Session 1: Office for National Statistics
Household finances statistics at ONS: statistics for the public good

John Marais
Divisional Director
Crime, Income and Wealth Division
Key for informing policy and public debate

- **Understanding people’s finances**: income, expenditure, wealth, poverty
- **Exploring inequalities**: geographical regions, population groups, characteristics
- **Responsive and relevant**: cost of living
- **Policy implications**: directing resources to those in need
Recently at ONS...

Survey developments
- Reintroducing material deprivation questions to the SLC
- Redesign of the pensions section on WAS

Statistical publications
- Household Disposable Income and Income Inequality FYE 2022
- Family Spending FYE 2022

Processes and methods
- Improved production pipelines
- Streamlining QA processes

Stakeholder engagement
- Capturing user needs through our household finances statistics consultation
- Working across the GSS to improve coherence
Looking ahead..

Survey developments
- Publishing an update on recent changes to WAS

Statistical publications
- July – Effects of Taxes and Benefits
- July – Cost of Living Analysis
- Summer – EU-SILC 2019
- October – Small Area Income Estimates 2020
- Early 2024 – Total Wealth in GB 2020-2022

Processes
- Continuing to improve production pipelines
- Reviewing DB pension wealth methodology
- Developing new methods for estimating poverty and financial resilience

Stakeholder engagement
- New topic specific expert groups – get in touch to join!
- Publishing the feedback gathered through our household finances statistics consultation
Financial mental models research

Beth Jones & Danielle Watson
Social Statistics Hub, Methodology & Quality
Background & Aim

• This project was an opportunity to better understand and address the quality of the financial data collected by ONS

• Our main aim was to understand respondents’ mental models and how they conceptualise their household finances which encompasses income, wealth and expenditure
Sample & Recruitment

• Advertised internally for volunteers via ONS staff

• 155 screening questionnaires were returned, from which we purposively sampled to ensure a diverse range of characteristics

• Unable to recruit anyone who would be classified as unemployed, i.e. actively looking and available for work, or waiting to start a new job
Analysis

• Qualitative analysis produces rich insights but cannot be used to infer statistical conclusions

• Rapid approach rather than end-to-end thematic analysis

• Interview recordings transcribed by third party and analysed later for additional themes and supporting quotations
Findings: Income

• Money earned through employment/work

• Less common examples (often recalled later) included pensions, benefits, dividends, selling items online, investments, buy-to-let property.

• Checking bank statements online/via apps was a popular method of monitoring

• More difficult for people whose income varies

“…something I didn't mention, we do have some shares as well, which I don't know if you need to know about…”

“To be totally accurate, I would need to look at the bank accounts…”

“Until the end of the year…It wouldn’t be accurate.”
Findings: Income

• ONS is a trusted organisation

• Willingness was sometimes related to perceived ability and/or method of contact

• Those in relationships were generally willing to answer for their spouse/partner (if given permission) but separate surveys were suggested

• Proxy responding more difficult for unrelated households

• Willingness to ask housemates about their income was low

"I feel relatively comfortable with...how the ONS works. And wouldn't worry that it'd be used for bad things..."

"I think the days are gone when you speak to the head of the household...You can't take information from one person."
Findings: Spending

• Very easy to define
• Monitoring varied from none to daily
• Recalled on the basis of regular payments, events or through feeling guilt
• Categories of spending could help to prompt memory but could be labour intensive
• Cash and ad-hoc spending would be more difficult to recall
• Spending bands wouldn’t necessarily help

“...I would have to look at the detail to decide which band it was in…You’d be putting in an extra stage for me.”
Findings: Spending

- Proxy responding would be “quite easy” for joint expenses but more difficult for personal spending
- Those in relationships were generally willing to answer for their spouse/partner (if given permission) but separate surveys were suggested
- Very difficult to answer for housemates in unrelated households
- Some reluctance to share spending information due to distrust of Government

“I really don't know where they spend their money... apart from rent, I don't know.”

“I'm not a big fan of the government... I feel there's a lot of reasons to distrust them.”
Findings: Wealth

• Having money, assets and/or material possessions
• Harder to define than income and spending
• Monitored less closely than income and spending
• Ability varied depending on type of wealth
• Total figure would be very difficult

“I haven't got a clue really...I couldn't provide...even a realistic figure for the total value.”

“to...not have to worry or stress about money”
Findings: Wealth

• Willingness varied between participants

• Lack of confidence that answers would be accurate enough

• Advance explanation of why wealth information is required would increase willingness in some cases

• Proxy responding would be easier for people who share wealth equally with a spouse/partner

• Those with separate wealth/finances would struggle and, in some cases, they would be unwilling to ask for the information

“I don’t mind governments knowing stuff if they’re going to use it, for the benefit of society.”

