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Longitudinal research and ethnic group comparisons: challenges, findings and future possibilities

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Overview

Why are longitudinal perspectives important?

Why are they important in ethnicity research?

Challenges for research

Data opportunities

Some examples: past, present and future

Limits and caveats



Virtues of longitudinal research...

Enhance our understanding of the social world.

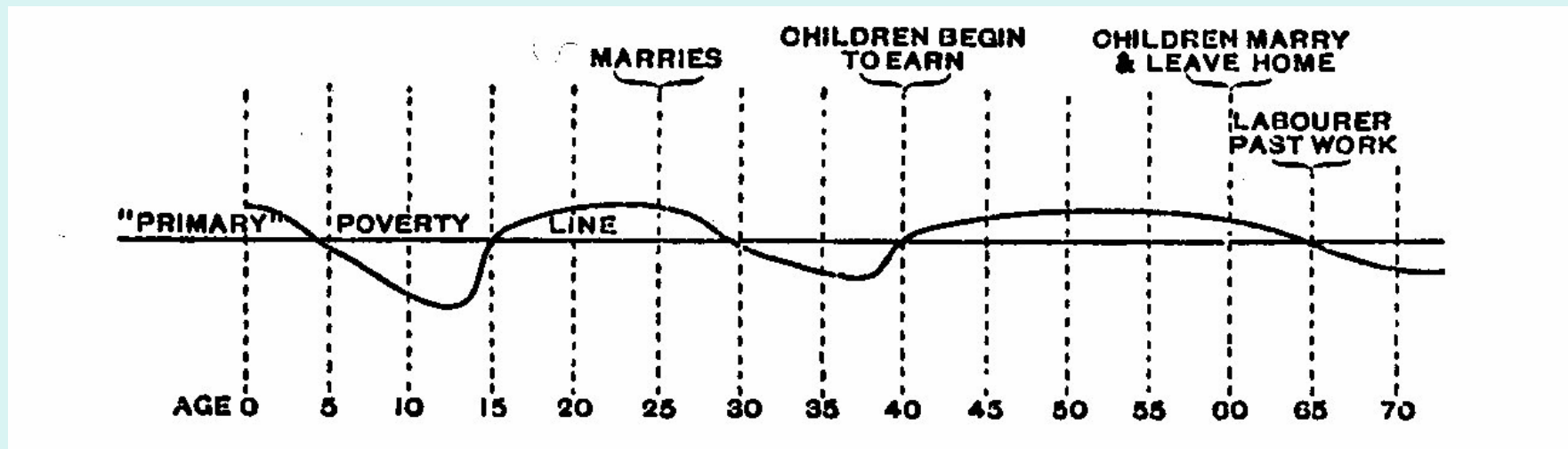
Insight into causal processes

Dynamic rather than stable circumstances

Importance of duration

Inherently longitudinal phenomena

Rowntree's lifecourse approach to poverty



Source: Rowntree (1902), p.136

Why is a longitudinal perspective important for ethnicity research?

- **Patterns and processes may vary across ethnic group**
 - increase understanding of groups
- **Differences across groups may give us insight into or challenge assumptions**
 - informative not only about group(s) but also potential to illuminate (and complicate) our understanding of wider social processes
- **Some questions we are interested in may be particularly salient for specific ethnic groups**
- **May help to understand ethnicity**

Challenges



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Meaning and coherence of groups

- Issues of definition and measurement

Diversity between groups

Small sample sizes in many data sets

- Pooling possible for some cross-sectional studies but not for longitudinal studies (except short panel in LFS)

Attrition

- May itself be the subject of interest

Often trade-offs between size, content and coverage (e.g. of age, geography)

Interpretation

- ethnic group differences are not typically 'caused' by 'ethnicity'
- Normalising of reference group / point of comparison

Measuring ethnic groups

Ethnic group – census categories, or variants

(Country of birth)

(Parents' country of birth)

[Religion]

[Language]

[National identity]

['Britishness']

[Citizenship]

Data opportunities (UK)

- **Administrative data**
 - E.g. Benefit data
 - National Pupil Database
- **Linked census data**
 - The ONS Longitudinal Study
 - (also Scottish Longitudinal Study (data from 1991) and Northern Ireland Longitudinal Study (data from 2001))
- **Longitudinal surveys with oversamples**
 - Millennium Cohort Study
 - Longitudinal Study of Young People in England
 - Understanding Society
- **And data linkage**



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SOME EXAMPLES...

