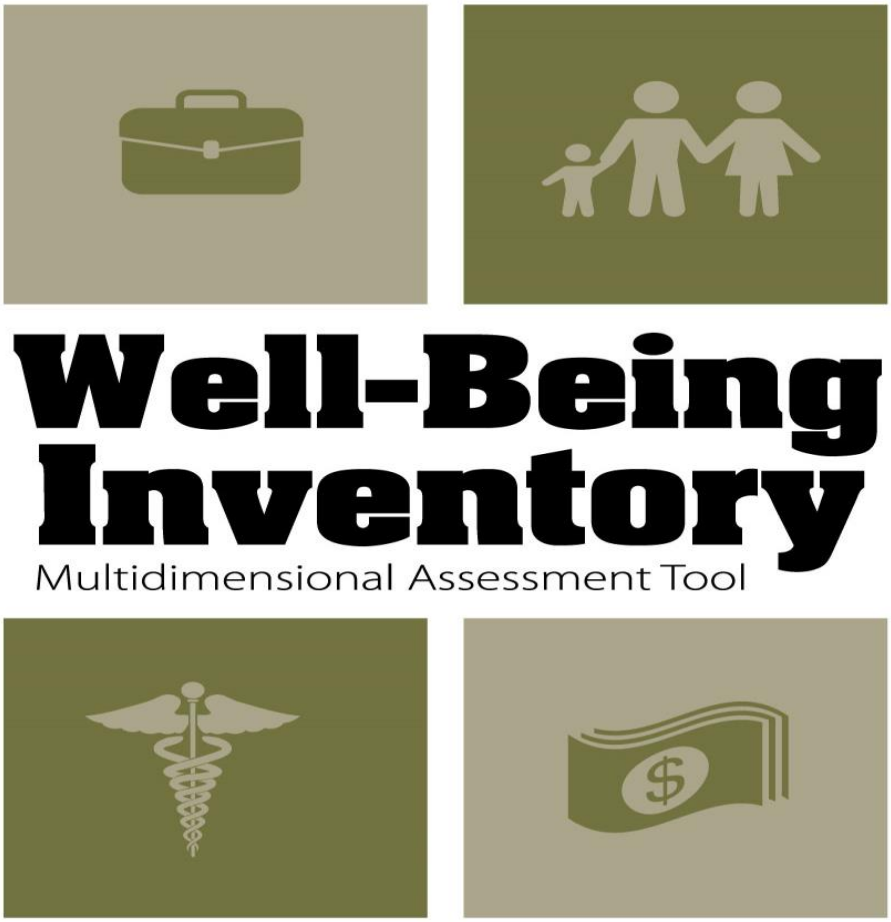
MANUAL FOR THE WELL-BEING INVENTORY (WBI):
A multidimensional tool for assessing key contributors to well-being



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CHAPTER ONE: INTRODUCTION

This manual provides information on the development and validation of the Well-Being Inventory (WBI), scoring guidelines, and normative information that can be used to contextualize findings based on the WBI. The WBI is a multidimensional instrument that was designed to assess status, functioning, and satisfaction with four key life domains of vocation, finances, health, and social relationships. The WBI is the product of a multi-phase psychometric endeavor that was funded jointly by the National Center for Posttraumatic Stress Disorder, US Department of Veterans Affairs, Health Services Research & Development, and the Veteran Metrics Initiative, which is managed by the Henry M. Jackson Foundation for the Advancement of Military Medicine, Inc. Although the WBI was developed and validated for use with the military veteran population, it may also have utility for administration within other adult populations. The current chapter presents the rationale for developing the WBI, provides information on the constructs for the four key domains, and describes potential uses of the WBI.

Rationale for Developing the WBI

As specified in Vogt et al., (2018), our research team recently sought to identify a measure that could be used to provide a comprehensive, multidimensional assessment of the well-being of recently separated military veterans. Because we were not able to identify a measure that could fully meet this aim, we set out to develop a new tool that would fulfill this need and serve as a resource for others interested in assessing the life circumstances of military veterans and potentially other civilian populations as well. The theoretical framework that informed our conceptualization of well-being is presented in Table 1. This framework reflects the application of three dimensions of well-being proposed by Gladis and her colleagues (1999) to four life domains that have been the focus of prior work with both veteran and civilian populations (Berglass & Harrell, 2012; Bishop, Miller, & Chapin, 2008; Cummins, 1997). Together, this model addresses status, functioning, and satisfaction across vocational, financial, health, and social domains. Subdomains within the vocational domain include employment and educational experiences whereas the social domain includes three subdomains reflecting life circumstances with regard to intimate relationships, parenting, and relationships within the broader community.

Drawing from Jayawickreme and colleagues' (2012) concept of inputs and processes of well-being, components within this framework reflect life circumstances that are hypothesized to set the stage for positive well-being outcomes. Consistent with the writing of Gladis and her colleagues (1999), as well as Schnurr et al. (2009) and other scholars (e.g., Katschnig, 2006; Mogotsi et al., 2000), each component is considered a separate input of well-being that may or may not co-occur with other components. This assertion builds on the assumption that one can function well within a particular life domain but not be satisfied with it, as might be the case for the vocational well-being of an individual who is underemployed. Likewise, an individual may be satisfied with a given life domain but not function well within it, as might be the case for a young adult who engages in risky health behaviors but has not yet experienced the negative longer-term impact of these behaviors on their health status.

The focus on status in this framework builds on need-based theories of well-being, as exemplified in government tracking of factors such as employment and marital status (United States Department of Health, Education and Welfare, 1969). The focus on functioning builds on

Table 1. Measures in the Well-Being Inventory

	Status	Functioning	Satisfaction
Vocation	Work: engagement in paid work, caregiving/ homemaking, and volunteer work Education: involvement in school or training	Work: reliability, quality of work, and management of interpersonal relationships in work setting Education: reliability, quality of work, and management of interpersonal relationships in educational setting	Work: Satisfaction with key aspects of work (e.g., nature of work, recognition of work contributions). Education: Satisfaction with key aspects of educational or training experience
Finances	Current financial circumstances and preparedness for future financial needs	Management of cash, credit and savings	Satisfaction with ability to afford essential and non-essential expenses, accumulation of savings, and debt
Health	Presence of chronic physical and mental health conditions, illnesses, or disabilities	Engagement in health promoting behaviors, risky health behaviors, and self-care	Satisfaction with mental and physical health, as well as health care
Social Relationships	Involvement in intimate relationship, parenting, and within one's broader community	Intimate: Demonstrates supportive, collaborative behaviors in intimate relationship Parenting: Demonstrates supportive, effective parenting strategies Broader Social Relationships: Engages in behaviors that support positive relationships within broader community	Intimate: Satisfaction with partner's contributions to relationship in terms of support and collaboration. Parenting: Satisfaction with relationship with children, parenting experience, children's well-being Broader Social Relationships: Satisfaction and belonging within broader community

the work of Sen (1993) and others (Cooke, Melchert, & Connor, 2016; Holowka & Marx, 2012; Katschnig, 2006), who have highlighted the importance of optimal functioning in promoting well-being. The focus on life satisfaction draws from the recognition that subjective perceptions of life circumstances play a key role in how individuals experience their lives, as addressed in the work of Diener and Suh (1997) and others (Campbell, 1976; Forgeard et al., 2011). As

applied to the key life domains of vocation, finances, health and social relationships, these factors provide a broad assessment of life circumstances that can set the stage for well-being.

After clearly defining our approach to conceptualizing well-being, we reviewed existing measures to evaluate whether any of them could be used to address components within this framework. Because military veterans become civilians when they leave military service and must contend with all the same life concerns as other civilians (e.g., finding a job, managing their money, maintaining positive relationships), we reviewed measures in both the military veteran and civilian literature. Given that our goal was to assess factors that set the stage for well-being rather than what has been referred to as "achieved well-being" or "well-being outcomes" (Jayawickreme et al., 2012), such as positive emotions and purpose in life (e.g., Ryff & Keyes, 1995; Seligman, 2012), we omitted measures of this latter nature from consideration.

Although we identified several multidimensional measures of what could be considered "inputs and processes" of well-being, none of them provided separate assessments of the three dimensions of well-being we were interested in (i.e., status, functioning, and satisfaction) and none addressed veterans' objective life circumstances across multiple life domains. Moreover, many were primarily concerned with assessing health-related quality of life, and either gave less attention to these domains or limited their assessment to how these domains are impacted by health status. In addition, most measures that addressed components included in the proposed framework (e.g., satisfaction with work) provided more in-depth assessments than were practical for the assessment of multiple building blocks of well-being. Because we were not able to identify a measure that could fully meet our needs we set out to develop a new measurement tool to use in our own research and that could serve as a resource to others who are also interested in studying inputs of well-being.

Description of Core WBI Constructs

The WBI is a multidimensional assessment tool designed to measure status, functioning, and satisfaction within the four life domains of vocation, finances, health, and social relationships. Core WBI constructs and their definitions are provided below:

Vocation:

The vocational domain includes employment and educational subdomains.

Status: Labor force participation, paid employment, full vs. part-time employment, and full-time involvement in unpaid vocations, including schooling/training, volunteer work, and care-giving/ homemaking.

Work Functioning: Reliability and quality of work, as well as effective management of interpersonal relationships in work setting.

Educational Functioning: Reliability and quality of work, as well as effective management of interpersonal relationships in educational or training setting.

Paid and Unpaid Work Satisfaction: Satisfaction with nature of work, recognition of work contributions, ability to apply skills and knowledge in work, and ability to advance vocational

goals. For those with paid employment, this construct also includes satisfaction with pay/ benefits, and work environment.

Educational Satisfaction: Satisfaction with educational or training experience, advancement of career goals, and learning environment.

Finances:

Status: Current financial stability (able to maintain stable housing, manage debt, and afford expenses) and financial preparedness (has emergency savings, retirement savings, insurance coverage).

Functioning: Financial behavior with respect to cash management (e.g., following a budget), credit management (e.g., paying bills on time), and savings (e.g., contributing to savings account).

Satisfaction: Satisfaction with ability to afford both essential and non-essential expenses, as well as accumulation of savings and debt.

Health:

Status: Presence of chronic physical or mental health conditions, illnesses, or disabilities.

Functioning: Engagement in health promoting behaviors, risky health behaviors, and self-care related to mental and physical wellness.

Satisfaction: Satisfaction with physical health, mental health, and health care.

Social Relationships (Intimate Relationships, Parenting, and Broader Social Relationships):

The social relationship domain includes the three subdomains of intimate relationships, parenting, and broader social relationships.

Status (all subdomains): Involvement in intimate relationship, parenting, and the broader community.

Intimate Relationship Functioning: Demonstrates supportive and collaborative behavior (e.g., provides emotional and practical support, willing to engage in sexual activity and/or physical closeness).

Parental Functioning: Demonstrates supportive and effective parenting strategies (e.g., meets children's basic needs, demonstrates interest and involvement in children's activities).

Broader Social Functioning: Engages in behaviors that support positive relationships with friends, extended family, and the broader community (e.g., gets along with community members, available to provide support or help to extended family members or friends).

Intimate Relationship Satisfaction: Satisfaction with partner's contributions to relationship in terms of both support and collaboration (e.g., emotional and practical support, sexual and physical intimacy).

Parental Satisfaction: Satisfaction with relationship with children, parenting experience, and children's well-being.

