HRS | HEALTH AND RETIREMENT STUDY
A Longitudinal Study of Health, Retirement, and Aging
Sponsored by the National Institute on Aging

Psychosocial and Lifestyle Questionnaire 2006 - 2022

User Guide
Core Section LB

Jacqui Smith, Lindsay Ryan, Marina Larkina, Amanda Sonnega, and David Weir
The HRS Psychosocial Working Group

Survey Research Center
Institute for Social Research
University of Michigan
Ann Arbor, Michigan

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Table of Contents

List of Tables

List of Figures

Introduction
Overview
In 2004, HRS piloted a new feature for data collection in the form of a self-administered questionnaire (SAQ) that was left with respondents upon the completion of an in-person Core Interview. Since 2006, this mode of data collection has been utilized to obtain information about participants' evaluations of their life circumstances, subjective wellbeing, and lifestyle. This psychosocial information is obtained in each biennial wave from a rotating (random) 50% of the core panel participants who complete the enhanced face-to-face interview (EFTF). Longitudinal data are available at four-year intervals: the 2010 wave provides the first longitudinal psychosocial data from the 2006 participants. Some longitudinal data is also available for the 2004 participants in subsequent waves. Electronic versions of the questionnaires – the Psychosocial and Lifestyle SAQ – used in the 2004 pilot, and the 2006-2022 waves are available on the HRS website (Documentation/Questionnaires - scroll down to the end of the Biennial Content to Psychosocial - Section LB). Because the questionnaire was left with respondents at the end of the EFTF interview for them to complete and mail back to study offices, the questionnaire came to be known and is referred to on the HRS website as the Leave-Behind (LB). We use the terms Psychosocial and Lifestyle SAQ and Leave-Behind (or LB) in this report to refer to the self-administered psychosocial data collection.

Background
Since its inception in 1992, the HRS survey has focused on the health, economics, and demographics of aging and the retirement process. Initially, the assessment of psychosocial issues in aging was not a goal of the HRS. In 2003, the NIA-HRS Data Monitoring Committee commissioned a report by Professor Carol Ryff of the University of Wisconsin, which described the research opportunities from expansion into this area. That report is in the HRS online bibliography at: https://hrs.isr.umich.edu/publications/biblio/9187

The launch of the English Longitudinal Study of Ageing (ELSA) in 2002 provided a starting-point model for psychosocial data collection in the HRS. The HRS then formed a Working Group under the direction of Jim House to consider content and methods toward four aims: 1) to determine the extent to which psychosocial measures may improve understanding of causes and effects of health, well-being, and retirement in middle and later life, 2) to improve understanding of social disparities in health, 3) to increase utilization of HRS data by researchers in additional social science fields, including social epidemiology, social gerontology, and psychology, and 4) to facilitate the cross-cultural comparison of data from ELSA (https://www.elsa-project.ac.uk/) and the Survey of Health, Aging, and Retirement in Europe (SHARE; http://www.share-project.org/).

In 2004, the HRS Psychosocial Working Group developed a pilot Psychosocial and Lifestyle SAQ and administered it as a leave-behind self-administered questionnaire to a pilot sample of about 4,000 respondents. In 2005, the scientific review of the HRS renewal proposal strongly endorsed this new content and recommended an approach more strongly grounded in psychological theory than that taken by ELSA. In conjunction with a subcommittee of the NIA-HRS Data Monitoring Committee (Lisa Berkman, John Cacioppo, Nicholas Christakis,

and Carol Ryff), the HRS consulted widely with experts in the psychology of aging and conducted a workshop at the Annual Meeting of the Gerontological Society of America in Orlando, FL on November 18, 2005. The purpose of this meeting was to review the data collected from the pilot study, and discuss plans for a revised survey to be administered in 2006.

Participants at the November 18, 2005 Psychosocial Workshop included:
Toni Antonucci, University of Michigan
Elizabeth Breeze, University College, London
Deborah Carr, Rutgers University
Philippa Clarke, University of Michigan
Sheldon Cohen, Carnegie Mellon University
Eileen Crimmins, University of Southern California
Gwenith Fisher, University of Michigan
Robert Hauser, University of Wisconsin
Tess Hauser, University of Wisconsin
Jim House, University of Michigan
James Jackson, University of Michigan
Margie Lachman, Brandeis University
John J. McArdle, University of Southern California
Carol Ryff, University of Wisconsin
Richard Schulz, University of Pittsburgh
Jacqui Smith, Max Planck Institute of Human Development, Berlin
Ron Spiro, VA Boston Healthcare System and Boston University
David Weir, University of Michigan
Robert Willis, University of Michigan

Since 2007, the content of the Psychosocial and Lifestyle SAQ has been regularly discussed and revised by the HRS Co-PIs.

Overview of Psychosocial Content and Timeline 2006-2022

After a pilot study in 2004, the psychosocial content was revised and updated in 2006. The Psychosocial and Lifestyle SAQ from 2006 to 2022 now covers six substantive areas of interest to researchers in many disciplines. These substantive areas are: 1) subjective well-being; 2) lifestyle and experience of stress; 3) quality of social ties; 4) personality traits; 5) work-related beliefs; 6) self-related beliefs. **Figure 1** summarizes the constructs assessed in each of these areas. Specific information about the scales together with their sources, psychometrics, cross-wave inclusion, and examples of their application in the literature is included below in this User Guide.

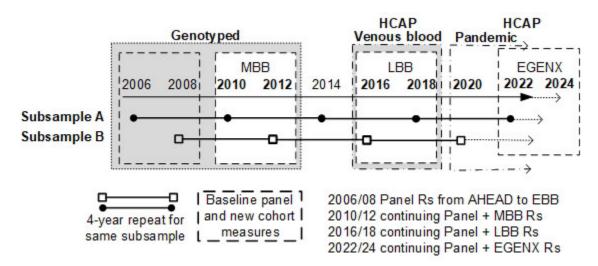**Figure 1: Overview of Content in the Psychosocial and Lifestyle SAQ: 2006-2022**

WELL-BEING	LIFESTYLE & WORK	SOCIAL CONNECTIONS
Life Satisfaction	Social Participation /Activity Engagement	Social Network Composition:
Domain-specific Satisfaction	Neighborhood Disorder /Cohesion	Kin and Friends
Family / Housing / Activities	Religiosity / Spirituality	Quality of Relationships:
Emotional Well-being	Perceived Everyday Discrimination	Spouse: Positive & Negative Support
Positive & Negative Affect	Access & Use of Modern Devices *	Closeness / Time Together
Psychological Well-being	Activities & Frequency *	Children: Positive & Negative Support
Purpose in Life	Barriers to Device Use *	Contact Frequency & Type
Day Reconstruction	Currently Working for Pay	Other kin: Positive & Negative Support
Experienced Well-being *	Perceived Job Lock	Contact Frequency & Type
Activities & Time Use *	Perceived Ability to Work	Friends: Positive & Negative Support
Financial Well-being *	Work/Non-Work Interference/Enhancement	Contact Frequency & Type
End-of-month Financial Strain	Job Satisfaction	Loneliness

PERSONALITY & STRESS	SELF-RELATED BELIEFS	COVID IMPACT: 2020-2022 *
Extraversion	Personal Control / Agency / Efficacy	Specific Covid-related worries
Neuroticism	Perceived Mastery / Constraints	Changes in Family & Friends Connections:
Conscientiousness	Domain-specific Control	Changed Contact Frequency & Activities
Openness	Hopelessness	Stress due to Activity Changes
Agreeableness	Optimism / Pessimism	Changes in Support Given / Received
Impulsivity *	Subjective Social Status	Changes in Relationship Quality
Cynical Hostility *	Need for Cognition	Frequency of Experienced Loneliness
State Anxiety *	Subjective Age	Frequency of Experienced Discrimination
Ongoing Chronic Stressors	Self-Perceptions of Aging	Pandemic Social Distance Behaviors
Perceived Stress	Self Esteem *	Work Impact: Personal & Household
Recent Stressful Life Events *	Domain-specific Attitude to Risk *	Emotional Stress
Lifetime Traumas *	Concerns (Fears) about Aging *	Resilience – Coping Strategies
Early-life Adversity *		Positive Experiences – Coded comments

      * Not in all Waves (refer to Table 3)

Since 2006, HRS has collected psychosocial and lifestyle data biennially using a self-administered questionnaire (SAQ) which is "left behind" by interviewers at the end of the enhanced in-person interview for participants to complete in their own time and return by mail. Both spouses/partners in an eligible household are given the Psychosocial and Lifestyle SAQ to complete, a design feature that now provides unique couple-level (dyadic) information from an increasingly diverse national panel over age 50. The questionnaires are available for download on the HRS website for all waves (labeled section LB – Leave Behind): https://hrs.isr.umich.edu/documentation/questionnaires.

Each wave, a rotating random 50% subsample of the longitudinal panel is scheduled for this enhanced interview that, together with the Psychosocial and Lifestyle SAQ, includes the collection of physical and biomarker assessments. **Figure 2** illustrates this cross-sectional and longitudinal enhanced interview design from 2006 onwards. The two random 50% panel subsamples are distinguished as **Subsample A** (begins in 2006) and **Subsample B** (begins in 2008). Researchers utilize this HRS subsample design: i) to report cross-sectional associations; ii) to replicate analyses across consecutive waves; iii) for prospective analyses after a

baseline; and iv) to analyze longitudinal change in psychosocial functioning. Figure 2 also shows the overlap of the psychosocial data collection design with the recruitment of new cohorts (i.e., the 1954-59 MBB cohort in 2010; 1960-65 LBB cohort in 2016; and 1966-1971 early generation X (EGENX) cohort in 2022) and two other HRS initiatives (e.g., the 2006-12 genotype coverage; the 2016-2018 and 2022 whole blood collections; enhanced cognitive assessments, and the overlap with the pandemic). As illustrated in Figure 2, the period 2006-2020 provides 4 longitudinal waves of data for subsamples A and B of HRS cohorts born prior to 1954 and 3 waves for the MBB cohort.

Figure 2: Timeline for the HRS Psychosocial and Lifestyle SAQ: 2006-2022 and Beyond

In order to accommodate researcher interests in longitudinal change and/or associations with biomarkers collected in specific waves, the general content of the psychosocial questionnaire has, for the most part, not changed substantially since 2006 (refer to Table 3 for cross-wave concordance). After 2012, psychosocial constructs that require only a one-time collection were omitted (e.g., retrospective information about early life trauma and relationships with parents). These items were moved to the off-year HRS Life History Mail Survey (LHMS) to be collected from each new HRS cohort (https://hrs.isr.umich.edu/data-products/life-history).   https://hrs.isr.umich.edu/publications/biblio/12749). Data for participants in the LBB cohort recruited to the HRS panel in 2016, for example, were collected in the 2019 Spring and Fall LHMS.

Introduction of COVID-19 Content in 2020 and 2022
The data collection period for the 2020 core interview was March 2020 through June 2021. Due to the restrictions on social contact during the fieldwork period, most interviews were conducted via telephone or web. Enhanced face-to-face interviews (EFTF) were not collected. As a result, data from Section I (Physical Measures and Biomarkers) and Section IO_H (Interviewer Observations Household) are not available in the 2020 data. However, respondents who would have had their interview conducted as EFTF were sent the Psychosocial and Lifestyle SAQ by mail, following their core interview. HRS added COVID-19-related questions to the core interview and to the Psychosocial and Lifestyle SAQ in 2020. Some COVID-19-related items were repeated in 2022 (refer to Table 3).

Survey Methodology: 2004 - 2022
2004 Pilot Wave
In the 2004 wave of HRS, two questionnaires were administered to separate random subsamples of living, non-institutionalized respondents. One was a Participant Questionnaire on Work and Health which consisted of a series of work disability vignettes and was targeted to respondents below 75 years of age. This SAQ is

labelled "LB1" on the table of questionnaires under the documentation link. The other was Psychosocial and Lifestyle SAQ that contained questions on psychosocial topics and was administered to respondents of all ages. This SAQ is labelled "LB2." At the end of the core interview, respondents were presented with the SAQ and asked to complete it and mail it back to the main field office at the University of Michigan (in a pre-paid envelope provided with the questionnaire). Respondents did not receive any additional incentive to complete the leave-behind questionnaire in 2004. Questionnaire assignments were made by Primary Sampling Unit (PSU) in such a way as to provide roughly equal numbers of respondents for each of the two leave-behind questionnaires. In households containing two respondents, both respondents received the same type of questionnaire.

2006 to 2022 Waves

Sample design: As noted previously, starting in 2006, the Psychosocial and Lifestyle SAQ was integrated into the enhanced face-to-face (EFTF) interview, which also includes a set of physical measures and biomarkers and is administered to an alternating random half of the sample each wave. A random 50% of the sample was selected to receive the EFTF interview in 2006 (designated as subsample A in Figure 2); this subsample also received the EFTF interview in 2010, 2014, 2018, and 2022. The other 50% of the sample (designated as subsample B in Figure 2) was assigned to receive the EFTF interview in 2008, 2012, 2016, and 2020.

The eligibility rules to receive the Psychosocial and Lifestyle SAQ have changed some across waves, as depicted in **Table 1**. In 2006, the Psychosocial and Lifestyle SAQ was collected from EFTF non-institutionalized self-respondents, in addition to proxy respondents and nursing home residents who completed their interview in person (at least through Section I, physical measures and biomarkers). In the 2008-2014 waves the mode restriction was lifted and all living EFTF respondents were eligible for the Psychosocial and Lifestyle SAQ.

Table 1: Psychosocial and Lifestyle SAQ Inclusion by Wave

Wave	SAQ completed by telephone	Proxy interview (EFTF)	Nursing home resident (EFTF)	Self-respondent, non-institutionalized (EFTF)
2006	X	X	X	X
2008	X	X	X	X
2010	X	X	X	X
2012	X	X	X	X
2014	X	X	X	X
2016				X
2018				X
2020				X
2022				X

In 2006 and 2008, respondents who had not returned a questionnaire after the second reminder notice were offered the option of completing the Psychosocial and Lifestyle SAQ by telephone. This practice was discontinued in 2016 for cost reasons. Starting in 2016, the eligibility rules for the Psychosocial and Lifestyle SAQ were tightened to match those for the physical measures and biomarkers, namely it was only be administered to self-respondents who are non-institutionalized and who complete their interview (through Section I) in person.

Incentives: Starting with the 2006 wave, respondents have received a $20 incentive for the Psychosocial and Lifestyle SAQ. For most respondents, this incentive is presented at the end of the interview when the

interviewer introduces the SAQ to the respondent. In this case, it is clear to respondents that they are receiving an extra incentive for the questionnaire. Beginning with new cohort participants in 2010, the Psychosocial and Lifestyle SAQ incentive was folded in with their core interview incentive, for a total amount of $100.

Psychosocial and Lifestyle SAQ eligibility and completion indicators: The psychosocial questionnaire data file (Core Section LB - Leave Behind) for each wave includes a set of indicators that identify the eligibility and completion status for the psychosocial questionnaire in that wave. The files also include a respondent (R) type variable that will enable users to define a comparable sample across all waves. The indicators are defined as follows (the "X" in the variable name denotes the wave):

Respondent type indicator (XLBRTYPE)
1 = not EFTF R
2 = EFTF R, phone interview
3 = EFTF R, proxy or nursing home resident
4 = EFTF R, self-respondent, FTF interview, not in nursing home
. (missing/blank) = no core IW

Eligibility indicator (XLBELIG)
1 = eligible for Psychosocial and Lifestyle SAQ in this wave
5 = not eligible for Psychosocial and Lifestyle SAQ in this wave
. (missing/blank) = no core IW

Completion indicator (XLBCOMP)
1 = self-completion, returned by mail
2 = self-completion, completed by phone with interviewer
4 = completed by someone other than the designated respondent
5 = not completed, eligible for Psychosocial and Lifestyle SAQ
. (missing/blank) = not completed, not eligible for Psychosocial and Lifestyle SAQ

These indicators are available for all waves. The new indicators replaced the LBELIG and LBCOMP indicators used in 2006 and 2008.

Note: the 2020 wave has the flag variable RCOVFLAG to identify the subsample of 3,266 panel respondents in the 2020 COVID-19 Project early data release (February, 2021) received LB questionnaires with content on the Covid-19 pandemic (see page 23 of the Core Data Description https://hrsdata.isr.umich.edu/sites/default/files/documentation/data-descriptions/1660571337/h20dd.pdf). The variable RLBCOMP for the 2020 core wave "Leave Behind" Psychosocial Questionnaire provides the total number of questionnaires that were returned and processed (prior to and after February 2021). All questionnaires that were mailed to the EFTF 2020 sample included the COVID questions.

Response Rates
Table 2 presents response rates for the Psychosocial and Lifestyle SAQ among eligible respondents in each wave. Response rates were very high in 2006 and 2008, the first waves for which the psychosocial questionnaire was incorporated into the EFTF interview. The response rates began to fall in 2010 due in part to the much lower response rates among the newly recruited respondents in 2010, who were asked to complete the SAQ at the end of a very long baseline interview (over 3 hours, on average). The higher response rates in 2014 suggest that multiple, and potentially different factors, play a role in each wave. The 2016 response rates dropped 11% for panel cases (HRS, AHD, CODA, WB, EBB, and MBB), and were

particularly low for the newly-enrolled LBB cohort. This is consistent with the secular trend toward lower overall response rates and the difficulty in obtaining responses from younger, older later-born respondents.

Table 2: Psychosocial and Lifestyle SAQ Response Rates by Wave

Wave	All Eligible Respondents	HRS cohorts empaneled prior to 2010 (HRS, AHD, CODA, WB, EBB)	2010 New Cohort Respondents (MBB)	2016 New Cohort Respondents (LBB)
2004	76.8	--	--	
2006	87.7	--	--	
2008	83.7	--	--	
2010	73.1	76.8	59.3	
2012	72.7	75.9	62.6	
2014	77.8	80.4	69.1	
2016	61.8	69.4	57.7	45.3
2018	64.7	71.3	62.5	49.1
2020	61.9	68.1	58.1	49.9

Weights
We generate sample weights for the Psychosocial and Lifestyle SAQ for each wave to adjust for non-response. These sample weights are generated for respondents who are eligible in each wave (XLBELIB = 1) and who completed the questionnaire themselves (XLBCOMP = 1 or 2). The Psychosocial and Lifestyle SAQ weights are the product of three factors:

1) The core weight for the given wave
2) A non-response adjustment factor obtained from a propensity model predicting Psychosocial and Lifestyle SAQ response
3) A post-stratification adjustment to the weighted HRS sample

The non-response adjustment factor is obtained from a propensity model predicting the probability of completing the psychosocial SAQ among all eligible cases. The propensity model is estimated by logistic regression and weighted by the HRS respondent-level weight. Predictor variables included age, sex, race/ethnicity, coupleness, education, work status, self-rated health, counts of functional limitations (Nagi, IADL and ADL), vision rating, cognitive status, and religious attendance. The inverse of the fitted probabilities of completion from the non-response adjustment factor. The non-response adjusted weight is trimmed to reduce variability and then post-stratified to the HRS weighted sample by age group, sex and race/ethnicity.

We recommend using the psychosocial weight when analyzing data from the psychosocial questionnaire to account for the complex sample design. The decision to use weights or not, of course, depends on the research question, analysis strategy, and discipline.

Special Methodological Issues to Consider
Response Scales
The Psychosocial and Lifestyle SAQ is comprised of a variety of items and scales that are described in more detail later in this document. The wording of scales is intended to maximize comparability with response

scales used in other surveys (e.g., ELSA, SHARE, MIDUS) and with previous research literature. It is important to consult the data codebooks available on the HRS website to obtain the code for each item is available in the Codebook for each wave (https://hrs.isr.umich.edu/documentation).

Recoding Responses and Negative Wording of Survey Items
Many items within measures in the questionnaire may need to be recoded so that higher values correspond with higher levels on a given item or measure. For example, the Positive Affect items in Question 26 (in 2020) are asked using a scale as follows: 1 = Very Much, 2 = Quite a bit, 3 = Moderately, 4 = A little, and 5 = Not at all. By recoding the values so that 1 = Not at all, 2 = A little, etc., higher values will correspond to higher levels of Positive Affect. Similarly, items vary in terms of being positively and negatively worded. This is a practice frequently employed in the assessment of psychosocial measures to combat response sets (e.g., when a respondent circles the same answer for every question). For example, the 2020 Question 19 items assess Loneliness, and the response scale is: 1 = Often, 2 = Sometimes, 3= hardly ever or never. When the item wording is consistent with the construct meaning (e.g., Q19a "I lack companionship") the response code needs to be reversed so that a higher score of 3 indicates higher loneliness. Positively worded items in this scale that are inconsistent with the construct meaning (e.g., Q19i ("There are people I feel close to") and Q19j ("I feel part of a group of friends"), do not need recoding when creating a composite score for Loneliness. This User Guide provides information about when to reverse-code items.

Who Completed the Questionnaire?
A question included at the end of the questionnaire asks: "Were the questions in this booklet answered by the person whose name is written on the front cover?" (Q77 in 2020). Approximately 1-2% of psychosocial questionnaires are completed by proxy respondents. In many cases where the participant is very old, a caregiver acts as a scribe, especially if the participant is vision-impaired or finds it difficult to hold a pen due to arthritis. Beginning in 2008, we also ask the survey respondent to identify whether: YES, the person whose name is on the front cover completed the questionnaire by him/herself, YES, the person whose name is on the front cover answered the questions, but someone else assisted by writing in the answers for that person, or NO, the person whose name is on the front cover did not answer/complete the questionnaire. Note that one implication of this is that the sample age distribution will include people who are age-ineligible (i.e., < age 51). This may indicate that a spouse or partner or proxy respondent completed the questionnaire.

Note on Terminology
The terms used in this report to describe each construct are prevalent in the sociology and psychology literatures and consistent with the original item/scale source. Sometimes you may find papers from researchers who use a different general term to describe a construct built from the same items, form composite scores from different sets of items, or report only single items. For this reason, we suggest that users search for specific words or items in addition to overall topics or construct scales in the questionnaire.

The Content and Format of this User Guide

This User Guide provides information about the psychosocial constructs included in the waves 2006 to 2022. For each construct or single-item question we provide citations for the source(s) of the items, list the items in the questionnaire, report the response coding and inter-item consistency (reliability) information, and as far as possible include citations for several papers to illustrate how the construct has been used in the literature. Table 3 summarizes the 2006-2022 cross-wave content concordance and Table 4 (in the Appendix) lists the Question numbers in each wave.