“I couldn't do it within plus or minus £100,000…You'd have to do it directly.”
Considerations for Future Research

• Consider testing an approach that will ensure respondents include all types of income, spending and wealth, e.g., separate questions or an instruction

• Further testing with people whose first language is not English

• Consider how separate surveys for household members would affect response rate and data quality compared to proxy response

• Explore willingness to provide financial information in a wider population
Developing admin-based income statistics

Michael Cole
Head of Social Statistics Admin First

Office for National Statistics
Context
Background

• Never been an income question on the census due to potential negative impact on response rates and quality

• However the 2021 Census topic consultation identified a clear user need for small area income statistics

• ONS’ current survey-based household financial statistics struggle to meet this need – closest being “income estimates for small areas” published ~ every 2 years at MSOA level

• Therefore we’re conducting feasibility research to explore the potential for administrative data to better meet this user need
Future Population & Migration Statistics System

Strategic vision: More frequent, timely and inclusive statistics about the population and its characteristics

A social statistics system that shapes our understanding of society and people

A system to create and share statistics that is sustainable and future proof

A broad, flexible range of outputs and products to respond to user needs and questions of the day

Administrative data will be at the core of this system
Research to date
Income measures

• The Canberra Group Handbook provides the international standard for household income statistics

• We are developing our measures to align to these standards, however we are missing some components e.g. income from property

<table>
<thead>
<tr>
<th>Conceptual definition</th>
<th>Operational definition</th>
<th>Section ref</th>
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<tbody>
<tr>
<td><strong>1 Income from employment</strong></td>
<td></td>
<td></td>
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<tr>
<td>a Employee income</td>
<td>✓</td>
<td>2.3.1</td>
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<tr>
<td>b Wages and salaries</td>
<td>✓</td>
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<td>c Cash bonuses and gratuities</td>
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<td>d Commissions and tips</td>
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<td>e Directors’ fees</td>
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<tr>
<td>f Profit-sharing bonuses and other forms of profit-related pay</td>
<td>✓</td>
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<tr>
<td>g Shares offered as part of employee remuneration</td>
<td>✓</td>
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<tr>
<td>h Free or subsidised goods and services from an employer</td>
<td>✓</td>
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<tr>
<td>i Severance and termination pay</td>
<td>✓</td>
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<tr>
<td>j Employers’ social insurance contributions</td>
<td>✓</td>
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<tr>
<td>k Income from self-employment</td>
<td>✓</td>
<td></td>
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<tr>
<td>l Profit/loss from unincorporated enterprise</td>
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<tr>
<td>m Goods and services produced for banner, less cost of inputs</td>
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<td>n Goods produced for own consumption, less cost of inputs</td>
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<td><strong>2 Property income</strong></td>
<td>✓</td>
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<tr>
<td>a Income from financial assets, net of expenses</td>
<td>✓</td>
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<tr>
<td>b Income from non-financial assets, net of expenses</td>
<td>✓</td>
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<tr>
<td>c Royalties</td>
<td>✓</td>
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<tr>
<td><strong>3 Income from household production of services for own consumption</strong></td>
<td>✓</td>
<td>2.3.3</td>
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<tr>
<td>a Not value of owner-occupied housing services</td>
<td>✓</td>
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<tr>
<td>b Value of unpaid domestic services</td>
<td>✓</td>
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<tr>
<td>c Value of services from household consumer durables</td>
<td>✓</td>
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<tr>
<td><strong>4 Current transfers received</strong></td>
<td>✓</td>
<td>2.3.4</td>
</tr>
<tr>
<td>a Social security pensions / schemes</td>
<td>✓</td>
<td></td>
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<tr>
<td>b Pensions and other insurance benefits</td>
<td>✓</td>
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<tr>
<td>c Social assistance benefits (excluding social transfers in kind, see 10)</td>
<td>✓</td>
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<tr>
<td>d Current transfers from non-profit Institutions</td>
<td>✓</td>
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<tr>
<td>e Current transfers from other households</td>
<td>✓</td>
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<tr>
<td><strong>5 Income from production (sum of 1 and 2)</strong></td>
<td>✓</td>
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<tr>
<td><strong>6 Primary Income (sum of 2 and 5)</strong></td>
<td>✓</td>
<td>2.4</td>
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<tr>
<td><strong>7 Total income (sum of 4 and 6)</strong></td>
<td>✓</td>
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<tr>
<td><strong>8 Current transfers paid</strong></td>
<td>✓</td>
<td>2.4</td>
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<tr>
<td>a Direct taxes (net of refunds)</td>
<td>✓</td>
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<tr>
<td>b Compulsory fees and fines</td>
<td>✓</td>
<td></td>
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<tr>
<td>c Current inter-household transfers paid</td>
<td>✓</td>
<td></td>
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<tr>
<td>d Employee and employers’ social insurance contributions</td>
<td>✓</td>
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<tr>
<td>e Current transfers to non-profit institutions</td>
<td>✓</td>
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<tr>
<td><strong>9 Disposable income (7 less 8)</strong></td>
<td>✓</td>
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<tr>
<td><strong>10 Social transfers in kind (STIK) received</strong></td>
<td>✓</td>
<td>2.3.5</td>
</tr>
<tr>
<td><strong>11 Adjusted disposable income (9 plus 10)</strong></td>
<td>✓</td>
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</tbody>
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Developing admin-based income statistics (ABIS)