Broader Social Satisfaction: Satisfaction and sense of belonging in relationships with friends, extended family members, and broader community.

Sample Items

Table 1 contains sample items, the response format, and section headings for core constructs addressed within the WBI. Please note that section headings are included here and in the document that lists all WBI items to orient readers to where the items are located in the full measurement tool; they, along with the names of particular constructs, should be removed before administering the WBI to respondents. In addition, the names of the constructs rather than section letters should be used in scientific presentations and publications.

Table 1. *Construct, Sample Items, and Response Format for Core WBI Measures*

Construct	***Section***	***Sample Items***	***Response Format***
VOCATION			
Status – Paid and Unpaid Work	A	What is your current employment status?	Polytomous items 0 = Not working for pay and not looking for paid work 1 = Not working for pay but actively looking for paid work 2 = Working for pay
		Do you do any of the following types of unpaid work?	0 = I do not do any unpaid work 1 = Full-time care of children under the age of 18 2 = Full-time care of an adult (for example, spouse/parent/disabled child over 18) 3 = Full-time homemaker without full-time child or elder care responsibilities 4 = Volunteer work (excluding time spent

			helping friends, relatives, and/or neighbors)
Work Functioning	B	Over the last 3 months, please indicate how often: You completed your work when expected. The quality of your work was excellent.	5-point Likert scale (1 = Never; 5 = Most or all of the time)
Paid and Unpaid Work Satisfaction	C	Over the last 3 months, how satisfied have you been with: [For paid work:] Your pay and benefits. [For both paid and unpaid work:] How much your work contributions are valued.	5-point Likert scale (1 = Very dissatisfied; 5 = Very satisfied)
Status – Education and Training	D	Are you currently pursuing additional education or attending a trade or technical/vocational school (excluding on-the-job training)?	Polytomous items 0 = No 1 = Yes, part-time (less than 12 credits of coursework, if in university setting) 2 = Yes, full-time (12 or more credits of coursework, if in university setting)
Educational Functioning	E	Over the last 3 months of your education or training, please indicate how often: You completed all required coursework/training activities. You did your part to create a positive learning environment.	5-point Likert scale (1 = Never; 5 = Most or all of the time)
Educational Satisfaction	F	Over the last 3 months of your education or training, how satisfied have you been with:	5-point Likert scale (1 = Very dissatisfied; 5 = Very satisfied)

		The extent to which your education or training is advancing your career goals. Your learning environment.	
Status	G	Does your household have at least three months of your typical income set aside in case of an unexpected financial event? Are you able to pay for all necessary expenses each month, such as mortgage/rent, debt payments, and groceries?	Dichotomous items 0 = No 1 = Yes
Functioning	H	Over the last 3 months, how often have you: Compared prices when buying a product or service. Had credit card debt that you did not pay off each month.	5-point Likert scale (1 = Never; 5 = Most or all of the time)
Satisfaction	I	Over the last 3 months, how satisfied have you been with: Your ability to pay for necessities. The amount of savings you have.	5-point Likert scale (1 = Very dissatisfied; 5 = Very satisfied)
HEALTH			
Status	J	Do you have an ongoing physical health condition, illness, or disability (*for example, high blood pressure, pain)?* Do you have an ongoing mental/emotional health condition, illness, or disability *(for example, depression, anxiety)*?	Dichotomous items 0 = No 1 = Yes

Functioning (including health-promoting behavior, health risk behavior, and self-care)	K	Over the last 3 months, how often have you: Eaten a generally healthy diet *(for example, low fat, limited sugar, adequate servings of fruits and vegetables). [Health-Promoting Item]* Gotten at least 2.5 hrs of moderate physical activity OR 1 hr and 15 min of vigorous activity each week.	5-point Likert scale (1 = Never; 5 = Most or all of the time)
Satisfaction	L	Over the last 3 months, how satisfied have you been with: Your emotional/mental health. Your health care.	5-point Likert scale (1 = Very dissatisfied; 5 = Very satisfied)
SOCIAL RELATIONSHIPS			
Intimate Relationship Status	M	What is your current marital status?	Polytomous items 1 = Never married 2 = Married-first and only marriage 3 = Married-second or later marriage 4 = Separated 5 = Divorced 6 = Widowed
Intimate Relationship Functioning	N	Over the last 3 months, how often have you: Provided your significant other with the emotional support they sought. Initiated leisure time activities that both you and your significant other enjoy.	5-point Likert scale (1 = Never; 5 = Most or all of the time)

Intimate Relationship Satisfaction	O	Over the last 3 months, how satisfied have you been with your significant other's contribution to the following aspects of your romantic relationship: Emotional closeness *(for example, sharing personal thoughts and feelings).* Security *(for example, being able to trust and depend on partner)*	5-point Likert scale (1 = Very dissatisfied; 5 = Very satisfied)
Parental Status	P	Are you a parent or have you served in a parenting role during the past three months?	Dichotomous items 0 = No 1 = Yes
Parental Functioning	Q	Over the last 3 months, how often have you: Provided a healthy environment for your child(ren) *(for example, preparing healthy meals, caring for their health, keeping them safe).* Been able to successfully manage your child(ren)'s unique challenges *(for example, effectively disciplining children).*	5-point Likert scale (1 = Never; 5 = Most or all of the time)
Parental Satisfaction	R	Over the last 3 months, how satisfied have you been with: How close you are with your child(ren). How much enjoyment you get from parenting.	5-point Likert scale (1 = Very dissatisfied; 5 = Very satisfied)
Broader Social Involvement	S	Over the last 3 months, have you regularly:	Dichotomous items 0 = No 1 = Yes

		Participated in a religious or spiritual community. Volunteered for a charity, political group, or other local organization *(for example, a service organization, a political campaign)*.	
Broader Social Functioning	T	Over the last 3 months, how often have you: Gotten along well with members of your community. Provided support or help to relatives other than your significant other or children when needed.	5-point Likert scale (1 = Never; 5 = Most or all of the time)
Broader Social Satisfaction	U	Over the last 3 months, how satisfied have you been with: Your sense of belonging in your community. Your relationships with relatives other than your significant other or children.	5-point Likert scale (1 = Very dissatisfied; 5 = Very satisfied)

Potential Uses

The WBI includes 30 measures in total. These measures can be implemented to address research questions regarding the role that well-being plays in veterans' lives, including the extent to which well-being in one life domain begets enhanced well-being in other life domains. Furthermore, researchers can use one or more of the measures from the full inventory, depending on the purpose of the study or research question. Likewise, the WBI can be leveraged to provide a more comprehensive assessment of the impact of behavioral health interventions on individuals' lives than can be achieved with symptom measures alone. Given the applicability of WBI measures to other civilian populations, this instrument may also serve as a resource for those interested in assessing the well-being of other civilian adult populations as well. The WBI may also provide a useful tool for tailoring the provision of programs or services to individuals who would benefit from additional support. For example, the WBI might be used to guide the provision of tailored vocational support to reintegrating veterans, offering services such as mock interviews to individuals who report trouble obtaining a job, job skills training for those who report poor work performance, and career counseling for those who report being unhappy with their work.

CHAPTER TWO: ADMINISTRATION AND SCORING

Instructions

The WBI has four major sections that cover the life domains of vocation, finances, health, and social relationships. Consistent with the focus on status, functioning, and satisfaction within each of these domains, these broader categories are divided into several subsections that include different subsets of items (e.g., within the social relationships domain, different measures of status, functioning, and satisfaction are available for intimate relationships, parenting, and broader social relationships). A statement regarding the general purpose of the inventory is located at the beginning of the document that includes WBI items and more specific instructions for each section are included throughout the document. These instructions may be used by test administrators or they may adapt instructions as needed for their particular purpose.

In total, there are 21 sections of the WBI and 126 questions/statements. With the exception of contextual items, all items within each section must be administered to generate a score for the section. Contextual items are not required for scoring and can be used for descriptive purposes. In Section A, contextual items include A1-A7, A9, A10, A12, and A13. In Section D, contextual items include D2-D4. In Section G, contextual items include G7-G12. In Section J, contextual items include J3-J5. In Section M, contextual items include M3-M4. In section P, contextual items include P3-P4. The number of questions for each domain is as follows: 34 items for vocation, 24 for finances, 20 for health, and 48 for social relationships. Throughout the inventory, respondents are instructed to provide responses to categorical items (e.g., yes, no), or to endorse a single response from among statements using a 5-point Likert type response format (e.g., 1 = Never to 5 = Most or all of the time; 1 = Very dissatisfied to 5 = Very satisfied). As noted previously, measures within each domain may be extracted from the full inventory and are available to use as separate entities depending on the needs of the administrator and/or the purpose of the assessment.

Administration Guidelines

WBI measures may be administered via paper-and-pencil, internet, or telephone. If the full inventory is administered via paper-and-pencil it is important to explain to test-takers that some sections may not be relevant to them and that they can skip these sections (for example, individuals who are not parents should not be asked to complete parental functioning items).

The WBI includes both core items and contextual items. All core items must be administered within a given measure to generate a score for that measure. There is no special scoring required for contextual items; they are included to provide additional context on individuals' life circumstances within domains addressed in the WBI.

Respondents should be given adequate time to complete the WBI at a comfortable pace. If administered in its entirety, the WBI should take approximately 15-20 minutes to complete; however, individual measures take just a few minutes to complete.

Due to the sensitive nature of some of the items contained in the WBI, self-administration is the preferred administration method and care should be taken to ensure to ensure respondent privacy and confidentiality.

Please note that section headings are included in the document that lists all WBI items to orient readers to where items are located in the full measurement tool; they, along with the names of particular constructs, should be removed before administering the WBI to respondents.

The WBI has been administered to several samples of military veterans (see Normative Information). The reading level of the instrument, as assessed by Flesch-Kincaid Readability Index (Flesch, 1949), is 5.8, suggesting that this instrument is appropriate for individuals with a reading level of grade 6 or higher. Therefore, this instrument should be suitable for the majority of military veterans, as well as other adult civilians.

Scoring

Recommended guidelines for scoring the WBI scales are provided in Table 2. This table includes the name of each WBI construct, core items included in that section, and scoring instructions for primary WBI measures. For functioning and satisfaction scales, average item scores are computed to aid with the interpretation of scores. SPSS syntax for the computation of the WBI scales is provided in Appendix A. In addition, instructions for creating combined functioning and satisfaction measures across WBI domains are provided in Appendix B; however, it is important to note that this combined scoring approach has not yet been validated and therefore should be used with caution.