Table 3: Cross-Wave Concordance of Constructs in the Psychosocial and Lifestyle SAQ

	2006	2008	2010	2012	2014	2016	2018	2020	2022
50% EFTF Subsample	A	B	A	B	A	B	A	B	A
Social Participation – Activity Engagement		x	x	x	x	x	x	x	x
Life Satisfaction (Diener)	x	x	x	x	x	x	x	x	x
Social Network Composition (Kin/Friends)	x	x	x	x	x	x	x	x	x
Spouse – support, closeness – time together	x	x	x	x	x	x	x	x	x
Child – support, contact frequency	x	x	x	x	x	x	x	x	x
Family - support, contact frequency, type	x	x	x	x	x	x	x	x	x
Friends - support, contact frequency, type	x	x	x	x	x	x	x	x	x
Cynical Hostility	x	x	x	x			x	x	x
Optimism / Pessimism	x	x	x	x	x	x	x	x	x
Hopelessness	x	x	x	x	x	x	x	x	x
Loneliness	x	x	x	x	x	x	x	x	x
Neighborhood Disorder / Social Cohesion	x	x	x	x	x	x	x	x	x
Perceived Personal Control (Agency)	x	x	x	x	x	x	x	x	x
Domain Specific Control (Efficacy)	x	x	x	x	x	x	x	x	x
Positive and Negative Affect	x	x	x	x	x	x	x	x	x
Religiosity / Spirituality	x	x	x	x	x	x	x	x	x
Subjective Age / Self Perceptions of Aging		x	x	x	x	x	x	x	x
Perceived Everyday Discrimination	x	x	x	x	x	x	x	x	x
Attributions of Everyday Discrimination	x	x	x	x	x	x	x	x	x
The "Big 5" Personality Traits	x	x	x	x	x	x	x	x	x
Risk Attitudes (Risk Preferences)					x	x	x	x	x
Need for Cognition			x	x	x	x	x	x	
Concerns (Fears) about Aging									x
Purpose in Life (Psychological Well-being)	x	x	x	x	x	x	x	x	x
Domain-Specific Satisfaction		x	x	x	x	x	x	x	x
Self Esteem (Rosenberg)							x	x	x
End-of-Month Financial Strain	x	x	x	x	x	x	x	x	x
Ongoing Chronic Stressors	x		x	x	x	x	x	x	x

	2006	2008	2010	2012	2014	2016	2018	2020	2022
50% EFTF Subsample	A	B	A	B	A	B	A	B	A
Perceived Stress Scale (PSS)							x	x	x
Anxiety (last week - Beck)	x	x	x	x			x	x	x
Subjective Social Status (Ladder)	x	x	x	x	x	x	x	x	x
Stressful Life Event – Last 5 Years	x	x	x	x				x	x
Access to & Activities with Modern Devices								x	x
Barriers to Device Use									x
Day Reconstruction / Experienced WB				x	x	x	x	x	x
Day Reconstruction – Activities / Time Use				x	x	x	x	x	x
Financial Well-being								x	x
Currently Working	x	x	x	x	x	x	x	x	x
Job Lock		x	x	x	x	x	x	x	x
Perceived Ability to Work		x	x	x	x	x	x	x	x
Work/Non-work Interference & Enhancement	x	x	x	x	x	x	x	x	x
Job Satisfaction	x	x	x	x	x	x	x	x	x

2020-2022 COVID-19 Pandemic Module

								2020	2022
Specific COVID-related Worries								x	x
Changes in Family / Friend Connections: - Changes in Activities with Family & Friends - Stress due to Changes - Changes in Support Given / Received - Relationship Quality Changes								x x x x x	
Experienced Loneliness								x	
Experienced Discrimination								x	
Pandemic Social Distance Behaviors								x	
Activity Frequency Changes								x	
Learn New Device or Application								x	x
New Activities Using Devices									x
Personal / Household Work Impact								x	
Emotional Stress								x	
Resilience - Coping Strategies								x	x
Comments about Positive Experiences								x	x

Constructs Deleted over Time

Well-being									
Positive and Negative Affect (MIDUS)	x								

	2006	2008	2010	2012	2014	2016	2018	2020	2022
50% EFTF Subsample	A	B	A	B	A	B	A	B	A
Psychological WB: Growth and Self-Acceptance	x								
Experienced Well-being Yesterday				x	x	x	x		
Lifestyle									
Social Participation	x								
Community Meeting Attendance	x								
Frequency of Prayer		x							
Retrospective Social Participation		x	x	x					
Social Connections									
Partner Division of Labor					x	x			
Social Effort / Reward Balance	x	x	x	x					
Self-related Beliefs									
Compassionate and Self-Image Goals						x			
Personality									
Self-control / Impulsiveness			x	x					
Conscientiousness and Impulsiveness		x	x						
Anger (Spielberger scale)	x	x	x	x					
Work									
Work / Family Priorities	x								
Chronic Work Discrimination	x	x	x	x					
Job Satisfaction and Job Stressors	x	x	x	x					
Work Environment		x	x	x					
Coworker Support		x	x	x					
Supervisor Support		x	x	x					

Moved to Life History Mail Survey: 2015 – 2019

Quality of Relationships with Parents Early in Life		x	x	x					
Unusual Living Circumstances (homelessness, incarceration before age 50)				x	x	x			
Experiences of Lifetime Discrimination	x	x	x	x					
Lifetime Traumas	x	x	x	x					
Quality of Relationship with Mother Early in Life		x	x	x					
Lifetime Traumas before the Age of 18	x	x	x	x					

Details for Constructs Listed in Table 3

The information below is organized in four parts. To begin, we focus on constructs in the 2020 Psychosocial and Lifestyle SAQ:
https://hrs.isr.umich.edu/sites/default/files/meta/2020/core/qnaire/online/2020_SAQ_v13.pdf. We give this information in the order of each construct (question) appeared in the 2020 Psychosocial and Lifestyle SAQ. Within this section, we occasionally also note new constructs added in 2022 (e.g., Concerns about Aging). Following the order in Table 3, we then describe: a) COVID-19-related constructs and items; b) constructs deleted over time; and c) constructs moved to the Life History Mail Study. Note that the 2022 psychometric information is not included because these data were not available when writing this report. (Table 4 in the Appendix lists the cross-wave question numbers for the constructs listed in Table 3).

Q1. Social Participation – Activity Engagement

Twenty items that cover a wide range of activities have consistently been included in each wave since 2010. Earlier questionnaires covered less activities: only 18 items of these 20 were in 2008 for example. The six activities asked in 2006 have mostly been integrated into different sections of HRS (refer to the section titled "Specific Items and Constructs Not Included in Later Survey Content" at the end of the User Guide for documentation of the specific 2006 participation and engagement items). Composite scores for types and frequencies of activities can be constructed using the 2008-2022 items or users may prefer to report separate activities in analyses. However, because some activity wordings differ slightly between 2008 and 2010, and with the addition of 2 new activities in 2010 (namely Q01b activities with grandchildren and Q01j watch TV), please pay close attention to the variable names as they may not match across the survey waves. The response categories also changed in 2010 when the option was added to respond Never/Not relevant. An additional item was added in 2014 (namely Q01u) asking about participation in community arts groups.

Sources:
Hultsch, D.F., Hertzog, C., Dixon, R.A., & Small, B.J. (1999). Use it or lose it: Engaged lifestyle as a buffer of cognitive decline in aging. *Psychology and Aging*, *14*, 245-263.

Jopp, D. S., & Hertzog, C. (2010). Assessing adult leisure activities: An extension of a self-report activity questionnaire. *Psychological Assessment, 22*(1), 108-120.

Levin, J.S. (2003). Private Religious Practices. In N. W. Group (Ed.), Multidimensional measurement of religiousness/spirituality for use in health research: A report of the Fetzer Institute/National *Institute on Aging Working Group* (2nd ed., pp. 39-42). Kalamazoo, MI: John E. Fetzer Institute.

Parslow, R.A., Jorm, A.F., Christensen, H., & Mackinnon, A. (2006). An instrument to measure engagement in life: Factor analysis and associations with sociodemographic, health, and cognition measures. *Gerontology*, *52*, 188-198.

Salthouse, T.A., Berish, D.E., & Miles, J.D. (2002). The role of cognitive stimulation on the relations between age and cognitive functioning. *Psychology and Aging*, *17*, 548-557.

2020: 21 items (Q01a-Q01u)
 (*Please tell us HOW OFTEN YOU DO EACH ACTIVITY.*)

Q01a   Care for a sick or disabled adult?

Q01b   Do activities with grandchildren, nieces/nephews, or neighborhood children?

Q01c   Do volunteer work with children or young people?

Q01d   Do any other volunteer or charity work?

Q01e   Attend an educational or training course?

Q01f   Go to a sport, social, or other club?

Q01g Attend meetings of non-religious organizations, such as political, community, or other interest groups?

Q01h Pray privately in places other than a church or synagogue?

Q01i Read books, magazines, or newspapers?

Q01j Watch television?

Q01k Do word games such as crossword puzzles or Scrabble?

Q01l Play cards or games such as chess?

Q01m Do writing (such as letters, stories, or journal entries)?

Q01n Use a computer for e-mail, Internet or other tasks?

Q01o Do home or car maintenance or gardening?

Q01p Bake or cook something special?

Q01q Make clothes, knit, embroider, etc.?

Q01r Work on a hobby or project?

Q01s Play sports or exercise?

Q01t Walk for 20 minutes or more? Q01u Participate in a local community arts group such as a choir, dance, photography, theatre, or music group?

Coding: 1 = Daily, 2 = Several times a week, 3 = Once a week, 4 = Several times a month, 5 = At least once a month, 6 = Not in the last month, 7 = Never/Not Relevant (2010-2020). Note regarding missing responses in 2008: If participants responded to at least 2 activities we suggest recoding missings in other activities as 6 or 7.

Scaling: Depending on topical interest, researchers could count the number and frequency of activities (e.g., physical exercise, volunteering) or create scores for frequency of participation in different categories of activity.

Background:

Agahi, N., & Parker, M.G. (2008). Leisure activities and mortality: Does gender matter? *Journal of Aging and Health*, *20*, 855-871.

Bone, J. K., Bu, F., Fluharty, M. E., Paul, E., Sonke, J. K., & Fancourt, D. (2022). Engagement in leisure activities and depression in older adults in the United States: Longitudinal evidence from the Health and Retirement Study. *Social Science & Medicine*, *294*, 114703.

Hanna, G. P., Noelker, L. S., & Bienvenu, B. (2015). The arts, health, and aging in America: 2005–2015. *The Gerontologist*, *55*(2), 271-277.

Levasseur, M., Richard, L., Gauvin, L., & Raymond, E. (2010). Inventory and analysis of definitions of social participation found in the aging literature: Proposed taxonomy of social activities. *Social Science & Medicine, 71*(12), 2141-2149.

Stine-Morrow, E. A., & Manavbasi, I. E. (2022). Beyond "use it or lose it": the impact of engagement on cognitive aging. *Annual Review of Developmental Psychology*, *4*, 319-352.

Tan, E.J., Rebok, G.W., Yu, Q., Frangakis, Carlson, M.C., Wang, T., et al. (2009). The long-term relationship between high-intensity volunteering and physical activity in older African American women. *Journal of Gerontology: Social Sciences*, *64*, 304-311.

Q2. Life Satisfaction (Diener) - Subjective Well-being

This is Diener's measure of Satisfaction with Life, a well-established measure of self-evaluated life quality that has been used extensively in international comparative studies. Note that the response scale was 6-point in 2006 and changed to a 7-point scale thereafter.

Source:

Diener, E., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The Satisfaction with Life Scale. *Journal of Personality Assessment, 49*(1), 71-75.

Pavot, W., & Diener, E. (1993). Review of the Satisfaction with Life Scale. *Psychological Assessment, 5*(2), 164-172.

2020:   5 items (Q02a – Q02e)

(Please say how much you agree or disagree with the following statements.)

Q02a   In most ways my life is close to ideal.

Q02b   The conditions of my life are excellent.

Q02c   I am satisfied with my life.

Q02d   So far, I have gotten the important things I want in life.

Q02e   If I could live my life again, I would change almost nothing.

Coding: 2008 and after: 1 = Strongly disagree, 2 = Somewhat disagree,
            3 = Slightly disagree, 4 = Neither agree nor disagree, 5 = Slightly agree,
            6 = Somewhat agree, 7 = Strongly agree

            2006: 1 = Strongly disagree, 2 = Somewhat disagree, 3 = Slightly disagree,
            4 = Slightly agree, 5 = Somewhat agree, 6 = Strongly agree

Scaling: Create an index of life satisfaction by averaging the scores across all 5 items. Set the final score to missing if there are three or more items with missing values.

Psychometrics: 2020 Alpha = .88; 2018 Alpha = .89; 2016 Alpha = .89; 2014 Alpha =.89;
                  2012 Alpha =.88; 2010 Alpha = .89; 2008 Alpha = .88; 2006 Alpha =.89

Background:

Diener, E., Lucas, R. E., & Scollon, C. (2006). Beyond the hedonic treadmill: Revising the adaptation theory of well-being. *American Psychologist, 61*(4), 305-314.

Diener, E., Oishi, S., & Tay, L. (2018). Advances in subjective well-being research. *Nature Human Behaviour, 2*(4), 253-260.

Diener, E., Suh, E. M., Lucas, R. E., & Smith, H. L. (1999). Subjective well-being: Three decades of progress. *Psychological Bulletin, 125*(2), 276-302.

Stone, A.A., Schwartz, J.E., Broderick, J.E., Deaton, A. (2010). A snapshot of the age distribution of psychological well-being in the United States. *Proceedings of the National Academy of Sciences of the United States of America, 107*(22), 9985-9990.

Q3 – Q17. Social Network / Social Integration / Relationship Quality / Social Support

This question series assesses several indicators of social integration (number of social ties) and the contact and quality of interaction with those social ties. Separate questions are asked about spouse/partner (Q3-5b), children (Q6-9), family (Q10-13a), and friends (Q14-17a). Starting in 2014 an additional frequency of communication type was added, "Communicate by Skype, Facebook, or other social media" for each social tie group, as well as Q17a that asked if any good friends lived in neighborhood.

Sources:
Schuster, T. L., Kessler, R. C., & Aseltine, R. H. Jr. (1990). Supportive interactions, negative interactions, and depressed mood. *American Journal of Community Psychology, 18*, 423-438.

Turner, R. J., Frankel, G., & Levin, D. M. (1983). Social support: Conceptualization, measurement, and implications for mental health. In J. R. Greenley & R. G. Simmons (Eds.), *Research in Community and Mental Health* (pp. 67-111). Greenwich: JAI Press.

Composition of Social Network
Four questions ask respondents if they have spouses/partners, children, family, and friends.

2020:   4 items (Q03, Q06, Q10, Q14)
Q03   Do you have a husband, wife, or partner with whom you live?
Q06   Do you have any living children?
Q10   Do you have any other immediate family, for example, any brothers or sisters, parents, cousins or grandchildren?
Q14   Do you have any friends?

Coding: 1 = Yes, 5 = No

Scaling: Create a sum variable by counting the number of 'yes' responses for respondents in order to obtain the composition of social networks. Scores will range from 0-4.

Number of Close Social Relationships
Four questions assess the close relationships within the respondents' social networks.
One question is used to examine the closeness respondents feel with their spouses (Q5). This is followed up with two questions (Q5a and Q5b) about the quality and frequency of time and activities together.
Three questions ask for the number of close relationships with children, family members, and friends.

2020:   4 items (Q05, Q09, Q13, Q17)
Q05   How close is your relationship with your partner or spouse?
Coding: Q05 1 = Very close, 2 = Quite close, 3 = Not very close, 4 = Not at all close

Q5a   Overall, how enjoyable is the time you spend together with your spouse/partner?

Coding: 1 = Extremely enjoyable, 2 = Very enjoyable, 3 = Somewhat enjoyable, 4 = Not too enjoyable

Q5b   In your free time, do you and your spouse mostly do things together or separately?
Coding: 1 = Most or all together, 2 = Some together, some separately, 3 = Most or all separately

Q09   How many of your children would you say you have a close relationship with?
Q13   How many of these family members would you say you have a close relationship with?
Q17   How many of your friends would you say you have a close relationship with?

Contact with Social Network

Nine questions assess the extent to which respondents are in contact with their social networks (excluding spouses). Similar questions refer to contact with children (Q08a-d), other family (Q12a-d), and friends (Q17a-d).

2020: 9 items (Q8a-d, Q12a-d, Q16a-d)
(On average, how often do you do each of the following? Please check the answer which shows how you feel about each statement.)
a   Meet up (include both arranged and chance meetings)
b   Speak on the phone
c   Write or email
d   Communicate by Skype, Facebook, or other social media

Coding: 1 = Three or more times a week, 2 = Once or twice a week, 3 = Once or twice
          a month, 4 = Every few months, 5 = Once or twice a year, 6 = Less than once a
          year or never

Scaling: Reverse code all items. Depending on your research question, average or sum across items for each
          specific relation category or across all relation categories for a measure of overall contact with the
          social network. Set the final score to missing if there is more than one item with missing values.

Proximity to Relatives and Good friends in Neighborhood

2020: 2 single items
Q13a   Besides people living with you, do you have any relatives living in your neighborhood?
Q17a   Do you have any good friends living in your neighborhood?

Coding: 1 = Yes, 2 = No

Perceived Social Support (Relationship Quality)

Four sets of 7 items (Q4, Q7, Q11, Q15) examine the perceived support that respondents receive from their spouses (Q4), children (Q7), family (Q11), and friends (Q15). For each relationship category there are 3 positively worded items (items a-c) and 4 negatively worded items (items d-g). Some researchers use these items as indicators of perceived relationship quality rather than support.

2020: 28 items (Q4a-g, Q7a-g, Q11a-g, Q15a-g)
(Please check the answer which best shows how you feel about each statement.)
Positive Social Support (items a-c)
a   How much do they really understand the way you feel about things?
b   How much can you rely on them if you have a serious problem?
c   How much can you open up to them if you need to talk about your worries?

Negative Social Support (items d-g)
d   How often do they make too many demands on you?
e   How much do they criticize you?
f   How much do they let you down when you are counting on them?
g   How much do they get on your nerves?

Coding: 1 = A lot, 2 = Some, 3 = A little, 4 = Not at all.

Reverse code all items. Create an index of positive social support and an index of negative social support for each relationship category by averaging the scores within each dimension [positive (a-c) and negative (d-g)]. Set the final score to missing if there is more than one item with missing values for the positive social support scale, or more than two items with missing values for the negative social support scale.

Psychometrics:

Alpha Reliability in 4 Relationship Categories: 2020 - 2006

	Spouse	Children	Other Family	Friends
Positive Social Support	'20 = .82	'20 = .83	'20 = .86	'20 = .84
	'18 = .83	'18 = .83	'18 = .87	'18 = .84
	'16 = .81	'16 = .83	'16 = .86	'16 = .84
	'14 = .82	'14 = .83	'14 = .86	'14 = .84
	'12 = .80	'12 = .82	'12 = .87	'12 = .84
	'10 = .82	'10 = .82	'10 = .86	'10 = .85
	'08 = .82	'08 = .82	'08 = .86	'08 = .83
	'06 = .81	'06 = .83	'06 = .86	'06= .84
Negative Social Support	'14 = .79	'14 = .78	'14 = .81	'14 = .77
	'12 = .80	'12 = .79	'12 = .81	'12 = .77
	'10 = .78	'10 = .76	'10 = .78	'10 = .75
	'08 = .79	'08 = .78	'08 = .78	'08 = .76
	'06 = .78	'06 = .78	'06 = .78	'06= .76

Background:

Fiori, K. L., Windsor, T. D., & Huxhold, O. (2020). The increasing importance of friendship in late life: Understanding the role of sociohistorical context in social development. *Gerontology*, 66(3), 286-294.

Fuller, H. R., Ajrouch, K. J., & Antonucci, T. C. (2020). The convoy model and later-life family relationships. *Journal of Family Theory & Review*, 12(2), 126-146.

Holt-Lunstad, J. (2022). Social Connection as a Public Health Issue: The Evidence and a Systemic Framework for Prioritizing the "Social" in Social Determinants of Health. *Annual Review of Public Health*, 43, 29-30.

Rook, K. S. (2015). Social networks in later life: Weighing positive and negative effects on health and well-being. *Current Directions in Psychological Science, 24,* 45–51.

Uchino, B. N., Trettevik, R., Kent de Grey, R. G., Cronan, S., Hogan, J., & Baucom, B. R. (2018). Social support, social integration, and inflammatory cytokines: A meta-analysis. *Health Psychology*, 37(5), 462.

Q18a - Q18e. Cynical Hostility

These five items from the Cook-Medley Hostility Inventory have been used in several important studies evaluating potential health consequences of hostility. Note: 2006 questionnaire wording for Q19a.is, "Most people inwardly dislike putting themselves out to help other people." Cynical hostility questions were not included in 2014 and 2016.

Sources:
Cook, W. W., & Medley, D. M. (1954). Proposed hostility and pharisaic-virtue scales for the MMPI. *The Journal of Applied Psychology, 38*(6), 414-418.

Costa, P. T., Zonderman, A. B., McCrae, R. R., & Williams, R. B. (1986). Cynicism and paranoid alienation in the Cook and Medley HO Scale. *Psychosomatic Medicine, 48*(3/4), 283-285.

<u>2020:</u> 5 items (Q18a-Q18e)
(*Please say how much you agree or disagree with the following statements:*)
Q18a   Most people dislike putting themselves out to help other people
Q18b   Most people will use somewhat unfair means to gain profit or an advantage rather than lose it.
Q18c   No one cares much what happens to you.
Q18d   I think most people would lie in order to get ahead.
Q18e   I commonly wonder what hidden reasons another person may have for doing something nice for me.

<u>Coding:</u>   1 = Strongly disagree, 2 = Somewhat disagree, 3 = Slightly disagree, 4 = Slightly agree, 5 = Somewhat agree, 6 = Strongly agree
<u>Scaling:</u>   Create an index of cynical hostility by averaging the scores across all items. Set the final score to missing if there are more than three items with missing values.

<u>Psychometrics:</u>   2020 Alpha = .80; 2018 Alpha = .80; 2012 Alpha = .78; 2010 Alpha = .80; 2008 Alpha = .79; 2006 Alpha = .79

Background:
Segel-Karpas, D., & Ayalon, L. (2020). Loneliness and hostility in older adults: A cross-lagged model. *Psychology and Aging*, *35*(2), 169.

Stavrova, O., & Ehlebracht, D. (2016). Cynical beliefs about human nature and income: Longitudinal and cross-cultural analyses. *Journal of Personality and Social Psychology*, *110*(1), 116.

Tindle H.A., Chang Y., Kuller, L.H., Manson, J.E., Robinson, J.G., Rosal, M.C., Siegle, G.J., & Matthews, K.A. (2009). Optimism, cynical hostility, and incident coronary heart disease and mortality in the women's health initiative. *Circulation, 120*(8), 656-662.

Q18f - Q18k. Optimism - Pessimism
A six-item version of the Life Orientation Test – Revised (LOT-R) frequently used to assess dispositional optimism and pessimism.

Source:
Scheier, M. F., Carver, C. S., & Bridges, M. W. (1994). Distinguishing optimism from neuroticism (and trait anxiety, self-mastery, and self-esteem): A reevaluation of the Life Orientation Test. *Journal of Personality and Social Psychology, 67*(6), 1063-1078.

<u>2020:</u> 6 items (Q18f-Q18k)
(*Please say how much you agree or disagree with the following statements:*)
Q18f   If something can go wrong for me it will.
Q18g   I'm always optimistic about my future.
Q18h   In uncertain times, I usually expect the best.
Q18i   Overall, I expect more good things to happen to me than bad.
Q18j   I hardly ever expect things to go my way.
Q18k   I rarely count on good things happening to me.

Coding: 1 = Strongly disagree, 2 = Somewhat disagree, 3 = Slightly disagree, 4 = Slightly agree, 5 = Somewhat agree, 6 = Strongly agree

Scaling: Create an index of optimism by averaging the scores across items Q18g, Q18h, and Q18i. Set the optimism score to missing if there is more than one item with missing values. Create an index of pessimism by averaging the scores across items Q18f, Q18j, and Q18k. Set the pessimism score to missing if there is more than one item with missing values. Researchers also recode pessimism to build a 6-item optimism score.

Psychometrics: Optimism: 2020 Alpha = .82; 2018 Alpha = .82; 2016 Alpha = .82;
                              2014 Alpha = .82; 2012 Alpha = .80; 2010 Alpha = .79;
                              2008 Alpha = .79; 2006 Alpha = .80
                 Pessimism: 2020 Alpha = .77; 2018 Alpha = .78; 2016 Alpha = .75;
                              2014 Alpha = .74; 2014 Alpha = .77; 2010 Alpha = .78;
                              2008 Alpha = .76; 2006 Alpha = .77

Background:
Scheier, M. F., & Carver, C. S. (2018). Dispositional optimism and physical health: A long look back, a quick look forward. *American Psychologist*, *73*(9), 1082.

Chopik, W. J., Oh, J., Kim, E. S., Schwaba, T., Krämer, M. D., Richter, D., & Smith, J. (2020). Changes in optimism and pessimism in response to life events: Evidence from three large panel studies. *Journal of Research in Personality*, *88*, 103985.

Kim, E. S., Smith, J., & Kubzansky, L. D. (2014). A prospective study of the association between dispositional optimism and incident heart failure. *Circulation: Heart Failure*, 7, 394–400

Peterson, C. (2000). The future of optimism. *American Psychologist, 55*(1), 44-45.

Q18l - Q18o. Hopelessness
This measure consists of two items from Everson et al. (1997) (Q18l-m) and two from Beck et al. (1974) (Q18n-o).

