S.

Scoring

Scoring for the company rating used a four-item Likert-type scale ranging from "poor" (1) to "excellent" (4). Scoring for company support used a 5-item Likert-type scale ranging from "strongly disagree" (1) to "strongly agree" (5).

Reliability

Not reported

Validity

Not reported

Source Reference(s)

Note(s)

Item(s)

Workplace satisfaction scale

Items	Scoring
Company rating 1. How would you rate [name of company] as a company to work for compared to other companies?	Company rating Four-item Likert-type scale 1 = Poor 2 = Fair 3 = Good 4 = Excellent
Company support 1. I am proud to say, "I work for [name of company]" 2. [Name of company] is one of the very best companies to work for 3. I will go out of my way to help make [name of company] successful 4. What happens to [name of company] is very important to me 5. [Name of company] has a sincere interest in the well-being of each employee	Company support 1 = Strongly disagree 2 = Disagree 3 = Neutral 4 = Agree 5 = Strong agree

Chapter 5
Measures of Financial Knowledge and Management

John E. Grable, Kristy L. Archuleta, and R. Roudi Nazarinia

Title

Emergency Fund Index

Key Words

Emergency Fund, Savings, Financial Behavior

Author(s)

Andrew C. Worthington

Source

Worthington, A. C. (2004). Emergency funds in Australian households: An empirical analysis of capacity and sources. *Financial Counseling and Planning, 15*(1), 21–30.

Description

This measure was designed to assess a person's ability to raise emergency funds, assuming that they do not have access to at least $2,000 in a week's time. According

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J.E. Grable et al. (eds.), *Financial Planning and Counseling Scales*,
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to the author, the advantage of this measure is the item reflects "the different opportunity costs associated withholding funds in these forms" (p. 23).

Test Sample

The items in the index were obtained from the 2002 Australian Bureau of Statistics' Household Expenditure Survey Confidentialized Unit Record File. The data file consisted of 6,892 households. Of those who do not have $2,000 in emergency savings, 47% would use their own savings, 31% would use a loan from a deposit-taking institution, 9% would use a loan from a finance company, 25% would use a loan on a credit card, 30% would use a loan from family or friends, and 1% would use a loan from a welfare or community organization.

Scoring

According to the author, "The first question asked in the survey was whether the respondents had the ability to raise emergency money of $2,000 in 1 week. In the next six questions the respondents were asked whether they would use their own savings (cash and money in checking and savings accounts) as a source of emergency funds and/or a loan from a deposit-taking institution (including banks, building societies and credit unions) and/or a high interest loan from a finance company and/or a loan on a credit card, and/or a loan from family or friends and/or a loan from a welfare or community organization. For the first question the reference category is the household was unable to raise emergency funds of $2,000 in 1 week and for the next six questions that the household would not or could not use the state source of emergency funds ($y = 0$)" (p. 23).

Reliability

Cronbach's alpha = 0.61.

Validity

Not reported

Source Reference(s)

None

Note(s)

None

Item(s)

Emergency fund index

Items	Scoring
Able to raise emergency funds of $2,000 in 1 week	1 If yes 0 Otherwise
Would use own savings	1 If yes 0 Otherwise
Would use loan from a deposit-taking institution	1 If yes 0 Otherwise
Would use loan from finance company	1 If yes 0 Otherwise
Would use loan on credit card	1 If yes 0 Otherwise
Would use loan from family or friends	1 If yes 0 Otherwise
Would use loan from welfare or community organization	1 If yes 0 Otherwise

Title

Self-Directed Financial Learning Index

Key Words

Help Seeking, Financial Knowledge, Learning, Information Search

Author(s)

Cazilia Loibl and Tahira K. Hira

Source

Loibl, C., & Hira, T. K. (2005). Self-directed financial learning and financial satisfaction. *Financial Counseling and Planning, 16*(1), 11–22.

Description

This brief index was developed to determine the degree to which a person uses four types of media as a source of information.

Test Sample

The scale was tested with a sub-sample ($N = 1{,}089$) of lower level field and management employees from an insurance company. The sample was over-weighted with non-Hispanic white married women.

Scoring

The four items are summed with scores ranging from 0 = no media source used to 4 = all media sources used. Higher scores suggest self-directed financial learning tendencies.

Reliability

Not reported

Validity

Individuals who reported higher self-directed financial learning tended to be more financial satisfied than others.

Source Reference(s)

None

Note(s)

None

Item(s)

Self-Directed Financial Learning Index

Which of the following source of information have you used for financial planning over the past 6 months? Circle all that apply:

1. [company name] newsletter
2. Other financial planning publications
3. Financial planning software
4. Internet

Title

Obstacles to Financial Management Practices

Key Words

Financial Management, Budgeting

Author(s)

Elizabeth P. Davis and Judith A. Weber

Source

Davis, E. P., & Weber, J. A. (1990). Patterns and obstacles to financial management. *Financial Counseling and Planning, 1*(1), 41–51.

Description

The Obstacles to Financial Management Practices instrument was developed to determine what factors impede a person from budgeting, record keeping, conducting budget record comparisons, and preparing a balance sheet.

Test Sample

The instrument was used with a sample ($N = 672$) of Kansas residents using a two-stage cluster sampling procedure. The instrument was effective when given to mid-life and older married individuals.

Scoring

Dichotomous coding; yes = 1 and no = 0

Reliability

Not reported

Validity

Not reported

Source Reference(s)

None

Note(s)

The instrument was designed to complement the Financial Management Practices Instrument published by Davis and Weber.

Item(s)

Obstacles to financial management practices

Obstacle	Yes	No
Obstacles to budgeting		
No choice about spending		
Both income and expenditures unpredictable		
Expense too unpredictable		
No need to plan		
Income too unpredictable		
Takes too much time		
Tried making a plan but couldn’t stick to it		
Don’t know how to plan		
Other		
Obstacle to recording spending		
Don’t need to		
Can’t get other people in the household to keep track of spending		
Takes too much time		
Don’t know how		
Can’t remember to record spending		
Other		
Obstacles to comparing spending to budget		
Don’t need to		
Have no plan for spending		
Takes too much time		
Have no records of spending		
Other		
Obstacles to estimating net worth		
Never thought about it		
Don’t need to		
Takes too much time		
Don’t know how		
Other		

Title

Financial Ratios

Key Words

Financial Ratio, Financial Wellness

Author(s)

Ruth H. Lytton, Thomas Garman, and Nancy M. Porter

Source

Lytton, R. H., Garman, E. T., & Porter, N. M. (1991). How to use financial ratios when advising clients. *Financial Counseling and Planning, 2*(1), 3–23.

Description

The authors advocated the use of financial ratios as diagnostic and informational tools to provide insights into how well a person or family was progressing towards financial goals. Each ratio can be measured against a benchmark to indicate areas for improvement or success.

Test Sample

The authors based their ratios on a search of the literature. They noted that there are no standardized approaches or norms in relation to financial ratios.

Scoring

Each ratio has a benchmark level (see Table).

Reliability

Not applicable

Validity

Not reported

Source Reference(s)

None

Note(s)

Although not commonly measured, financial ratios might provide a snapshot picture of an individual's current financial situation better than attitudinal assessments.

Item(s)

Financial ratios

Ratio (monthly $ unless otherwise noted)	Benchmark
CONSUMPTION-TO-INCOME RATIO	< 1.00
Net consumption expenditures/disposable income	
BASIC LIQUIDITY RATIO	> 3.00–6.00
Liquid assets/net consumption expenditures	
HOUSING EXPENSE RATIO	< 28%
Total housing expenses/disposable income	
CONSUMER-DEBT SERVICE RATIO	< 10%
Consumer debt repayments/disposable income	
ANNUAL DEBT-SERVICE RATIO	< 30% to 50%
Annual consumer and mortgage debt repayments/annual disposable income	
DEBT-TO-INCOME RATIO	< 36%
Gross annual debt repayments/gross annual income	
SOLVENCY RATIO	> 1.00
Total household assets/total household liabilities	
SAVINGS RATIO	> 10%
Annual total savings/annual disposable income	
INVESTMENT ASSETS-TO-NET WORTH RATIO	Young people: > 20%
Investment assets/net worth	Older people: >25%+

Title

Financial Ratios

Key Words

Financial Ratios, Financial Status, Financial Capacity

Author(s)

Sharon DeVaney

Source

DeVaney, S. (1993). Change in household financial ratios between 1983 and 1986: Were American households improving their financial status. *Financial Counseling and Planning, 4*(1), 31–66.

Description

According to the author, these six financial ratios can be used to assess household financial norms.

Test Sample

The financial ratios were normed to U.S. averages using the 1983 and 1986 versions of the Survey of Consumer Finances.

Scoring

See Table below

Reliability

Not reported

Validity

Not reported

Source Reference(s)

Prather, C. G. (1990). The ratio analysis technique applied to personal financial statements: Development of household norms. *Financial Counseling and Planning, 1*(1), 53–69.

Note(s)

Also see: DeVaney, S. A. (1994). The usefulness of financial ratios as predictors of household insolvency: Two perspectives. *Financial Counseling and Planning, 5*(1), 5–24.

Item(s)

Financial ratios

Financial ratio	Guideline
Assets/liabilities	>1.00
Investment assets/net worth	>0.25
Liquid assets/disposable income	>0.25
Consumer debt/disposable income	<0.15
Annual shelter/total income	<0.28
Annual debt/disposable income	<0.35

Title

Financial Ratios

Key Words

Financial Ratios, Debt, Income, Financial Well-Being

Author(s)

Deborah D. Godwin

Source

Godwin, D. D. (1996). Newlywed couples' debt portfolios: Are all debts created equally? *Financial Counseling and Planning, 7*(1), 57–70.

Description

These financial ratios provide an indication of household debt risk.

Test Sample

The ratios were examined with a sample of 256 newlywed couples living in Georgia in the early to mid-1990s.

Scoring

See Table

Reliability

Not Reported

Validity

Not Reported

Source Reference(s)

Devaney, S. (1994). The usefulness of financial ratios as predictors of household insolvency: Two perspectives. *Financial Counseling and Planning, 5,* 5–24.

Note(s)

None

Item(s)

Financial ratios

Ratio name	Ratio formula	Benchmark
Solvency ratio	Total outstanding debts and liabilities/total value of household assets	< 0.70
Liquidity ratio	Liquid assets/current and short-term debts	>= 1.00
Debt repayment burden ratio	Monthly debt repayment (all debts)/monthly net income	< 0.20

Title

Auto Insurance Knowledge Scale

Key Words

Automobile Insurance, Financial Knowledge

Author(s)

Karen P. Varcoe, Allen Martin, Zana Devitto, and Charles Go

Source

Varcoe, K. P., Martin, A., Devitto, Z., & Go, C. (2005). Using a financial education curriculum for teens. *Financial Counseling and Planning, 16*(1), 63–72.

Description

This scale was developed to assess a respondent's understanding of how to save money on automobile insurance rates.

Test Sample

The scale was evaluated with a sample of 114 high school students who age 13 through 20, with data collected over 6 months in 2002. The sample consisted of students living in southern California.

Scoring

A four-point Likert-type scale, with 1 = strongly disagree and 4 = strongly agree, is used with this instrument. Scores can range from 5 to 20. Summed scores are developed by adding scores. The mean reported score for the sample was 11.60, using the pre-test sample.

Reliability

Cronbach's alpha = 0.71.

Validity

Not reported

Source Reference(s)

None

Note(s)

None

Item(s)

Auto insurance knowledge scale

Items	Scoring
I'm likely to save money on my car insurance because:	1 = Strongly disagree
1. I've taken driver's education classes	4 = Strongly agree
2. I use my good grades	
3. I don't have traffic tickets	
4. I'm added to my parents' policy rather than having my own policy	

Title

Estate Planning Involvement

Key Words

Estate Planning, Estate Involvement

Author(s)

Kay P. Edwards

Source

Edwards, K. P. (1991). Planning for family asset transfers. *Financial Counseling and Planning, 2*(1), 55–78.

Description

This instrument measures a person's involvement with estate planning issues at the household level.

Test Sample

A sample of 35 men and 35 women living in a small town in Utah was used to develop an index of estate planning involvement. The Estate Planning Knowledge Scale in the same article was also administered to the same sample.

Scoring

A structured procedure is used to estimate a respondent's involvement, either alone or in partnership with a spouse, with a range of estate planning activities. The items are scored using Yes or No coding. In the norming process, it was determined that very few men or women had developed a comprehensive estate plan.

Reliability

Not reported

Validity

Not reported

Source Reference(s)

None

Note(s)

None

Item(s)

Estate planning involvement

Items	Yes	No
1. An overall plan for distribution of property in the event of death is in existence		
2. Created formal will with assistance of attorney		
3. Has created an holographic will		
4. Has a will at the present time		
5. Has updated will in the past year		
6. Has created a trust with the assistance of an attorney		
7. Has made a gift in excess of $10,000 in any 1 year to someone other than spouse		
8. Has made a large gift to one or more charities in excess of usual annual contributions		
9. Has purchased life insurance either through employer's group plan or from individual insurance provider		
10. Has reviewed life insurance needs and coverage in the past year		
11. Has updated life insurance beneficiaries in the past year		
12. Has an active saving and investment program for accumulating assets		
13. Has placed money or property in a trust for the benefit of someone else		
14. Along with spouse, has developed a plan for distribution of family assets in event of the death of either or both		
15. Has been fully involved in family decisions about disposition of family assets in event of death of either or both		

Title

Estate Planning Knowledge and Behavior

Key Words

Estate Planning, Estate Knowledge

Author(s)

Kay P. Edwards

Source

Edwards, K. P. (1991). Planning for family asset transfers. *Financial Counseling and Planning, 2*(1), 55–78.

Description

This instrument measures a person's knowledge of estate planning issues.

Test Sample

A sample of 35 men and 35 women living in a small town in Utah was used to develop eight categories of estate planning knowledge: will, estate taxes, intestate succession, property ownership, spousal elective share, and general estate planning.

Scoring

The items are scored either True or False. In the norming process, scores ranged from 0% to 81% true. Women, on average, scored 45% true, while men scored 49% true.

Reliability

A Hoyt Reliability Test was performed. A score of 83.5 was reported for women and 66.4 for men.

Validity

Not reported

Source Reference(s)

None

Note(s)

Scores can be divided into three knowledge levels: high (76–100%), medium (50–75.9%), and low (0–49.5%).

Item(s)

Estate planning knowledge and behavior test items

Items	True	False
Wills		
1. If a person does not make a legally valid will, legal title to their money and property will be transferred at death in whatever manner their surviving family members decide is best. (F)		
2. In the State of Utah, guardianship for minor children, in the event of the death of both parents, can be legally designated by the parents only in a will. (T)		
3. A will is a legally valid document in which an individual tells the probate court how his or her property should be handled after death. (T)		
4. A holographic will (one that is dated, written, and signed entirely in the handwriting of the individual whose will it is) may be as legally valid as a formal, witnessed will drawn up by an attorney. (T)		
5. It is better to create a holographic will and save the money you would have to pay an attorney to draw up a formal, witnessed will for you. (F)		
6. A letter of last instructions is a legally binding document requiring the decedent's surviving spouse or family to do what the decedent instructs in the letter concerning burial arrangements, funeral services, etc. (F)		
Probate		
7. If a person dies "intestate" (without having a legally valid will), their estate will avoid the probate process and its attendant costs. (F)		
8. Any property that avoids going through the probate process will not have a federal estate tax imposed upon it. (F)		
9. The Uniform Probate Code in the State of Utah permits the use of informal probate proceedings, which considerably reduces the cost of probating a deceased person's estate. (T)		

Estate planning knowledge and behavior test items (continued)

Items	True	False
10. Probate is a legal process in which ownership of property is transferred by clear legal title to a live person or an organization from a deceased person. (T)		
11. The advantages of the probate process include the orderly and complete distribution of all the decedent's property. (T)		
12. You can avoid the probate process by not making a will. (F)		
13. The probate process sets time limits as to when claims against the estate must be made by creditors. (T)		
Federal/State Tax Law		
14. The unlimited marital deduction allowed under federal estate and gift tax law permits one spouse to transfer any amount of his or her money and property to the other spouse without paying any federal estate or gift tax. (T)		
15. Charitable contributions during lifetime or at death are not exempt from federal gift or estate taxes. (F)		
16. A gift in excess of $10,000 per donor (the person giving the gift) per donee (the person receiving the gift) per year is subject to a federal gift tax to be paid by the donor. (T)		
17. When money and property are transferred from a deceased person, the federal government imposes an estate tax on the total value of the estate minus certain allowable deductions. (T)		
18. In order to be classified as a taxable gift, money or property must be transferred from one person to another without consideration and exceed $10,000 in value. (T)		
19. In Utah, the state imposes an inheritance tax against money and property inherited from a deceased person. (T)		
20. In Utah, there is no larger amount paid in taxes by the decedent's estate for federal estate and state inheritance taxes than if the State of Utah imposed no inheritance tax at all. (T)		
Intestate succession		
21. The intestate laws of the State of Utah determine how a decedent's estate will be distributed if he or she has failed to make a valid will. (T)		
22. In the State of Utah, the only time a surviving spouse will receive the entire intestate estate of the decedent spouse is if the decedent has no surviving issue or parent. (T)		
23. Upon death of the parents, naturally born children get legal preference over adopted children in the distribution of parental money and property when the parents do not leave a will. (F)		
Property ownership		
24. When real property is owned in joint tenancy, the surviving joint tenant will automatically become the owner of the entire property upon the death of the other joint tenant. (T)		
25. Real property owned in joint tenancy does not have to go through the probate process. (T)		
26. Real property owned as a tenant in common by the decedent is transferred automatically to the surviving tenant(s) in common, regardless of the decedent's will. (F)		

Estate planning knowledge and behavior test items (continued)

Items	True	False
Spouse's elective share		
27. In the State of Utah, a husband can totally disinherit his wife. (F)		
28. If a surviving spouse believes that she will receive a larger amount from her deceased husband's estate than she will receive under his will, she can choose to take the elective share provided by law in the State of Utah instead of the amount provided in her husband's will. (T)		
32. The elective share of a decedent's estate which can be taken by the surviving spouse in lieu of their inheritance under the decedent's will is one-third of the decedent's augmented estate multiplied by a fraction determined in the Utah Probate Code. (T)		
Trusts		
29. An individual can create a trust during their lifetime, or in their will upon death, in which designated amounts of money or property will be administered by a third party (called the trustee) for the benefit of designated beneficiaries. (T)		
30. A trustee receives legal title to trust property and can use it for whatever purpose he or she desires, including his or her own personal financial obligations. (F)		
General estate planning		
31. In estate planning, the most important concern is to avoid probate. (F)		

Title

Financial Knowledge Index

Key Words

Financial Knowledge, Financial Attitude

Author(s)

Karen P. Varcoe, Allen Martin, Zana Devitto, and Charles Go

Source

Varcoe, K. P., Martin, A., Devitto, Z., & Go, C. (2005). Using a financial education curriculum for teens. *Financial Counseling and Planning, 16*(1), 63–72.

Description

This 19-item index can be used to assess financial knowledge on a number of topics.

Test Sample

The scale was evaluated with a sample of 114 high school students who age 13 through 20, with data collected over 6 months in 2002. The sample consisted of students living in southern California.

Scoring

Each item in the index is answered with a true or false response. Summed scores are developed by adding true responses. When used in a pre-test, mean scores were 10.66; post-test scores were higher (i.e., 13.67).

Reliability

Not reported

Validity

Not reported

Source Reference(s)

None

Note(s)

None

Item(s)

Financial knowledge index

Items	Scoring
Most everyone can find at least one easy way to save	0 = False 1 = True
You always have a choice on how to use money	0 = False 1 = True
All advertisements are true; no one would purposely try to trick me out of my money	0 = False 1 = True
You can get lower care insurance rates if you have good grades	0 = False 1 = True
Car insurance costs more for females because they have more car accidents than males	0 = False 1 = True
Your values will change over time	0 = False 1 = True
A planned purchase is an impulse buy	0 = False 1 = True
If I buy something then decide that I don't want it, the store has to give me a refund	0 = False 1 = True
Liability insurance pays for injury or damage you cause to other people and their property	0 = False 1 = True
Paying the minimum on a credit card bill is a good money management practice	0 = False 1 = True
You will buy less food if you shop when you're not hungry	0 = False 1 = True
Your beliefs and value have little influence on how you spend money	0 = False 1 = True
If you damage your car, your insurance company will pay for all of the costs to have it repaired	0 = False 1 = True
If you put 15 gallons of gasoline in your car, and gasoline costs \$1.75/gallon, you will pay more than \$25 to fill up your tank	0 = False 1 = True
If you car gets 20 miles to the gallon, and your car holds 15 gallons, you will be able to drive about 300 miles on a tank of gas	0 = False 1 = True
In the grocery store, the food displays at the end of aisles have the best buys	0 = False 1 = True
Most people find it hard to start a savings plan	0 = False 1 = True
The biggest expense for new car is depreciation	0 = False 1 = True
New car warranties are always free	0 = False 1 = True

Title

Financial Knowledge Quiz

Key Words

Financial Knowledge

Author(s)

John E. Grable and So-hyun Joo

Source

Grable, J. E., & Joo, S. (2001). A further examination of financial help-seeking behavior. *Financial Counseling and Planning, 12*(1), 55–66.

Description

This ten-item quiz can be used to assess a person's basic level of financial knowledge.

Test Sample

The authors adapted this scale from (Rosenberg, 1965) and tested it with a sample of 406 employees of a university.

Scoring

See table; true answers are summed. Higher scores indicate financial knowledge. Scores can range from 0 to 10. The average response was 7.5 ($SD = 1.4$).

Reliability

Not reported

Validity

Financial knowledge scores were positively associated with seeking professional financial planning assistance.

Source Reference(s)

None

Note(s)

None

Item(s)

Financial knowledge quiz

Items	Scoring
If you thought someone who loaned you money was not fair, you would ask the credit union for help	False
Both employees and employers pay into Social Security	True
Higher insurance deductibles lead to lower insurance costs	True
The interest rate charged on major credit cards, like Visa, is set by the federal government	False
A stock is an interest bearing security that pays interest at the discretion of a board of directors	False
A mutual fund is an investment company that raises money from shareholders and invests in securities	True
Over 20 years, you are more likely to make money than lose money in the stock market	True
During times of inflation it is more expensive to borrow money	True
Employees are responsible for all investment decisions within a 401(k) plan	True
Interest paid on credit cards is tax-deductible	False

Title

Financial Knowledge Test

Key Words

Financial Knowledge, Financial Management

Author(s)

Jodi L. Parrotta and Phyllis J. Johnson

Source

Parrotta, J. L., & Johnson, P. J. (1998). The impact of financial attitudes and knowledge on financial management and satisfaction of recently married individuals. *Financial Counseling and Planning, 9*(2), 59–74.

Description

This scale test was created to measure a person's general aptitude in the domains of cash management, credit management, investments, insurance, retirement planning, and estate planning. The test was based on work originally conducted by Fanslow, Hira, and Titus (1986) and Titus, Fanslow, and Hira (1989).

Test Sample

The scale was tested with a sample of Canadians living in a western city. Respondents included 565 individuals who had previously attended a marriage preparation class in 1992. The average score, indicating correct answers, was 86% ($SD = 13\%$).

Scoring

The test is graded on a true-false scale, with True answers coded as 1 and False answers coded 0. Higher scores indicate more financial knowledge.

Reliability

The Cronbach's alpha for the scale is 0.57.

Validity

Financial knowledge was shown to be predicted by financial attitudes.

Source Reference(s)

Fanslow, A. M., Hira, T. K., & Titus, P. M. (1986). *Financial management practices of household money managers: Bases for adult education.* Ames, IA:

Iowa State University Agriculture and Home Economics Experiment Station, Project No. 1772.

Titus, P. M., Fanslow, A. M., & Hira, T. K. (1989). Net worth and financial satisfaction as a function of household money managers' competencies. *Home Economics Research Journal, 17*, 309–317.

Note(s)

The source references should be cited whenever the scale is used.

Item(s)

Financial knowledge test

Items	Scoring
If a person dies without a will, his or her assets are distributed according to *provincial* (instead of *state*) law	True = 1 False= 0
A *good* budget provides only for expected expenses	True = 1 False= 0
All credit card companies offer a no interest plan if you pay your bills *in full by the due date* (instead of *in 30 days*)	True = 1 False= 0
To have a good credit rating one must make purchases on credit and make payments according to the credit contract	True = 1 False= 0
Insurance is a way to reduce the risk of a financial disaster	True = 1 False= 0
Retirees need 70–80% of their *pre-retirement* (instead of *current*) income to maintain the same standard of living during retirement	True = 1 False= 0
A person is more likely to reach his or her financial goals by planning for the future	True = 1 False= 0
Having different types of investments and savings decreases financial risks	True = 1 False= 0
A credit card advance is a cheaper form of credit than a personal bank loan	True = 1 False= 0
In most cases, the lower the expected rate of return on an investment, the lower the risk	True = 1 False= 0
Borrowing money to purchase an item decreases money available for future spending	True = 1 False= 0
Every financial risk can be covered by insurance	True = 1 False= 0
Insurance costs can be reduced by having high deductible clauses in your contracts	True = 1 False= 0
The money invested in an RRSP is taxable eventually when the plan is deregistered	True = 1 False= 0
People are more likely to make better financial decisions if they base those decisions on their financial records	True = 1 False= 0

Title

Financial Knowledge Scale

Key Words

Financial Knowledge, Financial Behavior

Author(s)

John E. Grable and So-hyun Joo

Source

Grable, J. E., & Joo, S. (2004). Environmental and biopsychosocial factors associated with financial risk tolerance. *Financial Counseling and Planning, 15*(1), 73–88.

Description

This ten-item scale was developed to assess the basic personal finance knowledge of respondents.

Test Sample

The scale was tested using a sample of 460 faculty and staff from two Midwestern U.S. universities.

Scoring

Each item in the scale is coded true (1) or false (0). Scores are summed to develop a financial knowledge scale score. Higher scores are indicative of elevated levels of basic personal finance knowledge.

Reliability

Not reported

Validity

Scale scores were shown to be positively associated with financial risk tolerance.

Source Reference(s)

None

Note(s)

None

Item(s)

Financial knowledge scale

Item and correct response	Scoring
If you thought someone who loaned you money is not fair, you would ask the credit union for help. False	1 = True 0 = False
Both employees and employers pay into Social Security. True	1 = True 0 = False
High insurance deductibles lead to lower insurance costs. True	1 = True 0 = False
The interest rate charged on major credit cards, like Visa, is set by the Federal government. False	1 = True 0 = False
A stock is an interest bearing security that pays interest at the discretion of a board of directors. False	1 = True 0 = False
A mutual fund is an investment company that raises money from shareholders and invests in securities. True	1 = True 0 = False
Over 20 years, you are more likely to make money than lose money in the stock market. True	1 = True 0 = False
During times of inflation it is more expensive to borrow money. True	1 = True 0 = False
Employees are responsible for all investment decisions within a 401(k) plan. True	1 = True 0 = False
Interest paid on credit cards is tax-deductible. False	1 = True 0 = False

Title

Financial Knowledge Index

Key Words

Financial Knowledge, Financial Behavior, Debt

Author(s)

Cazilia Loibl, Tahira K. Hira, and Michael Rupured

Source

Loibl, C., Hira, T. K., & Rupured, M. (2006). First time versus repeat filers: The likelihood of completing a Chapter 13 bankruptcy repayment plan. *Financial Counseling and Planning, 17*(1), 23–33.

Description

Eight items were developed to assess a respondent's financial knowledge, particularly in the area of debt management and bankruptcy.

Test Sample

The index was tested with a sample of 466 Chapter 13 bankruptcy filers living in Georgia between July 2002 and March 2003.

Scoring

According to the authors, "The responses were recorded on a 2-point scale where *false* = 0 and *true* = 1. For the statistical analysis, the eight items were summed to construct the variable, *financial knowledge*, and the total scores were transformed into percentages ranging from *no answer correct* = 0% to *all answers correct* = 100%" (p. 27). Higher scores are indicative of increased financial knowledge.

Reliability

Not reported

Validity

Scores on the knowledge index were mixed in terms of predicting completion of a Chapter 13.

Source Reference(s)

None

Note(s)

None

Item(s)

Financial knowledge index

Items	Answer	Scoring
When you must pay a bill late, it's important to call the company before the bill is due	True	False = 0 True = 1
One needs to have an emergency fund for occasional expenses	True	False = 0 True = 1
It's up to you and your family to decide how much to spend for family expenses	True	False = 0 True = 1
A spending plan helps you meet financial obligations	True	False = 0 True = 1
Free copies of your credit report are only available when you have been turned down for a loan	False	False = 0 True = 1
You credit report determines how much you will pay for credit	True	False = 0 True = 1
The Chapter 13 Trustee represents me to the creditors I owe	True	False = 0 True = 1
It's OK for me to obtain a credit card or loan while I'm making repayments on my Chapter 13 plan	False	False = 0 True = 1

Title

Financial Knowledge Scale

Key Words

Financial Knowledge, Financial Behavior

Author(s)

Sharon M. Danes and Heather R. Haberman

Source

Danes, S. M., & Haberman, H. R. (2007). Teen financial knowledge, self-efficacy, and behavior: A gendered view. *Financial Counseling and Planning, 18*(2), 48–60.

Description

This brief four-item scale was designed to evaluate a young person's financial behavioral knowledge.

Test Sample

This scale was tested with data from 5,329 "high school students who studied one [financial education] curriculum available to teach personal finance" (p. 51). A Delphi methodology was used to evaluate the items in the scale.

Scoring

The scale is scored with a five-point Likert-type system, with 1 = Strongly Disagree and 5 = Strongly Agree. Scores are summed. Higher scores are indicative of increased financial knowledge.

Reliability

Not reported

Validity

Differences between male and female teens were noted, as hypothesized in the literature.

Source Reference(s)

None

Note(s)

None

Item(s)

Financial knowledge scale

Items	Scoring
I understand the cost of buying on credit	1 = Strongly disagree 5 = Strongly agree
I know key questions to ask when shopping for auto insurance	1 = Strongly disagree 5 = Strongly agree
I know about investments (stocks, mutual funds, bonds, etc.)	1 = Strongly disagree 5 = Strongly agree
I know the difference between needs and wants	1 = Strongly disagree 5 = Strongly agree

Title

Investment Literacy Scale

Key Words

Investment Knowledge, Investment Behavior, Investment Literacy, Literacy

Author(s)

Ronald P. Volpe, Joseph E. Kotel, and Haiyang Chen

Source

Volpe, R. P., Kotel, J. E., & Chen, H. (2002). A survey of investment literacy among online investors. *Financial Counseling and Planning, 13*(1), 1–14.

Description

This 10-item scale was designed to measure an individual investor's investment literacy.

Test Sample

The scale was tested with an online sample of 530 individual investors. In general, older investors tend to score higher on the scale, as do those with higher income. The mean for the scale was 49.6%. Women tend to score lower than men on this scale.

