

Evaluating the potential for moving away from a traditional census

3 June 2016

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UK Context

Three Census taking authorities in UK:

- *ONS (England and Wales)*
- *National Registers for Scotland*
- *Northern Ireland Statistics and Research Agency*

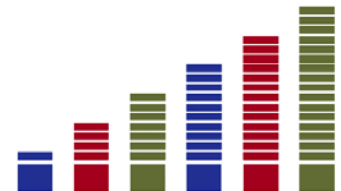
All work closely together

Presentation focuses on England and Wales



Beyond 2011 Programme - 2011-2014/15

- Programme to identify the best way to provide small area population and socio-demographic statistics in future (England and Wales)
- ONS consulted on two options in autumn 2013
 - Census once a decade
 - Census based on administrative data and large annual surveys
- Made a recommendation in March 2014

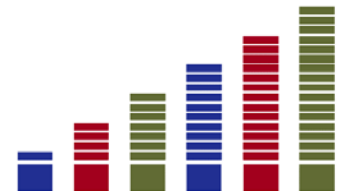


National Statistician's recommendation (March 2014)

- An **online census** of all households and communal establishments in 2021 - with support for those who are unable to complete the census online.

AND

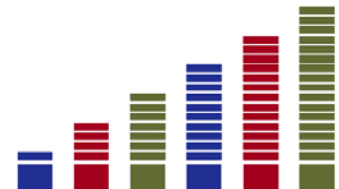
- Increased use of **administrative data and surveys** in order to enhance the statistics from the 2021 census and improve annual statistics between censuses.
 - Make the **best use of all available data** to provide the population statistics required.
- AND
- Offer a **springboard** to the greater use of administrative data and annual surveys in **the future**



Way forward agreed with Government

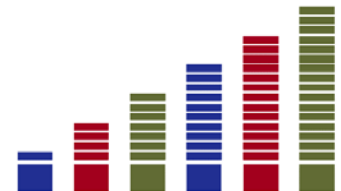
- “The Government welcomes the recommendation for a **predominantly online census** in 2021 supplemented by further use of administrative and survey data.
- **Government recognises the value of the census** and its history as a bedrock of statistical infrastructure. The census provides information on the population that is of **fundamental importance to society....**
- Our ambition is that **censuses after 2021** will be conducted **using other sources of data** and providing more timely statistical information dependent on the dual running sufficiently validating the perceived feasibility of that approach.”

Minister for the Cabinet Office, July 2014



What do we mean by an Administrative Data Census?

- **Aiming to replicate as many census outputs as possible using admin data (and surveys) by 2021 to compare with 2021 Census**
 - **Recommendation in 2023**
- Three key types of Census outputs:
 - Size of population
 - Number and structure of households
 - Characteristics of housing and the population
- **Lot of potential with admin data alone but it will not provide the complete solution.**
- **Need access to range of admin data and combine with surveys**
- Likely to need two new surveys:
 - Annual 1% coverage survey to help measure size of population and households
 - Annual characteristics survey – size tbc



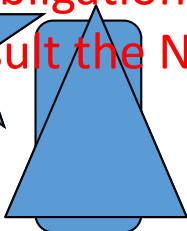
What needs to be in place?

European Conference on
Quality in Official Statistics



1. Easy access
to data

and obligation
to consult the NS



Surveys



5. Value
for money

Data standards

2. Ability to
link data
efficiently
and
accurately

Matching
system/architecture

Linked
data

Population and
socio-demographic
information needs

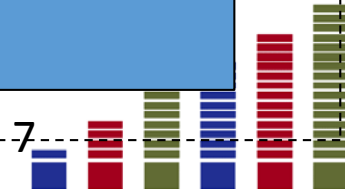
3. Methods to produce
statistical outputs of
sufficient quality to meet
priority information needs

Methods

Privacy and security safeguards
(Public, suppliers, Parliament)