Sources:
Beck, A. T., Weissman, A., Lester, D., & Trexler, L. (1974). The measurement of pessimism: The hopelessness scale. *Journal of Consulting and Clinical Psychology, 42*(6), 861-865.
Everson, S. A., Kaplan, G. A., Goldberg, D. E., Salonen, R., & Salonen, J. T. (1997). Hopelessness and 4-year progression of carotid atherosclerosis: The Kuopio Ischemic Heart Disease Risk Factor Study. *Arteriosclerosis, Thrombosis, and Vascular Biology, 17*, 1490-1495.

2020:   4 items (Q18l-Q18o)
(*Please say how much you agree or disagree with the following statements:*)
Q18l   I feel it is impossible for me to reach the goals that I would like to strive for.
Q18m   The future seems hopeless to me and I can't believe that things are changing for the better.
Q18n   I don't expect to get what I really want.
Q18o   There's no use in really trying to get something I want because I probably won't get it.

Coding: 1 = Strongly disagree, 2 = Somewhat disagree, 3 = Slightly disagree, 4 = Slightly agree, 5 = Somewhat agree, 6 = Strongly agree

Background:
Mitchell, U. A., Gutierrez-Kapheim, M., Nguyen, A. W., & Al-Amin, N. (2020). Hopelessness among middle-aged and older Blacks: The negative impact of discrimination and protecting power of social and religious resources. *Innovation in Aging*, *4*(5), igaa044.

Q19. Loneliness
HRS provides researchers with a 3- and an 11-item scale of loneliness derived from the 20-item Revised UCLA Loneliness Scale (Russell et al., 1980; Russell, 1996). The original measure was shortened to 3 items to use in large-scale population telephone surveys by Hughes, Waite, Hawkley, and Cacioppo (2004). The 3-item version was in the 2006 questionnaire (items a-c). These 3 items remain in this position in the 11-item scale in all waves after 2008. The additional 8 items were selected for the SAQ based on published factor loadings with older adults to enhance reliability and to allow researchers to determine potential sub-dimensions of loneliness (Russell, 1996; Hawkley, Browne, & Cacioppo, 2005; Lee & Cagle, 2017).

Source:
Hawkley, L. C., Browne, M. W., & Cacioppo, J. T. (2005). How can I connect with thee? Let me count the ways. *Psychological Science*, *16*(10), 798-804.

Hughes, M. E., Waite, L. J., Hawkley, L. C., & Cacioppo, J. T. (2004). A short scale for measuring loneliness in large surveys: results from two population-based studies. *Research on Aging*, 655-672.

Russell, D. W. (1996). UCLA Loneliness Scale (Version 3): Reliability, validity, and factor structure. *Journal of personality assessment*, *66*(1), 20-40.

Lee, J., & Cagle, J. G. (2017). Validating the 11-item revised University of California Los Angeles Scale to assess loneliness among older adults: An evaluation of factor structure and other measurement properties. *The American Journal of Geriatric Psychiatry*, *25*(11), 1173-1183.

2020:   11 items (Q19a-Q19k)
(*The next questions are about how you feel about different aspects of your life. HOW MUCH OF THE TIME DO YOU FEEL...*)
Q19a   You lack companionship?
Q19b   Left out?
Q19c   Isolated from others?
Q19d   That you are "in tune" with the people around you?
Q19e   Alone?
Q19f   That there are people you can talk to?
Q19g   That there are people you can turn to?
Q19h   That there are people who really understand you?
Q19i   That there are people you feel close to?
Q19j   Part of a group of friends?
Q19k   That you have a lot in common with the people around you?
Coding: 1 = Often, 2 = Some of the time, 3 = Hardly ever or never

Scaling: Create an index of loneliness by reverse-coding items 19a, 19b, 19c, and 19e and averaging the scores across all 11 items. Set the final score to missing if there is more than five items with missing values. To create the original 3-item loneliness index, reverse-code items 19a, 19b, 19c and create an average of these three scores. Set the final score to missing if more than 1 item is missing.

Psychometrics: 2020 Alpha = .88; 2018 Alpha = .89; 2016 Alpha = .88;
                     2014 Alpha = .87; 2012 Alpha = .87; 2010 Alpha = .88; 2008 Alpha = .88

Background:

Cacioppo, J. T., Hawkley, L. C., Crawford, E., Ernst, J. M., Burleson, M. H., Kowalewski, R. B., et al. (2002). Loneliness and health: potential mechanisms *Psychosomatic Medicine*, 407-417.

Carr, D. C., Kail, B. L., Matz-Costa, C., & Shavit, Y. Z. (2018). Does becoming a volunteer attenuate loneliness among recently widowed older adults? *The Journals of Gerontology: Series B*, *73*(3), 501-510.

Donovan, N. J., & Blazer, D. (2020). Social isolation and loneliness in older adults: review and commentary of a National Academies report. *The American Journal of Geriatric Psychiatry*, *28*(12), 1233-1244.

Q20. Neighborhood Disorder / Neighborhood Social Cohesion

The measure assesses two dimensions of neighborhood context: (i) physical disorder (vandalism/graffiti, rubbish, vacant/deserted houses, crime) and (ii) social cohesion/social trust (I feel part of this area, trust people, people are friendly, people will help you). Most items were included in Wave 3 (2006) of ELSA, and the last item was modified from the Project on Human Development in Chicago Neighborhoods.

Source:

Cagney, K. A., Glass, T. A., Skarupski, K. A., Barnes, L. L., Schwartz, B. S., & Mendes de Leon, C. F. (2009). Neighborhood-level cohesion and disorder: measurement and validation in two older adult urban populations. *Journals of Gerontology: Series B*, *64*(3), 415-424.

2020: 8 items (Q20a-Q20h)
(These questions ask how you feel about your local area: that is everywhere within a 20-minute walk or about a mile of your home)

Q20a I really feel part of this area / I feel that I don't belong in this area

Q20b There is no problem with vandalism and graffiti in this area / Vandalism and graffiti are a big problem in this area

Q20c Most people in this area can be trusted / Most people in this area can't be trusted

Q20d People feel safe walking alone in this area after dark / People would be afraid to walk alone in this area after dark

Q20e Most people in this area are friendly / Most people in this area are unfriendly

Q20f This area is kept very clean / This area is always full of rubbish and litter

Q20g If you were in trouble, there are lots of people in this area who would help you / If you were in trouble, there is nobody in this area who would help you

Q20h There are no vacant or deserted houses or storefronts in this area/There are many vacant or deserted houses or storefronts in this area

Coding: 7-point scale (range 1 – 7)

Scaling: Create an index of **neighborhood physical disorder** (items 20b, d, f, h) by averaging the scores across all 4 items. Set the final score to missing if there are more than two items with missing values.

Create an index of **neighborhood social cohesion** (items 20a, c, e, g) by reverse-scoring all items and averaging the scores across all 4 items. Set the final score to missing if there are more than two items with missing values. Note: In 2006, items 21b, d, and h had to be reverse-coded when creating the index of physical disorder.

Psychometrics: Neighborhood Physical Disorder: 2020 Alpha = .85; 2018 Alpha = .84; 2016 Alpha = .85; 2014 Alpha = .84; 2012 Alpha = .83; 2010 Alpha = .82; 2008 = .83; 2006 = .64

Neighborhood Social Cohesion: 2020 Alpha = .87; 2018 Alpha = .86; 2016 Alpha = .87; 2014 Alpha = .86, 2012 Alpha .86; 2010 Alpha = .86; 2008 = .86; 2006 = .82

Background:

Mendes de Leon, C.F., Cagney, K.A., Bienias, J.L., Barnes, L.L., Skarupski, K.A., Scherr, P.A., & et al. (2009). Neighborhood social cohesion and disorder in relation to walking in community-dwelling older adults: A multilevel analysis. *Journal of Aging and Health*, *21*, 155-171.

Robinette, J. W., Charles, S. T., & Gruenewald, T. L. (2018). Neighborhood cohesion, neighborhood disorder, and cardiometabolic risk. *Social Science & Medicine*, *198*, 70-76.

Sharifian, N., Spivey, B. N., Zaheed, A. B., & Zahodne, L. B. (2020). Psychological distress links perceived neighborhood characteristics to longitudinal trajectories of cognitive health in older adulthood. *Social Science & Medicine*, *258*, 113125.

Q21 - Q22. Personal Sense of Control - Self-Efficacy - Agency - Mastery

Authors in the literature use a variety of discipline-specific terms for these constructs. The same items are included in MIDUS.

Sources:

Lachman, M. E., & Weaver, S. L. (1998). The sense of control as a moderator of social class differences in health and well-being. *Journal of Personality and Social Psychology, 74*(3), 763-773.

Pearlin, L. I., & Schooler, C. (1978). The structure of coping. *Journal of Health and Social Behavior, 19*(1), 2-21.

Perceived Constraints on Personal Control
2020: 5 items for constraints (Q21a-Q21e)

(*Please say how much you agree or disagree with the following statements.*)

Q21a   I often feel helpless in dealing with the problems of life.
Q21b   Other people determine most of what I can and cannot do.
Q21c   What happens in my life is often beyond my control.
Q21d   I have little control over the things that happen to me.
Q21e   There is really no way I can solve the problems I have.

Perceived Mastery

<u>2020:</u> 5 items for mastery (Q22a-Q22e)
(*Please say how much you agree or disagree with the following statements.*)
Q22a   I can do just about anything I really set my mind to.
Q22b   When I really want to do something, I usually find a way to succeed at it.
Q22c   Whether or not I am able to get what I want is in my own hands.
Q22d   What happens to me in the future mostly depends on me.
Q22e   I can do the things that I want to do.

<u>Coding:</u>   1 = Strongly disagree, 2 = Somewhat disagree, 3 = Slightly disagree,
            4 = Slightly agree, 5 = Somewhat agree, 6 = Strongly agree

<u>Scaling:</u>   Create an index of Constraints by averaging the scores across items Q21a-Q21e. Set the final
            score to missing if there are more than three items with missing values. Create an index of
            Mastery by averaging the scores across items Q22a-Q22e. Set the final score to missing if there
            are more than three items with missing values.

<u>Psychometrics:</u>   Constraints: 2020 Alpha = .87; 2018 Alpha = .86; 2016 Alpha = .86;
                                    2014 Alpha = .87; 2012 Alpha = .87; 2010 Alpha = .88;
                                    2008 Alpha = .87, 2006 Alpha = .86
                    Mastery: 2020 Alpha = .91; 2018 Alpha = .90; 2016 Alpha = .90;
                                    2014 Alpha = .91; 2012 Alpha = .91; 2010 Alpha = .90;
                                    2008 Alpha = .89; 2006 Alpha = .89

Background:

Heckhausen, J., Wrosch, C., & Schulz, R. (2019). Agency and motivation in adulthood and old age. *Annual Review of Psychology*, *70*, 191-217.

Infurna, F. J., & Mayer, A. (2015). The effects of constraints and mastery on mental and physical health: Conceptual and methodological considerations. *Psychology and Aging*, *30*(2), 432.

Lachman, M. E. (2006). Perceived control over aging-related declines: Adaptive beliefs and behaviors. *Current Directions in Psychological Sciences, 15,* 282-286.

Mirowsky, J., & Ross, C.E. (2007). Life course trajectories of perceived control and their relationship to education. *American Journal of Sociology*, *112*, 1339-1382.

Pearlin, L. I., Nguyen, K. B., Schieman, S., Milkie, M. A. (2007). The life-course origins of mastery among older people. *Journal of Health and Social Behavior, 48*, 164-180

Q23 - Q25b. Domain Specific Control (Efficacy)

Three single-item measures of domain specific control for **health** (Q23), **social life** (Q24), and **finances** (Q25) from MIDUS have been included across multiple waves. These extend the general items in Q21 and Q22.

Source:
Lachman, M. E., & Weaver, S. L. (1998). Sociodemographic variations in the sense of control by domain: findings from the MacArthur Studies of Midlife. *Psychology and Aging*, *13*(4), 553.

<u>2020:</u>   3 items (Q23 - Q25)
(*Using a 0 to 10 scale where 0 means "no control at all" and 10 means "very much control".*)

Q23   how would you rate the amount of control you have over your health these days?
Q24   how would you rate the amount of control you have over your social life these days?
Q25   how would you rate the amount of control you have over your financial situation these days?

Coding: 11-point scale (range 0-10)

Background:
Lachman, M. E., Neupert, S. D., & Agrigoroaei, S. (2011). The relevance of control beliefs for health and aging. In *Handbook of the psychology of aging* (pp. 175-190). Academic Press.

Perceived Change in Control over Financial Situation in the Last Year
(Since 2010)
Source: HRS

2020: 1 item   (Q25a)
Q25a   Has the amount of control you have over your financial situation changed in the last year?

Coding: 1 = YES, I have less control now; 2 = YES, I have more control now;
            3 = NO, the amount of control I have has stayed the same

Confidence in Filling Medical Forms
Source: HRS (refer also to off-year 2019 HRS Health mail survey.

2020: 1 item (Q25b)
Q25b   How confident are you filling out medical forms by yourself?

Coding: 1 = Extremely; 2 = Quite; 3 = Somewhat; 4 = A little; 5 = Not at all

Q26. Positive and Negative Affect
These scales assess positive and negative dimensions of emotional (hedonic) well-being. The 2006 questionnaire used a measure of positive and negative affect derived from MIDUS (Mroczek & Kolarz, 1998: See "2006 Scales and Specific Items Not Included in Later Survey Content" at the end of this documentation). Beginning in 2008, most of the 25 items to assess positive and negative affect were chosen from the Positive and Negative Affect Schedule – Expanded Form (PANAS-X; Watson & Clark, 1994). Some items were obtained from the work of other researchers in this area of study.

Source:
Watson, D., & Clark, L.A. (1994). The PANAS-X: Manual for the positive and negative affect schedule – expanded form. University of Iowa. http://ir.uiowa.edu/psychology_pubs/11/
https://www2.psychology.uiowa.edu/faculty/clark/panas-x.pdf

Also:
Carstensen, L. L., Pasupathi, M., Mayr, U., & Nesselroade, J. R. (2000). Emotional experience in everyday life across the adult life span. *Journal of Personality and Social Psychology, 79*(4), 644-655.

Ong, A.D., Edwards, L.M., & Bergeman, C.S. (2006). Hope as a source of resilience in later adulthood. *Personality and Individual Differences*. 41(7), 1263-1273.

<u>2020:</u> 25 items (Q26a – Q26y)
(During the last 30 days, TO WHAT DEGREE DID YOU FEEL ...?)
Q26a Afraid?
Q26b Upset?
Q26c Determined?
Q26d Enthusiastic?
Q26e Guilty?
Q26f Active?
Q26g Proud?
Q26h Interested?
Q26i Scared?
Q26j Frustrated?
Q26k Happy?
Q26l Bored?
Q26m Hostile?
Q26n Jittery?
Q26o Ashamed?
Q26p Attentive?
Q26q Content?
Q26r Nervous?
Q26s Sad?
Q26t Inspired?
Q26u Hopeful?
Q26v Alert?
Q26w Distressed?
Q26x Calm?
Q26y Excited?

<u>Coding:</u> 1 = Very much, 2 = Quite a bit, 3 = Moderately, 4 = A little, 5 = Not at all

<u>Scaling:</u> Create an index of **positive affect** by reverse-coding items Q26c, d, f, g, h, k, p, q, t, u, v, x, and y, so that higher scores indicate feeling higher Positive Affect and averaging the scores across all 13 items. Set the final score to missing if there are more than six items with missing values. Create an index of **negative affect** by reverse-coding items Q26 a, b, e, i, j, l, m, n, o, r, s, and w, so that higher scores indicate feeling higher Negative Affect and averaging the scores across all 12 items. Set the final score to missing if there are more than six items with missing values

<u>Psychometrics:</u> Negative affect: 2020 Alpha = .89; 2018 Alpha = .90;
           2016 Alpha = .90; 2014 Alpha = .90, 2012 Alpha = .90,
           2010 Alpha = .90, 2008 Alpha = .89

       Positive affect: 2020 Alpha = .92; 2018 Alpha = .92;
           2016 Alpha = .92; 2014 Alpha = .93, 2012 Alpha = .93,
           2010 Alpha = .92, 2008 Alpha = .92

Background:

Chida, Y., & Steptoe, A. (2008). Positive psychological well-being and mortality: a quantitative review of prospective observational studies. *Psychosomatic Medicine 70* (7), 741–756.

Diener, E., Kanazawa, S., Suh, E. M., & Oishi, S. (2015). Why people are in a generally good mood. *Personality and Social Psychology Review*, *19*(3), 235-256.

Isaacowitz, D. M. (2022). What do we know about aging and emotion regulation? *Perspectives on Psychological Science*, *17*(6), 1541-1555.

Pressman, S. D., Jenkins, B. N., & Moskowitz, J. T. (2019). Positive affect and health: What do we know and where next should we go? *Annual Review of Psychology*, *70*, 627-650.

Watson, D., Wiese, D., Vaidya, J., & Tellegen, A. (1999). The two general activation systems of affect: structural findings, evolutionary considerations, and psychobiological evidence. *Journal of Personality and Social Psychology, 76*(5), 820-838.

Q27. Religiosity / Spirituality

These 4 items assess religious beliefs, meaning and values. (*Note: Religious affiliation and attendance are collected in the Demographics section of the core HRS.*)

Source:
Fetzer Institute. (2003). Brief Multidimensional Measure of Religiousness/Spirituality: 1999. In N. W. Group (Ed.), *Multidimensional measurement of religiousness/spirituality for use in health research: A report of the Fetzer Institute/National Institute on Aging Working Group* (2nd ed., pp. 85-88). Kalamazoo, MI: John E. Fetzer Institute.

2020:   4 items (Q27a-Q27d)

(*Please say how much you agree or disagree with each of the following statements*)
Q27a   I believe in a God who watches over me.
Q27b   The events in my life unfold according to a divine or greater plan.
Q27c   I try hard to carry my religious beliefs over into all my other dealings in life.
Q27d   I find strength and comfort in my religion.

Coding: 1 = Strongly disagree, 2 = Somewhat disagree, 3 = Slightly disagree, 4 = Slightly agree, 5 = Somewhat agree, 6 = Strongly agree

Scaling: Create an index of religiosity by averaging the scores across all 4 items. Set the final score to missing if there are more than two items with missing values.

Psychometrics: 2020 Alpha = .93; 2018 Alpha = .93; 2016 Alpha = .93;
2014 Alpha = .93, 2012 Alpha = .93, 2010 Alpha = .93,
2008 Alpha = .92, 2006 Alpha = .92

Background:
Aldwin, C. M., Park, C. L., Jeong, Y. J., & Nath, R. (2014). Differing pathways between religiousness, spirituality, and health: A self-regulation perspective. *Psychology of Religion and Spirituality*, *6*(1), 9.

Krause, N. (2003). Religious meaning and subjective well-being in late life. *Journal of Gerontology: Social Sciences*, 58B, S160–S170

McCullough, M. E., & Willoughby, B. L. (2009). Religion, self-regulation, and self-control: Associations, explanations, and implications. *Psychological Bulletin, 135*, 69–93

Ransome, Y. (2020). Religion, spirituality, and health: new considerations for epidemiology. *American journal of Epidemiology*, *189*(8), 755-758.

Q28. Self-Perceptions of Aging: Subjective Age - Satisfaction with Aging – Attitudes Toward Own Aging

Subjective Age

This item reveals the age a person feels regardless of their actual chronological age.

Source:

Kastenbaum, R., Durbin, V., Sabatini, P., Artt, S. (1972). "The ages of me": Toward personal and interpersonal definitions of functional aging. *Aging and Human Development*, *3*, 197-211.

2020:   1 item (Q28a)
(Many people feel older or younger than they actually are.)

Q28a   What age do you feel?

Coding: Some researchers use the age (years) reported while others make a proportional difference score by subtracting the subjective age from the chronological age and dividing the difference score by the participant's chronological age.

Background:

Alonso Debreczeni, F., & Bailey, P. E. (2021). A systematic review and meta-analysis of subjective age and the association with cognition, subjective well-being, and depression. *The Journals of Gerontology: Series B: Psychological Sciences and Social Sciences, 76(3)*, 471-482.

Kotter-Grühn, D., Kornadt, A. E., & Stephan, Y. (2016). Looking beyond chronological age: Current knowledge and future directions in the study of subjective age. *Gerontology*, *62*(1), 86-93.

Rubin, D. C., & Berntsen, D. (2006). People over forty feel 20% younger than their age: Subjective age across the lifespan. *Psychonomic Bulletin & Review, 13(5),* 776-780.

Stephan, Y., Sutin, A. R., Caudroit, J., & Terracciano, A. (2015). Subjective age and changes in memory in older adults. *Journals of Gerontology Series B: Psychological Sciences and Social Sciences*, *71*(4), 675-683.

Self-perceptions of Aging (Satisfaction with Aging; Attitudes Toward Own Aging)

These 8 items assess participants' positive and negative evaluation of their experiences of aging. The first 5 items (tagged below*) are derived from the Attitudes Toward Own Aging subscale of the Philadelphia Geriatric Center Morale Scale (Lawton, 1975; Liang & Bollen, 1983). Additional items from the Berlin Aging Study were included to increase reliability for a unidimensional scale and provide users with the potential to derive two dimensions.

Sources:

Lawton, M.P. (1975). The Philadelphia Geriatric Center Morale Scale: A revision. *Journals of Gerontology*, *30*, 85-89.

Liang, J. & Bollen, K.A. (1983). The structure of the Philadelphia Geriatric Center (PGC) Morale Scale: A reinterpretation. *Journals of Gerontology, 38*, 181-189.

2020:   8 items (Q28b1 – Q28b8)
(The next statements are about the way people feel about their age and about the things that happen as they get older. Please tell us how much you agree or disagree with each statement for you personally.)

Q28b1   Things keep getting worse as I get older. *
Q28b2   I have as much as pep as I did last year. *

Q28b3   The older I get, the more useless I feel. *
Q28b4   I am as happy now as I was when I was younger. *
Q28b5   As I get older, things are better than I thought they would be. *
Q28b6   So far, I am satisfied with the way that I am aging.
Q28b7   The older I get, the more I have had to stop doing things that I liked.
Q28b8   Getting older has brought with it many things that I do not like.

Coding: 1 = Strongly disagree, 2 = Somewhat disagree, 3 = Slightly disagree,
           4 = Slightly agree, 5 = Somewhat agree, 6 = Strongly agree

Scaling: Create a unidimensional scale of positive self-perceptions of aging (SPA) by reverse coding
           items Q28 b1, b3, b7, and b8 and averaging the scores across all 8 items. Set the final score to
           missing if there are more than four items with missing values. Some users create a
           unidimensional scale with the first 5 PGC Morale Scale items.
           Alternatively, separate scores may be created for positive and negative SPA. Average across
           items Q28 b2, b4, b5, and b6 for a measure of positive SPA. Average across items Q28 b1, b3,
           b7, and b8 for a measure of negative SPA.

Psychometrics: Unidimensional positive SPA (8 items): 2020 Alpha = .81; 2018 Alpha = .81;
                                                        2016 Alpha = .81; 2014 Alpha = .82;
                                                        2012 Alpha = .81; 2010 Alpha = .83;
                                                        2008 Alpha = .82
           Two-dimensional scales: Positive SPA: 2020 Alpha = .79; 2018 Alpha = .78;
                                                     2016 Alpha = .78; 2014 Alpha = .79;
                                                     2012 Alpha = .77; 2010 Alpha = .78;
                                                     2008 Alpha = .78
                                    Negative SPA: 2020 Alpha = .77; 2018 Alpha = .77;
                                                     2016 Alpha = .76; 2014 Alpha = .77;
                                                     2012 Alpha = .77; 2010 Alpha = .77;
                                                     2008 Alpha: .78

Background:
Kotter-Grühn, D., Kleinspehn-Ammerlahn, A., Gerstorf, D., & Smith, J. (2009). Self-perceptions of aging
predict mortality and change with approaching death: 16-year longitudinal results from the Berlin Aging
Study. *Psychology and Aging, 24,* 654-667.