Table 2. *WBI Scoring Guidelines*

Construct	Core Items	Scoring Instructions
VOCATION		
Status	*A1, A2, A8, A11, D1*	*Workforce Participation (A1)* If working for pay OR not working for pay but actively looking for paid work, then = 1; If not working for pay and not looking for paid work, then = 0 *Paid Employment Status (A1)* If workforce participation = 1 and working for pay, then = 1; If workforce participation = 1 and not working for pay but actively looking for paid work, then = 0 *Full-time Employment (A2)* If paid employment status = 1 and working hours ≥ 30 hrs per week, then = 1;

		If paid employment status=1 and working hours < 30 hrs per week, then = 0 *Educational Involvement (D1)* If pursuing full-time education or attending trade or technical/vocational school, then = 2; If pursuing part-time education or attending trade or technical/vocational school, then = 1; If no school/vocational training, then = 0 *Full-time Volunteer Work (A11)* If unpaid volunteer work ≥ 30 hours per week, then = 1; If unpaid volunteer work < 30 hours per week, then = 0 *Full-time Homemaker or Caregiver (A8)* If full-time homemaker or caregiver, then = 1; If not full-time homemaker or caregiver, then = 0 *Vocation Status (A1, A2, A8, A11, D1)* If ≥ 30 hrs per week paid *(A2)* or unpaid vocation (including full-time educational involvement) *(D1)*, volunteering *(A11)*, or homemaking/caregiving *(A8)*, then = 2 (full-time vocation); If < 30 hrs per week paid *(A2)* or unpaid vocation *(A11)* = 1 (part-time vocation); If no paid *(A1)* or unpaid vocation *(A8)*, then = 0 (no vocation)
Work Functioning	*B1-B4*	Average item score [created by summing all relevant items and dividing by the total number of items in scale] such that higher scores indicate better work functioning
Paid Work Satisfaction	*C1-C6*	Average item score such that higher scores indicate greater satisfaction with one's work experiences
Unpaid Work Satisfaction	*C3-C6*	Average item score such that higher scores indicate greater satisfaction with one's work experiences
Educational Functioning	*E1-E4*	Average item score such that higher scores indicate better educational functioning
Educational Satisfaction	*F1-F3*	Average item score such that higher scores indicate greater satisfaction with education or training experiences
FINANCES		
Status	*G1-G6*	Reverse score items G5 and G6 (no = 0; not applicable = 0; yes = 1). Sum score calculated for three items that assess immediate financial needs (G1, G5, G6)

		Sum score calculated for three items that assess preparedness for financial future (G2-G4) If immediate financial needs < 3, then = 0 (problematic financial status); If immediate financial needs = 3 AND financial future < 3, then = 1 (at-risk financial status); If immediate financial status = 3 AND financial future = 3, then = 2 (secure financial status)
Functioning	*H1-H8*	Reverse score items H4, H5, and H6 (1= 5) (2 = 4) (3 = 3) (4 = 1) (5 = 1) Average item score such that higher scores indicate better financial functioning
Satisfaction	*I1-I4*	Average item score such that higher scores indicate greater satisfaction with one's finances
HEALTH		
Status	*J1-J2*	If both J1 and J2 = 0, then = 2 (no chronic health conditions); If either J1 or J2 = 1, then = 1 (chronic physical or mental health conditions); If both J1 and J2=1, health status, then = 0 (both chronic physical and mental health conditions)
Functioning	*K1-K12*	Reverse score items K5, K6, K7, and K8 (1= 5) (2 = 4) (3= 3) (4 = 1) (5 = 1) Average item score such that higher scores indicate better health functioning After reverse scoring appropriate items, all items are averaged to create an overall health functioning score; K1-K3 are averaged to create a "health promotion" score; reverse-scored items K5-K8 are averaged to create a "risk avoidance" score; K4 and K9-K12 are averaged to create a "self-care" score.
Satisfaction	*L1-L3*	Average item score such that higher scores indicate greater satisfaction with one's health
SOCIAL RELATIONSHIPS		
Status	*M1, M2, P1, S1-S7*	*Intimate Relationship Status (M1, M2)* If in intimate relationship, then = 1; If not, then = 0 *Parental Status (P1)* If in parenting role, then = 1; If not, then = 0

		Broader Social Involvement (S1-S7) If endorsement of any of the items for broader community involvement (i.e., S1-S5) AND regular contact with friends/or extended family (i.e., S6 and S7), then = 2; If endorsement of any type of community involvement OR regular contact with friend/extended family, then = 1; If no endorsement of any type of community involvement or regular contact with friends/extended family, then = 0
Intimate Relationship Functioning	*N1-N6*	Average item score such that higher scores indicate better intimate relationship functioning
Intimate Relationship Satisfaction	*O1-O6*	Average item score such that higher scores indicate greater intimate relationship satisfaction
Parental Functioning	*Q1-Q5*	Average item score such that higher scores indicate better parental functioning
Parental Satisfaction	*R1-R3*	Average item score such that higher scores indicate greater satisfaction with being a parent
Broader Social Functioning	*T1-T9*	Average item score such that higher scores indicate better social functioning
Broader Social Satisfaction	*U1-U4*	Average item score such that higher scores indicate greater satisfaction in social relationships

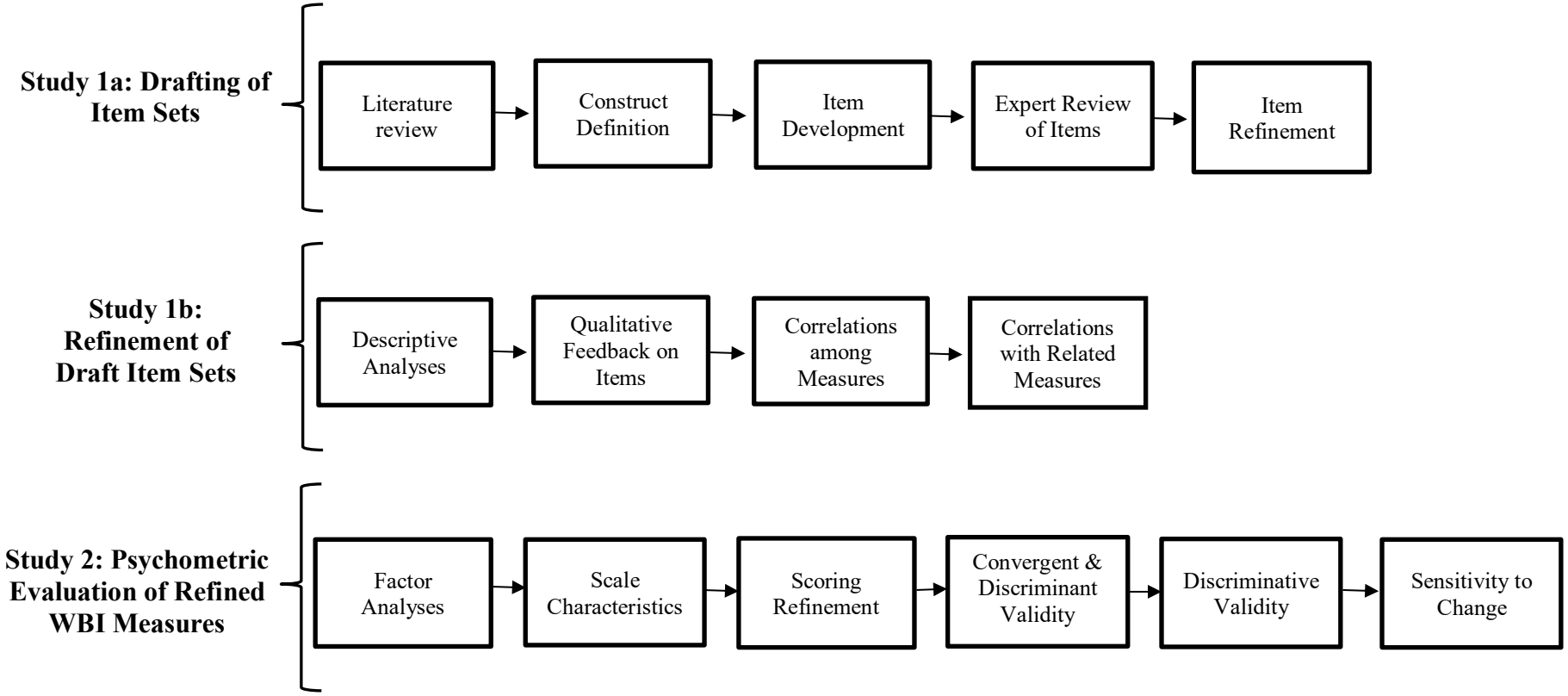
CHAPTER THREE: INSTRUMENT DEVELOPMENT AND PSYCHOMETRIC PROPERTIES

As specified in Vogt et al. (2019) and shown in Figure 1, the development and validation of this inventory involved an initial focus on defining and operationalizing focal constructs, obtaining feedback on draft item sets from content and instrument development experts (including members of the veteran population), and refining items based on that feedback. Following this initial work, two multi-part studies were conducted. The first study involved refining initial item sets and confirming their unique focus vis a vis other widely used measures of well-being based on data collected at two timepoints. The second study was conducted to examine the psychometric characteristics of newly developed WBI measures within a larger sample of post-9/11 veterans who completed these measures on two occasions. Data from the first timepoint were used to examine the factor structure underlying the functioning and satisfaction measures and to evaluate the ability of draft WBI measures to discriminate among those with and without mental health conditions. Data from the first and second timepoint were used to evaluate the measures' sensitivity of change. Data from the second timepoint were also used to confirm the factor structure underlying the functioning and satisfaction measures and to compute item and scale characteristics for all finalized WBI measures.

According to the Consensus-based Standards for the Selection of Health Status Measurement Instruments, the methodological requirements for a useful measure are that it is reliable, valid, and responsive to change (Mokkink et al., 2010). Initial evidence for each of these characteristics was provided in this set of studies, as detailed in Vogt et al. (2019). Confirmatory factor analyses of the functioning and satisfaction measures revealed a multidimensional structure that was largely consistent with the proposed theoretical framework. Cronbach's alphas were satisfactory, with an average alpha of 0.86. Findings also generally supported the ability of WBI measures to discriminate among groups expected to differ in well-being and to capture expected change over time. A detailed overview the process implemented to develop and validate the WBI is available in Vogt et al. (2019).

Vogt, D., Taverna, E. C., Nillni, Y. I., Booth, B., Perkins, D. F., Copeland, L. A., Finley, E. P., Tyrell, F. A., & Gilman, C. L. (in press). Development and Validation of a Tool to Assess Military Veterans' Status, Functioning, and Satisfaction with Key Aspects of their Lives. A*pplied Psychology: Health and Well-Being.*

Figure 1. **Well-Being Inventory (WBI) Development and Validation Procedure**



CHAPTER FOUR: NORMATIVE INFORMATION

Although the WBI is not a clinical tool, knowledge of the scoring profiles of different samples of respondents may help researchers evaluate how their study samples compare to the larger population. In addition, this information might be useful to those who wish to identify individuals who may benefit most from efforts to bolster their well-being. Below we provide weighted proportions and means for veterans surveyed approximately nine months after separating from military service. Non-response bias weights were calculated based on the gender, rank/paygrade, and branch of service of individuals in the sampling frame and applied to analyses to enhance the representativeness of findings to the larger population of veterans. Tables 12-18 provide proportions and means for the full sample and for veteran subgroups based on gender (women versus men), age (individuals 35 and younger versus older than 35), race/ethnicity [majority (European American descent) versus minority racial/ethnic status (non-European American descent)], enlisted personnel versus officers, Active Duty versus National Guard/Reservist personnel, and different branches of active duty military service (Army, Navy, Airforce, and Marine Corps).

