Improving the measurement of household finances in *Understanding Society*

An initiative by the Economic and Social Research Council, with scientific leadership by the Institute for Social and Economic Research, University of Essex, and survey delivery by NatCen Social Research and TNS BMRB
Outline

1. Current *Understanding Society* content
   overview, income, consumption, saving, wealth

2. ESRC Transformative Project
   Motivation
   Plans
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1. Current *Understanding Society* content
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Understanding Society (1/2)

• *Understanding Society: the UK Household Longitudinal Study* is a multi-purpose household panel survey begun in 2009

• Building on the long running British Household Panel Survey (BHPS) established in 1991

• Funded by the UK Economic and Social Research Council and a range of government departments

• Infrastructure project with funding methods, outreach, Policy Unit

• Publically available dataset – over 3000 users (academic, Government, third sector and commercial), across 40 countries

• Part of diverse portfolio of UK longitudinal and cohort studies

• Part of ‘family’ of international household panels in USA, Germany, Canada, Switzerland, Australia……

https://cnef.ehe.osu.edu/
Understanding Society (2/2)

- Representative of UK hh’s at wave 1 (2009-10)

- Subsamples
  - UKHLS (50,199 individuals)
  - Ethnic Minority Boost (9237 individuals)
  - BHPS (12,036 individuals from wave 2 (2010-11))

- Questionnaires: hhgrid, hh, face-to-face, self-completion, proxy

- Innovation Panel
  - Sample of households in Great Britain
  - Approx. 1,500 households issued
  - 1/3 HHs: face-to-face interviews
  - 2/3 HHs: web, face-to-face follow-up of non-respondents
Income (1/2)

- Main concept: Gross usual monthly household income
  - no annual measure
  - possible to construct (reliable) net measures
- Sources: earned, investments, unearned
- Collection at the individual level
  - unearned sources can be reported “jointly”
- Proxy interviews
  - banded income and earnings
  - aggregate benefit categories
- Non-respondents
  - employment status and limited demographics
- Dependent interviewing in collection of unearned sources
- Missing data imputed
Income (2/2)

Main job (employee)
- last gross pay + period
- last net pay + period
- usual pay, period, gross or net (if pay not usual)

2nd job
- gross amount earned

Main job (self-employed)
if prepares business accounts:
- share of profit/loss
- whether net/gross
if no:
- average share of profits over the last 12 months
- whether net/gross

Investment income
- amount of interest + dividends in last 12 months
- if don't know: banded response (7 bands)

Unearned income
structure:
- currently receiving
- amount received
- period covered
- received "jointly"
- pension: whether net/gross
covers:
- all state benefits (see appendix)
- other pensions
- other income sources (rent, maintenance, etc.)
Consumption (1/2)

- **Total spending in the last 4 weeks on:**
  - food and groceries
  - meals or snacks purchased outside the home
  - alcohol

- **Last monthly housing spending:**
  - mortgage payment
  - net rent payment (and whether includes: furniture, water, heating, lighting, council tax)
  - gross rent if receiving HB

- **Energy spending in the last year:**
  - gas, electricity, oil, other fuel
Consumption (2/2)

- IFS experiments (2008 and 2013)
  - One shot vs. breakdown approach

- Focus groups; cognitive testing of designs

- Results:
  - short-sequence of questions can collect useful data
  - breakdown approach (with reconciliation)
    - Reconciliation reduces item non-response
  - web mode facilitates diff strategies
  - one shot approach alternative with fewer questions
Saving (1/1)

- Basic savings information
- Individual level “Savings module” asked every other wave (starting 2010)
  - whether saves
  - monthly amount
  - whether regular saver
  - motives (short-term or long-term or both)
- Rotating “Wealth, assets and debt module” asks whether saves informally
  - credit union, savings club, with friends or family, money in a jar, buying gold or jewellery
Wealth (1/2)

• Every wave:
  • gross housing wealth (subjective valuation)
  • outstanding mortgage

• Rotating “Personal Pensions module”
  • (every other year starting 2010)
  • date started contributing to personal pension
  • usual amount if contributes regularly

• Rotating “Wealth, Assets and Debt module”
  • (2012 and 2016)
  • Liquid wealth and non-mortgage debt
Wealth (2/2)

Wealth, Assets and Debt module (2012 and 2016)

• Investments (household)

• Cash and non-mortgage debt (individual):
  • savings (savings accounts, ISA, NSA, premium bonds)
  • debt (hire purchase, bank loan, order, DWP loan, private individual, overdraft, student loan, other debt)
  • number of store cards held
  • whether owed money by an individual

• Follow ups on:
  • balance
  • asks if held jointly and with whom
  • what is approximate share of total amount

• Collection based on IP experiment (Bryan et al 2012)
## Summary

<table>
<thead>
<tr>
<th></th>
<th>Income</th>
<th>Consumption</th>
<th>Saving</th>
<th>Wealth</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Summary</strong></td>
<td>• comprehensive coverage of income</td>
<td>3 spending categories:</td>
<td>• monthly amount saved</td>
<td>• liquid wealth</td>
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<td></td>
<td></td>
<td>• energy use</td>
<td></td>
<td>• non-mortgage debt</td>
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<td></td>
<td>• food/alcohol</td>
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<td>• housing wealth</td>
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<td></td>
<td></td>
<td>• housing</td>
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<td>• mortgage debt</td>
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<tr>
<td>Frequency of</td>
<td>• annual</td>
<td>• annual</td>
<td>• biennial</td>
<td>• housing wealth and mortgage debt</td>
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<tr>
<td>collection</td>
<td></td>
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<td>annually</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>• rest every 4 years</td>
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<tr>
<td>Main issues</td>
<td>• no annual measure</td>
<td>• no measure of total</td>
<td>• likely to miss irregular</td>
<td>• reconciling individual reports of joint amounts</td>
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<tr>
<td></td>
<td>• reconciling individual reports of joint</td>
<td>consumption</td>
<td>savings</td>
<td>• not much detail on personal pensions</td>
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<tr>
<td></td>
<td>amounts</td>
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<td></td>
<td>• reported amounts don’t always line-up</td>
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<td></td>
<td>with benefit system</td>
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</tr>
<tr>
<td></td>
<td>• missing data</td>
<td></td>
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</tr>
</tbody>
</table>
Outline

