# InCharge Financial Distress/Financial Well-Being Scale: Development, Administration, and Score Interpretation

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*This article describes development of the InCharge Financial Distress/Financial Well-Being Scale, designed to measure a latent construct representing responses to one's financial state on a continuum ranging from overwhelming financial distress/lowest level of financial well-being to no financial distress/highest level of financial well-being. It describes a formative Delphi study, validity criteria and testing, factor analysis, Cronbach's alpha coefficients, administration instructions, norming of the data and score interpretation, and implications for use.*

*Key Words: economic stress, financial distress, financial stress, financial well-being, personal finance*

## Introduction

An important part of overall psychological well-being is satisfaction with various aspects of life (Campbell, 1981; Campbell, Converse, & Rogers, 1976; Olsen et al., 1989). One of those domains is one's financial situation. Researchers over the past 30 years have examined both objective and subjective measures in an attempt to describe the financial condition of individuals and families. However, although all of these measures have been useful in contributing to the body of knowledge about individuals' economic situations, there has been little agreement as to the best way to measure the construct, or even which construct was being measured. Is it most helpful for financial educators and practitioners to know about the complications of a family's financial situation, particularly in counseling sessions? Perhaps even more helpful would be knowing an individual's judgments about and emotional responses to his or her financial condition. Note that objective indicators such as household income, for example, measure facets of the financial condition itself rather than one's feeling about the situation. Whereas objective indicators have been used to predict one's perceptions about the financial condition (e. g., Walson & Fitzsimmons, 1993), such indicators do not measure the depth of one's feelings about or reaction to it. Researchers have found that specific subjective measures also can be used to predict individuals' judgments about their financial condition. For example, Walson and Fitzsimmons (1993) found that subjective judgments such as satisfaction with resources and with level of living were important predictors of perceived economic well-being. More recently, Joo and Grable (2004) observed that subjective measures, such as reported levels of financial stress and risk tolerance, were related to financial satisfaction.

Campbell and colleagues (1976) presented value-laden indicators of objective variables to provide useful insights

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into the domains of well-being, including financial well-being. A number of researchers have examined factors contributing to psychological well-being and found economic distress to be a good predictor of lower levels of well-being (Blumstein & Schwartz, 1983; Mills, Grasmick, Morgan, & Wenk, 1992; Mirowsky & Ross, 2003; Pittman & Lloyd, 1988; Ross & Huber, 1985). Mills et al. found that a key determinant of psychological well-being was the level of economic distress reported. Based on data that measured economic strain using four subjective measures ("I often experience money problems," "I spend a lot of time worrying about financial matters," "Financial problems often interfere with my work," and "Financial problems often interfere with my relationships with other people"), Mills et al. reported that married men and married women were equally affected by financial distress.

One can argue that objective measures of the financial condition are less useful in assessing the need for appropriate intervention. For example, two individuals with the same income are likely to have different perceptions about their financial condition, in part because their consumption values and spending habits may differ. Furthermore, while one individual may be very unhappy about the family's finances, another with equal income might be quite satisfied. This construct, the individual's point of view about the degree to which a stream of income can meet the financial demands of life, has been defined in the literature as perceived income adequacy (Danes & Rettig, 1993). Part of what shapes perceptions about income adequacy is the extent to which disposable income has provided for the needs and wants of the individual. Obviously, for individuals with equal income, those with few needs and wants have perceived greater income adequacy than have those with a multitude of needs and wants. Danes and Rettig found that people who perceived their income to be inadequate to meet even basic living expenses reported experiencing negative feelings and lower satisfaction with the perceived gap between their standard and level of living. Such normal, negative reactions to the adverse economic condition have reduced individuals' psychological well-being (Mills et al., 1992).

The question for researchers may be, then, what is the construct that we want to measure? Objective indicators of the financial condition are more straightforward and more readily available, making them easier to measure (assuming figures are accurate and the most useful and appropriate data are provided). Subjective measures provide a richness that objective measures do not, for they help the researcher examine not only how the financial condition is perceived, but also how it affects individuals and families. Measurement of an individual's reaction to the financial condition, though, is a bit more complex than using objective measures. Even the terms used to name constructs describing feelings about one's financial condition have been varied, including perceived economic well-being (Walson & Fitzsimmons, 1993), personal financial wellness (Joo & Garman, 1998), financial satisfaction (Joo & Grable, 2004; Kim, 1999), perceived income adequacy (Danes & Rettig, 1993), financial strain (Aldana & Liljenquist, 1998), financial stress (Bailey, Woodiel, Turner, & Young, 1998; Freeman, Carlson, & Sperry, 1993; Kim & Garman, 2003), debt stress (Drentea, 2000), economic strain (Mills et al., 1992), and economic distress (Voydanoff, 1984). While some have approached the construct from a positive perspective using terms such as well-being (Walson & Fitzsimmons), and satisfaction (Joo & Grable; Kim), others have examined it using negative terminology: strain (Aldana & Liljenquist), stress (Bailey et al.; Drentea; Freeman et al.; Kim & Garman, 2003), and distress (Voydanoff; Garman, Leech, & Grable, 1996). Additionally, researchers have attached different meanings and definitions to the terms. For example, Kim and Garman characterized financial stress as the subjective assessment of one's financial condition, including one's perceived ability to meet expenses, satisfaction with the financial condition and one's level of savings and investment, and worry about debt. Drentea measured debt stress with an index assessing worry about amount of debt, perception of stress caused by personal debt, and concern about ability to pay off debt. While the researchers assessed similar constructs, Drentea focused only on worry surrounding debt; Kim and Garman also examined other aspects of the financial situation, including satisfaction with savings and investments.