Levy, B. R., & Bavishi, A. (2016). Survival Advantage Mechanism: Inflammation as a mediator of positive
self-perceptions of aging on longevity. *Journals of Gerontology Series B: Psychological Sciences and
Social Sciences*, https://doi.org/10.1093/geronb/gbw035

Levy, B. R. (2009). Stereotype embodiment: A psychosocial approach to aging. *Current Directions in
Psychological Science*, *18*(6), 332-336.

Sargent-Cox, K. A., Anstey, K. J., & Luszcz, M. A. (2012). The relationship between change in self-
perceptions of aging and physical functioning in older adults. *Psychology and Aging*, *27*(3), 750-760.

Smith, J., & Larkina, M. (2021). Early-life health as a lifelong precursor of self-related views of aging in
later life. *The Journals of Gerontology: Series B*, *76*(5), 894-899.

Q29 – Q30. Perceived Everyday Discrimination

This 6-item scale assesses the experience of hassles and chronic stress associated with perceived everyday discrimination. Q30 is a follow-up question which asks about this reason attributed to the experienced discrimination. Similar questions are in MIDUS. The item Q29f was added in 2008 to include a context relevant for older adults.

Source:
Williams, D. R., Yu, Y., Jackson, J. S., & Anderson, N. B. (1997). Racial differences in physical and mental health: socio-economic status, stress and discrimination. *Journal of Health Psychology, 2*, 335-351.

2020:   6 items (Q29a-Q29f)
(In your day-to-day life how often have any of the following things happened to you?)
Q29a   You are treated with less courtesy or respect than other people.
Q29b   You receive poorer service than other people at restaurants or stores.
Q29c   People act as if they think you are not smart.
Q29d   People act as if they are afraid of you.
Q29e   You are threatened or harassed.
Q29f   You receive poorer service or treatment than other people from doctors or hospitals.

Coding: 1 = Almost every day, 2 = At least once a week, 3 = A few times a month, 4 = A few times a year,
         5 = Less than once a year, 6 = Never

Scaling: Create an index of discrimination by reverse-coding all items and averaging the scores across all six items. Set the final score to missing if there are more than three items with missing values.

Psychometrics: 2020 Alpha = .83; 2018 Alpha = .83; 2016 Alpha = .83; 2014 Alpha = .83;
                   2012 Alpha = .83; 2010 Alpha = .80; 2008 Alpha = .82

Background:
Williams, D. R., Lawrence, J. A., & Davis, B. A. (2019). Racism and health: evidence and needed research. *Annual Review of Public Health*, *40*, 105-125.

Q30. Attributions of Everyday Discrimination

From 2008 onwards, religion and financial status were added to the attribution categories

Source:
Kessler, R. C., Mickelson, K. D., & Williams, D. R. (1999). The prevalence, distribution, and mental health correlates of perceived discrimination in the United States. *Journal of Health and Social Behavior, 40*(3), 208-230.

2020: 11 categories (Q30M1 - Q30M11)
(If any of the above (Q29) have happened to you, what do you think were the reasons why these experiences
 happened to you? (Mark (X) all that apply.)
1   Your ancestry or national origin
2   Your gender
3   Your race
4   Your age
5   Your religion
6   Your weight

7   A physical disability
8   An aspect of your physical appearance
9   Your sexual orientation
10   Your financial status
11   Other

Coding: 2008-2022 Coding: 1 = ancestry or national origin, 2 = gender, 3 = race, 4 = age, 5 = religion, 6 = weight, 7 = physical disability, 8 = aspect of your physical appearance, 9 = sexual orientation, 10 = financial status, 11 = Other
2006 Coding: 1 = ancestry or national origin, 2 = gender, 3 = race, 4 = age, 5 = weight, 6 = physical disability, 7 = aspect of your physical appearance, 8 = sexual orientation, 9 = Other

Q30 allows for multiple responses which are shown in the variables Q30M1 through Q30M11. When combined, these variables indicate which attributions and how many attributions where checked. Q30M1 gives the code (1 to 11) for the first attribution a participant checked in the order 1 to 11 as listed above: Q30M2 is the code for the second attribution the participant checked. For example, if the first box a participant checked was *age* their response on Q30M1 would be coded *4*. If this participant also checked *financial status,* they would have the code *10 for* Q30M2. Below we provide the SPSS and the R code to create variables for each type of discrimination. Respondents who indicated each specific type of discrimination will have a value of "1" in that variable; all other respondents will have a value of "0" (which could be recoded to missing if desired).

SPPS code	R code
COUNT discr_ancestry = Q30M1 to Q30M11(1). execute. COUNT discr_gender = Q30M1 to Q30M11(2). execute. COUNT discr_race = Q30M1 to Q30M11(3). execute. COUNT discr_age = Q30M1 to Q30M11(4). execute. COUNT discr_religion = Q30M1 to Q30M11(5). execute. COUNT discr_weight = Q30M1 to Q30M11(6). execute. COUNT discr_physdis = Q30M1 to Q30M11(7). execute. COUNT discr_physapp = Q30M1 to Q30M11(8). execute. COUNT discr_sexorient = Q30M1 to Q30M11(9). execute. COUNT discr_finstatus = Q30M1 to Q30M11(10). execute. COUNT discr_other = Q30M1 to Q30M11(11). execute.	```cl <- c("Q30M1", "Q30M2", "Q30M3", "Q30M4", "Q30M5", "Q30M6", "Q30M7", "Q30M8", "Q30M9", "Q30M10", "Q30M11")

data$discr_ancestry <- ifelse(rowSums(data[, cl] == 1, na.rm = TRUE) > 0, 1, 0)
data$discr_gender   <- ifelse(rowSums(data[, cl] == 2, na.rm = TRUE) > 0, 1, 0)
data$discr_race   <- ifelse(rowSums(data[, cl] == 3, na.rm = TRUE) > 0, 1, 0)
data$discr_age   <- ifelse(rowSums(data[, cl] == 4, na.rm = TRUE) > 0, 1, 0)
data$discr_religion <- ifelse(rowSums(data[, cl] == 5, na.rm = TRUE) > 0, 1, 0)
data$discr_weight   <- ifelse(rowSums(data[, cl] == 6, na.rm = TRUE) > 0, 1, 0)
data$discr_physdis <- ifelse(rowSums(data[, cl] == 7, na.rm = TRUE) > 0, 1, 0)
data$discr_physapp <- ifelse(rowSums(data[, cl] == 8, na.rm = TRUE) > 0, 1, 0)
data$discr_sexorient <- ifelse(rowSums(data[, cl] == 9, na.rm = TRUE) > 0, 1, 0)
data$discr_finstatus <- ifelse(rowSums(data[, cl] == 10, na.rm = TRUE) > 0, 1, 0)
data$discr_other   <- ifelse(rowSums(data[, cl] == 11, na.rm = TRUE) > 0, 1, 0)``` |

Background:
Harrell, S. P. A. (2000). Multidimensional conceptualization of racism-related stress: implications for the well-being of people of color. *American Journal of Orthopsychiatry, 70*, 42-57.

Giasson, H. L., Queen, T. L., Larkina, M., & Smith, J. (2017). Age group differences in perceived age discrimination: Associations with self-perceptions of aging. *The Gerontologist*, *57*(suppl_2), S160-S168.

Manzi, F. (2019). Are the processes underlying discrimination the same for women and men? A critical review of congruity models of gender discrimination. *Frontiers in psychology*, *10*, 469.

Rogers, S. E., Thrasher, A. D., Miao, Y., Boscardin, W. J., & Smith, A. K. (2015). Discrimination in healthcare settings is associated with disability in older adults: Health and Retirement study, 2008–2012. *Journal of General Internal Medicine*, *30*(10), 1413.

Zahodne, L. B., Kraal, A. Z., Sharifian, N., Zaheed, A. B., & Sol, K. (2019). Inflammatory mechanisms underlying the effects of everyday discrimination on age-related memory decline. *Brain, Behavior, and Immunity*, *75*, 149-154.

Q31. The "Big 5" Personality Traits

These 31 items from MIDUS and the International Personality Item Pool (IPIP) were designed for survey use to assess the 'Big 5' personality traits: Neuroticism, Extraversion, Openness to Experience, Agreeableness, and Conscientiousness. An initial set of 26 items were drawn from MIDUS for the 2008 wave and 5 additional items from IPIP (reckless, self-disciplined, impulsive, cautious, thrifty) were added in 2010 to expand coverage of sub-facets of conscientiousness. (Table 5 in the Appendix lists the cross-wave item question numbers for each trait).

Sources:
Lachman, M. E., & Weaver, S. L. (1997). *The Midlife Development Inventory (MIDI) Personality Scales: Scale construction and scoring*. Retrieved from
http://www.brandeis.edu/departments/psych/lachman/pdfs/midi-personality-scales.pdf

International Personality Item Pool Retrieved from: http://ipip.ori.org/).

2020:   31 items (Q31a-Q31z6)

(Please indicate how well each of the following describes you.)

Q31a	Outgoing
Q31b	Helpful
Q31c	Reckless
Q31d	Moody
Q31e	Organized
Q31f	Friendly
Q31g	Warm
Q31h	Worrying
Q31i	Responsible
Q31j	Lively
Q31k	Caring
Q31l	Nervous
Q31m	Creative
Q31n	Hardworking
Q31o	Imaginative
Q31p	Softhearted

Q31q	Calm
Q31r	Self-disciplined
Q31s	Intelligent
Q31t	Curious
Q31u	Active
Q31v	Careless
Q31w	Broad-minded
Q31x	Impulsive
Q31y	Sympathetic
Q31z1	Cautious
Q31z2	Talkative
Q31z3	Sophisticated
Q31z4	Adventurous
Q31z5	Thorough
Q31z6	Thrifty

Coding: 1 = A lot, 2 = Some, 3 = A little, 4 = Not at all

Scaling: Reverse-code all items EXCEPT Q31c, Q31q, Q31v, and Q31x and average the scores for items within sub-dimensions for

Neuroticism (Q31d, Q31h, Q31l, Q31q)

Extraversion (Q31a, Q31f, Q31j, Q31u, Q31z2)

Openness to Experience (Q31m, Q31o, Q31s, Q31t, Q31w, Q31z3, Q31z4)

Agreeableness (Q31b, Q31g, Q31k, Q31p, Q31y)

Conscientiousness (Q31c, Q31e, Q31i, Q31n, Q31r, Q31v, Q31x, Q31z1, Q31z5, and Q31z6)

Set the final score to missing if more than half of the items have missing values within each sub-dimension.

Psychometrics:

Neuroticism: 2020 Alpha = .70; 2018 Alpha = .70; 2016 Alpha = .70; 2014 Alpha = .71; 2012 Alpha = .71; 2010 Alpha = .71; 2008 Alpha = .72; 2006 Alpha = .70

Extraversion: 2020 Alpha = .75; 2018 Alpha = .76; 2016 Alpha = .75; 2014 Alpha = .76; 2012 Alpha = .75; 2010 Alpha = .75; 2008 Alpha = .74; 2006 Alpha = .75

Openness: 2020 Alpha = .80; 2018 Alpha = .80; 2016 Alpha = .80; 2014 Alpha = .81; 2012 Alpha = .80; 2010 Alpha = .80; 2008 Alpha = .79; 2006 Alpha = .79

Agreeableness: 2020 Alpha = .80; 2018 Alpha = .79; 2016 Alpha = .79; 2014 Alpha = .79; 2012 Alpha = .79; 2010 Alpha = .79; 2008 Alpha = .78; 2006 Alpha = .78

Conscientiousness (5 items): 2020 Alpha = .68; 2018 Alpha = .67; 2016 Alpha = .67; 2014 Alpha = .67; 2012 Alpha = .68; 2010 Alpha =.68; 2008 Alpha = .66; 2006 Alpha = .67

Conscientiousness (10 items): 2020 Alpha = .72; 2018 Alpha = .71; 2016 Alpha = .72; 2014 Alpha = .72; 2012 Alpha = .73; 2010 Alpha = .73

Background:
Graham, E. K., Weston, S. J., Gerstorf, D., Yoneda, T. B., Booth, T. O. M., Beam, C. R., ... & Mroczek, D. K. (2020). Trajectories of big five personality traits: A coordinated analysis of 16 longitudinal samples. *European Journal of Personality*, *34*(3), 301-321.

Roberts, B., Kuncel, N.R., Shiner, R., Caspi, A., & Goldberg, L.R. (2007). The power of personality: The comparative validity of personality traits, socioeconomic status, and cognitive ability for predicting important life outcomes. *Perspectives on Psychological Science*, *2*, 313-345.

Terracciano, A., & Sutin, A. R. (2019). Personality and Alzheimer's disease: An integrative review. *Personality Disorders: Theory, Research, and Treatment, 10(1),* 4-12

Zimprich, D., Allemand, M., & Lachman, M. E. (2012). Factorial structure and age-related psychometrics of the MIDUS personality adjective items across the life span. *Psychological assessment*, *24*(1), 173-186.

Q32. Risk Attitudes (Risk Preferences)

These items assess individuals' attitudes about risk across 5 different life domains, including while driving, in financial matters, during sport and leisure activities, in your occupation, and with health.

Source:
Dohmen, T., Falk, A., Huffman, D., Sunde, U., Schupp, J., & Wagner, G. G. (2011). Individual risk attitudes: Measurement, determinants, and behavioral consequences. *Journal of the European Economic Association, 9,* 522 – 550. DOI: 10.1111/j.1542-4774.2011.01015.x

2020: 5 items (Q32_1-Q32_5)
(*People behave differently in different situations. We'd like to know how willing you are to take risks in the following areas. Using a 0 to 10 scale where 0 means "unwilling to take any risks" and 10 means "fully prepared to take risks" please mark one box (X) in each row.*)

How willing are you to take risks....
Q32_1   While driving?
Q32_2   In financial matters?
Q32_3   During leisure and sport?
Q32_4   In your occupation?
Q32_5   With your health?

Coding: 0 (Not at all willing) – 10 (Very willing)

Background:
Frey, R., Richter, D., Schupp, J., Hertwig, R., & Mata, R. (2021). Identifying robust correlates of risk preference: A systematic approach using specification curve analysis. *Journal of Personality and Social Psychology*, *120*(2), 538.

Lejarraga, T., & Hertwig, R. (2022). Three theories of choice and their psychology of losses. *Perspectives on Psychological Science*, *17*(2), 334-345.

Q32a. Need for Cognition

These items are selected from the "Need for Cognition" scale based on extensive psychometric analyses in the CogUSA project (Willis, McArdle). In that study, two dimensions were determined: Cognitive Enjoyment and Cognitive Effort and these subscales were associated with cognitive performance. These items are not included in 2022.

Source
Cacioppo, J. T., & Petty, R. E. (1982). The need for cognition, *Journal of Personality and Social Psychology, 42*, 116-131.

2020:   6 items (Q32a1 – Q32a6)
Q32a1   I like to have the responsibility of handling a situation that requires a lot of thinking.
Q32a2   I really enjoy a task that involves coming up with new solutions to problems.
Q32a3   The notion of thinking abstractly is appealing to me.
Q32a4   I would rather do something that requires little thought than something that is sure to challenge my thinking abilities. (-)
Q32a5   I try to anticipate and avoid situations where there is likely a chance I will have to think in depth about something. (-)
Q32a6   I only think as hard as I have to. (-)

Coding: 1 = Not at all like me, 2 = Somewhat like me, 3 = Uncertain,
          4 = Somewhat like me, 5 = Very much like me

Scaling: The Cognitive Enjoyment subscale is created by averaging across three items: 34a_a, 34a_b, and 34a_c. To create the Cognitive Effort subscale, reverse-code items 34a_d, 3a_e, and 34a_f then average across ratings.

Psychometrics: Cognitive Enjoyment: 2020 Alpha = .82; 2018 Alpha = .82; 2016 Alpha = .82; 2014 Alpha = .83, 2012 Alpha = .81, 2010 Alpha = .80
                 Cognitive Effort: 2020 Alpha = .79; 2018 Alpha = .79; 2016 Alpha = .79; 2014 Alpha = .80, 2012 Alpha = .79, 2010 Alpha = .80

Background:
Lins de Holanda Coelho, G., HP Hanel, P., & J. Wolf, L. (2020). The very efficient assessment of need for cognition: Developing a six-item version. *Assessment*, *27*(8), 1870-1885.

Q32a. Concerns (Fears) about Aging (added in 2022)
These items were first added in 2022 to reflect contemporary multidisciplinary interests and research on cognitive aging and living with dementia. The items were inserted to replace the Need for Cognition scale.

Source:
Taylor, P., & Morin, R. (2009). Growing old in America: Expectations vs. reality. Pew Research Center: A Social & Demographic Trends Project Report
https://www.pewresearch.org/social-trends/2009/06/29/growing-old-in-america-expectations-vs-reality/

2022:   5 items (Q32a1-Q32a5)
(*Please rate your own level of concern about the following as you get older.*)
Q32a1   Staying mentally sharp.
Q32a2   Staying in your own home as you get older.
Q32a3   Paying for healthcare expenses (e.g., co-pays, prescription drugs, uncovered expenses).
Q32a4   Being unable to communicate your thoughts and feelings.
Q32a5   Developing Alzheimer's disease.

Coding: 1 = Extremely concerned; 2 = Very concerned; 3 = Not too concerned; 4 = Not at all concerned

Background:

Cutler, S. J. (2015). Worries about getting Alzheimer's: Who's concerned? *American Journal of Alzheimer's Disease & Other Dementias*, *30*(6), 591-598.

Kessler, E. M., Bowen, C. E., Baer, M., Froelich, L., & Wahl, H. W. (2012). Dementia worry: A psychological examination of an unexplored phenomenon. *European Journal of Ageing*, *9*(4), 275-284.

Q33. Purpose in Life (Psychological Well-Being – Eudaimonic Well-being)

These items to assess Purpose in Life are one subscale of the Ryff Measures of Psychological Well-being (1989). Two additional subscales were included in 2006: Personal Growth and Self-Acceptance (see below section "2006 Scales / Specific Items Not Included in Later Surveys"

Sources:

Keyes, C. L. M., Shmotkin, D., & Ryff, C. D. (2002). Optimizing well-being: The empirical encounter of two traditions. *Journal of Personality and Social Psychology, 82*(6), 1007-1022.

Ryff, C. D., & Keyes, C. L. M. (1995). The structure of psychological well-being revisited. *Journal of Personality and Social Psychology, 69*(4), 719-727.

<u>2020:</u>   7 items (Q33a-Q33g)
(*Please say how much you agree or disagree with the following statements*.)

Q33a	I enjoy making plans for the future and working to make them a reality.
Q33b	My daily activities often seem trivial and unimportant to me.
Q33c	I am an active person in carrying out the plans I set for myself.
Q33d	I don't have a good sense of what it is I'm trying to accomplish in life.
Q33e	I sometimes feel as if I've done all there is to do in life.
Q33f	I live life one day at a time and don't really think about the future.
Q33g	I have a sense of direction and purpose in my life.

<u>Coding:</u>   1 = Strongly disagree, 2 = Somewhat disagree, 3 = Slightly disagree,
4 = Slightly agree, 5 = Somewhat agree, 6 = Strongly agree

<u>Scaling:</u>   Reverse-code items 33 b, d, e, and f and then average the scores across items to create an index of well-being (ranging from 1-6), with a high score indicating positive well-being. Set the final score to missing if there are more than three items with missing values.

<u>Psychometrics:</u>   2020 Alpha = .77; 2018 Alpha = .76; 2016 Alpha = .76; 2014 Alpha = .77; 2012 Alpha = .77, 2010 Alpha = .78; 2008 Alpha = .76, 2006 Alpha = .74

Background:

Kim, E. S., Ryff, C., Hassett, A., Brummett, C., Yeh, C., & Strecher, V. (2020). Sense of purpose in life and likelihood of future illicit drug use or prescription medication misuse. *Psychosomatic Medicine*, *82*(7), 715-721.

Guimond, A. J., Shiba, K., Kim, E. S., & Kubzansky, L. D. (2022). Sense of purpose in life and inflammation in healthy older adults: A longitudinal study. *Psychoneuroendocrinology*, *141*, 105746.

Yemiscigil, A., Powdthavee, N., & Whillans, A. V. (2021). The effects of retirement on sense of purpose in life: Crisis or opportunity? *Psychological Science, 32*(11), 1856-1864.

Q34. Domain-Specific Satisfaction

These 7 items capture subjective evaluations of well-being in important domains of life: housing, city, non-work, family life, financial situation, and health. The question about overall life satisfaction (*Your life as a whole these days?)* was included in 2008 – 2012 then moved to Section B (XB000) of the Core interview in 2014 and each subsequent biennial wave.

Source:
Campbell, A., Converse, P.E., & Rodgers, W. (1976). *The quality of American life: Perceptions, evaluations, and satisfactions*. New York: Russell Sage Foundation.

2020: 7 items (Q34_1-Q34_7)

(Please think about your life and situation RIGHT NOW. HOW SATISFIED ARE YOU WITH...?)

Q34_1 The condition of the place where you live (house or apartment)?
Q34_2 The city or town you live in?
Q34_3 Your daily life and leisure activities?
Q34_4 Your family life?
Q34_5 Your present financial situation?
Q34_6 The total income of your household
Q34_7 Your health?

Coding: 1 = Completely satisfied, 2 = Very satisfied, 3 = Somewhat satisfied,
          4 = Not very satisfied, 5 = Not at all satisfied
Scaling: Reverse score each item so that a higher score corresponds to more satisfaction in each domain
          (housing Q34_1, city Q34_2, nonwork Q34_3, family life Q34_4, financial situation Q34_5,
          health Q34_7).

Background:
Bardo, A. R. (2017). A life course model for a domains-of-life approach to happiness: Evidence from the United States. *Advances in Life Course Research*, *33*, 11-22.

Nakamura, J. S., Delaney, S. W., Diener, E., VanderWeele, T. J., & Kim, E. S. (2022). Are all domains of life satisfaction equal? Differential associations with health and well-being in older adults. *Quality of Life Research*, *31*(4), 1043-1056.

Yeo, J., & Lee, Y. G. (2019). Understanding the association between perceived financial well-being and life satisfaction among older adults: Does social capital play a role? *Journal of Family and Economic Issues*, *40*(4), 592-608.

Q34a. Self-Esteem (Rosenberg)

This scale was originally developed for use with adolescents but has been included in multiple population studies since the 1970s. It is also included in MIDUS.

Source:
Rosenberg, M. (1965). Rosenberg self-esteem scale. *Journal of Religion and Health.*

2020: 10 items (Q34a1 – Q34a10)
Q34a1   On the whole, I am satisfied with myself.
Q34a2   At times I think I am no good at all.
Q34a3   I feel that I have a number of good qualities.
Q34a4   I am able to do things as well as most other people.

Q34a5   I feel I do not have much to be proud of.
Q34a6   I certainly feel useless at times.
Q34a7   I feel that I'm a person of worth, at least on an equal plane with others.
Q34a8   I wish I could have more respect for myself.
Q34a9   All in all, I am inclined to feel that I am a failure.
Q34a10   I take a positive attitude toward myself.

<u>Coding:</u>   1 = Strongly Agree; 2. Agree; 3=Disagree; 4. Strongly Disagree

<u>Scaling:</u>   Reverse score for 34a2, 34a5, 34a6, 34a8, 34a9

<u>Psychometrics:</u>   2020 Alpha = .87; 2018 Alpha = .86

Background:
Orth, U., & Robins, R. W. (2014). The development of self-esteem. *Current Directions in Psychological Science, 23(5),* 381–387.

Reitz, A. K. (2022). Self-esteem development and life events: A review and integrative process framework. *Social and Personality Psychology Compass*, *16*(11), e12709.

Talaifar, S., Buhrmester, M. D., Ayduk, Ö., & Swann Jr, W. B. (2021). Asymmetries in mutual understanding: People with low status, power, and self-esteem understand better than they are understood. *Perspectives on Psychological Science*, *16*(2), 338-357.

Tafarodi, R. W., & Swann Jr, W. B. (2001). Two-dimensional self-esteem: Theory and measurement. *Personality and individual Differences*, *31*(5), 653-673.