Table 13. *Weighted Proportions and Means for the Full Veteran Sample*

		95% CI	
Status Variables	***%***	***LL***	***UL***
Workforce Participation			
Out of the workforce	14.30	13.44	15.16
In the workforce	85.70	84.84	86.56
Employment Status			
Unemployed	20.61	19.48	21.74
Employed	79.39	78.26	80.52
Employment Type			
Part-time	12.56	11.52	13.60
Full-time	87.44	86.40	88.48
Vocation Status			
No vocation	8.78	8.04	9.51
Part-time vocation	6.03	5.41	6.65
Full-time vocation	85.19	84.27	86.11
Educational Involvement Status			
No educational involvement	68.16	66.96	69.35
Part-time educational involvement	5.50	4.93	6.08
Full-time educational involvement	26.34	25.21	27.47
Health Status			
No chronic health conditions	39.49	38.22	40.76
Chronic physical or mental health conditions	31.58	30.40	32.76
Both chronic physical and mental health conditions	28.93	27.79	30.07
Financial Status			
Problematic	18.39	17.34	19.44
At risk	40.38	39.12	41.64

Secure	41.23	39.98	42.47
Intimate Relationship Status			
Not in a relationship	19.19	18.12	20.26
In a relationship	80.81	79.74	81.88
Parental Status			
Not a parent	44.52	43.24	45.80
Parent	55.48	54.19	56.76
Broader Social Involvement			
No regular social involvement	8.79	8.03	9.54
Involvement with either community or family/friends	31.21	30.01	32.41
Involvement with both community and family/friends	60.00	58.73	61.26
Functioning and Satisfaction Variables	***%***	***LL***	***UL***
Work Functioning	4.49	4.47	4.51
Paid Work Satisfaction	3.92	3.90	3.95
Unpaid Work Satisfaction	3.67	3.59	3.74
School Functioning	4.35	4.32	4.39
School Satisfaction	4.23	4.19	4.26
Financial Functioning	3.78	3.76	3.80
Financial Satisfaction	3.42	3.39	3.45
Health Functioning	3.96	3.94	3.97
HF – health promotion	3.41	3.38	3.44
HF – risk avoidance	4.64	4.62	4.65
HF – self-care	3.74	3.72	3.76
Health Satisfaction	3.55	3.52	3.57
Relationship Functioning	3.95	3.93	3.97
Relationship Satisfaction	4.01	3.98	4.04
Parental Functioning	4.60	4.58	4.62
Parental Satisfaction	4.55	4.53	4.58
Broader Social Functioning	3.91	3.89	3.93
Broader Social Satisfaction	3.87	3.84	3.89

Note. % = Proportion; M = Mean; LL = Lower Limit; UL = Upper Limit

Table 14. *Weighted Proportions and Means for Female versus Male Veterans*

	Women			**Men**		
		95% CI			**95% CI**	
Status Variables	***%***	***LL***	***UL***	***%***	***LL***	***UL***
Workforce Participation						
Out of the workforce	23.18	20.81	25.55	12.62	11.70	13.54
In the workforce	76.82	74.44	79.19	87.38	86.46	88.30
Employment Status						
Unemployed	27.31	24.27	30.34	19.50	18.28	20.72
Employed	72.69	69.66	75.73	80.50	79.28	81.72

Employment Type						
Part-time	19.12	15.96	22.28	11.57	10.48	12.67
Full-time	80.88	77.72	84.03	88.43	87.33	89.52
Vocation Status						
No vocation	8.47	6.86	10.08	8.83	8.01	9.66
Part-time vocation	7.02	5.56	8.48	5.85	5.16	6.53
Full-time vocation	84.51	82.42	86.60	85.32	84.30	86.34
Educational Involvement Status						
No educational involvement	62.31	59.45	65.17	69.26	67.95	70.57
Part-time educational involvement	8.69	7.05	10.33	4.90	4.29	5.51
Full-time educational involvement	29.00	26.34	31.66	25.84	24.59	27.08
Health Status						
No chronic health conditions	34.63	31.74	37.52	40.41	39.00	41.81
Chronic physical or mental health conditions	30.62	27.88	33.35	31.76	30.46	33.06
Both chronic physical and mental health conditions	34.75	31.95	37.55	27.83	26.58	29.07
Financial Status						
Problematic	19.29	16.89	21.69	18.22	17.06	19.38
At risk	38.96	36.02	41.89	40.65	39.26	42.04
Secure	41.75	38.84	44.67	41.13	39.76	42.50
Intimate Relationship Status						
Not in a relationship	23.39	20.80	25.98	18.39	17.22	19.56
In a relationship	76.61	74.01	79.20	81.61	80.44	82.78
Parental Status						
Not a parent	46.92	43.94	49.90	44.07	42.65	45.49
Parent	53.08	50.10	56.06	55.93	54.51	57.35
Broader Social Involvement						
No regular social involvement	6.92	5.42	8.42	9.14	8.29	10.00
Involvement with either community or family/friends	31.59	28.78	34.40	31.14	29.82	32.46
Involvement with both community and family/friends	61.49	58.56	64.41	59.72	58.32	61.12
Functioning and Satisfaction Variables	***M***	***LL***	***UL***	***M***	***LL***	***UL***
Work Functioning	4.46	4.42	4.51	4.50	4.47	4.52
Paid Work Satisfaction	3.92	3.84	3.99	3.93	3.89	3.96
Unpaid Work Satisfaction	3.74	3.62	3.86	3.63	3.54	3.72
School Functioning	4.38	4.31	4.46	4.35	4.31	4.38
School Satisfaction	4.22	4.14	4.30	4.23	4.19	4.27
Financial Functioning	3.77	3.72	3.82	3.79	3.76	3.81
Financial Satisfaction	3.45	3.37	3.52	3.41	3.38	3.45
Health Functioning	4.05	4.02	4.09	3.94	3.92	3.95
HF – health promotion	3.48	3.41	3.54	3.40	3.37	3.43
HF – risk avoidance	4.78	4.75	4.81	4.61	4.59	4.63
HF – self-care	3.82	3.77	3.87	3.72	3.70	3.74
Health Satisfaction	3.50	3.43	3.56	3.56	3.52	3.58

Relationship Functioning	4.10	4.05	4.16	3.92	3.90	3.95
Relationship Satisfaction	4.06	3.99	4.13	4.00	3.97	4.04
Parental Functioning	4.70	4.66	4.74	4.58	4.56	4.60
Parental Satisfaction	4.65	4.60	4.71	4.53	4.51	4.56
Broader Social Functioning	4.04	3.99	4.09	3.89	3.86	3.91
Broader Social Satisfaction	3.88	3.82	3.94	3.86	3.84	3.89

Note. % = Proportion; M = Mean; LL = Lower Limit; UL = Upper Limit

Table 15. *Weighted Proportions and Means based on Veterans from Different Age Groups*

	35 and Younger			**Older than 35**		
		95% CI			**95% CI**	
Status Variables	***%***	***LL***	***UL***	***%***	***LL***	***UL***
Workforce Participation						
Out of the workforce	14.69	13.58	15.80	13.50	12.19	14.82
In the workforce	85.31	84.20	86.42	86.50	85.18	87.81
Employment Status						
Unemployed	22.46	20.97	23.95	16.78	15.19	18.36
Employed	77.54	76.05	79.03	83.22	81.64	84.80
Employment Type						
Part-time	15.60	14.14	17.05	6.66	5.55	7.78
Full-time	84.40	82.95	85.86	93.34	92.22	94.45
Vocation Status						
No vocation	8.33	7.40	9.26	9.74	8.55	10.92
Part-time vocation	6.09	5.28	6.90	5.92	5.03	6.80
Full-time vocation	85.58	84.40	86.76	84.35	82.92	85.77
Educational Involvement Status						
No educational involvement	60.82	59.25	62.39	83.60	82.11	85.10
Part-time educational involvement	5.34	4.64	6.05	5.85	4.86	6.83
Full-time educational involvement	33.84	32.32	35.36	10.55	9.34	11.76
Health Status						
No chronic health conditions	45.75	44.12	47.37	26.35	24.49	28.21
Chronic physical or mental health conditions	28.04	26.59	29.49	39.00	37.03	40.96
Both chronic physical and mental health conditions	26.21	24.80	27.62	34.65	32.75	36.55
Financial Status						
Problematic	21.33	19.94	22.71	12.25	10.85	13.64
At risk	41.36	39.76	42.96	38.27	36.28	40.26
Secure	37.31	35.76	38.86	49.48	47.45	51.50
Intimate Relationship Status						
Not in a relationship	23.26	21.83	24.68	10.60	9.29	11.91
In a relationship	76.74	75.32	78.17	89.40	88.08	90.71
Parental Status						
Not a parent	58.01	56.42	59.60	16.15	14.63	17.67

Parent	41.99	40.39	43.58	83.85	82.33	85.37
Broader Social Involvement						
No regular social involvement	9.62	8.62	10.63	7.05	6.04	8.06
Involvement with either community or family/friends	33.71	32.16	35.26	25.97	24.18	27.76
Involvement with both community and family/friends	56.66	55.04	58.28	66.98	65.07	68.89
Functioning and Satisfaction Variables	***M***	***LL***	***UL***	***M***	***LL***	***UL***
Work Functioning	4.49	4.46	4.51	4.50	4.47	4.52
Paid Work Satisfaction	3.85	3.81	3.89	4.07	4.03	4.11
Unpaid Work Satisfaction	3.71	3.62	3.81	3.60	3.48	3.71
School Functioning	4.37	4.33	4.40	4.29	4.20	4.37
School Satisfaction	4.23	4.18	4.27	4.23	4.14	4.31
Financial Functioning	3.73	3.70	3.75	3.91	3.88	3.94
Financial Satisfaction	3.35	3.31	3.38	3.57	3.52	3.62
Health Functioning	3.93	3.91	3.94	4.02	3.99	4.04
HF – health promotion	3.46	3.41	3.48	3.33	3.29	3.37
HF – risk avoidance	4.58	4.56	4.60	4.75	4.73	4.77
HF – self-care	3.69	3.66	3.71	3.84	3.81	3.87
Health Satisfaction	3.51	3.48	3.55	3.61	3.57	3.66
Relationship Functioning	4.01	3.98	4.04	3.84	3.80	3.87
Relationship Satisfaction	4.06	4.03	4.10	3.92	3.88	3.97
Parental Functioning	4.64	4.61	4.66	4.55	4.52	4.58
Parental Satisfaction	4.64	4.60	4.67	4.45	4.41	4.48
Broader Social Functioning	3.93	3.90	3.96	3.88	3.84	3.91
Broader Social Satisfaction	3.83	3.80	3.86	3.94	3.91	3.98

Note. % = Proportion; M = Mean; LL = Lower Limit; UL = Upper Limit

Table 16. *Weighted Proportions and Means based on Veterans' Racial/Ethnic Status*

	Majority Racial/Ethnic Status			**Minority Racial/Ethnic Status**		
		95% CI			**95% CI**	
Status Variables	***%***	***LL***	***UL***	***%***	***LL***	***UL***
Workforce Participation						
Out of the workforce	13.88	12.83	14.93	15.01	13.50	16.51
In the workforce	86.12	85.07	87.16	84.99	83.49	86.50
Employment Status						
Unemployed	15.82	14.56	17.08	28.73	26.59	30.87
Employed	84.18	82.92	85.44	71.27	69.13	73.41