4. Acceptable to
stakeholders

USERS



First assessment of ONS's ability to move to Admin Data Census post-2021

	Access to data	Ability to link	Methods to meet information needs				Acceptability to stakeholders	Value for money
			Population estimates	Households and families	Housing characteristics	Population characteristics		
Where are we now?	Red/ Amber	Amber	Amber	Red/ Amber	Amber	Red/ Amber	Red/ Amber	Amber
Where do we expect to be by 2023?	Amber/ Green	Green	Green	Amber/ Green	Green	Amber	Amber/ Green	Amber/ Green

Availability of population characteristics on administrative sources

Individual variables

Sex

Date of birth

Marital Status

Household relationships

National identity

Ethnicity

Language (ability to speak English or Welsh)

Religion

Qualifications

General health

Disability/long-term health conditions

Carers (number of)

Economic Activity

Industry of occupation

Mode of travel to work
































































































Place of work

Country of birth

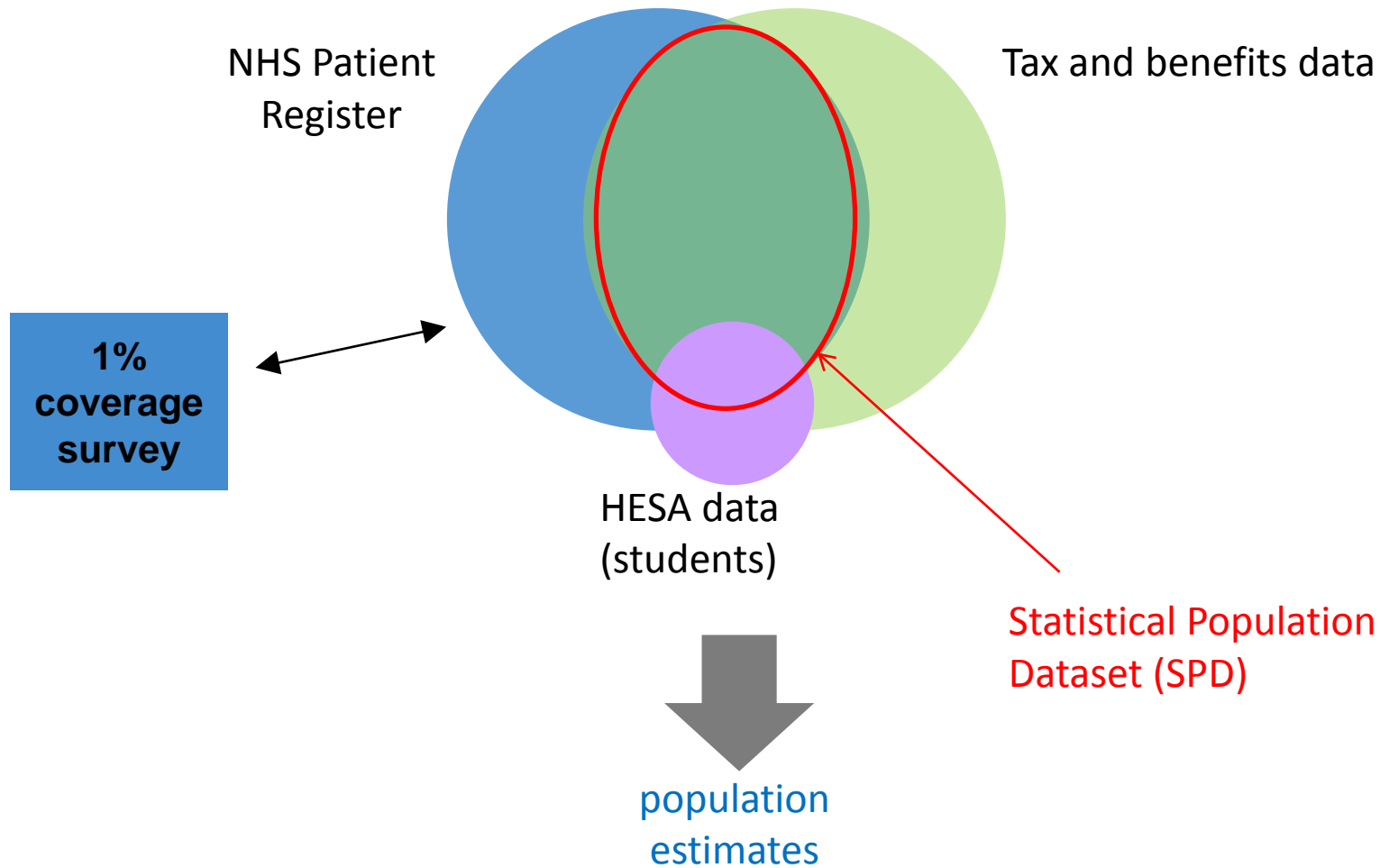
Internal or international migrant

Term time address

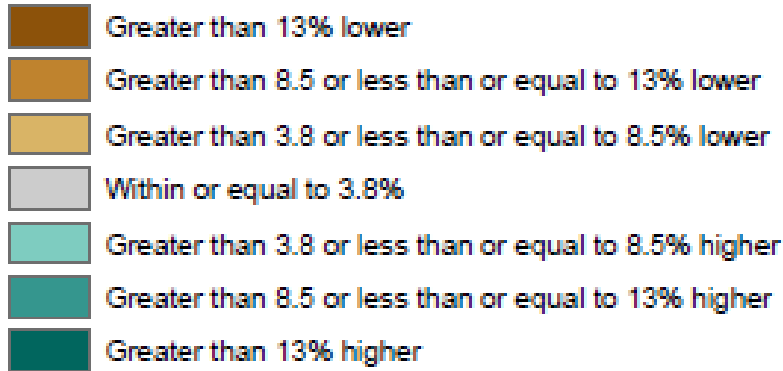
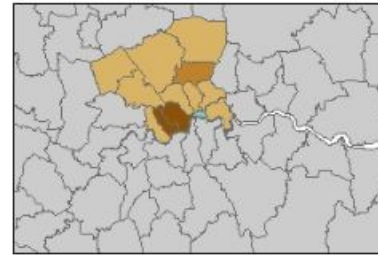
Income

	Earnings and benefits data	Health data	Education data	Vehicle and driver data	Property attributes
Sex	 G	 G	 G	 G	 R
Date of birth	 G	 G	 G	 G	 R
Marital Status	 A	 R	 A	 R	 R
Household relationships	 A	 R	 R	 R	 R
National identity	 R	 R	 G	 R	 R
Ethnicity	 A	 A	 G	 R	 R
Language (ability to speak English or Welsh)	 RA	 RA	 A	 R	 R
Religion	 R	 R	 G	 R	 R
Qualifications	 R	 R	 AG	 R	 R
General health	 R	 A	 RA	 R	 R
Disability/long-term health conditions	 A	 A	 A	 RA	 R
Carers (number of)	 A	 R	 R	 R	 R
Economic Activity	 A	 R	 A	 R	 R
Industry of occupation	 A	 R	 R	 R	 R
Mode of travel to work	 R	 R	 R	 R	 R
Place of work	 A	 R	 R	 R	 R
Country of birth	 RA	 RA	 R	 R	 R
Internal or international migrant	 A	 G	 A	 A	 R
Term time address	 R	 R	 G	 R	 R
Income	AG	R	R	R	R