Q35. End-of-Month Financial Strain
Source:
Campbell A., Converse, P. E., & Rodgers, W. L. (1976). *The quality of American life: Perceptions, evaluations, and satisfactions*. New York: Russell Sage Foundation.

<u>2020:</u> 1 item (Q35)
Q40   How difficult is it for (you/your family) to meet monthly payments on (your /your family's) bills?

<u>Coding:</u>   1 = Not at all difficult, 2 = Not very difficult, 3 = Somewhat difficult, 4 = Very difficult,
              5 = Completely difficult

Background:
Pearlin, L. I., Menaghan, E. G., Lieberman, M. A., & Mullan, J. T. (1981). The stress process. *Journal of Health and Social Behavior, 22*(4), 337-356.

Kahn, J. R., & Pearlin, L. I. (2006). Financial strain over the life course and health among older adults. *Journal of Health and Social Behavior*, *47*(1), 17-31.

Q35a. Ongoing Chronic Stressors
These items capture the subjective experience of chronic stress in 8 areas of life.

Source:
Troxel, W. M., Matthews, K. A., Bromberger, J. T., & Sutton-Tyrrell, K. (2003). Chronic stress burden, discrimination, and subclinical carotid artery disease in African American and Caucasian women. *Health Psychology, 22(3*), 300-309.

2020:   8 items (Q35a1-Q3518)
(Please read the list below and indicate whether or not any of these are current and ongoing problems that have lasted twelve months or longer. If the problem is happening to you, indicate how upsetting it has been. Check the answer that is most like your current situation.)

Q35a1   Ongoing health problems (in yourself)
Q35a2   Ongoing physical or emotional problems (in spouse or child)
Q35a3   Ongoing problems with alcohol or drug use in family member
Q35a4   Ongoing difficulties at work
Q35a5   Ongoing financial strain
Q35a6   Ongoing housing problems
Q35a7   Ongoing problems in a close relationship
Q35a8   Helping at least one sick, limited, or frail family member or friend on a regular basis

Coding: 1 = No, didn't happen, 2 = Yes, but not upsetting, 3 = Yes, somewhat upsetting,
           4 = Yes, very upsetting

Scaling: Use single items or calculate a simple unweighted sum of all ongoing problems.

Background:
Brown, L. L., Mitchell, U. A., & Ailshire, J. A. (2020). Disentangling the stress process: Race/ethnic differences in the exposure and appraisal of chronic stressors among older adults. *The Journals of Gerontology: Series B*, 75(3), 650-660.

Luo, J., Zhang, B., Willroth, E. C., Mroczek, D. K., & Roberts, B. W. (2022). The roles of general and domain-specific perceived stress in healthy aging. *The Journals of Gerontology: Series B*, 77(3), 536-549.

Pearlin, L. I. (2010) The life course and the stress process: Some conceptual comparisons. *Journals of Gerontology: Series B: Psychological Sciences and Social Sciences, 65B*, 207-215.

Q35b. Perceived Stress Scale (PSS)
This scale was developed by Sheldon Cohen and colleagues for use with community samples to assess general feelings of stress and overload with life hassles in the last month. It has been widely used and is also included in MIDUS. Note that HRS includes other indicators of exposure to potential stressful life situations (e.g., employment loss, health shocks, change in marital status) as well as self-reported experiences of stress (e.g., discrimination, ongoing chronic stressors, negative social relationships) in the Psychosocial LBQ

Sources:
Cohen, S., Kamarck, T., & Mermelstein, R. (1983). A global measure of perceived stress. *Journal of Health and Social Behavior, 24, 386-396.*

2020: 10 items (Q35b1-Q35b10)
(*Please tell us* how often you felt or thought each of the following IN THE LAST MONTH.)
 In the last month, how often have you …
Q35b1   Been upset because of something that happened unexpectedly?
Q35b2   Felt that you were unable to control the important things in your life
Q35b3   Felt nervous and "stressed"
Q35b4   Felt confident about your ability to handle your personal problems?
Q35b5   Felt that things were going your way
Q35b6   Found that you could not cope with all the things that you had to do
Q35b7   Been able to control irritations in your life
Q35b8   Felt that you were on top of things
Q35b9   Been angered because of things that were outside of your control
Q35b10   Felt difficulties were piling up so high that you could not overcome them

Coding: 1 = Never; 2 = Almost never; 3= Sometimes; 4 = Fairly often; 5 = Very often

Scaling: Reverse score for Q35b4, Q35b5, Q36b7, and Q35b8

Psychometrics: 2020 Alpha = .85; 2018 Alpha = .85

Background:
Cohen, S., Gianaros, P. J., & Manuck, S. B. (2016). A stage model of stress and disease. *Perspectives on Psychological Science*, *11*(4), 456-463.

Cohen, S., Murphy, M. L., & Prather, A. A. (2019). Ten surprising facts about stressful life events and disease risk. *Annual Review of Psychology*, *70*, 577-597.

Epel, E. S., Crosswell, A. D., Mayer, S. E., Prather, A. A., Slavich, G. M., Puterman, E., & Mendes, W. B. (2018). More than a feeling: A unified view of stress measurement for population science. *Frontiers in Neuroendocrinology*, *49*, 146-169.

Q35c. Anxiety (last week - Beck)
Five items were selected from the widely used Beck Anxiety Inventory (BAI). The Beck Inventory has been shown to distinguish symptoms of anxiety from depression and to be valid for use in older populations. This scale was not included in 2014 and 2016.

Sources:
Beck, A. T., Epstein, N., Brown, G., & Steer, R. A. (1988). An inventory for measuring clinical anxiety: Psychometric properties. *Journal of Consulting and Clinical Psychology, 56*(6), 893-897.

Wetherell, J. L., & Areán, P. A. (1997). Psychometric evaluation of the Beck Anxiety Inventory with older medical patients. *Psychological Assessment, 9*(2), 136-144.

2020 Items: 5 items (Q35c1-Q35c5)

(*Please read the statements below. How often did you feel that way DURING THE PAST WEEK. The best answer is usually the one that comes to your mind first.*)

Q35c1 I had fear of the worst happening.
Q35c2 I was nervous.
Q35c3 I felt my hands trembling.

Q35c4 I had a fear of dying.
Q35c5 I felt faint.

Coding: 1 = Never, 2 = Hardly ever, 3 = Some of the time, 4 = Most of the time

Scaling: Responses to the 5 items are averaged to form an index of anxiety ranging from 1-4.
Set the final score to missing if more than two of the items have missing values.

Psychometrics: 2020 Alpha = .81; 2018 Alpha = .82; 2012 Alpha = .82,
2010 Alpha = .82, 2008 Alpha = .82, 2006 Alpha = .81

Background:
Brenes, G. A., Guralnik, J. M., Williamson, J., Fried, L. P., & Penninx, B. W. J. H. (2005). Correlates of anxiety symptoms in physically disabled older women. *American Journal of Geriatric Psychiatry, 13*(1), 15-22.

Q36 - Q37. Subjective Social Status - Cantril Ladder – MacArthur SSS Scale
The ladder is designed to measure how respondents perceive their social status. This also appears in ELSA.

Sources:
Cantril, H. (1965). *The pattern of human concerns*. New Brunswick, NJ. Rutgers University Press.

MacArthur Scale of Subjective Social Status. (1999). Retrieved from
http://www.macses.ucsf.edu/Research/Psychosocial/notebook/subjective.html

 2020: 2 items (Q36 & Q37)
(*Think of this ladder as representing where people stand in our society. At the top of the ladder are the people who are the best off - those who have the most money, most education, and best jobs. At the bottom are the people who are the worst off - who have the least money, least education, and the worst jobs or no jobs. The higher up you are on this ladder, the closer you are to the people at the very top and the lower you are, the closer you are to the people at the very bottom.*)

Q36   Please mark an X on the rung on the ladder where you would place yourself.

Q37   Has your position on the ladder changed within the last two years?

Coding: Q36: Continuous measure (1-10)
Q37: 1 = Yes, I have moved up, 2 = Yes, I have moved down,
3 = No, my position has not changed

Background:
Andrews, F.M., & Withey, S.B. (1974). Developing measures of perceived life quality: Results from several national surveys. *Social Indicators Research*, *1*, 1-26.

Hoebel, J., & Lampert, T. (2020). Subjective social status and health: Multidisciplinary explanations and methodological challenges. *Journal of Health Psychology*, *25*(2), 173-185.

Tan, J. J., Kraus, M. W., Carpenter, N. C., & Adler, N. E. (2020). The association between objective and subjective socioeconomic status and subjective well-being: A meta-analytic review. *Psychological Bulletin*, *146*(11), 970.

Q37b. Stressful Life Event – Last 5 years

These 6 items tap major stressful life events. Refer also to information related to Q37b1-Q37b3 is collected in the core interview (Section J).

Source:
Turner, R. J., Wheaton, B., & Lloyd, D. A. (1995). The epidemiology of social stress. *American Sociological Review, 60*(1), 104-125.

2020: 6 items (Q37b1-Q37b6)
(*Now please think about the* LAST 5 YEARS *and indicate whether each of the events below occurred. If the event did happen, please indicate the year in which it happened MOST RECENTLY*).

Q37b1 - Q37b1a   Have you involuntarily lost a job for reasons other than retirement at any point in the past five years? / If yes, what year?

Q37b2 - Q37b2a   Have you been unemployed and looking for work for longer than 3 months at some point in the past five years? / If yes, what year?

Q37b3 - Q37b3a   Was anyone else in your household unemployed and looking for work for longer than 3 months in the past five years? / If yes, what year?

Q37b4 - Q37b4a   Have you moved to a worse residence or neighborhood in the past five years? / If yes, what year?

Q37b5 - Q37b5a   Were you robbed or did you have your home burglarized in the past five years? / If yes, what year?

Q37b6 - Q37b6a   Have you been the victim of fraud in the past five years? / If yes, what year?

Coding: 1 = Yes, 5 = No

Scaling: Use single items or create and index by summing the number of positive responses to items Q37b1, Q37b2, Q37b3, Q37b4, Q37b5, and Q37b6.

Background:
DeLiema, M., Deevy, M., Lusardi, A., & Mitchell, O. S. (2020). Financial fraud among older Americans: Evidence and implications. *The Journals of Gerontology: Series B*, *75*(4), 861-868.

Lichtenberg, P. A., Sugarman, M. A., Paulson, D., Ficker, L. J., & Rahman-Filipiak, A. (2016). Psychological and functional vulnerability predicts fraud cases in older adults: Results of a longitudinal study. *Clinical Gerontologist, 39(1), 48-63.*

Q38. Access to and Activities with Modern Devices

In the context of increased use of technology by adults over age 50 both at work, in the community, and at home, in 2020 we expanded questions about access to modern devices and the activities for which HRS participants used this technology.

Sources:
Anderson, G. Oscar. *Getting Connected: Older Americans Embrace Technology to Enhance Their Lives.* Washington, DC: AARP Research, December 2017. https://doi.org/10.26419/res.00210.001

Pew Research Center, August 2019, *In Emerging Economies, Smartphone and Social Media Users Have Broader Social Networks*. https://www.pewresearch.org/internet/2019/08/22/in-emerging-economies-smartphone-and-social-media-users-have-broader-social-networks/

Access to Modern Devices
2020: 10 items (Q38_1 – Q38_10)
(*These next questions are about your use of modern devices. Which of the following devices do you own or have access to?*)
Q38_1   Desktop computer
Q38_2   iPad or other tablet
Q38_3   Laptop computer
Q38_4   Smartphone (such as iPhone, Android, or Blackberry)
Q38_5   Regular cell phone (not a smartphone)
Q38_6   E-reader (such as Kindle or Nook)
Q38_7   Wearable device (such as Fitbit or Apple Watch)
Q38_8   Home assistant (such as Amazon Echo, Alexa, or Google Home)
Q38_9   Smart home technology (such as Nest, Ring, or SimpliSafe)
Q38_10   Smart TV or streaming device (such as Roku or Amazon Firestick)

Coding: 1 = Yes; 5 = No

Activity Types and Frequency of Device Use (part 1)
2020: 10 items (Q38A1 – Q38A14)
(*How often do you use one or more of the devices listed in Q38 to do any of the following activities?*)
Q38a1   Play games or do puzzles
Q38a2   Get health information
Q38a3   Get news and other information updates (such as sport results)
Q38a4   Get information about local events
Q38a5   Search for ideas such as recipes, patterns, or tips about travel, home renovations, or repairs
Q38a6   Get directions or traffic information
Q38a7   Check the weather
Q38a8   Use a home assistant such as Amazon Echo (Alexa) or Google Home
Q38a9   Watch videos on sites like YouTube or Netflix
Q38a10   Listen to music or radio stations, or podcasts
Q38a11   Read books
Q38a12   Use as an alarm clock, timer, or calendar for reminders
Q38a13   Write notes or take surveys, or fill out forms
Q38a14   Visit websites or surf the internet

Activity Types and Frequency of Device Use (part 2)
2020: 17 items (Q38b1-Q38b17)
(*Now please think about the following activities. How often do you use one or more of the devices listed in Q38 to do any of the activities in the list below?*)
Q38b1   Make a purchase or shop online
Q38b2   Do banking, pay bills, send or receive money
Q38b3   Order food or groceries for pick up or delivery
Q38b4   Request a ride via an app (such as Uber, Lyft)
Q38b5   Manage travel or hotel stays online

Q38b6   Buy tickets (sports, movies, concert) or reserve a table at a restaurant online
Q38b7   Take or share photos and videos
Q38b8   Track your steps, exercise, or personal fitness
Q38b9   Talk to doctor or other medical professional, make medical appointments, order prescriptions, or receive personal health care advice
Q38b10   Apply for jobs online
Q38b11   Buy or manage insurance online
Q38b12   Send or receive instant messages, text messages, or emails
Q38b13   Write or read blogs, reviews, ratings, or comments online
Q38b14   Access a social network site like Facebook, Twitter, or Instagram
Q38b15   Use other social media such as LinkedIn to network with people
Q38b16   Use WhatsApp, Snapchat, or similar apps to network with people
Q38b17   Connect face-to-face with family using an app (such as FaceTime, Skype)

Coding for parts 1 and 2: 1 = Daily; 2 = Several times a week; 3 = At least once a month; 4 = At least once a year; 5 = Never/not relevant

Background:

Kim, J., Lee, H. Y., Christensen, M. C., & Merighi, J. R. (2017). Technology access and use, and their associations with social engagement among older adults: Do women and men differ? *Journals of Gerontology Series B: Psychological Sciences and Social Sciences*, *72*(5), 836-845.

Lee, S., Ory, M. G., Dahlke, D. V., & Smith, M. L. (2022). Social support, sense of belonging, and communication technology use among paid and unpaid caregivers of middle-aged and older adults. *Frontiers in Public Health*, *10*.

Q38c Barriers to device use *(2022 only)*
An earlier version of these items was included in the HRS off year 2013 Internet Survey.

Source:
HRS

2022: 4 items (Q38c1-Q38c4)
(*We are interested in why some people are not interested in or have trouble using devices like listed in Q38. Which of the following are barriers to your technology use?*)
Q38c1   Is it too expensive?
Q38c2   Is it too complicated?
Q38c3   Is it too hard to learn how to use?
Q38c4   Is there a health reason these devices are too hard to use, such as hearing or vision problems or arthritis?

Coding: 1 = Yes; 2 = No

Q39 – Q48. Experienced Well-being (ExWB) – Day Reconstruction Measure

This self-administered day reconstruction measure was included in HRS to complement other the measures of subjective well-being included in the questionnaire (i.e., evaluations of life satisfaction, satisfaction with life domains, positive and negative affect, and eudaimonic well-being- purpose in life). The initiative is linked to research by Kahneman and colleagues (2004), Gallup-Healthways, a module in the American Time Use Survey (ATUS), and the UK Office of National Statistics. The HRS self-administered day reconstruction measure was developed in various NIA-funded projects (RC1AG035576; R21 AG041359; R01 AG040635) and in collaboration with ELSA. Items assess the respondent's affective and somatic experiences yesterday overall and in the context of targeted activities. A 2009 pilot of the 2012 HRS day reconstruction measure was included in the Health and Well-being Questionnaire, an off wave self-administered questionnaire sent to a sub-sample of the 2008 HRS core sample.

Background:
Kahneman, D., Krueger, A., Schkade, D. A., Schwarz, N., & Stone, A. A. (2004). A survey method for characterizing daily life experience: The Day Reconstruction Method. *Science, 306 (5702)*, 1776-1780.

Kahneman, D., & Krueger, A. B. (2006). Developments in the measurement of subjective well-being. *The Journal of Economic Perspectives*, *20*(1), 3-24.

National Research Council. (2013). *Subjective Well-Being: Measuring Happiness, Suffering, and Other Dimensions of Experience,* Panel on Measuring Subjective Well-Being in a Policy Relevant Framework. A. A. Stone and C. Mackie, Editors. Committee on National Statistics, Division of Behavioral and Social Sciences and Education. Washington, DC: The National Academies Press.

Smith, J., Ryan, L. H., Queen, T. L., Becker, S., & Gonzalez, R. (2014). Snapshots of mixtures of affective experiences in a day: Findings from the Health and Retirement Study. *Journal of Population Ageing, 7*, 55 – 79.

Characteristics of the Day and Self-Reported Health Yesterday
This series of questions provide information about the overall context of the experience of well-being for the day participants report. Questions ask about the day-of-the week, date, wake and sleep times, sleep quality, health yesterday, and if something special happened on the day.

2020 : 7 items (Q39 - Q42, Q45 – Q47)
(*Now please pause briefly to think about YESTERDAY, from the morning until the end of the day. Think about where you were, what you were doing, who you were with, and how you felt.*)

Q39   What day of the week was it yesterday?

Q40   What was the date yesterday?

Q41   What time did you wake up yesterday?

Q42   What time did you go to sleep at the end of the day yesterday?

Q45   Did you feel well-rested yesterday morning (that is you slept well the night before)?

Q46   How was your health yesterday?

Q47   Was yesterday a normal day for you or did something unusual happen?

Coding: Q39:   1 = Monday, 2 = Tuesday, 3 = Wednesday, 4 = Thursday, 5 = Friday, 6 = Saturday, 7 = Sunday
           Q40_MO: Numeric, 1 = January, 2 = February, etc.
           Q40_DA: Numeric, Day of month
           Q41_AP: 1 = AM, 2 = PM

47

Q41_HR: Numeric, Hour
Q41_MI: Numeric, Minute
Q42_AP: 1 = AM, 2 = PM
Q42_HR: Numeric, Hour
Q42_MI: Numeric, Minute
Q45:   1 = Yes, 2 = No
Q46:   1 = Excellent, 2 = Very Good, 3 = Good, 4 = Fair, 5 = Poor
Q47:   1 = Yes, just a normal day, 2 = No, my day included unusual bad (stressful) things,
          3 = No, my day included unusual, good things

Overall Experienced Well-being Yesterday (HWB-12)

This 12-item HWB-12 scale used to assess overall affective and somatic experiences was developed in 2011 by Jacqui Smith and Arthur Stone during a collaborative meeting in Ann Arbor with the HRS psychosocial team.

2020: 12 items (Q43a - Q43k, Q44)
 (*The next questions are about your experiences yesterday. Yesterday, did you feel...*)

Q43a   Frustrated

Q43b   Sad

Q43c   Enthusiastic

Q43d   Lonely

Q43e   Content

Q43f   Worried

Q43g   Bored

Q43h   Happy

Q43i   Angry

Q43j   Tired

Q43k   Stressed

Q44   Yesterday, did you feel any pain?

Coding: Q43a-k: 1 = Not at all, 2 = A little, 3 = Somewhat, 4 = Quite a bit, 5 = Very
          Q44:   1 = None, 2 = A little, 3 = Some, 4 = Quite a bit, 5 = A lot

Scaling: Create an index of Experienced Positive Affect Overall Yesterday by averaging the scores for items Q43c, Q43e, and Q43h (range 1 – 5). Set the final score to missing if more than one of the items have missing values.

Create an index of Experienced Negative Affect Overall Yesterday by averaging the scores for items Q43a, Q43b, Q43d, Q43f, Q43g, and Q43i (range 1 – 5). Set the final score to missing if more than 2 of the items have missing values.

Create an index of Experienced Psychosomatic Symptoms Overall Yesterday by averaging the scores for items Q43j, Q43k, and Q44 (range = 1 – 5). Set the final score to missing if more than one of the items is a missing value.

Psychometrics: Positive Affect Overall Yesterday: 2020 Alpha = .77; 2018 Alpha = .79; 2016 Alpha = .79; 2012 Alpha = .79, 2014 Alpha = .79

Negative Affect Overall Yesterday:	2020 Alpha = .82; 2018 Alpha = .83; 2016 Alpha = .84; 2012 Alpha = .84, 2014 Alpha = .83
Psychosomatic Symptoms Yesterday:	2020 Alpha = .63; 2018 Alpha = .64; 2016 Alpha = .66; 2012 Alpha = .65, 2014 Alpha = .64

Background:

Christodoulou, C., Schneider, S., & Stone, A. A. (2014). Validation of a brief yesterday measure of hedonic well-being and daily activities: Comparison with the Day Reconstruction Method. *Social Indicators Research, 115(3),* 907-917.

Diener, E., & Tay, L. (2013). Review of the Day Reconstruction Method (DRM). *Social Indicators Research*, *116*(1), 255-267.

Kapteyn, A., Lee, J., Tassot, C., Vonkova, H., & Zamarro, G. (2015). Dimensions of subjective well-being. *Social Indicators Research*, *123*(3), 625-660.

Queen, T. L., Stawski, R. S., Ryan, L. H., & Smith, J. (2014). Loneliness in a day: activity engagement, time alone, and experienced emotions. *Psychology and Aging*, *29*(2), 297-305.

Activity Participation Yesterday

Since 2018, participants were asked about their participation in a series of 19 activities and the time they allocated yesterday to these activities. The activities were targeted because of their known frequency in the daily lives of older adults and relevance to health and subjective well-being and they overlap with those asked in HRS HCAP (2016 and 2022).

Activities and Time Use Yesterday

2020: 19 activities (Q48a-Q48s)

(Please think now about THINGS YOU DID YESTERDAY. Yesterday, did you …; How much time did you spend doing this)

Q48a – Q48a1	Watch TV? / Time spent - hours
Q48b – Q48b1	Work or volunteer? / Time spent - hours
Q48c – Q48c1	Go for a walk? / Time spent - hours
Q48d – Q48d1	Do exercises at home, at a gym, community center, or class? / Time spent - hours
Q48e – Q48e1	Do health-related activities other than walking or exercising (e.g., visit doctor, do treatments)? / Time spent - hours
Q48f – Q48f1	Travel or commute (e.g., by car, train, bus)? / Time spent - hours
Q48g – Q48g1	Socialize with friends, neighbors, or family (not counting your spouse or partner)? / Time spent - hours
Q48h – Q48h1	Spend time at home by yourself (without your spouse, partner, or anyone else present)? / Time spent - hours
Q48i – Q48i1	Run errands or pick up (e.g., go shopping, get gas or supplies, pick up or deliver something)? / Time spent - hours
Q48j – Q48j1	Do chores, maintenance, or gardening around the house? / Time spent - hours
Q48k – Q48k1	Use a computer or the internet? / Time spent - hours
Q48l – Q48l1	Read a book, magazine, or newspaper? / Time spent - hours
Q48m – Q48m1	Do work on a hobby or project? / Time spent - hours
Q48n – Q48n1	Caregiving for an adult? / Time spent – hours
Q48o – Q48o1	Activities with grandchildren or other children (nieces, nephews, or neighbors)? / Time spent - hours
Q48p – Q48p1	Pet care? / Time spent – hours

Q48q – Q48q1   Take a nap? / Time spent - hours
Q48r – Q48r1   Spend some quiet time (e.g., meditate, sit outside)? / Time spent - hours
Q48s – Q48s1   Do religious or church activities? / Time spent - hours

Coding: Activity: 1 = Yes; 5 = No;
                Time spent: 1 = Less than 1 hour; 2 = 1; 3 = 2 to 3; 4 = 4 to 6; 5 = 7 or more hours

Q49 and Q49a. Financial Well-being

This scale had been submitted as a module but was instead included in the Psychosocial LBQ. (Note: in 2020 only there were 2 additional questions, Q49b and Q49c which were deleted in 2022)

Sources:
https://www.consumerfinance.gov/data-research/research-reports/financial-well-being-scale/

2020: 6 items (Q49a-Q49f)
(*How well does each statement below describe you or your financial situation?*)
Q49a   I could handle a major unexpected expense
Q49b   I am securing my financial future
Q49c   Because of my money situation, I feel like I will never have the things I want in life
Q49d   I can enjoy life because of the way I'm managing my money
Q49e   I am just getting by financially
Q49f   I am concerned that the money I have or will save won't last

Coding: 1 = Completely; 2 = Very well; 3 = Somewhat; 4 = Very little; 5 = Not at all

2020: 4 items (Q49a1-Q49a4)
(*How often does each statement below apply to you?*)
Q49a1 Giving a gift for a wedding, birthday or other occasion would put a strain on my finances for the month
Q49a2 I have money left over at the end of the month
Q49a3 I am behind with my finances
Q49a4 My finances control my life

Coding: 1 = Always; 2 = Often; 3 = Sometimes; 4 = Rarely; 5 = Never

Background:
https://www.consumerfinance.gov/data-research/research-reports/financial-well-being-america/

Brüggen, E. C., Hogreve, J., Holmlund, M., Kabadayi, S., & Löfgren, M. (2017). Financial well-being: A conceptualization and research agenda. *Journal of Business Research*, *79*, 228-237.

