

**Cognitive Economics Study:
CogEcon 2017 Documentation**

Version 1.0

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Preface

This documentation provides detailed information about data from the Cognitive Economics (CogEcon) 2017 Survey. Part I provides a brief description of the CogEcon Study and the CogEcon 2017 Survey development and methodology. Part II includes a detailed description of data collected and processed from CogEcon 2017.

Documentation about the CogEcon Study and its past waves (2008, 2009, 2011, 2013) is available at <http://ebp-projects.isr.umich.edu/CogEcon/>. Data from CogEcon can also be merged with rich cognitive and demographic data from CogUSA.

CogEcon and CogUSA data must be obtained separately. There are additional details about merging these datasets in Section I.A.4. of the Data Description. For more information on the CogUSA study, please visit the website of the Unified Studies of Cognition (USC) at <http://cogusc.usc.edu/>.

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I. Development and methodology

A. Background

The Cognitive Economics Study (CogEcon) was designed by a team of economists to increase understanding of the cognitive bases of economic decision-making. This effort was previously led by Robert J. Willis, and now Matthew D. Shapiro of the University of Michigan-Ann Arbor, and made possible by a partnership with the Cognition and Aging in the USA Study (CogUSA).

Development of the CogEcon study and the 2008-2013 waves were supported by the Data Innovation Core of NIA program project P01 AG026571. In addition, this wave was supported partly by the Health and Retirement Study (grant number NIA U01 AG009740) and the NSF-Census Research Network (grant number SES 1131500).

The Health and Retirement Study (HRS), conducted by the University of Michigan, was designed to provide academic researchers, policy analysts and program managers with reliable, current data on the economic and physical well-being of men and women 50 years of age and older in America. Co-investigators with the HRS, Robert J. Willis and Willard L. Rodgers, partnered with John J. McArdle of the University of Southern California (P.I. of the National Growth and Change Studies, NGCS¹), to launch Cognition and Aging in the USA in 2007.

B. Innovation, structure of the study, and survey development

The CogEcon 2017 was web-only, and did not include the paper-and-pencil option of previous waves. The CogEcon 2017 questionnaire was comprised of: 1) questions from prior waves of the CogEcon study, 2) an alternative approach to measuring household finances, and 3) a new module of the study that allows the study team to obtain respondents' administrative-level financial data.

Questions from prior waves of the CogEcon study were re-asked in 2017 to enable panel analyses. Details about merging CogEcon data with datasets from prior waves can be found in section II.A.4 of this documentation.

¹ US National Growth and Change Studies (NGCS) refers to the program of research started at the University of Denver in 1978 by Jack McArdle and John Horn, and now located in the CogUSC Laboratory at the University of Southern California in Los Angeles. The main goal of these studies is to use all available collections of psychological tests to better describe and understand the many changes that occur in people over their adult lifespan (ages 18-95). To date, CogUSC research has been funded by the National Institute on Aging (NIA) and has probed deepest into the age-related growth and declines of adult intellectual functioning.

Wealth Measurement

In CogEcon 2008, 2011 and 2013, the study used an asset-type approach (hereafter referred to as “the CogEcon approach”) to survey household finances. The CogEcon approach asks the respondent to break his/her finances down by types of assets, and requires the respondent to aggregate wealth by type. While keeping the CogEcon approach in the study, the study team introduced an alternative, account-by-account approach to survey household finances in CogEcon 2017. This alternative approach has been previously used in the Vanguard Research Initiative (VRI) study as early as 2013 (therefore shall be referred to hereafter as “the VRI approach”).

The VRI approach is different from the CogEcon approach in the following ways. Firstly, it does not require the respondent to do any wealth aggregation; instead, the respondent only provides balances of individual accounts. Moreover, the respondent cannot go back during the survey to alter their responses; they have chances to correct their responses after completion of certain survey sections. The paths in which respondents correct their responses in the VRI approach (“correction loops”) are of cognitive importance in that they may explain the deviation of surveyed wealth from the administrative data. See “The Wealth of Wealthholders” (Ameriks, Caplin, Lee, Shapiro, & Tonetti, 2015) for more information.