One might expect the terms *economic stress* and *financial stress* to have similar meaning. Voydanoff (1984), for example, defined economic stress as a combination of objective measures (employment instability; economic deprivation) and subjective components (employment uncertainty; economic strain). Kim and Garman's (2003) description of financial stress, however, was similar in meaning to only one aspect of Voydanoff's definition of economic stress, the economic strain component. In addition, Voydanoff's assessment measures were intended


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for those having trouble maintaining participation in the labor force, while Kim and Garman assessed consumers who were employed at the time of measurement. Thus, nominal definitions assigned to variables representing such constructs also may be dependent on context for appropriate interpretation.

To date, no instrument exists that measures the construct encompassing perceptions about financial well-being and stress about one's financial condition and that has undergone a rigorous process to test for content, construct, and criterion validity, as well as for reliability. Such a tool is needed that is concise, simple to administer, easy to interpret and that consistently and accurately measures the construct repeatedly over time with various populations. A measure of this type could facilitate early detection of problems and provide evidence of the need for appropriate intervention. It also would be useful in assessing the effectiveness of ensuing interventions. This article describes the development of such an instrument.

## Purpose

The purpose of this article was to detail the development of an instrument to measure the level of stress and well-being 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. A brief review of the relevant literature on over-indebtedness, financial distress, and related concepts has provided a contextual framework within which to evaluate the current instrument and has presented justification of the need for such a tool. A description of the development of the instrument, including the Delphi study process and validity and reliability testing has been given. National norms for the IFDFW are provided. Specific instructions for administration of the instrument and interpretation of scores have been included, along with a discussion of the usefulness of the instrument for employers, educators, and practitioners.

## Need for the Instrument

*Over-Indebtedness and Its Consequences*

According to the Federal Reserve (2006), outstanding revolving consumer credit debt totaled $802.1 billion by the end of November, 2005. This figure represented an increase of over $107 billion since 2000. Total outstanding consumer credit debt was reported as $2,165 billion ($2.165 trillion), an increase of over $435 billion since 2000. In fact, the Federal Reserve reported that, for June – September of 2005, the personal saving rate for consumers was *negative*; their figures indicated that consumers were spending 18% more than the total of their disposable income (Lansing, 2005). Increasingly, then, Americans have been have been spending a greater portion of their disposable incomes paying off this debt.

Economists have offered reasons for the decline in consumers' personal saving rates. For example, Marquis (2002) pointed to the *wealth effect*, meaning that as the real value of household assets increased beginning in the mid-1990s, partly due to the robust stock market, personal saving rates declined. The appreciation of housing prices accompanying the then soaring stock market phenomenon stimulated consumer consumption, which contributed to an accompanying drop in personal savings. When the stock market peaked in 2000, the decline in savings began to level out, but a reversal in the course of personal saving has not materialized.

The continuing disinclination to save suggested that there were other factors contributing to the low personal saving rate. Marquis (2002) posited that the rise in labor productivity in the mid-1990s and the accompanying anticipated increase in income might have contributed to the low-saving trend. When consumers have perceived that the present value of their future labor income will be high (earnings will be greater in the future), there has been less of an incentive to save.

A third explanation for the low personal saving rate of consumers was greater access to consumer credit (Marquis, 2002). Easing of cash down-payment constraints for loan applicants has made it easier for families to become over-indebted. Lansing (2005) argued that the ratio of asset values of households (based on stock market wealth and residential property wealth) to disposable income predisposed consumers to substitute asset appreciation for the practice of saving out of current income. In other words, when assets appreciated in value resulting in greater net worth without the consumer having to reduce debt, the incentive to save decreased. While the consumer's overall net worth has been increasing as tangible assets (i.e., the home) and investment assets have appreciated in value, monetary (liquid) assets available to repay debt may have been increasing at a much lower rate, if at all. If such consumers at the same time have been

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taking on more debt, by charging more than they can pay out of current income, this was reflected as a negative savings rate despite the fact that overall net worth may have been increasing. The fact that the personal savings rate of consumers has declined to a negative figure indicates that in coming years, aging workers approaching retirement may experience the painful realization that they will be facing a less than desirable, debt-ridden retirement lifestyle (Lansing).

While it is known that spending more than one makes is not a recipe for building wealth (Garman & Forgue, 2006), many consumers have been struggling with the inability to meet the demands of debt repayment after paying normal, everyday expenses. Worries about finances have accompanied the struggle, and such problems have not been limited to the poor; about half of Americans with incomes between $20,000 and $80,000 have been worrying about their financial situations (Consumer Federation of America and Providian Financial Corp., 2003).

Often, with families experiencing financial distress, stressor events have been cumulative (Garman et al., 1996). Boss (2001) explained the cumulative aspect of stress as a pileup of stressor events such that, before one event can be handled, another already is being felt. Such has been the nature of the stressors that contribute to financial distress, as the situation often has been characterized by a continuous pileup of stressful reminders, including unpaid bills, dunning notices, calls from creditors and collection agencies, etc. For many, then, financial distress has been related to outstanding debt balances that have grown worse over time.

Employers have recognized that, while employees' financial problems are real and personal (American Express, 2003; MetLife, 2003), there has been a spillover into the workplace. Many employees have been unable to compartmentalize their lives such that their worries about money are not brought to the work environment (Bagwell & Kim, 2003; Garman et al., 1996; Kim & Garman, 2003). In 1996, Jacobson and colleagues found that financial issues represented critical sources of stress for employees. Garman et al. (1996) estimated that approximately 15% of workers made such poor personal financial decisions and engaged in such careless financial behaviors that it negatively impacted their productivity at work. The proportion of workers experiencing such problems for a single employer, then, may have been as high as 40–50%. The costs of reduced employee productivity because of poor financial behaviors has been substantial, and the full impact on employers has remained unknown. Actual productivity losses may have been 10% or more, thus having amounted to 10-15% of total compensation (Garman et al., 1996).

Absenteeism from work resulting from worry about personal finances represents a problem that has been well documented in the literature (Bagwell & Kim, 2003; Garman et al., 1999; Garman et al., 1996; Joo & Garman, 1998; Kim, 1999; Kim & Garman, 2003). In a study for the U. S. Navy, Luther, Leech, and Garman (1998) found substantial direct and indirect costs due to servicemembers' financial worries that amounted to over $200 million annually. In 1998, Joo and Garman published a conceptual model depicting the relationship between personal financial wellness and employee productivity. More recently, Garman (2006) publicized a more comprehensive employer's return-on-investment model for workplace financial education and assistance programs.