Employment Type						
Part-time	11.71	10.51	12.91	14.27	12.28	16.26
Full-time	88.29	87.09	89.49	85.73	83.74	87.72
Vocation Status						
No vocation	6.95	6.13	7.76	11.86	10.44	13.27
Part-time vocation	5.52	4.79	6.25	6.89	5.78	8.00
Full-time vocation	87.53	86.47	88.59	81.25	79.54	82.96
Educational Involvement Status						
No educational involvement	70.03	68.58	71.48	65.03	62.97	67.10
Part-time educational involvement	5.49	4.76	6.20	5.54	4.59	6.49
Full-time educational involvement	24.48	23.12	25.84	29.43	27.44	31.41
Health Status						
No chronic health conditions	41.18	39.61	42.75	36.67	34.53	38.81
Chronic physical or mental health conditions	32.53	31.07	33.99	30.00	28.01	31.99
Both chronic physical and mental health conditions	26.29	24.93	27.66	33.33	31.32	35.34
Financial Status						
Problematic	13.68	12.53	14.83	26.28	24.30	28.26
At risk	40.24	38.68	41.79	40.64	38.50	42.78
Secure	46.08	44.52	47.65	33.08	31.07	35.10
Intimate Relationship Status						
Not in a relationship	16.70	15.43	17.97	23.38	21.49	25.28
In a relationship	83.30	82.03	84.57	76.62	74.72	78.51
Parental Status						
Not a parent	44.00	42.41	45.58	45.38	43.19	47.56
Parent	56.00	54.42	57.59	54.62	52.44	56.81
Broader Social Involvement						
No regular social involvement	8.11	7.20	9.02	9.89	8.56	11.21
Involvement with either community or family/friends	30.62	29.15	32.10	32.21	30.17	34.26
Involvement with both community and family/friends	61.26	59.70	62.82	57.90	55.74	60.06
Functioning and Satisfaction Variables	***M***	***LL***	***UL***	***M***	***LL***	***UL***
Work Functioning	4.51	4.49	4.53	4.45	4.41	4.48
Paid Work Satisfaction	3.96	3.92	3.99	3.86	3.80	3.91
Unpaid Work Satisfaction	3.63	3.53	3.73	3.72	3.60	3.83
School Functioning	4.39	4.35	4.43	4.30	4.24	4.36
School Satisfaction	4.23	4.18	4.28	4.23	4.17	4.28
Financial Functioning	3.86	3.84	3.89	3.65	3.62	3.69
Financial Satisfaction	3.53	3.49	3.56	3.24	3.18	3.29
Health Functioning	3.99	3.98	4.01	3.89	3.86	3.92
HF – health promotion	3.46	3.43	3.49	3.33	3.28	3.38
HF – risk avoidance	4.63	4.61	4.65	4.65	4.62	4.68
HF – self-care	3.81	3.78	3.83	3.62	3.59	3.66
Relationship Satisfaction	4.08	4.05	4.11	3.89	3.84	3.94

Parental Functioning	4.61	4.59	4.64	4.57	4.54	4.61
Parental Satisfaction	4.56	4.53	4.59	4.53	4.49	4.58
Broader Social Functioning	3.95	3.93	3.98	3.84	3.81	3.88
Broader Social Satisfaction	3.90	3.88	3.94	3.80	3.76	3.85

Note. Majority Racial/Ethnic Background = European American descent; Minority Racial/Ethnic Background = Non-European American descent. *Note.* % = Proportion; M = Mean; LL = Lower Limit; UL = Upper Limit

Table 17. *Weighted Proportions and Means based on Veterans' Service Rank*

	Enlisted/Warrants			**Officers**		
		95% CI			**95% CI**	
Status Variables	***%***	***LL***	***UL***	***%***	***LL***	***UL***
Workforce Participation						
Out of the workforce	14.92	13.95	15.90	10.63	9.11	12.14
In the workforce	85.08	84.10	86.05	89.37	87.85	90.89
Employment Status						
Unemployed	22.55	21.26	23.85	9.72	8.12	11.32
Employed	77.45	76.15	78.74	90.28	88.68	91.87
Employment Type						
Part-time	13.82	12.60	15.03	6.52	5.16	7.88
Full-time	86.18	84.96	87.40	93.48	92.12	94.84
Vocation Status						
No vocation	9.33	8.49	10.17	5.51	4.34	6.68
Part-time vocation	6.10	5.40	6.80	5.62	4.54	6.70
Full-time vocation	84.57	83.52	85.61	88.88	87.32	90.43
Educational Involvement Status						
No educational involvement	64.93	63.58	66.28	87.16	85.38	88.94
Part-time educational involvement	5.68	5.03	6.33	4.47	3.41	5.53
Full-time educational involvement	29.39	28.11	30.68	8.37	6.87	9.87
Health Status						
No chronic health conditions	38.62	37.21	40.03	44.61	41.91	47.30
Chronic physical or mental health conditions	30.65	29.34	31.96	37.06	34.51	39.61
Both chronic physical and mental health conditions	30.73	29.45	32.01	18.33	16.25	20.42
Financial Status						
Problematic	20.67	19.48	21.87	4.96	3.65	6.27
At risk	43.26	41.84	44.66	23.46	21.12	25.80
Secure	36.07	34.71	37.43	71.58	69.07	74.08
Intimate Relationship Status						
Not in a relationship	21.01	19.80	22.22	8.49	6.85	10.12
In a relationship	78.99	77.78	80.20	91.51	89.88	93.15
Parental Status						
Not a parent	46.59	45.16	48.02	32.34	29.80	34.89
Parent	53.41	51.98	54.84	67.66	65.11	70.20

Broader Social Involvement						
No regular social involvement	9.83	8.96	10.69	2.69	1.82	3.56
Involvement with either community or family/friends	33.66	32.31	35.01	16.79	14.75	18.84
Involvement with both community and family/friends	56.51	55.10	57.93	80.52	78.36	82.67
Functioning and Satisfaction Variables	***M***	***LL***	***UL***	***M***	***LL***	***UL***
Work Functioning	4.48	4.45	4.50	4.56	4.53	4.59
Paid Work Satisfaction	3.87	3.83	3.90	4.21	4.16	4.25
Unpaid Work Satisfaction	3.67	3.59	3.75	3.65	3.49	3.81
School Functioning	4.34	4.31	4.38	4.50	4.38	4.62
School Satisfaction	4.22	4.18	4.26	4.38	4.26	4.50
Financial Functioning	3.71	3.69	3.74	4.20	4.16	4.23
Financial Satisfaction	3.22	3.29	3.36	3.98	3.93	4.04
Health Functioning	3.91	3.89	3.92	4.24	4.21	4.27
HF – health promotion	3.36	3.33	3.39	3.73	3.68	3.78
HF – risk avoidance	4.60	4.58	4.62	4.86	4.85	4.88
HF – self-care	3.68	3.66	3.71	4.05	4.01	4.09
Health Satisfaction	3.48	3.45	3.51	3.96	3.91	4.00
Relationship Functioning	3.92	3.90	3.95	4.07	4.03	4.12
Relationship Satisfaction	3.98	3.95	4.01	4.19	4.13	4.24
Parental Functioning	4.59	4.57	4.61	4.64	4.60	4.68
Parental Satisfaction	4.55	4.52	4.58	4.55	4.50	4.60
Broader Social Functioning	3.89	3.87	3.91	4.04	4.00	4.08
Broader Social Satisfaction	3.83	3.80	3.86	4.10	4.06	4.14

Note. % = Proportion; M = Mean; LL = Lower Limit; UL = Upper Limit

Table 18. *Weighted Proportions and Means based on Veterans' Service Component*

	Active Duty			**National Guard/Reserves**		
		95% CI			**95% CI**	
Status Variables	***%***	***LL***	***UL***	***%***	***LL***	***UL***
Workforce Participation						
Out of the workforce	16.41	15.42	17.40	4.11	2.72	5.50
In the workforce	83.59	82.60	84.58	95.89	94.50	97.28
Employment Status						
Unemployed	23.63	22.33	24.93	7.84	5.89	9.78
Employed	76.37	75.07	77.67	92.16	90.22	94.11
Employment Type						
Part-time	14.64	13.41	15.87	5.32	3.62	7.03
Full-time	85.36	84.13	86.59	94.68	92.97	96.38
Vocation Status						
No vocation	9.79	8.95	10.62	3.84	2.41	5.27
Part-time vocation	6.55	5.85	7.24	3.57	2.25	4.88

Full-time vocation	83.67	82.63	84.70	92.59	90.69	94.50
Educational Involvement Status						
No educational involvement	65.36	64.06	66.67	81.67	78.94	84.41
Part-time educational involvement	5.00	4.43	5.57	7.91	6.02	9.80
Full-time educational involvement	29.64	28.38	30.90	10.42	8.25	12.59
Health Status						
No chronic health conditions	34.81	33.49	36.13	62.33	58.87	65.79
Chronic physical or mental health conditions	32.79	31.53	34.06	25.71	22.56	28.87
Both chronic physical and mental health conditions	32.39	31.13	33.66	11.95	9.65	14.26
Financial Status						
Problematic	19.76	18.60	20.92	11.84	9.48	14.21
At risk	41.14	39.80	42.48	36.59	33.14	40.03
Secure	39.10	37.80	40.40	51.57	48.02	55.12
Intimate Relationship Status						
Not in a relationship	19.49	18.34	20.65	17.64	14.90	20.38
In a relationship	80.51	79.35	81.66	82.36	79.61	85.10
Parental Status						
Not a parent	45.95	44.58	47.32	37.81	34.38	41.25
Parent	54.05	52.68	55.42	62.19	58.75	65.62
Broader Social Involvement						
No regular social involvement	9.63	8.78	10.48	4.76	3.20	6.31
Involvement with either community or family/friends	32.56	31.26	33.86	24.40	21.36	27.44
Involvement with both community and family/friends	57.81	56.45	59.17	70.84	67.61	74.07
Functioning and Satisfaction Variables	***M***	***LL***	***UL***	***M***	***LL***	***UL***
Work Functioning	4.49	4.47	4.51	4.50	4.46	4.54
Paid Work Satisfaction	3.89	3.86	3.92	4.05	3.99	4.11
Unpaid Work Satisfaction	3.66	3.58	3.74	3.78	3.43	4.12
School Functioning	4.36	4.33	4.40	4.26	4.14	4.38
School Satisfaction	4.23	4.19	4.27	4.17	4.05	4.30
Financial Functioning	3.74	3.72	3.76	4.01	3.96	4.06
Financial Satisfaction	3.36	3.33	3.40	3.69	3.61	3.77
Health Functioning	3.91	3.90	3.93	4.16	4.13	4.20
HF – health promotion	3.34	3.32	3.37	3.73	3.66	3.79
HF – risk avoidance	4.61	4.59	4.63	4.77	4.74	4.80
HF – self-care	3.69	3.67	3.72	3.94	3.89	3.99
Health Satisfaction	3.47	3.44	3.50	3.92	3.85	3.98
Relationship Functioning	3.92	3.90	3.95	4.08	4.02	4.14
Relationship Satisfaction	3.99	3.96	4.02	4.12	4.05	4.20
Parental Functioning	4.58	4.56	4.60	4.67	4.62	4.72
Parental Satisfaction	4.54	4.51	4.57	4.61	4.55	4.66
Broader Social Functioning	3.88	3.86	3.90	4.06	4.01	4.11
Broader Social Satisfaction	3.82	3.79	3.85	4.10	4.04	4.16