The above parts constitute the Survey Module of the study, in which all invitees had the option to participate. Upon completion of the Survey Module, the study asked if the respondent was willing to consider participating in the Account Data Module. This module enabled the study team to obtain account information from respondents’ financial institutions. These administrative account data are real-time, high-quality, and have the potential to reduce respondents’ burden of survey data entry. For the Account Data Module, the University of Michigan contracted with FeeX.com, a company that assists major financial institutions and their clients in tracking their financial accounts. If consented to participate in the Account Data Module, the respondent would be invited to link the financial accounts which they managed online to a study-specific web page on FeeX.com by entering their account credentials.

The CogEcon 2017 questionnaire was developed in the spring and summer of 2017, although contact with FeeX.com began as early as 2015.

C. Sample size

The CogEcon 2017 sample included everyone who was invited to complete CogEcon 2013 and still eligible to participate in 2017.² In total, 659 invitations were sent. After fielding CogEcon 2017, the University of Michigan’s Survey Research Operations (SRO) learned that six invitees were deceased and one had permanent conditions that made them

² Respondents were considered ineligible to participate in CogEcon 2017 if they were deceased or terminally ill, cognitively or physically unable to complete a survey, or had withdrawn from the CogEcon or CogUSA studies.

unable to participate in the survey. In total, 652 individuals were invited and eligible to complete CogEcon 2017.

D. Invitation, timing and reminders

The survey was fielded in November 2017 using both a mail and web invitation. Both invitations contained information necessary for respondents to log in to the survey; however, the email invitation contained a clickable link that made accessing the survey easier.

Invitation letters were mailed on November 10, 2017, and invitation emails were sent five days later. All potential respondents received a \$20 check with their invitation to complete the survey.

Two mailed reminders to complete the survey were sent to invitees, on November 17 and December 13, respectively. Additionally, three email reminders were sent on November 28, December 8, and December 17, respectively. Thank-you letters along with payments for participation in the Account Data Module were mailed to respondents on December 6, December 21, 2017, and February 5, 2018. Respondents who agreed to participate in the Account Data Module of this study received two email reminders for this portion of the study on December 6 and December 21.

The field period ended in February 2018.

E. Survey Response rates

Of the 652 eligible invitees, 449 submitted at least some responses to the survey. We consider the surveys to be complete if the respondent reached the final screen and submitted the survey. The study attained an American Association for Public Opinion Research (AAPOR) Response Rate 1, or minimum response rate, of 63.2% and Response Rate 2 of 68.9%.

The median respondent reported spending 25 minutes completing the survey (see variable *c5_H5*). The mean was 34 minutes. This does not include time spent on the Account Data Module.

II. Data Description

A. Introduction

The data were collected as part of the 2017 wave of the Cognitive Economics Study and have been processed and stored on a secure server maintained by the Institute of Social Research at the University of Michigan.

Additional documentation, including copies of the questionnaire, is available on the CogEcon website (<http://ebp-projects.isr.umich.edu/CogEcon/>).

1. Conditions of use

The CogEcon 2017 public data files contain no individual identifiers, links to individual identifiers, or secondary information that could be used to identify respondents. By removing these variables, the data are effectively anonymized; as a result, secondary data analysis may qualify for “exempt” IRB status.

By accessing the data, you agree to the conditions of use governing access to the

Cognitive Economics public release data. You must agree to:

- not attempt to identify respondents;
- not transfer data to third parties except as specified;
- not share your username or password;
- provide information about publications based on CogEcon data via e-mail to cogeconproject@umich.edu;
- report apparent errors in the CogEcon data or documentation files via e-mail to cogeconproject@umich.edu

For more information concerning privacy issues and conditions of use, please read “Conditions of Use for Public Data Files” and “Privacy and Security Notice” at the Public File Download Area of the HRS web site (URL below).