1. Children and welfare dynamics

- **The question:** Do children's durations on means-tested benefits till exit, and durations off benefit till re-entry vary by ethnic group?
- **Why is it interesting?** Context of debates on benefit dependency; means-tested benefit receipt proxy for poverty – long-term worse than short term; but increasing attention to insecurity as a negative experience as well. If there are differences across ethnic groups, does that give us any insight into – or places to look for differences?
- **Source data:** Housing / council tax benefit records from Birmingham
- **Approach:** Estimation of exit and re-entry probabilities using discrete time models, among children in HB/CTB recipient families

HB/CTB data

Collected for the administration of benefit payments.

Local authority level – so specific to local authority unless gathered separately from several

Complete records for all current recipients at any point in time

Records can be extracted for specific dates

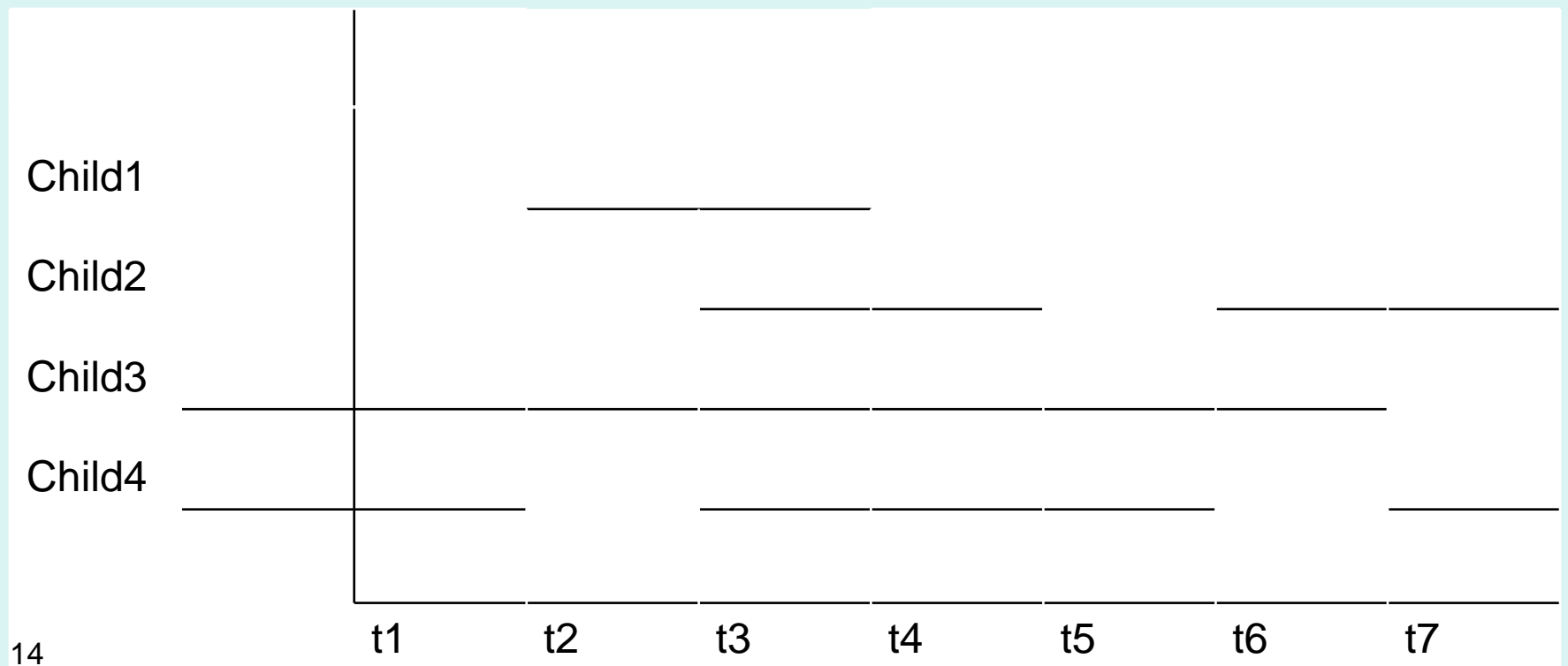
Unique ids for benefit units and individuals within units