First Admin Data Census research outputs on income
- **Data sources:** PAYE & benefits
- **Measure:** Individual gross annual income distributions (% within income bands)
- **Breakdowns:** Local authority, age & sex
- **Time period:** Tax year ending 2014

Updated measure, geography and time period
- **Data sources:** PAYE & benefits
- **Measures:** Individual and occupied address gross annual income distributions (% within income bands)
- **Breakdowns:** Local authority, LSOA, age & sex
- **Time period:** Tax year ending 2016

Experimental statistics-badge d, updated measure
- **Data sources:** PAYE & benefits
- **Measure:** Individual and occupied address gross and net annual income deciles
- **Breakdowns:** Local authority, LSOA, age & sex
- **Time period:** Tax year ending 2016

First inclusion of self-employment income
- **Data sources:** PAYE, Self-Assessment & benefits
- **Measure:** Individual and occupied address gross and net annual income deciles
- **Breakdowns:** Local authority, LSOA, age & sex
- **Time period:** Tax year ending 2016

First inclusion of UC and PIP and QMI release
- **Data sources:** PAYE, Self-Assessment & benefits
- **Measure:** Individual and occupied address gross and net annual income deciles
- **Breakdowns:** Local authority, LSOA, age & sex
- **Time period:** Tax year ending 2018
ABIS Methodology: Individual and occupied address income

Linked income dataset

Clean and link

SPD V3 (population base)

Linked

Unlinked income records

SPD V3 with income data

Admin-based household estimates

Imputed Winter Fuel Payment

Gross income measures produced

Net income measures produced

Proxy Income Tax & National Insurance amounts calculated

ABIS aggregate outputs produced

Individual and (equivalised) occupied address gross and net income deciles by:
- Age and sex
- Region
- Local Authority
- LSOA (lower layer super output area)

ABIS individuals

Household equivalisation applied

Age >15

Non-blank UPRN

DWP & HMRC supplied microdata

PAYE: Pay As You Earn
NBD: National Benefits Database
PIP: Personal Independence Payment
SPD: Statistical Population Dataset
UPRN: Unique Property Reference Number
ABIS coverage

ABIS Dec 2022 version (TYE 2018):

- 92.5% of SPD individuals* had some income information recorded
- 98.6% of SPD occupied addresses had some income information recorded

Canberra Handbook operational definition of gross household income

1. Income from employment
   a. Employee income
   b. Income from self-employment

2. Property income
   a. Income from financial assets, net of expenses
   b. Income from non-financial assets, net of expenses
   c. Royalties

3. Income from household production of services for own consumption
   a. Net value of owner-occupied housing services

4. Current transfers received
   a. Social security pensions/schemes
   b. Pensions and other insurance benefits
   c. Social assistance benefits
   d. Current transfers from non-profit institutions
   e. Current transfers from other households

* Aged 16 years and over in England and Wales
Results – geographical breakdowns

Interactive maps showing population coverage and median net individual income by lower layer super output area (LSOA), England and Wales

Shropshire 011A
91%

Percentage of individuals with PAYE, self-employment derived from Self-Assessment and benefits income information:
- 25% to 63%
- 63% to 79%
- 79% to 87%
- 87% to 92%
- 92% to 98%
- No Data

Tower Hamlets 021C
£12,906

Median net individual PAYE, self-employment derived from Self-Assessment and benefits income:
- £2,237 to £10,838
- £10,838 to £13,809
- £13,809 to £15,671
- £15,671 to £18,546
- £18,546 to £35,696
- No Data

Office for National Statistics
Additional uses
Developing multivariate admin-based income by ethnicity statistics

Figure 2: Coverage of income and ethnicity varies by local authority in England and Wales

Number of local authorities by proportion of individuals aged 16 years and over in the SPD V3.0 with both income information identified and a stated ethnicity, England and Wales, tax year ending 2018.