2. Obtaining the data

CogEcon public data files are available free of charge to registered users. To access the data:

1. Go to the Public File Download Area of the HRS web site, at the URL: <http://hrsonline.isr.umich.edu/index.php?p=reg>
2. Register with HRS (if you have not already). You will receive a password within 24 hours.
3. Log in to the HRS data file distribution system.
4. Once you have logged in, follow the "Datasets and Files" link, then the "CogEcon Contributed Files" link.

We encourage researchers to use the data files in conjunction with the CogUSA data (see below for more information). A few variables associated with the CogEcon survey are described in the data description but are not included in the public data files. We are open to requests for such variables and will consider their release on a case-by-case basis if they are not yet available via CogUSA on the ICPSR website.

3. Structure of data files

Data from the web survey are available for respondents who accepted the informed consent statement at the start of the survey and answered at least one question.

Variables in the data file are grouped into four broad categories:

- IDs & demographics (from CogUSA)
- Sample/system variables
- Constructed variables
- CogEcon 2017 survey content

Variables are described in this document in the same order they appear in the dataset.

4. Merging CogEcon 2017 data with previous waves

Researchers with access to both the CogEcon public data and CogUSA public data can merge the files using the unique identifier, *sampid*.

For information about CogUSA, please go to the following website: <http://cogusc.usc.edu>. To obtain CogUSA data, visit ICPSR website at <https://www.icpsr.umich.edu/icpsrweb/NACDA/studies/36053>. Please note that the CogEcon sample is a subset of the CogUSA sample. Each individual-level observation from CogEcon should be matched to exactly one individual-level observation in the CogUSA file.

5. Publications based on data

Please send a copy of any publications you produce based on the CogEcon data, with a bibliographic reference, if appropriate, by email to cogeconproject@umich.edu with “Attn: Papers and Publications” in the subject line.

Please include the following citation in any research reports, papers, or publications based on Public Release data:

- In text:
“The Cognitive Economic Study (CogEcon) is supported by the National Institute on Aging (grant number NIA P01 AG026571), with additional support for the 2017 wave from the Health and Retirement Study (grant number NIA U01 AG009740) and the National Census Research Network (grant number SES 1131500), and is conducted by the University of Michigan.”
- In references:
“Cognitive Economics Study public use dataset. Produced and distributed by the University of Michigan with support from the National Institute on Aging and the National Census Research Network, Ann Arbor, MI, (year).”

6. If you need to know more

This document serves as an overview of survey development and data collection for CogEcon 2017. Additional documentation about CogEcon 2008, CogEcon 2009, CogEcon 2011 and CogEcon 2013 are available on our website at <http://ebp-projects.isr.umich.edu/CogEcon/surveys.html>.

If you have questions or concerns about the survey, public data files or the documentation, please send an e-mail to cogeconproject@umich.edu.

B. CogEcon 2017 survey outline and notes

This part of the documentation contains an outline of the questions and, where relevant, notes things to consider when working with these data. The questionnaire had five sections. Section A, B, C, D, and H include identical and similar information to previous waves. The VRI section introduces new information fielded using the VRI approach.

1. Survey Section A: Introductory questions, self-assessments and Internet usage

A0: Self-reported health status

A1-A4: E-mail and web usage

A4_A-A4_I: Internet usage, tracking finances online

2. Survey Section B: Financial sophistication, household decision-making

D2, B6, D3: Financial management in household

3. Survey Section C: Income, employment and retirement

Notes: Some respondents gave extremely small dollar amounts for C2 that asked for annual income. In many cases, they may have entered in thousands instead of dollars, or there might have been a keystroke error. The end user is advised to treat these with caution and adjust them as appropriate before use.

C1: Number of people in household

C2: Household income

C29-C40: Labor supply in 2017; current employment status; retirement plans

Notes: The first few questions (C29-C32) asked about the respondent and the remaining questions (C37-C40) asked about the respondent's spouse/partner.

4. Survey Section D and VRI Section: Household finances

4.1 Section D: Household finances using an asset-type approach

In this section, we asked respondents to report their wealth by types of assets. This is “the CogEcon approach” to survey household finances which we have been using since CogEcon 2008.