Those who stop and restart claiming are linked to their previous record

Basics of analysis...

- 7 quarters of complete data extracts from 1998-1999
- Can be matched over time for same individual – even if they change benefit unit
- Ethnic group information was collected, but voluntary so some additional work validating and adding in manually from records
- Controls for age, income support receipt, mother's age, housing tenure, number of siblings, family structure
- For exits: c.114,000 person-spells and c.18,000 exits (inflowers only)
- For re-entries: c.140,000 person spells; and c.33,000 re-entries (outflowers only)

Example of structure



Results: exit

<i>Ethnic group</i> (baseline = <i>white UK</i>)	Coefficient (SE)	Hazard ratio (SE)	P-value
Bangladeshi	-.18 (.08)	.84 (.07)	.034
Black Caribbean	.17 (.06)	1.18 (.07)	.007
Indian	-.04 (.08)	.96 (.08)	.612
Pakistani	-.02 (.05)	.98 (.05)	.655

Source: BCC
HB/CTB data;
adapted from
Platt (2006)

Results: re-entry

<i>Ethnic group</i> (<i>baseline =</i> <i>white UK</i>)	Coefficient (SE)	Hazard ratio (SE)	P-value
Bangladeshi	.40 (.05)	1.49 (.08)	.000
Black Caribbean	.06 (.04)	1.06 (.04)	.150
Indian	.17 (.05)	1.19 (.06)	.001
Pakistani	.30 (.03)	1.35 (.04)	.000

Source: BCC
HB/CTB data;
adapted from
Platt (2006)

Conclusions

Among those on benefit in Birmingham at some point over the period and controlling for basic family circumstances...

- Children in Bangladeshi benefit units are more likely to experience slower moves off AND faster moves back on than the majority
- Children in Black Caribbean benefit units exit faster BUT show now differences in re-entry rates
- Children in Indian and Pakistani benefit units show no differences in exit rates BUT among those who exit, re-entry is faster

The combination of exit and re-entry rates that comprises the stock varies by ethnic group. Suggests incomes close to the benefit line for Bangladeshis, more cycling among some groups, and that once off there are particularly factors which help some groups to stay off.