Q50. Currently Working

This item is used to filter participants into or out of the series of questions about work experiences.

2020:   Are you currently working?
Coding: 1 = Yes (Continue to Question Q51)
                5 = No (Continue to Question Q55)

Q51. Job Lock

Asked only to participants who are currently working, these two items tap into the reasons behind working, and are designed to help identify individuals who work because they have to in order to earn money or obtain health insurance coverage. These items were developed in consultation with Glenn Pransky of Liberty Mutual and Jim Grosch at the National Institute for Occupational Safety and Health.

2020: 2 items (Q51a-Q51b)

(Right now, would you like to leave work altogether, but plan to keep working because…?)

Q51a   You need the money?

Q51b   You need health insurance?

Coding: 1 = Yes, 5 = No

Background:

Cutler, N. E. (2002). Job lock and financial planning: The impact of health insurance on the retirement decision. *Journal of Financial Service Professionals,* 56(6), 29-32.

Fisher, G. G., Ryan, L. H., Sonnega, A., & Naude, M. (2016). Job lock, work and psychological well-being in the U.S. *Work, Aging and Retir*ement, 2, 345 – 358. doi: 10.1093/workar/waw004

Moen, P. (2020). Working longer versus flexible pathways in uncertain times. *Public Policy & Aging Report,* 30(3), 124-129.

Wilkie, R., Cifuentes, M., & Pransky, G. (2011). Exploring extensions to working life: job lock and predictors of decreasing work function in older workers. *Disability and rehabilitation*, *33*(19-20), 1719-1727.

Q52. Perceived Ability to Work

These questions are only asked of participants who are currently working. The 4 items tap into the perceived ability to work with respect to a job's physical, mental, and interpersonal demands.

2020:   4 items (Q52a-Q52d)

(For the following questions, please think about your work on YOUR CURRENT MAIN JOB. Assume that your work ability at its best has a value of 10 points. How many points would you give your CURRENT ABILITY TO WORK? (0 means that you cannot currently work at all; 10 means your work ability is currently at its lifetime best))

Q52a   How many points would you give your current ability to work?

Q52b   Thinking about the *physical demands* of your job, how do you rate your current ability to meet those demands?

Q52c   Thinking about the *mental demands* of your job, how do you rate your current ability to meet those demands?

Q52d   Thinking about the *interpersonal demands* of your job, how do you rate your current ability to meet those demands?

Scoring: 11 point, continuous measure (0-10).

Scaling: Sum the items to create an index of work ability.

Background:

McGonagle, A. K., Fisher, G. G., Barnes-Farrell, J. L., & Grosch, J. W. (2015). Individual and work factors related to perceived work ability and labor force outcomes. *Journal of Applied Psychology*, 100(2), 376.

Gonzalez-Mulé, E., Kim, M. M., & Ryu, J. W. (2021). A meta-analytic test of multiplicative and additive models of job demands, resources, and stress. *Journal of Applied Psychology*, 106(9), 1391.

Fasbender, U., Wöhrmann, A. M., Wang, M., & Klehe, U. C. (2019). Is the future still open? The mediating role of occupational future time perspective in the effects of career adaptability and aging experience on late career planning. *Journal of Vocational Behavior*, 111, 24-38.

Q53. Work/Non-work Interference and Enhancement /Work-Life Balance

Asked only among respondents who are currently working, this set of items assesses the extent to which work has a positive and negative effect on one's personal life and vice-versa.

Source:
MacDermid, S. M., Barnett, R., Crosby, F., Greenhaus, J., Koblenz, M., Marks, S., Perry-Jenkins, M., Voydanoff, P., Wethington, E., & Sabbatini-Bunch, L. (2000). *The measurement of work/life tension: Recommendations of a virtual think tank*. Boston, MA: Alfred P Sloan Foundation.

2020:   12 items (Q53a-Q53l)
(*Please use the scale below to answer the next set of questions.*)

Q53a   My work schedule makes it difficult to fulfill personal responsibilities.

Q53b   Because of my job, I don't have the energy to do things with my family or other important people in my life.

Q53c   Job worries or problems distract me when I am not at work.

Q53d   My home life keeps me from getting work done on time on my job.

Q53e   My family or personal life drains me of the energy I need to do my job.

Q53f   I am preoccupied with personal responsibilities while I am at work.

Q53g   My work leaves me enough time to attend to my personal responsibilities.

Q53h   My work gives me energy to do things with my family and other important people in my life.

Q53i   Because of my job, I am in a better mood at home.

Q53j   My personal responsibilities leave me enough time to do my job.

Q53k   My family or personal life gives me energy to do my job.

Q53l   I am in a better mood at work because of my family or personal life.

Coding: 1 = Rarely, 2 = Sometimes, 3 = Often, 4 = Most of the time

Scaling: There are four separate dimensions to assess the work/non-work interface: Items should be averaged for each of the four dimensions by combining items as follows:
           Work interference with personal life (Q53a, Q53b, Q53c),
           Personal life interference with work (Q53d, Q53e, Q53f)
           Work enhancement of personal life (Q53g, Q53h, Q53i)

52

Personal life enhancement of work (Q53j, Q53k, Q53l).

Psychometrics:

Work → Personal Life Interference/Conflict	2020 Alpha =.71; 2018 Alpha =.70; 2016 Alpha = .73; 2014 Alpha =.73; 2012 Alpha =.71; 2010 Alpha =.70; 2008 Alpha =.75; 2006 Alpha =.70
Personal Life → Work Interference/Conflict	2020 Alpha =.76; 2018 Alpha =.80; 2016 Alpha = .76; 2014 Alpha =.75; 2012 Alpha =.71; 2010 Alpha =.77; 2008 Alpha =.74; 2006 Alpha =.68
Work → Personal Life Facilitation	2020 Alpha =.78; 2018 Alpha =.78; 2016 Alpha = .76; 2014 Alpha =.78; 2012 Alpha =.79; 2010 Alpha =.78; 2008 Alpha =.78; 2006 Alpha =.78
Personal Life → Work Facilitation	2020 Alpha =.83; 2018 Alpha =.82; 2016 Alpha = .78; 2014 Alpha =.82; 2012 Alpha =.81; 2010 Alpha =.85; 2008 Alpha =.84; 2006 Alpha =.81

Background:

Kelliher, C., Richardson, J., & Boiarintseva, G. (2019). All of work? All of life? Reconceptualising work-life balance for the 21st century. *Human Resource Management Journal*, *29*(2), 97-112.

Sirgy, M. J., & Lee, D. J. (2018). Work-life balance: An integrative review. *Applied Research in Quality of Life*, 13, 229-254.

Q54. Job Satisfaction
Since 2014, one item captures overall job satisfaction. Two items were added in 2022.

2020: 1 item (Q54)

(Please say how much you agree or disagree with each of the following statement)

Q54   All things considered I am satisfied with my job.
I like the people I work with (added in 2022: Q54b)
My job gives me a sense of purpose (added in 2022: Q54c)

Coding: 1 = Strongly disagree, 2 = Disagree, 3 = Agree, 4 = Strongly agree; 5 = Does not apply

Kanfer, R., & Ackerman, P. L. (2004). Aging, adult development, and work motivation. *Academy of Management Review*, *29*(3), 440-458.

Kanfer, R., Frese, M., & Johnson, R. E. (2017). Motivation related to work: A century of progress. *Journal of Applied Psychology*, *102*(3), 338.

Q77. Assistance in Survey Completion
This item is used to determine if the respondent had any assistance in completing the questionnaire. In 2006 this question had only two response options, whereas starting in 2008 the response categories were expanded to three. Note that Questions 55 to 76 in the 2020 wave were inserted as part of the Covid Module (see Table 3 and the details below).

2020:   1 item *(Q77)*
Q77   Were the questions in this booklet answered by the person whose first name is written on the front cover?

Coding: 1 = YES, the person whose name is on the front cover completed the questionnaire by him/herself,
2 = YES, the person whose name is on the front cover answered the questions, but someone else assisted by writing in the answers for that person,
3 = NO, the person whose name is on the front cover did not answer/complete the questionnaire.

Q78. Anything Else
This item is used to allow the respondent to cover anything that the survey might not have mentioned.

2020: 1 item (Q78)
Q78.   If there is anything else you would like to tell us, please write in the space below. We are very interested to read what you have to say.
Coding: (string) Not released in public file.

Section on the COVID-19 Pandemic added in 2020 and 2022
Subsample B (see Figure 2) were the 50% of the panel scheduled to complete the 2020 wave as an Enhanced Face-to-Face interview. Given the COVID-19 pandemic restrictions in social contacts at that time, HRS panel participants assigned to the in-person interview were instead interviewed by telephone. After completion of the core telephone interview, members of this cohort were mailed the Psychosocial and Lifestyle SAQ to complete and return to HRS. The HRS psychosocial team developed questions about the impact of the pandemic to add to the 2020 SAQ. Our aim was to complement existing constructs in the SAQ (see Table 3 – for example well-being, social connections, loneliness, activities, stress and technology use) and questions added to various sections of the core telephone interview (see https: //hrs.isr.umich.edu/data-products/covid-19). Many of the 2020 questions were repeated in Section H of the 2021 off-year Covid-19 Mail Survey (https://hrsdata.isr.umich.edu/data-products/2021-hrs-perspectives-pandemic) and as noted below and in Table 3, a reduced set have been repeated in the 2022 SAQ.

As noted in the Survey Methodology section above, the 2020 wave has the flag variable RCOVFLAG to identify the subsample of 3.266 panel respondents in the 2020 COVID-19 Project early data release (February, 2021) received LB questionnaires with content on the Covid-19 pandemic. The variable RLBCOMP for the 2020 core wave "Leave Behind" Psychosocial Questionnaire provides the total number of questionnaires that were returned and processed (prior to and after February 2021). All questionnaires that were mailed to the EFTF 2020 sample included the COVID questions.

The Covid-19 Pandemic section begins with the following preamble:
"*Since March and April 2020, the social distancing policies introduced to flatten the curve of infection during the coronavirus pandemic, also known as COVID-19, have led to many changes in everyday life. We are interested in hearing how much these changes have affected you and your life. The questions on the next pages ask about your concerns related to the coronavirus pandemic and the changes that have occurred in your social contacts, activities, feelings, and well-being.*"

Q55. Specific COVID-related Worries (*also in 2022*)

2020: 5 items (Q55a-Q55e)

(*This first question is about things that people say they are worried about because of the coronavirus pandemic. On a scale from 1 to 10 where 1 means "not at all worried" and 10 means "very worried," BECAUSE OF THE CORONAVIRUS PANDEMIC HOW WORRIED ARE YOU ABOUT…*)

Q55a Your own health?
Q55b The health of others in your family?
Q55c Your financial situation?
Q55d Being able to get help if you needed it from family, friends, or others?
Q55e What will happen in the future?

Coding: 1=Not at all to 10=very worried

Q56. Changes in Family/Friend Connections

The next set of questions (Q 56 – Q63) relate to various changes in social connections with family and friends. The items complement analyses of related constructs about social relationships and social connections included in previous waves of the SAQ (See Figure 1 and Table 3)

2020: 5 items (Q56a-Q56e)

(*Since the coronavirus pandemic, has the amount of contact you have with family and friends outside your home by PHONE, EMAIL, FACETIME, FACEBOOK, SKYPE, ZOOM OR SOCIAL MEDIA changed? (Mark (X) one box in each row. IS THE AMOUNT OF PHONE OR INTERNET-BASED CONTACT YOU NOW HAVE WITH…more less about the same*)

Q56a Your children?
Q56b Your grandchildren?
Q56c Other family members?
Q56d Your friends?
Q56e Your neighbors?

Coding: 1 = More, 2 = Less, 3 = About the same, 4 = Not relevant

Q57. Changes in Activities with Family and Friends

2020: 5 items (Q57a-Q57e)

(*Due to the coronavirus pandemic, did you experience any of these Q57 changes in activities? Yes, no*)

Q57a Unable to visit a family member in a care facility, nursing home, or group home.
Q57b Family celebrations cancelled or restricted.
Q57c Unable to visit a close family member who was in hospital.
Q57d Unable to attend in-person funeral or religious services for a family member or friend who died.
Q57e Unable to visit family after the birth of a new baby.

Coding: 1 = Yes, 2 = No, 3 = Not relevant

Q58. Stress due to Changes

2020: 1 item (Q58)

Q58   Overall, how stressful have changes in contacts with family and friends been for you?

Coding: 1 = Not at all stressful, 2 = Slightly stressful, 3 = Moderately stressful, 4 = Very stressful,
           5 = Extremely stressful

Q59 – Q62. Changes in Support Given / Received

Q59   Since the coronavirus pandemic, how often has anyone outside your household such as a parent, adult child, other relatives, friends, or neighbors HELPED YOU to obtain necessities (e.g. food, medications) or arrange emergency household repairs?

Q60   Since the coronavirus pandemic, how often has anyone outside your household such as a parent, adult child, other relatives, friends, or neighbors GIVEN YOU advice, encouragement, moral, or emotional support?

Q61   Since the coronavirus pandemic, how often HAVE YOU HELPED anyone outside your household such as a parent, adult child, other relatives or friends to obtain necessities (e.g. food, medications) or arrange emergency household repairs?

Q62   Since the coronavirus pandemic, how often HAVE YOU GIVEN anyone outside your household such as a parent, adult child, other relatives, friends, or neighbors advice, encouragement, moral, or emotional support?

Coding: 1 = Less often, 2 = About the same, 3 = More often, 4 = Not needed, 5 = Not relevant

Q63. Relationship Quality Changes

2020: 5 items (Q63a-Q63e)
(*Since the coronavirus pandemic, has the quality of any of your relationships with people outside your household changed?*)
Q63a   Your children?
Q63b   Your grandchildren?
Q63c   Other family members?
Q63d   Your friends?
Q63e   Your neighbors?

Coding: 1 = Better, 2 = Worse, 3 = About the same, 4 = Not relevant

Q64 – Q66. Experienced Loneliness / Changes in Contact

Note that a longer measure of loneliness has been included in multiple earlier waves of the Psychosocial and Lifestyle SAQ.

2020: 2 items (Q64 and Q65)
Q64 – Q64a   Since the coronavirus pandemic, how often have you felt lonely? / Is this about the same, more, or less often than before the outbreak?

Q65 – Q65a   Since the coronavirus pandemic, how often have you felt that you do not get enough in-person contact with people outside your household / Is this about the same, more, or less often than before the outbreak?

Coding: Q64, Q65   1 = Often, 2 = Sometimes, 3 = Hardly ever or never
             Q64a, Q65a   1 = About the same, 2 = Less so, 3 = More so

Q66   Since the coronavirus pandemic, how often have you felt you had to share too much time with other people in your household?

Coding: 1 = Often, 2 = Sometimes, 3 = Hardly ever or never, 4 = NA / no one else in the household

Q67. Experienced Discrimination
Note that the two items included here complement the Perceived Everyday Discrimination measure included in multiple earlier waves of the SAQ.

2020: 2 items (Q67 and Q67a)
Q67   Since the coronavirus pandemic, how often have you experienced discrimination in everyday life (e.g., because of your race/ethnicity, age, gender, financial status, disability, weight, physical appearance, religion, or other reason)?
Coding: 1 = Often, 2 = Sometimes, 3 = Hardly ever or never

Q67a   Is this about the same, more, or less often than before the outbreak?
Coding: 1 = About the same, 2 = Less so, 3 = More so

Q68. Pandemic Social Distance Behaviors
2020: 4 items (Q68a-Q68d)
(*Since the coronavirus pandemic, have you…always sometimes never*)
Q68a   Worn a mask around other people outside your home (e.g., in shops)?
Q68b   Washed your hands with soap more frequently?
Q68c   Kept distance from others when you went outside your home?
Q68d   Used special hand sanitizers or disinfectants?

Coding: 1 = Always, 2 = Sometimes, 3 = Never

Q69. Social Participation (Activity Engagement) Covid-related Changes
Note that many of the activities listed in Q69 have been asked in multiple earlier SAQ waves (see Table 3).

2020: 17 items (Q69a-Q69q)
(*Since the coronavirus pandemic, have you changed how often you… do more often do less often about the same not relevant*)
Q69a   Leave your home?
Q69b   Go shopping?
Q69c   Travel to visit family members?
Q69d   Travel to visit friends?
Q69e   Attend religious services outside your home?
Q69f   Pray or do other spiritual activities at home?
Q69g   Exercise at home?
Q69h   Walk outside your home for more than 20 minutes?
Q69i   Do hobbies, crafts, or puzzles?
Q69h   Watch TV, Netflix, stream movies, or shows?
Q69k   Volunteer?
Q69l   Listen to music?
Q69m Exercise at home?
Q69n   Do garden work or home repairs?
Q69o   Read books, magazines, or newspapers (in print or digitally)?
Q69p   Meditate?
Q69q   Meet with social groups on Zoom or other online video conference sites?

Q70. Learn New Device or Application
Refer also to Q38 described above.

2020: 1 item (Q70)
Q70   Since the coronavirus pandemic, did you learn how to use a new technology device (e.g., iPad), application, or computer program?

Coding: 1 = Yes, 5 = No

New Activities Using Devices (added in 2022)
2022: 5 item (Q56a1 – Q56a5)
Q56a1   To order food or groceries for pick up or delivery.
Q56a2   To talk to your doctor or other medical professional, make medical appointments, order prescriptions, or receive personal health care advice.
Q56a3   To connect face-to-face with family and friends using an app such as Facetime, Skype, or Zoom.
Q56a4   To work at home.
Q56a5   To join local community or church groups from home.

Coding: 1 = Yes, 2 = No, 3 = Not relevant

Q71 – Q72. Personal /Household Work Impact
2020: 7 items (Q71-Q72)
Q71   During the coronavirus pandemic, did someone in your household work in a job that was considered essential work?
Q72   At any time since the coronavirus pandemic, did you work for pay
Q72a   Was your job considered essential? If you had multiple jobs, please tell us if any of them was considered essential.
Q72b   Did you work outside your home?
Coding: 1 = Yes, 5 = No

Q72c   (*How often did your job mean that you were…*)
Q72c1   In close contact with people in health care settings with confirmed COVID-19?
Q72c2   In close contact with the general public?
Q72c3   In close contact with co-workers?
Coding: 1 = Always, 2 = Sometimes, 3 = Never

Q73 – Q74. Emotional Stress
These two questions complement various measures of emotional well-being and stress included in previous SAQ waves.

2020: 2 items (Q73 and Q74)
Q73   Since the coronavirus pandemic, how often did you feel emotionally overwhelmed?
Q74   Since the coronavirus pandemic, how often did you feel stressed?
Coding: 1 = Often, 2 = Sometimes, 3 = Hardly ever or never

Q75. Resilience - Coping Strategies

Note that in 2022, as described below, we expanded assessment of coping strategies associated with resilience.

2020: 6 items (Q75a-Q75f)
(*Even in hard times, sometimes people experience good things and learn new things about themselves. Please think about your own experiences since the coronavirus pandemic. How much do the following statements describe your experiences since the coronavirus pandemic?*)

Q75a I tend to recover quickly after difficult times like this one.
Q75b I have learnt some positive things from this situation about myself.
Q75c I found greater meaning in work or my other activities and hobbies.
Q75d I now feel more in touch with people in my local community.
Q75e I found new ways to connect socially with other people.
Q75f I am now more appreciative of things that I had taken for granted before.
Coding: 1 = Strongly disagree, 2 = Somewhat disagree, 3 = Slightly disagree, 4 = Slightly agree,
          5 = Somewhat agree, 6 = Strongly agree

Coping Strategies *(Added in 2022 to extend 2020 Q75)*
The 2022 SAQ includes items selected from various subscales of the Brief Cope measure and reworded the question frame to include dealing with Covid as well as other difficult times in the lives of older adults.

Source
Carver, C. S. (1997). You want to measure coping but your protocol's too long: Consider the Brief Cope. *International Journal of Behavioral Medicine*, *4*(1), 92-100.

2022: 21 items (Q57a-Q57u)
(*People use different ways to cope with difficult times. Please think about your own experiences, such as dealing with a chronic illness or the coronavirus pandemic. How much do the following statements describe you?*)

Q57a I tend to recover quickly after difficult times.
Q57b I tried to see it in a different light to make it seem more positive.
Q57c I looked for something good in what is happening.
Q57d I concentrated my efforts on doing something about the situation.
Q57e I took action to try to make the situation better.
Q57f I made jokes about it.
Q57g I made fun of the situation.
Q57h I accepted the reality of the fact that it had happened.
Q57i I learned to live with it.
Q57j I tried to come up with a strategy about what to do.
Q57k I thought hard about what steps to take.
Q57l I gave up trying to deal with it.
Q57m I gave up the attempt to cope.
Q57n I turned to work or other activities to take my mind off of things.
Q57o I did things to think about it less.
Q57p I said things to let my unpleasant feelings escape.
Q57q I expressed my negative feelings.
Q57r I said to myself, "This isn't real."
Q57s I refused to believe that it had happened.
Q57   I prayed or meditated.

Q57u   I tried to find comfort in my religion or spiritual beliefs.

Coding: 1 = Strongly disagree, 2 = Somewhat disagree, 3 = Slightly disagree, 4 = Slightly agree,
            5 = Somewhat agree, 6 = Strongly agree

Q76. Comments about Positive Experiences *(also in 2022)*
To date, this narrative text has not been released.

2020: 1 item (Q76)
Q76   We are interested to read about the things that have inspired you or cheered you up since the
        coronavirus pandemic. Please write about these things in the space.

Constructs or Specific Items Deleted Over Time
The following section includes details for constructs and items deleted prior to 2020. Decisions about these
content changes are based on advice from the NIA-HRS Data Monitoring Committee, the NIA agenda, and
use in publications across multiple disciplines. Occasionally, items and scales suggested as an experimental
module in a biennial interview are added to the Psychosocial and Lifestyle SAQ for one or two waves and
subsequently replaced by another scale.

We have organized the list of constructs by the general substantive categories illustrated in Figure 1. Table 3
shows the waves in which the constructs appeared. The question number listed is one reported in an earlier
version of a user guide for the Psychosocial and Lifestyle SAQ for a specific wave.

Well-being
Positive and Negative Affect (MIDUS)
(2006 only)
These 12 items are used in MIDUS.

Source:
Mroczek, D. K., & Kolarz, C. M. (1998). The effect of age on positive and negative affect: a developmental
perspective on happiness. *Journal of Personality and Social Psychology, 75*(5), 1333-1349.