Scoring

Questions comprising the scale are answered with multiple-choice responses. Higher scores (i.e., true answers) indicate increased financial/investment literacy. Scores can range from a low of 0 to a high of 10.

Reliability

Not reported

Validity

The authors reviewed 35 financial websites to determine the content coverage of investment topics in the scale. The scale was designed to be completed in no more than 15 min. No specific validity measures were reported.

Source Reference(s)

None

Note(s)

None

Item(s)

Investment literacy scale

1. A distribution from a mutual fund reduces its net asset value (NAV) by:
   a. The entire amount of the distribution
   b. The amount of the distribution less capital gain
   c. The amount of the distribution less capital inflows
   d. A distribution does not reduce the NAV[a]

2. An example of a blue-chip stock is:
   a. Amazon.com
   b. IBM[a]
   c. Microsoft
   d. GLH industries

3. An investment of $1,000 compounded annually at an interest rate of 10% for 10 years will be worth:
   a. More than $2,000 at the end of the 10 years[a]
   b. Less than $2,000 at the end of the 10 years
   c. Exactly $2,000 at the end of the 10 years
   d. It cannot be determined using this information

4. Consider the following companies and their betas. Which stock will underperform the others when the stock market rises by 10%
   a. Blue company Beta =0.85
   b. Orange company Beta=1.05
   c. Purple company Beta=–1.10
   d. Gold company Beta=–0.95[a]

5. Solely in regards to income taxes, if you are considering selling a stock that you have held for 11 months and that has appreciated in price you must:
   a. Hold the stock for at least 1 more month to get a lower tax rate on the sale[a]
   b. Hold the stock for at least 7 more months to get a lower tax rate on the sale
   c. Sell the stock now to get a lower tax rate on the sale
   d. The proceeds of the sale will be taxed at the same rate whenever you sell it

6. Diversifying your portfolio to protect it against unsystematic risk:
   a. Can be achieved only through ownership of a mutual fund
   b. Requires an ownership of at least one stock in every industry
   c. Requires an ownership of at least 100 stocks in different industries
   d. Requires an ownership of at least 10–20 stocks in different industries[a]

Investment literacy scale (continued)

7. A company declares a 2-for-1 stock split. You now own more shares. Which of the following is also true?
   a. The total price of the stock, your ownership percentage, and the value of your total investment stay the same
   b. The value of your total investment stays the same, while the price of the stock and your ownership percentage both change
   c. The value of your total investment and your ownership percentage both stay the same, while the price of the stock changes[a]
   d. The price of the stock and your ownership percentage both stay the same, while the value of your total investment changes

8. A long-term debt-equity ratio that might signal a greater financial leverage risk is:
   a. 0.09
   b. 0.6
   c. 1.5
   d. 3.5[a]

9. A single 25 year-old with no dependents who is just beginning to invest for retirement should adopt an investment strategy of:
   a. 20% in CDs, 60% in money-market funds, and 20% in bonds
   b. 80% in stocks and 20% in bonds[a]
   c. 33.33% in stocks, 33.33% in bonds, and 33.33% in Treasury Bills
   d. 50% in bonds and 50% in treasury bills

10. As interest rates rise, the price of bond prices:
    a. Rise
    b. Fall[a]
    c. Stay the same
    d. It cannot be determined using this information

[a] Indicates the correct answer

Title

Money Management Knowledge and Skills Index

Key Words

Financial Behavior, Financial Knowledge, Spending

Author(s)

Cathy F. Bowen

Source

Bowen, C. F. (2002). Financial knowledge of teens and their parents. *Financial Counseling and Planning, 13*(2), 93–102.

Description

According to the author, "This multiple-choice question index was developed by adapting questions from the 1991 nationwide survey conducted by the Consumer Federation of America and American Express Travel Related Services (i.e., High School Student Consumer Knowledge) or were adapted from test items banks included in teachers' guide to personal finance textbooks" (p. 95).

Test Sample

This 19-item money management knowledge and skills index was tested with 64 high school students who attended a governor's school program at The Pennsylvania State University in 1993. The questions were designed to be completed in 20 min or less.

Scoring

The questions were scored on a multiple-choice scale. Correct answers were summed, with higher scores indicating a higher level of money management knowledge and skill.

Reliability

Not reported

Validity

Face validity was assumed based on the sources of questions; no other validity test information was reported.

Source Reference(s)

Note(s)

No association between scores for teens and their parents were noted in the study.

Item(s)

Money management knowledge and skills index

1. This fee is collected from employers and employees to support a federal insurance program for eligible people of different ages
   a. Social Security tax[a]
   b. State income tax
   c. Unemployment compensation tax
   d. Federal income tax

2. The amount of money left after taxes are deducted from a paycheck is called
   a. gross income
   b. variable expense income
   c. net income[a]
   d. discretionary income

3. The IRS form that is used to notify your employer of the number of exemptions for which you qualify and that serves as a basis, along with income earned, for calculating your payroll withholding is the
   a. W-2 form
   b. W-4 form[a]
   c. 1,040 form
   d. exemption certificate

4. When you sign your name on the back of a check that is payable to you, it is known as
   a. signing the check
   b. cashing the check
   c. endorsing the check[a]
   d. co-signing the check

5. The two keys to the use of electronic funds transfer are the debit card and the
   a. account number
   b. credit card
   c. personal identification number[a]
   d. signature card

6. The days between the billing date and the due date on a credit statement are called the
   a. closing period
   b. default period
   c. grace period[a]
   d. interest period

Money management knowledge and skills index (continued)

7. The owner of a credit card that is lost or stolen is legally responsible for
   a. any unauthorized charges
   b. any unauthorized charges until the loss or theft is reported
   c. only the first $50 of any unauthorized charges[a]
   d. no unauthorized charges

8. Small loans obtained by using a credit card are called
   a. purchase loans
   b. withdrawals
   c. cash advances[a]
   d. rebates

9. What the lender charges you in dollars to borrow money is called
   a. the finance charge[a]
   b. usury
   c. the principal
   d. interest

10. The BEST indicator of the cost of a loan is the
    a. number of monthly payments
    b. monthly payment amount
    c. interest rate
    d. annual percentage rate[a]

11. If a credit card account has a balance carried over from the previous month, when will interest charges usually begin on a new credit purchase?
    a. on the day of the purchase[a]
    b. 1 month after the date of purchase
    c. after a 2 week grace period
    d. after a 2 month grace period

12. Which of the following is NOT a good way to lower the costs of your automobile insurance?
    a. increase the deductible
    b. lower the limits[a]
    c. eliminate the collision coverage for older cars
    d. shop around for lower premiums from other companies

13. Insurance coverage that provides liability and medical benefits to the insured if involved in an accident caused by someone with insufficient coverage to meet the need
    a. property damage liability
    b. collision coverage
    c. comprehensive automobile insurance
    d. uninsured motorist[a]

14. Coverage for theft of an automobile is provided for under this part of an automobile insurance policy
    a. property damage liability
    b. collision coverage
    c. comprehensive automobile insurance[a]
    d. uninsured motorist

Money management knowledge and skills index (continued)

15. Insurance term which refers to the predetermined amount you must pay before an insurance company will pay toward your loss
    a. claim
    b. deductible[a]
    c. premium
    d. rider

16. Portion of the automobile insurance coverage that pays for repairs of the covered automobile if the repair is not paid for by the insurance of the person who caused the damage
    a. property damage liability
    b. collision coverage
    c. comprehensive automobile insurance[a]
    d. uninsured motorist

17. An insurance policy that has been terminated due to the policyholder's failure to pay premium is said to have
    a. expired
    b. been paid off
    c. lapsed[a]
    d. entered its grace period

18. Which term below always applies to the person who pays for a life insurance policy and retains all rights and privileges granted by the policy, including the right to amend the policy?
    a. beneficiary
    b. policyholder[a]
    c. contingent beneficiary
    d. insured

19. Pay-Yourself-First
    a. Is an old idea practiced by some adults which means they set aside personal spending money as soon as they get paid.
    b. Means that before spending any of your income, you will save some for the future.∗
    c. Means you should take care of your own personal bills before loaning others any money.
    d. Is a method of saving for your retirement.

[a]Indicates correct answer

Title

Perceived Financial Knowledge Item

Key Words

Financial Knowledge, Financial Attitude

Author(s)

Karen P. Varcoe, Allen Martin, Zana Devitto, and Charles Go

Source

Varcoe, K. P., Martin, A., Devitto, Z., & Go, C. (2005). Using a financial education curriculum for teens. *Financial Counseling and Planning, 16*(1), 63–72.

Description

This single item can be used as a summary measure of students' perception of their financial knowledge.

Test Sample

The scale was evaluated with a sample of 114 high school students who age 13 through 20, with data collected over 6 months in 2002. The sample consisted of students living in southern California.

Scoring

Answers are scored as follows: 4 = everything, 3 = most of, 2 = some of, and 1 = a little about. When used in a pre-test, mean scores were 2.75; post-test scores were slightly higher (i.e., 3.03).

Reliability

Not reported

Validity

Not reported

Source Reference(s)

None

Note(s)

None

Item(s)

Perceived Financial Knowledge Item

"When it comes to handling my money, I know [everything, most of, some of, or a little about] what I need to know."

Title

Cash Flow Management Scale

Key Words

Cash Flow Management, Budgeting, Goal-Setting

Author(s)

Deborah D. Godwin

Source

Godwin, D. D. (1994). Antecedents and consequences of newlyweds' cash flow management. *Financial Counseling and Planning, 5*(1), 161–190.

Description

This scale is designed to assess whether households perform generally recognized healthy financial management behaviors. Rather than ask a 'yes' or 'no' question, the author argued that measuring activity on a frequency basis offers greater explanatory and predictive power.

Test Sample

The scale was employed in a test of newlyweds' cash flow management behaviors. newlywed couples ($N = 256$) living in Georgia in 1992 responded to the scale questions.

Scoring

According to the author, "Respondents were asked how frequently they performed each task and a 5-point Likert-type scale, ranging from all the time (coded 5) to never (1) was the response set" (p. 176). Higher scores indicate a more active cash flow management style.

Reliability

The scale consists of three factors. The Cronbach's alpha for each factor is shown below:

1. Budgeting: 0.89
2. Goal-Setting: 0.82
3. Record Keeping: 0.83

Validity

The three factors were used to predict both net worth and financial satisfaction. In general, the results were mixed, suggesting modest validity for the scale and sub-scales. Goal-Setting was negative associated with net worth but positively related to financial satisfaction. The other sub-scales were not significantly associated with either net worth or financial satisfaction.

Source Reference(s)

Godwin, D. D., & Koonce, J. C. (1992). Cash flow management of low-income newlyweds. *Financial Counseling and Planning, 3*(1), 17–42.

Note(s)

None

Item(s)

Cash flow management scale

Items	Scoring
Budgeting	
How often do you . . .?	
Estimate income	1 = Never
Estimate fixed expenses	5 = All the time
Estimate flexible expenses	
Reestimate expenditures	
Monitor balance	
Monitor income	
Monitor expenditures	
Balance budget	
Assess fixed spending	
Decrease spending	
Goal-setting	
How often do you . . .?	
Set short-term goal (1 year)	1 = Never
Set long-term goal (5–10 years)	5 = All the time
Assess assets	
Assess emergency funds	
Decrease spending	
Assess debt	
Increase income	
Record keeping	
How often do you . . .?	
Record income in writing	1 = Never
Record most spending in writing	5 = All the Time
Record every dollar of spending	
Assess fixed expenses	
Assess flexible expenses	

Title

Perceived Benefits of Cash Flow Management Scale

Key Words

Cash Flow, Financial Management, Perception

Author(s)

Deborah D. Godwin

Source

Godwin, D. D. (1994). Antecedents and consequences of newlyweds' cash flow management. *Financial Counseling and Planning, 5*(1), 161–190.

Description

This scale is designed to represent Fishbein and Ajzen's (1975) conceptualization of expected utility or what the author defines as "respondents' perceptions of the benefits of doing more cash flow management" (p. 175).

Test Sample

The scale was employed in a test of newlyweds' cash flow management behaviors. newlywed couples ($N = 256$) living in Georgia in 1992 responded to the scale questions.

Scoring

According to the author, "A five-point Likert-type response format was available, ranging from very certain to very uncertain. The variable was computed by summing responses to the six items and was treated as a continuous variable" (p. 175). A score of 1 = Very Uncertain, whereas a score of 5 = Very Certain. Higher scores represent an increased certainty that the benefit of managing cash flow result in positive outcomes.

Reliability

Cronbach's alpha = 0.85

Validity

Perceived benefits of cash flow management were found to be positively associated with budgeting/monitoring and goal setting assessment activities.

Source Reference(s)

Fishbein, M., & Ajzen, I. (1975). *Belief, attitude, intention and behavior*. Reading, MA: Addision-Wesley.

Note(s)

None

Item(s)

Perceived benefits of cash flow management scale

Items	Scoring
Doing more financial management would . . .	
Be easier to pay our bills	1 = Very uncertain 5 = Very certain
Help us be able to afford more luxuries that we want	1 = Very uncertain 5 = Very certain
Help us have money set aside in case of emergencies	1 = Very uncertain 5 = Very certain
Help us avoid arguments about money	1 = Very uncertain 5 = Very Certain
Help us be able to afford more of the things we need	1 = Very uncertain 5 = Very certain
Help us stay out of debt trouble	1 = Very uncertain 5 = Very certain

Title

Investment Allocation (IRA) Index

Key Words

Asset Allocation, Investment, Stock, IRA

Author(s)

Jaimie Sung and Sherman Hanna

Source

Sung, J., & Hanna, S. (1998). The spouse effect on participation and investment decisions for retirement funds. *Financial Counseling and Planning, 9*(2), 47–58.

Description

This index is asked as part of the triennial Survey of Consumer Finances survey sponsored by the Federal Reserve Board. The index was developed to assess how investments within an Individual Retirement Account (IRA) is invested by a respondent.

Test Sample

Sung and Hanna (1998) reported that "among those who participate in retirement plans, 25.2% of husbands and 25.8% of wives invest most retirement funds in stocks; 41.8% of husbands and 39.2% of wives split retirement funds between stocks and other investment vehicles; and 33.0% of husbands and 35.0% of wives invest most retirement funds in other investment vehicles.

Scoring

Scoring is based on a 1 through 9 scale; see table.

Reliability

Not reported

Validity

Not reported

Source Reference(s)

None

Note(s)

None

Item(s)

Investment allocation (IRA) index

Items	Scoring
How is the money in (this/all of our family's) IRA invested? Is most of it in CD's or other bank account, most of it in bonds or similar assets, or what?	
CD's/bank account	1
Stocks	2
Bonds	3
Combination of 1, 2 and 3	4
Combination of 2 and 3	5
Combination of 1 and 2	6
Life insurance	7
Real estate	8
Other	9

Title

Investment Allocation (DC Plans) Index

Key Words

Asset Allocation, Investment, Stock, Defined Contribution

Author(s)

Jaimie Sung and Sherman Hanna

Source

Sung, J., & Hanna, S. (1998). The spouse effect on participation and investment decisions for retirement funds. *Financial Counseling and Planning, 9*(2), 47–58.

Description

This index is asked as part of the triennial Survey of Consumer Finances survey sponsored by the Federal Reserve Board. The index was developed to assess how investments within a Defined Contribution pension plan (e.g., 401 k, 403b, 457, etc.) is invested by a respondent.

Test Sample

Sung and Hanna (1998) reported that “among those who participate in retirement plans, 25.2% of husbands and 25.8% of wives invest most retirement funds in stocks; 41.8% of husbands and 39.2% of wives split retirement funds between stocks and other investment vehicles; and 33.0% of husbands and 35.0% of wives invest most retirement funds in other investment vehicles.

Scoring

Scoring is based on a 1–5 scale; see table.

Reliability

Not reported

Validity

Not reported

Source Reference(s)

None

Note(s)

None

Item(s)

Investment allocation (DC plans) index

Items	Scoring
How is the money in defined contribution invested? Is it mostly in stocks, mostly in interest-earning assets, is it split between these, or what?	
Mostly in stock	1
Mostly or all interest earning	2
Split	3
Real estate	4
Other	5

Title

Financial Fitness Quiz

Key Words

Financial Management, Financial Behavior, Budgeting, Savings, Credit

Author(s)

Barbara O'Neill

Source

O'Neill, B. (2003). Preliminary assessment of financial practices: The financial fitness quiz. *Journal of Personal Finance, 2*(1), 22–28.

Description

This quiz/scale was developed as a simple financial assessment tool that consumers and their financial advisors can use to quickly assess the strengths and weaknesses of the consumer's financial situation. According to the author, "To help people assess the strengths and weaknesses of their financial situation, Rutgers Cooperative Extension developed a simple assessment tool, called *The Financial Fitness Quiz* that is available in both print and online at www.rce.rutgers.edu/money/ffquiz.asp. The *Financial Fitness Quiz* consists of 20 statements where respondents are asked to select a response that best describes their current financial management practices. Topics covered by the quiz include basic financial management practices (e.g., budgeting and calculation of net worth), saving/investing, insurance and estate planning, credit, and shopping" (pp. 22–23).

Test Sample

According to the author, "In a preliminary test of the online version of the *Financial Fitness Quiz* during the first 6 months of 2001, results were obtained from 173 respondents. The lowest score on the quiz was 20 and the highest score was 100 (eight respondents). The average quiz score for the sample was 67.34 and the modal (most frequently occurring) range was a score between 71 and 80. Responses to each question were also analyzed to determine the strengths and weaknesses of respondents' financial behaviors. The average scores for each of the 20 statements ranged from a low of 2.11 to a high of 4.72" (p. 23).

Scoring

Nineteen questions are answered with the following responses categories: 5 = always, 4 = usually, 3 = sometimes, 2 = seldom, and 1 = never. For the remaining question, "I have a current will," respondents write either 5 for "yes" and 1 for "no." Scores are summed. According to the author (p. 23), "Scores on the quiz can range from 20 to 100. At the end of the quiz, respondents total their score and the following explanation is given of respondents' scores:

- √ 0–20 points- *You need lots of help, but don't despair. It's never too late to take action to improve your finances.*
- √ 21–40 points- *You are headed for financial difficulty. Now is the time to reverse the trend.*
- √ 41–60 points- *You are doing a fair job of managing your finances and have taken some steps in the right direction.*

√ 61–80 points- *You are doing a good job and are above average in managing your finances*.
√ 81–100 points- *You are in excellent shape. Keep up the good work!*"

Reliability

Not reported

Validity

Not reported

Source Reference(s)

None

Note(s)

None

Item(s)

Financial Fitness Quiz

Want to improve your personal finances? Start by taking this quiz to get an idea of how well you've managed your money so far. Choose the score that best describes your current financial management practices:

5 = always
4 = usually
3 = sometimes
2 = seldom
1 = never

When you're done, add up your scores for each of the 20 questions below. The summary at the end of the quiz tells how you're doing.

Financial Management

1. I have a bank checking account (or credit union share draft account) with which to pay bills.
2. I have enough money each month to pay my rent/mortgage and other household expenses.
3. I have enough money to pay for an emergency, such as a large car repair.
4. I have written financial goals with a date and dollar cost (e.g., $10,000 for a car in 2004).
5. I have a written plan (budget) for spending and/or saving my money.
6. I keep organized financial records and can find important documents easily.
7. I know my federal marginal tax bracket (e.g., 15, 28%).
8. I calculate my net worth (assets minus debts) annually.

Saving/Investing

9. I save regularly for long-term financial goals, such as education for my children, a house, or retirement.
10. I have at least 3 months' expenses set aside in a readily accessible account (e.g., money market mutual fund).
11. I increase my savings when I receive a salary increase.
12. I have a personal investment account for retirement (other than an employee pension).
13. I have money spread across more than one type of investment (e.g., stocks, bonds, mutual funds, CDs).
14. The after-tax yield of my savings and investments is greater than the rate of inflation.

Insurance and Estate Planning

15. I have insurance to cover "big" unexpected expenses, such as a hospital bill or disability.
16. I have a current will (write "5" for "yes" and "1" for "no" for this question).

Credit

17. Less than half of 1 week's pay goes to my credit cards, student loans, and car payments.
18. I pay credit card bills in full to avoid interest charges.

Shopping

19. I comparison shop for major purchases by checking at least three sources.
20. I avoid impulse purchases and don't use shopping as a form of recreation.

Scoring for the Financial Fitness Quiz is as Follows

0–20 points You need lots of help, but don't despair. It's never too late to take action to improve your finances.
21–40 points You are headed for financial difficulty. Now is the time to take action to reverse the trend.
41–60 points You are doing a fair job of managing your finances and have taken some steps in the right direction.
61–80 points You are doing a good job and are above average in managing your finances.
81–100 points You are in excellent financial shape. Keep up the good work!

Notes: Items that you scored with a 1, 2, or 3 are actions that you should consider taking in the future to improve your finances.

Title

Investment Allocation Measure

Key Words

Investment Allocation, Portfolio, Investments

Author(s)

Kimberley Powell and John G. Powell

Source

Powell, K., & Powell, J. G. (2001). The financial transition to mature-age motherhood. *Financial Counseling and Planning, 12*(1), 37–54.

Description

This item can be used to determine how a respondent allocates their investment assets.

Test Sample

This question was used as part of the Dunedin Mature Mothers Study (New Zealand) of women aged 35 years or older who were expecting their first child (N = 8).

Scoring

Not applicable

Reliability

Not reported

Validity

Not reported

Source Reference(s)

None

Note(s)

None

Item(s)

Investment allocation measure

If you do have any investments, indicate which ones and the approximate proportion of savings which they represent	Own [ ]	%
Bank deposits		
Property – residential		
Property – commercial		
Property – rental		
Pension scheme		
Term deposit		
Other (please specify)		

Title

Information Source Index

Key Words

Help Seeking, Financial Information, Financial Knowledge

Author(s)

Joan C. Koonce, Yoko Mimura, Teresa A. Mauldin, A. Michael Rupured, and Jenny Jordan

Source

Koonce, J. C., Mimura, Y., Mauldin, T. A., Rupured, A. M., & Jordan, J. (2008). Financial information: Is it related to savings and investing knowledge and financial behavior of teenagers? *Journal of Financial Counseling and Planning, 19*(2), 19–28.

Description

This index of items was designed to evaluate where teenagers obtain their financial knowledge. According to the authors, "Four sources were assessed as the information sources from which the respondents learned about savings and investing. In the survey, respondents were asked "how much have you learned about savings and investing from each of the following sources? (a) parents; (b) other family members; (c) friends; (d) teachers (e) 4-H program or county Extension agent; (f) other educator; (g) TV, radio, newspaper, or magazine; (h) Internet; and (i) other." Examples of other educator were not given on our survey sheet, and whom they considered as other educators varied. Responses were (a) none, (b) very little, (c) some, (d) good amount, and (e) a lot. These items were recorded into four categories by merging similar information sources to ensure variations within each category: parents, other family members and friends, educators, and the media/Internet variables. When the original categories were merged, the mean responses were used so each of these information source measures ranged between 1 and 5" (p. 24).

Test Sample

This scaled was tested using a sample of 253 teenagers aged 14 to 19 who participated in a Georgia 4-H event in 2006.

Scoring

The following scoring system is used with each item in the index: 1 = None, 2 = Very Little, 3 = Some, 4 = Good Amount, and 5 = A Lot. The items are not intended to be summed; rather, the index provides an insight to where teenagers obtain financial information.

Reliability

Not reported

Validity

Not reported

Source Reference(s)

None

Note(s)

According to the authors, "Most of the respondents said they learned a "good amount" (36.8%) or "a lot" (34.4%) from their parents about savings and investments. Approximately one fourth (23.0%) indicated that they had learned a "good amount" and 5.2% stated they had learned "a lot" from other family members. Family members consulted included brothers, sisters, aunts, uncles, and grandparents. Very few stated that they had learned a "good amount" or "a lot" from friends (6.4%). Teachers were a source of information for some respondents (16.4% and 12.4% learned a "good amount" and "a lot," respectively). However, a higher percentage of respondents stated that they learned more from 4-H programs or county Extension agents [("good amount" (22.1%) or "a lot" (15.3%)] than they did from their teachers. A small number indicated that they learned a "good amount" or "a lot" from other educators (12.7%), the Internet (13.5%), the media (18.1%), and other sources (10.8%). The other sources primarily included churches ..." (p. 24).

Item(s)

Information source index

Items	Scoring
Amount parents taught you about savings and investments	1 = None 2 = Very little 3 = Some 4 = Good amount 5 = A lot
Amount other family members taught you about savings and investments	1 = None 2 = Very little 3 = Some 4 = Good amount 5 = A lot
Amount friends taught you about savings and investments	1 = None 2 = Very little 3 = Some 4 = Good amount 5 = A lot
Amount teachers taught you about savings and investments	1 = None 2 = Very little 3 = Some 4 = Good amount 5 = A lot
Amount 4-H/Extension agents taught you about savings and investments	1 = None 2 = Very little 3 = Some 4 = Good amount 5 = A lot

Information source index (continued)

Items	Scoring
Amount other educators taught you about savings and investments	1 = None 2 = Very little 3 = Some 4 = Good amount 5 = A lot
Amount media taught you about savings and investments	1 = None 2 = Very little 3 = Some 4 = Good amount 5 = A lot
Amount Internet taught you about savings and investments	1 = None 2 = Very little 3 = Some 4 = Good amount 5 = A lot
Amount other sources taught you about savings and investments	1 = None 2 = Very little 3 = Some 4 = Good amount 5 = A lot

Title

Self-Directed Financial Learning Index

Key Words

Help Seeking, Financial Knowledge, Learning, Information Search

Author(s)

Cazilia Loibl and Tahira K. Hira

Source

Loibl, C., & Hira, T. K. (2005). Self-directed financial learning and financial satisfaction. *Financial Counseling and Planning, 16*(1), 11–22.

Description

This brief index was developed to determine the degree to which a person uses four types of media as a source of information.

Test Sample

The scale was tested with a sub-sample ($N = 1{,}089$) of lower level field and management employees from an insurance company. The sample was over-weighted with non-Hispanic white married women.

Scoring

The four items are summed with scores ranging from 0 = no media source used to 4 = all media sources used. Higher scores suggest self-directed financial learning tendencies.

Reliability

Not reported

Validity

Individuals who reported higher self-directed financial learning tended to be more financial satisfied than others.

Source Reference(s)

None

Note(s)

None

Item(s)

Self-Directed Financial Learning Index

Which of the following source of information have you used for financial planning over the past 6 months? Circle all that apply:

1. [company name] newsletter
2. Other financial planning publications
3. Financial planning software
4. Internet

Title

Debt Discounting Scale

Key Words

Financial Attitude, Debt, Time Preference

Author(s)

Cassandra Wells

Source

Wells, C. (2007). Optimism, intertemporal choice, and college student debt. *Journal of Personal Finance, 5*(4), 44–66.

Description

This brief scale was developed to assess a college student respondent's intertemporal discounting.

Test Sample

A sample ($N = 150$) college-aged students from several colleges campuses in one southeastern U.S. city were used to test the scale.

Scoring

See table for item scoring characteristics. Once scored, items are summed. Higher scores suggest a likelihood of discounting debt over time. The man composite score for respondents was 3.16.

Reliability

Cronbach's alpha = 0.69.

Validity

Not reported

Source Reference(s)

None

Note(s)

None

Item(s)

Debt discounting scale

Items	Scoring
What type of credit history rating do you think you have now?	1 = Excellent 5 = Poor
When you started college, did you believe you would acquire as much debt as you have now?	1 = Definitely yes 5 = Definitely no
How big of a problem do you think your student debt is now, as opposed to when you first entered college?	1 = Not big at all 5 = Very big

Title

Debt Use Index

Key Words

Debt Aversion, Debt, Financial Behavior

Author(s)

Catherine C. Eckel, Cathleen Johnson, Claude Montmarquette, and Christian Rojas

Source

Eckel, C. C., Johnson, C., Montmarquette, C., & Rojas, C. (2009). Debt aversion and the demand for loans for postsecondary education. *Public Finance Review, 35*, 233–262.

Description

This brief index was designed to provide a measure of debt use by individuals. The index also can be used to assess whether the level of debt someone holds is a problem.

Test Sample

The index was tested using close to 900 Canadian citizens who participated in 102 experimental household financial decision making sessions.

Scoring

The index is scored using an additive index method. Responses can take a value of 1 or 0, with higher values indicating agreement with the statement. Scores are calculated by summing responses. Higher scores are indicative of greater debt use and potential problematic debt outcomes.

Reliability

Cronbach's alpha = 0.60.

Validity

The index was found to be negatively correlated with a debt aversion index. This result suggested that the index is able to distinguish between positive and negative debt use.

Source Reference(s)

None

Note(s)

None

Item(s)

Debt use index

Items	Scoring
Do you usually pay off your credit card balances each month (conditional on having any)?[a]	1 = Yes 0 = No
In the past 12 months, were you ever behind 2 months or more in a bill, loan, rent, or mortgage payment?	1 = Yes 0 = No
In the past 12 months, did you sell or use an asset to pay a debt?	1 = Yes 0 = No
In the past 12 months, excluding any money spent on investments or the down payment on a home or automobile, is the family spending larger than income?	1 = Yes 0 = No
Are you currently a cosigner or guarantor of a loan for someone outside your household?	1 = Yes 0 = No
Does your level of debt burden you?	1 = Yes 0 = No
Do you owe any money on student loans? (Excluded loans from family and other individuals.)	1 = Yes 0 = No

[a]Item reverse coded

Title

Debt Aversion Index

Key Words

Debt Aversion, Debt, Financial Behavior

Author(s)

Catherine C. Eckel, Cathleen Johnson, Claude Montmarquette, and Christian Rojas

Source

Eckel, C. C., Johnson, C., Montmarquette, C., & Rojas, C. (2009). Debt aversion and the demand for loans for postsecondary education. *Public Finance Review, 35*, 233–262.

Description

This brief index was designed to provide a measure of debt aversion (i.e., discomfort) by individuals. The index also can be used to assess a respondent's attitude, either positive or negative, towards borrowing.

Test Sample

The index was tested using close to 900 Canadian citizens who participated in 102 experimental household financial decision making sessions.

Scoring

The index is scored using an additive index method. Scores are calculated by summing responses. Responses can take a value of 1 or 0, with higher values indicating agreement with the statement. Higher scores are indicative of greater discomfort with debt.

Reliability

Cronbach's alpha = 0.65.

Validity

The index was found to be negatively correlated with a debt use index. This result suggested that the index is able to distinguish between positive and negative debt use and a person's aversion to debt.