The effects of stress caused by financial events have been detrimental to individuals' mental and physical health (Dooley, Fielding, & Levi, 1996; O'Neill, Sorhaindo, Xiao, & Garman, 2005a; 2005b; 2005c). Concern and worry about personal finances have been linked to negative health outcomes (Drentea, 2000; Drentea & Lavrakas, 2000; Jacobson et al., 1996; O'Neill et al., 2005a; 2005b; 2005c). Recognition that one has taken on too much debt has represented a major stressor (Drentea & Lavrakas). Note that Kim, Sorhaindo, and Garman (2003) found that those who reported a higher level of financial well-being also were likely to report better health.

Financial distress can result in or result from poor health, or both. For example, limited finances has been known to negatively affect health (e. g., overdue medical debt resulting in delayed or inadequate treatment and anxiety), but one's health may have negatively affected one's financial state (e. g., increased medical expenses resulting in lower lifetime asset accumulation, unpaid medical bills due to health problems contributing to a poor credit history, medical condition resulting in withdrawal from the workforce). As health care costs continue to soar, some Americans have been cutting back on retirement savings contributions and making lifestyle changes to pay for


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medical care (Kim, Kwon, & Anderson, 2005). Kim et al. (2005) found that one quarter of those experiencing increased health care costs reported decreasing their contributions to a retirement plan and almost half (48%) reported decreasing contributions to other types of savings.

*Why Measure Financial Distress/Financial Well-being?*

Researchers have found that spillover effects of financial distress not only have affected the health of families and individuals (Dooley et al., 1996; Drentea, 2000; Drentea & Lavrakas, 2000; Jacobson et al., 1996; O'Neill et al., 2005a; 2005b; 2005c;) but also have affected employers, as spillover into the workplace has resulted in productivity losses and absenteeism (Bagwell & Kim, 2003; Garman et al., 1999; Garman et al., 1996; Joo & Garman, 1998; Kim, 1999; Kim & Garman, 2003). Distress and worry about the family's financial situation has contributed to negative health outcomes and losses beyond the boundaries of the family system. Thus, it would be useful to have an instrument to measure the level of financial distress/ financial well-being currently being experienced as well as prior to and following educational and/or therapeutic interventions. Based on such measurements, practitioners could determine whether educational and counseling programs were effective, and whether people's lives were changed for the better as a result (Garman, Sorhaindo, Bailey, Kim, & Xiao, 2004). The InCharge Financial Distress/Financial Well-Being (IFDFW) Scale has been developed as such a measurement tool.

## The InCharge Financial Distress/Financial Well-Being Scale

The IFDFW 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 (Garman & Sorhaindo, 2005; Garman, Sorhaindo, Bailey, et al., 2004; Garman, Sorhaindo, Kim et al., 2004; Garman et al., 2005). In other words, given that perceived financial distress/financial well-being represents a latent construct, scores on the scale can be said only to measure the variable indirectly.

## Development, Administration, and Score Interpretation of the IFDFW Scale

This section describes development of the instrument, including conceptual models of well-being and financial well-being, the Delphi study of experts, design of a preliminary version of the instrument, construction of the final version, subsequent testing of the instrument for validity and reliability, and norming of the data. It also offers instructions for scale administration and for the interpretation and use of scores produced by the IFDFW Scale. Implications for use of the scale are offered.

*Conceptual Models of Well-Being and Financial Well-Being*

Conceptualization of the IFDFW Scale began with a thorough review of previous works that measured aspects of economic well-being within the conceptual context of evaluating overall well-being. Since the 1980s, researchers have utilized various conceptual models of overall well-being, as well as personal financial well-being to guide research. Results of their research are clear; perceived financial distress/financial well-being is a multi-dimensional construct rather than a unidimensional one. Some researchers have employed systems theory to better understand personal financial well-being; others have reviewed literature and research on the topics of personal finance, stress, financial distress, bankruptcy, credit counseling, and workplace financial education. Those efforts came together beginning in the 1990s when researchers at Virginia Tech's National Institute for Personal Finance Employee Education began to identify what might be described broadly as the various concepts, issues, and components related to personal and family financial well-being in general and poor financial behaviors in particular.

The examination considered a wide variety of personal finance concepts, including questions on the topics of financial satisfaction, financial stressors, feelings of financial well-being, financial behaviors, and impacts on family and work. Many of these concepts were identified in Porter and Garman's (1993) conceptual framework. Many also were among the scaled listing of 35 poor financial behaviors in Garman et al. (1996). Other concepts were noted or alluded to in the work of Beautler

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and Mason (1987), Blumstein and Schwartz (1983), Godwin and Carroll (1986), Mills et al. (1992), Hafstrom and Dunsing (1973), Joo and Garman (1998), Mirowsky and Ross (2003), Pittman and Lloyd (1988), Prochaska-Cue (1993), and Ross and Huber (1985). Those studies collectively referred to 58 concepts, attributes and objects that might be construed to be relevant to aspects, conditions, or dimensions of personal financial distress and financial well-being. Individually, the 58 concepts each illustrate a salient life experience, behavior, concern, perception, or personal judgment regarding the common personal finance topics of money, credit, and economic resources. These concepts were used to guide the development efforts of identifying and measuring the construct of financial distress/financial well-being.

*Delphi Study of Experts*

The formal development of the IFDFW Scale began with a qualitative study using a modified Delphi research methodology. The Delphi method consists of a series of data collection efforts to solicit input from a panel of experts and eventually reach consensus (Custer, Scarcella, & Stewart, 1999). Modification of the Delphi research methodology consisted of the use of the list of 58 pre-selected concepts mentioned above that represented aspects, conditions, or dimensions of financial distress and financial well-being. The concepts were chosen based on a review of the literature and input from 30 professors and 18 financial education experts in business who responded to a 2004 email survey soliciting suggestions about concepts to be included. The modification took place before the onset of the rounds of data collection, and provided guidelines based on previous research on the topic rather than relying only on input from experts subsequently selected for participation in the Delphi study (Custer et al.).

