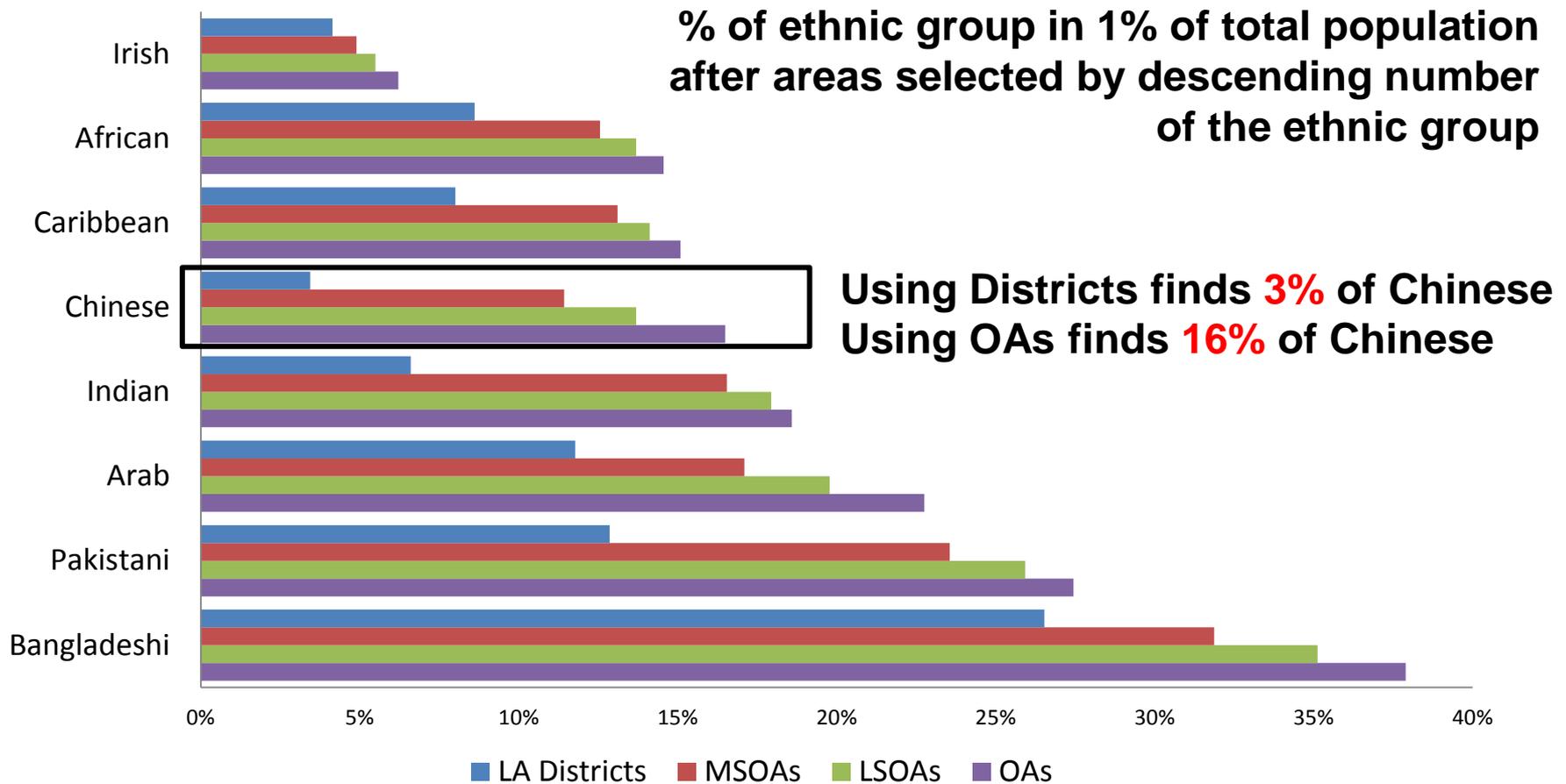# Do the census taking alternatives meet needs for small area data on **ethnicity?**