D15: Financial assets in tax-advantaged retirement assets

D16: Financial assets outside of tax-advantaged retirement accounts

Notes: Question D15 asked if the respondent holds any assets in tax-advantaged retirement accounts. In question D16, this question was not asked based on the belief that all respondents would have at least some cash, or a balance in their checking account. Next, D15/D16 asked the respondent to provide an exact value of assets in retirement/non-retirement accounts; if the respondent attempted to skip the question, they were given the option to provide a range for the value. The questions proceeded to further break down retirement/non-retirement savings into the following types of assets:

- Short-term assets such as cash, bank accounts, money market funds, CDs, and short-term Treasury bills³
- Mutual funds that hold both stocks and bonds, such as balanced or life-cycle funds
- Individual stocks or stock mutual funds such as equity, index, growth, and value funds
- Bond funds, fixed income funds, or municipal, corporate or long-term government bonds
- Other assets not mentioned above

Again, the value/range options were provided for each of the asset types if the respondent did not provide a value at the first opportunity.

D17-D18: Asset Allocation

Notes: Question D17 asked if the respondent holds more than \$5,000 worth of assets in the stock market. Question D18 asked the percentage of the respondents’ assets held in the stock market.

4.2 VRI Survey Section: Household finances using an account-by-account approach

In this section, we asked respondents to report their wealth holdings by account.

The respondent was first asked whether they manage their finances jointly with their partners, or separately. If managed jointly, they were asked about both their and their

³ In question D15, this sentence was shown as “Short-term assets such as money market funds, CDs, and short-term Treasury bills.”

partner's holdings. If managed separately, they were only asked to reflect on their own. Next, they were asked to provide the following information for each of the account types:

- 1) whether the respondent had the type of account;
- 2) the number of accounts the respondent had under the type;
- 3) a nickname for each account
- 4) the balance in each account
- 5) whether the respondent referred to records when providing the balance in each account
- 6) whether the respondent managed each account electronically
- 7) the percentage of assets in stock for each account

Table 1. VRI Account Types

Accounts were broken down into the following types:

Tax-deferred retirement accounts	
A	IRA (including ROTH, traditional, an IRA rolled-over from an employer-sponsored plan)
B	Employer-sponsored retirement plan account (401(k), 403(b), 457, etc.)
C	Pension with an account balance which you can access as a lump sum
O	Other type of tax-deferred retirement account (such as SEPs, Keoghs, etc.)
Savings/investment accounts that are not in a tax-deferred retirement plan or account	
D	Checking account
E	Savings account
F	Money market account
G	Mutual fund account (other than money market mutual fund)
H	Certificate of deposit (CD) portfolio (aggregate of all CD holdings)
I	Brokerage account (including stocks, municipal, corporate, or other bonds, mutual funds, ETFs and other assets)
J	Directly held securities or other financial assets (US Treasury Bonds or savings bonds at Treasury Direct, stocks, bonds or individual securities you own that are not at a brokerage, Dividend Reinvestment Programs.)
Insurance contracts/accounts with a cash value or balance	
K	Annuity accounts with a balance or cash value (excluding immediate annuities reported in the previous section)

L	Life insurance with cash value (excluding term life insurance)
Educational accounts	
M	Section 529 College Savings Plans or Coverdell Accounts
Other accounts	
N	Other accounts not specified above

Respondents were given the opportunity to correct their responses at two stages in this section: once when they finished nicknaming all their accounts, and once when they finished providing all the balances in each of their accounts. The correction paths used by each respondent are reported in *c5_VRI_corr_loop*.

Wealth variables included in the public release data are aggregations from the account-level responses. Accounts were aggregated into two categories: retirement accounts (A, B, C, O in Table 1), and non-retirement accounts (D through N in Table 1). The following variables are reported for each:

- 1) number of accounts;
- 2) number of accounts with balances greater than zero;
- 3) number of accounts managed online;
- 4) number of accounts for which the respondent referred to records when providing balances;
- 5) total value of assets (rounded to the closest thousand dollars, unless the value is between \$1 and \$500, which is rounded to \$500).