Prior to the start of the Delphi data-collection process, the list consisted of 58 pre-selected concepts identified as relevant to the measurement of financial distress and financial well-being. To reduce this number to a set of the most appropriate concepts with which to begin Phase 1 of the Delphi data collection, four selection criteria were used to judge each: (a) concept must clearly describe a distinct aspect of financial distress and/or financial well-being**;** (b) concept must be different enough to avoid being confused with other concepts**;** (c) concept is likely to occur in a substantive proportion of the population; and (d) concept has a substantial likelihood to occur with adults whether or not they utilized credit cards and installment loans/leases. Concepts not meeting the criteria were eliminated; the resulting list of 20 concepts represented a conceptual framework for the examination of financial distress and financial well-being. Refer to Garman and Sorhaindo's (2005) article for a list of the final 20 concepts used in the Delphi study.

The developers of the IFDFW instrument implemented a three-phase Delphi process with data from each phase representing subsequent rankings of items by 52 Delphi panel experts. The panel was made up of professionals with extensive knowledge and experience in the field of personal finance, and included academic teaching professors, Cooperative Extension specialists, financial counselors, and other financial education professionals from 31 states and the District of Columbia. Refer to the Garman and Sorhaindo (2005) article for a complete description of the process used to identify and select the expert panel used in the Delphi study.

The concepts were presented to the panel experts in the context of their usefulness in the development of a financial distress scale. The concepts were put forward solely as concepts, and not in a question/item format; neither a scale nor anchor terms were presented. The experts ranked the concepts simply as concepts deemed important for use in an instrument. This avoided bias for or against scaling techniques as well as bias for or against specific terminology.

As the study progressed through the three phases of the Delphi study, items were eliminated from the original list based on the ranking responses of the participants. At the end of Phase 3, the original list of 20 concepts was reduced through expert consensus to 10 items. Of these, 2 concepts, "worry about being able to meet normal monthly living expenses" and "living today on a paycheck-to-paycheck basis" were ranked consistently as numbers 1 and 2 through all three phases of the Delphi process. The experts consistently had ranked the other 8 concepts in the top 10 during all three phases. See Table 1 for a complete list of the 10 concepts. Refer to Garman and Sorhaindo (2005) for a more detailed description of the Delphi study.

*Beta Version of the Instrument*

The next step in the development of the IFDFW Scale was


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the construction of a preliminary version of the instrument, referred to as the Beta version (Garman et al., 2004).

Using data from a panel study of 355 consumer credit counseling clients conducted in 2000 and from a panel study of 3,121 clients conducted in 2003, Garman and colleagues (2004) examined relationships among 45 items representing concepts that emerged from the Delphi study and various other indicators of financial distress and financial well-being. Because the 2000 and 2003 panel study data sets available to the researchers represented data collected prior to the 2004–2005 Delphi study, not all of the 10 concepts identified by the Delphi experts corresponded to items included in the 45 making up the panel study survey instruments. Thus, the Beta version of the instrument represented a preliminary attempt to use a set of items together to represent the construct of financial distress/financial well-being. The usefulness of the work at this point hinged upon the statistical relationships found among the items assessed in the survey instrument. This research effort contributed additional information and insights to assess the usefulness of specific items in combination with one another.

The Beta version of the instrument, a preliminary form of the final scale, was made up of six items, four of which were retained on the final version of the IFDFW Scale. The four items retained in the IFDFW Scale assessed level of financial stress "today" and stress associated with personal finances "in general," as well as both satisfaction with and feelings about one's current financial situation, representing two items on financial stress and two items on financial well-being. Variations of these four items have been used in at least 10 data collection efforts. Items that were not highly correlated with these four items eventually were dropped, and other indicators that better contributed to measurement of the construct were retained. For example, one of the poorly correlated items dropped from the final version measured feeling of security about one's personal finances for retirement. As one of the experts in the Delphi study pointed out, the level of stress about retirement may change as one nears retirement age (Garman & Sorhaindo, 2005). If this is so, then this item would not fit one of the self-imposed criteria set up in the Delphi study for retention of items. Specifically, the concept would not be likely to occur in a substantive proportion of the population (Garman & Sorhaindo), as those who are decades away from retiring may not yet feel the urgency connected with providing for retirement. See Table 2 for a list of the items included in the Beta version. Refer to Garman, Sorhaindo, Kim, et al., (2004) for a more

**Table 1. Rankings of 10 Concepts Emerging from Final Phase of Delphi Study**

| Item # | Item description | Item rank[a] |
|---|---|---|
| 1 | Worry about being able to meet normal monthly living expenses | 1.47 |
| 2 | Living today on a paycheck-to-paycheck basis | 2.24 |
| 3 | Feeling about one's current financial situation | 3.06 |
| 4 | Stressed about one's personal finances in general | 3.23 |
| 5 | Feelings about level of financial stress today | 3.27 |
| 6 | Satisfaction with present financial situation | 3.38 |
| 7 | Ability to handle $1,000 financial emergency | 4.00 |
| 8 | Availability of money to pay for a minor emergency | 4.18 |
| 9 | Knowledge of personal finances | 4.27 |
| 10 | Ability to manage money | 4.62 |

[a] Lower numbers indicate higher rankings.

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**Table 2. Items Making Up the Beta Version of the IFDFW Scale**

| Item # | Item description |
|---|---|
| 1 | What do you feel is the level of your financial stress today? |
| 2 | On the stair steps below, mark how satisfied you are with your present financial situation. |
| 3 | How well off are you financially? |
| 4 | How do you feel about your current financial situation? |
| 5 | How secure do you feel about your personal finances for retirement? |
| 6 | How stressed do you feel about your personal finances in general? |

detailed explanation of the development of the Beta version of the instrument.

