

# **Social Survey Transformation: opportunities and challenges looking to the future**

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# Population and Public Policy (PPP) statistics

## Vital for shaping policy and decision-making

- underpin national and local decisions on migration, provision of education, housing and healthcare and fair distribution of funding to local areas
- allow accurate national and local information on the diversity of the population
- let public bodies know whether they are meeting their equalities duties and take action where necessary

# What is Population Public & Policy Transformation?

The ONS mission is to improve understanding of life in the UK and enable informed decisions through trusted, relevant and independent statistics and analysis

## *Why are we transforming?*

Keep up with the **rate and scale of change** to meet the needs of the country; from both technological and demographic perspectives

To **modernise**, improve **efficiency** and reduce **cost**

To **reduce the respondent burden**, making best use of high quality admin (non-survey) data as a key enabler

To improve the **experience** of all our customers, bringing more **accurate, timely and relevant statistics**



## *What are the benefits?*

To **enable** better decisions;  
To produce outputs that are **more timely, focused and easy to use**;  
To **improve** data quality;  
To **deliver** high-quality outputs  
To **build the capability** of our staff

# PPP Transformation Framework

*Shining a light on society for decision making from citizen to the heart of Government*

## WHAT

Produce high-quality, timely and granular statistics on the topics that matter most

Provide insightful and bespoke analysis to address the key issues facing society

Create new outputs and products, using innovative methods and new sources to fill evidence gaps

## HOW

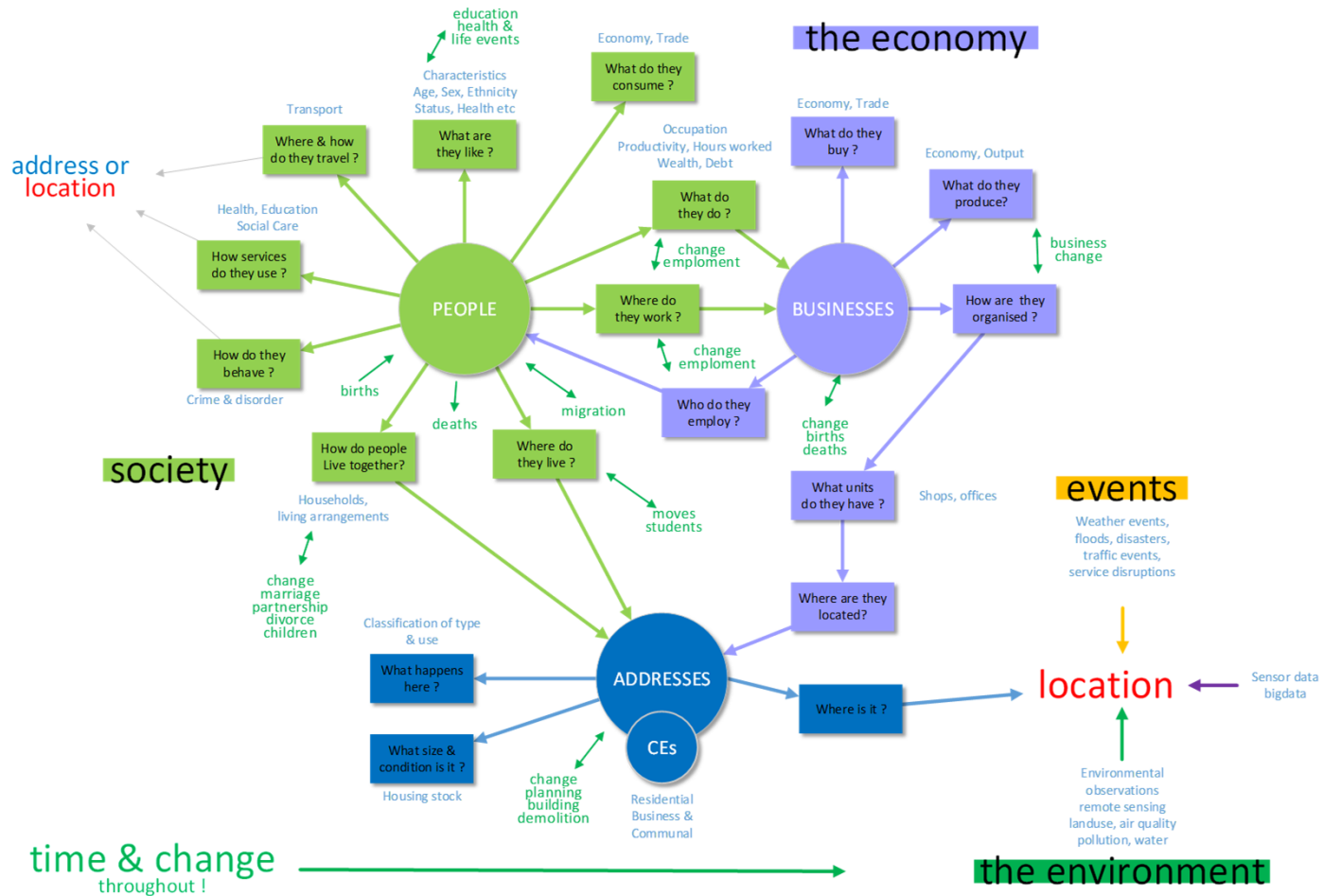
Engage with policy makers nationally and locally and key stakeholders to produce analysis that helps to inform decision making