2006:   6 items for positive affect (Q.27a-f) and 6 items for negative affect (Q.27i-n).
(During the last 30 days, about how often did you feel…?)
Positive Affect
Q27a   cheerful?
Q27b   in good spirits?
Q27c   extremely happy?
Q27d   calm and peaceful?
Q27e   satisfied?
Q27f   full of life?
Negative Affect
Q27i   so depressed that nothing could cheer you up?
Q27j   hopeless?
Q27k   restless or fidgety?
Q27l   that everything was an effort?
Q27m   worthless?

Q27n   nervous?

Coding: 1 = All of the time, 2 = Most of the time, 3 = Some of the time, 4 = A little of the time, 5 = None of the time

Scaling: Create an index of positive affect by reverse-coding items Q27a-Q27f and averaging the scores across all 6 items. Set the final score to missing if there are more than three items with missing values.

Create and index of negative affect by reverse-coding items Q27i-Q27n and averaging the scores across all 6 items. Set the final score to missing if there are more than three items with missing values.

Psychometrics: Positive affect: 2006 Alpha = .92
                  Negative affect: 2006 Alpha = .88

Additional items in Q27 correspond to the same CES-D items in the core HRS that assess depressive symptoms. The eight psychosocial questionnaire items that map to the HRS core depressive symptoms items are as follows: Q27g, Q27h, Q27i, Q27l, Q27o, Q27p, Q27q, Q27r.

Background:
Watson, D., Wiese, D., Vaidya, J., & Tellegen, A. (1999). The two general activation systems of affect: structural findings, evolutionary considerations, and psychobiological evidence. *Journal of Personality and Social Psychology, 76*(5), 820-838.

Watson, D. (1988). The vicissitudes of mood measurement: effects of varying descriptors, time frames, and response formats on measures of positive and negative affect. *Journal of Personality and Social Psychology, 55*(1), 128-141.

Psychological Well-Being: Personal Growth and Self Acceptance
(2006 only)
Sources:
Keyes, C. L. M., Shmotkin, D., & Ryff, C. D. (2002). Optimizing well-being: The empirical encounter of two traditions. *Journal of Personality and Social Psychology, 82(6)*, 1007-1022.

Ryff, C. D., & Keyes, C. L. M. (1995). The structure of psychological well-being revisited. *Journal of Personality and Social Psychology, 69(4),* 719-727.

Ryff, C. D. (1995). Psychological well-being in adult life. *Current Directions in Psychological Science, 4*, 99-104.

Ryff, C. D., & Singer, B. (1998). The contours of positive human health. *Psychological Inquiry, 9(1),* 1-28.

Personal Growth Dimension
2006   7 items (Q35h-Q35n)
(*Please read the statements below and decide the extent to which each statement describes you.*)
Q35h   I am not interested in activities that will expand my horizons. (-)
Q35i   I think it is important to have new experiences that challenge how I think about myself and the world.
Q35j   When I think about it, I haven't really improved much as a person over the years(-)
Q35k   I have the sense that I have developed a lot as a person over time.

Q35l I do not enjoy being in new situations that require me to change my old familiar
ways of doing things. (-)
Q35m I gave up trying to make big improvements in my life a long time ago. (-)
Q35n For me, life has been a continuous process of learning, changing, and growth.

Self Acceptance Dimension
2006 7 items (Q35o-Q35u)
Q35o I feel like many of the people I know have gotten more out of life than I have. (-)
Q35p In general, I feel confident and positive about myself.
Q35q When I compare myself to friends and acquaintances, it makes me feel good about who I am.
Q35r My attitude about myself is probably not as positive as most people feel about themselves. (-)
Q35s In many ways, I feel disappointed about my achievements in life. (-)
Q35t When I look at the story of my life, I am pleased with how things have turned out.
Q35u I like most parts of my personality

Coding: 1 = Strongly disagree, 2 = Somewhat disagree, 3 = Slightly disagree,
           4 = Slightly agree, 5 = Somewhat agree, 6 = Strongly agree

Scaling: Reverse-code the negatively phrased items (-) and then average the scores across items to create
           an index of well-being for each dimension (ranging from 1-6), with a high score indicating
           positive well-being. Set the final score for each dimension to missing if there are more than three
           items with missing values within each dimension.

Psychometrics: Personal Growth: 2006 Alpha = .76
                  Self Acceptance: 2006 Alpha = .81

Experienced Well-being
(2012, 2014, 2016, 2018 only)
In 2012-2018, participants were asked about 8 activities (watch TV, work/volunteer, walk/exercise, health-
related, travel/commute, socialize, home by yourself, run errands). For each activity, they indicated time
spent doing the activity and how they felt about it.

Activity-related Affective Experience Yesterday
After questions about participation and time for each activity, participants were asked to rate the intensity of
three positive and three negative affective experiences during the activity and also if they had experience
pain while doing the activity. The first 4 affects were asked in the same order used in a 2012 UK Office of
National Statistics survey and in ELSA.

2012: 7 items asked for each activity (Q56a – Q56g, Q59a – Q59g, Q63a – Q63g, Q66a – Q66g,
    Q69a – Q69g, Q72a – Q72g, Q75a – Q75g, Q78a – Q78g; 2014, 2016 & 2018 Q49a – Q49g, Q52a –
    Q52g, Q56a – Q56g, Q59a – Q59g, Q62a – Q62g, Q65a – Q65g, Q68a – Q68g, Q71a – Q71g)
*(How did you feel when you were _____ yesterday? Rate each experience on a scale from 0 - did not
experience at all - to 6 – the feeling was extremely strong. I felt…)*
a. Happy
b. Interested
c. Frustrated
d. Sad
e. Content
f. Bored

g. Pain

Coding: Q56a – Q56g, Q59a – Q59g, Q63a – Q63g, Q66a – Q66g, Q69a – Q69g, Q72a – Q72g, Q75a – Q75g, Q78a – Q78g
7-point Likert scale where 0 = "Did not experience the feeling at all" to 6 = "Feeling was extremely strong"

Scaling: Create an index of Activity-related Positive Affect for each activity. Considering Watching TV as an example, if a participant reports s/he did watch TV yesterday (Q54 = 1), then average items Q56a, Q56b, and Q56e (range = 0 – 6). Set the final score to missing if more than one item is missing.

Create an index of Activity-related Negative Affect for each activity. Considering Watching TV as an example, if a participant reports s/he did watch TV yesterday (Q54 = 1), then average items Q56c, Q56d, and Q56f Q56e (range = 0 – 6). Set the final score to missing if more than one item is missing.
The item about pain could be used separately for each activity or count the number of activities for which pain is reported and calculate the mean rating for pain

Background:

Freedman, VA, FG Conrad, JC Cornman, N Schwarz, FP Stafford. (2013). Does time fly when you are having fun? A day reconstruction method analysis. *Journal of Happiness Studies, 15* (3), 639-655

Newton, N, Pladevall-Guyer, J., Gonzalez, R., & Smith, J. (2016). Activity Engagement and Activity-related Experiences: The Role of Personality. *Journal of Gerontology Series B: Psychological and Social Sciences.* doi: 10.1093/geronb/gbw098

Queen, T. L., Stawski, R. S., Ryan, L. H., & Smith, J. (2014). Loneliness in a day: Activity engagement, time alone, and experienced emotions. *Psychology and Aging, 29*, 297-305. doi: 10.1037/a0036889

Lifestyle
Social Participation
(2006 only)

2006:   8 items (Q01)
(Which of these statements apply to you?)
Q01a   I read a daily newspaper
Q01b   I have a hobby or a pastime
Q01c   I have taken a vacation within the US in the last 12 months.
Q01d   I have taken a vacation outside the US in the last 12 months.
Q01e   I have gone on a daytrip or outing in the last 12 months
Q01f   I use the internet and/or email.
Q01g   I own a cell phone.
Q01h   None of these statements apply to me.

Coding: 1 = yes, 5 = no.

Community Meeting Attendance
(2006 only)

1 item (Q02)

Q02   Not including attendance at religious services, how often do you attend meetings or programs of groups, clubs, or organizations that you belong to?)

Coding: 1 = More than once a week, 2 = Once a week, 3 = 2 or 3 times a month, 4 = About once a month, 5 = Less than once a month, 6 = Never. (Note that unless you recode the scale, higher values will correspond to less social integration.)

Frequency of Prayer
(2008 only)

2008 1 item (Q29)

Q29 How often do you pray privately in places other than at church or synagogue?

Coding: 1 = More than once a day, 2 = Once a day, 3 = A few times a week, 4 = Once a week 5 = A few times a month, 6 = Once a month, 7 = Less than once a month, 8 = Never

Scaling: Reverse-code the score to create a measure of the frequency of prayer.

Retrospective Social Participation
(2008, 2010, 2012 only)

2012:   1 item (Q02)
Q02   Think back to the number of activities you did in your life when you were about 30. How does the number you do now compare to back then?)

Coding: 1 = Less now, 2 = The same, 3 = More now

Social Connections
Partner Division of Labor - Bargaining Power
(2014 and 2016 only)
These questions ask provide information about the enjoyment and amount of time spent together as a couple and which partner share in decision making and household tasks. From 1992 to 2010, items Q5a, Q5b, and a general question about major family decisions were asked in the first Core interview with the participant when they entered HRS.

2014:   16 items (Q5a, Q5b, Q5ca-i, Q5da-de)
(Please check the answer which best shows how you feel about each statement.)
Q5c   Who has the final say in important decisions in your household?
   a   Major family issues?
   b   Car purchases?
   c   Major appliance purchases?
   d   How much to save?
   e   How to invest our savings?
   f   What health insurance to buy?

g   Which doctors to go to?
h   Which TV shows to watch?
i   Where to go on vacation?

Coding: 1 = I do always, 2 = I do mostly, 3 = We have equal say, 4 = My spouse/partner does mostly,
                    5 = My spouse/partner does always, 6 = Someone else, 7 = Not Relevant

Q5d Who does these tasks for your household?
   a   Manages bills?
   b   Files taxes?
   c   Fills out medical forms?
   d   Grocery shopping?
   e   Prepares meals?

Coding: 1 = I do always, 2 = I do mostly, 3 = We have equal say, 4 = My spouse/ partner does mostly,
                    5 = My spouse/partner does always, 6 = Someone else, 7 = Not Relevant

Background:

Babiarz, P., Robb, C. A., & Woodyard, A. (2012). Family decision making and resource protection adequacy. *Journal of Consumer Affairs*, 46(1), 1-36.

Friedberg, L. & Webb, A. (2006) Determinants and consequences of bargaining power in households. Report, Boston College, Center for Retirement Research at Boston College. (wp_2006/CRRwp2006-13.pdf) Retrieved from http://www.bc.edu//centers/crr

Kamo, Y. (2000). "He said, she said": Assessing discrepancies in husbands' and wives' reports on the division of household labor. *Social Science Research*, 29(4), 459-476.

Manser, M., & Brown, M. (1980). Marriage and household decision-making: A bargaining analysis. *International Economic Review, 21*(1), 31-44. doi: 10.2307/2526238

Social Effort / Reward Balance
(2006, 2008, 2010, 2012 only)
This question is referred to as "Balance/Reciprocity" in the 2006 documentation. The three items assess the balance that participants experience in the efforts that they put forth socially (in relationships and activities) and the rewards received from this effort.

Source:

Wahrendorf, M., von dem Knesebeck, O., Siegrist, J. (2006). Social productivity and the well-being of older people: baseline results from the SHARE study. *European Journal of Ageing*, 3, 67-73.

Von dem Knesebeck, O., Siegrist, J. (2003). Reported nonreciprocity of the social exchange and depressive symptoms Extending the model of effort-reward imbalance beyond work. *Journal of Psychosomatic Research*, 55, 209-214.

2012: 3 items (Q32 in the questionnaire; Q32a-Q32c in the data)
(*The following statements are about people's expectations of each other. Please tell us how much you agree or disagree with each statement for you personally.*)

Q32a   I have always been satisfied with the balance between what I have given my partner and what I have received in return

Q32b   I have always received adequate appreciation for providing help in my family

Q32c　In my current major activity (job, looking after home, voluntary work) I have always been satisfied with the rewards I received for my efforts

Coding:　　1 = Strongly disagree, 2 = Disagree, 3 = Neither agree nor disagree, 4 = Agree, 5 = Strongly agree, 6 = Does not apply

Scaling:　　Create an index by averaging responses across items where responses range from 1-5. It may be useful to code the "does not apply" responses as missing. Set the final score to missing if there is more than one item with missing values.

Psychometrics:　　2012 = .77; 2010 Alpha = .77; 2008 Alpha = .78; 2006 Alpha = .73

Self-related Beliefs
Compassionate and Self-Image Goals
(2016 only)
Most research on compassionate and self-image goals has been based almost exclusively on young adults—college students and community members aged 18-35. The scale was included in HRS in order to test whether these goals can be measured reliably in older adults, how they differ by age group, and relate to health and well-being in older adults.

Source:
Crocker, J., & Canevello, A. (2008). Creating and undermining social support in communal relationships: the role of compassionate and self-image goals. *Journal of Personality and Social Psychology*, *95*(3), 555.

Canevello, A., & Crocker, J. (2010). Creating good relationships: Responsiveness, relationship quality, and interpersonal goals. *Journal of Personality and Social Psychology*, *99*(1), 78-106.

2016:　6 items (Q33a – Q33f)

(The next items describe goals you may have in your relationships with other people. Please indicate how much each goal describes you. How much do you want to try to…)

Q33a　　　Have compassion for others' mistakes and weaknesses.
Q33b　　　Avoid appearing unattractive, unlovable, or undesirable.
Q33c　　　Be supportive of others.
Q33d　　　Get others to see your positive qualities.
Q33e　　　Avoid being selfish or self-centered
Q33f　　　Get others to respect or admire you.

Coding:　　1 = Not at all, 2 = A little, 3 = Somewhat, 4 = A lot, 5 = Extremely

Scaling:　　Compassionate Goals: Reverse code and calculate mean of items Q33a, Q33c, Q33e
　　　　　　Self-image Goals: Reverse code and calculate mean of items Q33b, Q33d, Q33f

Personality
Self-Control/ Impulsiveness
(2010 and 2012 only)
These items were selected from the Multidimensional Personality Questionnaire (MPQ) developed by Tellegen (1982) to assess individual differences in tendencies to impulsive behavior and decision-making.

Source:
http://www.upress.umn.edu/test-division/mpq

2012:   6 items (Q34x_2 – Q34x_7)

Q34x_2   I keep close track of where my money goes.
Q34x_3   I often stop one thing before completing it and start another. (-)
Q34x_4   I often act without thinking. (-)
Q34x_5   Before I get into a new situation, I like to find out what to expect from it.
Q34x_6   I am often not as cautious as I should be. (-)
Q34x_7   I often prefer to "play things by ear" rather than to plan ahead. (-)

Coding: 1 = Strongly disagree, 2 = Somewhat disagree, 3 = Slightly disagree,
           4 = Slightly agree, 5 = Somewhat agree, 6 = Strongly agree

Scaling: Reverse code the negatively phrased items (-) and then average the scores across items to create
           an index of conscientiousness for each facet with a high score indicating high conscientiousness.
           Set the final score to missing for each facet if there are more than two items with missing values.
Psychometrics: Self-Control/Impulsiveness: 2012 Alpha = .60; 2010 Alpha = .63

Background:
Caspi, A., Begg, D., Dickson, N., Harrington, H., Langley, J., Moffitt, T.E. & Silva, P.A. (1997).
Personality differences predict health-risk behaviors in young adulthood: Evidence from a longitudinal
study. *Journal of Personality and Social Psychology, 73*, 1052 – 1063.

Personality Sub-Facet Traits: Conscientiousness and Impulsiveness
(2008 and 2010 only)
These scales were included to expand the assessment of conscientiousness. Four items each tap into each of
the six facets of conscientiousness: Self-Control, Order, Industriousness, Traditionalism, Virtue, and
Responsibility.

Source:
Roberts, B.W., Chernyshenko, O.S., Stark, S., & Goldberg, L.R. (2005). The structure of conscientiousness:
An empirical investigation based on seven major personality questionnaires. *Personnel Psychology*, 58,
103-139.

2010:   30 items (Q34a- Q34z_5)

(Please say how much you agree or disagree with the following statements.)

Self-Control Facet (Q34a-Q34d)

Q34a   I am easily talked into doing silly things. (-)
Q34b   I often rush into action without thinking about potential consequences. (-)
Q34c   I rarely jump into something without first thinking about it.
Q34d   I am careful with what I say to others.

Order Facet (Q34e-Q34h)

Q34e   I hardly ever lose or misplace things.
Q34f   Most of the time my home is a complete mess. (-)
Q34g   Every item in my home has its own particular place.

Q34h   For me, being organized is unimportant. (-)

Industriousness Facet (Q34i-Q34l)

Q34i   I do not work as hard as the majority of the people around me. (-)

Q34j   I do what is required, but rarely anything more. (-)

Q34k   I have high standards and work toward them.

Q34l   I make every effort to do more than what is expected of me.

Traditionalism Facet (Q34m-Q34p)

Q34m I do not intend to follow every little rule that others make up. (-)

Q34n   When I was in school, I used to break rules regularly. (-)

Q34o   I support long-established rules and traditions.

Q34p   Even if I knew how to get around the rule without breaking them, I would not do it.

Virtue Facet (Q34q-Q34t)

Q34q   If I could get away with it, I would not pay taxes. (-)

Q34r   I could be insincere and dishonest if the situation required me to do so. (-)

Q34s   If the cashier forgot to charge me for an item, I would tell him/her.

Q34t   When I was in school, I would rather get a bad grade than copy someone else's homework.

Responsibility Facet (Q34u-Q34x)

Q34u   I carry out my obligations to the best of my ability.

Q34v   I go out of my way to keep my promises.

Q34w   Sometimes it is too much of a bother to do exactly what is promised. (-)

Q34x   If I am running late for an appointment, I may decide not to go at all. (-)

Coding: 1 = Strongly disagree, 2 = Somewhat disagree, 3 = Slightly disagree,
           4 = Slightly agree, 5 = Somewhat agree, 6 = Strongly agree

Scaling: Reverse code the negatively phrased items (-) and then average the scores across items to create
           an index of conscientiousness for each facet with a high score indicating high conscientiousness.
           Set the final score to missing for each facet if there are more than two items with missing values.

Psychometrics: Self-Control: 2010 Alpha = .52; 2008 Alpha = .52
                  Traditionalism: 2010 Alpha = .44; 2008 Alpha = .44
                  Order: 2010 Alpha = .45; 2008 Alpha = .48
                  Virtue: 2010 Alpha = .51; 2008 Alpha = .49
                  Industriousness: 2010 Alpha = .63; 2008 Alpha = .63
                  Responsibility: 2010 Alpha = .54; 2008 Alpha = .53
                  Overall Conscientiousness (items from all 6 dimensions combined)
                  2010 Alpha = .78; 2008 Alpha = .7)

Background:

Bogg, T., & Roberts, B.W. (2004). Conscientiousness and health-related behaviors: A meta-analysis of the leading behavioral contributors to mortality. *Psychological Bulletin,* 130, 887-919.

Chopik, W. J. (2016). Age differences in conscientiousness facets in the second half of life: Divergent associations with changes in physical health. *Personality and Individual Differences*, *96*, 202-211.

Jackson, J. J., Bogg, T., Walton, K. E., Wood, D., Harms, P. D., Lodi-Smith, J.... & Roberts, B. W. (2009). Not all conscientiousness scales change alike: a multimethod, multisample study of age differences in the facets of conscientiousness. *Journal of Personality and Social Psychology*, *96*(2), 446.

Anger
(2006, 2008, 2010, 2012 only)
The Spielberger Anger Expression Scale (STAX) measures anger along two dimensions: state anger and trait anger. Trait anger (anger-in) refers to a more stable predisposition to respond to a range of situations with an angry response; while state anger (anger-out) represents a more temporary angry reaction usually expressed through behavior. This scale was not included after 2012.

Source:
Forgays, D. K., Spielberger, C. D., Ottaway, S. A., & Forgays, D. G. (1998). Factor structure of the state-trait anger expression inventory for middle-aged men and women. *Assessment, 5*, 141-155.

2012:   4 items for the Anger-In scale (items 42a-42d), 7 items for the Anger-Out scale (items 42e-42k)
(Here are some statements that describe how people react or behave when they are feeling angry or mad. Thinking of the times you feel angry, for each statement please indicate how often you react or behave this way. Respond quickly to these without thinking much, as your first impulse is usually the best answer.)
Q42a   When I am feeling angry or mad, I keep things in.
Q42b   When I am feeling angry or mad, I withdraw from people.
Q42c   When I am feeling angry or mad, I am irritated more than people are aware.
Q42d   When I am feeling angry or mad, I am angrier than I am willing to admit.
Q42e   When I am feeling angry or mad, I argue with others.
Q42f   When I am feeling angry or mad, I strike out at whatever infuriates me.
Q42g   When I am feeling angry or mad, I say nasty things.
Q42h   When I am feeling angry or mad, I lose my temper.
Q42i   I am quick tempered.
Q42j   I have a fiery temper.
Q42k   I fly off the handle.

Coding: 1 = Almost never, 2 = Sometimes, 3 = Often, 4 = Almost always

Scaling: Create an index of Anger-In by averaging the scores for items 42a-42d (range 1-4). Set the final score to missing if more than two of the items have missing values.
Create an index of Anger-Out by averaging the scores for items 42e-42k (range 1-4). Set the final score to missing if more than three of the items have missing values.

Psychometrics: Anger In: 2012 Alpha = .81; 2010 Alpha = .79; 2008 Alpha = .78; 2006 Alpha = .78
Anger Out: 2012 Alpha = .89; 2010 Alpha = .87; 2008 Alpha = .87; 2006 Alpha = .88

Background:
Eckhardt, C., Norlander, B., & Deffenbacher, J. (2004). The assessment of anger and hostility: A critical review. *Aggression and Violent Behavior, 9*, 17-43.

Matthews, K. A., Owens, J. F., Edmundowicz, D., Lee, L., & Kuller, L. H. (2006). Positive and negative attributes and risk for coronary and aortic calcification in healthy women. *Psychosomatic Medicine, 68*, 355-361.

Work
Work/Family Priorities
(2006 only)
Asked only among respondents who are currently working, these questions tap the balance between work and family.

Source:
Families and Work Institute. 2002 National Study of the Changing Workforce.
http://www.familiesandwork.org/site/work/workforce/2002nscw.html

2006: 2 items (Q46 and Q47)
Q46   How often do you feel that you put your JOB before your FAMILY?
Q47   How often do you feel that you put your FAMILY before your JOB?

Coding: 1 = Very often, 2 = Sometimes, 3 = Rarely, 4 = Never

Background:
Bond, J. T., Thompson, C., Galinsky, E., & Prottas, D. (2003). *Highlights of the National Study of the Changing Workforce*. New York: Families and Work Institute.

Chronic Work Discrimination
(2006, 2008, 2010, 2012 only)
These items are designed to assess chronic discrimination experienced at work. These questions are only asked of respondents who are currently working. This scale was not included after 2012.

Source:
Williams, D. R., Yu, Y., Jackson, J. S., & Anderson, N. B. (1997). Racial differences in physical and mental health: socio-economic status, stress and discrimination. *Journal of Health Psychology, 2*, 335-351.

2012:   6 items (Q83a-Q83f)
(Here are some situations that can arise at work. Please tell me how often you have experienced them during the LAST 12 MONTHS.)
Q83a   How often are you UNFAIRLY given the tasks at work that no one else wants to do?
Q83b   How often are you watched more closely than others?
Q83c   How often are you bothered by your supervisor or coworkers making slurs or jokes about women or racial or ethnic groups?
Q83d   How often do you feel that you have to work twice as hard as others at work?
Q83e   How often do you feel that you are ignored or not taken seriously by your boss?
Q83f   How often have you been unfairly humiliated in front of others at work?

Coding: 1 = Never, 2 = Less than once a year, 3 = A few times a year, 4 = A few times a month, 5 = At least once a week, 6 = Almost every day

Scaling: Create an index of perceived work discrimination by averaging the scores across all items (range 1-6). Set the final score to missing if more than three of the items have missing values.