Source Reference(s)

None

Note(s)

None

Item(s)

Debt aversion index

Items	Scoring
Do you have credit cards?[a]	1 = Yes 0 = No
Do you usually pay off your credit card balances each month (conditional on having any)?	1 = Yes 0 = No
In the past 12 months, did you sell or use an asset to pay a debt?	1 = Yes 0 = No
In total, how many credit cards with a different account do you use? (1 = 0.25, 2 = 0.5, 3 = 0.75, 4–15 = 1)[a]	1 = Yes 0 = No
If you have to make an unexpected expenditure today of $500.00 or more Would you borrow from a financial institution?[a] Would you use a credit card?[a]	1 = Yes 0 = No
If the expenditure were $5,000.00 or more Would you borrow from a financial institution?[a] Would you use a credit card?[a]	1 = Yes 0 = No

[a]Item reverse coded

Title

Perceived Net Worth Adequacy Index

Key Words

Perceived Net Worth Adequacy, Net Worth

Author(s)

Nancy M. Porter and E. Thomas Garman

Source

Porter, N. M., & Garman, E. T. (1993). Testing a conceptual model of financial well-being. *Financial Counseling and Planning, 4*(1), 135–164.

Description

Porter and Garman (1993) developed six conceptual areas of personal financial management behavior to test their measure of financial well-being. This index, when combined with income adequacy perception, represents one of those six conceptual areas.

Test Sample

On the basis of a sample of 499 Virginia citizens, a factor analysis was used to identify the sub-factors within the scale.

Scoring

This item uses an ordinal variable answer: 0 = Be in debt; 1 = Break Even; 3 = Have Something Left Over

Reliability

Not reported

Validity

Scores on the index were compared to self-assessed financial well-being. Those who reported high levels of well-being (satisfaction) also reported high perceived net worth adequacy.

Source Reference(s)

None

Note(s)

Researchers have adapted this item by changing the response option to a 10-point self-anchored scale (see Porter & Garman self-reported well-being item).

Item(s)

Perceived Net Worth Adequacy Item: "Please indicate your perception of your family net worth."

Title

Perceived Income Adequacy Index

Key Words

Perceived Income Adequacy, Income

Author(s)

Nancy M. Porter and E. Thomas Garman

Source

Porter, N. M., & Garman, E. T. (1993). Testing a conceptual model of financial well-being. *Financial Counseling and Planning, 4*(1), 135–164.

Description

Porter and Garman (1993) developed six conceptual areas of personal financial management behavior to test their measure of financial well-being. This index, when combined with net worth adequacy perception, represents one of those six conceptual areas.

Test Sample

On the basis of a sample of 498 Virginia citizens, a factor analysis was used to identify the sub-factors within the scale.

Scoring

The item asks a multiple choice question scored as follows:

1. Not at all adequate
2. Can meet necessities only
3. Can afford some of the things I want
4. Can afford about everything I want
5. Can afford everything I want and still have

Reliability

Not reported

Validity

Scores on the index were compared to self-assessed financial well-being. Those who reported high levels of well-being (satisfaction) also reported high perceived income adequacy.

Source Reference(s)

None

Note(s)

None

Item(s)

Perceived Income Adequacy Item: “Please indicate your perception of your family income.”

Title

Financial Problems Item

Key Words

Financial Satisfaction, Financial Management, Financial Behavior

Author(s)

Barbara C. Kerkmann, Thomas R. Lee, Jean M. Lown, and Scot M. Allgood

Source

Kerkmann, B. C., Lee, T. R., Lown, J. M., & Allgood, S. M. (2000). Financial management, financial problems and marital satisfaction among recently married university students. *Financial Counseling and Planning, 11*(2), 55–64.

Description

This one-item was designed to assess a person's perception of their financial difficulties. The question is intended to be used with married couples.

Test Sample

The scale was tested with a sample of 310 students enrolled at Utah State University.

Scoring

A five-point Likert-type scale is used with this item; 1 = Much Worse than Most and 5 = Much Better than Most.

Reliability

Not reported

Validity

Not reported

Source Reference(s)

None

Note(s)

None

Item(s)

Financial problems item

Items	Scoring
Comparing yourself with other couples you know, how severe do you consider the financial problems you are experiencing in your relationship?	1 = Much worse than most 5 = Much better than most

Title

Financial Knowledge Index

Key Words

Financial Knowledge, Financial Behavior, Financial Attitudes

Author(s)

Cliff A. Robb and Deanna L. Sharpe

Source

Robb, C. A., & Sharpe, D. L. (2009). Effect of personal financial knowledge on college students' credit card behavior. *Journal of Financial Counseling and Planning, 20*(1), 25–43.

Description

This index was developed to assess a respondent's basic level of personal financial knowledge. According to the authors, each item was designed to measure a distinct aspect of personal financial knowledge.

Test Sample

The index was tested with a sample of 3,884. The index was based on previous knowledge items from the 2006 Jumpstart survey (Mandell, 2006) and items published by Chen and Volpe (1998).

Scoring

The index is developed by grading responses to each multiple-choice question. Items are scored using a dichotomous system, with 1 = True and 0 = False. Scores are summed into a financial knowledge index. Higher scores indicate more financial knowledge. In this study, 5, 10, 16, 24, 27, 17, and 1% of respondents answered questions 1, 2, 3, 4, 5, and 6, respectively, correctly.

Reliability

Not reported

Validity

Not reported

Source Reference(s)

Mandell, L. (2006). *Financial literacy: Improving education results of the 2006 national Jump$tart survey*. Washington, DC: Jumpstart Coalition.

Chen, H., & Volpe, R. P. (1998). An analysis of personal financial literacy among college students. *Financial Services Review, 7*(2), 107–128.

Note(s)

None

Item(s)

Financial knowledge index

Items	Correct answer
Which of the following credit card users is likely to pay the GREATEST dollar amount in finance charges per year, if they all charge the same amount per year on their cards?[a]	B
a. Someone who always pays off their credit card bill in full shortly after it is received	
b. Someone who only pays the minimum amount each month (%)	
c. Someone who pays at least the minimum amount each month, and more when they have more money	
d. Someone who generally pays their card of in full, but occasionally will pay the minimum when they are short on cash	
e. Don't know	
Which of the following types of investment would best protect the purchasing power of a family's savings in the event of a sudden increase in inflation?[a]	B
a. A 25 year corporate bond	
b. A house financed with a fixed-rate mortgage	
c. A 10-year bond issued by a corporation	
d. A certificate of deposit at a bank	
e. Don't know	
Which of the following statements best describes your right to check your credit history for accuracy?[a]	C
a. All credit records are the property of the U.S. Government and access is only available to the FBI and Lenders	
b. You can only check your credit report for free if you are turned down for credit based on a credit report	
c. Your credit report can be checked once a year for free	
d. You cannot see your credit report	
e. Don't know	
Which of the following loans is likely to carry the highest interest rate?	C
a. A car loan	
b. A home equity loan	
c. A credit card loan	
d. A student loan	
e. Don't know	
Which of the following is TRUE about the annual percentage rate (APR)?[b]	D
a. APR is expressed as a percentage on a semi-annual basis	
b. APR does not take into account all loan fees	
c. APR is not an accurate measure of the interest paid over the life of the loan	
d. APR should be used to compare loans	
e. Don't know	

Financial knowledge index (continued)

Items	Correct answer
A high-risk and high-return investment strategy would be most suitable for:[b] a. An elderly retired couple living on a fixed income b. A middle-aged couple needing funds for their children's education in 2 years c. A young married couple without children d. All of the above because they all need high returns e. Don't know	C

[a]Item adapted from 2006 Jumpstart survey
[b]Item adapted from Chen and Volpe (1998)

Title

Objective Financial Knowledge Index

Key Words

Financial Knowledge, Financial Behavior

Author(s)

Ronald E. Goldsmith and Elizabeth B. Goldsmith

Source

Goldsmith, R. E., & Goldsmith, E. B. (2006). The effects of investment education on gender differences in financial knowledge. *Journal of Personal Finance, 5*(2), 55–69.

Description

This brief index was originally developed by Goldsmith and Goldsmith (1997) to assess a respondent's 'real' financial knowledge, as compared to their subjective evaluation of knowledge.

Test Sample

The index was tested with a quasi-experiment using a nonequivalent control group design. According to the authors, “Two undergraduate classes at a large southeastern U.S. university participated . . . The first group or treatment group was a class in the College of Human Sciences entitled Family Financial Analysis. These students (14 men; 57 women) received formal instruction in personal finance, including investing . . . The second group was a marketing class in the business school (18 men; 33 women). These students were chosen on a convenience basis to provide the control group” (p. 58).

Scoring

See table for item response categories. Scores are summed. Higher scores suggest increased objective financial knowledge. According to the authors, “For the first time the measure was taken, the mean subjective knowledge score for the 51 men and women business students was 15.18 (SD = 4.41) and the mean subjective knowledge score for the 71 men and women in personal finance was 13.27 (SD = 4.35)” (p. 69).

Reliability

Not reported

Validity

Not reported

Source Reference(s)

Goldsmith, E. B., & Goldsmith, R. E. (1997). Gender differences in perceived and real knowledge of financial investments. *Psychological Reports*, *80*, 236–238.

Note(s)

None

Item(s)

Objective financial knowledge index

Instructions: please circle the correct response	
Items	**Scoring**
A bond coupon gives the holder an option to buy discount bonds	1 = False 0 = True 0 = Don't know
Which of the following has the highest risk: A. US government bonds B. Preferred stock C. Cash D. Don't know	B = 1 A, C, D = 0
What is the 20 year average return on stocks? A. 9.7% B. 12% C. 23.4% D. Don't know	B = 1 A, C, D = 0
Interest earned on savings accounts is tax-free	1 = False 0 = True 0 = Don't know
When interest rates rise, bond prices: A. Rise B. Fall C. No change D. Don't know	B = 1 A, C, D = 0
Today, cash is backed by: A. Treasury bonds B. Faith C. Gold D. Don't know	B = 1 A, C, D = 0

Title

Subjective Financial Knowledge Scale

Key Words

Financial Knowledge, Financial Behavior

Author(s)

Ronald E. Goldsmith and Elizabeth B. Goldsmith

Source

Goldsmith, R. E., & Goldsmith, E. B. (2006). The effects of investment education on gender differences in financial knowledge. *Journal of Personal Finance, 5*(2), 55–69.

Description

This brief scale was originally developed by Goldsmith and Goldsmith (1997) to assess a respondent's subjective financial knowledge.

Test Sample

A factor analysis technique was used to develop the scale. The authors stated, "The results showed that a single factor accounted for the majority of the variance (58.6%) in the item correlation matrix. The largest eigenvalue was 3.52, with the second eigenvalue being only 0.879, suggesting the scale was unidimensional. All the item loadings on the factor were greater than 0.300" (p. 59). The scale was tested with a quasi-experiment using a nonequivalent control group design. According to the authors, "Two undergraduate classes at a large southeastern U.S. university participated . . . The first group or treatment group was a class in the College of Human Sciences entitled Family Financial Analysis. These students (14 men; 57 women) received formal instruction in personal finance, including investing . . . The second group was a marketing class in the business school (18 men; 33 women). These students were chosen on a convenience basis to provide the control group" (p. 58).

Scoring

A five-point Likert-type scoring system is used with this scale, with 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, and 5 = Strongly Agree. Scores are summed. Scores can range from 6 to 30 with a midpoint of 18. Higher scores suggest greater subjective financial knowledge.

Reliability

Coefficient alpha = 0.85. A second test indicated an alpha of 0.91.

Validity

Not reported

Source Reference(s)

Goldsmith, E. B., & Goldsmith, R. E. (1997). Gender differences in perceived and real knowledge of financial investments. *Psychological Reports*, *80*, 236–238.

Note(s)

None

Item(s)

Subjective financial knowledge scale

Items	Scoring
I know pretty much about investing	1 = Strongly disagree 2 = Disagree 3 = Neutral 4 = Agree 5 = Strongly agree
I do not feel very knowledgeable about investing	1 = Strongly disagree 2 = Disagree 3 = Neutral 4 = Agree 5 = Strongly agree
Among my circle of friends, I'm one of the "experts" on investments	1 = Strongly disagree 2 = Disagree 3 = Neutral 4 = Agree 5 = Strongly agree
Compared to most other people, I know less about investing	1 = Strongly disagree 2 = Disagree 3 = Neutral 4 = Agree 5 = Strongly agree
I have heard of most of the new investments that are around	1 = Strongly disagree 2 = Disagree 3 = Neutral 4 = Agree 5 = Strongly agree
When it comes to investing, I really don't know a lot	1 = Strongly disagree 2 = Disagree 3 = Neutral 4 = Agree 5 = Strongly agree

Title

Financial Education Outcome Assessment Index

Key Words

Financial Education, Budgeting, Emergency Fund

Author(s)

Sharon A. DeVaney, Elizabeth E. Gorham, Janet C. Bechman, and Virginia A. Haldeman

Source

DeVaney, S. A., Gorham, E. E., Bechman, J. C., & Haldeman, V. A. (1996). Cash flow management and credit use: Effect of a financial information program. *Financial Counseling and Planning, 7*(1), 71–80.

Description

This index is designed to be used as a concurrent or post-test measure of the effectiveness of personal financial education. Presumably, financial education leads to behavioral change. This index tracks basic changes in personal financial behavior.

Test Sample

This scale was used with a sample of women ($N = 196$) who participated in the Women's Financial Information Program (WFIP) in Indiana, Nevada, Utah, and Virginia in 1993 and 1994. WFIP was a 7-week program designed to help women increase their financial management skills.

Scoring

Responses are coded dichotomously, with 1 = the practice was accomplished during or since the educational session or the respondent was currently working on it; 0 = otherwise. The higher the score, the more behavioral change directly attributable to the financial education.

Reliability

Not reported

Validity

Not reported

Source Reference(s)

None

Note(s)

None

Item(s)

Financial education outcome assessment index

Items	Scoring
Which of the following practices have been accomplished during or since . . . 1. Developed or revised a spending plan 2. Set up and used a bill paying system 3. Started or added to an emergency fund 4. Identified and/or reduced spending leaks 5. Obtained credit in my own name 6. Limited use and/or reduced balances on credit card accounts 7. Began saving on a regular basis or increased regular savings	1 = The practice was accomplished during or since the educational session or the respondent was currently working on it 0 = Otherwise

Title

Time Horizon Measure

Key Words

Time Horizon

Author(s)

Arthur B. Kennickell, Martha Starr-McCluer, and Annika E. Sunden

Source

Kennickell, A. B., Starr-McCluer, M., & Sunden, A. E. (1997). Saving and financial planning: Some findings from a focus group. *Financial Counseling and Planning, 8*(1), 1–8.

Description

This item indicates households' time horizon for saving and spending.

Test Sample

This measure was used as a pretest to the 1995 Survey of Consumer Finances (SCF), which is a triennial survey of household behavior, assets, liabilities, and demographic/socioeconomic characteristics. The SCF is sponsored by the Federal Reserve Board. Focus group participants were recruited from Chicago. Those in the focus group had income exceeding $250,000 or net worth higher than $600,000.

Scoring

Nominal coding; select one answer

Reliability

Not reported

Validity

Not reported

Source Reference(s)

None

Note(s)

This measure is part of the triennial SCF.

Item(s)

Time horizon measure

Item
Time horizon for saving and spending . . . A. Next year B. Next few years C. Next 5–10 years D. Longer than 10 years

Title

Financial Time Horizon Scale

Key Words

Time Horizon, Planning Horizon

Author(s)

Deborah D. Godwin and Joan C. Koonce

Source

Godwin, D. D., & Koonce, J. C. (1992). Cash flow management of low-income newlyweds. *Financial Counseling and Planning, 3*(1), 17–42.

Description

This 3-item scale was developed to evaluate a person's orientation toward time when making financial decisions.

Test Sample

The scale was developed using factor analysis techniques with 106 newlywed couples living in Georgia in 1990. The sample was representative of a wide range of family incomes (i.e., high, moderate, and low).

Scoring

An 11-point semantic differential scaling system is used when scoring items. A factor analysis was conducted, indicating a two-factor solution. No other coding or scoring information was provided.

Reliability

Not reported

Validity

Scale scores were shown to be associated with differences in newlywed incomes.

Source Reference(s)

None

Note(s)

None

Item(s)

Financial time horizon scale

Items	Scoring
1. Do you think a lot about things that might happen in the future or usually just take things as they come?	11-Item semantic differential scaling method
2. Are you the kind of person that plans his life ahead all the time, or lives more from day to day?	11-Item semantic differential scaling method
3. Would you rather spend your money and enjoy life today or save money for the future?	11-Item semantic differential scaling method

Title

Time Horizon Scale

Key Words

Time Horizon, Future Planning, Planning

Author(s)

Deborah D. Godwin

Source

Godwin, D. D. (1994). Antecedents and consequences of newlyweds' cash flow management. *Financial Counseling and Planning, 5*(1), 161–190.

Description

This scale measures time orientation in relation to financial planning.

Test Sample

The scale was employed in a test of newlyweds' cash flow management behaviors. 256 newlywed couples living in Georgia in 1992 responded to the scale questions. The author used a factor analysis with 20 items adapted from a previous pilot study. The analysis yielded four factors. The Time Horizon scale is one of these scales.

Scoring

According to the author, "The time horizon variable was composed of two semantic differential items where the ends of a bipolar continuum were anchored with the phrases "think a lot about things that might happen in the future" and "usually take thinks as they come" for one item and "kind of person that plans life ahead of time" and "lives more from day to day" for the second item. A line under the phrases included the numbers one to 11 and respondents were asked to circle that best represented their view of themselves." Higher scores represented a future planning orientation.

Reliability

Cronbach's alpha = 0.74

Validity

Not reported

Source Reference(s)

None

Note(s)

None

Item(s)

Time horizon scale

Items	Scoring
Do you think a lot about things that might happen in the future (11) vs. usually take things as they come (1)?	1–11 Semantic differential
Are you the kind of person that plans life ahead all the time (11) vs. lives more from day to day (1)?	1–11 Semantic differential

Title

Time Preference Scale

Key Words

Time Preference, Risk Taking

Author(s)

Michael S. Finke and Sandra J. Huston

Source

Finke, M. S., & Huston, S. J. (2004). Risk and myopic financial decisions. *Journal of Personal Finance, 3*(3), 99–112.

Description

This scale was designed to assess a respondent's time preference. According to the authors, "Each variable represents a response that is comparatively more forward-thinking (for example not using cigarettes) and a response that is less forward-thinking (currently smoking). Categorization based on thresholds (for example 30 drinks per month) was chosen as the most logical based on frequency of responses to the multiple-choice questionnaire . . . Four of the eight scale items focus on risky health-related behaviors such as cigarette smoking, substantial alcohol use, use of marijuana, and engaging in unprotected sex. Preventive health behaviors such as vaccination, medical checkups, and healthy diet choice are also included as part of the time preference scale. Finally, gambling frequency is also included as an indicator of those who experience present utility by seeking potential instant gratification . . . Individuals who indicate engaging in activities which compromise health – cigarette smoking, substantial alcohol use, marijuana use, and engaging in unprotected sex – are considered to have higher rates of future utility discounting compared to those who do not engage in these activities. Those who do not engage in preventive medical treatment (vaccination, doctor visits), do not choose healthy diets, and frequent gambling establishments are considered to have relative high rates of future utility discounting compared to those who do engage in these activities" (pp. 102–103).

Test Sample

The scale was tested with data "from a questionnaire that was administered to 259 undergraduate students in an introductory psychology class serving a variety of students at a large Midwestern university in the fall semester of 2002" (p. 101).

Scoring

According to the authors, "Binary variables were constructed in which each item was nominally coded such that the value of 1 represents a more present time orientation (higher rate of utility discounting indicating less willingness to subvert present utility) and the value of zero represents a more future time orientation (lower rate of future discounting indicating more willingness to subvert present utility). When items in the scale are added, a higher score represents a higher rate of discounting future utility while a lower score represents a relatively lower rate of discounting future utility . . . The possible range of scores on the time preference scale is from 0 to 8, with 0 indicating a relatively low rate and 8 indicating a relatively high rate of discounting future utility" (pp. 108–109).

Reliability

Not reported

Validity

According to the authors, "Results from a relatively heterogeneous group of undergraduate students confirm a strong association between relatively more myopic individual behaviors and a preference for money right now at the expense of money received in the future. Descriptive statistics indicate strong correlations between unwillingness to wait for financial reward and behaviors involving both sensation-seeking characteristics (such as drug use and unprotected sex) and preventive health behaviors unrelated to sensation seeking (such as frequency of doctor visits, preference for healthy foods and willingness to accept a vaccination). These results are consistent with the hypothesis that savings and investment behavior are strongly and consistently related to the willingness to defer gratification. The results also help explain behaviors unrelated to sensation seeking whose intertemporal component make them possible predictors of investment behavior" (p. 109).

Source Reference(s)

None

Note(s)

None

Item(s)

Time preference scale

Variable	Item	Recoded scoring
Cigarette use	Do you smoke everyday? (yes/no)	Yes = 1 Else = 0
Alcohol use	Alcohol drink consumption last month (5 categories (none to 60 or more))	30 or more = 1 Else = 0
Marijuana use	Used marijuana in last year (5 categories (never to more than 20))	Used = 1 Else = 0

Time Preference Scale (continued)

Variable	Item	Recoded scoring
Diet choice	Choose foods to reduce diet related disease risks (cancer, heart disease) (4-point Likert-type (strongly agree to strongly disagree))	Strongly agree = 0 Else = 1
Vaccination	Vaccination to reduce chances of getting sick (no, probably, definitely)	No = 1 Else = 0
Doctor visits	Visit doctor for check ups (never to more than 2/year)	< 1/year = 1 Else = 0
Unprotected sex	Unprotected sex during the last year? (yes, no, did not have)	Yes = 1 Else = 0
Gambling frequency	How frequently have you visited a casino or other gambling establishment during the last year? (never to more than 10 visits)	Never = 0 Else = 1

Title

Financial Problems Index

Key Words

Financial Behavior, Financial Stress, Financial Problems

Author(s)

Masud Jariah, A. R. Husniyah, P. Laily, and Sonya Britt

Source

Jariah, M., Husniyah, A. R., Laily, P., & Britt, S. (2004). Financial behavior and problems among university students: Need for financial education. *Journal of Personal Finance, 3*(1), 82–96.

Description

This index was designed to evaluate the types of financial problems that lead to a person's need for financial counseling. The items were adopted from a list used by the Financial Counseling Clinic at Iowa State University.

Test Sample

According to the authors, “A self-administered questionnaire was used to collect the data in this study. Ten percent of all students receiving student loans from one public university participated in this study. The data was collected during 3 days the students were receiving their loan warrants in December for the 2002 semester . . . One out of every tenth student was given the questionnaire to be completed while they were waiting for their loan voucher. Students were asked to complete the questionnaire and return it on their way out of the hall. Eighteen hundred questionnaires were distributed and fifteen hundred were returned and usable” (p. 86).

Scoring

An agree/disagree scoring system is used with this index. Agreements are coded 1, otherwise 0. Scores are summed. Higher scores suggest that the respondent is engaging in problematic financial behavior.

Reliability

Not reported

Validity

According to the authors, “A higher percentage of males compared to females reported experiencing the problems listed. More than half of all respondents reported skipping meals to save money. Those who live off campus tended to eat instant noodles to save money, since food was not provided with their housing” (p. 90).

Source Reference(s)

None

Note(s)

None

Item(s)

Financial behavior index

Items	Scoring
Gambling	Agree = 1 Disagree = 0
Too much debt	Agree = 1 Disagree = 0
Inability to pay debt	Agree = 1 Disagree = 0
Spend money on cigarettes	Agree = 1 Disagree = 0
Expenses greater than income	Agree = 1 Disagree = 0
No savings	Agree = 1 Disagree = 0
Spend too much	Agree = 1 Disagree = 0
Finance effect studies	Agree = 1 Disagree = 0
Do not know how to cut spending	Agree = 1 Disagree = 0
No spending plan	Agree = 1 Disagree = 0
Insufficient money until end of semester	Agree = 1 Disagree = 0
Cannot keep track of money	Agree = 1 Disagree = 0
Eat noodles to save money	Agree = 1 Disagree = 0
Unable to increase income	Agree = 1 Disagree = 0
Skip meals to save money	Agree = 1 Disagree = 0

Title

Financial Management Roles and Satisfaction

Key Words

Financial Roles, Couples, Financial Therapy, Financial Role Satisfaction, farm

Author(s)

Kristy L. Archuleta

Source

Archuleta, K. L. (2008). *The impact of dyadic processes and financial management roles on farm couples.* Unpublished Doctoral Dissertation, Kansas State University, Manhattan, KS.

Description

The measure was developed to assess financial management role involvement each partner's satisfaction level with their role responsibility. The scale is comprised of two subscales the Financial Management Role Scale (FMR) and the Financial Management Role Satisfaction Scale (FRMS).

Test Sample

The instrument was evaluated with 55 individuals who indicating being in an intimate relationship (i.e., married, cohabitating, or dating).

Respondents appeared to be satisfied with their level of participation in each financial management role. Satisfaction of financial management role involvement was measured with a 7-point Likert-type scale, with 1 being "extremely unsatisfied" and 7 representing "extremely satisfied." Overall, respondents reported a mean satisfaction level of 5.20.

Scoring

Each subscale is scored separately. Financial management roles were assessed using two different 7-point Likert-type scales. The first component of the Financial Management Roles (FMR) assessment asked respondents to indicate the level of spousal involvement in specific financial management roles from a list of 19 topics (e.g. bookkeeping, financial decision-making, taxes, etc.). Financial management roles were identified in previous research of farm women (Archuleta, 2005). A score of "1" indicated that the financial management role was primarily the participant's responsibility. A score of "7" indicated that the role was the participant's partner's primary responsibility.

The second component of the FMR assessment asked respondents his/her level of satisfaction of his/her involvement in each specific financial role (FMRS). A score of "1" indicated that the participant was extremely unsatisfied in his/her involvement. A score of "7" indicated that the participant was extremely satisfied in his/her involvement.

Reliability

No pre-existing reliability data was available for these scales; however, in this study, Cronbach's alpha was 0.93 for FMR and 0.776 for FRMS.

Validity

Validity was not reported

Source Reference(s)

Archuleta, K. L. (2005). *Farm wives level of involvement in the financial management of the farm operation and their perception of marital quality*. Unpublished master's thesis, Kansas State University, Manhattan, KS.

Note(s)

Item(s)

Financial management roles and satisfaction

Financial management roles	Please check the box beside each task(s) in which you participate.	What is your level of involvement in each task? On a scale from 1 to 7, indicate if you have primary responsibility of the task, the same amount of responsibility of the task as your partner, or your partner has primary responsibility	On a scale from 1 to 7, what is your level of satisfaction with each task you perform?
Bookkeeper		1 = Your primary responsibility 4 = Joint 7 = Your partner's primary responsibility	1 = Extremely unsatisfied 4 = Joint 7 = Extremely satisfied
Record tracking		1 = Your primary responsibility 4 = Joint 7 = Your partner's primary responsibility	1 = Extremely unsatisfied 4 = Joint 7 = Extremely satisfied
Bill paying		1 = Your primary responsibility 4 = Joint 7 = Your partner's primary responsibility	1 = Extremely unsatisfied 4 = Joint 7 = Extremely satisfied
Employee wages		1 = Your primary responsibility 4 = Joint 7 = Your partner's primary responsibility	1 = Extremely unsatisfied 4 = Joint 7 = Extremely satisfied

Financial management roles and satisfaction (continued)

Financial decision-making	1 = Your primary responsibility 4 = Joint 7 = Your partner's primary responsibility	1 = Extremely unsatisfied 4 = Joint 7 = Extremely satisfied
Taxes	1 = Your primary responsibility 4 = Joint 7 = Your partner's primary responsibility	1 = Extremely unsatisfied 4 = Joint 7 = Extremely satisfied
Farm related insurance	1 = Your primary responsibility 4 = Joint 7 = Your partner's primary responsibility	1 = Extremely unsatisfied 4 = Joint 7 = Extremely satisfied
Family related insurance	1 = Your primary responsibility 4 = Joint 7 = Your partner's primary responsibility	1 = Extremely unsatisfied 4 = Joint 7 = Extremely satisfied
Equipment purchases/sales	1 = Your primary responsibility 4 = Joint 7 = Your partner's primary responsibility	1 = Extremely unsatisfied 4 = Joint 7 = Extremely satisfied
Buy/sell commodities	1 = Your primary responsibility 4 = Joint 7 = Your partner's primary responsibility	1 = Extremely unsatisfied 4 = Joint 7 = Extremely satisfied
Marketing	1 = Your primary responsibility 4 = Joint 7 = Your partner's primary responsibility	1 = Extremely unsatisfied 4 = Joint 7 = Extremely satisfied
Information gathering	1 = Your primary responsibility 4 = Joint 7 = Your partner's primary responsibility	1 = Extremely unsatisfied 4 = Joint 7 = Extremely satisfied
Livestock purchases/sales	1 = Your primary responsibility 4 = Joint 7 = Your partner's primary responsibility	1 = Extremely unsatisfied 4 = Joint 7 = Extremely satisfied
Crop production	1 = Your primary responsibility 4 = Joint 7 = Your partner's primary responsibility	1 = Extremely unsatisfied 4 = Joint 7 = Extremely satisfied

Financial management roles and satisfaction (continued)

Computer database management	1 = Your primary responsibility 4 = Joint 7 = Your partner's primary responsibility	1 = Extremely unsatisfied 4 = Joint 7 = Extremely satisfied
Retirement planning	1 = Your primary responsibility 4 = Joint 7 = Your partner's primary responsibility	1 = Extremely unsatisfied 4 = Joint 7 = Extremely satisfied
Estate planning	1 = Your primary responsibility 4 = Joint 7 = Your partner's primary responsibility	1 = Extremely unsatisfied 4 = Joint 7 = Extremely satisfied
Execution of legal proceedings	1 = Your primary responsibility 4 = Joint 7 = Your partner's primary responsibility	1 = Extremely unsatisfied 4 = Joint 7 = Extremely satisfied
Communicating to spouse, corporation, employees, landowners, partners, family members, etc	1 = Your primary responsibility 4 = Joint 7 = Your partner's primary responsibility	1 = Extremely unsatisfied 4 = Joint 7 = Extremely satisfied
Other	1 = Your primary responsibility 4 = Joint 7 = Your partner's primary responsibility	1 = Extremely unsatisfied 4 = Joint 7 = Extremely satisfied

Title

Credit Card Knowledge Scale

Key Words

Knowledge of Credit Cards, Credit Cards

Author(s)

Phylis M. Mansfield and Mary Beth Pinto

Source

Mansfield, P. M., & Pinto, M. B. (2008). Consumer vulnerability and credit card knowledge among developmentally disabled citizens. *The Journal of Consumer Affairs, 42*, 37–59.

Description

Items on the survey were altered from Lachance, Beaudoin, and Robitaile (2006) for developmentally disabled participants to evaluate their knowledge of credit cards. Happy/sad faces are used to help participants respond to the survey. Each question that was responded to with a "yes" answer was followed up with an open-ended question. Only the closed ended questions are listed.

Norms

The scale was evaluated with 46 people with developmental disabilities in northwestern Pennsylvania.

Scoring

Responses are "Yes," "I don't know," or "No." Each uses a pictorial representation as shown below.