Effectively describe the landscape of the UK with the best possible data sources

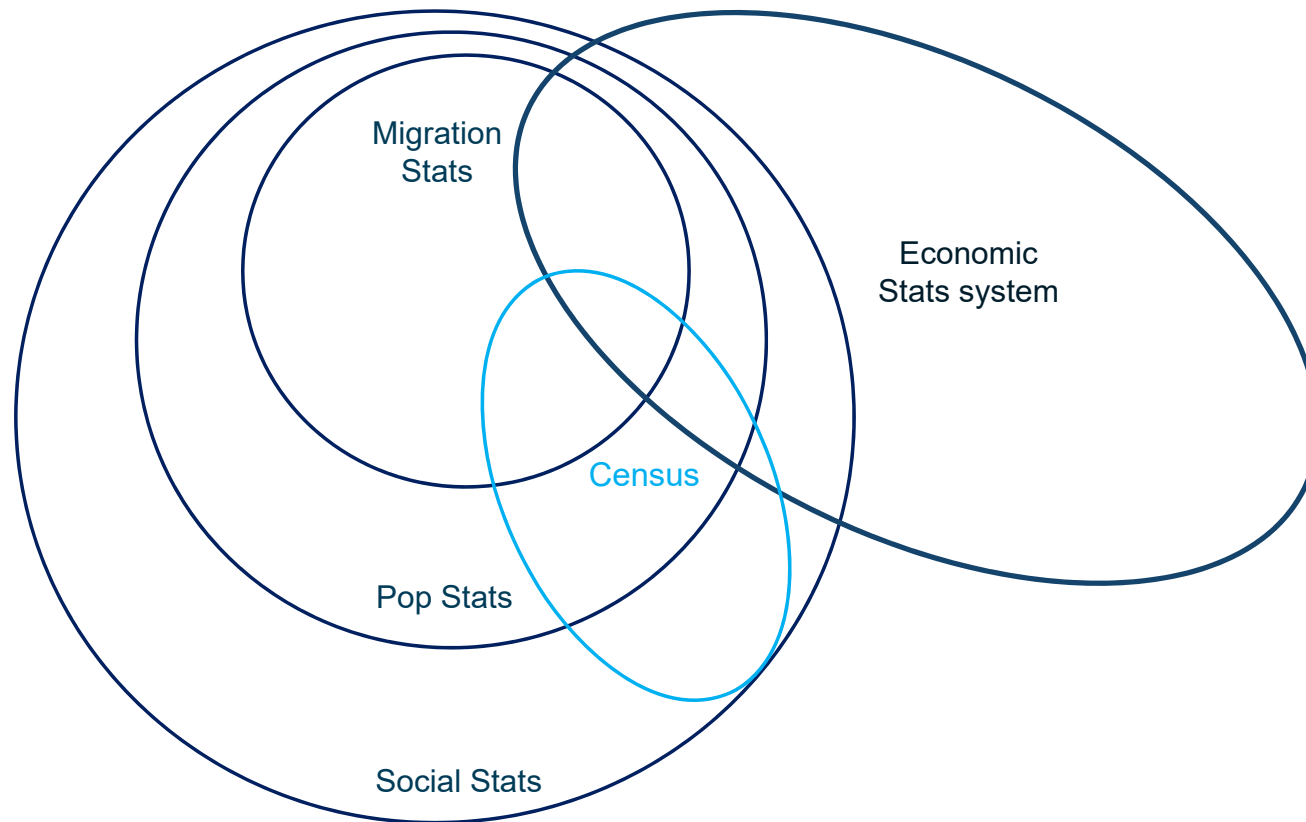
Continue to develop the capability of our systems and the skills of our staff to deliver our vision efficiently

Improve the way we communicate our statistics to strengthen the public's knowledge and increase the impact of our outputs

# The complexity of user needs



# The Statistical System(s)



# Vision

Admin data first population, migration and social stats system but supplemented by surveys.