Psychometrics: 2012 Alpha = .85, 2010 Alpha = .83, 2008 Alpha = .83, 2006 Alpha = .81

Background:

Harrell, S. P. (2000). A multidimensional conceptualization of racism-related stress: Implications for the well-being of people of color. *American Journal of Orthopsychiatry, 70*(1), 42-57.

Williams, D. R., Neighbors, H. W., & Jackson, J. S. (2003). Racial/ethnic discrimination and health: Findings from community studies. *American Journal of Public Health, 93*(2), 200-208.

Job Satisfaction and Job Stressors
(2006, 2008, 2010, 2012 only)
These 15 items capture job stress and job satisfaction. These questions are only asked of respondents who are currently working. Based on the demand/control model of stress (Karasek, 1979) and items like those contained in the Quinn and Staines Quality of Employment Survey (1977), items were chosen and adapted to assess multiple facets of job satisfaction and multiple work stressors. Psychometric analysis of data on these items in the 2004 pilot study indicated that these items do show two factors: job satisfaction and job stressors. After 2012, only the single item on Job Satisfaction was retained in the questionnaire (Q76 in 2014 and 2016).

Source:

Karasek, R. (1979). Job demands, job decision latitude, and mental strain: Implications for job re-design. *Administrative Science Quarterly, 24,* 285-306.

Quinn, R. P. & Staines, G. L. *The 1977 Quality of Employment Survey*. Ann Arbor, MI: Institute for Social Research.

<u>2012</u>: 15 items (Q84a-Q84o)

(Please say how much you agree or disagree with each of the following statements)

Q84a   All things considered I am satisfied with my job.
Q84b   My job is physically demanding.
Q84c   I receive the recognition I deserve for my work.
Q84d   My salary is adequate.
Q84e   My job promotion prospects are poor.
Q84f   My job security is poor.
Q84g   I am under constant time pressure due to a heavy workload.
Q84h   I have very little freedom to decide how I do my work.
Q84i   I have the opportunity to develop new skills.
Q84j   I receive adequate support in difficult situations.
Q84k   At work, I feel I have control over what happens in most situations.
Q84l   Considering the things I have to do at work, I have to work very fast.
Q84m   I often feel bothered or upset in my work.
Q84n   In my work I am free from conflicting demands that others make.
Q84o   The demands of my job interfere with my personal life.

<u>Coding</u>:   1 = Strongly disagree, 2 = Disagree, 3 = Agree, 4 = Strongly agree

<u>Scaling</u>:   Items are scored on a 4-point scale and averaged to produce an index ranging from 1-4 for job satisfaction (items Q84a, Q84c, Q84d, Q84e, Q84f, Q84i, Q84j, Q84k, Q84n, reverse coding items Q84e and Q84f) and job stress (items Q84b, Q84g, Q84h, Q84l, Q84m, Q84o).

Psychometrics: Job satisfaction: 2012 Alpha = .85, 2010 Alpha = .80, 2008 Alpha = .80,
                                     2006 Alpha = .80
                 Job Stress: 2012 Alpha = .80, 2010 Alpha = .74, 2008 Alpha = .70,
                                     2006 Alpha = .75

Background:

Liu M, McGonagle AK, Fisher GG. (2018). Sense of control, job stressors, and well-being: Inter-relations and reciprocal effects among older U.S. workers. *Work, Aging and Retirement*, *4*(1), 96-107. doi:10.1093/workar/waw035.

Work Environment
(2008, 2010, 2012 only)
These 5 items are intended to provide additional data concerning the working environment of the respondent. These items are taken from the 2002 General Social Survey, conducted by the National Opinion Research Center. This scale was only assessed in 2008, 2010, and 2012.

2012:   5 items (Q84p-Q84t)
(Please say how much you agree or disagree with each of the following statements)
Q84p   I have too much work to do everything well.
Q84q   I have a lot to say about what happens on my job.
Q84r   Promotions are handled fairly.
Q84s   I have the training opportunities I need to perform my job safely and competently.
Q84t   The people I work with can be relied on when I need help.

Coding: 1 = Strongly disagree, 2 = Disagree, 3 = Agree, 4 = Strongly agree,
          5 = Does not apply

Scaling: Reverse code item 84p and then average the scores across all items to obtain an overall rating of the work environment. It is suggested to recode all '5' responses as missing. Set the final score to missing if there are three or more items with missing values.

Psychometrics: 2012 Alpha = .77, 2010 Alpha = .69, 2008 Alpha = .70

Coworker Support
(2008, 2010, 2012 only)
These 3 items are intended to measure the support that respondents receive from their coworkers. This scale was only assessed in 2008, 2010, and 2012.

Source:

Haynes, C.E., Wall, T.D., Bolden, R.I., Stride, C., & Rick, J.E. (1999). Measures of perceived work characteristics for health services research: Test of a measurement model and normative data. *British Journal of Health Psychology, 4*, 257-275.

2012:   3 items (Q84u-Q84w)
(Please say how much you agree or disagree with each of the following statements)
Q84u   My coworkers listen to me when I need to talk about work-related problems.
Q84v   My coworkers help me with difficult tasks.
Q84w   My coworkers help me in crisis situations at work.

Coding: 1 = Strongly disagree, 2 = Disagree, 3 = Agree, 4 = Strongly agree, 5 = Does not apply

Scaling: Average the scores across all items. It is suggested to recode all of the '5' responses as missing. Set the final score to missing if there is one or more items with missing values.

Psychometrics: 2012 Alpha = .92; 2010 Alpha = .91; 2008 Alpha = .90

Supervisor Support
(2008, 2010, 2012 only)
These 4 items are intended to measure the support that respondents receive from their work supervisors. This scale was only assessed in 2008, 2010, and 2012.

Source:
Eisenberger, R., Stinglhamber, F., Vandenberghe, C., Sucharski, I. L., & Rhoades, L. (2002). Perceived supervisor support: Contributions to perceived organizational support and employee retention. *Journal of Applied Psychology, 87*, 565-573.

2012:   4 items (Q84x-Q84z1)
(Please say how much you agree or disagree with each of the following statements)
Q84x   My supervisor is helpful to me in getting the job done.
Q84y   My supervisor is willing to extend himself/herself to help me perform my job.
Q84z   My supervisor takes pride in my accomplishments at work.
Q84z1   My supervisor tries to make my job as interesting as possible.
Coding: 1 = Strongly disagree, 2 = Disagree, 3 = Agree, 4 = Strongly agree, 5 = Does not apply
Scaling: Average the scores across all items. It is suggested to recode all '5' responses as missing. Set the final score to missing if there are two or more items with missing values.

Psychometrics: 2012 Alpha = .95, 2010 Alpha = .93, 2008 Alpha = .93

Background:
Yang T, Shen Y-M, Zhu M, et al. (2015). Effects of co-worker and supervisor support on job stress and presenteeism in an aging workforce: A structural equation modelling approach. *International Journal of Environmental Research in Public Health*, 13(1), 1-15.

Items and Scales moved to Life History Mail Survey
After 2012, these constructs were moved to the off-year HRS Life History Mail Survey (LHMS) to be collected from each new HRS cohort (https://hrs.isr.umich.edu/data-products/life-history). https://hrs.isr.umich.edu/publications/biblio/12749). Data for participants in the Late Baby Boomer cohort recruited to the HRS panel in 2016, for example, were collected in the 2019 Spring and Fall LHMS. Table 3 lists the waves in which the constructs were included in the Psychosocial and Lifestyle SAQ. See also additional data about Childhood Family and Health collected in the HRS core at entry to the longitudinal panel: https://hrsdata.isr.umich.edu/data-products/cross-wave-childhood-health-and-family-aggregated-data.

Quality of Relationships with Parents Early in Life
(2008, 2010, 2012 only)
These two items tap into the quality of relationships early in life with mothers (Q32d) and with fathers (Q32e). A modified version also appears in MIDUS.

Source:
Rossi, A.S. (2001). *Caring and doing for others: Social responsibility in the domains of family, work, and community.*Ch. 7. Developmental Roots of Adult Social Responsibility. Chicago: University of Chicago Press.

<u>2012</u>:   2 items (Q32d-32e)
(The next statements are about people's relationships with their parents early in life (before age 18). Please tell us how much you agree or disagree with each statement for you personally.)
Q32d   I had a good relationship with my mother before age 18.
Q32e   I had a good relationship with my father before age 18.

<u>Coding:</u>   1 = Strongly disagree, 2 = Disagree, 3 = Neither agree nor disagree, 4 = Agree,
            5 = Strongly agree, 6 = Does not apply

Unusual Living Circumstances
(2012, 2014, 2016 only)
These 3 items capture ever having experienced three unusual living circumstances, including living in a shelter or in a jail/prison/juvenile detention center.

<u>2012</u>:   3 items (Q35a_a – Q35a_c)
(For each of the following events, please indicate whether the event occurred <u>AT ANY POINT IN YOUR LIFE</u>.)
Q35a_a   Have you ever been homeless or lived in a shelter?
Q35a_b   Have you ever been an inmate in a jail, prison, juvenile detention center, or other correctional facility?
Q35a_c   In your entire life, how much time in total have you been detained in a jail, prison, juvenile detention center, or other correctional facility?

<u>Coding:</u>   Q35a_a, Q35a_b: 1 = Yes, 2 = No
            Q35a_c: 1 = Less than one month, 2 = Less than on year, 3 = Between 1-5 years, 4 = More than 5 years, 6 = Don't know

Major Experiences of Lifetime Discrimination
(2006, 2008, 2010, 2012 only)
These 7 items capture major experiences of unfair treatment. The 2006 questionnaire consisted of six items. Q36g was added to the 2008 questionnaire.

Sources:
Williams, D. R., Yu, Y., Jackson, J. S., & Anderson, N. B. (1997). Racial differences in physical and mental health: socio-economic status, stress and discrimination. *Journal of Health Psychology, 2*, 335-351.

<u>2012</u>:   14 items (Q36a-Q36gy)
(For each of the following events, please indicate whether the event occurred <u>AT ANY POINT IN YOUR LIFE</u>. If the event did happen, please indicate the year in which it happened most recently.)

Q36a - Q36ay   At any time in your life, have you ever been <u>unfairly</u> dismissed from a job? / If yes, what year?
Q36b - Q36by   For <u>unfair</u> reasons, have you ever not been hired for a job? / If yes, what year?
Q36c - Q36cy   Have you ever been <u>unfairly</u> denied a promotion? / If yes, what year?
Q36d- Q36dy   Have you ever been <u>unfairly</u> prevented from moving into a neighborhood because the landlord or a realtor refused to sell or rent you a house or apartment? / If yes, what year?
Q36e - Q36ey   Have you ever been <u>unfairly</u> denied a bank loan? / If yes, what year?
Q36f - Q36fy   Have you ever been <u>unfairly</u> stopped, searched, questioned, physically threatened or abused by the police? / If yes, what year?
Q36g - Q36gy   Have you ever been <u>unfairly</u> denied health care or treatment? / If yes, what year?

<u>Coding:</u>   Q36a, Q36b, Q36c, Q36d, Q36e, Q36f, Q36g: 1 = Yes, 5 = No
             Q36ay, Q36by, Q36cy, Q36dy, Q36ey, Q36fy, Q36gy: Numeric, 4-digit Year

<u>Scaling:</u>   A count of major discrimination is constructed by summing the number of affirmative responses.

Background:

Kessler, R. C., Mickelson, K. D., & Williams, D. R. (1999). The prevalence, distribution, and mental health correlates of perceived discrimination in the United States. *Journal of Health and Social Behavior, 40*(3), 208-230.

Lifetime Traumas
(2006, 2008, 2010, 2012 only)
These 7 items come from a longitudinal study of the health consequences of trauma in older adults (Krause, et al., 2004).

Sources:

Krause, N., Shaw, B. A., & Cairney, J. (2004). A descriptive epidemiology of lifetime trauma and the physical health status of older adults. *Psychology and Aging, 19*(4), 637-648.

<u>2012:</u>   7 items (Q37a-Q37g)

(*For each of the following events, please indicate whether the event occurred <u>AT ANY POINT IN YOUR LIFE</u>. If the event did happen, please indicate the year (age?) in which it happened most recently.*)

Q37a   Has a child of yours ever died?
Q37b   Have you ever been in a major fire, flood, earthquake, or other natural disaster?
Q37c   Have you ever fired a weapon in combat or been fired upon in combat?
Q37d   Has your spouse, partner, or child ever been addicted to drugs or alcohol?
Q37e   Were you the victim of a serious physical attack or assault in your life?
Q37f   Did you ever have a life-threatening illness or accident?
Q37g   Did your spouse or a child of yours ever have a life-threatening illness or accident?

<u>Coding:</u>   1 = Yes, 5 = No

<u>Scaling:</u>   Use single items or create an index by calculating a simple unweighted sum of all traumatic events across the life course. In combination with Q37c, a second set of measures can be derived by focusing on trauma arising during developmental age periods (Krause, et al., 2004).

Background:
Turner, J. R., & Lloyd, D. A. (1995). Lifetime traumas and mental health: The significance of cumulative adversity. *Journal of Health and Social Behavior, 36*(4), 360-376.

Quality of Relationship with Mother Early in Life
(2008, 2010, 2012 only)
These 3 items tap into the quality of relationships with mothers early in life. A modified version also appears in MIDUS.

Source:
Rossi, A.S. (2001). *Caring and doing for others: Social responsibility in the domains of family, work, and community.* Chicago: University of Chicago Press. Ch. 7. Developmental Roots of Adult Social Responsibility.

2012: 3 items (Q37h-Q37j)
(For this next set of events, please think about your childhood growing up, BEFORE YOU WERE 18 YEARS OLD.)
Q37h   How much time and attention did your mother give you when you needed it?
Q37i   How much effort did your mother put into watching over you and making sure you had a good upbringing?
Q37j   How much did your mother teach you about life?

Coding: 1 = A lot, 2 = Some, 3 = A little, 4 = Not at all

Scaling: Reverse-code all items and average the scores across all items to get a measure of the quality of relationship. Set the final score to missing if more than one item has a missing value.

Psychometrics: 2012 Alpha = .89; 2010 Alpha = .90; 2008 Alpha = .88

Lifetime Traumas before the Age of 18
(2006, 2008, 2010, 2012 only)
These 4 items come from a longitudinal study of the health consequences of trauma in older adults (Krause, et al., 2004). Q37l was added in the 2008.

Sources:
Krause, N., Shaw, B. A., & Cairney, J. (2004). A descriptive epidemiology of lifetime trauma and the physical health status of older adults. *Psychology and Aging, 19*(4), 637-648.

2012: 4 items (Q37k-Q37n)
(For the next set of events, please think about your childhood growing up, BEFORE YOU WERE 18 YEARS OLD.)
Q37k   Before you were 18 years old, did you have to do a year of school over again?
Q37l   Before you were 18 years old, were you ever in trouble with the police?
Q37m Before you were 18 years old, did either of your parents drink or use drugs so often that It caused problems in the family?
Q37n   Before you were 18 years old, were you ever physically abused by either of your parents?

Coding: 1 = Yes, 5 = No

Scaling: The measure can be scored by calculating a simple unweighted sum of all traumatic events across the life course. A second set of measures can be derived by focusing on trauma arising during developmental age periods (Krause, et al., 2004).

Background:

Turner, J. R., & Lloyd, D. A. (1995). Lifetime traumas and mental health: The significance of cumulative adversity. *Journal of Health and Social Behavior, 36*(4), 360-376.

Appendix

Table 4: Cross-Wave Concordance of Constructs with Questions Numbers

	2006	2008	2010	2012	2014	2016	2018	2020	2022
50% EFTF Subsample	**A**	**B**	**A**	**B**	**A**	**B**	**A**	**B**	**A**
Social Participation/Engagement		1	1	1	1	1	1	1	1
Life Satisfaction (Diener)	3	3	3	3	2	2	2	2	2
Social Network Composition	4, 7, 11, 15	4, 7, 11, 15	4, 7, 11, 15	4, 7, 11, 15	3, 6, 10, 14	3, 6, 10, 14	3, 6, 10, 14	3, 6, 10, 14	3, 6, 10, 14
Spouse - support; closeness	5,6	5,6	5,6	5,6	4,5	4,5	4,5	4,5	4,5
Child – support, contact	8-10	8-10	8-10	8-10	7-9	7-9	7-9	7-9	7-9
Family - support, contact, type	12-14	12-14	12-14	12-14	11-13	11-13	11-13	11-13	11-13
Friends - support, contact, type	16-18	16-18	16-18	16-18	15-17	15-17	15-17	15-17	15-17
Cynical Hostility	19a-e	19a-e	19a-e	19a-e			18k-o	18k-o	18k-o
Optimism / Pessimism	19f-k	19f-k	19f-k	19f-k	18a-f	18a-f	18a-f	18f-k	18f-k
Hopelessness	19l-o	19l-o	19l-o	19l-o	18g-j	18g-j	18g-j	18l-o	18l-o
Loneliness	20a-k	20a-k	20a-k	20a-k	19a-k	19a-k	19a-k	19a-k	19a-k
Neighborhood Disorder/Cohesion	21	21	21	21	20	20	20	20	20
Perceived Personal Control	22,23	22,23	22,23	22,23	21,22	21,22	21,22	21,22	21,22
Domain Specific Control	24-26	24-26	24-26	24-26	23-25	23-25	23-25	23-25	23-25
Positive and Negative Affect	27	27	27	27	26	26	26	26	26
Religiosity / Spirituality	28	28	28	28	27	27	27	27	27
Subjective Age / SPA		29	29	29	28	28	28	28	28
Perceived Discrimination	30	30	30	30	29	29	29	29	29
Attributions Discrimination	31	31	31	31	30	30	30	30	30
The "Big 5" Personality Traits	33	33	33	33	31	31	31	31	31
Risk Attitudes / Preferences					32	32	32	32	32
Need for Cognition			34a	34a	32a	32a	32a	32a	
Concerns (Fears) about Aging									32a
Purpose in Life (Psych WB)	35	35	35	35	33	33	33	33	33
Domain-Specific Satisfaction		39	39	39	34	34	34	34	34
Self Esteem (Rosenberg)							34a	34a	34a
End-of-Month Financial Strain	39b	40	40	40	35	35	35	35	35
Ongoing Chronic Stressors	40		40a	40a	35a	35a	35a	35a	35a
Perceived Stress Scale (PSS)							35b	35b	35b
Anxiety (last week - Beck)	41	41	41	41			35c	35c	35c
Subjective Social Status (Ladder)	43	43	43	43	36	36	36	36	36
Stressful Life Event (Last 5 Yrs)	38	38	38	38				37b	37b
Access to Modern Devices								38	38

	2006	2008	2010	2012	2014	2016	2018	2020	2022
50% EFTF Subsample	A	B	A	B	A	B	A	B	A
Barriers to device use									38c
Day Reconstruction/Exp WB				45-53	38-46	38-46	38-46	39-47	39-47
Day Reconstruction – Activities				54-78	47-71	47-71	47-71	48	48
Financial Well-being								49	49
Currently Working	45	45	45	79	72	72	72	50	50
Job Lock		46	46	80	73	73	73	51	51
Perceived Ability to Work		47	47	81	74	74	74	52	52
Work/Non-work Interference & Enhancement	48	48	48	82	75	75	75	53	53
Job Satisfaction	50	50	50	84	76	76	76	54	54

2020-2022 COVID-19 Pandemic Module

	2006	2008	2010	2012	2014	2016	2018	2020	2022
Specific COVID-related Worries								55	55
Changes in Family / Friend								56-63	
Experienced Loneliness								64-66	
Experienced Discrimination								67	
Pandemic Social Distance								68	
Activity Frequency Changes								69	
Learn New Device/Application								70	56
New Activities Using Devices									56a
Personal/Household Work Impact								71-72	
Emotional Stress								73-74	
Resilience - Coping Strategies								75	57
Comments about Pos Exps								76	58

Constructs Deleted over Time

Well-being	2006	2008	2010	2012	2014	2016	2018	2020	2022
Positive/Negative Affect MIDUS	27								
Psychological WB: Growth and Self-Acceptance	35								
Experienced WB Yesterday				56, 59, 63, 66, 69, 72, 75, 78	49, 52, 56, 59, 62, 65, 68, 71	49, 52, 56, 59, 62, 65, 68, 71	49, 52, 56, 59, 62, 65, 68, 71		
Lifestyle									
Social Participation	1								
Community Meeting Attendance	2								
Frequency of Prayer			29						
Retrospective Soc. Participation		2	2	2					
Social Connections									

	2006	2008	2010	2012	2014	2016	2018	2020	2022
50% EFTF Subsample	**A**	**B**	**A**	**B**	**A**	**B**	**A**	**B**	**A**
Partner Division of Labor					5	5			
Social Effort / Reward Balance	32	32	32	32					
Self-related Beliefs									
Compassionate /Self-Image Goals						33			
Personality									
Self-control/Impulsiveness			34	34					
Conscientiousness / Impulsiveness		34	34						
Anger (Spielberger scale)	42	42	42	42					
Work									
Work / Family Priorities	46, 47								
Chronic Work Discrimination	49	49	49	83					
Job Satisfaction /Job Stressors	50a-o	50a-o	50a-o	84a-o					
Work Environment		50p-t	50p-t	84p-t					
Coworker Support		50u-w	50u-w	84u-w					
Supervisor Support		50x-z	50x-z	84x-z					

Moved to Life History Mail Survey: 2015 - 2019

	2006	2008	2010	2012	2014	2016	2018	2020	2022
Quality of Relationships with Parents Early in Life		32d,e	32d,e	32d,e					
Unusual Living Circumstances before Age 50				35a	33a	33a			
Experiences of Lifetime Discrimination	36	36	36	36					
Lifetime Traumas	37a-g	37a-g	37a-g	37a-g					
Quality of Relationship with Mother Early in Life		37h-j	37h-j	37h-j					
Lifetime Traumas before Age 18	37h-j	37k-n	37k-n	37k-n					

Table 5: HRS SAQ Personality Variables Cross-Wave Concordance

Neuroticism	2006 - 2008	2010 - 2012	2014 - 2018	2020 - 2022
Moody	Q33C	Q33D	Q31D	Q31D
Worrying	Q33G	Q33H	Q31H	Q31H
Nervous	Q33K	Q33L	Q31L	Q31L
Calm	Q33P	Q33Q	Q31Q	Q31Q
Extraversion				
Outgoing	Q33A	Q33A	Q31A	Q31A
Friendly	Q33E	Q33F	Q31F	Q31F
Lively	Q33I	Q33J	Q31J	Q31J
Active	Q33S	Q33U	Q31U	Q31U
Talkative	Q33W	Q33Z_2	Q31Z_2	Q31Z2
Openness to Experience				
Creative	Q33L	Q33M	Q31M	Q31M
Imaginative	Q33N	Q33O	Q31O	Q31O
Intelligent	Q33Q	Q33S	Q31S	Q31S
Curious	Q33R	Q33T	Q31T	Q31T
Broad-minded	Q33U	Q33W	Q31W	Q31W
Sophisticated	Q33X	Q33Z_3	Q31Z_3	Q31Z3
Adventurous	Q33Y	Q33Z_4	Q31Z_4	Q31Z4
Agreeableness				
Helpful	Q33B	Q33B	Q31B	Q31B
Warm	Q33F	Q33G	Q31G	Q31G
Caring	Q33J	Q33K	Q31K	Q31K
Softhearted	Q33O	Q33P	Q31P	Q31P
Sympathetic	Q33V	Q33Y	Q31Y	Q31Y
Conscientiousness				
Reckless	--	Q33C	Q31C	Q31C
Organized	Q33D	Q33E	Q31E	Q31E
Responsible	Q33H	Q33I	Q31I	Q31I
Hardworking	Q33M	Q33N	Q31N	Q31N
Self-disciplined	--	Q33R	Q31R	Q31R
Careless	Q33T	Q33V	Q31V	Q31V
Impulsive	--	Q33X	Q31X	Q31X
Cautious	--	Q33Z	Q31Z_1	Q31Z1
Thorough	Q33Z	Q33Z_5	Q31Z_5	Q31Z5
Thrifty	--	Q33Z_6	Q31Z_6	Q31Z6