Reliability

Not reported

Validity

Not reported

Source Reference(s)

Note(s)

Item(s)

Credit card knowledge scale

Items	Scoring
1. Do you know what a credit card is?	Yes = ☺
2. Do you know what a minimum payment is?	I don't know = ?
3. Do you know what happens when you don't pay your bill on time?	No = ☹
4. Do you know what happens when you don't pay whole amount of a credit card bill?	
5. Do you know what an interest rate is?	
6. Do you know what it means when you are "preapproved"?	

Title

Financial Knowledge Scale

Key Words

Financial Management, Financial Knowledge

Author(s)

Vanessa G. Perry and Marlene D. Morris

Source

Perry, V. G., & Morris, M D. (2005). Who is in Control? The role of self-perception, knowledge, and income in explaining consumer financial behavior. *The Journal of Consumer Affairs, 39*, 299–313.

Description

The authors report that the financial knowledge scale used is a multi-item scale that measures an individual's self-assessed rating of knowledge about financial matters related to borrowing and investing.

Norms

The scale was part of the 1999 Freddie Mac Consumer Credit Survey of which 10,997 individuals between the ages of 20–40 years-old with income less than $75,000 responded the survey.

Scoring

Responses ranges from "Nothing" to "A lot." Summated scores range from 5 to 25 with higher scores reflecting higher levels of responsible financial behavior.

Reliability

Cronbach's alpha = 0.91.

Validity

The authors reported a variety of validity measures and procedures for establishing validity of the scale.

Source Reference(s)

Flynn, L. R., & Goldsmith, R. E. (1999). A short reliable measure of subjective knowledge. *Journal of Business Research, 46, September*, 57–66.

Note(s)

The scale was included in the 1999 Freddie Mac Consumer Credit Survey, which collected information on individual and household characteristics of consumers.

Item(s)

Financial knowledge scale

Items	Scoring
How much do you know about the following?	Responses are checked from nothing to a lot
1. Interest rates, finance charges, and credit terms	1 = Nothing
2. Credit ratings and credit files	2 = Very little
3. Managing finances with the problems of life	3 = Some
4. Investing money	4 = A fair amount
5. What is on your credit report	5 = A lot

Title

Financial Literacy Scale

Key Words

Financial Management, Financial Knowledge, Financial Literacy

Author(s)

Tahira K. Hira and Cazilla Loibl

Source

Hira, T. K., & Loibl, C. (2005). Understanding the impact of employer-provided financial education on workplace satisfaction. *The Journal of Consumer Affairs, 39*, 173–194.

Description

A five-item measurement used to assess individual's financial literacy.

Norms

The measurement was tested with 1,486 individuals in “West Central” U.S.

Scoring

The scale is a five-point Likert-type scale ranging from “Strongly Disagree” to “Strongly Agree.” The higher scores reflect higher financial literacy.

Reliability

Not reported

Validity

Not reported

Source Reference(s)

Note(s)

Item(s)

Financial literacy scale

Items	Scoring
1. I have a very clear idea of my financial need during retirement 2. I have a better understanding now of how to invest my money than I did 6 months ago 3. I feel more informed now about how to provide for my financial future than I did 6 months ago 4. I have a better understanding now of how to manage my credit use than I did 6 months ago	Five-point Likert-type scale 1 = Strongly disagree 5 = Strongly agree

Title

Household Money Management Questionnaire

Key Words

Attitude towards Household Finances, Financial Behavior, Financial Management Behavior, Financial Management, Decision-Making

Author(s)

Diane M. McConocha, Shirlee A. Tully, and Carl H. Walther

Source

McConocha, D. M., Tully, S. A., & Walther, C. H. (1993). Household money management: Recognizing nontraditional couples. *The Journal of Consumer Affairs, 27*, 258–283.

Description

A ten-item questionnaire related to the influence of partners in household financial tasks.

Norms

The measurement was tested with 120 individuals who were male-female couples and had purchased property as their residence in a Midwestern city.

Scoring

Respondents answered each item with "mostly she decides for both," "mostly he decides for both," "usually separate for each of us," "mostly together," or "not applicable."

Reliability

Not reported

Validity

Not reported

Source Reference(s)

Note(s)

Item(s)

Household money management questionnaire

Items	Scoring
Household financial management	Responses options include:
1. Setting overall budget for household	Mostly she decides for both
2. Getting credit and financing	Mostly he decides for both
3. Developing a savings plan	Usually separate for each of us
4. Handling leftover money	Mostly together
5. Managing checking accounts	Not applicable
6. Prioritizing bill payments	
7. Amount to pay on bank cards	
8. Amount to pay on department store credit cards	
9. Developing other investments	
10. Overall financial decision making in the household	

Title

Perceived Knowledge Scale

Key Words

Knowledge towards Buying, Buying Behavior, Consumer Behavior

Author(s)

Lois A. Mohr, Dogan Eroglu, and Pam Scholder Ellen

Source

Mohr, L. A., Eroğlu, D., & Ellen, P. S. (1998). The development and testing of a measure of skepticism toward environmental claims in marketers' communications. *The Journal of Consumer Affairs, 27*, 258–283.

Description

A six-item instrument developed to measure solid waste issues.

Norms

The measurement was tested with 301 students at a large southeastern university with a very high proportion of nontraditional students. See Ellen, Eroğlu, and Webb (1997) for original norms.

Scoring

Perceived knowledge is scored on a seven-point Likert-type scale with a summative score ranging from 6 to 42. See Ellen, Eroğlu, and Webb (1997) for more details.

Reliability

Cronbach's alpha = 0.86, as reported by Ellen, Eroğlu, and Webb (1997).

Validity

Not reported

Source Reference(s)

Ellen, P. S., Eroğlu, D., & Webb, D. J. (1997). *Consumer judgments in a changing information environment: how consumers respond to 'Green Marketing' claims*. Cited as a working paper, Georgia State University.

Note(s)

Item(s)

Perceived knowledge scale

Items	Scoring
Perceived knowledge	
1. I know that I buy products and packages that are environmentally safe	
2. I know more about recycling than the average person	
3. I know how to select products and packages that reduce the amount of waste ending up in landfills	
4. I understand the environmental phrases and symbols on product packages	
5. I am confident that I know how to sort my recyclables properly	
6. I am very knowledgeable about environmental issues	

Chapter 6
Measures of Risk

John E. Grable, Kristy L. Archuleta, and R. Roudi Nazarinia

Title

Financial Risk-Tolerance Assessment Instrument

Key Words

Risk Tolerance, Risk Attitude

Author(s)

John E. Grable and Ruth H. Lytton

Source

Grable, J. E., & Lytton, R. H. (1999). Financial risk tolerance revisited: The development of a risk assessment instrument. *Financial Services Review, 8,* 163–181.

Description

The risk-tolerance assessment instrument was developed for the purpose of allowing financial advisors, researchers, and students to measure risk attitudes with a valid and reliable measure of financial risk tolerance.

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J.E. Grable et al. (eds.), *Financial Planning and Counseling Scales*,
DOI 10.1007/978-1-4419-6908-8_6,

Test Sample

Norming data is collected on an ongoing basis at http://njaes.rutgers.edu/money/riskquiz/. Scores are typically categorized as follows: 0–18 low; 19–22 below average; 23–28 average/moderate; 29–32 above average; and 33–47 high. Scores tend to be stable for all but the highest income-net worth individuals.

Scoring

A risk-tolerance score is calculated by summing scores for each question using the following scoring system:

1. a=4; b=3; c=2; d=1
2. a=1; b=2; c=3; d=4
3. a=1; b=2; c=3; d=4
4. a=1; b=2; c=3
5. a=1; b=2; c=3
6. a=1; b=2; c=3; d=4
7. a=1; b=2; c=3; d=4
8. a=1; b=2; c=3; d=4
9. a=1; b=3
10. a=1; b=3
11. a=1; b=2; c=3; d=4
12. a=1; b=2; c=3
13. a=1; b=2; c=3; d=4

Scores are summed. Higher scores indicate an enhanced willingness to engage in a financial behavior in which there is the possibility of loss.

Reliability

Reported reliability estimates have ranged from 0.68 to 0.87, with a typical Cronbach's alpha in the 0.70–0.75 range.

Validity

The measure was developed using factor analysis techniques. The 13-item instrument was found to measure financial risk tolerance on three constructs: (a) investment risk (items 4, 5, 8, 11, 12); (b) risk comfort and experience (items 1, 3, 6, 7, 13); and (c) speculative risk (2, 9, 10). Scores were initially correlated with the Survey of Consumer Finances (SCF) risk-tolerance assessment question at the 0.54 level. The SCF item reads:

Which of the following statements on this page comes closest to the amount of financial risk that you are willing to take when you save or make investments?

1. Take substantial financial risk expecting to earn substantial returns
2. Take above-average financial risks expecting to earn above-average returns
3. Take average financial risks expecting to earn average returns
4. Not willing to take any financial risks

Source Reference(s)

The instrument has been used in a number of survey studies. Private practitioners also use the measure with clients. Examples of the instrument's use include the following:

Grable, J. E., & Joo, S-H. (2004). Environmental and biopsychosocial factors associated with financial risk tolerance. *Financial Counseling and Planning, 15*(1), 73–88.

Grable, J. E., Lytton, R. H., & O'Neill, B. (2004). Projection bias and financial risk tolerance. *The Journal of Behavioral Finance, 5*, 240–245.

Grable, J. E., & Lytton, R. H. (1998). Investor risk tolerance: Testing the efficacy of demographics as differentiating and classifying factors. *Financial Counseling and Planning, 9*(1), 61–74.

Grable, J. E., & Lytton, R. H. (2001). Assessing the current validity of the SCF risk tolerance questions. *Financial Counseling and Planning, 12*(1), 43–52.

Yang, Y. (2004). Characteristics of risk preferences: Revelations from Grable and Lytton's 13-item questionnaire. *Journal of Personal Finance, 3*(3), 20–40.

Note(s)

The instrument may be used by researchers and students with appropriate referencing.

Item(s)

Financial Risk-Tolerance Assessment Instrument

1. In general, how would your best friend describe you as a risk taker?
   a. A real gambler
   b. Willing to take risks after completing adequate research
   c. Cautious
   d. A real risk avoider

2. You are on a TV game show and can choose one of the following. Which would you take?
   a. $1,000 in cash
   b. A 50% chance at winning $5,000
   c. A 25% chance at winning $10,000
   d. A 5% chance at winning $100,000
3. You have just finished saving for a "once-in-a-lifetime" vacation. Three weeks before you plan to leave, you lose your job. You would:
   a. Cancel the vacation
   b. Take a much more modest vacation
   c. Go as scheduled, reasoning that you need the time to prepare for a job search
   d. Extend your vacation, because this might be your last chance to go first class
4. If you unexpectedly received $20,000 to *invest*, what would you do?
   a. Deposit it in a bank account, money market account, or an insured CD
   b. Invest it in safe high quality bonds or bond mutual funds
   c. Invest it in stocks or stock mutual funds
5. In terms of experience, how comfortable are you investing in stocks or stock mutual funds?
   a. Not at all comfortable
   b. Somewhat comfortable
   c. Very comfortable
6. When you think of the word "risk" which of the following words comes to mind first?
   a. Loss
   b. Uncertainty
   c. Opportunity
   d. Thrill
7. Some experts are predicting prices of assets such as gold, jewels, collectibles, and real estate (hard assets) to increase in value; bond prices may fall, however, experts tend to agree that government bonds are relatively safe. Most of your investment assets are now in high interest government bonds. What would you do?
   a. Hold the bonds
   b. Sell the bonds, put half the proceeds into money market accounts, and the other half into hard assets
   c. Sell the bonds and put the total proceeds into hard assets
   d. Sell the bonds, put all the money into hard assets, and borrow additional money to buy more

8. Given the best and worst case returns of the four investment choices below, which would you prefer?

   a. $200 gain best case; $0 gain/loss worst case
   b. $800 gain best case; $200 loss worst case
   c. $2,600 gain best case; $800 loss worst case
   d. $4,800 gain best case; $2,400 loss worst case

9. In addition to whatever you own, you have been given $1,000. You are now asked to choose between:

   a. A sure gain of $500
   b. A 50% chance to gain $1,000 and a 50% chance to gain nothing

10. In addition to whatever you own, you have been given $2,000. You are now asked to choose between:

    a. A sure loss of $500
    b. A 50% chance to lose $1,000 and a 50% chance to lose nothing

11. Suppose a relative left you an inheritance of $100,000, stipulating in the will that you invest ALL the money in ONE of the following choices. Which one would you select?

    a. A savings account or money market mutual fund
    b. A mutual fund that owns stocks and bonds
    c. A portfolio of 15 common stocks
    d. Commodities like gold, silver, and oil

12. If you had to invest $20,000, which of the following investment choices would you find most appealing?

    a. 60% in low-risk investments, 30% in medium-risk investments, 10% in high-risk investments
    b. 30% in low-risk investments 40% in medium-risk investments, 30% in high-risk investments
    c. 10% in low-risk investments, 40% in medium-risk investments, 50% in high-risk investments

13. Your trusted friend and neighbor, an experienced geologist, is putting together a group of investors to fund an exploratory gold mining venture. The venture could pay back 50–100 times the investment if successful. If the mine is a bust, the entire investment is worthless. Your friend estimates the chance of success is only 20%. If you had the money, how much would you invest?

    a. Nothing
    b. One month's salary
    c. Three month's salary
    d. Six month's salary

Title

Financial Risk Aversion Measure

Key Words

Risk Aversion, Risk Tolerance

Author(s)

Sherman D. Hanna and Suzanne Lindamood

Source

Hanna, S. D., & Lindamood, S. (2004). An improved measure of risk aversion. *Financial Counseling and Planning, 15*(2), 27–38.

Description

This measure of financial risk aversion (i.e., the theoretical opposite of risk tolerance) was designed to be used in economic modeling of optimal portfolio choice. The measure is based on economic gambles.

Test Sample

The measure was tested using a sample of 152 college students enrolled at Ohio State University in 2001. Age of respondents ranged from 21 to 44 years.

Scoring

See measure below.

Reliability

Not reported

Validity

Scores on the measure were found to be significantly correlated with relative risk aversion as measured by the Survey of Consumer Finances risk item.

Source Reference(s)

Barsky, R. B., Juster, F. T., Kimball, M. S., & Shapiro, M. D. (1997). Preference parameters and behavioral heterogeneity: An experimental approach in the Health and Retirement Study. *Quarterly Journal of Economics, 112*, 537–579.

Hanna, S. D., Gutter, M. S., & Fan, J. X. (2001). A measure of risk tolerance based on economic theory. *Financial Counseling and Planning, 12*(2), 53–60.

Note(s)

The original instrument included graphical representations of each question in the survey. Researchers interested in replicating the instrument exactly as published should review the source article for an example of the visual representations.

Item(s)

Financial Risk Aversion Measure

1. Suppose that you are about to retire, and have two choices for a pension.
   Pension A gives you an income equal to your preretirement income.
   Pension B has a 50% chance your income will be double your preretirement income, and a 50% chance that your income will be *20%* less than your preretirement income.
   You will have no other source of income during retirement, no chance of employment, and no other family income ever in the future.
   All incomes are after-tax.
   Which pension would you choose?
   If A, go to #2
   If B, go to #5

2. Suppose that you are about to retire, and have two choices for a pension
   Pension A gives you an income equal to your preretirement income.
   Pension C has a 50% chance your income will be double your preretirement income, and a 50% chance that your income will be *10%* less than your preretirement income.
   You will have no other source of income during retirement, no chance of employment, and no other family income ever in the future.
   All incomes are after-tax.
   Which pension would you choose?
   If A, go to #3
   If C, your subjective risk tolerance is *Moderate*

3. Suppose that you are about to retire, and have two choices for a pension
   Pension A gives you an income equal to your preretirement income.
   Pension B has a 50% chance your income will be double your preretirement income, and a 50% chance that your income will be *8%* less than your preretirement income.
   You will have no other source of income during retirement, no chance of employment, and no other family income ever in the future.
   All incomes are after-tax.
   Which pension would you choose?
   If A, go to #4
   If D, your subjective risk tolerance is *Low*

4. Suppose that you are about to retire, and have two choices for a pension
   Pension A gives you an income equal to your preretirement income.
   Pension B has a 50% chance your income will be double your preretirement income, and a 50% chance that your income will be *5%* less than your preretirement income.
   You will have no other source of income during retirement, no chance of employment, and no other family income ever in the future.
   All incomes are after-tax.
   Which pension would you choose?
   If A, your subjective risk tolerance is *Extremely Low*
   If E, your subjective risk tolerance is *Very Low*

5. Suppose that you are about to retire, and have two choices for a pension
   Pension A gives you an income equal to your preretirement income.
   Pension F has a 50% chance your income will be double your preretirement income, and a 50% chance that your income will be *one third* less than your preretirement income.
   You will have no other source of income during retirement, no chance of employment, and no other family income ever in the future.
   All incomes are after-tax.
   Which pension would you choose?
   If A, your subjective risk tolerance is *Moderately High*
   If F, go to #6

6. Suppose that you are about to retire, and have two choices for a pension
   Pension A gives you an income equal to your preretirement income.
   Pension G has a 50% chance your income will be double your preretirement income, and a 50% chance that your income will be *half* of your preretirement income.
   You will have no other source of income during retirement, no chance of employment, and no other family income ever in the future.
   All incomes are after-tax.
   Which pension would you choose?
   If A, your subjective risk tolerance is *Very High*
   If G, your subjective risk tolerance is *Extremely High*

Title

Financial Risk-Tolerance Scale

Key Words

Risk Tolerance, Risk Aversion

Author(s)

John E. Grable and So-hyun Joo

Source

Grable, J. E., & Joo, S. (2004). Environmental and biopsychosocial factors associated with financial risk tolerance. *Financial Counseling and Planning, 15*(1), 73–88.

Description

The scale was developed using the following guidelines: (a) the items offer reasonable face validity, (b) when summed, the items provide a scale score of risk tolerance, (c) the items are easy for respondents to answer, (d) the items and resulting scale are easy to administer. The scale was first used by Grable and Joo (2001).

Test Sample

The scale was tested using a sample of 460 faculty and staff from two Midwestern U.S. universities.

Scoring

According to the authors, "Respondents must choose from the following responses to each item: (a) strongly agree, (b) tend to agree, (c) tend to disagree, and (d) strongly disagree. Responses are coded as 1, 2, 3, or 4, respectively, and a summated score is generated for each subject. The average summated score for respondents is 12.86, with a standard deviation of 3.01. The median score is 13.00, with scores ranging from 5.00 to 20.00" (p. 76). Higher scores are indicative of increased risk tolerance.

Reliability

Cronbach's alpha = 0.80.

Validity

Scale scores were positively associated with education, net worth, household income, financial knowledge, and self-esteem, as predicted in the risk-taking literature.

Source Reference(s)

Grable, J. E., & Joo, S. (2001). A further examination of financial help-seeking behavior. *Financial Counseling and Planning, 12*(1), 55–66.

Note(s)

None

Item(s)

Financial risk-tolerance scale

Items	Scoring
Investing is too difficult to understand	1 = Strongly agree 2 = Tend to agree 3 = Tend to disagree 4 = Strongly disagree
I am more comfortable putting my money in a bank account than in the stock market	1 = Strongly agree 2 = Tend to agree 3 = Tend to disagree 4 = Strongly disagree
When I think of the word "risk" the term "loss" comes to mind immediately	1 = Strongly agree 2 = Tend to agree 3 = Tend to disagree 4 = Strongly disagree
Making money in stocks and bonds is based on luck	1 = Strongly agree 2 = Tend to agree 3 = Tend to disagree 4 = Strongly disagree
In terms of investing, safety is more important than returns	1 = Strongly agree 2 = Tend to agree 3 = Tend to disagree 4 = Strongly disagree

Title

Risk Perception Scale

Key Words

Risk Perception, Risk Tolerance, Retirement Decision Making

Author(s)

Ivo Vlaev, Nick Chater, and Neil Stewart

Source

Vlaev, I., Chater, N., & Stewart, N. (2009). Dimensionality of risk perception: Factor affecting consumer understanding and evaluation of financial risk. *The Journal of Behavioral Finance, 10*, 158–181.

Description

This 20-item scale was developed to help researchers understand how a person's perception of financial product risk affects retirement investment decisions. This scale is titled "Part II. FACTORS AFFECTING YOUR RISK PERCEPTIONS and FINANCIAL DECISIONS" (P. 172).

Testing Sample

The scale was used in a test that examined individual's conceptions of risk in the personal finance domain. A total of 56 adult participants ranging in age from 19 to 59 completed the scale items.

Scoring

A seven-item Likert-type system is used to score each item. Respondents are asked to "think about the extent to which your decisions might be affected and circle the appropriate number on the scale from 1 (not at all affected) to 7 (very much affected). Scores are summed. High scores indicate that risk perception has a large effect on retirement decision making" (p. 172).

Reliability

Not reported

Validity

The authors found that the self-reported risk factors matched expectations that people do tend to worry about investment risks.

Source Reference(s)

None

Note(s)

None

Item(s)

Contact authors and journal publisher for reprinting permissions.

Title

Risk-Tolerance Scale

Key Words

Risk Tolerance, Risk Aversion

Author(s)

Michael J. Roszkowski

Source

Roszkowski, M. J. (1992). How to assess a client's financial risk tolerance: The basics. *Personal Financial Risk Tolerance*. Bryn Mawr, PA: The American College.

Description

According to Roszkowski and Grable (2005), the initial form of the Survey of Financial Risk Tolerance (SOFRT) "consisted of 66 questions, three of which had sub-parts. The total number of items on the questionnaire was thus 93. On the basis of an item-analysis, only 51 items were retained for scoring. However, in one of the multi-part questions, six additional items were retained to provide a context for the portion of the question that was to be scored" (p. 37). The final version of the instrument has 51 items that can be used to calculate a person's risk tolerance.

Test Sample

The instrument was normed using data from samples of financial planners and their clients.

Scoring

The questions on the SOFRT are varied in nature, including: preferences for different investment vehicles, expected returns, reactions to sample portfolios, lifestyle characteristics, probability and payoff preferences, preferences for guaranteed versus probable gambles, minimal required probability of success, and minimal return required to undertake a risky venture. The last question on the SOFRT requires the respondent to classify himself or herself into one of seven financial risk-tolerance categories:

Extremely Low Risk Taker; Very Low Risk Taker; Low Risk Taker; Average Risk Taker; High Risk Taker; Very High Risk Taker; and Extremely High Risk Taker. Overall, higher scores suggest a high financial risk tolerance.

Reliability

Cronbach's alpha for the original sample was 0.91. Other estimates have ranged from 0.81 to 0.86.

Validity

The instrument was developed using validity comparisons. The scale is generally considered to be one of the most valid measures of risk tolerance.

Source Reference(s)

Roszkowski, M. J., & Grable, J. E. (2005). Estimating risk tolerance: The degree of accuracy and the paramorphic representations of the estimate. *Financial Counseling and Planning, 16*(2), 29–48.

Note(s)

The Roszkowski and Grable (2005) paper provides a good overview of the survey instrument. Prior permission is required from The American College before using the instrument; a fee may apply.

Item(s)

Not provided

Title

Financial Risk-Tolerance Scale

Key Words

Risk Tolerance, Risk Taking, Risk Aversion

Author(s)

Yinghao M. Li, Jinkook Lee, and Brenda J. Cude

Source

Li, Y. M., Lee, J., & Cude, B. J. (2002). Intention to adopt online trading: Identifying the future online traders. *Financial Counseling and Planning, 13*(2), 49–64.

Description

This brief scale was developed as part of a study designed to differentiate between future and non-future adopters of online investment trading. This scale measures a person's preference toward taking savings and investments risks.

Test Sample

The scale was tested with an investor subsample of 3,759 MacroMonitor database. "MacroMonitor is a biennial survey conducted by the Consumer Finance Decision section of SRI Consulting Corporation. It focuses on retail financial services and covers attitudes, behaviors, and motivations related to financial services" (p. 52). According to the authors, "Since confidence, investment risk preference, price sensitivity, attitude toward human interaction, and attitude toward using investment advice were measured with multiple items, factor analysis was used. Principle component factor analysis was conducted, and using varimax rotation, an orthogonal factor structure was obtained to avoid multicollinearity" (pp. 52–53).

Scoring

Scale questions were coded on a four-point Likert-type scale ranging from 1 = mostly agree to 4 =mostly disagree. A high score indicates that respondents prefer investment risk, while low scores suggest a risk avoidance preference.

Reliability

Not reported

Validity

Not reported

Source Reference(s)

None

Note(s)

None

Item(s)

Financial risk-tolerance scale

Items	Scoring
I am willing to take substantial risks to realize substantial financial gains from investments[a]	1 = Mostly agree 4 = Mostly disagree
I am willing to accept some risk of loosing money if an investment is likely to come out ahead of inflation in the long run[a]	1 = Mostly agree 4 = Mostly disagree
It is wise to put some portion of savings in uninsured investments to get a high yield[a]	1 = Mostly agree 4 = Mostly disagree
It is very important for me to have both a guaranteed interest rate and federal insurance on my savings	1 = Mostly agree 4 = Mostly disagree
The stock market is too risky for me	1 = Mostly agree 4 = Mostly disagree

[a]Reverse code item

Title

Financial Risk-Tolerance Scale

Key Words

Risk Tolerance, Risk Taking

Author(s)

So-Hyun Joo and Vanda W. Pauwels

Source

Joo, S-H., & Pauwels, V. W. (2002). Factors affecting workers' retirement confidence: A gender perspective. *Financial Counseling and Planning, 13*(1), 1–10.

Description

The authors used the 1999 Retirement Confidence Survey (RCS) to construct this scale. The items were part of the original RCS and were combined using a factor analysis technique to create this scale. This scale can be used to assess a person's willingness to engage in a financial behavior that entails the possibility of financial loss, as well as gain.

Test Sample

The scale was created and tested using data from the RCS. The sample was delimited to include only respondents who were employed either full- or part-time. Joo and Grable (2005) reported a varimax rotation to develop this scale. The ninth annual RCS included 751 workers and 251 retirees surveyed between January and February 1999. The sample was deemed to be nationally representative.

Scoring

A four-point Likert-type scale, with 1 = strongly disagree and 4 = strongly agree, is used with this scale. Higher scores indicate increased risk aversion. The items can also be scored with a four-point Likert-type scale, with 1 = not at all, 2 = not too well, 3 = well, and 4 = very well. If this method is used, possible scores can range from 3 to 12. Joo and Grable (2005) reported a mean score of 7.46 using this scoring system. Higher scores indicate a higher level of financial risk tolerance (i.e., lower risk aversion).

Reliability

Not reported

Validity

As predicted in the risk literature, women scored higher on the scale compared to men, suggesting that men are less risk averse.

Source Reference(s)

Employee Benefit Research Institute. (n.d./2001). The 1999 Retirement Confidence Survey summary of findings. Download available at: http://www.ebri.org/rcs/1999/rcssummary.pdf.

Joo, S., & Grable, J. E. (2005). Employee education and the likelihood of having a retirement savings program. *Financial Counseling and Planning, 16*(1), 37–50.

Note(s)

The Retirement Confidence Survey, cosponsored by the Employee Benefit Research Institute, the American Savings Education Council, and Matthew Greenwald and Associates should be referenced whenever this scale is reproduced.

Item(s)

Financial risk-tolerance scale

Items	Scoring
I am willing to take substantial financial risk for substantial gain[a]	1 = Strongly disagree 4 = Strongly agree
I am more of a saver than an investor	1 = Strongly disagree 4 = Strongly agree
I am not willing to take any risks, no matter what the gain	1 = Strongly disagree 4 = Strongly agree

[a]Item reverse coded

Title

Risk-Tolerance Measure

Key Words

Risk Tolerance, Risk Aversion

Author(s)

None

Source

Grable, J. E., & Lytton, R. H. (2001). Assessing the concurrent validity of the SCF risk tolerance question. *Financial Counseling and Planning, 12*(2), 43–54.

Description

This single item question is asked in the triennial Survey of Consumer Finances (SCF), which is sponsored by the Federal Reserve Board. This is the only subjective risk measure in the SCF. The item is widely used by researchers in the personal finance domain.

Test Sample

The authors report that the item does not represent the full spectrum of financial risk tolerance, but rather represents the investment risk tolerance specifically. The item was correlated positively with a 13-item risk-tolerance scale. For this study, the authors tested the validity of the SCF item with a sample of faculty and staff at Virginia Tech and a convenience sample of individuals who belonged to professional associations. Higher scores indicate increased financial/investment risk tolerance. According to the authors, "On its face, the SCF question appears to be a useful measure of financial risk tolerance. However, a formal review of the content validity of the item suggests several weaknesses. First, the separation between the response choices was found to be conceptually dissimilar. This means that the difference between 'not willing to take any financial risk,' and the alternatives of 'average,' 'above average,' and 'substantial' financial risk may be too dissimilar. (Users of the item outside the realm of the SCF may wish to substitute 'below average' for the 'not willing' category.)" (p. 49).

Scoring

The SCF item is scored 4 = No Risk, 3 = Average Risk, 2 = Above-Average Risk, and 1 = Substantial Risk

Reliability

Grable and Schumm (2007) conducted a reliability analysis of the SCF item and determined that the reliability of the item most likely falls in the range of 0.52–0.59, with 0.59 being the most likely estimate of reliability.

Validity

Not reported

Source Reference(s)

Grable, J. E., & Schumm, W. (2007). *An estimation of the reliability of the Survey of Consumer Finances risk-tolerance question*. TCAI Working Paper: University of Arizona. Available at: http://tcainstitute.org/working_papers/wp66grableschumm.pdf

Note(s)

None

Item(s)

Risk-Tolerance Measure (Survey of Consumer Finances)

Which of the following statements on this page comes closest to the amount of financial risk that you are willing to take when you save or make investments?

1. Take substantial financial risk expecting to earn substantial returns
2. Take above-average financial risks expecting to earn above-average returns
3. Take average financial risks expecting to earn average returns
4. Not willing to take any financial risks

Title

Risk-Tolerance Index

Key Words

Risk Tolerance, Risk Aversion

Author(s)

Sherman D. Hanna, Michael S. Gutter, and Jessie X. Fan

Source

Hanna, S. D., Gutter, M. S., & Fan, J. X. (2001). A measure of risk tolerance based on economic theory. *Financial Counseling and Planning, 12*(2), 53–60.

Description

This index was designed to improve upon a similar index found in the Health and Retirement Study. The index provides a measure of financial risk tolerance that can be used in economic modeling.

Test Sample

The index was tested with a nonrandom sample of college students enrolled at Ohio State University ($N = 390$).

Scoring

See table

Reliability

Not reported

Validity

Index scores were compared against the Health and Retirement Study and the Survey of Consumer Finances risk-tolerance question. According to the authors, “using the SCF risk tolerance measure, our sample was less risk averse than the SCF sample” and “our sample was found to be less risk tolerant than the HRS sample” (p. 57).