Iterative transformation rather than binary decision between an admin data census and a 2031 Census

- Produce the best possible statistical outputs using all available sources of information and methods before 2021, in 2021 and beyond
- Telling a coherent, understandable story to users
- Incrementally build admin data led social statistics system
- Incorporate wider statistics, including outcome focused longitudinal analysis

Recommendation on the future of population statistics in 2023 based on progress made, and how well new system is matured and meets user needs

# Administrative data

Admin data first population, migration and social stats system for England and Wales but supplemented by surveys

- Admin data at core of population and migration statistics in 2020
- Iterative transformation rather than big bang decision
- Partnering across government departments working collaboratively with us in a timely manner, including to deliver the data required to transform PPP statistics
- Enabled by Digital Economy Act (2017)



# But.....

- There remains a place for surveys within this future vision.
  1. To produce statistical estimates:
    - for topics currently not available from admin data e.g. amount of voluntary care or sexual orientation
    - in conjunction with admin data via a sampling frame for follow up specialist surveys of small populations e.g. small locally concentrated ethnic groups
    - by supplementing/modelling with admin data to adjust for definitional differences e.g. ILO unemployment using survey estimates and admin data on benefits/income
  2. To provide a source (possibly in conjunction with admin data) of records to be provided and archived for genealogists.

# Transforming surveys

What will surveys look like in the future?

- Fill gaps that admin data cannot provide
- Assess and adjust for quality in admin data
- More efficient through a move from paper and personal interview-based collection to online
- Business surveys delivered 100% online
- Social surveys moving to online collection first, supported by field and telephone collection

# Digital by Default

- Government Digital Service

*‘Digital by Default aims to transform public services online - making them better and cheaper for taxpayers and more effective and efficient for government.’*

- Better Statistics, Better Decisions

*‘We will deliver an online Census in 2021’*

*‘We will radically rethink our data collection methods, and develop the infrastructure to collect more data electronically’*

# Opportunities, Challenges, Progress.

Ian O' Sullivan, Assistant Deputy Director, Social Survey Transformation

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# Opportunity knocks!

The PPP Transformation vision and strategy provides an opportunity to rethink how we will do social surveys in the future.