*The Final Version: Testing for Validity*

The third step in the development of the IFDFW Scale included the selection of the final scale items and validity testing of the instrument (Garman et al., 2005). Data were obtained in 2004 in two national data collections, one surveying the general population ($N$ = 1,097) and the other examining a financially distressed sample ($N$ = 590) on the same survey items. To test for validity, data from both the financially distressed and the general population of consumers were used. The data from the general population served as the primary source of statistical testing and subsequent norming of the data. Results using the data set from the general population will be discussed in the section detailing interpretation of scores for the IFDFW Scale.

For these two data collection efforts, a total of 51 items related to personal finances, including the 10 identified by the experts in the Delphi study, were chosen to test validity and reliability of the IFDFW Scale and to provide norming data. Thirty-one of the items were based on indicators of financial distress and/or financial well-being used in previously published research (Bagwell & Kim, 2003; Cantril, 1965; Kim & Garman, 2003; Kim, Sorhaindo, & Garman, 2003; Porter & Garman, 1993; Sorhaindo, Garman, & Kim, 2003), and 10 represented demographic characteristics. The 10 financial distress/financial well-being items assessed aspects of individuals' financial situations, money management, family life and health, bill paying behaviors, work, and retirement. All were included for their potential to become part of the final version of the instrument. Nine of the 10 financial distress/financial well-being items were presented on the questionnaire using a 10-point continuum with four item-specific descriptive anchor terms at points 1, 4, 7, and 10, and one was presented using a stairstep format (Cantril; Porter & Garman) with the item phrased as "On the stair steps below, mark how satisfied you are with your present financial situation."

Development of the final IFDFW Scale required identifying personal finance concepts that adults easily could relate to and understand. Additionally, it entailed creating anchor terms for each item's 10-point continuum that accurately represented respondents' states of financial distress and financial well-being. Assurance of validity was a major challenge; 12 criteria were established for evaluating appropriateness of items for inclusion; each item along with its anchor terms had to meet 11 criteria for face, content, construct, and criterion validity to be included on the IFDFW Scale. See Table 3 for a list of these criteria as well as one reliability criterion.

Using 2004 data from the financially distressed sample of 590 credit counseling clients and the general population ($N$ = 1,097), the researchers applied the validity criteria to each of the 10 items identified by the Delphi experts to determine the potential for their retention in the final version of the IFDFW Scale. The outcome was the construction of the final, 8-item version of the IFDFW Scale. Of the 10 concepts, the 7 ranked highest by the


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**Table 3. Items Making Up the Validity and Reliability Criteria for the IFDFW**

| Item # | Item description |
|---|---|
| *Face validity* | |
| 1 | Each concept must have face validity with people in the general adult population. They would logically consider each concept as important to an individual's financial distress/financial well-being and recognize that each had the properties ascribed to it. In essence, each item must be perceived on the face of it as adequately covering the ideas people associate with the terms financial distress and/or financial well-being. Adults untrained in measurement would perceive that the instrument measures what it is intended to measure. Further, each concept must fit the subject of financial distress and/or financial well-being and be a meaningful descriptor of some aspect of that content. |
| 2 | While the subject of personal finance certainly includes consumer credit (e.g., credit cards, installment loans), no specific item should cover that specific topic since many adults do not use credit cards. |
| *Content validity* | |
| 3 | Each personal finance concept denoted in an item must have been used in previous conceptual frameworks and/or research. |
| 4 | Each item must have been highly ranked by the personal finance experts in the Delphi study. Conclusions on the content validity of each question can be deduced using insights from focus groups, individuals interviewed, statistical analysis, and experts in personal finance. |
| 5 | The list of personal finance concepts comprising the items should be a representative sample of concepts in the total construct of financial distress/financial well-being, and sufficient in number to assure content validity. |
| *Concurrent criterion validity* | |
| 6 | The IFDFW Scale scores for the lower rankings on the instrument should distinguish varying degrees of financial distress/financial well-being among a population of initially financially distressed adults (i.e., those who have contacted a consumer credit counseling agency). |
| *Predictive criterion validity* | |
| 7 | The scale items must exhibit predictive validity with adults exhibiting varying levels of financial distress/ financial well-being. |
| *Convergent construct validity* | |
| 8 | Each item must correlate well with other individual concepts associated with personal financial distress or financial well-being; therefore, the collective concepts must stand as an adequate measure of financial distress/financial well-being. |
| 9 | The summative total scores on the scale should identify widely varying degrees of the financial distress/ financial well-being of the individuals responding to the survey items, and scores should discriminate readily between those with more financial distress/less financial well-being and those with less financial distress/more financial well-being. |
| *Discriminant construct validity* | |
| 10 | Each personal finance concept item must have construct validity, both logical and factorial. It is rationally hypothesized that measures of financial distress and financial well-being are correlated. Similarly, the scale items measure different aspects of the qualities that make up the construct of financial distress, financial well-being, or a combination of both. |
| 11 | Each item must contribute to factor analysis results that suggest a single, rather than multiple, factors. |
| *Reliability (Internal consistency)* | |
| 12 | Each item must contribute to a robust Cronbach's Alpha score. |

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Delphi experts were retained on the final instrument; the three ranked lowest by the experts were deleted, because the mean scores for these items were lower than the rankings of the other indicators, and all were judged to be slightly redundant with other items in terms of broadly measuring either financial distress or financial well-being. The three items eliminated were, "availability of money to pay for a minor emergency," "knowledge of personal finances," and "ability to handle money." One additional item (which had been pre-tested earlier) was selected as a new indicator because it displayed high content validity and was highly correlated with the other indicators. This item was "How often does this happen to you? You want to go out to eat, go to a movie or do something else and don't go because you can't afford to."