Producing population estimates from admin data and surveys

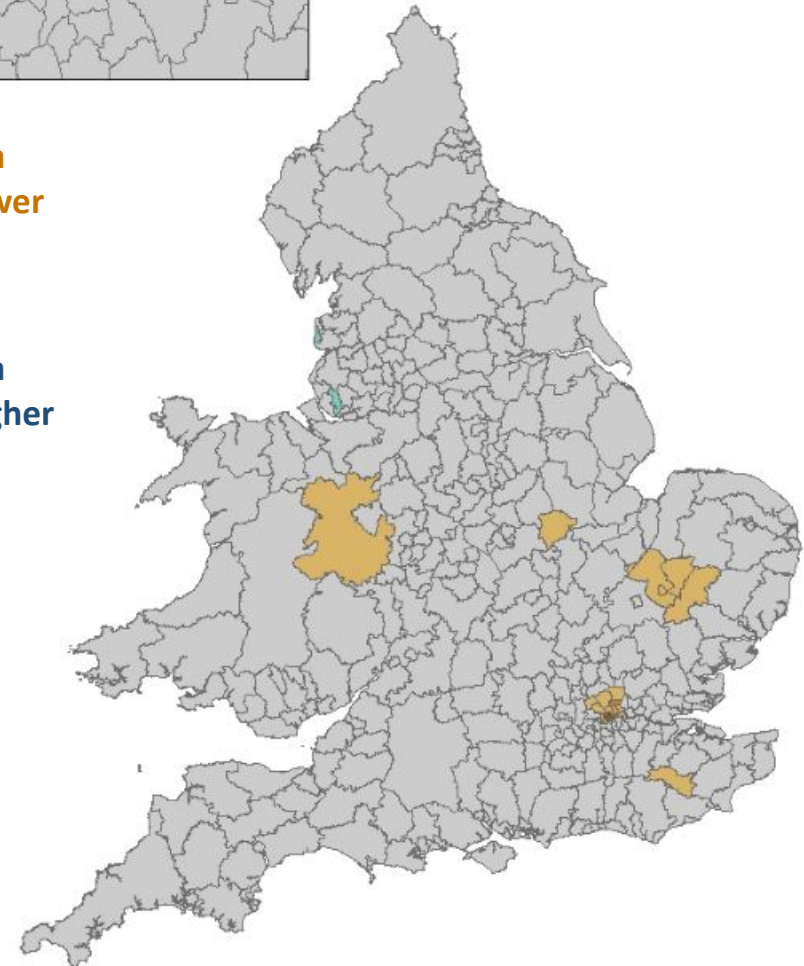


2011 Admin data based population counts compared to the 2011 Census



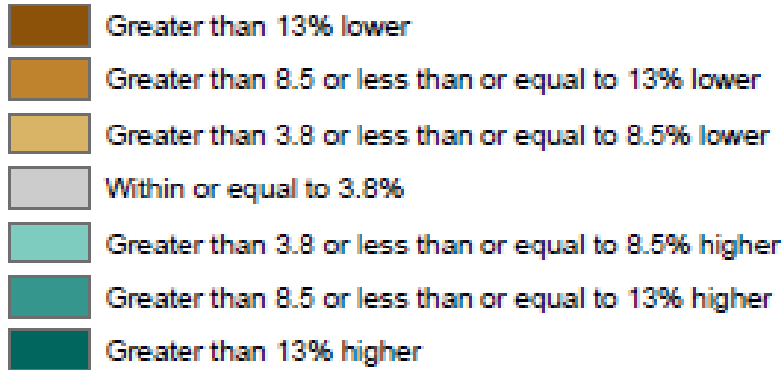
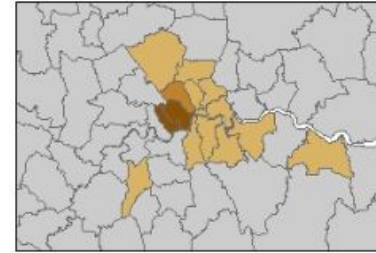
**Admin data
 method lower
 than 2011
 Census**