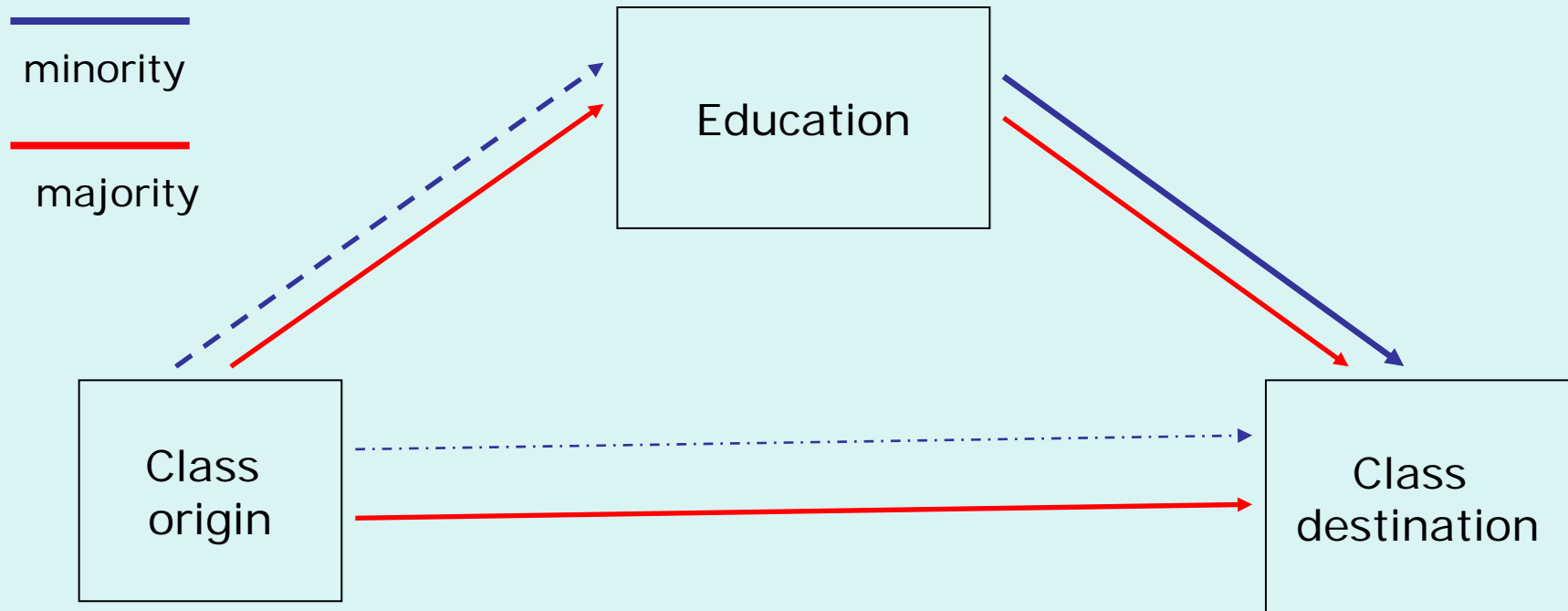
2. Social mobility

- **The question:** Does social mobility vary with ethnicity? Is social class background more or less important for minority ethnic groups in class outcomes?
- **Why is it interesting?** Social mobility is one of the big topics. But largely descriptive – assumptions about processes of transmission of advantage. If patterns don't apply or are different across ethnic groups, then challenges assumptions. Education may not produce anticipated returns for minority groups but role in social mobility may still be very pertinent.
- **Source data:** ONS Longitudinal Study
- **Approach:** Initial analysis: loglinear models (not illustrated). Follow-up: binary logistic regressions for chances of professional class outcomes; multinomial regressions – for all potential outcomes (including unemployment).

Models of majority and minority social mobility



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Recruitment for particular occupations; pre-migration class and assets; economic situation in host and sending countries; discrimination and other factors suppressing occupational attainment on migration