Note. % = Proportion; M = Mean; LL = Lower Limit; UL = Upper Limit

Table 19. *Weighted Proportions and Means based on Branch of Active Duty Military Service*

	Army			Navy			Air Force			Marines		
		95% CI			95% CI			95% CI			95% CI	
Status Variables	***%***	***LL***	***UL***	***%***	***LL***	***UL***	***%***	***LL***	***UL***	***%***	***LL***	***UL***
Workforce Participation												
Out of the workforce	17.18	15.55	18.81	15.96	13.87	18.05	16.30	14.14	18.46	15.50	13.33	17.68
In the workforce	82.82	81.19	84.45	84.04	81.95	86.12	83.70	81.54	85.86	84.50	82.32	86.67
Employment Status												
Unemployed	27.71	25.50	29.92	22.60	19.86	25.34	16.67	14.24	19.09	22.63	19.80	25.46
Employed	72.29	70.08	74.50	77.40	74.66	80.14	83.33	80.90	85.76	77.37	74.54	80.20
Employment Type												
Part-time	14.06	12.05	16.07	14.89	12.25	17.53	12.60	10.31	14.88	17.11	14.13	20.08
Full-time	85.94	83.93	87.95	85.11	82.47	87.75	87.40	85.12	89.68	82.89	79.92	85.86
Vocation Status												
No vocation	11.47	10.06	12.88	11.20	9.24	13.16	7.24	5.68	8.80	7.05	5.43	8.67
Part-time vocation	7.39	6.21	8.57	5.57	4.18	6.96	6.60	5.22	7.98	5.97	4.38	7.56
Full-time vocation	81.14	79.40	82.88	83.23	80.94	85.52	86.16	84.16	88.16	86.98	84.80	89.16
Educational Involvement Status												
No educational involvement	65.21	63.09	67.32	66.97	64.23	69.71	72.37	69.70	75.03	58.30	55.26	61.34
Part-time educational involvement	5.65	4.65	6.66	4.74	3.60	5.87	4.76	3.60	5.92	4.23	3.03	5.43
Full-time educational involvement	29.14	27.11	31.17	28.29	25.64	30.94	22.87	20.32	25.42	37.47	34.48	40.45
Health Status												
No chronic health conditions	29.07	27.02	31.11	36.02	33.17	38.86	39.27	36.38	42.15	40.89	37.83	43.96
Chronic physical or mental health conditions	30.93	28.91	32.94	36.39	33.61	39.18	35.79	33.10	38.48	30.01	27.18	32.83
Both chronic physical and mental health conditions	40.00	37.85	42.16	27.59	25.00	30.17	24.94	22.46	27.42	29.10	26.38	31.82
Financial Status												
Problematic	21.85	19.94	23.75	21.17	18.59	23.74	12.04	10.00	14.07	20.39	17.77	23.01
At risk	43.30	41.12	45.50	40.26	37.40	43.14	34.12	31.34	36.89	43.57	40.52	46.62
Secure	34.85	32.80	36.90	38.57	35.80	41.34	53.84	50.94	56.74	36.04	33.11	38.96
Intimate Relationship Status												

Not in a relationship	18.77	16.93	20.60	20.72	18.23	23.22	15.94	13.60	18.27	22.35	19.62	25.08
In a relationship	81.23	79.39	83.07	79.28	76.78	81.77	84.06	81.73	86.40	77.65	74.92	80.38
Parental Status												
Not a parent	41.69	39.47	43.90	48.30	45.36	51.23	39.97	37.07	42.88	56.29	53.28	59.30
Parent	58.31	56.10	60.52	51.70	48.77	54.63	60.03	57.12	62.93	43.71	40.70	46.72
Broader Social Involvement												
No regular social involvement	11.78	10.28	13.28	8.73	7.02	10.43	6.08	4.61	7.54	9.35	7.46	11.24
Involvement with either community or family/friends	32.78	30.68	34.88	33.10	30.28	35.92	26.83	24.18	29.48	36.12	33.14	39.11
Involvement with both community and family/friends	55.44	53.23	57.65	58.17	55.26	61.09	67.09	64.30	69.89	54.53	51.44	57.61
Functioning and Satisfaction Variables	***M***	***LL***	***UL***	***M***	***LL***	***UL***	***M***	***LL***	***UL***	***M***	***LL***	***UL***
Work Functioning	4.42	4.38	4.46	4.53	4.49	4.57	4.59	4.55	4.62	4.48	4.43	4.53
Paid Work Satisfaction	3.88	3.82	3.94	3.89	3.82	3.96	4.06	4.00	4.12	3.76	3.68	3.84
Unpaid Work Satisfaction	3.56	3.44	3.68	3.63	3.47	3.78	3.83	3.68	3.98	3.80	3.63	3.98
School Functioning	4.32	4.26	4.38	4.40	4.33	4.48	4.58	4.51	4.65	4.28	4.21	4.36
School Satisfaction	4.24	4.18	4.31	4.24	4.16	4.32	4.41	4.32	4.49	4.11	4.03	4.19
Financial Functioning	3.70	3.66	3.73	3.68	3.63	3.73	3.98	3.94	4.03	3.68	3.63	3.73
Financial Satisfaction	3.32	3.27	3.37	3.27	3.20	3.34	3.68	3.62	3.75	3.29	3.22	3.36
Health Functioning	3.87	3.84	3.90	3.90	3.87	3.93	4.10	4.07	4.13	3.85	3.82	3.89
HF – health promotion	3.30	3.25	3.35	3.25	3.19	3.31	3.52	3.47	3.58	3.40	3.33	3.46
HF – risk avoidance	4.59	4.56	4.62	4.63	4.59	4.66	4.75	4.72	4.78	4.52	4.47	4.56
HF – self-care	3.63	3.60	3.67	3.71	3.67	3.76	3.93	3.89	3.98	3.60	3.55	3.65
Health Satisfaction	3.35	3.31	3.40	3.45	3.39	3.51	3.78	3.72	3.84	3.46	3.40	3.53
Relationship Functioning	3.81	3.76	3.85	3.97	3.92	4.03	4.13	4.08	4.17	3.92	3.86	3.98
Relationship Satisfaction	3.88	3.83	3.94	4.02	3.96	4.08	4.20	4.15	4.26	3.99	3.92	4.05
Parental Functioning	4.54	4.50	4.57	4.59	4.54	4.64	4.69	4.65	4.73	4.57	4.52	4.62
Parental Satisfaction	4.50	4.45	4.54	4.56	4.50	4.61	4.62	4.56	4.68	4.55	4.49	4.61
Broader Social Functioning	3.82	3.78	3.86	3.88	3.83	3.93	4.07	4.03	4.12	3.84	3.79	3.89
Broader Social Satisfaction	3.76	3.72	3.81	3.82	3.76	3.87	4.05	4.00	4.10	3.75	3.69	3.81

Note. % = Proportion; M = Mean; LL = Lower Limit; UL = Upper Limit

Summary

The WBI is a psychometrically sound set of measures that can be used to assess life circumstances that serve as the building blocks of well-being. This measurement tool includes measures of status, functioning, and satisfaction within the four key life domains of vocation, finances, health, and social relationships. A multi-phase investigation of the psychometric characteristics of WBI measures among post-9/11 veterans provided evidence for the internal consistency, convergent and discriminant validity, discriminative validity, and sensitivity to change of this set of measures. These measures may be used for research purposes and could have utility for identifying individuals who may need additional support and resources to promote enhanced well-being. The WBI may also prove useful in other populations besides military veterans.

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Appendix A
SPSS Syntax for Computing Well-Being Inventory Scores

Vocation Status:

Participation in the labor force defined as working for pay or actively looking for work (LABORFORCE): Scores range from 0-1

*Creating a dichotomous "in the labor force" variable.

```
RECODE WORK (1=1)(2=1)(0=0) INTO LABORFORCE.
VALUE LABELS LABORFORCE
1 'In labor force'
0 'Not in labor force'.
VARIABLE LABELS LABORFORCE 'Whether or not in the labor force'.
EXECUTE.
```

Paid employment status defined as working for pay (part or full time) vs. not working for pay among those in the laborforce (EMPLOY): Scores range from 0-1

*Creating an employment status variable with 2 levels (non vs. part or full time status) for only those in the workforce.

```
RECODE WORK (1=1)(2=0) INTO EMPLOY.
EXECUTE.
VARIABLE LABELS EMPLOY 'Employed or not employed of those in laborforce'.
VALUE LABELS EMPLOY
0 'No paid employment'
1 'Working part-time or full-time'.
EXECUTE.
```

Fulltime Employment Status defined full- or part-time status among those working for pay (WORKFT): Scores range from 0-1

*Creating a dichotomous employment variable of work full-time vs. not full-time only for those in labor force and working for pay.

```
IF WORK EQ 1 AND WORKHRS GE 30 WORKFT=1.
IF WORK EQ 1 AND WORKHRS LT 30 WORKFT=0.
EXECUTE.
VALUE LABELS WORKFT
1 'Working full-time'
0 'Not working full-time'.
VARIABLE LABELS WORKFT 'Of those in paid employment, whether or not they are
working full-time or not'.
EXECUTE.
```

Educational Involvement (STUDENT_STAT): Scores range from 0-2

*Creating a current educational involvement variable.

```
IF UNPAIDWORK_FTStud=1 STUDENT_STAT=2.
IF UNPAIDWORK_PTStud=1 STUDENT_STAT=1.
IF UNPAIDWORK_FTStud=0 AND UNPAIDWORK_PTStud=0 STUDENT_STAT=0.
EXECUTE.
VARIABLE LABELS STUDENT_STAT 'Currently a FT, PT, or not a student'.
VALUE LABELS STUDENT_STAT
2 'Full time student'
1 'Part time student'
0 'Not a student'.
Execute.
```

Overall vocation status, which includes time spent in paid work, volunteering, as a homemaker/caregiver, and as a student (VOCATION): Scores range from 0-2

*To create an overall vocation score, you will need to first create the following interim variables.