Source Reference(s)

Barsky, R. B., Juster, F. T., Kimball, M. S., & Shapiro, M. D. (1997). Preference parameters and behavioral heterogeneity: An experimental approach in the Health and Retirement Study. *Quarterly Journal of Economics, 112*, 537–579.

Note(s)

None

Item(s)

Risk-tolerance index
Job measure (Similar to Barsky et al. question, except stating income alternatives as after-tax, adding "equally good job" and including more levels of high risk aversion (low risk tolerance)
Income loss questions estimating risk tolerance

Title

Semantic Differential Risk-Tolerance Scale

Key Words

Risk Tolerance, Risk Taking

Author(s)

John E. Grable

Source

Grable, J. E. (2004). Assessing financial risk-tolerance attitudes using semantic differential scales. *Journal of Personal Finance, 3*(3), 68–88.

Description

This risk-tolerance scale was developed as an easy–to-administer alternative to traditional multiple-choice item and Likert-type scales. This scale was developed using a three-step process that began by reviewing dimension of financial tolerance, followed by the selection of 50 concepts and terms for further study, and ending with the development of the scale. According to the author, "The third step in the process involved selecting semantic differential scale items (i.e., bipolar adjectives). Scale items related to evaluative, potency, and activity factors were selected from scale lists published in semantic differential manuals (e.g., Snider & Osgood, 1969). Scale items presented in semantic differential methodological manuals tend to be consistent in reported factor weightings. For example, the scale hot-cold reappears throughout the literature to be most closely associated with the activity factor. Scale items such as good-bad, valuable-worthless, and fair-unfair are consistently linked with the evaluative factor, whereas scales items like strong-weak tend to be associated with the potency factor" (p. 77).

Test Sample

The scale was tested with a sample of 80 young employed individuals and 100 professionally employed individuals enrolled in a university online certificate program in 2003.

Scoring

The following table describes how the semantic differential scale items are scored. Once completed by a respondent, scores are summed. For interpretation purposes, higher scores suggest higher financial risk tolerance, or an enhanced willingness to engage in a financially risky financial behavior.

Evaluative factors	Potency factors	Activity factors
Good (7)/bad (1)	–	–
Honest (7)/dishonest (1)	–	–
High (7)/low (1)	–	–
Nice (7)/awful (1)	–	–
Happy (7)/sad (1)	–	–
Sweet (7)/sour (1)	–	–
Fair (7)/unfair (1)	–	–
Valuable (7)/worthless (1)	–	–
Needed (7)/unneeded (1)	–	–
Smart (7)/dumb (1)	–	–
–	Strong (7)/weak (1)	–
–	Powerful (7)/powerless (1)	–
–	Thrilling (7)/boring (1)	–
–	–	Hot (7)/cold (1)

Reliability

The following table shows the terms and concepts that can be substituted into the semantic differential scale. The Cronbach's alpha for each item is shown.

Item	Alpha
Bank account	0.90
Bonds	0.82
Cash	0.86
Certificate of deposit	0.89
Chance	0.91
Corporate bond	0.86
Debt	0.88
EE savings bond	0.93
Gambling	0.87
Gold	0.89
Guarantee	0.90
Inflation	0.84
Investing	0.86
Junk bond	0.94
Loss	0.80
Money	0.86
Mortgage	0.86
Municipal bond	0.88
Opportunity	0.92
Real estate	0.91
Stock	0.73
Stock market	0.76
Stock option	0.92
Treasury bond	0.86
Uncertainty	0.88

Validity

Each scale was compared to a 13-item risk-tolerance scale (Grable & Lytton, 1999). According to the author, "Four scales were found to be statistically significantly related to the 13-item scale: Bank Account, Chance, EE Savings Bond, and Treasury Bond. These scales were then compared to respondents' known level of stock and fixed income asset ownership. Respondents were asked to indicate their current level of stock, bond, cash, real estate, and other asset ownership during the data collection phase of this project. Stock ownership used in this analysis included individual stocks and stock mutual funds. Fixed income ownership included respondents' level of bond, bond mutual fund, and cash assets. It was hypothesized that scales which were highly correlated with the 13-item scale would also be highly correlated with stock and fixed income investment ownership. It was further hypothesized that the strongest scale(s) would have a statistically significant relationship with stock ownership and a statistically significant relationship with fixed income ownership in the opposite direction. Correlation relationships are shown in the table below:

Scale	Correlation with stock ownership	Correlation with fixed-income ownership
Bank account	−0.4447**	0.4308**
Chance	−0.0777	0.0665
EE savings bond	0.2959*	−0.2049
Treasury bond	−0.0060	0.0593

*$p < 0.05$; **$p < 0.01$

The correlation analysis indicated that individuals who held more positive attitudes toward bank accounts (i.e., closer to 7 than to 1) tended to own less stock and more fixed-income assets. The relationship was statistically significant. No significant relationships were noted between the Chance scale and asset ownership or between the Treasury Bond scale and asset ownership. A modest positive relationship was evident between the EE Savings Bond scale and stock ownership. Those who held a more favorable attitude towards this concept also held more stock as a percent of their portfolio. However, the scale was not statistically significantly related to fixed-income asset ownership, although the relationship was negative as one might expect" (p 83).

Source Reference(s)

Snider, J. G., & Osgood, C. E. (1969). *Semantic differential technique: A sourcebook.* Chicago: Aldine Publishing Company.

Grable, J. E., & Lytton, R. H. (1999). Financial risk tolerance revisited: The development of a risk assessment instrument. *Financial Services Review, 8,* 163–181.

Note(s)

According to the author, "The following semantic differential scales were found to have a strong relationship with a recognized 13-item risk assessment scale: Bank Account, Chance, EE Savings Bond, and Treasury Bond. Only the Bank Account scale was found to be statistically significantly related to both a respondents' ownership of stock and fixed-income asset ownership. In this case, those respondents who held a strong positive attitude toward the bank account concept tended to be more likely to hold a larger percent of their portfolio in fixed-income assets, including cash. Respondents who held a strong negative attitude toward bank accounts, on the other hand, tended to own a greater percent of stock in their portfolios. These relationships were what one would expect theoretically. Cash and fixed income ownership was greatest for those who held a positive attitude toward a bank account, which is basically a secure, insured, cash-type asset. Individuals who held a less positive attitude toward bank accounts, on the other hand, were significantly more likely to own equities within their portfolio. These relationships suggest that the Bank Account semantic differential offers users a valid way to assess financial risk tolerance" (p. 84).

Item(s)

Semantic Differential Risk-Tolerance Scale

Instructions for the semantic differential survey:

The purpose of this study is to measure the meanings of certain concepts. You have been selected as a participant to judge concepts against a series of scales. In helping with this study, mark your choices on the basis of what the concepts mean to you. Remember, there are no correct or incorrect answers!

If you feel that the concept being judged is very closely related to one end of the scale, you should place your mark as follows:

Fair	X							**Unfair**

If you feel that the concept is quite closely related to one the other end of the scale (but not extremely) you should place your mark as follows:

Strong						**X**		**Weak**

If the concept seems only slightly related to one side as opposed to the other (but is really not neutral) then you should mark as follows:

Active			X					**Passive**

If you consider the concept to be neutral on the scale, both sides equally associated with the concept, or if the scale is completely irrelevant to the concept, you should place your mark on the middle space:

Safe				X				**Dangerous**

Be sure to mark EVERY scale for every concept on the following pages. Please do not omit any scales – even if you think the scale does not apply to you.

Bank Account

Awful								**Nice**
Boring								**Thrilling**
Dumb								**Smart**
Fair								**Unfair**
Good								**Bad**
Happy								**Sad**
High								**Low**
Honest								**Dishonest**
Hot								**Cold**
Powerless								**Powerful**
Sour								**Sweet**
Unneeded								**Needed**
Weak								**Strong**
Worthless								**Valuable**

Title

Financial Risk-Tolerance Scale

Key Words

Risk Tolerance, Risk Aversion, Risk Assessment

Author(s)

Parisa Hosseini Ardehali, Joseph C. Paradi, and Mette Asmild

Source

Ardehali, P. H., Paradi, J. C., & Asmild, M. (2005). Assessing financial risk tolerance of portfolio investors using data envelopment analysis. *International Journal of Information Technology and Decision Making, 4*, 491–519.

Description

This study used the FinaMetrica® subjective financial risk-tolerance assessment questionnaire to measure individual willingness to take on financial risk. The scale consists of 24 questions and has been subjected to rigorous psychometric testing.

Test Sample

Tests were conducted with 20,708 records of responses collected from May 1999 to February 2002.

Scoring

According to the authors, "For the first 22 questions, the choice options are sorted from the most risk averse choice to the most risk tolerant choices, while the last two questions are sorted in the opposite direction" (p. 496). Higher scores suggest increased financial risk tolerance. The following steps are necessary if a "FinaMetrica Score" is calculated:

1. "For each question the mean and standard deviation of the choice values are calculated over the entire database.
2. Using the calculated mean standard deviation, the z-score of each choice of each question is calculated.
3. For each respondent the sum of the z-scores of all questions is calculated.
4. The z-scores are summed and scaled such that they will have a mean of 50 and a standard deviation of 10, taking co-variances into account" (p. 496).

Reliability

Not reported

Validity

The scale has been shown to be associated with investment choices. The authors conducted a correlation analysis among the items and noted that question 24 may not be valid, given its negative correlation with the other items.

Source Reference(s)

None

Note(s)

Permission to the use item must be obtained from FinaMetrica Limited, an Australian firm: www.FinaMetrica.com

Item(s)

Title

Risk-Tolerance Scale

Key Words

Risk Tolerance, Risk Aversion

Author(s)

James A. Sundali and Federico Guerrero

Source

Sundali, J. A., & Guerrero, F. (2009). Managing a 401(k) account: An experiment on asset allocation. *Journal of Behavioral Finance, 10*, 108–124.

Description

The authors adapted the TIAA-CREF Risk Questionnaire for this study. The risk scale consists of six questions, each offering a respondent multiple choice response options. The questions were written to evaluate attitude toward risk, desire for high investment returns, attitude toward gains and losses, and investment choice preference.

Test Sample

The scale was used in an experiment with 60 participants. On average, the participants indicated have a modest amount of experience making investment decisions. In the study, 3% of participants were found to be conservative; 29% were moderately conservative; 54% were moderately aggressive; and 14 were aggressive.

Scoring

Each potential answer to the questions in the scale has a corresponding score. Scores are summed. Higher scores indicate higher financial risk tolerance. According to the authors, "The scoring guidelines for the Risk Questionnaire given by TIAA-CREF indicate that if the summation of the responses on the six questions is between 0 and 26, then the respondent would probably prefer a conservative portfolio; response from 49 to 70 suggests a moderately aggressive portfolio; and responses between 71 and 100 suggests an aggressive portfolio" (p. 119).

Reliability

Not reported

Validity

According to the authors, "While the survey responses were positively correlated with the expected return on a subject's portfolio ($r = 0.33$, $p < 0.01$), the strength of the relationship was relatively weak, suggesting a weak relationship between a subject's attitude and behavior" (p. 119).

Source Reference(s)

The original instrument can be found at: www.tiaa-cref.org/pdf/forms/F11197.pdf

Note(s)

The TIAA-CREF organization should be referenced whenever data from this scale is published.

Item(s)

Contact authors and journal publisher for reprinting permissions.

Title

Risk-Attitude Scale

Key Words

Risk Tolerance, Risk Aversion, Risk Preference, Risk Perception

Author(s)

Elke U. Weber, Ann-Renee Blais, and Nancy E. Betz

Source

Weber, E. U., Blais, A-R., & Betz, N. E. (2002). A domain-specific risk-attitude scale: Measuring risk perceptions and risk behaviors. *Journal of Behavioral Decision Making, 15*, 263–290.

Description

This scale, consisting of four 8-item subscales (i.e., health/safety, recreational, ethical, and social) and two 4-item subscales (i.e., investment and gambling), was designed to differentiate people in conventional risk attitudes as a function of risk domain. That is, the scale can be used to show that respondents share similar or different risk attitudes based on the risk domain (e.g., gambling versus social). The scale can be used to estimate risk behaviors and risk perceptions.

Test Sample

The scale was tested using a sample of 560 undergraduate psychology students enrolled at The Ohio State University in the late 1990s. Surveys were completed using paper-and-pencil methods. The first stage of scale development began with 101 items from 5 domains of risk: financial, recreational, health and safety, social, and ethical. The authors chose items with the highest item-total correlations to create 10-item subscales. Factor analysis methods were used to derive specific subscales. A follow-up study with 357 undergraduates from The Ohio State University was employed to further refine the scale. Items were edited, removed, or added.

Scoring

A five-point Likert-type scoring system is used with the scale, with 1 = very unlikely, 2 = unlikely, 3 = not sure, 4 = likely, and 5 = very likely. Scores are summed. Higher scores suggest a higher risk attitude. The same scoring system can be used on the subscales or the entire scale.

Reliability

Cronbach's alpha for the risk behavior scale = 0.89.
Cronbach's alpha for the risk perception scale = 0.88.

Validity

As predicted in the literature, women perceived risk differently than men. Women also reported different behavioral intentions than men. In both cases, women scored lower on the scale.

Source Reference(s)

None

Note(s)

Results from the scale tests suggest that risk perceptions are domain specific.

Item(s)

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Title

Risk Propensity Scale

Key Words

Financial Management, Investment Behavior, Risk Tolerance

Author(s)

Jinkook Lee and Jinsook Cho

Source

Lee, J., & Cho, J. (2005). Consumer's use of information intermediaries and the impact on their information search behavior in the financial market. *The Journal of Consumer Affairs, 39*, 95–120.

Description

A three-item measurement used to assess the perceived value of using information intermediaries.

Norms

Scoring

The scale is a four-point Likert-type scale ranging from "mostly agree" to "mostly disagree."

Reliability

Cronbach's alpha = 0.73.

Validity

Not reported

Source Reference(s)

Note(s)

The measurement was used in the 2000/2001 MacroMonitor data set which the authors report as a biennial survey conducted by the Consumer Finance Decision section of SRO Consulting Corporation. The survey focuses on retail financial services and collects information about consumers' attitudes, behaviors, and motivations as related to financial services. The measurement was evaluated with 3,759 U.S. households.

Item(s)

Risk propensity scale

Items	Scoring
Risk propensity 1. It is very important to me to have both a guaranteed interest rate and federal insurance on my savings 2. I am willing to accept some risk of losing money if an investment is likely to come out ahead of inflation in the long run (reverse coded) 3. It is wise to put some portion of savings in uninsured investments to get a high yield (reverse coded) 4. I am willing to take substantial risks to realize substantial financial gains from investments (reverse coded)	Four-point Likert-type scale 1 = Mostly agree 4 = Mostly disagree

Chapter 7
Couple and Family Relationship Assessments

John E. Grable, Kristy L. Archuleta, and R. Roudi Nazarinia

Title

Parental Attitudes toward Sharing Financial Information Scale

Key Words

Children, Money, Financial Socialization, Perception

Author(s)

Sharon M. Danes

Source

Danes, S. M. (1994). Parental perceptions of children's financial socialization. *Financial Counseling and Planning, 5*(1), 127–146.

Description

This scale was developed to assess parents' attitudes about when they should share family financial information with their children or involve children in household financial activities. The scale is a valuable tool in evaluating the role socialization plays in shaping money attitudes and behaviors of children and young adults.

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J.E. Grable et al. (eds.), *Financial Planning and Counseling Scales*,
DOI 10.1007/978-1-4419-6908-8_7,

Test Sample

The scale was tested with exploratory data from 182 parents located in the Midwestern United States. A principal components factor analysis was conducted to conceptualize groupings of items. Six factors emerged:

1. Beginning financial steps
2. Involvement in family finances
3. Future security of the family
4. Establishing credit history
5. Establishing their own financial credibility
6. Asset building

Scoring

The scale items should be prefaced with the following statement: “It is difficult for most families to talk about money and financial issues. If it can be assumed that children need to learn about financial issues within their own families, then at what age do you feel it is appropriate or important to share the following kinds of financial information or involve the child in the activity?”

Parents are then instructed to place an “X” in the box representing the age of the child at which they would share information or involve the child in the behavior. The range of responses is as follows:

1. Don’t know
2. 8 years or less
3. 9–11 years
4. 12–14 years
5. 15–17 years
6. 18–20 years
7. 21–23 years
8. 24–26 years
9. 27 years or older
10. Never

Reliability

Not reported

Validity

Age distributions indicated strong face validity.

Source Reference(s)

None

Note(s)

None

Item(s)

Parental attitudes toward sharing financial information scale

Items
1. Beginning financial steps
A. Receive an allowance
B. Open own savings account
C. Responsible for own clothing budget
2. Involvement in family finances
A. Major financial decisions
B. Be told family income
C. Know amount of income in indebtedness
D. Know amount of emergency fund
E. Know family monthly living costs
F. Help keep records about family income
G. Help create a budget
3. Future security of family
A. Location of papers after parents' deaths
B. Know about family life insurance
C. Know about family car insurance
D. Know contents of parents' wills
E. Know location of family savings
F. Know guardian in case of parents deaths
4. Establishing credit history
A. Apply for a personal loan
B. Make payments on personal loan
C. Fully responsible for own credit card
5. Establishing own financial credibility
A. Open own checking account
B. Fully responsible for checking account
C. Earn all own income
D. File tax return without help
6. Asset building
A. Know financial assets that child owns
B. Make decisions about own financial assets
C. Purchase own assets
D. Figure net worth statements

Title

Subjective Norm Scale

Key Words

Financial Behavior, Debt, Subjective Norm

Author(s)

Jing Jian Xiao and Jiayun Wu

Source

Xiao, J. J., & Wu, J. (2008). Completing debt management plans in credit counseling: An application of the theory of planned behavior. *Journal of Financial Counseling and Planning, 19*(2), 29–45.

Description

This scale was designed to meet a specification within the Theory of Planned Behavior (Ajzen, 1991). Specifically, this scale measures a respondent's subjective norm – i.e., the extent to which a respondent believes his or her family and close friends encourage them to stay in a debt management program/plan – toward staying in a debt management program in order to reduce debt.

Test Sample

This brief scale was developed and tested "based on the theory of planned behavior and the literature on consumer satisfaction" (p. 33). According to the authors:

> With assistance of a national credit counseling agency, we pre-tested the questionnaire with six clients of DMPs [debt management program] to improve its readability. Data collection had two steps. First, we recruited clients enrolling in a DMP administered by a national credit counseling agency. The agency issued a recruiting announcement to its clients in their monthly statements, and 356 clients who were interested in the survey contacted us via telephone, email, or fax with their contact information. We sent out only 326 surveys because 29 clients provided incomplete contact information. The questionnaires were sent between November 2005 and February 2006 via email to those with an email address or by postal mail to those without an email address. After submitting a completed survey, respondents received $10 for their participation. The second step of data collection occurred 3 months after the survey. With the assistance of the credit counseling agency, we received participants' plan completion status data and matched the survey data with the status data. This

> technique allowed us to measure the actual DMP completion behavior of the consumers who participated in the survey. The total number of surveys we received was 210, with an overall response rate of 64% (210/326). The response rates varied by types of contacts. Fifty out of the 88 clients receiving the mail survey replied, achieving a response rate of 57%; 160 out of the 238 clients receiving the email survey responded, achieving a response rate of 67%. Twenty observations had missing values in psychological variables and were excluded, resulting in a sample of 190 used in data analyses (p. 33).

Scoring

The items in the scale are measured using a seven-point bipolar adjective scale, with 1 = Extremely Likely and 7 = Extremely Unlikely. Scores are summed and averaged. Higher scores are indicative of a stronger subjective norm (i.e., more positive) on the part of the respondent.

Reliability

Not reported

Validity

The two items were positively correlated ($r = 0.61$).

Source Reference(s)

Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes, 50*, 179–211.

Note(s)

None

Item(s)

Subjective norm scale

	Scoring						
Item	Most members of my family think I should be in the debt management program to reduce debt						
	Extremely likely	Quite likely	Slightly likely	Neither	Slightly unlikely	Quite unlikely	Extremely unlikely
Item	My close friends think I should be in the debt management program to reduce debt						
	Extremely likely	Quite likely	Slightly likely	Neither	Slightly unlikely	Quite unlikely	Extremely unlikely

Title

Martial Happiness Scale

Key Words

Marital Happiness, Global Measure of Happiness

Author(s)

Claire M. Kamp Dush, Miles G. Taylor, and Rhiannon A. Kroeger

Source

Dush, C. M. K, Taylor, M. G., & Kroeger, R. A. (2008). Marital happiness and psychological well-being across the life course. *Family Relations, 57*, 211–226.

Description

This seven-item scale consists of five questions measuring amount of happiness, one global measure and an additional measure on strength of feelings of love. The first five questions measure the amount of happiness with the (1) extent of understanding received from spouse, (2) amount of love received, (3) sexual relationship, (4) spouse as someone to do things with, (5) spouse's faithfulness. The 6th question is a global measure of happiness and the 7th questions is a measurement of the strength of feelings of love the respondent has for his/her spouse.

Test Sample

Data in this analysis is based on the study of Marital Instability over the Life Course (Booth, Johnson, Amato, & Rogers, 2003). A national sample of 2,034 married individuals 55 years of age or younger participated in telephone interviews through a random digital dialing procedure in 1980. In addition to Wave 1 data there were five more waves of data collection: Wave 2 ($N = 1{,}592$) took place in 1983, Wave 3 ($N = 1{,}341$) in 1988, Wave 4 ($N = 1{,}183$) in 1992, Wave 5 ($N = 1{,}077$) in 1997, and Wave 6 ($N = 962$) in 2000.

Scoring

Questions 1–5 have a response scale of 0 = not too happy, 1 = pretty happy, 2 = very happy. Question 6, which is s global measure, has the following possible responses: 2 = very happy, 1 = pretty happy, and 0 = not too happy. The seventh item has the following possible response code: 0 = not too strong or not strong at all, 1 = pretty strong, 2 = extremely strong or very strong. For this study, the average of these items at each wave was recoded to a five-point ordinal variable with values 0, 0.5, 1.0, 1.5, and 2.

Reliability

Cronbach's alpha = 0.86

Validity

Not Reported

Source Reference(s)

None

Note(s)

None

Item(s)

Martial happiness scale

Items	Scoring
(1) Extent of understanding received from spouse	0 = Not too happy 1 = Pretty happy 2 = Very happy
(2) Amount of love received	0 = Not too happy 1 = Pretty happy 2 = Very happy
(3) Sexual relationship	0 = Not too happy 1 = Pretty happy 2 = Very happy

Martial happiness scale (continued)

Items	Scoring
(4) Spouse as someone to do things with	0 = Not too happy 1 = Pretty happy 2 = Very happy
(5) Spouse's faithfulness	0 = Not too happy 1 = Pretty happy 2 = Very happy
(6) Global evaluation of marriage as	2 = Very happy 1 = Pretty happy 0 = Not too happy
(7) The strength of love respondents has for spouse	0 = Not too strong or not strong at all 1 = Pretty strong 2 = Extremely strong or very strong

Title

Trust Scale

Key Word

Trust

Author(s)

John K. Rempel, John G. Holmes, and Mark P. Zanna

Source

Rempel, J. K., & Holmes, J. G. (1986). How do I trust thee? *Psychology Today, 20*(2), 28–34.

Rempel, J. K., Holmes, J. G., & Zanna, M. P. (1985). Trust in close relationships. *Journal of Personality and Social Psychology, 49*, 95–112.

Description

The Trust Scale measures trust in terms of predictability, dependability, and faith.

Test Sample

The instrument was evaluated with 47 couples who identified being in an intimate relationship (i.e., married, cohabitating, or dating).

Scoring

The instrument utilized a Likert-type scale ranging from 1 (strongly disagree) to 7 (strongly agree). Questions 3, 5, 6, 8, 12, 13, 15, 16, 17 are reverse scored. Add all scores for each item to obtain a total score. A score for each of the three subscales can be calculated. The predictability subscale is comprised of items 1, 3, 8, 11, and 13. The dependability subscale consists of items 2, 5, 7, 9, 15, and 17. The faith subscale includes items 4, 6, 10, 12, 14, and 16. Any score above 110 is considered high trust. A score between 90 and 110 is considered "hopeful trust." A score below 90 is considered low trust.

Reliability

Reliability was found using Cronbach's alpha in for the entire scale as well as for each of the three subscales. The overall Cronbach's alpha was 0.81.

Predictability = 0.70
Dependability = 0.72
Faith = 0.80

Validity

None reported

Source Reference(s)

Guerney, B. G. Jr. (1977). *Relationship enhancement skill training programs for therapy, prevention, and enrichment*. San Francisco: Jossey-Bass.

Note(s)

Some of the items were obtained from the Interpersonal Relationship Scale found in Guerney's (1977) book.

Item(s)

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Title

Shared Goals and Values Scale

Key Words

Couples, Goals, Values, Financial Therapy

Author(s)

Kristy L. Archuleta

Source

Archuleta, K. L. (2008). *The impact of dyadic processes and financial management roles on farm couples*. Unpublished Doctoral Dissertation, Kansas State University, Manhattan, KS.

Description

The Shared Goals and Values scale was derived from Gottman's Sound Relationship House Scales and relate to a couples' shared meaning about financial goals and values, life's goals, and autonomy.

Test Sample

The instrument was evaluated with 55 individuals who indicating being in an intimate relationship (i.e., married, cohabitating, or dating).

Scoring

The four items within this scale were summed. Response scores could range from 4 to 28, with lower scores indicating less agreement on life goals and values and higher scores reflecting more agreement on these issues. The mean score was 23.28 and the standard deviation was 4.94.

Reliability

Internal consistency was measured using Cronbach's alpha, which was 0.88, indicating high level of reliability.

Validity

The scores on the original Shared Meaning Symbols and Shared Meaning Goals scale were strongly related to the Locke-Wallace marital satisfaction scale, the Weiss-Cerreto divorce proneness scales and the SCL-90 psychopathology checklist (Gottman, 1999). A factor analysis confirmed construct validity was established with the new scale, Shared Goals and Values.

Source Reference(s)

Gottman, J. M. (1999). *The marriage clinic*. New York: W. W. Norton & Company.

Gottman, J. M. (2005). *The reduced sound relationship house scales.* Unpublished manuscript, One Stone, Inc.

Note(s)

These items were obtained from Gottman's Sound Relationship House subscales of Shared Meaning Goals and Shared Meaning Symbols. Original items utilized True/False as responses rather than the seven-point Likert-type scale.

Item(s)

Shared goals and values scale

Items	Scoring
1. We have similar financial goals 2. Our hopes and aspirations, as individuals and together for our children, for our life in general, and for our old age are quite compatible 3. We have similar values about the importance and meaning of money in our lives 4. We have similar values about "autonomy" and "independence"	Likert-type scale range 1–7 1= Strongly disagree 7 = Strongly agree

Title

Acquisition of Family Financial Roles and Responsibilities

Key Words

Financial Tasks, Parental Modeling, Transference of Financial Tasks

Author(s)

Maribeth C. Clarke, Martie B. Heaton, Craig L. Isaelsen, and Denssis L. Eggett

Source

Clarke, M. C., Heaton, M. B., Israelsen, C. L., & Eggett, D. L. (2005). The acquisition of family financial roles and responsibilities. *Family and Consumer Sciences Research Journal, 33*, 321–340.

Description

A survey was developed to study financial role transfer and the financial tasks modeled by parents and needed by young adults. From the survey, 10 constructs, including goals, values, career, budgeting, savings, credit, insurance, homeownership, tasks, and investments, were used to assess the modeling teaching and implementation of financial tasks. The 10 constructs were measured using 12 questions.

Test Sample

The scale was piloted using 16 undergraduate and graduate students and professors.

Scoring

Questions related to frequency and preparedness were responded to using a Likert-type scale, ranging from 0 to 5. Other questions are responded to using mutually exclusive categories.

Reliability

Reliability was found using Cronbach's alpha in the pilot study for each of the ten constructs, which are listed below.

Goals: 0.644
Values: 0.693
Career: 0.632
Budgeting: 0.555

Savings: 0.700
Credit: 0.545
Insurance: 0.577
Homeownership: 0.529
Taxes: 0.603
Investments: 0.555

Validity

Construct validity was increased by reviewing both financial and parenting research literature as well as conducting a focus group to evaluate items.

Source Reference(s)

Carver, C.S., & White, T. L., (1994). Behavioral inhibition, behavioral activation, and affective responses to impending reward and punishment: The BIS/BAS scales. *Journal of Personality and Social Psychology, 67*, 319–333.

Note(s)

Item(s)

Acquisition of family financial roles and responsibilities

Items	Scoring
1. Indicate whose responsibility the financial role was in the home you grew up in?	Categorical responses: parents, father, mother, siblings, spouse, grandparents, friends, teacher, coworker, self-taught, no one, and other
2. How frequently did your mother perform this role?	Likert-type responses: 0 = Never
3. How frequently did your father perform this role?	5 = Daily
4. How frequently did you perform this role?	
5. How frequently do you perform this role now?	
6. Indicate who taught you how to perform this role?	Categorical responses: parents, father, mother, siblings, spouse, grandparents, friends, teacher, coworker, self-taught, no one, and
7. How thoroughly did they teach you this role?	other.
8. How prepared do you feel to perform this responsibility as an adult?	
9. How well do you currently perform this role?	0 = Not prepared 5 = Very prepared
10. How have your peers influenced your thinking and/or doing of this role?	0 = Not at all 5 = Very well

Title

Kansas Marital Satisfaction Scale

Key Words

Couples, Marriage, Marital Satisfaction

Author(s)

Walter R. Schumm, Lois A. Paff-Bergen, Ruth C. Hatch, Felix C. Obiorah, Janette M. Copeland, Lori D. Meens, and Margaret A. Bugaighis

Source

Schumm, W. R., Paff-Bergen, L. A., Hatch, R. C., Obiorah, F. C., Copeland, J. M., Meens, L. D., et al. (1986). Concurrent and discriminant validity of the Kansas marital satisfaction scale. *Journal of Marriage and the Family, 48*, 381–387.

Description

The KMS is a three-item instrument, designed to measure the satisfaction dimension of marital quality. The KMS is a widely used to assess three factors associated with marital quality: (a) satisfaction with a persons' marriage as an institution; (b) satisfaction with the relationship, including intimacy and quality of communication; and (c) satisfaction with husband or wife as a spouse (Mitchell, Newell, & Schumm, 1983).

Test Sample

The scale was initially evaluated with a sample of 61 wives.

Scoring

Each item was measured using a seven-point Likert-Type scale. The summated scale was scored with a possible range of 3–21. Higher scores reflected greater marital satisfaction.

Reliability

As previously reported in the literature, the KMS appears to have excellent internal consistency with an alpha of 0.93. The reliability of the scale has ranged from 0.75 to 0.95 in previous studies.

Validity

The KMS has been shown to be significantly correlated with the Dyadic Adjustment Scale and the Quality of Marriage Index, which established concurrent validity. In this study, the KMS correlated positively with a measure of marital social desirability, suggesting some degree of bias toward socially acceptability. Scores are known to be positively related to measures of life satisfaction.