The Longitudinal Study

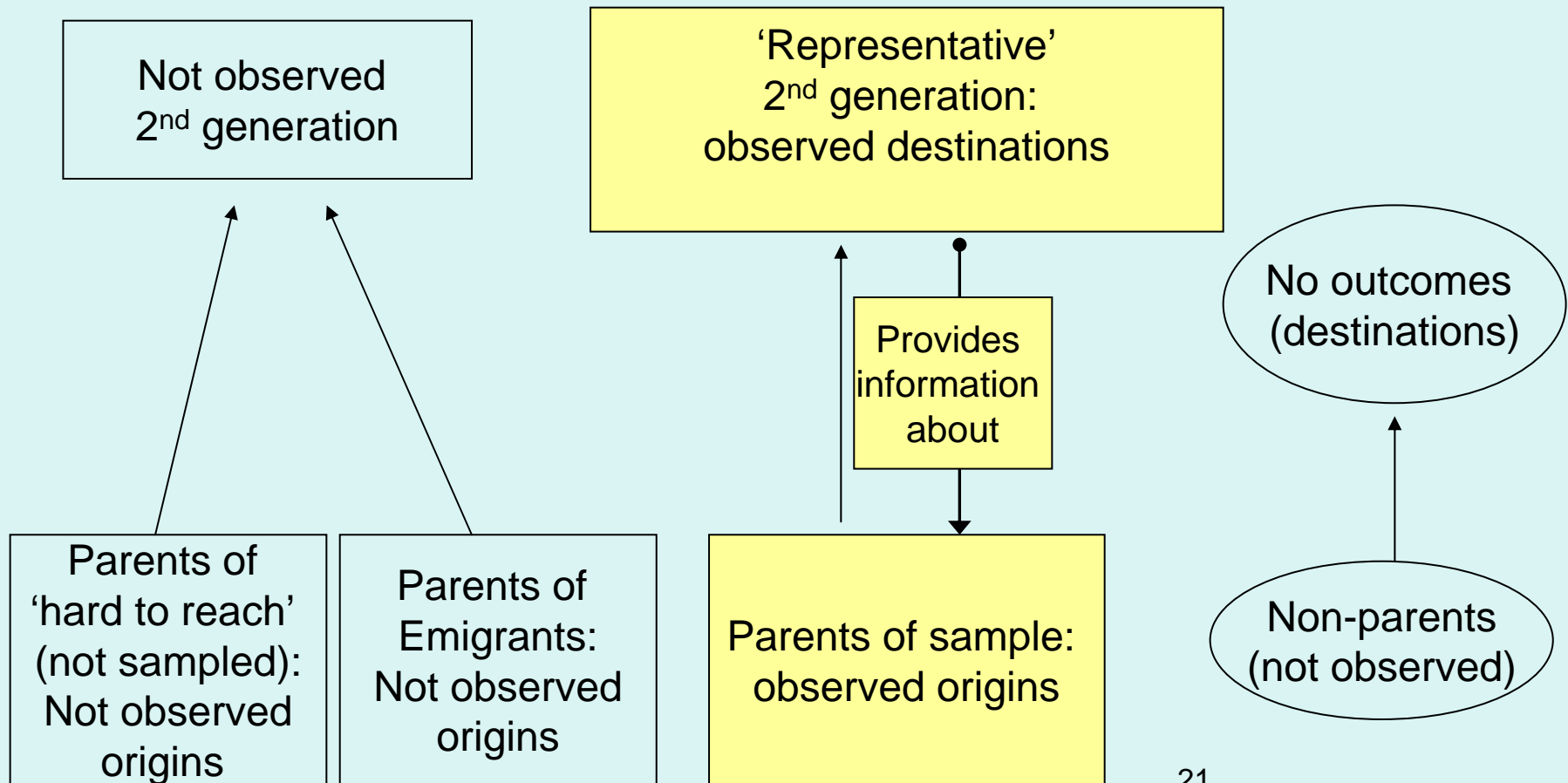
The ONS Longitudinal Study (LS) contains linked census and vital event data for 1 per cent of the population of England and Wales. Information from the 1971, 1981, 1991 and 2001 Censuses has been linked across censuses as well as information on events such as births, deaths and cancer registrations.

The original LS sample included 1971 Census information for people born on one of four selected dates in a calendar year. These four dates were used to update the sample at the 1981, 1991 and 2001 censuses and to add new members between censuses.