*Interim work variable capturing full-time, part-time, or no work.

```
IF WORKHRS GE 30 WORKHRS_R=2.
IF WORKHRS LT 30 WORKHRS_R=1.
IF WORKHRS EQ 0 WORKHRS_R=0.
EXECUTE.
VARIABLE LABELS WORKHRS_R 'USE FOR SCORING ONLY-CATEGORIZING WORK
HRS INTO FT, PT, NONE'.
EXECUTE.
```

*Interim volunteer variable capturing full-time, part-time, or not volunteering.

```
IF VOL1 GE 30 VOL1_R=2.
IF VOL1 LT 30 VOL1_R=1.
IF VOL1 EQ 0 VOL1_R=0.
EXECUTE.
VARIABLE LABELS VOL1_R 'USE FOR SCORING ONLY-CATEGORIZING VOL HOURS
INTO FT, PT, NONE'.
EXECUTE.
```

*Interim Homemaker, Caregiver, and Student variables capturing full-time or not.

```
RECODE UNPAIDWORK_FTStud UNPAIDWORK_Homemaker UNPAIDWORK_Over18
UNPAIDWORK_Und18 (1=2)(0=0) INTO UNPAIDWORK_FTSTUD_R
```

```
UNPAIDWORK_HOMEMAKER_R UNPAIDWORK_OVER18_R
UNPAIDWORK_UND18_R.
EXECUTE.
VARIABLE LABELS UNPAIDWORK_FTSTUD_R 'USE FOR SCORING ONLY-RECODED
VARIABLES FOR FULLTIME OR NOT'.
VARIABLE LABELS UNPAIDWORK_HOMEMAKER_R 'USE FOR SCORING ONLY-
RECODED VARIABLES FOR FULLTIME OR NOT'.
VARIABLE LABELS UNPAIDWORK_OVER18_R 'USE FOR SCORING ONLY-RECODED
VARIABLES FOR FULLTIME OR NOT'.
VARIABLE LABELS UNPAIDWORK_UND18_R 'USE FOR SCORING ONLY-RECODED
VARIABLES FOR FULLTIME OR NOT'.
EXECUTE.

*Interim Summing of all types of full- or part-time vocation.

COMPUTE VOC_TOT=SUM(WORKHRS_R, VOL1_R, UNPAIDWORK_FTStud_R,
UNPAIDWORK_HOMEMAKER_R, UNPAIDWORK_OVER18_R,
UNPAIDWORK_UND18_R, UNPAIDWORK_PTSTUD).
EXECUTE.
VARIABLE LABELS VOC_TOT 'USE FOR SCORING ONLY-SUM OF VOCATIONS'.
EXECUTE.

*Final creation of a vocation status variable for full-time (2), part-time (1), and no vocation (0).

IF VOC_TOT GE 2 VOCATION=2.
IF VOC_TOT EQ 1 VOCATION=1.
IF VOC_TOT EQ 0 VOCATION=0.
EXECUTE.
VARIABLE LABELS VOCATION 'Any type of FT or PT vocation'.
VALUE LABELS VOCATION
2 'Full-time vocation'
1 'Part-time vocation'
0 'No vocation'.
EXECUTE.
```

Vocation Functioning & Satisfaction:

Work

<u>Work Functioning (WORK_FUNC_AVG):</u> Scores range from 3-15

```
COMPUTE WORK_FUNC_AVG=MEAN.3(WORK_FUNC1, WORK_FUNC2,
WORK_FUNC3, WORK_FUNC4).
VARIABLE LABELS WORK_FUNC_AVG 'Average of functioning within the workplace'.
EXECUTE.
```

Work satisfaction (WORK_SAT_PAID_AVG; WORK_SAT_UNPAID AVG): Scores range from 6-30 if working for pay and from 4-20 if doing unpaid work
Note: separate scores need to be created for those in paid work and for those in unpaid work.

*Computing Average Score for those who are currently in paid employment.

```
DO IF WORK EQ 1.
COMPUTE WORK_SAT_PAID_AVG= MEAN.6(WORK_SAT1, WORK_SAT2,
WORK_SAT3, WORK_SAT4, WORK_SAT5, WORK_SAT6).
VARIABLE LABELS WORK_SAT_PAID_AVG 'Average of satisfaction within the
workplace-those in paid employment'.
END IF.
EXECUTE.
```

*To create the work satisfaction score for those whose primary vocation is being a volunteer or homemaker, you must first create a sum score of unpaid work.

*Creating a sum score of unpaid work variables endorsed to use as a filter variable when creating a work satisfaction average score.

```
COMPUTE TYPEUNPAIDWORK_TOT=SUM(UNPAIDWORK_Und18,
UNPAIDWORK_Over18, UNPAIDWORK_Homemaker, UNPAIDWORK_Vol).
EXECUTE.
VARIABLE LABELS TYPEUNPAIDWORK_TOT 'SUM OF UNPAID WORK
EXPERIENCES-TO BE USED FOR SCORING'.
EXECUTE.
```

*Computing Average Score for those whose primary vocation is being a volunteer or homemaker.

```
DO IF WORK NE 1 AND TYPEUNPAIDWORK_TOT GE 1.
COMPUTE WORK_SAT_UNPAID_AVG= MEAN.4(WORK_SAT1, WORK_SAT2,
WORK_SAT3, WORK_SAT4).
VARIABLE LABELS WORK_SAT_UNPAID_AVG 'Average of work satisfaction-those whose
primary voc is being a volunteer or homemaker'.
END IF.
EXECUTE.
```

Education

Education functioning (EDU_FUNC_AVG): Scores range from 3-15

*Computing education functioning average.

```
COMPUTE EDU_FUNC_AVG=MEAN.3(EDU_FUNC1, EDU_FUNC2, EDU_FUNC3,
EDU_FUNC4).
```

```
VARIABLE LABELS EDU_FUNC_AVG 'Average of functioning within school'.
EXECUTE.
```

Education satisfaction (EDU_SAT_AVG): Scores range from 3-15

```
*Computing education satisfaction average score.

COMPUTE EDU_SAT_AVG=MEAN.3(EDU_SAT1, EDU_SAT2, EDU_SAT3).
VARIABLE LABELS EDU_SAT_AVG 'Average Satisfaction with educational experiences'.
EXECUTE.
```

Financial Status:

Financial status (FIN_STAT): Scores range from 0-2
Note: two financial items pertaining to debt and stable housing need to be reverse scored.

```
*Reverse scoring two financial status items.

RECODE DEBT (0=1)(9=1)(1=0) INTO DEBT_R.
RECODE STABLEHOUSE (0=1)(1=0) INTO STABLEHOUSE_R.
EXECUTE.
VARIABLE LABELS DEBT_R 'Reverse coded debt variable, so that higher is better'.
VALUE LABELS DEBT_R
0 'Yes behind on debt'
1 'No not behind on debt or not applicable'.
VARIABLE LABELS STABLEHOUSE_R 'Reverse coded housing variable so that higher is
better'.
VALUE LABELS STABLEHOUSE_R
0 'Yes, concerned about losing housing'
1 'No, not concerned about losing housing'.
EXECUTE.

*Creating financial status variable.

COMPUTE IMFIN=SUM.3(EXPENSES,DEBT_R,STABLEHOUSE_R).
COMPUTE FUTFIN = SUM.3(SAVINGS,ALLINSUR,RETIREMENT).
VARIABLE LABELS IMFIN 'Immediate Financial Needs'.
VARIABLE LABELS FUTFIN 'Future Financial Needs'.
EXECUTE.

IF (IMFIN <3) FIN_STAT = 0.
IF (IMFIN = 3 AND FUTFIN < 3) FIN_STAT = 1.
IF (IMFIN = 3 AND FUTFIN = 3) FIN_STAT = 2.
EXECUTE.

VARIABLE LABELS FIN_STAT 'Trichotomous financial status using indicators'.
```

```
VALUE LABELS FIN_STAT
0 'Problematic financial status'
1 'At risk financial status'
2 'Secure financial status'.
EXECUTE.
```

Financial Functioning & Satisfaction:

Financial Functioning (FIN_FUNC_AVG): Scores range from 8-40
Note: financial functioning items 4, 5, and 6 need to be reverse scored.

```
*Reverse coding financial functioning items 4, 5, and 6.

RECODE FIN_FUNC4 FIN_FUNC5 FIN_FUNC6 (1=5)(2=4)(3=3)(4=2)(5=1) INTO
FIN_FUNC4R FIN_FUNC5R FIN_FUNC6R.
VARIABLE LABELS FIN_FUNC4R 'Reverse scored Been late paying a bill'.
VARIABLE LABELS FIN_FUNC5R 'Reverse scored How often had credit card debt that you
did not pay off each month'.
VARIABLE LABELS FIN_FUNC6R 'Reverse scored How often spent more than you could
afford on clothing, entertainment and other extras'.
VALUE LABELS FIN_FUNC4R FIN_FUNC5R FIN_FUNC6R
1 "Most or all of the time"
2 "Often"
3 "Sometimes"
4 "Rarely"
5 "Never".
EXECUTE.

*Computing an average score for financial functioning scale.

COMPUTE FIN_FUNC_AVG= MEAN.8(FIN_FUNC1, FIN_FUNC2, FIN_FUNC3,
FIN_FUNC4R, FIN_FUNC5R, FIN_FUNC6R, FIN_FUNC7, FIN_FUNC8).
VARIABLE LABELS FIN_FUNC_AVG 'Average of financial functioning'.
EXECUTE.
```

Financial Satisfaction (FIN_SAT_AVG): Scores range from 4-20

```
*Computing financial satisfaction average score.

COMPUTE FIN_SAT_AVG=MEAN.4(FIN_SAT1, FIN_SAT2, FIN_SAT3, FIN_SAT4).
VARIABLE LABELS FIN_SAT_AVG 'Average score for satisfaction within the finances
domain'.
EXECUTE.
```

Health Status:

Overall health status (HLTH_STAT): Scores range from 0-2

*Compute health status based on self-reported health conditions variables.

```
COMPUTE HLTH_STAT=SUM(HLTHPROB_PHYS, HLTHPROB_MENT).
EXECUTE.
```

*Reverse code so that higher scores indicate better status, as is for all other WBI status indicators, which is important for comparisons.

```
RECODE HLTH_STAT (2=0)(1=1)(0=2).
VARIABLE LABELS HLTH_STAT 'Health status'.
VALUE LABELS HLTH_STAT
0 'Both a physical and mental health problem'
1 'Either a physical or mental health problem, not both'
2 'Neither physical nor mental health problem'.
EXECUTE.
```

Health Functioning & Satisfaction:

Health Functioning (HLTH_FUNC_AVG): Scores range from 11-55
Note: items 5-8 should be reverse scored

*Recoding four health functioning items to be reverse scored.

```
RECODE HLTH_FUNC5 HLTH_FUNC6 HLTH_FUNC7 HLTH_FUNC8
(1=5)(2=4)(3=3)(4=2)(5=1) INTO HLTH_FUNC5R HLTH_FUNC6R
HLTH_FUNC7R HLTH_FUNC8R.
EXECUTE.
VARIABLE LABELS HLTH_FUNC5R 'Reverse coded health functioning item-sexual
intercourse w/o condom/more one partner'.
VARIABLE LABELS HLTH_FUNC6R 'Reverse coded health functioning item- tobacco use'.
VARIABLE LABELS HLTH_FUNC7R 'Reverse coded health functioning item-alcohol use'.
VARIABLE LABELS HLTH_FUNC8R 'Reverse coded health functioning item- drug use'.
VALUE LABELS HLTH_FUNC5R HLTH_FUNC6R HLTH_FUNC7R HLTH_FUNC8R
1 'Most or all of the time'
2 'Often'
3 'Sometimes'
4 'Rarely'
5 'Never'.
EXECUTE.
```

*Average health functioning score and three factor scores.

```
COMPUTE HLTH_FUNC_AVG=MEAN.12(HLTH_FUNC1, HLTH_FUNC2, HLTH_FUNC3,
HLTH_FUNC4, HLTH_FUNC5R, HLTH_FUNC6R, HLTH_FUNC7R, HLTH_FUNC8R,
HLTH_FUNC9, HLTH_FUNC10, HLTH_FUNC11, HLTH_FUNC12).
VARIABLE LABELS HLTH_FUNC_AVG 'Average score of functioning within the health
domain'.
EXECUTE.
COMPUTE HLTH_FUNC_HLTHPROM AVG=MEAN.3(HLTH_FUNC1, HLTH_FUNC2,
HLTH_FUNC3).
VARIABLE LABELS HLTH_FUNC_HLTHPROM_AVG 'Average score of functioning within
the health promotion subdomain'.
EXECUTE.
COMPUTE HLTH_FUNC_RISKAVOID AVG=MEAN.4(HLTH_FUNC5R, HLTH_FUNC6R,
HLTH_FUNC7R, HLTH_FUNC8R).
VARIABLE LABELS HLTH_FUNC_RISKAVOID_AVG 'Average score of functioning within
the risk avoidance subdomain'.
EXECUTE.
COMPUTE HLTH_FUNC_HLTHSELFCARE AVG=MEAN.5(HLTH_FUNC4,
HLTH_FUNC9, HLTH_FUNC10, HLTH_FUNC11, HLTH_FUNC12).
VARIABLE LABELS HLTH_FUNC_HLTHSELFCARE_AVG 'Average score of functioning
within the health self-care subdomain'.
EXECUTE.
```