Choose a local authority

Note: Figures are from the previous publication which was for 2016.
Developing a Census income output

• The Census White Paper set out our commitment to “develop census-type income data that can be integrated with the data collected on the 2021 Census”, in place of including an income question on Census 2021

• Our ongoing ABIS development work demonstrates the potential of using administrative data to meet this commitment

• Our recent progress update provided an update on our research to develop census-type income data, and set out our aim to deliver against this commitment by April 2024
Household Income and Expenditure analysis

Lee Colvin
Senior Statistical Officer
Household Income & Expenditure Analysis
Public Policy Analysis Directorate
Overview

Highlights from ONS Annual Releases:

• **Household Disposable Income & Inequality publication FYE 2022**
  - Changes to mean and median household income
  - Changes to household income across the distribution
  - What has contributed to the changes in household income?

• **Family Spending publication FYE 2022**
  - What are households spending the most on?
  - How is expenditure changing across the distribution?
  - How expenditure compares to pre-pandemic levels?

• All income & expenditure values in this presentation are real terms at FYE 2022 prices
# ONS Survey Insights

<table>
<thead>
<tr>
<th>Survey name</th>
<th>Sample size</th>
<th>Geographic Coverage</th>
<th>Frequency of insights publication</th>
</tr>
</thead>
<tbody>
<tr>
<td>Living Costs &amp; Food Survey</td>
<td>~ 5,000 households</td>
<td>UK</td>
<td>Annual</td>
</tr>
<tr>
<td>Household Finances Survey</td>
<td>~ 17,000 households</td>
<td>UK</td>
<td>Annual</td>
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</tbody>
</table>
Annual median household income has decreased in FYE 2022

- For FYE 2022 Median income fell by 0.6% (£180) to £32349
- Compared with an average increase of 1.7% per year since FYE2013

- For FYE 2022 Mean income increased by 0.9% (£334) to £39328
- Compared with an average 1.4% increase per year since FYE2013

Source: Office for National Statistics – Household Finances Survey
Average yearly increases in median disposable income has levelled off in the last 3 years

- Between FYE 2020 and 2022 median disposable income increased on average by 0.7% a year

- Compared with an average of 1.7% increase per year since FYE 2013.

Source: Office for National Statistics – Household Finances Survey
Disposable income for the poorest households’ is decreasing

- The poorest fifth of households' median disposable income decreased by 3.8% (£572) to £14,500 in FYE 2022.

- Driven by reductions in original income and cash benefits.
The richest fifth of household’s disposable income increased

- For the richest fifth of households, in FYE 2022 median disposable income increased by 1.6% (£1034) to £66,000

- This was driven by an increase in original income, that was not fully offset by an increase in direct taxes
Weekly household expenditure has increased by 6% in FYE 2022

- Mean weekly expenditure increased by £28 to £528 in FYE 2022.

- In comparison, mean disposable income increased 0.9% FYE 2022.
52% of UK households expenditure is spent on essential categories

52% of an Average UK household weekly expenditure is on:
- housing(net) and energy
- transport
- food and non-alcoholic drinks
- Mortgage interest payments, council tax etc

Source: Living Costs and Food Survey from the Office for National Statistics

Family spending link
Poorer households spend proportionally more on housing, fuel and power

Poorest fifth: Total expenditure £329.80
highest expenditure on:
  • housing (net), fuel & power
  • food and non-alcoholic drinks
  • transport

Richest fifth: Total expenditure £811.20
highest expenditure on:
  • other expenditure items
  • transport
  • housing (net) fuel and power
Expenditure has not returned to pre-pandemic levels

• Spending on restaurants and hotels in FYE 2022 increased by 82% but remains 32% below FYE 2020.

• Recreational and cultural services such as sports admissions, subscriptions, and leisure class fees in FYE 2022 increased by 37% (£4.30) but were 24% (£4.90) below FYE 2020.
Upcoming work

• Cost of Living analysis
  • Opinions and Lifestyle Survey, Living Cost and Food Survey data.

• Effects of Taxes and Benefits on Income statistics
  • Redistribution effects on individuals and households on direct & indirect taxation and benefits FYE 2022

• Methods development
  • Improved combination of income and expenditure data
  • Coherency
Thank you for your time.

Contact details if you have any questions or queries:

- Household Disposable Income and Inequality
  - hie@ons.gov.uk

- Family spending
  - Family.spending@ons.gov.uk
Q&A discussion

10 July 2023