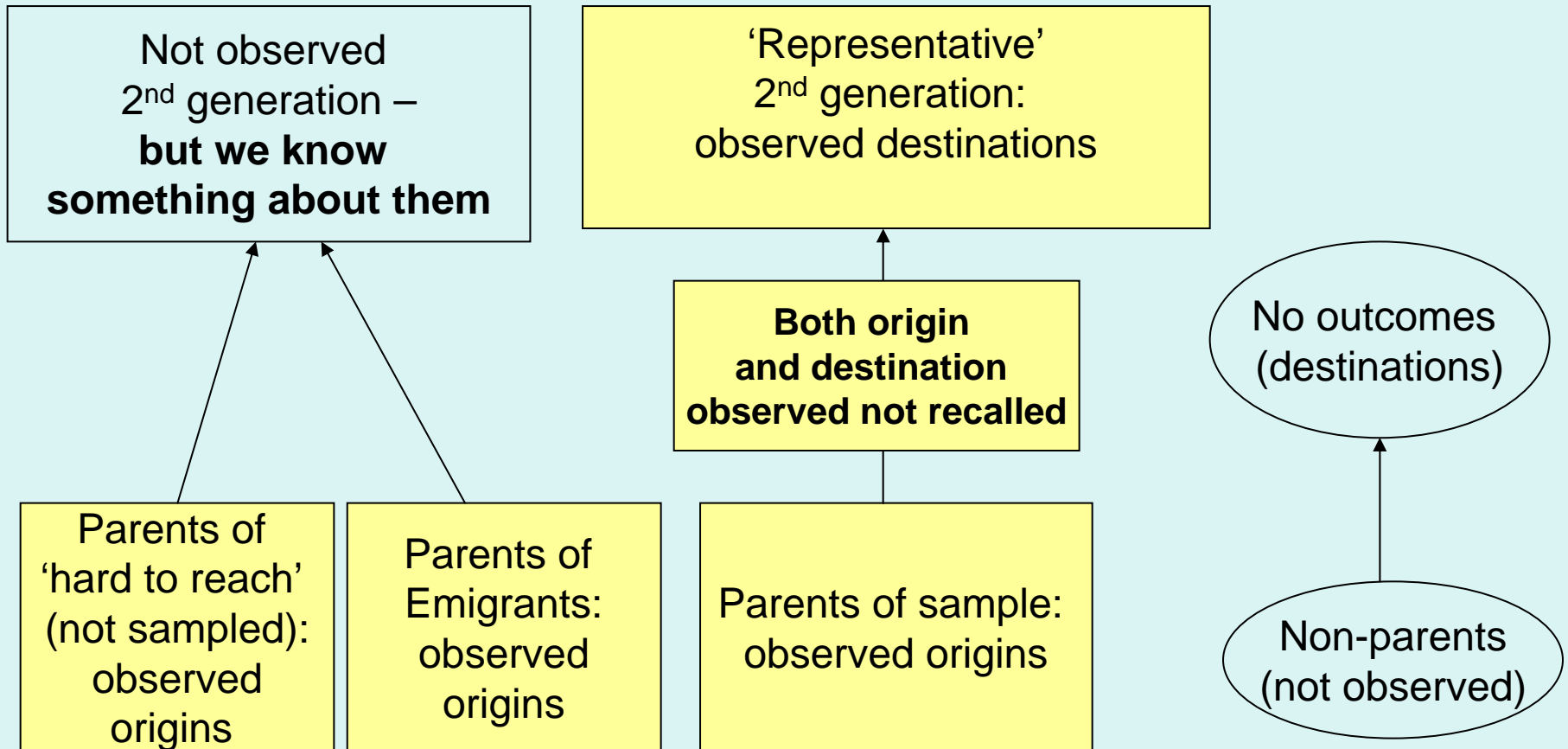
New LS members enter the study through birth and immigration. Data are not usually linked to a member after their death or after de-registration from the NHS Central Register but these members' records remain available for analysis.

Census information is also included for all people enumerated in the same household as an LS member, but only information on LS members is linked over time.

Selection in retrospective studies



Studying mobility with the LS



Details of approach

Origins measured in 1971 or 1981 at age 4-15.

Destinations measured in 2001 at age 24-45. Outcomes broad social classes professional managerial; intermediate; routine and manual; and unemployment.

Dominance approach to allocation of social class.

Highest qualifications measured in 2001

Parental education and family structure, as well as proxies for economic position also measured at origin.