Source Reference(s)

Mitchell, S. E., Newell, G. K., & Schumm, W. R. (1983). Test-retest reliability of the Kansas Marital Satisfaction Scale. *Psychological Reports, 53,* 545–546.

Note(s)

A description of the KMS can also be found in:
Corcoran, K., & Fischer, J. (2000). *Measures for clinical practice* (3rd ed., vol. 1). New York: The Free Press.

Item(s)

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Title

Family Relationship Item

Key Words

Family Relationship, Family, Stress, Well-Being

Author(s)

Barbara O'Neill, Benoit Sorhaindo, Jing Jian Xiao, and E. Thomas Garman

Source

O'Neill, B., Sorhaindo, B., Xiao, J. J., & Garman, E. T. (2005). Financially distressed consumers: Their financial practices, financial well-being, and health. *Financial Counseling and Planning, 16*(1), 73–88.

Description

This single-item question was developed to evaluate a respondent's family relationship.

Test Sample

The instrument was tested with a sample (N = 3,121) of financially distressed consumers who telephoned a national credit counseling organization.

Scoring

The item is scored as follows: 1 = Poor, 2 = Satisfactory, 3 = Good, and 4 = Very Good. High scores are indicative of a healthy family relationship.

Reliability

Not reported

Validity

Not reported

Source Reference(s)

None

Note(s)

None

Item(s)

Family Relationship Item
"By and large, your family relationships are?"

Title

Talk to Family about Money Scale

Key Words

Financial Knowledge, Family Finance, Family, Help Seeking

Author(s)

Karen P. Varcoe, Allen Martin, Zana Devitto, and Charles Go

Source

Varcoe, K. P., Martin, A., Devitto, Z., & Go, C. (2005). Using a financial education curriculum for teens. *Financial Counseling and Planning, 16*(1), 63–72.

Description

This scale can be used to assess the degree to which teens and other young persons talk to their families about personal finance topics.

Test Sample

The scale was evaluated with a sample of 114 high school students aged 13 through 20, with data collected over 6 months in 2002. The sample consisted of students living in southern California.

Scoring

A four-point Likert-type scale, with 1 = a lot and 4 = never, is used with this instrument. Scores can range from 4 to 16. Summed scores are developed by adding scores. The mean reported score for the sample was 10.43 in the pretest and 10.09 in the posttest. Higher scores indicate less discussion with family members.

Reliability

Cronbach's alpha = 0.70.

Validity

Females report on this scale talking to their families was more than males.

Source Reference(s)

None

Note(s)

None

Item(s)

Title

Family Business Goal Achievement Scale

Talk to family about money scale

Items	Scoring
I talk to my family about: 1. My own use of money 2. The importance of savings 3. Our family finances 4. How our family's money should be spent	1 = A lot 4 = Never

Key Words

Financial Goals, Financial Management, Financial Behavior

Author(s)

Sharon M Danes, Nita Fitzgerald, and Kevin C. Doll

Source

Danes, S. M., Fitzgerald, N., & Doll, K. C. (2000). Financial and relationship predictors of family business goal achievement. *Financial Counseling and Planning, 11*(2), 43–54.

Description

This scale measures a person's perceptions about their business financial goal achievement.

Test Sample

Scores for men ranges from 11 to 35 (M = 24.2; SD = 5.0); scores for women range from 9 to 35 (M = 24.2; SD = 6.0).

Scoring

The following Likert-type scale is used with this scale: 1= have achieved very little and 5 = have achieved almost entirely. Typically, both partners in a relationship are asked the same questions. Responses are compared. High scores suggest that a person/family is achieving their family business goals.

Reliability

Alpha reliability for husbands = 0.81; alpha reliability for wives = 0.83.

Validity

The scale was found to be positively associated with age, locus of control, income adequacy perception, frequency of managing family finances, and negatively associated with off-farm employment and financial decision tension.

Source Reference(s)

None

Note(s)

None

Item(s)

Family business goal achievement scale

Items	Scoring
Please indicate your level of agreement with the achievement of the following family and business goals: 1. Profit 2. Long-term viability 3. Adequate capital 4. Harmonious family relationships 5. Balance between work and family 6. Good family income 7. Secure retirement sources	1= Have achieved very little 5 = Have achieved almost entirely

Title

Revised Dyadic Adjustment Scale

Key Words

Marital Satisfaction, Relationship Satisfaction

Author(s)

Barbara C. Kerkmann, Thomas R. Lee, Jean M. Lown, and Scot M. Allgood

Source

Kerkmann, B. C., Lee, T. R., Lown, J. M., & Allgood, S. M. (2000). Financial management, financial problems and marital satisfaction among recently married university students. *Financial Counseling and Planning, 11*(2), 55–64.

Description

This scale measures marital satisfaction.

Test Sample

The scale was tested with a sample of 310 students enrolled at Utah State University.

Scoring

The following five-point Likert-type scale is used with this scale: 1= always disagree and 5 = always agree or 1 = never and 5 = all of the time. High scores indicate increased marital satisfaction.

Reliability

Alpha reliability = 0.85; Guttman's split-half coefficient was 0.88; and Spearman-Brown split-half coefficient was 0.88.

Validity

A correlation of 0.68 was noted between the scale and the Locke-Wallace Marital Adjustment Scale. According to the authors, "Criterion validity was established by the fact that distressed couples could be distinguished from nondistressed couples by their RDA scores" (p. 57).

Source Reference(s)

Spanier, G. B. (1976). Measuring dyadic adjustment: New scales for assessing the quality of marriage and similar dyads. *Journal of Marriage and the Family, 38*, 15–28.

Note(s)

This four-item scale was developed from Spanier's (1976) 14-item scale. Spanier should be referenced whenever this subscale is used.

Item(s)

Revised dyadic adjustment scale

Items	Scoring
How often do you discuss or have your considered divorce, separation, or terminating your relationship?	1 = Always disagree, 5 = always agree
How often do you and your partner quarrel?	1 = Always disagree, 5 = always agree
Do you ever regret that you married (or lived together)?	1 = Always disagree, 5 = always agree
How often do you and your mate "get on each other's nerves"?	1 = Always disagree, 5 = always agree

Title

Assertive Conflict Mode Scale

Key Words

Financial Decisions, Financial Management, Conflict

Author(s)

Sharon M. Danes, Nita Fitzgerald, and Kevin C. Doll

Source

Danes, S. M., Fitzgerald, N., & Doll, K. C. (2000). Financial and relationship predictors of family business goal achievement. *Financial Counseling and Planning, 11*(2), 43–54.

Description

This scale indicates how a person will react when faced with a disagreement or conflict in a family relationship.

Test Sample

The range of scores for husbands was 13–35; Variation in scores for wives ranged from 17 to 35.

Scoring

A Likert-type scale, with 1 = never and 5 = very often, is used with this scale. Typically, both partners in a relationship are asked the same questions. Responses are compared. High scores suggest a more conciliatory, less conflict oriented, mode of conflict negotiation.

Reliability

Alpha reliability for husbands = 0.82; alpha reliability for wives = 0.84.

Validity

The scale was found to be positively associated with perceptions of income adequacy.

Source Reference(s)

None

Note(s)

None

Item(s)

Assertive conflict mode scale

Items	Scoring
When you experience disagreement or conflict in your relationship, or when you experience events that might lead to a disagreement, how do you typically react? Please circle the number that indicates how often you behave in the following ways: 1. Calmly ask your partner to talk 2. Discuss the issue with your partner 3. Try to talk about it constructively 4. Listen to your partner's feelings 5. Try to cooperate 6. Try to work it out with your partner 7. Try to find a positive solution to the disagreement	1 = Never 5 = Very often

Title

Marital Satisfaction Index

Key Word

Marital Satisfaction

Author(s)

Celia R. Hayhoe and Mari S. Wilhelm

Source

Hayhoe, C. R., & Wilhelm, M. S. (1995). Discriminating between primary family financial managers and other adults in the family. *Financial Counseling and Planning, 6*(1), 75–82.

Description

This brief scale measures an individual's subjective view of their marriage.

Test Sample

The scale was used with a sample of 395 heterosexual couples from data collected in 1988.

Scoring

Each item is answered with a seven-point Likert-type scale, ranging from 1 = extremely dissatisfied and 5 = extremely satisfied. Higher scores represent increased marital satisfaction.

Reliability

Not reported

Validity

Not reported

Source Reference(s)

None

Note(s)

None

Item(s)

Marital satisfaction index

Items	Scoring
How satisfied are you with ... 1. Your marriage 2. Your relationship with your spouse 3. Your husband/wife as a spouse	1 = Extremely dissatisfied 5 = Extremely satisfied

Title

Divorce Proneness Index

Key Words

Divorce, Relationship Satisfaction, Marital Satisfaction

Author(s)

John N. Edwards, David. R. Johnson, and Alan Booth

Source

Edwards, J. N., Johnson, D. R., & Booth, A. (1987). Coming apart: A prognostic instrument of marital breakup. *Family Relations, 36*, 168–170.

Description

This scale was designed to "detect the 'peaks and valleys' of intact marriages and the relative severity of their instability" (p. 168). The index can be used as diagnostic or prognostic instrument for those interesting in providing marital counseling services.

Test Sample

The index was tested with data from a national sample of 2,034 married individuals in 1980. The first tested consisted of approximately 40 cognitive and behavioral assessment items. These items were reduced using a principal axis factor analysis methodology.

Scoring

A bivariate coding scheme is used with the index, with 1 = Yes and 0 = No. Scores are summed. Scores of 0–2 indicate a 22% chance of divorce; scores of 3–4 indicate a 26% chance of divorce; scores of 5–6 suggest a 31% chance of divorce; scores of 7–9 indicate a 38% chance of divorce; scores of 10 or more indicate a 43% chance of divorce.

Reliability

Cronbach's alpha = 0.93.

Validity

Face validity was measured using evaluations from 36 expert judges. The index was also found to be positively correlated (Spearman correlation = 0.80) with the Marital Instability Index. Scores on the scale were also found to be predictive of future marital dissolution.

Source Reference(s)

None

Note(s)

None

Item(s)

Divorce proneness index

Items	Scoring
Sometimes married people think they would enjoy living apart from their spouse. How often do you feel this way? Would you say very often, often, occasionally, or never?	Occasionally or never = No = 0 Very often or often = Yes = 1
Even people who get along quite well with their spouse sometimes wonder whether their marriage is working out. Have you thought your marriage might be in trouble within the past 3 years?	1 = Yes 0 = No
As far as you know, has your spouse ever thought your marriage was in trouble?	1 = Yes 0 = No
Have you talked with family members, friends, clergy, counselors, or social workers about problems in your marriage within the past 3 years?	1 = Yes 0 = No
As far as you know, has your (husband/wife) talked with relatives, friends, or a counselor about problems either of you were having with your marriage?	1 = Yes 0 = No
Has the thought of getting a divorce or separation crossed your mind in the past 3 years?	1 = Yes 0 = No

Divorce proneness index (continued)

Items	Scoring
As far as you know, has the thought of divorce or separation crossed your (husband's/wife's) mind in the past 3 years?	1 = Yes 0 = No
Have you or your spouse seriously suggested the idea of divorce in the past 3 years?	1 = Yes 0 = No
Have you talked about diving up the property?	1 = Yes 0 = No
Have you talked about consulting an attorney?	1 = Yes 0 = No
Have you or your spouse consulted an attorney about a divorce or separation?	1 = Yes 0 = No
Because of problems people are having with their marriage, they sometimes leave home either for short time or as a trial separation. Has this happened in your marriage with the past 3 years?	1 = Yes 0 = No
Have you talked with your spouse about filing for divorce or separation?	1 = Yes 0 = No
Have you or your (husband/wife) filed for a divorce or separation petition?	1 = Yes 0 = No

Title

Family Daily Hassles Inventory

Key Words

Stress, Financial Stress, Financial Behavior

Author(s)

Suzanne Z. Rollins, M. E. Betsy Garrison, and Sarah H. Pierce

Source

Rollins, S. Z., Garrison, M. E. B., & Pierce, S. H. (2002). The family daily hassles inventory: A preliminary investigation of reliability and validity. *Family and Consumer Sciences Research Journal, 31*, 135–154.

Description

The inventory allows a researcher to assess daily problems and hassles faced by a family rather than an individual. According to the authors, "The 22 items in the inventory represent ongoing and broad aspects of daily family life, such as child care, household chores, inside and outside home repairs, car care, financial matters, work, use of leisure time, community involvement, and a variety of relationships" (p. 143).

Test Sample

The inventory was tested as part of a larger study of family stress and children's cognitive development. A convenience sample consisting of families with first and third graders enrolled in a public, Catholic, or private elementary school in the southern United States was used for testing purposes. Data from 140 mothers was used in all analyses. The inventory was examined using a principal components factor analysis.

Scoring

Respondents are asked to indicate the extent to which daily life situations influence the family. Three dimensions of influence are assessed: (a) time and energy, (b) negative influence, and (c) positive influence. Five response categories are provided for each dimension: 1 = none; 2 = slight; 3 = moderate; 4 = a lot; and 5 = a great deal. Scores are summed to derive three total values (i.e., one for each dimension). Scores ranged from 30 to 92 for the time and energy dimension, 10–88 for the negative influence dimension, and 31–110 for the positive influence dimension.

Reliability

Cronbach's alpha scores:

Time and energy = 0.77
Negative influence = 0.88
Positive influence = 0.77–0.88

Validity

Concurrent validity was assessed by correlating scores on each dimension to the Daily Hassles Scale (Lu, 1991). Correlations ranged from 0.26 to 0.45.

Source Reference(s)

Lu, L. (1991). Daily hassles and mental health: A longitudinal study. *British Journal of Psychology, 82*, 441–447.

Note(s)

An additional validity test was conducted by comparing scores to the Brief Symptom Inventory scale. Correlation estimates ranged from very low to high.

Item(s)

Family Daily Hassles Inventory

Instructions

The following is a list of relationships and aspects of day-to-day family living common to most people. Sometimes these are positive, sometimes they are negative, and sometimes they are a combination of both. Please think about each of these items in terms of your own life:

In Column A, indicate how much time and energy your family involves in each item.
In Column B, indicate how much negative influence each item has on your family's day-to-day life.
In Column C, indicate how much positive influence each item has on your family's day-to-day life.

Please use the following scale as you describe the nature of each item's impact on you:

1 = None
2 = Slight
3 = Moderate
4 = A lot
5 = A great deal
X = Not applicable

Example: If child care takes a lot of time and energy but is a positive influence in your family's life, you might put a "4" in Column A, a "1" in Column B, and a "5" in Column C. If an items in not applicable to your family (for instance, if you are not employed for pay), put an "X" in Column A and go on to the next item.

Item	A. Time/energy involvement	B. Negative influence	C. Positive influence
Child care	4	1	5

Item	A. Time/energy involvement	B. Negative influence	C. Positive influence
Child care			
Pet care			
Household chores and meal preparation			
Errands			
Inside home repairs			
Outside home repairs			
Housing			
Car care			
Transportation and traffic			
Family financial matters			
Work duties			
Work environment			
Use of leisure time			
Community involvement			
Relationship with spouse			
Relationship with children			
Relationship with parents			
Relationship with in-laws			
Relationship with brothers/sisters			
Relationship with friends			
Relationship with neighbors			
Relationships at work			

Title

Farm Family Decision-Making Scale

Key Words

Decision Making, Financial Behavior

Author(s)

Sharon M. Danes and Kathryn D. Rettig

Source

Danes, S. M., & Rettig, K. D. (1993). Farm wives' business and household decision involvement in times of economic stress. *Home Economics Research Journal, 21,* 307–333.

Description

This multidimensional scale was designed to assess a person's decision process and decision content through the evaluation of discussion involvement.

Test Sample

The scale was tested using a sample of 263 married females living in Minnesota in 1987. A factor analysis was used to identify 3 distinct decision content areas from 18 decisions. The final scale includes only decisions that exhibited a factor score of 0.30 or higher. The first factor was labeled Periodic Farm Decisions. The second factor was identified as Continuous Farm Decisions. The third factor was titled Household Decisions.

Scoring

The scale is introduced with the following question: "Many discussions take place each day about decisions that need to be made within the family. On a scale from 'not at all' (0) to 'very much' (6), circle the number that best reflects how much you are involved in DISCUSSIONS about the following kinds of decisions." A "does not apply" option was also provided; however, no respondents circled this response. Scores are summarized for each factor. A total decision score can be created by summing scores from all statements. Higher scores suggest greater involvement in discussions.

Reliability

Cronbach's alpha scores:

Factor 1: 0.94
Factor 2: 0.88
Factor 3: 0.92

Validity

Not reported

Source Reference(s)

None

Note(s)

None

Item(s)

Farm family decision-making scale

Items	Scoring
Factor 1	0 = Not at all
Buy major farm equipment	6 = Very much
Try new production practice	
Rent more or less land	
Produce something new	
Sell products	
Buy or sell land	
Someone will take off-farm job	
Factor 2	0 = Not at all
Planning/coordinating farm work	6 = Very much
New information about improved practices	
Pay farm operation bills	
Record keeping	
Factor 3	0 = Not at all
Buy major appliance	6 = Very much
Determining family living amount	
Allocating money to individual needs	
Improve house versus business	
Planning/coordinating home work	
Pay family bills	
Borrow money	

Title

Managerial Behavior Index

Key Words

Decision Making, Financial Behavior

Author(s)

Ujang Sumarwan and Tahira K. Hira

Source

Sumarwan, U., & Hira, T. K. (1992). Credit, saving, and insurance practices influencing satisfaction with preparation for financial emergencies among rural households. *Home Economics Research Journal, 21*, 206–227.

Description

This brief index was designed to describe the financial management behavior of respondents.

Test Sample

The index was tested using a sample of 297 individuals who self-identified as the money manager within a household. Data were collected during spring 1988.

Scoring

Respondents are asked to indicate the frequency of participation in each of six activities. Responses are measured using a five-point Likert-type scale, with 1 = least frequently and 5 = most frequently. An index score is created by summing responses. Scores can range from 6 to 30, with higher scores indicating increased frequency of participation in the behavior.

Reliability

Cronbach's alpha = 0.62.

Validity

Scores on the index were found to be positively associated with age and income. Scores were also positively associated with a person's satisfaction with their preparation for financial emergencies.

Source Reference(s)

None

Note(s)

None

Item(s)

Managerial behavior index

Items	Scoring
Save regularly for goals	1 = Least frequently 5 = Most frequently
Record where money is spent	1 = Least frequently 5 = Most frequently
Keep bills and receipts	1 = Least frequently 5 = Most frequently
Discuss finances without getting upset	1 = Least frequently 5 = Most frequently
Make plans on how to use time	1 = Least frequently 5 = Most frequently
Do things when they need to be done	1 = Least frequently 5 = Most frequently

Title

Attitude toward Divorce Item

Key Words

Divorce, Attitudes on Divorce, Separation, Divorce Legislation

Author(s)

Alan J. Hawkins, Steven L. Nock, Julia C. Wilson, Laura Sanchez, and James D. Wright

Source

Hawkins, A. J., Nock, S. L., Wilson, J. C., Sanchez, L., Wright, J. D. (2003). Attitudes about covenant marriage and divorce: Policy implications from a three-state comparison. *Family Relations, 51*, 166–175.

Description

This single item directly assessed respondents' attitudes toward divorce by asking them "Society would be better off if divorces were harder to get."

Test Sample

Data for this study was collected by separate telephone surveys of adults in AZ, LA, and MN based on a representative sample of telephone households in those state. There were 413 respondents in AZ, 527 in LA, and 384 in MN. This yielded a total sample of 1,324 respondents. Survey questions asked respondents about their sentiments toward marriage and divorce in general and issues related to covenant marriage in particular. Our focus was on people's thoughts and sentiments surrounding divorce and covenant marriage, not on the political outcome itself.

Scoring

Participants responded on 5-point Likert scale from strongly disagree (1) to strongly agree (5).

Reliability

None

Validity

About 6 in 10 (62%) adults agreed that "Society would be better off if divorces were harder to get", closely matching the 61% figure reported in the Time/CNN poll cited earlier.

Source Reference(s)

None

Note(s)

None

Item(s)

Attitude toward divorce item

Items	Scoring
"Society would be better off if divorces were harder to get"	1 = strongly disagree 5 = strongly agree

Title

Covenant Marriage Scale

Key Words

Marriage, Covenant Marriage, Attitudes toward Marriage, Marriage Legislation

Author(s)

Alan J. Hawkins, Steven L. Nock, Julia C. Wilson, Laura Sanchez, and James D. Wright

Source

Hawkins, A. J., Nock, S. L., Wilson, J. C., Sanchez, L., & Wright, J. D. (2003). Attitudes about covenant marriage and divorce: Policy implications from a three-state comparison. *Family Relations, 51*, 166–175.

Description

The five-item scale has a possible range of 5–25, with higher scores indicating greater approval.

Test Sample

Data for this study was collected by separate telephone surveys of adults in AZ, LA, and MN based on a representative sample of telephone households in those state. There were 413 respondents in AZ, 527 in LA, and 384 in MN. This yielded a total sample of 1,324 respondents. Survey questions asked respondents about their sentiments toward marriage and divorce in general and issues related to covenant marriage in particular. Our focus was on people's thoughts and sentiments surrounding divorce and covenant marriage, not on the political outcome itself.

Scoring

Participants responded on 4- and 5-point Likert scales (5-point Likert scale, strongly agree to strongly disagree; 4-point Likert scale, very good idea to very bad idea; 5-point Likert scale, strongly approve to strongly disapprove).

Reliability

Cronbach's alpha for the scale = 0.87

Validity

A confirmatory factor analysis that specified all five items as indicators of a global construct measuring general attitudes about covenant marriage. Taking scores between 19 and 25 (the upper third) as strongly supportive, 39% adults in these three states expressed strong support for the idea. Large fractions of adults in the three states have mixed views about the idea, with 47% falling in the middle third of the scale. Relatively few (14% overall) in any state were strongly opposed to the idea of covenant marriage. Covenant marriage appears to be less popular in MN where it has not been enacted into law; opposition was almost twice as common in MN as in LA or AZ (20% versus 13% and 12%, respectively).

Source Reference(s)

None

Note(s)

None

Item(s)

Covenant marriage scale

Items	Scoring
"Overall, what is your perception of covenant marriage?"	1 = Very good idea 4 = Very bad idea
"Suppose your child had a child who had decided to have a covenant marriage instead of a conventional marriage. What would your reaction be?"	1 = Strongly approve 5 = Strongly disapprove
"Covenant marriage will strengthen family life"	1 = Strongly agree 5 = Strongly disagree
"A covenant marriage will be better for children than a standard marriage"	1 = Strongly agree 5 = Strongly disagree
"Covenant marriages will last longer than standard marriages"	1 = Strongly agree 5 = Strongly disagree

Title

Domestic Labor Measure

Key Words

Domestic Labor, Household Labor, Domestic Chores

Author(s)

David H. Demo and Alan C. Acock

Source

Demo, D. H., & Acock, A. C. (1993). Family diversity and the division of domestic labor: How much have things really changed. *Family Relations, 42*, 323–331.

Description

This eight-item measure assesses the division of domestic labor from car maintenance to washing dishes.

Test Sample

The data for this analysis came from the National Survey of Families and Households (NSFH), collected in 1987–1988. Using the self-administered questionnaire section of the NSFH a subsample of 2,528 mothers living in one of four family types: 1. First marriages ($n = 1{,}155$); 2. Divorced ($n = 677$); 3. Step families ($n = 277$); 4. Never married ($n = 419$).

Scoring

Participants are asked to fill in the approximate hours per week they spend on the tasks listed.

Reliability

None reported

Validity

None Reported

Source Reference(s)

None

Note(s)

"Occasionally mothers reported many hours spent on individual chores. Extreme responses, those beyond the third standard deviation, were treated as outliers, and each of them was recoded to the value corresponding to the third standard deviation above the mean number of hours." (p. 325)

Item(s)

Domestic Labor Scale

Instructions: The questions on this page concern household tasks and who in your household normally spend time doing those tasks. Write in the approximate number of hours per week that you, your spouse/partner or others in the household normally spend doing the following things.

Items	Scoring
Washing dishes and cleaning up after meals	Hours per week ______
Cleaning house	Hours per week ______
Outdoor and other household maintenance tasks	Hours per week ______
Shopping for groceries and other household goods	Hours per week ______
Washing, ironing, and mending	Hours per week ______
Paying bills and keeping financial records	Hours per week ______
Automobile maintenance and repair	Hours per week ______
Driving other household members to work, school, or other activities	Hours per week ______

Title

Expectation of Marriage Item

Key Words

Marriage, Expectations, Expectation of Marriage

Author(s)

Lincoln, K. D., Taylor, R. J., and Jackson, J. S. (2008)

Source

Lincoln, K. D., Taylor, R. J., & Jackson, J. S. (2008). Romantic relationships among unmarried African American and Caribbean Blacks: Findings from the national survey of American life. *Family Relations, 57*, 254–266.

Description

This single item measure was developed to assess the respondents subjective expectations of marriage.

Test Sample

Data in this analysis is from The National Survey of American Life: Coping With Stress in the 21st Century (NSAL). Face-to-face interview were conducted with 6,082 individuals over the age of 18. Of the 6,082 participants, there were 3,570 African Americans, 1,621 Black Caribbeans, and 891 Hispanics.

Scoring

Response categories to this item ranged from 1= highly unlikely to 4 = highly likely.

Reliability

None Reported

Validity

None Reported

Source Reference(s)

None

Note(s)

None

Item(s)

Relationship satisfaction item

Items	Scoring
"What do you think the likelihood that you will ever get married/remarried?"	1 = Very dissatisfied 4 = Very satisfied

Title

Equity of Housework Measure

Key Words

Housework Equity, Fairness in Housework, Domestic Labor

Author(s)

David H. Demo and Alan C. Acock

Source

Demo, D. H., & Acock, A. C. (1993). Family diversity and the division of domestic labor: How much have things really changed *Family Relations, 42*, 323–331.

Description

This one item measure assesses the equality perceived in household division of labor.

Test Sample

The data for this analysis came from the National Survey of Families and Households (NSFH), collected in 1987–1988. Using the self-administered questionnaire section of the NSFH survey a subsample of 2,528 mothers living in one of four family types: 1. First marriages ($n = 1{,}155$); 2. Divorced ($n = 677$); 3. Step families ($n = 277$); 4. Never married ($n = 419$).

Scoring

Responses items were on a Likert-type scale of 1–5 with 1 = very unfair to wife, 3 = fair to both, and 5 = very unfair to husband.

Reliability

None

Validity

"The more hours per week the mother worked for pay, the lower her sense of equity ($\beta = -0.15$, $p < 0.05$). The more hours the mother spent on household chores, the lower her sense of equity ($\beta = -0.16$, $p < 0.05$). The strongest effect, however, was the number of hours the husband spent on household chores ($\beta = 0.28$, $p < 0.05$)" (p. 328).

Source Reference(s)

None

Note(s)

"Occasionally mothers reported many hours spent on individual chores. Extreme responses, those beyond the third standard deviation, were treated as outliers, and each of them was recoded to the value corresponding to the third standard deviation above the mean number of hours." (p. 325)

Item(s)

Equity of housework measure

Items	Scoring
"How do you feel about the fairness in your relationship in each of the following areas?"	1 = Very unfair to wife, 3 = Fair to both 5 = Very unfair to husband

Title

Family Adaptation Scale

Key Words

Family, Family Management, Family Adaptation

Author(s)

Gary L. Bowen, Jay A. Mancini, James A. Martin, William B. Ware, and John P. Nelson

Source

Bowen, G. L., Mancini, J. A., Martin, J. A., Ware, W. B., & Nelson, J. P. (2003). Promoting the adaptation of military families: An empirical test of a community practice model. *Family Relations, 52*, 33–44.

Description

This measure of family adaptation consists of five items, each of which has separate response categories. "The first item addressed members' perception of their 'success in managing family responsibilities'. Response options ranged from 1 (*not at all successful*) to 5 (*extremely successful*). The second item, which was assessed on a 5-point scale from 1 (*never*) to 5 (*very often*), assessed the frequency of 'conflicts with family members in the past month'. This item was reverse-coded for purposes of analysis. The next item assessed how often respondents 'had wondered in the past year about whether they should continue their relationship'. Responses ranged from 1 (*often*) to 4 (*never*). The last two items included five response choices, which were coded from negative to positive. The end points on the response continuum were anchored with descriptive phrases. The first of these two items asked respondents about what happens 'When the family has to get things done that depend on cooperation of all members of the family'. Responses ranged from 1 (*There is almost no chance that things will get done*) to 5 (*Things will always get done*). The second of these two items asked respondents about what happens 'When my family faces a tough problem'. Responses ranged from 1 (*There is no hope of solving the problem*) to 5 (*We will solve the problem*). The 5-item summary score ranged from 5 to 24 ($M = 19.36$, $SD = 3.16$). This assessment of family adaptation parallels an earlier assessment of internal family adaptation within the U.S. Army (Bowen, 1998)" (p.38).

Test Sample

Using purposeful sampling methods this study consisted of 25 participants with an age range of 30–57 and a mean age of 43 years.

Scoring

See description above.

Reliability

Cronbach's alpha = 0.76

Validity

None Reported

Source Reference(s)

None

Note(s)

None

Item(s)

Informal support scale

Items	Scoring
"Success in managing family responsibilities?"	1 = Not at all successful 5 = Extremely successful
"Conflicts with family members in the past month?"[a]	1 = Never 5 = Very often
"Had wondered in the past year about whether they should continue their relationship?"	1 = Often 4 = Never
"When the family has to get things done that depend on cooperation of all members of the family"	1 = There is almost no chance that things will get done 5 = Things will always get done
"When my family faces a tough problem"	1 = There is no hope of solving the problem 5 = We will solve the problem

[a]Item reverse coded

Title

Gender Ideology Scale

Key Word

Gender Ideology

Author(s)

Alan J. Hawkins, Steven L. Nock, Julia C. Wilson, Laura Sanchez, and James D. Wright

Source

Hawkins, A. J., Nock, S. L., Wilson, J. C., Sanchez, L., & Wright, J. D. (2002). Attitudes about covenant marriage and divorce: Policy implications from a three-state comparison. *Family Relations, 51*, 166–175.

Description

The four-item scale has a possible range of 4–19, with higher scores indicating more traditional gender-role views.

Test Sample

Data for this study was collected by separate telephone surveys of adults in AZ, LA, and MN based on a representative sample of telephone households in those states. There were 413 respondents in AZ, 527 in LA, and 384 in MN. This yielded a total sample of 1,324 respondents. Survey questions asked respondents about their sentiments toward marriage and divorce in general and issues related to covenant marriage in particular. Our focus was on people's thoughts and sentiments surrounding divorce and covenant marriage, not on the political outcome itself.