**Admin data
 method higher
 than 2011
 Census**



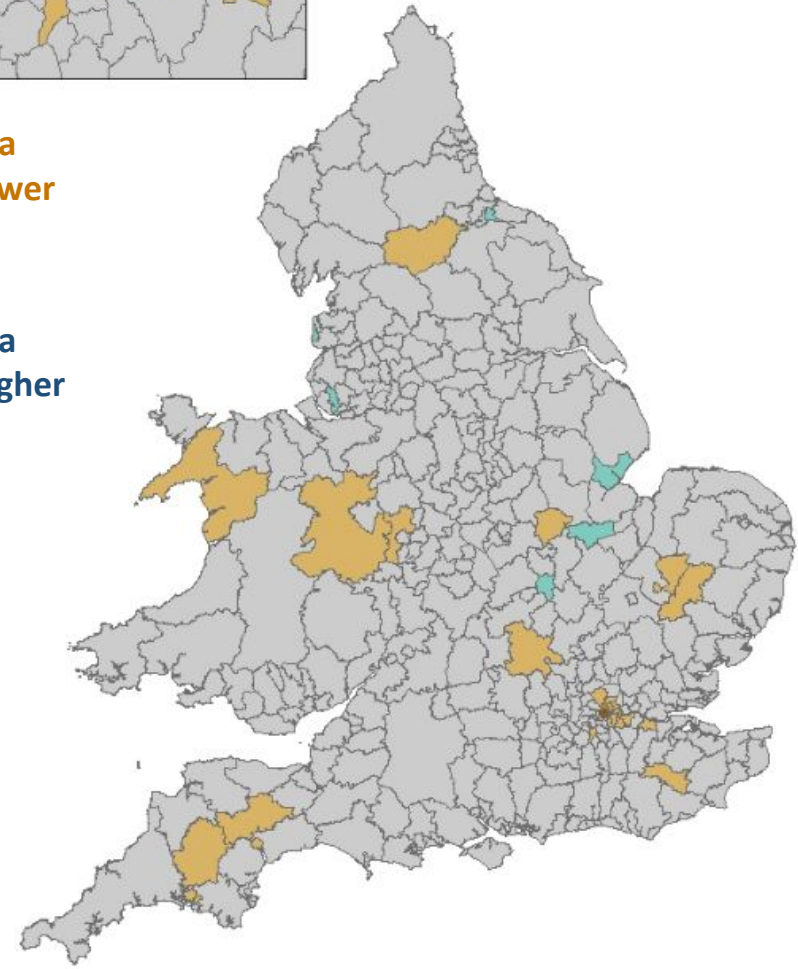
94% of LA total population
 Counts within 3.8% of 2011 Census
 estimates

Admin data based population counts compared to the 2014 MYEs



Admin data
 method lower
 than 2014
 MYE

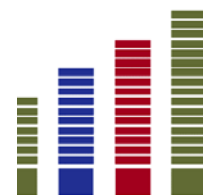
Admin data
 method higher
 than 2014
 MYE



90% of LA total population counts within 3.8% of mid-year estimate in 2014

Admin based population counts (SPD v1.0) compared to 2014 mid-year estimates by age/sex

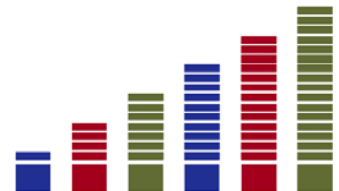
Males and females (where comparison data is higher or lower than official estimates) %



Plans for 2016 Research Outputs

- Population estimates down to small area level and by single year of age
- Improvements to the methods used to produce administrative data population estimates
- Outputs on the number of households
- Research on income from combined PAYE and benefits data

We are aiming to expand the accuracy, breadth and detail of these outputs over time

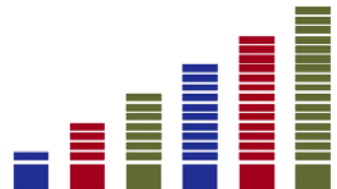


Annual cycle - GSBPM



How ONS are engaging with data suppliers

- Secondments and loans to data supplying departments
- Working with data suppliers on projects that are mutually beneficial
- Statistical Data Quality Working Groups
- Workshops to review and understand the end-to-end data collection process



Thank you for your time!

Read our first assessment:

[https://www.ons.gov.uk/census/censustransformationprogramme/
administrativedatacensusproject/administrativedatacensusannualassessments](https://www.ons.gov.uk/census/censustransformationprogramme/administrativedatacensusproject/administrativedatacensusannualassessments)

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