Controls for wave observed, age, own family structure

Importance of prospective rather than retrospective approach, especially for ethnic minority comparisons

Results 1: Professional managerial outcomes

	Without own education	With own education
Caribbean	.306 (.076)***	-.037 (.081)
Black African	.469 (.246)*	-.001 (.268)
Indian	.460 (.068)***	.105 (.069)
Pakistani	-.525 (.103)***	-.792 (.111)***
Bangladeshi	-.274 (.245)	-.465 (.237)*
Chinese and other	.491 (.106)***	.078 (.109)
White migrant	.318 (.044)***	.142 (.047)**
<i>Sample member's qualifications (base is 0)</i>		
Lower (level 1)		1.013 (.027)***
Middle (level 2)		1.466 (.027)***
Further (level 3+)		2.765 (.028)***

Source: ONS
Longitudinal
Study,
adapted from
Platt (2007)

Results2: All outcomes

Ethnic group	Intermediate rather than professional / managerial	Working rather than professional / managerial	Unemployed rather than professional / managerial	Other rather than professional / managerial
Caribbean	.185 (.088)*	-.163 (.094)	.556 (.137)***	-.089 (.117)
Black African	.090 (.276)	-.133 (.299)	.0457 (.477)	-.818 (.401)*
Indian	.009 (.078)	-.122 (.082)	.062 (.161)	-.177 (.128)
Pakistani	.777 (.116)***	.598 (.127)***	1.674 (.178)***	1.545 (.145)***
Bangladeshi	.361 (.285)	.412 (.256)	1.491 (.376)***	.712 (.364)*
Chinese and other	.024 (.129)	-.367 (.148)*	.295 (.211)	-.045 (.193)
White migrant	.029 (.053)	-.195 (.057)***	.052 (.109)	.063 (.081)

Source: ONS Longitudinal Study, author's analysis

Ethnicity and Class

<i>Ethnic group – origin class (base is white non-migrant –working class)</i>	Without own education	With own education
White NM - service	.559 (.018)***	.341 (.020)***
Caribbean - service	.258 (.188)	-.120 (.199)
Caribbean - working	.410 (.088)***	.128 (.095)
Indian - service	1.00 (.189)***	.486 (.175)**
Indian working	.451 (.080)***	.113 (.081)
Pakistani service	.151 (.403)	-.511 (.369)
Pakistani working	-.461 (.124)***	-.654 (.135)***
White migrant service	.674 (.106)***	.205 (.114)
White migrant working	.361(.056)***	.166(.059)**

Source: ONS Longitudinal Study, adapted from Platt (2007)

Conclusions

Substantial upward social mobility for some minority groups

Largely explained by educational attainment

But lower access to the professional managerial classes for Pakistanis
despite education; and higher risks of unemployment for Caribbeans –
controlling for class background

Class background preserves advantage for some groups more than others

Suggests retention of class advantage is not unitary but intersects with other
aspects of stratification.

Education is a necessary but not sufficient route to upward mobility (and re-
establishment of class position lost through migration?)

3. Poverty transitions

- **The question:** What are children's patterns of poverty over time? Do family characteristics associated with poverty differ by ethnic group? Do trigger events vary?
- **Why is it interesting?** Given wide variation in children's poverty rates by ethnic group, do particular ethnic groups face additional risks over and above factors known about and that form policy focus? What about poverty triggers – implications for moving or keeping families with children out of poverty.
- **Source data:** The Millennium Cohort Study
- **Approach:** Description of poverty patterns; estimates in a regression framework of poverty 'penalties'; exploration of trigger factors and variation by ethnic group



The Millennium Cohort Study

Cohort of c. 19,000 children sampled from all live births born between September 2000 and December 2001 from across UK, who will be followed over time

Data collection (so far): when child was around 9 months; around three years old ; around 5 years old, and around 7 years old. Next sweep will be In 2012, when they are 11 years old.