Scoring

Participants responded on 4- and 5-point Likert scales (5-point Likert scale, strongly agree to strongly disagree; 4-point Likert scale, very good idea to very bad idea; 5-point Likert scale, strongly approve to strongly disapprove).

Reliability

Cronbach's alpha for the scale = 0.61

Validity

Not Reported

Source Reference(s)

None

Note(s)

None

Item(s)

Gender ideology scale

Items	Scoring
"All in all, family life suffers when the wife has a full-time job"	1 = Strongly agree 5 = Strongly disagree
"A husband's job is to earn money; a wife's job is to look after the home and family"	1 = Strongly agree 5 = Strongly disagree
"It is okay for a woman to keep her maiden name after she gets married"[a]	1 = Strongly agree 5 = Strongly disagree
"One reason for the increase in divorce is that women have gotten more interested in careers and self-advancement than in families and children"	1 = Strongly agree 5 = Strongly disagree

[a]Scores Reversed for Inclusion in the Scale

Title

Informal Community Support Scale

Key Words

Social Support, Community Support, Support, Informal Support

Author(s)

Gary L. Bowen, Jay A. Mancini, James A. Martin, William B. Ware, and John P. Nelson

Source

Bowen, G. L., Mancini, J. A., Martin, J. A., Ware, W. B., & Nelson, J. P. (2003). Promoting the adaptation of military families: An empirical test of a community practice model. *Family Relations, 52*, 33–44.

Description

This measure of informal network of support was assessed with this three-item scale.

Test Sample

Using purposeful sampling methods this study consisted of 25 participants with an age range of 30–57 and a mean age of 43 years.

Scoring

Responses to measure were on a Likert-type five-point scale ranging from 1 = strongly disagree to 5 = strongly agree. The middle response option was referenced as "neutral"

Reliability

Cronbach's alpha = 0.88

Validity

None Reported

Source Reference(s)

None

Note(s)

None

Item(s)

Informal support scale

Items	Scoring
"If I had an emergency, even people I do not know in this community would be willing to help?"	1 = Strongly disagree 5 = Strongly agree
"People here know they can get help from the community if they are in trouble?"	1 = Strongly disagree 5 = Strongly agree
"People can depend on each other in this community?"	1 = Strongly disagree 5 = Strongly agree

Title

Relationship Satisfaction Item

Key Word

Relationship Satisfaction

Author(s)

Lincoln, K. D., Taylor, R. J., and Jackson, J. S. (2008)

Source

Lincoln, K. D., Taylor, R. J., & Jackson, J. S. (2008). Romantic relationships among unmarried African American and Caribbean Blacks: Findings from the national survey of American life. *Family Relations, 57*, 254–266.

Description

This single item global measure of relationship satisfaction assessed respondent's relationship satisfaction.

Test Sample

Data in this analysis is from The National Survey of American Life: Coping With Stress in the 21st Century (NSAL). Face-to face interview were conducted with 6,082 individuals over the age of 18. Of the 6,082 participants, there were 3,570 African Americans, 1,621 Black Caribbeans, and 891 Hispanics.

Scoring

Response categories to this item ranged from 1= very dissatisfied to 4 = very satisfied.

Reliability

None Reported

Validity

None Reported

Source Reference(s)

None

Note(s)

None

Item(s)

Relationship satisfaction item

Items	Scoring
"Taking things all together, how satisfied are you with your current relationship?"	1 = Very dissatisfied 4 = Very satisfied

Title

Satisfaction with Family Index

Key Words

Family, Satisfaction with Family, Satisfaction

Author(s)

Wayne C. Seelbach and Charles J. Hansen

Source

Seelbach, W. C., & Hansen, C. J. (1980). Satisfaction with family relations among the elderly. *Family Relations, 29*, 91–96.

Description

This six-item index assesses respondents' satisfaction with various aspects of their family relationships.

Test Sample

The data analyzed in this study is from a larger study conducted by the Texas Department of Human Resources (DHR) to evaluate its alternatives to institutional care programs. Data were collected by interviews in the spring and summer of 1977 from a random sample of DHR clients. There were a total 359 participants, 151 institutionalized and 208 noninstitutionalized participants.

Scoring

This index has a dichotomous response category of agree or disagree. Agreement with items 1, 2, and 3 indicated satisfaction with family relations whereas agreement with items 4, 5, and 6 indicated dissatisfaction with family relations.

Reliability

None Reported

Validity

None Reported

Source Reference(s)

None

Note(s)

None

Item(s)

Satisfaction with family index

Items	Scoring
1. I am perfectly satisfied with the way my family treats me	Agree Disagree
2. I think my family is the finest in the world	Agree Disagree
3. I get as much love and affection from my family now as I ever did before	Agree Disagree
4. I wish my family would pay more attention to me	Agree Disagree
5. My family is always trying to boss me	Agree Disagree
6. My family does not really care about me	Agree Disagree

Title

Modified Version of Norton's 1983 Quality of Marriage Index

Key Words

Marital Quality, Marital Relationships, Marital Satisfaction, Romantic Relationships, Interpersonal Realtionships

Author(s)

R. Roudi Nazarinia and Jim M. White

Source

Nazarinia, R. R., & White, J. M. (2006). Unpublished Master's thesis entitled "The Transition to Parenthood and the Effects of Unfulfilled Expectations."

Description

A slightly modified version of Norton's 1983 Quality Marriage Index was administered to 61 first-time mothers. The six items of the modified index showed high internal consistency (alpha > 0.90) and substantial test-retest reliability with a Pearson zero-order correlation of 0.65 across the two administrations. Maximum likelihood factor analysis indicated moderate support for unidimensional factor structure for the modified index, but removing one item from the pre- and post-natal administration improved the factor structure. In the first administration, the last item (overall current satisfaction with partner) fit poorly with the factor structure, while at the second administration, the second item (our relationship is very stable) fit poorly.

Test Sample

The sample comprised of 61 expectant mothers prior to giving birth and within 3 months after giving birth. Mothers' ages ranged from 19 to 43 years (M = 30, SD = 5.01) and their partners' ages ranged from 21 to 48 years (M = 32, SD = 6.02). Mothers were presented an opportunity to participate in this study during prenatal classes held at hospital and community health centers. The only requirement for participation was that the mother should be residing with her child's father for the duration of the study.

Scoring

Reliability

The Cronbach's alpha coefficient for the scale was 0.90.

Validity

Pearson zero-order correlation of 0.65 across the two administrations.

Source Reference(s)

Nazarinia, R. R., Schumm, W. R., & White, J. M (2009). Dimensionality and reliability of a modified version of Norton's 1983 quality marriage index among expectant and new Canadian mothers. *Psychological Reports, 104*(22), 379–387.

Note(s)

Item(s)

Title

Couple Rituals Scale

Key Words

Couple Rituals, Relationship Maintenance, Couple Behaviors, Couple Activities, Interpersonal Relationships, Romantic Relationships

Author(s)

Kelly Campbell and James J. Ponzetti

Source

Unpublished Master's Thesis entitled "The role of couple rituals on commitment in premarital relationships" (Campbell, 2003)

Description

This scale is designed to assess couple rituals, which are repeated and meaningful behaviors that partners enact together. It is a 45-item scale that assesses

9 types of couple rituals: enjoyable activities, intimacy rituals, communication rituals, patterns/habits/mannerisms, play rituals, togetherness rituals, private codes, couple favorites, and escape rituals. Each ritual type is assessed on five dimensions: frequency, regularity, affect, meaning, and deliberateness.

Test Sample

The scale was evaluated with 100 Canadian university students ranging in age from 19 to 33 years. There were 27 men and 73 women.

Scoring

Participants responded to each item using a Likert-type four-point scale (1 = lowest score, and 4 = highest score). Responses were summed to yield score ranging from 45 to 180, with higher scores indicating higher ritual functioning.

Reliability

The Cronbach's alpha coefficient for the scale was 0.93.

Validity

Validity was not reported in the study.

Source Reference(s)

Campbell, K., & Ponzetti, J. J. (2007). The moderating effects of rituals on commitment in premarital involvements. *Sexual and Relationship Therapy*, *22*, 1–14.

Note(s)

Item(s)

Contact author for scales

Chapter 8
Measures for Professional Aspects of the Financial Helping Relationship

John E. Grable, Kristy L. Archuleta, and R. Roudi Nazarinia

Title

Preference for Financial Planner Index

Key Words

Financial Planning, Planning Preference

Author(s)

Sung C. Bae and James P. Sandager

Source

Bae, S. C., & Sandager, J. P. (1997). What consumers look for in financial planners. *Financial Counseling Planning, 8*(2), 9–16.

Description

This index of questions can be used to assess a consumer's preference for financial planner's traits, skills, and abilities.

Test Sample

The index was used with a sample of faculty, staff, and administrators at a community college in Iowa, church members in an evangelical church in Iowa, and Rotary Club members in Ankeny Iowa.

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J.E. Grable et al. (eds.), *Financial Planning and Counseling Scales*,
DOI 10.1007/978-1-4419-6908-8_8,

Scoring

See Table.

Reliability

Not reported

Validity

Not reported

Source Reference(s)

None

Note(s)

None

Item(s)

Preference for financial planner index

Items	Scoring
I prefer a financial planner to advise me on Investment/asset growth Reducing tax burden Retirement funding	Nominal coding: choose all that apply
I prefer to use a financial planner due to Lack of knowledge Personal assurance	Nominal coding: choose all that apply
I prefer a financial planner if she/he is Competent Able to communicate Honest Objective	Nominal coding: choose all that apply

Preference for financial planner index (continued)

Items	Scoring
I prefer a financial planner to be compensated by Hourly or flat fees Commission from sales Combination of fees and commissions	Nominal coding: choose one
I prefer a financial planner to be comprehensive in reviewing my situation	1 = Very important 5 = Never
I prefer a financial planner to provide me with detailed financial information and advice	1 = Very important 5 = Never
I prefer a financial planner to have a minimum education of a Masters degree or an MBA degree	1 = Very important 5 = Never
I prefer a financial planner to have the CFP designation	1 = Very important 5 = Never
I prefer a financial planner to be affiliated with a(an) Bank/Credit union Insurance firm Stock brokerage firm Independent financial firm Accounting firm	Nominal coding: choose one
I prefer a financial planner to be affiliated with a firm which has One financial planner More than one financial planner Supermarket approach Prefer to use several different planners Professionals from several firms	Nominal coding: choose one

Title

Financial Manager Organizational Style Scale

Key Words

Financial Management, Financial Behavior

Author(s)

Deborah D. Godwin and Joan C. Koonce

Source

Godwin, D. D., & Koonce, J. C. (1992). Cash flow management of low-income newlyweds. *Financial Counseling and Planning, 3*(1), 17–42.

Description

This five-item scale was developed to assess an individual's propensity toward being certain and predictable when managing daily routines.

Test Sample

The scale was developed using factor analysis techniques with 106 newlywed couples living in Georgia in 1990. The sample was representative of a wide range of family incomes (i.e., high, moderate, and low).

Scoring

A five-point Likert-type scale ranging from 1 = strongly disagree and 5 = strongly agree is used when scoring the scale. High scores indicate a flexible, adaptable management style. A low score indicates a rigid, less flexible management style.

Reliability

Not reported

Validity

Scale scores were shown to be associated with differences in newlyweds' incomes.

Source Reference(s)

None

Note(s)

None

Item(s)

Financial manager organizational style scale

Items	Scoring
1. I do not like to undertake anything unless I have a good idea how it will turn out[a]	1 = Strongly disagree 5 = Strongly agree
2. I do not mind things being uncertain and unpredictable	1 = Strongly disagree 5 = Strongly agree
3. I find that well-ordered life with regular hours is most satisfying to me[a]	1 = Strongly disagree 5 = Strongly agree
4. It does not bother me when something unexpected interrupts my daily routine	1 = Strongly disagree 5 = Strongly agree
5. I must admit that it makes me angry when people interfere with my daily activity[a]	1 = Strongly disagree 5 = Strongly agree

[a]Reverse-coded items

Title

Help Seeking Advice Measure

Key Words

Help Seeking, Financial Information

Author(s)

Arthur B. Kennickell, Martha Starr-McCluer, and Annika E. Sunden

Source

Kennickell, A. B., Starr-McCluer, M., & Sunden, A. E. (1997). Saving and financial planning: Some findings from a focus group. *Financial Counseling and Planning, 8*(1), 1–8.

Description

This item indicates from where an individual obtains information about investments.

Test Sample

This measure was used as a pretest to the 1995 Survey of Consumer Finances (SCF), which is a triennial survey of household behavior, assets, liabilities, and demographic/socioeconomic characteristics. The SCF is sponsored by the Federal Reserve Board. Focus group participants were recruited from Chicago. Those in the focus group had income exceeding $250,000 or net worth higher than $600,000.

Scoring

Nominal coding; select one answer

Reliability

Not reported

Validity

Not reported

Source Reference(s)

None

Note(s)

Item(s)

Help seeking advice measure

Item
When you make decisions about investments, what sources of information do you consult? A. Media (local newspapers, magazines, radio, TV, and newsletter) B. Financial professionals (stock broker, accountant, banker, etc.) C. Friends, coworkers, parents, and other acquaintances D. Others

Title

Attitudes Toward Financial Planning Scale

Key Words

Financial Planning, Debt Management, Financial Behavior

Author(s)

Deborah D. Godwin and Joan C. Koonce

Source

Godwin, D. D., & Koonce, J. C. (1992). Cash flow management of low-income newlyweds. *Financial Counseling and Planning, 3*(1), 17–42.

Description

This scale was developed to assess a person's support for the need and value of financial planning.

Test Sample

The scale was developed using factor analysis techniques with 106 newlywed couples living in Georgia in 1990. The sample was representative of a wide range of family incomes (i.e., high, moderate, and low). The scale was pretested with 10 newlywed couples. The published scale consists of five factors: (a) planning for the future, (b) planning for success getting ahead, (c) planning for present management, (d) planning for life insurance, and (e) estate planning.

Scoring

A five-point Likert-type scale ranging from 1 = strongly disagree and 5 = strongly agree is used when scoring the scale.

Reliability

Not reported

Validity

Scale scores were shown to be associated with differences in newlyweds' incomes.

Source Reference(s)

None

Note(s)

None

Item(s)

Attitudes toward financial planning scale

Items	Scoring
Planning for future subscale	1 = Strongly disagree
1. Families should really concentrate on the present when managing their finances	5 = Strongly agree
2. Financial planning for retirement is not really necessary for assuring one's security during old age	
3. Having a financial plan makes it difficult to make financial investment decisions	
4. Having a savings plan is not really necessary in today's world in order to meet one's financial needs	
5. It is really essential to plan for the possible disability of a family wage-earner	
6. Making sure your property is insured against reasonable risks is not really necessary for successful financial management	
7. Planning is an unnecessary distraction when families are trying to just get by today	

Title

Perceptions of Financial Planning

Key Words

Financial Planning, Students, Academic Degree

Author(s)

Ralph A. Pope and Thomas S. Howe

Source

Pope, R. A., & Howe, T. S. (1991). Characteristics and needs of students interested in financial planning. *Financial Counseling and Planning, 2*(1), 79–96.

Description

This scale was designed to test an undergraduate student's interest in obtaining a personal financial plan as a proxy for (a) holding a favorable attitude toward comprehensive financial planning and (b) having a favorable attitude about pursuing a financial planning education at the college level.

Test Sample

The scale was normed through a questionnaire distributed to 688 undergraduate students at eight colleges and universities in 1989.

Scoring

A Likert-type scoring method is used: 1 = strongly disagree to 6 = strongly agree. Higher scores indicate a predisposition to obtaining a college degree in financial planning.

Reliability

Not reported

Validity

Not reported

Source Reference(s)

Ulivi, R. M. (1980). A consumer research study: Personal financial attitudes and behavior related to interest in financial planning. *The Financial Planner, 1*, 44–52.

Note(s)

Scale items were adapted from Ulivi (1980).

Item(s)

Perceptions of financial planning

Items	Scoring
1. A personal financial plan would introduce discipline and direction to my financial affairs	1 2 3 4 5 6
2. There is no advantage of having a personal financial plan	1 2 3 4 5 6
3. Having a personal financial plan will permit me to save money by avoiding investment errors	1 2 3 4 5 6
4. With a personal financial plan, my investments will be more profitable	1 2 3 4 5 6
5. Personal financial planning is just another way for commission agents to sell securities, tax shelters, insurance, etc.	1 2 3 4 5 6
6. A personal financial plan sounds very nice, but I know it will just not work	1 2 3 4 5 6
7. Having a personal financial plan will make me more secure with respect to my financial affairs	1 2 3 4 5 6
8. A personal financial plan is bound to cost more than it is worth	1 2 3 4 5 6
9. A personal financial plan will free me from a great deal of financial worries	1 2 3 4 5 6

Items 2, 5, 6, and 8 are reverse coded.

Title

Willingness to Seek Financial Counseling

Key Words

Help Seeking, Financial Counseling

Author(s)

Jean M. Lown and Janeen Cook

Source

Lown, J. M., & Cook, J. (1990). Attitudes toward seeking financial counseling: Instrument development. *Financial Counseling and Planning, 1*(1), 93–112.

Description

This scale was developed to assess respondent's attitudes toward seeking financial counseling services. The scale was based on earlier assessment instruments created by Rimm (1975) and Fischer and Turner (1970).

Test Sample

The original instrument was tested using a sample of 510 respondents living in a western U.S. state.

Scoring

A four-point Likert-type scoring system is used to calculate a summated score, with 0 = strongly disagree; 1 = disagree; 2 = agree; 3 = strongly agree. High scores indicate a greater willingness to seek financial counseling help. Low scores indicate concerns and sensitivity to the opinions of others and a tendency to rely on one's own skills to resolve financial problems.

Reliability

Reported reliability for the 16 items is 0.82 (Cronbach's alpha). Factor 1, consisting of the first seven items (confidence/willingness) has an alpha of 0.78. Factor 2, comprised of six questions (stigma tolerance), has a reported alpha of 0.67. Factor 3, consisting of three items (self-sufficiency) has an alpha of 0.65.

Validity

The scale was developed using a factor analysis technique that resulted in three factors: (1) confidence/willingness to seek help, (2) stigma tolerance, and (3) self-sufficiency. Content validity established through the use of an item jury, consisting of financial educators, researchers, and financial counselors. Criterion validity was assessed by comparing summated scores to three criterion questions. Construct validity was supported by testing the relationship between summated scores and demographic characteristics, such as age and socioeconomic status.

Source Reference(s)

Fischer, E. H., & Turner, J. L. (1970). Orientations to seeking professional help: Development and research utility of an attitude scale. *Journal of Consulting and Clinical Psychology, 35*(1), 79–90.

Rimm, S. A. (1975). *Attitudes toward seeking financial counseling*. Unpublished master's thesis, Southern Illinois University, Carbondale, IL.

Note(s)

A high score on factor 1 indicates confidence in financial counseling professionals. A high factor 2 score suggests freedom of concern about the stigma associated with seeking help. A high score on factor 3 indicates a willingness to turn to others for help.

Item(s)

Willingness to seek financial counseling

Item	Factor
I would not have much faith in a financial counseling center[a]	Confidence/willingness to seek financial counseling
There have been times when I would have welcomed professional advice about my financial situation	Confidence/willingness to seek financial counseling
If a good friend asked my advice about a money problem, I might suggest he/she see a professional financial counselor	Confidence/willingness to seek financial counseling
If I thought I was headed for financial trouble, I would want to get advice from a professional financial advisor	Confidence/willingness to seek financial counseling

Willingness to seek financial counseling (continued)

Item	Factor
I would want to get financial counseling if I had money problems over a long period of time	Confidence/willingness to seek financial counseling
Sometime I may want to have counseling for my financial situation	Confidence/willingness to seek financial counseling
If I had a serious debt problem, I would be confident that a professional financial counselor could help me decide what to do	Confidence/willingness to seek financial counseling
Money problems, like many things, tend to work out by themselves[a]	Tolerance of stigma
I would rather be advised by a close friend than a professional person[a]	Tolerance of stigma
I would feel uneasy going to a financial counselor because of what some people might think[a]	Tolerance of stigma
I would willingly confide financial problems to an appropriate person	Tolerance of stigma
I would rather live with financial problems than go through the embarrassment of asking for help[a]	Tolerance of stigma
Financial problems should not be discussed outside the immediate family[a]	Tolerance of stigma
A mature person should always be able to solve his or her own financial problems[a]	Self-sufficiency
I admire a person who is willing to solve his or her own financial problems without going for professional advice[a]	Self-sufficiency
A person should work out his or her own money problems. Seeking help would be a last resort[a]	Self-sufficiency

[a]Negative statements should be reverse coded

Title

Commitment to Financial Planner Scale

Key Words

Financial Planning, Commitment

Author(s)

Deanna L. Sharpe, Carol Anderson, Andrea White, Susan Galvan, and Martin Siesta

Source

Sharpe, D. L., Anderson, C., White, A., Galvan, S., & Siesta, M. (2007). Specific elements of communication that affect trust and commitment in the financial planning process. *Financial Counseling and Planning, 18*(1), 3–17.

Description

This scale was developed to evaluate the level of commitment a client has in his/her financial planner. A similar scale, used to assess commitment from the viewpoint of the planner, is available in the same paper. Commitment, as assessed by this scale, is defined as the intent of a client to both implicitly and explicitly engage in an ongoing planner-client relationship. Scale items are based on original work conducted by Sharma and Patterson (1999).

Test Sample

The scale was tested using a sample of 554 financial planners and 128 financial planning clients. Data were collected in 2006.

Scoring

The scale is scored using a six-point Likert-type system, anchored by 1 = Strongly Disagree and 6 = Strongly Agree. Scores are summed. Higher overall scores suggest greater commitment to the planner by the client.

Reliability

Cronbach's alpha = 0.87.

Validity

Not reported

Source Reference(s)

Sharma, N., & Patterson, P. G. (1999). The impact of communication effectiveness and service quality on relationship commitment in consumer, professional services. *Journal of Services Marketing, 13*(2), 151–171.

Note(s)

None

Item(s)

Commitment to financial planner scale

Items	Scoring
I am very committed to maintaining a relationship with my financial planner	1 = Strongly disagree 6 = Strongly agree
I intend to stay with my financial planner indefinitely	1 = Strongly disagree 6 = Strongly agree
I have a strong sense of loyalty towards my financial planner	1 = Strongly disagree 6 = Strongly agree
I could be persuaded to transfer to a different financial planner[a]	1 = Strongly disagree 6 = Strongly agree

[a]Item Reverse Coded

Title

Trust in Financial Planner Scale

Key Words

Financial Planning, Trust

Author(s)

Deanna L. Sharpe, Carol Anderson, Andrea White, Susan Galvan, and Martin Siesta

Source

Sharpe, D. L., Anderson, C., White, A., Galvan, S., & Siesta, M. (2007). Specific elements of communication that affect trust and commitment in the financial planning process. *Financial Counseling and Planning, 18*(1), 3–17.

Description

This scale was developed to evaluate the level of trust a client has in his/her financial planner *from the perspective of the financial planner*. A similar scale, used to assess trust from the client's viewpoint is available in the same paper. Trust, as assessed by this scale, is defined as the belief of a client that the planner can be relied upon to have the long-term interests of the client in mind when making recommendations. Scale items are based on original work conducted by Sharma and Patterson (1999).

Test Sample

The scale was tested using a sample of 554 financial planners and 128 financial planning clients. Data were collected in 2006.

Scoring

The scale is scored using a six-point Likert-type system, anchored by 1 = Strongly Disagree and 6 = Strongly Agree. Scores are summed. Higher overall scores suggest greater trust in the planner by the client, as perceived by the planner.

Reliability

Cronbach's alpha = 0.89.

Validity

Not reported

Source Reference(s)

Sharma, N., & Patterson, P. G. (1999). The impact of communication effectiveness and service quality on relationship commitment in consumer, professional services. *Journal of Services Marketing, 13*(2), 151–171.

Note(s)

None

Item(s)

Trust in financial planner scale

Items	Scoring
My clients have confidence in my integrity	1 = Strongly disagree 6 = Strongly agree
My client have confidence in my financial skills and expertise	1 = Strongly disagree 6 = Strongly agree
My clients can rely on me to follow through with my commitments	1 = Strongly disagree 6 = Strongly agree
My client trust me	1 = Strongly disagree 6 = Strongly agree
My client view me as a sincere person	1 = Strongly disagree 6 = Strongly agree

Title

Commitment to Financial Planner Scale

Key Words

Financial Planning, Commitment

Author(s)

Deanna L. Sharpe, Carol Anderson, Andrea White, Susan Galvan, and Martin Siesta

Source

Sharpe, D. L., Anderson, C., White, A., Galvan, S., & Siesta, M. (2007). Specific elements of communication that affect trust and commitment in the financial planning process. *Financial Counseling and Planning, 18*(1), 3–17.

Description

This scale was developed to evaluate the level of commitment a client has in his/her financial planner *from the perspective of the financial planner*. A similar scale, used to assess commitment from the client's viewpoint is available in the same paper. Commitment, as assessed by this scale, is defined as the intent of a client to both implicitly and explicitly engage in an ongoing planner-client relationship. Scale items are based on original work conducted by Sharma and Patterson (1999).

Test Sample

The scale was tested using a sample of 554 financial planners and 128 financial planning clients. Data were collected in 2006.

Scoring

The scale is scored using a six-point Likert-type system, anchored by 1 = Strongly Disagree and 6 = Strongly Agree. Scores are summed. Higher overall scores suggest greater commitment to the planner by the client, as perceived by the planner.

Reliability

Cronbach's alpha = 0.84.

Validity

Not reported

Source Reference(s)

Sharma, N., & Patterson, P. G. (1999). The impact of communication effectiveness and service quality on relationship commitment in consumer, professional services. *Journal of Services Marketing, 13*(2), 151–171.

Note(s)

None

Item(s)

Commitment to financial planner scale

Items	Scoring
My clients are very committed to maintaining a relationship with me	1 = Strongly disagree 6 = Strongly agree
My clients intend to retain me as their financial planner indefinitely	1 = Strongly disagree 6 = Strongly agree
I believe my clients are loyal to me	1 = Strongly disagree 6 = Strongly agree
I am my client's primary financial advisor	1 = Strongly disagree 6 = Strongly agree
I am confident that my client have no interest in transferring to a different planner	1 = Strongly disagree 6 = Strongly agree

Title

Trust in Financial Planner Scale

Key Words

Financial Planning, Trust

Author(s)

Deanna L. Sharpe, Carol Anderson, Andrea White, Susan Galvan, and Martin Siesta

Source

Sharpe, D. L., Anderson, C., White, A., Galvan, S., & Siesta, M. (2007). Specific elements of communication that affect trust and commitment in the financial planning process. *Financial Counseling and Planning, 18*(1), 3–17.

Description

This scale was developed to evaluate the level of trust a client has in his/her financial planner. Trust, as assessed by this scale, is defined as the belief of a client that the planner can be relied upon to have the long-term interests of the client in mind when making recommendations. Scale items are based on original work conducted by Sharma and Patterson (1999).

Test Sample

The scale was tested using a sample of 554 financial planners and 128 financial planning clients. Data were collected in 2006.

Scoring

The scale is scored using a six-point Likert-type system, anchored by 1 = Strongly Disagree and 6 = Strongly Agree. Scores are summed. Higher overall scores suggest greater trust in the planner by the client.

Reliability

Cronbach's alpha = 0.93.

Validity

Not reported

Source Reference(s)

Sharma, N., & Patterson, P. G. (1999). The impact of communication effectiveness and service quality on relationship commitment in consumer, professional services. *Journal of Services Marketing, 13*(2), 151–171.

Note(s)

None

Item(s)

Trust in financial planner scale

Items	Scoring
I have confidence in my financial planner's integrity	1 = Strongly disagree 6 = Strongly agree
I have confidence in my financial planner's skills and expertise	1 = Strongly disagree 6 = Strongly agree
I can rely on my financial planner to follow through on his/her commitments	1 = Strongly disagree 6 = Strongly agree
I trust my financial planner	1 = Strongly disagree 6 = Strongly agree
I view my financial planner a sincere person	1 = Strongly disagree 6 = Strongly agree

Title

Financial and Career Satisfaction Scale

Key Words

Financial Satisfaction, Career Satisfaction

Author(s)

Cazilia Loibl and Tahira K. Hira

Source

Loibl, C., & Hira, T. K. (2005). Self-directed financial learning and financial satisfaction. *Financial Counseling and Planning, 16*(1), 11–22.

Description

This scale can be used to evaluate employee financial satisfaction.

Test Sample

The scale was tested with a sub-sample ($N = 1{,}089$) of lower-level field and management employees from an insurance company. The sample was over-weighted with non-Hispanic white married women

Scoring

The instrument is scored with a Likert-type scale, with 1 = Very Dissatisfied and 5 = Very Satisfied. Scores are summed with 7 indicating high dissatisfaction and 35 suggesting high satisfaction.

Reliability

Cronbach's alpha = 0.86

Validity

Individuals who scored high on the scale tended to be those who were self-directed financial learners.

Source Reference(s)

None

Note(s)

None

Item(s)

Financial and career satisfaction scale

Question	Scoring
During the past 6 months, how satisfied have you been with each of the following aspects of your life?	
1. The way you've used your money	1 = Very dissatisfied 5 = Very satisfied
2. Your ability to make investment decisions with the money you have saved	1 = Very dissatisfied 5 = Very satisfied

Financial and career satisfaction scale (continued)

Question	Scoring
3. Your preparation to meet long-term financial goals	1 = Very dissatisfied 5 = Very satisfied
4. Your ability to meet large unexpected expenses	1 = Very dissatisfied 5 = Very satisfied
5. The amount of your unpaid balance on your credit card(s)	1 = Very dissatisfied 5 = Very satisfied
6. The extent to which you have been able to control your financial situation	1 = Very dissatisfied 5 = Very satisfied
7. The estate planning you have done	1 = Very dissatisfied 5 = Very satisfied

Title

Employee Success Satisfaction Item

Key Words

Financial Satisfaction, Career Satisfaction

Author(s)

Cazilia Loibl and Tahira K. Hira

Source

Loibl, C., & Hira, T. K. (2005). Self-directed financial learning and financial satisfaction. *Financial Counseling and Planning, 16*(1), 11–22.

Description

This one item question can be used to measure a person's satisfaction with their ability to achieve success and get ahead.

Test Sample

The scale was tested with a sub-sample (N = 1,089) of lower-level field and management employees from an insurance company. The sample was over-weighted with non-Hispanic white married women

Scoring

A five-item Likert-type scale, with 1 = Very Dissatisfied and 5 = Very Satisfied is used with this item. Higher scores suggest increased satisfaction.

Reliability

Not reported

Validity

Individuals who scored high on the item were more self-directed in learning about financial issues.