5. Survey Section H: Closing questions

H1: Use of financial records to answer questions

H2: Help received when answering questions

H5: Time spent on survey

H1_A: Consent to participate in the Account Data Module

Notes: See section II.F for more information.

C. Summary of data content

1. Variable naming conventions

Most variables from CogEcon 2017 have the prefix *c5_* to indicate that they are from the fifth wave of the study and ease merging with other waves.

Variables from specific questions are identified first by the wave of the survey and then by their numbers on the questionnaire. When multiple variables are associated with the same question, suffixes distinguish between them.

Variable names have the general form:

c5_S#_suffix

With:

- S = letter of the section
- # = question number in questionnaire; and,
- Suffix is defined according to the conventions in the following table.

Table 2. Suffixes in CogEcon 2017

Suffix	Meaning
_yn	Yes/no part of questions that ask yes or no and then the value only for “yes” responses.
_exct	Exact response. For questions with a value and range option (C2, D15, D16), it records only the exact value respondents provided and is rounded to the nearest ten dollars.
_rng	Range response, for questions with a value and range option.
_val	Combined exact value and ranges, or complete and partial responses. If the variable has an exact value and range option, it records the exact value when available; otherwise, the imputed value for the selected range. If respondents might provide a partial response, it records complete and partial responses.
_val_flag	Flag about the _val value—whether exact value, range, implied zero, missing, complete, partial, etc.

Example: Question D15 asks:

“Do you (or your spouse/partner) hold any tax-advantaged retirement accounts, such as IRAs (both classic/traditional and Roth IRAs), 401(k) or 403(b) plan accounts, or Keogh accounts? *If so, what is the current balance/total value of these accounts? (Or range letter if you are unsure)*”

In this case, the yes/no response variable has the suffix “_yn.” The variable name is *c5_D15_yn*. The value response variable has the suffix “_val.” The variable name is therefore *c5_D15_val*. Please read Section E for more information about how we imputed values from “range cards” responses.

2. Missing data and “don’t know” responses

For wealth and income questions C2, D15, D16 and VRI wealth questions, each variable with suffix *_val* has a flag variable associated with it, *c5_S#_val_flag*, which contains

categories for missing values as well as an indication of whether a respondent gave an exact or range value response. The table below describes the flags in more detail.

Table 3. Label values for flag variables

A. Label values for Questions C2, D15, D16

sc5_S#_val_flag		
Questions: C2, D15, D16		
Label		Description
ExactVal	1	Respondent reported an exact value for the amount.
Range	2	Respondent reported a range for the amount. For internet surveys, this implies that the respondent skipped the question asking for the exact value.
Missing	3	The respondent should have provided a value or range, but did not do so.
ImpliedZero	5	Respondent answered a question implying that the value is zero. This is either the Y/N part of the question, from a prior question, or because of relationship status precludes them from answering (e.g. <i>c5_D16_val</i> about assets in non-retirement accounts)
RespDontKnow	6	Respondent said he/she does not know the value.
RespSkip	9	We do not know whether the respondent has a value for this item because he/she skipped questions needed to know this.

Notes:

- For questions without a Yes/No component (about household income (*c5_C2*), and assets in non-retirement accounts (*c5_D16*)), skipped responses are counted as missing rather than implied zero.
- *ImpliedZero*: For example, single respondents do not answer the question about spouse's/partner's employment, and people who indicated that they do not hold retirement savings accounts skip past questions about assets within those accounts. Note that a respondent who does not have an asset but then writes "\$0" for the amount will be flagged as an *ImpliedZero* even though in the data she also has a value.

B. Label values for VRI wealth questions

c5_VRI_asset*_val_flag		
Questions: VRI wealth questions		
Label		Description
Complete	1	Respondent provided positive balances for all of the retirement/non-retirement accounts for which they provided nicknames.
Partial	2	Respondent provided positive balance(s) for some, but not all, of the retirement/non-retirement accounts they claimed to have and provided nicknames with.
Missing	3	This includes cases in which 1) respondent did not have any accounts; 2) respondent nicknamed some accounts but did not provide values for balances; 3) respondent nicknamed some accounts and claimed that the balances are zero in the accounts; or 4) a combination of 2) and 3).