- Sample and coverage
- Online collection
- Questionnaire design

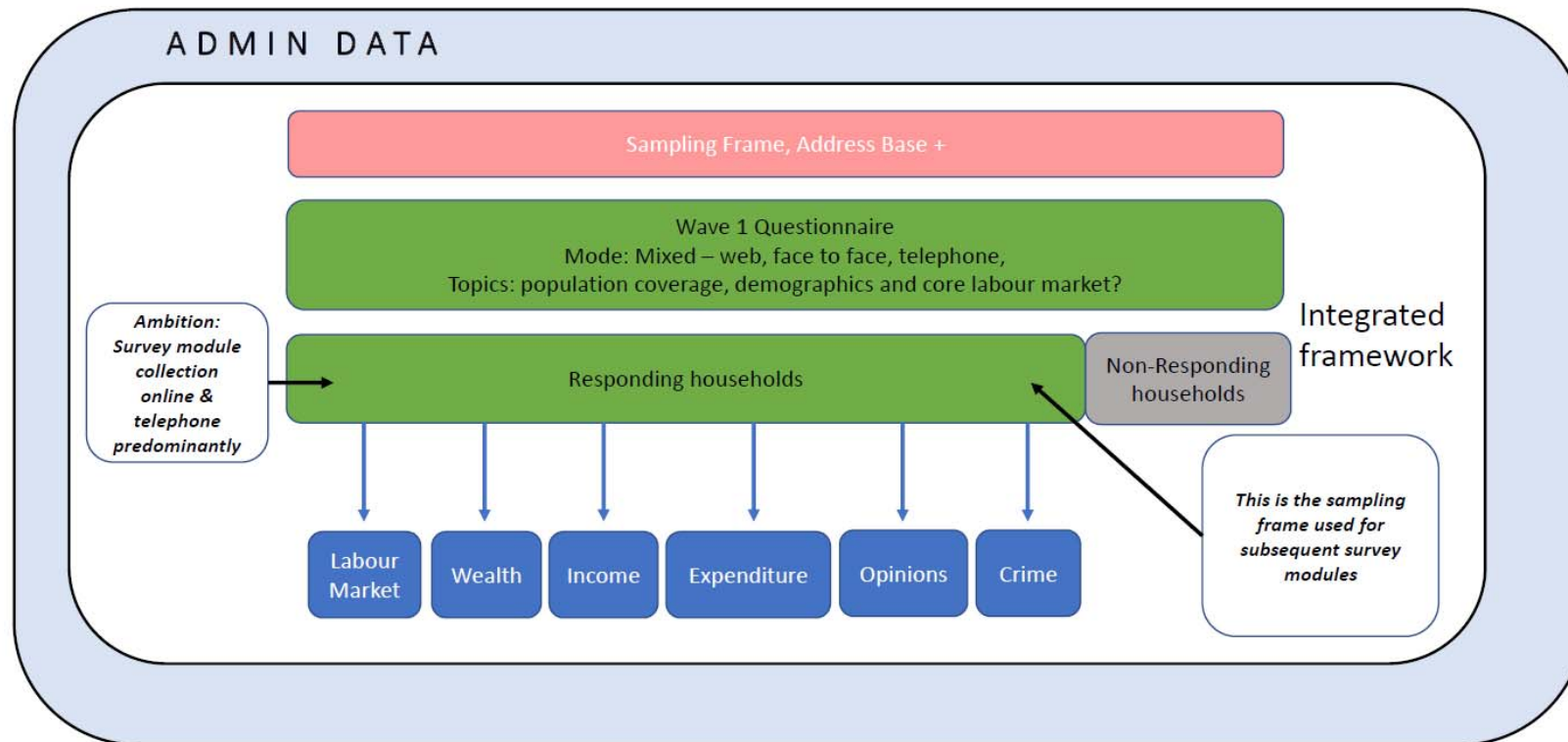
# Sample and Coverage

1. Several large-scale random probability surveys
2. Existing approach is to sample from PAF
3. Knock on doors to get to households
4. 45% to 50% of householders tell us go away!
5. Inefficient and retrograde in context of generation X Y & Z

# Integrating survey collection

1. Admin data population and migration system requires a population coverage survey
2. Sample of 500,000 households
3. Assess the quality of the admin data; fill the gaps etc
4. Can we merge additional requirements into this PCS question?
5. Karlberg, Reis, Calizzani, and Gras (2015)  
*A toolbox for a modular design and pooled analysis of sample survey programmes”*

# Integrated Survey Model





# What are the potential benefits?

1. Increase precision & lower geographic breakdown
2. Reduce questionnaire overload
3. Less excessive sampling
4. Increased efficiency
5. Greater flexibility

# What are the challenges?

1. Harmonisation of sample and survey designs
2. Response
3. Attrition
4. Interviewer impact
5. Et Cetera

# Online collection

Knock Knock...

....whose there?

I'm an interviewer from ONS I'd like to ask you some questions.

How long is it going to take?

Can I do it on-line?

No thanks I'm just putting the kids to bed!!!

# Key research challenges

1. Online uptake
2. Mixed-mode response
3. Bias
4. Attrition
5. Retention

# Test 1: Online uptake

- Sample of 37,800 households drawn from PAF
  - 12,600 each in England, Scotland and Wales
- 60 experimental test groups
  - 2 envelope colours (brown & white)
  - 2 regional branding conditions (Scotland and Wales)
  - 4 mailing strategies

# Test 2: Incentivisation & Online Uptake

- Sample of 40,000 households
  - 34,678 in England; 3,471 in Scotland; 1,851 in Wales
- 4 Experimental Conditions:
  - No incentive
  - £5 voucher (unconditional)
  - £5 voucher (unconditional) & £10 voucher (conditional)
  - A tote bag



# Test 3: Online test using new ONS systems

- Testing data collection using transformed ONS collection platforms
- Priority: system integration and process flows
- Online only test
- Sample of 3,000 households

# Test 4 Statistical Test

- Sample 14,000 households (England, Wales, Scotland)
- Issued over 15 weeks
- Collection period: 01 Nov 18 – 02 April 19
- Online first, Face-to-Face for non-responders



# Results

Test 1 – Overall 18.0%

Test 2 – Ranged from 22.3% to 30.5%

Test 3 – Overall 28.3%

Test 4 – 30.7% online and 28.4% Face-to-Face

That's 59.1% to a blended PCS/LMS survey

# Questionnaire design: Challenges



# The LFS

1. 600 variables
2. 45 minutes long
3. Data User-centric design
4. Multi-topic so arguably not cohesive
5. Complex

# The Opportunity – survival!

1. Shorter
2. Simpler
3. Respondent centric
4. Questions optimized for mode

# GOV.UK – GDS Design Principles



# Approach

Review at desk  
Talk to your users  
Design  
Test  
Review  
Design  
Test

# Progress? Yes Challenges remain...

1. Bias
2. Estimates
3. Mode effects
4. Attrition
5. Stakeholders

# Final words...

*'The pessimist sees difficulty in every opportunity.  
The optimist sees the opportunity in every  
difficulty'*

*(Winston Churchill)*