The final 8-item IFDFW Scale included four items that represented a sense of one's present state of financial well-being and four items that characterized one's reaction to his or her present state of financial well-being. See the Appendix for the final version of the instrument. Factor analysis using principal components extraction with data from the general population ($N$ = 1,097) indicated that the final eight items chosen for the IFDFW Scale measured one factor. Representing the variable on a 10-point continuum from overwhelming financial distress/lowest level of financial well-being to no financial distress/ highest level of financial well-being, the factor explained 78.9% of the variance. Loadings on the factor ranged from .833 to .926 (see Table 4).

*The Final Version: Testing for Reliability*

Cronbach's alpha measured the internal consistency for the set of items making up the final version of the instrument (see Table 3). The Cronbach's alpha coefficient of reliability provides a calculation of how well a group of indicators measure a unidimensional construct (Nunnally & Bernstein, 1994). Thus, a high score (closer to 1.0) indicates unidimensionality; a low score (distant from 1.0) suggests the data have a multidimensional structure. While an acceptable Cronbach's alpha can be as low as 0.60 for group scores, Nunnally and Bernstein have contended that, when interpreting and using scores for individuals, the minimum acceptable internal consistency score is 0.90, with 0.95 as the desirable standard. The eight-item IFDFW Scale, with a robust Cronbach's alpha of 0.956, exceeded the desirable standard for internal consistency/reliability, indicating that the items contributing to the measurement of the construct, financial distress/financial well-being, consistently yielded similar results.

**Table 4. Factor Loadings for the Eight Items Making Up the IFDFW Scale (General Population, *N* = 1,097)**

| Item # | Item description | Factor loading |
|---|---|---|
| 1 | What do you feel is the level of your financial stress today? | .905 |
| 2 | On the stair steps below, mark how satisfied you are with your present financial situation. | .833 |
| 3 | How do you feel about your current financial situation? | .921 |
| 4 | How often do you worry about being able to meet normal monthly living expenses? | .926 |
| 5 | How confident are you that you could find the money to pay for a financial emergency that costs about $1,000? | .857 |
| 6 | How often does this happen to you? You want to go out to eat, go to a movie or do something else and don't go because you can't afford to? | .861 |
| 7 | How frequently do you find yourself just getting by financially and living paycheck to paycheck? | .891 |
| 8 | How stressed do you feel about your personal finances in general? | .909 |
| | Eigenvalue | 6.314 |
| | Proportion of variance explained | .789 |


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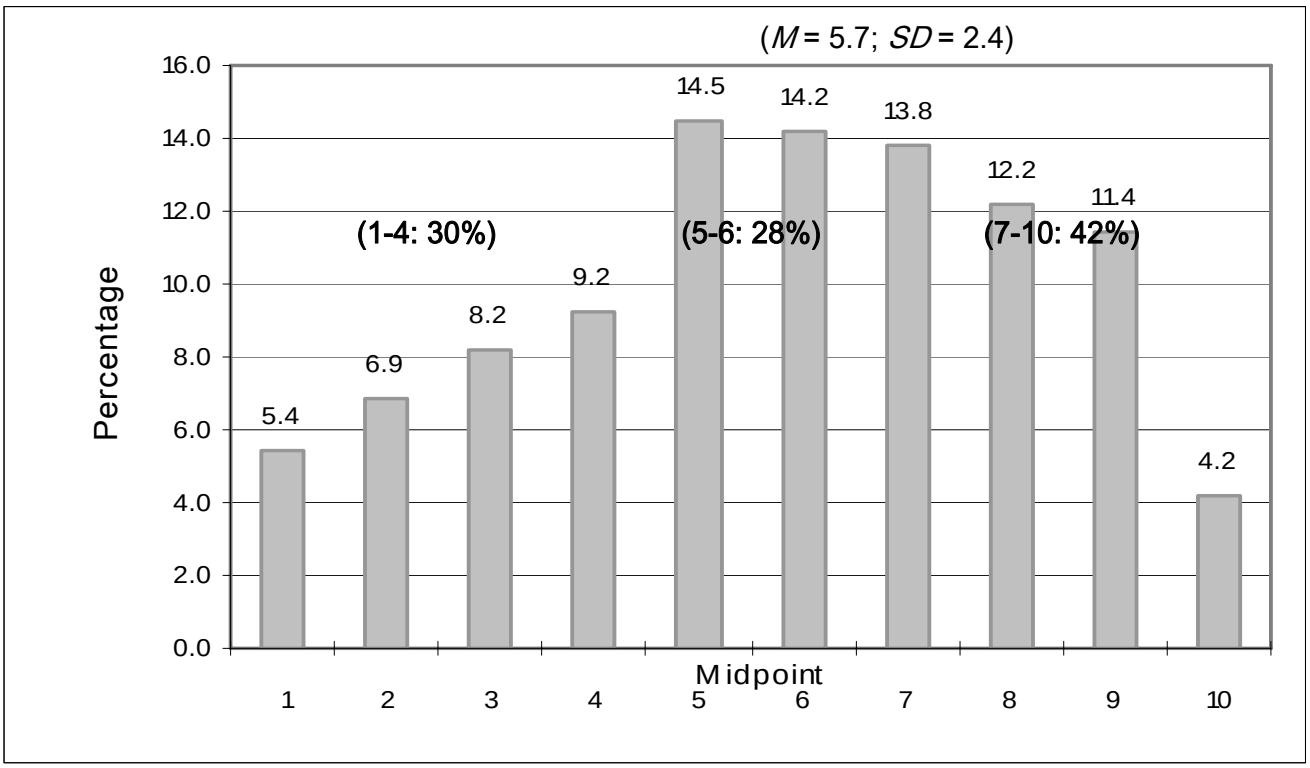
*Administration of the IFDFW Scale*