3. Idiosyncrasies in CogEcon 2017

100 respondents (those beginning the survey after Nov 28, 2017) were presented *c5_HI_A* with a reminder regarding additional incentives for participating in the Account Data Module of the study by linking their accounts to FeeX.com, while the others were asked this question before the addition of this reminder. Details can be found in the variable *c5_sys_version*.

4. Comparable measures in the CogEcon and the VRI approaches

Table 4. Wealth Measures in CogEcon and VRI Approach

The following table lists comparable wealth measures between the two approaches.

Account Categories	CogEcon Section D	VRI Section
Tax-Advantaged Retirement Accounts	<i>c5_D15_val</i>	<i>c5_VRI_asset_retire_val</i>
	<i>c5_D15sum_val</i>	
Other Accounts	<i>c5_D16_val</i>	<i>c5_VRI_asset_others_val</i>
	<i>c5_D16sum_val</i>	

In CogEcon Section D, we asked the respondent to firstly provide a total for all wealth in the account category (reported in *c5_D15_val* and *c5_D16_val*); then, we asked the respondent to report wealth holdings in the five sub-asset types, as detailed in section II.B.4.1. The sum of all wealth holdings in the five sub-asset types is reported in *c5_D15sum_val* and *c5_D16sum_val*. Note that the *D15sum* and *D16sum* variable have a missing value only if the respondent did not provide any value in all of the asset types.

D. Description of variables

1. Identification variables

Every respondent has three identification numbers, each described in the table below. The variable *sampid* uniquely identifies respondents. It is a 10-digit string variable that has *chhid* as the first six digits, followed by a zero (“0”) and then *cpn* as the remaining three digits. We recommend keeping these three variables as string variables to prevent loss of digits.

Table 5. Identification Variables

Variable	Description
sampid	Unique ID for each respondent (10-digit string)
chhid	Household unique ID (6-digit string)
cpn	Person number ID (3-digit string)—identifies individuals within a household

2. System variables

There are two sections pertaining to household finances and wealth: Section D and the VRI section. To detect potential systematic differences and order effects, we randomized respondents to receive the two sections in different orders. Examples of potential order effects include, but are not limited to: 1) respondents may answer the first set of wealth questions more thoroughly, 2) respondents may be able to recall more information when answering the second set of wealth questions, and 3) respondents may answer the survey questions inaccurately to finish the survey in a timelier manner.

We also randomized respondents to receive different amounts of monetary incentives for participating in the Account Data Module. Details are in the table below.

Table 6. System Variables

Variable	Description
<i>c5_wrandom</i>	Wealth question order =1 for respondents who completed Section D first =2 for respondents who completed the VRI section first
<i>c5_incentive_random</i>	Randomization of FeeX linkage incentive =1 for respondents who received \$25 for linking first account to FeeX.com =2 for respondents who received \$50 for linking first account to FeeX.com
<i>c5_result</i>	Survey outcome result for those who were invited =1 for completed submissions =2 for partially completed submissions
<i>c5_lastQ</i>	Last question completed ⁴
<i>c5_compmo</i>	Month in which survey was submitted
<i>c5_compyr</i>	Year in which survey was submitted

3. Constructed variables

The dataset includes constructed variables for age at the time of the survey (*c5_age**), relationship status (*c5_relstat*), and an indicator for whether the individual is a household’s “financial respondent” (*c5_finr*).

For questions C29 and C37, the number in the variable subscript corresponds to the order of the checkbox associated with each employment status. The ninth check box was “other” and provided space for respondents to answer. Text responses that corresponded to options 1 to 8 were recoded. The variables *c5_C29_9_recode* and *c5_C37_9_recode* indicate that the respondents originally selected “other” for the respective questions.