Source Reference(s)

None

Note(s)

None

Item(s)

Employee success satisfaction item

Question	Scoring
During the past 6 months, how satisfied have you been with your ability to achieve success and to get ahead?	1 = Very dissatisfied 5 = Very satisfied

Title

Investment Decision Confidence Scale

Key Words

Decision Making, Decision Confidence

Author(s)

Yinghao M. Li, Jinkook Lee, and Brenda J. Cude

Source

Li, Y. M., Lee, J., & Cude, B. J. (2002). Intention to adopt online trading: Identifying the future online traders. *Financial Counseling and Planning, 13*(2), 49–64.

Description

This brief scale was developed as part of a study designed to differentiate between future and non-future adopters of online investment trading. This scale measures a person's confidence when making an investment decision.

Test Sample

The scale was tested with an investor sub-sample of 3,759 MacroMonitor database. "MacroMonitor is a biennial survey conducted by the Consumer Finance Decision section of SRI Consulting Corporation. It focuses on retail financial services and covers attitudes, behaviors, and motivations related to financial services" (p. 52). According to the authors, "Since confidence, investment risk preference, price sensitivity, attitude toward human interaction, and attitude toward using investment advice were measured with multiple items, factor analysis was used. Principle component factor analysis was conducted, and using varimax rotation, an orthogonal factor structure was obtained to avoid multicollinearity" (pp. 52–53).

Scoring

Scale questions were coded on a 4-point Likert-type scale ranging from 1 = mostly agree to 4 = mostly disagree. A positive score indicates that respondents are more confident when making investment decisions.

Reliability

Not reported

Validity

Not reported

Source Reference(s)

None

Note(s)

None

Item(s)

Investment decision confidence scale

Items	Scoring
Often I'm not sure whether the financial decisions I've made are the right ones	1 = Mostly agree 4 =Mostly disagree
I do a very good job of keeping my financial affairs in order[a]	1 = Mostly agree 4 =Mostly disagree
I feel uncomfortable making judgments about the riskiness of investments	1 = Mostly agree 4 =Mostly disagree

[a]Reverse code item

Title

Investment Advice Use Scale

Key Words

Investment, Help-Seeking

Author(s)

Yinghao M. Li, Jinkook Lee, and Brenda J. Cude

Source

Li, Y. M., Lee, J., & Cude, B. J. (2002). Intention to adopt online trading: Identifying the future online traders. *Financial Counseling and Planning, 13*(2), 49–64.

Description

This brief scale was developed as part of a study designed to differentiate between future and non-future adopters of online investment trading. This scale measures a person's use of investment advice.

Test Sample

The scale was tested with an investor sub-sample of 3,759 MacroMonitor database. "MacroMonitor is a biennial survey conducted by the Consumer Finance Decision section of SRI Consulting Corporation. It focuses on retail financial services and covers attitudes, behaviors, and motivations related to financial services" (p. 52). According to the authors, "Since confidence, investment risk preference, price sensitivity, attitude toward human interaction, and attitude toward using investment advice were measured with multiple items, factor analysis was used. Principle component factor analysis was conducted, and using varimax rotation, an orthogonal factor structure was obtained to avoid multicollinearity" (pp. 52–53).

Scoring

Scale questions were coded on a 4-point Likert-type scale ranging from 1 = mostly agree to 4 = mostly disagree. A positive score indicates that investors need professional advice when making an investment decision.

Reliability

Not reported

Validity

Not reported

Source Reference(s)

None

Note(s)

None

Item(s)

Investment advice use scale

Items	Scoring
It is important that a financial services representative makes recommendations I should consider[a]	1 = Mostly agree 4 =Mostly disagree
I prefer to consult a specialist when making financial decisions[a]	1 = Mostly agree 4 =Mostly disagree
I like to discuss my financial options before making a decision about them[a]	1 = Mostly agree 4 =Mostly disagree
I don't need advice on investment options	1 = Mostly agree 4 =Mostly disagree
I need help selecting savings and investment products that are best suited to meet my financial goals[a]	1 = Mostly agree 4 =Mostly disagree
I would be willing to pay for professional financial advice[a]	1 = Mostly agree 4 =Mostly disagree
It is important that a service representative provides good investment advice[a]	1 = Mostly agree 4 =Mostly disagree
Using my financial institution as a sounding board for ideas about my finances is important to me[a]	1 = Mostly agree 4 =Mostly disagree
I feel qualified to make my own investment decisions	1 = Mostly agree 4 =Mostly disagree

[a]Reverse code item

Title

Financial Analysts Perception Scale

Key Words

Investment, Economics

Author(s)

Piotr Zielonka

Source

Zielonka, P. (2002). How financial analysts perceive macroeconomic, political news and technical analysis signals. *Financial Counseling and Planning, 13*(1), 87–96.

Description

The scale was developed to assess a financial analyst's knowledge and prediction of estimated impacts of macroeconomic, political, and technical changes on future stock prices.

Test Sample

The scale was tested with a sample of 40 financial analysts who were meeting in Warsaw, Poland in 1999. A principal axis factor analysis method with a normalized rotation was yield to indentify four factors: (1) Growth of Investments in the Stock Market; (2) Technical Measures; (3) Unfavorable Political Signals; (4) Positive Macroeconomic and Financial Signals.

Scoring

The scale asks respondents to select one of the following, "depending on how they estimated the impact of the item for the future (within a few weeks) behavior of stock prices in Poland" (p. 89): –3, –2, –1, 0, +1, +2 or +3. According to the author, "–3 meant that the item was expected to evoke a strong price drop, while +3, a strong rise. Zero meant that the item was regarded by the participant as a neutral measure, having no effect on stock price changes" (p. 89).

Reliability

Cronbach's alpha coefficients were calculated for the four factors, as follows:

(1) Growth of Investments in the Stock Market: 0.93
(2) Technical Measures: 0.75
(3) Unfavorable Political Signals: 0.57
(4) Positive Macroeconomic and Financial Signals: 0.79

Validity

Validity was tested by comparing inter-judge agreements. In general, financial analysts exhibited strong agreement in knowledge and expectations.

Source Reference(s)

None

Note(s)

None

Item(s)

Financial analysts perception scale

Items	Scoring
Growth of investments in the stock market	
Dramatic rise in the maximum value of a buy order	–3, –2, –1, 0, +1, +2 or +3
High volume in blue chips after a long horizontal trend	–3, –2, –1, 0, +1, +2 or +3
Reduction of interest rates	–3, –2, –1, 0, +1, +2 or +3
After an index fall a big overbalance of demand	–3, –2, –1, 0, +1, +2 or +3
Dramatic WIG index rise after a horizontal trend	–3, –2, –1, 0, +1, +2 or +3
The beginning of an index rise accompanied with high volume after a long horizontal trend	–3, –2, –1, 0, +1, +2 or +3
Bullish situation on the world stock market	–3, –2, –1, 0, +1, +2 or +3

Financial analysts perception scale (continued)

Items	Scoring
Continuous over demand	–3, –2, –1, 0, +1, +2 or +3
The rise of foreign investment in Polish economy	–3, –2, –1, 0, +1, +2 or +3
New foreign investors joining Polish market	–3, –2, –1, 0, +1, +2 or +3
Diminishing inflation	–3, –2, –1, 0, +1, +2 or +3
Technical measures	
After a big rise, WIG index creates a "head and shoulders" formation	–3, –2, –1, 0, +1, +2 or +3
After a stock price rise a big overbalance of supply	–3, –2, –1, 0, +1, +2 or +3
Moving averages trajectory (13 and 55 weeks) characteristic for bearish market	–3, –2, –1, 0, +1, +2 or +3
WIG index fails to surpass former peaks	–3, –2, –1, 0, +1, +2 or +3
Observable selling of large amounts of stock	–3, –2, –1, 0, +1, +2 or +3
Unfavorable political signals	
Unstable economic situation in Russia	–3, –2, –1, 0, +1, +2 or +3
Important domestic political affairs	–3, –2, –1, 0, +1, +2 or +3
Important foreign political affairs	–3, –2, –1, 0, +1, +2 or +3
Unstable political situation in Russia	–3, –2, –1, 0, +1, +2 or +3
Post-communist and socialist forces win parliamentary election	–3, –2, –1, 0, +1, +2 or +3
Positive macroeconomic and financial signals	
Increase in dynamics of the indebtedness of the national state sector	–3, –2, –1, 0, +1, +2 or +3
Increase in balance-of-payment	–3, –2, –1, 0, +1, +2 or +3
Increase in income tax	–3, –2, –1, 0, +1, +2 or +3
Increase in budget deficit	–3, –2, –1, 0, +1, +2 or +3
Increase in corporate tax	–3, –2, –1, 0, +1, +2 or +3
Increase in the dynamics of privatization	–3, –2, –1, 0, +1, +2 or +3
Industrial production decline	–3, –2, –1, 0, +1, +2 or +3

Title

Satisfaction with Insurance Agent Scale

Key Words

Insurance Agent, Satisfaction with Insurance

Author(s)

Gregory A. Kuhlemeyer and Garth H. Allen

Source

Kuhlemeyer, G.A., & Allen, G. H. (1999). Consumer satisfaction with life insurance: A benchmarking survey. *Financial Counseling and Planning, 10*(2), 35–48.

Description

This scale was developed to evaluate consumers' satisfaction with their insurance agent.

Test Sample

The scale was tested using a sample of 299 clients of insurance agents.

Scoring

Items are answered with a five-point Likert-type scale, with 1 = Strongly Disagree; 3 = Neutral; and 5 = Strongly Agree. Higher scores indicate increased satisfaction with one's insurance agent.

Reliability

Not reported

Validity

The authors determined that consumer satisfaction with an agent was associated with four elements: "trust, competence, product selection, and consumer goals" (p. 39).

Source Reference(s)

None

Note(s)

None

Item(s)

Satisfaction with insurance agent scale

Items	Scoring
I am satisfied with my life insurance agent	1 = Strongly disagree 3 = Neutral 5 = Strongly agree
I completely trust my agent	1 = Strongly disagree 3 = Neutral 5 = Strongly agree
I plan to change life insurance agent in the near future[a]	1 = Strongly disagree 3 = Neutral 5 = Strongly agree
I have a long business history with my insurance agent	1 = Strongly disagree 3 = Neutral 5 = Strongly agree
My agent is knowledgeable	1 = Strongly disagree 3 = Neutral 5 = Strongly agree
Professional designations (e.g., CLU or CFP indicate increased agent competence)	1 = Strongly disagree 3 = Neutral 5 = Strongly agree
The academic background of an agent is important in determining agent competence	1 = Strongly disagree 3 = Neutral 5 = Strongly agree
An agent is more competent the longer the agent has been in the insurance profession	1 = Strongly disagree 3 = Neutral 5 = Strongly agree
My agent fully met my needs with a life insurance product	1 = Strongly disagree 3 = Neutral 5 = Strongly agree
My agent explains insurance products extremely well	1 = Strongly disagree 3 = Neutral 5 = Strongly agree
My agent uses financial products that always meet my financial needs	1 = Strongly disagree 3 = Neutral 5 = Strongly agree
My agent has asked me about my financial goals and needs	1 = Strongly disagree 3 = Neutral 5 = Strongly agree
My agent understands my financial goals and needs	1 = Strongly disagree 3 = Neutral 5 = Strongly agree
My agent always puts my financial goals and needs above his/her own	1 = Strongly disagree 3 = Neutral 5 = Strongly agree

[a]Items reverse coded

Title

Satisfaction with Life Insurance Institution Scale

Key Words

Insurance Company, Satisfaction with Insurance

Author(s)

Gregory A. Kuhlemeyer and Garth H. Allen

Source

Kuhlemeyer, G.A., & Allen, G. H. (1999). Consumer satisfaction with life insurance: A benchmarking survey. *Financial Counseling and Planning, 10*(2), 35–48.

Description

This scale can be used to evaluate a respondent's satisfaction with the "life insurance institution that underwrites their policies" (p. 40).

Test Sample

The scale was tested using a sample of 299 clients of insurance agents.

Scoring

Items are answered with a five-point Likert-type scale, with 1 = Strongly Disagree; 3 = Neutral; and 5 = Strongly Agree. Higher scores indicate increased satisfaction with one's life insurance institution/company.

Reliability

Not reported

Validity

Not reported

Source Reference(s)

None

Note(s)

This scale can be used concurrently with the satisfaction with insurance agent scale developed and presented by Kuhlemeyer and Allen in the same manuscript.

Item(s)

Satisfaction with life insurance institution scale

Items	Scoring
I am satisfied with my life insurance company	1 = Strongly disagree 3 = Neutral 5 = Strongly agree
I trust my life insurance company	1 = Strongly disagree 3 = Neutral 5 = Strongly agree
I plan to change life insurance companies in the near future	1 = Strongly disagree 3 = Neutral 5 = Strongly agree
I have a long business history with my insurance company	1 = Strongly disagree 3 = Neutral 5 = Strongly agree
The companies who underwrite my life insurance policies are safe	1 = Strongly disagree 3 = Neutral 5 = Strongly agree
I regularly see or hear advertisements presented by my life insurance companies	1 = Strongly disagree 3 = Neutral 5 = Strongly agree
My life insurance company handles all claims and paperwork efficiently and effectively	1 = Strongly disagree 3 = Neutral 5 = Strongly agree

Satisfaction with life insurance institution scale (continued)

Items	Scoring
My life insurance company puts my goals and needs above their own	1 = Strongly disagree 3 = Neutral 5 = Strongly agree
My life insurance company provides a variety of financial products that meets all of my financial needs	1 = Strongly disagree 3 = Neutral 5 = Strongly agree

Title

Financial Planner Shared Values Scale

Key Words

Financial Planner, Planning Effectiveness, Relationship

Author(s)

Tim Christiansen and Sharon A. DeVaney

Source

Christiansen, T., & DeVaney, S. A. (1998). Antecedents of trust and commitment in the financial planner-client relationship. *Financial Counseling and Planning, 9*(2), 1–10.

Description

This scale provides a measure of how well a financial planner understands their client's financial goals in eight financial planning areas. The scale also provides an indication of a planner's understanding of the client's risk tolerance associated with planning and investing.

Test Sample

The scale was tested with a sample of clients ($N = 318$) who were currently working with a financial planner. The sample was typical of the type of person who works with a financial planner – i.e., older, married, with higher income. The normed mean and standard deviation score for the scale was 1.8 and 1.0, respectively.

Scoring

A Likert-type scoring system is used, with 1 = Fully Understands and 7 = No Understanding. Low scores on the scale indicate that the respondent perceives that their planner has high understanding of the planning issues.

Reliability

Cronbach's alpha = 0.95.

Validity

Scale scores were found to be associated with a respondent's commitment to their planner, planner trust, and relationship termination costs.

Source Reference(s)

None

Note(s)

None

Item(s)

Financial planner shared values scale

Items	Scoring
To what degree do you feel that your financial planner understands your financial goals for the following areas: 1. Level of investment risk 2. Debt management 3. Retirement plans 4. Estate plans 5. Personal investment plans 6. Health-care costs 7. Children's college funding 8. Tax planning 9. Insurance needs 10. Other (please describe)	1 = Fully understands 7 = No understanding 8 = Does not apply

Title

Financial Planner Communication Skill Scale

Key Words

Communication, Financial Planner

Author(s)

Tim Christiansen and Sharon A. DeVaney

Source

Christiansen, T., & DeVaney, S. A. (1998). Antecedents of trust and commitment in the financial planner-client relationship. *Financial Counseling and Planning, 9*(2), 1–10.

Description

The scale was adapted from a scale originally developed by Anderson, Lodish, and Weitz (1987). This scale offers an indication of how a client assesses a financial planner's communication skills. The authors hypothesized that "frequent and open communication leads to trust, which in turn supports and develops better communication in the future" (p. 3).

Test Sample

The scale was tested with a sample of clients ($N = 318$) who were currently working with a financial planner. The sample was typical of the type of person who works with a financial planner – i.e., older, married, with higher income. The normed mean and standard deviation score for the scale was 2.1 and 1.2, respectively.

Scoring

A Likert-type scoring system is used, with 1 = Strongly Agree to 7 = Strongly Disagree. Lower scores on the scale indicate that the respondent believes that the planner communicates effectively.

Reliability

Cronbach's alpha = 0.93.

Validity

Scale scores were found to be associated with a respondent's trust in a planner, shared values, and perceived relationship benefits.

Source Reference(s)

Anderson, E., Lodish, L. M., & Weitz, B. A. (1987). Resource allocation behavior in conventional channels. *Journal of Marketing Research, 24*, 85–97.

Note(s)

Both Christiansen and DeVaney (1998) and Anderson et al. (1987) should be referenced whenever this scale is used.

Item(s)

Financial planner communication skill scale

Items	Scoring
My financial planner: 1. Does a good job of explaining his or her suggestions for achieving my overall financial goals 2. Provides me with timely information regarding new investment opportunities 3. Does a good job of communicating how changes in tax laws may affect me 4. Provides me with adequate information regarding my status in meeting my overall financial goals	1 = Strongly agree 7 = Strongly disagree

Title

Financial Planner Relationship Benefits Scale

Key Words

Financial Planner, Planning Effectiveness, Relationship

Author(s)

Tim Christiansen and Sharon A. DeVaney

Source

Christiansen, T., & DeVaney, S. A. (1998). Antecedents of trust and commitment in the financial planner-client relationship. *Financial Counseling and Planning, 9*(2), 1–10.

Description

This scale offers an indication of a respondent's perceptions of his/her financial planner's skills and abilities.

Test Sample

The scale was tested with a sample of clients ($N = 318$) who were currently working with a financial planner. The sample was typical of the type of person who works with a financial planner – i.e., older, married, with higher income. The normed mean and standard deviation score for the scale was 1.9 and 1.2, respectively.

Scoring

A Likert-type scoring system is used, with 1 = Very Useful and 7 = Not at all Useful. Low scores on the scale indicate that the respondent perceives high benefits/values associated with working with a financial planner.

Reliability

Cronbach's alpha = 0.94.

Validity

Scale scores were found to be associated with a respondent's commitment to their planner, shared planner-client values, and relationship termination costs.

Source Reference(s)

None

Note(s)

None

Item(s)

Financial planner relationship benefits scale

Items	Scoring
Please evaluate how useful it has been to you to be able to consult with your financial planner, compared to doing all the work on your own, in planning for the following areas: 1. Retirement plans 2. Estate plans 3. Personal investment plans 4. Health-care costs 5. Children's college funding 6. Tax planning 7. Insurance needs 8. Debt management 9. Other (please describe)	1 = Very useful 7 = Not at all useful 8 = Does not apply

Title

Financial Planner Trust Scale

Key Words

Trust, Financial Planner

Author(s)

Tim Christiansen and Sharon A. DeVaney

Source

Christiansen, T., & DeVaney, S. A. (1998). Antecedents of trust and commitment in the financial planner-client relationship. *Financial Counseling and Planning, 9*(2), 1–10.

Description

The scale was adapted from a scale originally developed by Lazelere and Huston (1980). This scale offers an indication of a respondent's expectancy that they can rely on the word of their financial planner.

Test Sample

The scale was tested with a sample of clients ($N = 318$) who were currently working with a financial planner. The sample was typical of the type of person who works with a financial planner – i.e., older, married, with higher income. The normed mean and standard deviation score for the scale was 1.4 and 0.8, respectively.

Scoring

A Likert-type scoring system is used, with 1 = Strongly Agree to 7 = Strongly Disagree. Lower scores on the scale indicate that high levels of planner trust on the part of the respondent.

Reliability

Cronbach's alpha = 0.76.

Validity

Scale scores were found to be associated with a respondent's commitment to their planner, shared planner-client values, and perceived planner relationship benefits.

Source Reference(s)

Lazelere, R. E., & Huston, T. L. (1980). The dyadic trust scale: Toward understanding interpersonal trust in close relationships. *Journal of Marriage and the Family, 42*, 595–604.

Note(s)

Both Christiansen and DeVaney (1998) and Lazelere and Huston (1980) should be referenced whenever this scale is used.

Item(s)

Financial planner trust scale

Items	Scoring
My planner: 1. Is someone that I have great confidence in 2. Is honest 3. Has high integrity 4. Cannot be trusted at time (reverse coded)	1 = Strongly agree 7 = Strongly disagree

Title

Financial Planner Relationship Commitment Scale

Key Words

Financial Planner, Relationship Commitment

Author(s)

Tim Christiansen and Sharon A. DeVaney

Source

Christiansen, T., & DeVaney, S. A. (1998). Antecedents of trust and commitment in the financial planner-client relationship. *Financial Counseling and Planning, 9*(2), 1–10.

Description

The scale was adapted from a scale originally developed by Mowday, Steers, and Porter (1979). This scale offers an indication of a respondent's belief that working with their financial planner provides a valuable benefit.

Test Sample

The scale was tested with a sample of clients ($N = 318$) who were currently working with a financial planner. The sample was typical of the type of person who works with a financial planner – i.e., older, married, with higher income. The normed mean and standard deviation score for the scale was 1.9 and 1.2, respectively.

Scoring

A Likert-type scoring system is used, with 1 = Strongly Agree to 7 = Strongly Disagree. Lower scores on the scale indicate that the respondent believes that the planner provides timely information, he or she will implement recommendations made by the planner, and the respondent will maintain the professional relationship.

Reliability

Cronbach's alpha = 0.93.

Validity

Scale scores were found to be associated with a respondent's trust in a planner, shared values, and perceived relationship benefits.

Source Reference(s)

Mowday, R., Steers, R. M., & Porter, L. W. (1979). The measurement of organizational commitment. *Journal of Vocational Behavior, 14*, 224–247.

Note(s)

Both Christiansen and DeVaney (1998) and Mowday et al. (1979) should be referenced whenever this scale is used.

Item(s)

Financial planner relationship commitment scale

Items	Scoring
My planner and I work together to: 1. Identify my financial goals 2. Reconcile any difference regarding my financial plans 3. Explore alternative approaches to meeting my financial goals 4. Develop a plan to meet my financial goals 5. Overcome any problems that develop in my financial plans	1 = Strongly agree 7 = Strongly disagree

Title

Financial Planner Relationship Termination Costs Scale

Key Words

Financial Planner, Relationship with Financial Planner

Author(s)

Tim Christiansen and Sharon A. DeVaney

Source

Christiansen, T., & DeVaney, S. A. (1998). Antecedents of trust and commitment in the financial planner-client relationship. *Financial Counseling and Planning, 9*(2), 1–10.

Description

The scale was adapted from a scale originally developed by Meyer and Allen (1984). This scale offers an indication of a respondent's willingness to change financial planners. The scale was developed based on the assumption that the costs (e.g., time, money, etc.) associated with changing financial planners can be expensive. Those who are willing to incur these costs will be more likely to change financial planners.

Test Sample

The scale was tested with a sample of clients ($N = 318$) who were currently working with a financial planner. The sample was typical of the type of person who works with a financial planner – i.e., older, married, with higher income. The normed mean and standard deviation score for the scale was 3.1 and 1.6, respectively.

Scoring

A Likert-type scoring system is used, with 1 = Strongly Agree to 7 = Strongly Disagree. High scores on the scale indicate a willingness to change financial planners, even if changing incurs a cost.

Reliability

Cronbach's alpha = 0.73.

Validity

Scale scores were found to be associated with a respondent's commitment to their planner, shared planner-client values, and perceived planner relationship benefits.

Source Reference(s)

Meyer, J. P., & Allen, N. J. (1984). Testing the 'side-bet theory' of organizational commitment: Some methodological considerations. *Journal of Applied Psychology, 69*, 372–378.

Note(s)

Both Christiansen and DeVaney (1998) and Meyer and Allen (1984) should be referenced whenever this scale is used.

Item(s)

Financial planner relationship termination costs scale

Items	Scoring
In the Future: 1. Changing planners may affect my ability to reach my financial goals 2. My financial future may be jeopardized if I discontinued my relationship with my planner 3. If I were to change planners I may not find someone else that I can work with as effectively	1 = Strongly agree 7 = Strongly disagree

Title

Importance of Long-Term Care Measure

Key Words

Long-Term Care, Health Insurance

Author(s)

Phillip Fuller, Emily N. Zietz, and Roger Calcote

Source

Fuller, P., Zietz, E. N., & Calcote, R. (1997). The role of financial counselors in long-term health care planning. *Financial Counseling and Planning, 8*(1), 19–24.

Description

This measure indicates whether a survey respondent believes financial long-term care costs is a problem and how they view other ways to finance care. This measure is intended to be used with professional financial counselor and planners as the sample frame.

Test Sample

The measure was tested with a sample of Certified Public Accountants ($N = 89$) who held the Personal Financial Specialist designation.

Scoring

A seven-point Likert-type scale score system is used, with 1 = Strong Disagree and 7 = Strongly Agree. The original measure was not intended to be a summed scale; however, the items shown in the table below can be summed, with a high score indicating a perception that LTC is a national problem with most clients not having sufficient asset, income, or insurance coverage.

Reliability

Not reported

Validity

Not reported

Source Reference(s)

None

Note(s)

None

Item(s)

Importance of long-term care measure

Item	Scoring
Please indicate your level of agreement with the following statements:	1 = Strong disagree
1. Paying for LTC is a significant, national problem	7 = Strongly agree
2. Clients have sufficient resources or insurance for LTC needs[a]	
3. Major medical insurance is adequate coverage for LTC needs[a]	
4. Medicare adequately protects for LTC needs[a]	

[a]Reverse coded

Title

Options for Long-Term Care Financing Measure

Key Words

Long-Term Care, Health Insurance

Author(s)

Phillip Fuller, Emily N. Zietz, and Roger Calcote

Source

Fuller, P., Zietz, E. N., & Calcote, R. (1997). The role of financial counselors in long-term health care planning. *Financial Counseling and Planning, 8*(1), 19–24.

Description

Scores on this measure reflect professional advisor's opinions and knowledge "of long-term care insurance and their opinions regarding other funding methods for LTC" (p. 23). This measure is intended to be used with professional financial counselor and planners as the sample frame.

Test Sample

The measure was tested with a sample of Certified Public Accountants ($N = 89$) who held the Personal Financial Specialist designation.

Scoring

A seven-point Likert-type scale score system is used, with 1 = Strong Disagree and 7 = Strongly Agree. Note that the items are not intended to be summed into a scale; rather, each item is designed to reflect an opinion on the presented issue.

Reliability

Not reported

Validity

Not reported

Source Reference(s)

None

Note(s)

None

Item(s)

Options for long-term care financing measure

Item	Scoring
Adults should be covered by LTC insurance	1 = Strong disagree 7 = Strongly agree
Only elderly people should buy LTC insurance	1 = Strong disagree 7 = Strongly agree
Private insurance is available for LTC needs	1 = Strong disagree 7 = Strongly agree
I am familiar with the basic coverage of LTC insurance	1 = Strong disagree 7 = Strongly agree
Governmental programs are the most appropriate way to finance LTC	1 = Strong disagree 7 = Strongly agree
Private insurance is the most appropriate way to finance LTC	1 = Strong disagree 7 = Strongly agree
Individuals should transfer assets to family to qualify for Medicaid	1 = Strong disagree 7 = Strongly agree

Title

Helping Relationships Scale

Key Words

Behavioral Change, Transtheoretical Model of Change, Help-Seeking

Author(s)

Jing Jian Xiao, Barbara M. Newman, Janice M. Prochaska, Berta Leon, Robert L. Bassett, and Janet L. Johnson

Source

Xiao, J. J., Newman, B. M., Prochaska, J. M., Leon, B., Bassett, R. L., & Johnson, J. L. (2004). Applying the Transtheoretical Model of Change to consumer debt behavior. *Financial Counseling and Planning, 15*(2), 89–100.

Description

This scale was designed to assess an important aspect of the Transtheoretical Model of Change. According to the authors, helping relationships refers to "seeking and using social support for the healthy behavior change" (p. 90).

Test Sample

The scale was tested using a sample of individuals who were clients of a regional consumer credit counseling service. Respondents were offered a $25 incentive for completing the survey and scale. In addition, 263 students from a large southwestern university were included in the sample. An exploratory factor analysis, using a structural equation modeling technique was used to design the scale. According to the authors (p. 94), "Due to the underlying complexity of the processes of change, the exploratory phase of development involved using Structural Equation Modeling to explore the structure of the items and constructs. Maximum Likelihood (ML) was used as the estimator of model fit due to the robustness of this estimator with slightly non-normal data (Harlow, 1985). The analysis was conducted on the matrix of inter-item covariances. Due to the nature of the analyses, items were forced to load on a priori proposed constructs. Several iterations of models were tested in order to attain better fitting models. Items were either removed or reorganized based on high residuals, the Lagrange Multiplier test, the Wald test, factor correlations, Cronbach's coefficient alpha with and without individual items, and item content and component interpretability. Again component interpretability involved keeping the strongest items while maintaining the breadth of the construct as with the Decisional Balance and Confidence scales. This series of steps was completed several times before an appropriate fitting model of the processes was agreed upon."

Scoring

A five-point Likert-type scaling system is used with this scale, with 1 = Never, 2 = Seldom, 3 = Occasionally, 4 = Often, and 5 = Repeatedly. Scores are summed. A high scale scores is indicative of more proactive help seeking.

Reliability

Cronbach's alpha = 0.73.

Validity

The items scales were found to be theoretically consistent with the Transtheoretical Model of Change.

Source Reference(s)

None

Note(s)

None

Item(s)

Helping relationships scale

Items	Scoring
How often did you realize there are people who you can turn to for advice?	1 = Never 2 = Seldom 3 = Occasionally 4 = Often 5 = Repeatedly
How often did you realize there are others you could talk with who have gone through similar experiences with getting out of credit card debt?	1 = Never 2 = Seldom 3 = Occasionally 4 = Often 5 = Repeatedly
How often did you know you have someone to call if you needed to talk about getting out of credit card debt?	1 = Never 2 = Seldom 3 = Occasionally 4 = Often 5 = Repeatedly

Title

Perceived Value of Information Intermediaries Scale

Key Words

Financial Management, Help Seeking Information Search

Author(s)

Jinkook Lee and Jinsook Cho

Source

Lee, J., & Cho, J. (2005). Consumer's use of information intermediaries and the impact on their information search behavior in the financial market. *The Journal of Consumer Affairs, 39*, 95–120.

Description

A three-item measurement used to assess the perceived value of using information intermediaries.

Norms

Scoring

The scale is a four-point Likert-type scale ranging from "Mostly Agree" to "Mostly Disagree."

Reliability

Cronbach's alpha = 0.58.

Validity

Not reported

Source Reference(s)

Note(s)

The measurement was used in the 2000/2001 MacroMonitor data set which the authors report as a biennial survey conducted by the Consumer Finance Decision section of SRO Consulting Corporation. The survey focuses on retail financial services and collects information about consumers' attitudes, behaviors, and motivations as related to financial services. The measurement was evaluated with 3,759 U.S households.

Item(s)

Perceived value of information intermediaries scale

Items	Scoring
Perceived value of information intermediaries	Four-point Likert-type scale
1. I don't need advice on investment options (reverse coded)	1 = Mostly agree
2. I need help selecting savings and investment products that are best suited to meet my financial goals.	4 = Mostly disagree
3. I would be willing to pay for professional advice	

Subject Index

Note: The letter ‘t’ following the locators refers to tables cited in the text.

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