The items making up the IFDFW Scale are un-weighted, so the instrument is easy to work with. The arrangement of response choices as a numbered continuum with descriptive anchors contributes to the intended specificity of each indicator. The stair step figure in item 2 of the scale provides a visual cue to assist respondents in choosing a number that accurately represents the level of satisfaction with their present financial situation. The instrument is concise, can be administered quickly and easily, and the results can be calculated readily. Administrators of the scale need only to sum the number of points for each of the eight items and divide the total by 8 to calculate a score. Note that scores are not rounded to the nearest whole number, as decimal places are meaningful. Individual scores can range from 1.0 (one point for each item) to 10.0 (10 points for each item), since total calculations are divided by 8, the total number of items. So, for example, if an individual scored a total of 28 on the summation of all points for the 8 items, that individual's score on the scale would be 28/8 = 3.5. The score would be reported as 3.5 (rather than rounding up to 4.0), and would be interpreted in the range of "high financial distress/poor financial well-being." The wide distribution of possible scores (1.0 to 10.0) and norming data suggest that scores on the IFDFW Scale represent interval level measurement of the variable, an important consideration in selection of statistics for testing hypotheses.

*Interpretation of Scores for the IFDFW Scale: Norming of the Data*

The 2004 survey of the general population of adults in the United States (*N* = 1,300) provided data for initial norms to interpret scores produced by the instrument (Garman et al., 2005). Based on these data, standards were established for scale scores on a continuum from 1 to 10, where 1 = overwhelming financial distress/lowest financial well-

**Figure 1. National Norms for Financial Distress/Financial Well-Being on IFDFW Scale©**




Source: InCharge Education Foundation, National Norms on InCharge Financial Distress/Financial Well-Being Scale© for General Adult Population. 1 = "Overwhelming Financial Distress/Lowest Financial Well-Being"; 10 = "No Financial Distress/Highest Financial Well-Being" ©Copyright by InCharge Education Foundation and E. Thomas Garman, 2004-2006. All rights reserved.

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being and 10 = no financial distress/highest financial well-being. 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 scores is 5.5; this can be visualized as the mid-point between 5 and 6 in a frequency distribution such as provided in Figure 1.

About 30% of the respondents scored between 1 and 4 (high financial distress/low financial well-being); these individuals were seriously financially distressed and dissatisfied with their personal financial situations. Note that 42% scored between 7 and 10 (low financial distress/ high financial well-being); these individuals enjoyed little financial distress and were quite satisfied with their financial conditions. Approximately 28% clustered around the midpoint markers of 5 and 6 on the continuum (see Figure 1). Based on these findings, the interpretation of scores on the IFDFW Scale overall were as follows: mean scores of 1.0 - 4.0 = high financial distress/low financial well-being, mean scores of 4.1 - 6.9 = average financial distress/average financial well-being, and mean scores of 7.0 - 10.0 = low financial distress/high financial well-being. [For comparison purposes, the financially distressed population's scores (*n* =590) indicated very high levels of financial distress and very low levels of financial well-being (*M* = 3.4, *SD* = 1.6)]. Normative descriptive terminology for interpreting specific scores on the 10-point IFDFW Scale are suggested in Table 5.

Mean scores also were established based on employment, gender, and marital status. For employed adults, the mean score was equal to that of the general population (*M* = 5.7). Those who were unemployed had lower mean scores, regardless of whether they were seeking work (*M* = 3.4) or not seeking work ( *M* = 4.9). Retired respondents had the highest mean score (*M* = 6.4). Men reported a higher mean score (*M* = 6.2) than did women (*M* = 5.4), and the men's mean score was higher than the overall mean (*M* = 5.7). Married adults scored above the overall mean (*M* = 6.2 vs. *M* = 5.7) as did widowed adults (*M* = 6.1 vs. *M* = 5.7). Both single/never married adults (*M* = 5.1) and divorced adults (*M* = 4.8) scored lower than either adults married/

**Table 5. Normative Descriptive Terminology for Interpreting IFDFW Scores**

| Score | Descriptive terminology |
|---|---|
| 1.0 | Overwhelming financial distress/lowest financial well-being |
| 2.0 | Extremely high financial distress/extremely low financial well-being |
| 3.0 | Very high financial distress/very poor financial well-being |
| 4.0 | High financial distress/poor financial well-being |
| 5.0 | Average financial distress/average financial well-being |
| 6.0 | Moderate financial distress/moderate financial well-being |
| 7.0 | Low financial distress/good financial well-being |
| 8.0 | Very low financial distress/very good financial well-being |
| 9.0 | Extremely low financial distress/extremely high financial well-being |
| 10.0 | No financial distress/highest financial well-being |


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living with partners (*M* = 6.2) or the general population (*M* = 5.7).

IFDFW Scale items have been through several early cycles of refinement, starting with examination of past studies and culminating with six recent data collections (Garman & Sorhaindo, 2005; Garman et al., 2005). When used together as a scale, the items constituted a suitable instrument for repeated use. The IFDFW Scale measures perceived financial distress/financial well-being as a single factor, and the item responses are well distributed across the 10-point response choices for the general population. The IFDFW Scale is available for use by financial practitioners, researchers and others with usage approved on a case-by-case basis and subject to scale use policies developed by its authors. See Acknowledgments for obtaining approval to use the IFDFW Scale.

### Implications for Use of the IFDFW Scale

High financial distress and low financial well-being have combined impacts on health and job productivity. Given that financial distress negatively affects individuals and families, an argument can be made to support the assessment of financial distress and financial well-being of large groups of people, such as employees, to determine if they are experiencing problems or doing well financially. If the degree of perceived financial distress/financial well-being is known, purposeful interventions like communications, treatments, and programs can be designed and delivered to help reduce distress about personal finances and to help improve financial well-being. Employers, for example, could offer employees workshops on basic money management and use of credit, financial strategies to help cover educational expenses of dependents, and retirement planning workshops. An interactive computer system could provide employees the opportunity to take a free, anonymous self-test using the IFDFW. Users could receive immediate feedback on scale results (see Table 5 for terminology), along with a general referral message directing them to a variety of employer-sponsored workshops and/or community resources; financially distressed employees could then select programs that specifically address their own financial situation needs.