The Future of Small Area Statistics – Public Meeting

Organised by the Beyond 2011 Independent Working Group
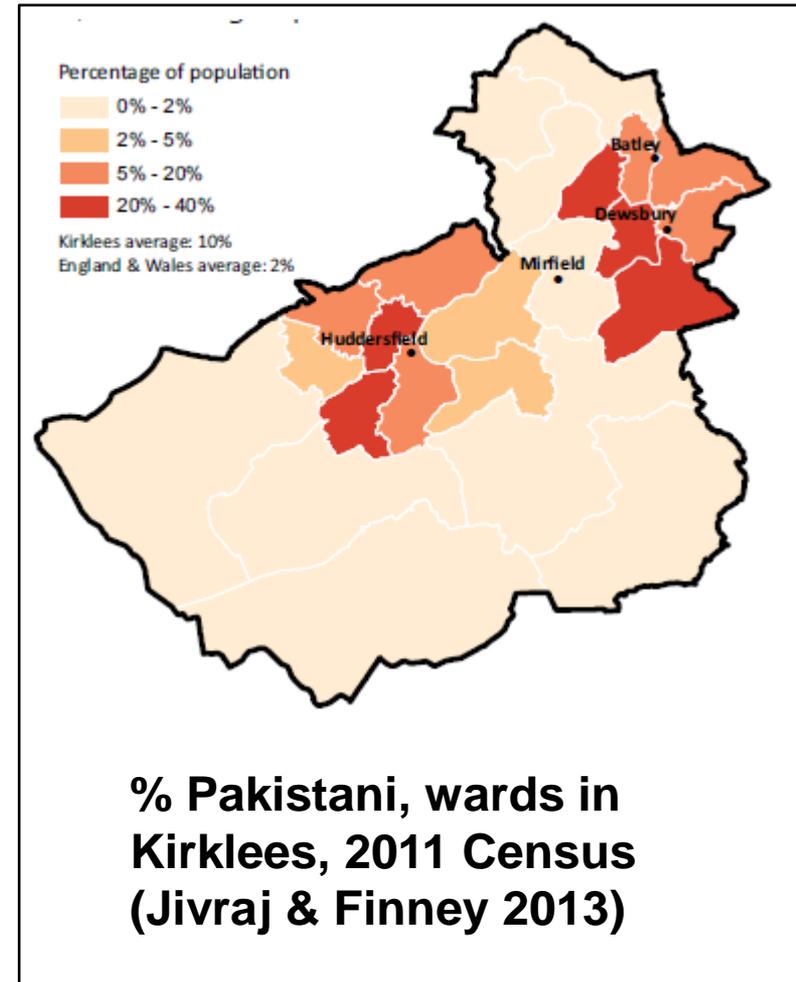
RGS-IBG, London, 22nd October 2013

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CCSR

CoDE
Centre on Dynamics of Ethnicity

Finding minorities: efficiency gains from small area data

% of ethnic group in 1% of total population after areas selected by descending number of the ethnic group

Using Districts finds **3%** of Chinese
Using OAs finds **16%** of Chinese

Legend: LA Districts | MSOAs | LSOAs | OAs

Categories (top to bottom): Irish, African, Caribbean, Chinese, Indian, Arab, Pakistani, Bangladeshi

X-axis: 0% to 40%

Case Study 1: Kirklees Council Burial Service

- Monitoring of local populations in terms of ethnicity & religion

- Led to targeted initiatives and changes in planning and staffing

  - More Muslim and Hindu leaders of services

  - Burial grounds to accommodate preference for Muslim burial close to family & community members

Percentage of population
- 0% - 2%
- 2% - 5%
- 5% - 20%
- 20% - 40%

Kirklees average: 10%
England & Wales average: 2%

Batley
Dewsbury
Mirfield
Huddersfield

% Pakistani, wards in Kirklees, 2011 Census (Jivraj & Finney 2013)

Example of data required: *religion X age X neighbourhood*

	Population in 2011 Census LC2107EW	Reliably Provided with Online Census Option?	Reliably provided with Admin/Survey Option?
Hindus 65+ in Dewsbury	12	Yes	No
Muslims 65+ in Dewsbury	765	Yes	Yes: 1 year

i.e. We would be **95 % sure** that the **number of Muslims age 65+ in Dewsbury** was 765 +/- 264, or **between 501 and 1,029**

4% survey will give 'accurate' results i.e. we would be 95% sure that survey results are within 40% of the right answer

Survey accuracy probably **NOT** good enough to inform service provision, to capture change over time, or as a basis for population projections

Case Study 2: Health Needs Assessment of ethnic minority children in Leeds

- Aim: to reduce ethnic inequalities in health by better understanding health needs

- Project of 5 Leeds Primary Care Trusts to assess the health needs of ethnic minority children in Leeds (Kavanagh and Chadwick 2005)