3.1 Age at date of survey completion

The variable *c5_age* contains respondents’ age on the date they completed the survey. It was created using the same procedure CogUSA used to construct their age variables. First, we calculated the number of days between the respondent’s birthday and date they completed the survey. Then, we divided the number of days by 365.25 to convert units into years.

Birth year was available for all respondents. The variable *c5_birth_flag* indicates whether day and month were both available (N=447), both are missing (N=1), or only day is

⁴ This variable is useful for respondents who submitted a partially completed web survey, since it helps distinguish between people who answered most of the survey and those who completed very little of it.

missing (N=1). When month is known but day is not, we calculated the age as if the day is the 15th. When both day and month are missing:

- i) If survey was completed on or before July 1st, assume respondent has not yet had birthday that year (assign birthday as July 1).
- ii) If survey was completed after June 30, respondent already had their birthday that year (assign as June 30).

Other age variables:

- *c5_age_y*: age in years, as an integer.
- *c5_age_m*: age in number of months.

3.2 Relationship status

c5_relstat is the respondent’s relationship status. We wanted respondents to verify the pre-loaded relationship status after A0, the question that assessed respondents’ health status.

Table 7. Relationship Status in CogEcon 2017

Code	Relationship status	CogEcon 2017
0	Single	129 (28.8%)
1	Partner without financial future	5 (1.1%)
2	Partner with financial future	13 (2.9%)
3	Married	301 (67.2%)
Total		448

c5_relstat_chng tells us whether relationship status changed since the previous wave. For most respondents this is the change since 2013, but for respondents who completed CogEcon 2011 but not CogEcon 2013, the change is based on 2011 to 2017.

Table 8. Change in Relationship Status CogEcon 2017

Code	Relationship status	CogEcon 2017
0	No change	421 (94.0%)
1	Partnered to single	20 (4.5%)
2	Single to partnered	7 (1.6%)
Total		448

3.3 Financial respondent status

CogEcon asks all respondents about assets and debts. For household-level analysis, we recommend using values given by the designated financial respondent. The variable *c5_finr* equals 1 for the financial respondent, and 0 otherwise. *c5_finr_how* tells you how the financial respondent was chosen, as described below:

- (1) If respondent was the only respondent in the household who completed CogEcon 2017, he/she is the de facto financial respondent (N=260).
 - a. If respondent was the only person in a household invited to CogEcon 2017, he/she is the de facto financial respondent.
 - b. If two household members were invited to CogEcon 2017 but only one completed it, he/she is the financial respondent.
 - c. If two household members completed CogEcon 2017 but at least one of them claims to be single or partnered without a financial future, then both are assigned to be a financial respondent.⁵

- (2) All other cases involve households with two respondents who agree they are married or partnered and planning a financial future together. We assign a financial respondent based on responses to questions about knowledge of their household finances (N=159).

- a. D2: “Which member of your immediate family is most knowledgeable about your family’s assets, debts and retirement planning?” The answer options were “Me”, “My spouse/partner”, “Both me and my spouse/partner” and “Someone else in the family.”⁶

Respondents who answered “Both me and my spouse/partner” or “Someone else in the family” were asked a follow-up question:

- b. D3: “Suppose you and your spouse/partner were asked to provide information about your combined assets, debts, and retirement plans. Between you and your spouse/partner, who could provide the most accurate information?”

⁵ There were a few cases in which one person claimed to be married and the other single. There were also a few cases of partners, one of whom claims they have a financial future together and the other does not.

⁶ This question is very similar to one used in the HRS for the same purpose.

Please check the box “Me” if you do not have a spouse or partner.” The answer options were “Me” and “My spouse/partner.”

If one respondent said “Me” to either D2 or D3, and the other did not disagree by also saying “Me” to either D2 or D3, then this person is considered the most knowledgeable and the designated financial respondent. If one respondent said “My spouse/partner” to either D2 or D3, and the spouse/partner did not disagree by also saying “My spouse/partner,” then this spouse/partner is considered the most knowledgeable and the designated financial respondent.