Health Satisfaction (HLTH_SAT_AVG): Scores range from 3-15

*Computing health satisfaction average score.

```
COMPUTE HLTH_SAT_AVG=MEAN.3(HLTH_SAT1, HLTH_SAT2, HLTH_SAT3).
VARIABLE LABELS HLTH_SAT_AVG 'Average of satisfaction with health'.
EXECUTE.
```

Social Relationships:

Intimate Relationships

Intimate Relationship Status (COUPLED_STAT; MARITAL_STAT): Scores range from 0-1

*Recoding relationship status for those who are married or in a current relationship (regardless of whether the couples live together) vs. those not married or in a relationship.

```
IF MARRIED=1 OR MARRIED=2 OR ROMRELAT=1 OR ROMRELAT=2
COUPLED_STAT=1.
IF ROMRELAT=0 COUPLED_STAT=0.
EXECUTE.
VARIABLE LABELS COUPLED_STAT 'All individuals in a relationship'.
VALUE LABELS COUPLED_STAT
0 'Not in a relationship'
```

```
1 'In a relationship'.
EXECUTE.
```

*Recoding relationship status so those who are married or in a relationship and living together are grouped together vs. all others.

```
IF MARRIED=1 OR MARRIED=2 OR ROMRELAT=1 MARITAL_STAT=1.
IF ROMRELAT=0 OR ROMRELAT=2 MARITAL_STAT=0.
VARIABLE LABELS MARITAL_STAT 'Individuals married or living together'.
VALUE LABELS MARITAL_STAT
0 'Not married or living together'
1 'Married or living together'.
EXECUTE.
```

<u>Intimate Relationship Functioning (RELAT_FUNC_AVG):</u> Scores range from 6-30

*Computing intimate relationship functioning average score requiring that all items were answered.

```
COMPUTE RELAT_FUNC_AVG=MEAN.6(RELAT_FUNC1, RELAT_FUNC2,
RELAT_FUNC3, RELAT_FUNC4, RELAT_FUNC5, RELAT_FUNC6).
VARIABLE LABELS RELAT_FUNC_AVG 'Average Functioning within romantic
relationships'.
EXECUTE.
```

<u>Intimate Relationship Satisfaction (RELAT_SAT_AVG):</u> Scores range from 6-30

*Computing intimate relationship satisfaction average score requiring that all items were answered.

```
COMPUTE RELAT_SAT_AVG=MEAN.6(RELAT_SAT1,  RELAT_SAT2,  RELAT_SAT3,
RELAT_SAT4,  RELAT_SAT5,  RELAT_SAT6).
VARIABLE LABELS RELAT_SAT_AVG 'Average Satisfaction within romantic relationship'.
EXECUTE.
```

Parenting

<u>Parental Status (PAR_STAT_ANY; PAR_STAT_UND18; PAR_STAT_OVER18):</u> Scores range from 0-1

*Creating dichotomous overall parenting status variable where 1=Is a parent and 0=not a parent.

```
IF PARENTSTAT EQ 0 PAR_STAT_ANY EQ 0.
IF PARENTSTAT EQ 1 PAR_STAT_ANY EQ 1.
VARIABLE LABELS PAR_STAT_ANY 'Parental status-having children any age'.
VALUE LABELS PAR_STAT_ANY
```

```
0 'Has no children'
1 'Has at least one child'.
EXECUTE.
```

*Creating dichotomous parenting status variable where 1=Is a parent of children under age 18 and 0=not a parent of children under 18.

```
IF KIDS_UND18 = 0 PAR_STAT_UND18 EQ 0.
IF KIDS_UND18 = 1 PAR_STAT_UND18 EQ 1.
VARIABLE LABELS PAR_STAT_UND18 'Parental status-having children under age 18'.
VALUE LABELS PAR_STAT_UND18
0 'Has no children under age 18'
1 'Has at least one child under age 18'.
EXECUTE.
```

*Creating dichotomous parenting status variable where 1=Is a parent of children over age 18 and 0=not a parent of children over age 18.

```
IF PAR_STAT_ANY EQ 1 AND KIDS_UND18 = 0 PAR_STAT_OVER18 EQ 1.
IF PAR_STAT_ANY EQ 1 AND KIDS_UND18 = 1 PAR_STAT_OVER18 EQ 0.
VARIABLE LABELS PAR_STAT_OVER18 'Parental status-having children over age 18'.
VALUE LABELS PAR_STAT_OVER18
0 'Has no children over age 18'
1 'Has at least one child over age 18'.
EXECUTE.
```

<u>Parental Functioning (PARENT_FUNC_AVG):</u> Scores range from 5-25

*Computing parental functioning average score requiring that all items were answered.

```
COMPUTE PARENT_FUNC_AVG=MEAN.5(PARENT_FUNC1, PARENT_FUNC2,
PARENT_FUNC3, PARENT_FUNC4, PARENT_FUNC5).
VARIABLE LABELS PARENT_FUNC_AVG 'Average Functioning as a parent for parents
with children 18 or younger'.
EXECUTE.
```

<u>Parenting Satisfaction (PARENT_SAT_AVG_ALL):</u> Scores range from 3-15

*Computing average score for parental satisfaction for entire sample.

```
COMPUTE PARENT_SAT_AVG_ALL=MEAN.3(PARENT_SAT1, PARENT_SAT2,
PARENT_SAT3).
VARIABLE LABELS PARENT_SAT_AVG_ALL 'Average Satisfaction with parenting for
whole sample'.
EXECUTE.
```

Broad Social Relationships

Broad Social Relationships, which is defined as involvement with community, extended family, and/or friends (BROADSOCINV): Scores range from 0-2
Note: Before computing the broad social involvement score, you need to first create sum scores and dichotomous scores for the friends/family and community status.

```
*Computing overall sum score for social relationship status.

COMPUTE SOC_ACT_TOT=SUM(SOC_ACT1, SOC_ACT2, SOC_ACT3, SOC_ACT4,
SOC_ACT5, SOC_ACT6, SOC_ACT7).
VARIABLE LABELS SOC_ACT_TOT 'Sum of involvement with community, friends and
relatives'.
EXECUTE.

*Computing subscale sum score for involvement in community activities.

COMPUTE SOC_ACT_COMM_TOT=SUM(SOC_ACT1, SOC_ACT2, SOC_ACT3,
SOC_ACT4, SOC_ACT5).
VARIABLE LABELS SOC_ACT_COMM_TOT 'Sum of involvement within community'.
EXECUTE.

*Computing a dichotomous community involvement score.

IF SOC_ACT_COMM_TOT GE 1 SOC_ACT_COMM_DI EQ 1.
IF SOC_ACT_COMM_TOT EQ 0 SOC_ACT_COMM_DI EQ 0.
VARIABLE LABELS SOC_ACT_COMM_DI 'Involvement in any community activities'.
VALUE LABELS SOC_ACT_COMM_DI
0 'Not involved in community'
1 'Is involved in community'.
EXECUTE.

*Computing subscale sum score for having friends and relatives in one's life.

COMPUTE SOC_ACT_FF_TOT=SUM(SOC_ACT6, SOC_ACT7).
VARIABLE LABELS SOC_ACT_FF_TOT 'Sum indicating degree of involvement with friends
and family'.
EXECUTE.

*Computing a dichotomous friend/family involvement score.

IF SOC_ACT_FF_TOT GE 1 SOC_ACT_FF_DI EQ 1.
IF SOC_ACT_FF_TOT EQ 0 SOC_ACT_FF_DI EQ 0.
VARIABLE LABELS SOC_ACT_FF_DI 'Involvement in any friend/family relationships'.
VALUE LABELS SOC_ACT_FF_DI
0 'Not involved in friend/family relationships'
```

```
1 'Is involved in friend/family relationships'.
EXECUTE.

*Computing a trichotomous broad social involvement score.

IF SOC_ACT_FF_DI EQ 1 AND SOC_ACT_COMM_DI EQ 1 BROADSOCINV=2.
IF SOC_ACT_FF_DI EQ 1 AND SOC_ACT_COMM_DI EQ 0 BROADSOCINV=1.
IF SOC_ACT_FF_DI EQ 0 AND SOC_ACT_COMM_DI EQ 1 BROADSOCINV=1.
IF SOC_ACT_FF_DI EQ 0 AND SOC_ACT_COMM_DI EQ 0 BROADSOCINV=0.
VARIABLE LABELS BROADSOCINV 'Broad Social Involvement'.
VALUE LABELS BROADSOCINV
0 'Not involved in community or with friend/family relationships'
1 'Is involved in either community or friend/family relationships'
2 'Is involved in both community and friend/family relationships'.
EXECUTE.
```

Social functioning (SOC_FUNC_AVG): Scores range from 9-45

```
*Computing overall social functioning subscale score requiring that all items were answered.

COMPUTE SOC_FUNC_AVG=MEAN.9(SOC_FUNC1, SOC_FUNC2, SOC_FUNC3,
SOC_FUNC4, SOC_FUNC5, SOC_FUNC6, SOC_FUNC7,
SOC_FUNC8, SOC_FUNC9).
VARIABLE LABELS SOC_FUNC_AVG 'Average of entire social relationship functioning
scale'.
EXECUTE.
```

Satisfaction with social involvement (SOC_SAT_AVG): Scores range from 4-20

```
*Computing average score for overall satisfaction within interpersonal relationships requiring
that all items were answered.

COMPUTE SOC_SAT_AVG=MEAN.4 (SOC_SAT1, SOC_SAT2, SOC_SAT3, SOC_SAT4).
VARIABLE LABELS SOC_SAT_AVG 'Average of overall satisfaction within interpersonal
relationships in communities and with friends and relatives'.
EXECUTE.
```

Appendix B
Scoring Guidelines for Composite Measures of Functioning and Satisfaction

We have developed the following scoring guidelines for researchers who wish to create composite measures of functioning and satisfaction across life domains. Please note that this scoring has not yet been validated and thus, should be considered "under development" at this point. Future research is needed to validate this scoring system.

Functioning: Scores range from 1-5

In order to calculate a composite functioning score across relevant domains, convert average item scores for all functioning scales into z scores. Then sum the z scores and divide by the number of relevant domains to create an average z score. Although there is no absolute metric for evaluating overall functioning scores, relative comparisons across participants may be made based on these average z scores.

Satisfaction: Scores range from 1-5

In order to calculate a composite satisfaction score across relevant domains, convert average item scores for all functioning scales into z scores. Then sum the z scores and divide by the number of relevant domains to create an average z score. Although there is no absolute metric for evaluating overall functioning scores, relative comparisons across participants may be made based on these average z scores.