1. Current *Understanding Society* content
   Income, consumption, saving, wealth

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ESRC transformative grant

- “Understanding household finance through better measurement”

- 18 months from January 2016

- Scoping study

- Seeking additional funds for 2017 and beyond

  Development of a new theoretical framework
  Full testing and development
“Understanding household finance through better measurement” - team

- Annette Jäckle, Jon Burton, Paul Fisher, Alessandra Gaia, Mike Brewer (ISER, Essex)
- Thomas Crossley (Economics, Essex)
- Carli Lessof (independent consultant)
- Cormac O’Dea (IFS)
- Mick Couper (Michigan)
- Joachim Winter (Munich)
- Partner: European Central Bank
Commercial Partners

• Kantar Group of Companies:
• **TNS BMRB**, the current contractor for *Understanding Society* fieldwork
• **Kantar Worldpanel** – barcode scanners, till receipt capture
• **Lightspeed GMI** – specialize in online surveys ("gamification" and ergonomics)
• **Kantar Operations** – passive data collection, including MobileBehave app
Many puzzles in household finance

Who is poor?

Source: Brewer, Etheridge & O’Dea (2013), Figure 4.
What’s going on?

1) Income under-reported at the bottom?
2) Consumption over-reported at the bottom (and under reported at the top)?
3) Rational dis-saving/borrowing at the bottom (Friedman)?
4) Irrational dis-saving/borrowing at the bottom?

Why important?

• Is household spending sustainable?
• Are we measuring living standards correctly?
• Are we distributing benefits to the wrong people?
• Is VAT regressive?
• Evolution of inequality?
Idea: Collect HH budget constraint

- Borrowing / dissaving
- Net disposable income
- Resources available
- Repayment of loans / savings
- Expenditure

Income – Expenditure = Change in Assets and Debts

- Answer substantive questions

Are those who appear to be dis-saving accumulating debt?
Idea: Collect HH budget constraint

- Improve Data Quality by imposing accounting identities
  - National accounts
  - Evidence from Canadian SHS, CE pilot study, Robert Townsend’s work in Thailand

Income – Expenditure = Change in Assets and Debts

Resources available

- Borrowing / dissaving
- Repayment of loans / savings
- Net disposable income
- Expenditure
Improving Data by Checking Balances

Saving Rates by income vintile

*Canadian SHS*

Source: Brzozowski and Crossley (2011)
Idea: Collect HH budget constraint

Income – Expenditure = Change in Assets and Debts

- But no current large-scale, developed-country survey does this
Why hasn’t this been done before?

- **Respondent burden**

How we might minimize burden?

- **Don’t seek too much detail (focus on totals)**
  - unless we get detail passively

- **New technologies**
  - New online questionnaire
  - “gamification”
  - Passive/new technology data collection
  - Preload new technology data into survey
New technologies

- Financial aggregators
- Barcode scanners
- Till receipts
- Linkage to store card data
- Linkage to administrative records
- Linkage to store card data
- In-the-moment surveys
  - e.g. at tax return time
- Gamification

Family Finance User Survey Conference | 1/07/2016
Till receipt scanning

- October-November 2016
- IP sample (issue c.2000)
- Invite between IP9 & IP10
- App to own smartphone/tablet
- Scan receipts for 4-5 weeks
- Weekly reminders
- Follow-up questions
- Kantar coders process receipts
Transformative Project - Activities

1. Literature review & expert consultation (1)
   - Methods/best practices of measuring HH finances
   - Start of grant workshop: 7 March 2016

2. Secondary analyses
   - Improve and test limitations of methods for imputing HH budgets

3. Experiments in 2016 Innovation Panel
   - Methods to reduce under-reporting of income
     - Additional questions to capture all net income in last month
     - Individual income summary screen vs. none
     - Benefit Unit Finance module – gross flows vs change in stocks
Transformative Project - Activities

4. Literature review & expert consultation (2)
   assess feasibility, data quality and usability, costs of collecting data with new technologies
   □ apps, in-the-moment surveys, gamification, financial aggregators…

5. Pilot testing new technologies (Oct/Nov 2016)
   □ app: scanning till receipts

6. Between wave Web survey (development)
   Aim: develop ways of measuring HH budget constraint
   □ Web survey: gamified tool to capture income & expenditure
   □ Benefit Unit budget reconciliation
   □ (Possible) Preload data collected with new technologies
Future Activities (Aspirational)

7. Theoretical development
   Develop a framework of potential sources of errors in data collected with new technologies
   - “New Technologies Total Error” framework
   - Sources of errors: non-observation / measurement
   - Collect data about data generating mechanisms and potential correlates of errors to test framework

8. Experiments with implementation of new technologies
   Develop methods to increase cooperation
   - Incentive schemes, help/support functions, reminders…

9. Experiments with gamified income/expenditure tool
   Assess effects of providing tool to respondents on panel attrition / panel conditioning (financial reporting or actual financial behaviour?)
Conclusion

- Understanding Society can be an important platform for research on household finances
- We are working to make it even more useful
- We are looking for input, and for collaborations

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