- (3) If we still have not assigned each household a financial respondent, we select the partner/spouse who used a larger number of objective information sources to complete the questionnaire (N=12). This was based on responses to H1 at the end of the questionnaire, and counted financial software, tax returns and account statements as objective sources of information.
- (4) If we still had not assigned each household a financial respondent, we then select the partner/spouse on a case-by-case basis (N=18). Selection was based on an assessment of responses to key questions about income and financial assets, and financial respondent status in 2013.

Please see Cognitive Economics Study: Data Description for documentation about how the financial respondent was selected in 2008, 2009, 2011, and 2013. The approach for selecting the financial respondent for each household in CogEcon 2017 is similar to the procedure used for CogEcon 2013.

E. Imputations and Calculated Variables

1. Income and wealth variables

Respondents had two ways to answer questions about the value of their income, assets and debts—either by providing an exact value or by selecting a range of values from the list on the “range card.” Respondents were asked for a range only if they skipped the question asking for an exact value (Questions C2, D15, D16).

Total value: exact values and range

Respondents were first asked to provide an exact value. If they skipped the question they were subsequently asked to select a range of values from the ranges listed.

An exact value was imputed from each range using the mid-point of the range. For the uppermost bracket, 1.4 times the lower bound was used.

Value assigned for ranges chosen

All of the variables with the suffix *_val* are given in terms of monetary value. See the following table for the different range options offered in the survey and the questions for which each set of range options was offered.

Table 9. Value Assignment for Range Responses

Variables	Range selected	Value assigned
D15, D15A-E, D16, D16A-E	\$0	0
	\$1-\$2,500	1250.5
	\$2,501-\$5,000	3750.5
	\$5,001-\$10,000	7500.5
	\$10,001-\$25,000	17500.5
	\$25,001-\$50,000	37500.5
	\$50,001-\$100,000	75000.5
	\$100,001-\$250,000	175000.5
	\$250,001-\$500,000	375000.5
	\$500,001-\$1,000,000	750000.5
	More than \$1,000,000	1400001.4
	Cannot provide a range	

F. The Account Data Module

Upon completion of the Survey Module, the study invited respondents to participate in the Account Data Module. In this module, respondents were invited to link the financial accounts they managed online to a study-specific web page on FeeX.com by entering their account credentials. From then on, the University of Michigan, through encrypted transmission from FeeX.com, obtained administrative account data of the linked accounts.

To engage respondents in the Account Data Module of the study, the survey first asked if the respondent was willing to consider participating in the Module (survey question H1_A):

Next, we would like to invite you to participate in a new way for surveys to gather financial data.

The University of Michigan has an agreement with a service used by leading financial institutions to help individuals track their investment and retirement accounts. We want to evaluate whether using such a service might improve or replace survey-based methods for measuring wealth. Rather than asking respondents questions, the service would, with your permission, obtain information directly from financial institutions.

As an additional token of appreciation for participation, you would receive a check from the University of Michigan for at least (\$25/50) and up to a maximum of (\$50/75).

Would you consider taking part in this effort?

- Yes
- No
- Maybe

111 respondents (see variable *c5_sys_version*) were presented this question with the bolded sentence regarding additional incentives, while the other 338 were asked this question without this sentence. The sentence was not bolded in the survey.

If respondents answered “yes” or “maybe” to this question, they would get a chance to read the detailed consent information, including a description of the study, benefits, risks, compensation, and additional information regarding security and confidentiality.

Respondents would then be asked if they would like to proceed with the linkage of their accounts to the study-specific website on FeeX.com. If they would like to proceed, then they are considered, in our analysis, to have consented to the linkage. Not all respondents who consented to the linkage provided account information to the study-specific website. See Table 10 and variable *c5_HI_A* for more details.

Table 10. Account Data Module Consent and Linkage Status Breakdown

	N	Percent
Didn't consent/non-response	401	89.31
Consented but didn't link	36	8.02
Linked at least one account	12	2.67
Total	449	100

Since few respondents linked their accounts, there are no public use data available for this module.

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