- Population profiling using census data for inner city Leeds

Example of data required: *ethnicity X age X health X neighbourhood*

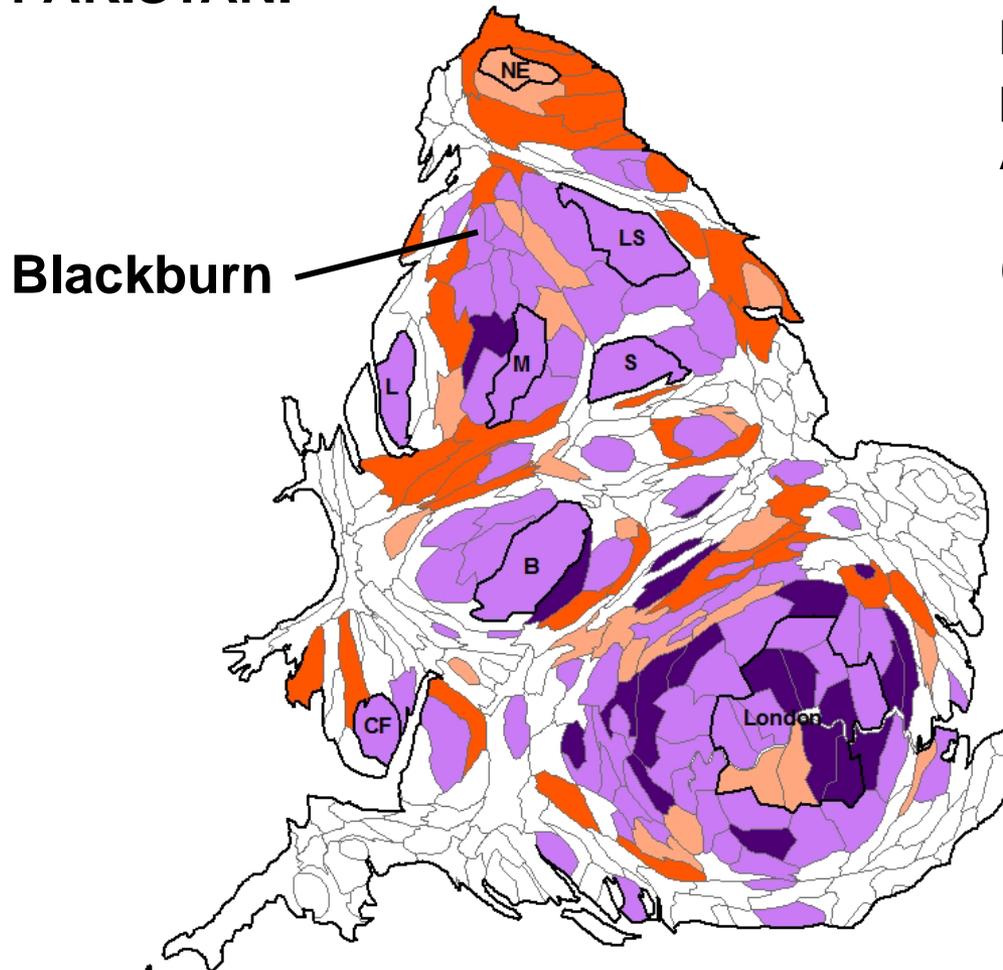| Leeds Centre = sum of 6 inner city wards	Age 0-15, Bad Health, Leeds Centre	% Age 0-15, Bad Health, Leeds Centre	Reliably provided with Online Census Option?	Reliably provided with Survey Option?	Confidence Interval for Survey Option
	(2011 Census LC2107EW)				
White	429	3%	Yes	Yes: 3 years	319-539
Mixed	73	3%	Yes	No	
Asian	220	4%	Yes	Yes: 5 years	162-278
Black	84	3%	Yes	No	
Other	25	3%	Yes	No	

Would similarity in rates be shown with certainty in a survey?

i.e. would be 95% sure that survey results are within 40% of the right answer

Survey accuracy probably **NOT** good enough for service provision, to capture change over time, or to assess inequalities
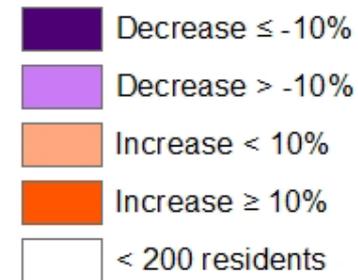
Case Study 3: Shifting social debates: challenging myths of segregation

PAKISTANI

Blackburn

Changes (2001-2011) in the **Index of Dissimilarity** for where people live (OAs) within Local Authority Districts

(Census 2001 and 2011)

Decrease ≤ -10%	
Decrease > -10%	
Increase < 10%	
Increase ≥ 10%	
< 200 residents	

Map and data provided by Gemma Catney. See also Catney (2013)

For these conclusions, do we need census data?

Cannot have OA data from survey. Are ward data enough?

- E.g. **Pakistani population in Blackburn wards**: modest **decrease** in segregation 2001-2011 (ID down 2 % points)

- Simulation of Pakistani population in Blackburn wards with survey option assuming census showed true populations at two times

- Calculation of change in segregation using simulated survey population estimates

Number of times result obtained with 100 simulations of a survey:	1 year (compare 2021 with 2022)	3 years (compare 2021 -3 with 2024-6)	5 years (compare 2021-5 with 2026-31)
Increase in segregation	17	7	1
Decrease in segregation	83	93	99

i.e. We would be unlikely to be misled if comparing 5-year periods. Impossible to measure for smaller groups

"having local population data is more critical now than ever before"

Knowing details about the local population will become increasingly important as work previously undertaken by local authorities is out-sourced: It will be necessary to know about communities to ensure that the commissions made reflect the population needs.

Summary: Will the census taking options meet the needs for small area ethnicity data?

From our case studies:

- Online census is likely to provide populations for small areas that can inform service provision by identifying needs, allow confidence in change over time, and enable identification of inequalities;

- Administrative data/survey option is likely NOT to provide this because of required confidence intervals around survey estimates (especially as ethnicity is a characteristic clustered within households).

*What examples do **YOU** have of the need for small area ethnicity data?*

many thanks

to those who have contributed, particularly:

Tim Waldron (Kirklees CC), Gemma Catney (University of Liverpool), James Nazroo (University of Manchester), Kirit Patel (Oxfam), UoM Equalities and Diversity/Widening Participation Team

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Kavanagh, S. and Chadwick, K. (2005) *Health Needs Assessment: A Practical Guide* Health Development Agency/NICE

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