Improvements in financial well-being result from behavioral changes that relieve financial distress. Evaluating program content, knowledge level, timing, and delivery mode all represent aspects of appraising the effectiveness of financial education programs designed to change financial behaviors. Financial education programs should be able to demonstrate that changes in financial knowledge and financial behaviors result in decreased financial distress and improvements in financial well-being. Examples of improvements to the financial condition are increases in assets, decreases in liabilities, increases in net worth, and getting on track for a financially successful retirement. Behavior changes that result in such improvements to the financial situation also should contribute to a decrease in the level of financial distress and a feeling of greater financial well-being. The IFDFW Scale, then, can facilitate the evaluation of financial education programs by assessing changes in participants' perceptions of their financial distress/ financial well-being.

Employers, particularly, have an important role to play in helping Americans improve their financial health by offering targeted programs and incentives (e.g., Garman, 1999). After all, the workplace is where their employees spend much of their time. Employers also stand to benefit from workers' improved financial well-being. Not only are there potential productivity benefits if employees' financial well-being improves (Garman et al., 1996; Joo & Garman, 1998), but it is also seems likely that absenteeism and health care costs resulting from financial stress would be reduced (O'Neill et al., 2005c).

Financial counselors could find the IFDFW Scale a useful communication device when working with clients. Items on the scale require people to evaluate their reactions to their current financial situation. Scores also can be used in conjunction with objective indicators of the financial condition, such as household income, level of debt, and net worth. A client's subjective perception of financial distress and financial well-being may, in fact, differ from the picture of financial health presented by an objective review by a third party, such as a financial counselor or advisor.

The IFDFW Scale can be used by a variety of practitioners to assess the effectiveness of efforts to reduce financial distress and improve financial well-being. These efforts might involve information, education, counseling, and advice. The IFDFW Scale can be used to track the changes and progress that individuals, families, and the general population make in their financial condition over time. For example, this would be important for employers interested in tracking the success of financial communications and

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financial education programs with employees. Furthermore, the IFDFW Scale can be used to immediately assess the severity of perceived financial distress of people who telephone non-profit credit counseling agencies. It also can be used to monitor changes in enrollees' levels of financial distress following participation in a debt management program with the credit counseling agency.

Other possibilities exist for use of the IFDFW Scale. For example, mental health counselors, marriage and family therapists, and psychiatrists might find the instrument useful to determine the level of stress attributable to finances and to determine the appropriateness of referring clients for counseling about their personal finances. Academic researchers could use the IFDFW Scale to measure the financial distress/financial well-being of bankruptcy petitioners, both before and following bankruptcy, as well as in conjunction with studies dealing with family relations.

In summary, the IFDFW Scale has been developed by a team of national scholars over a period of several years, in an effort to design a tool for the indirect measurement of the latent construct, financial distress/financial well-being. The instrument has evolved over the process, with indicators added and removed over the course of development based on statistical testing for reliability and validity. Six separate data sets were utilized during the process, and the final instrument, the 8-item IFDFW Scale, emerged. Factor analysis revealed that the set of indicators measure one factor on a continuum of perceptions from overwhelming financial distress/lowest financial well-being to no financial distress/highest financial well-being. The robust Cronbach's alpha of 0.956 for the IFDFW indicates high internal consistency, and factor analysis indicates measurement of one factor, verifying that the indicators together estimate only one latent construct. Thus, the IFDFW Scale provides a high level of confidence for researchers and practitioners using the scores to indicate perceived levels of financial distress/ financial well-being in individuals and groups of consumers. For instructions on obtaining approval to use the IFDFW Scale, please see the Acknowledgments section.

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## Appendix

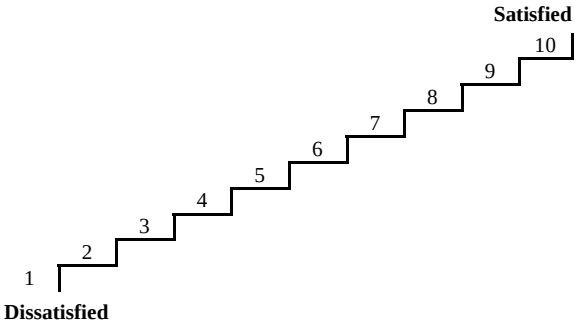
### InCharge Financial Distress/Financial Well-Being Scale©

**Directions:** Circle or check the responses that are ***most appropriate*** for your situation.

1. What do you feel is the ***level*** of your ***financial stress today?***

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|
| Overwhelming Stress | | | High Stress | | | Low Stress | | | No Stress at All |

2. On the stair steps below, mark (with a circle) how ***satisfied*** you are with your **present financial situation.** The "1" at the bottom of the steps represents complete dissatisfaction. The "10" at the top of the stair steps represents complete satisfaction. The more dissatisfied you are, the lower the number you should circle. The more satisfied you are, the higher the number you should circle.




3. How do you feel about your ***current financial situation?***

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|
| Feel Overwhelmed | | | Sometimes Feel Worried | | | Not Worried | | | Feel Comfortable |

4. How often do you worry about being ***able to meet*** normal monthly living expenses?

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|
| Worry All the Time | | | Sometimes Worry | | | Rarely Worry | | | Never Worry |

5. How confident are you that you could find the money to pay for a ***financial emergency*** that costs about **$1,000**?

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|
| No Confidence | | | Little Confidence | | | Some Confidence | | | High Confidence |

6. How often does this happen to you? You want to go out to eat, go to a movie or do something else and ***don't go because you can't afford to***?

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|
| All the time | | | Sometimes | | | Rarely | | | Never |

7. How frequently do you find yourself just getting by financially and living ***paycheck to paycheck***?

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|
| All the time | | | Sometimes | | | Rarely | | | Never |

8. How ***stressed*** do you feel about your personal finances ***in general?***

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|
| Overwhelming Stress | | | High Stress | | | Low Stress | | | No Stress at All |

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