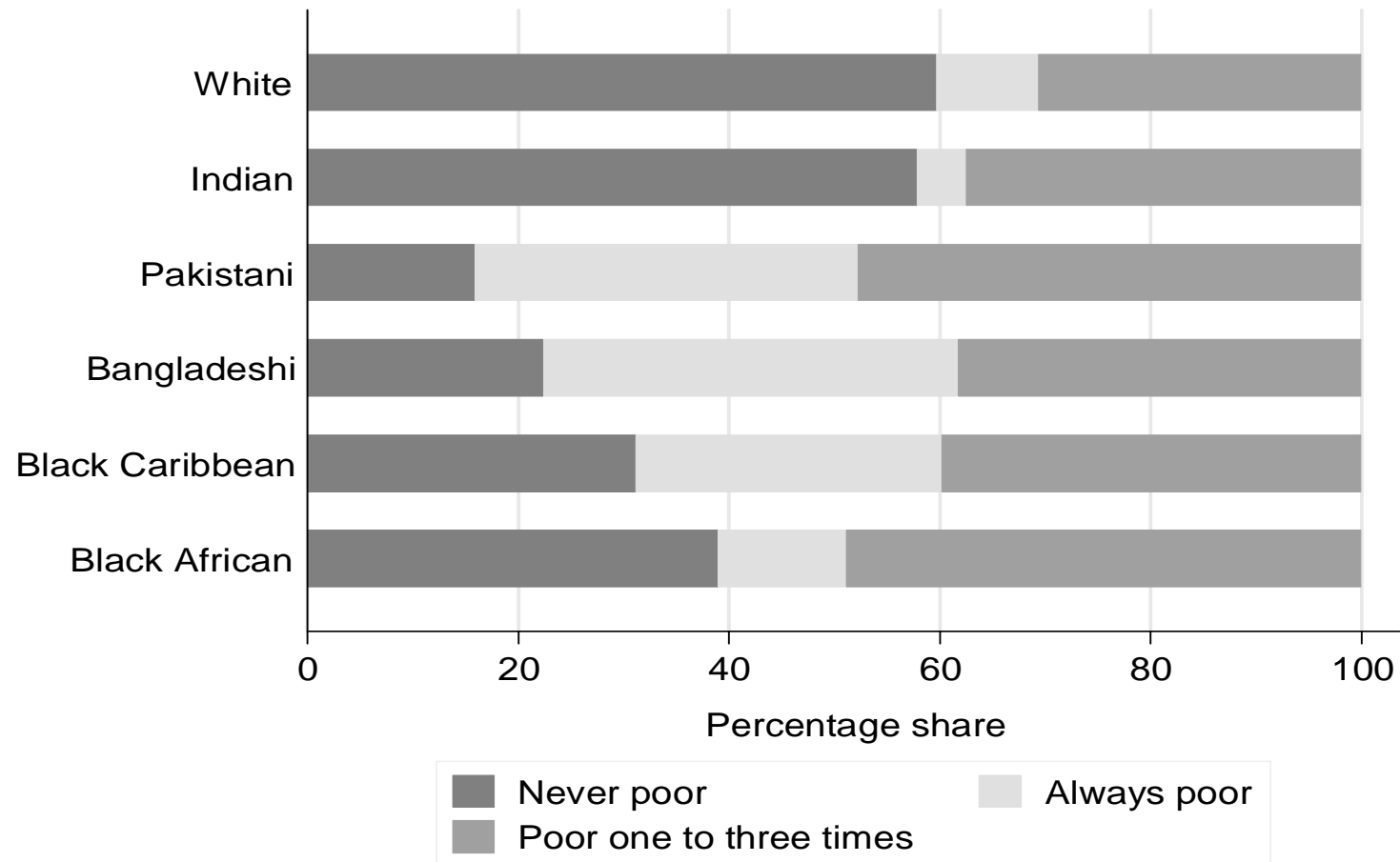
Sample selected from a random sample of electoral wards, disproportionately stratified to ensure adequate representation of all four UK countries, deprived areas and areas with high concentrations of families from Black and South Asian minority ethnic groups

Main respondents are predominantly mothers, but partners are also interviewed at each wave

Detailed information on child health and development; parental pre- and post-natal behaviour; relationships within the family.

It also has some information on income and some deprivation measures

Poverty patterns over 4 sweeps



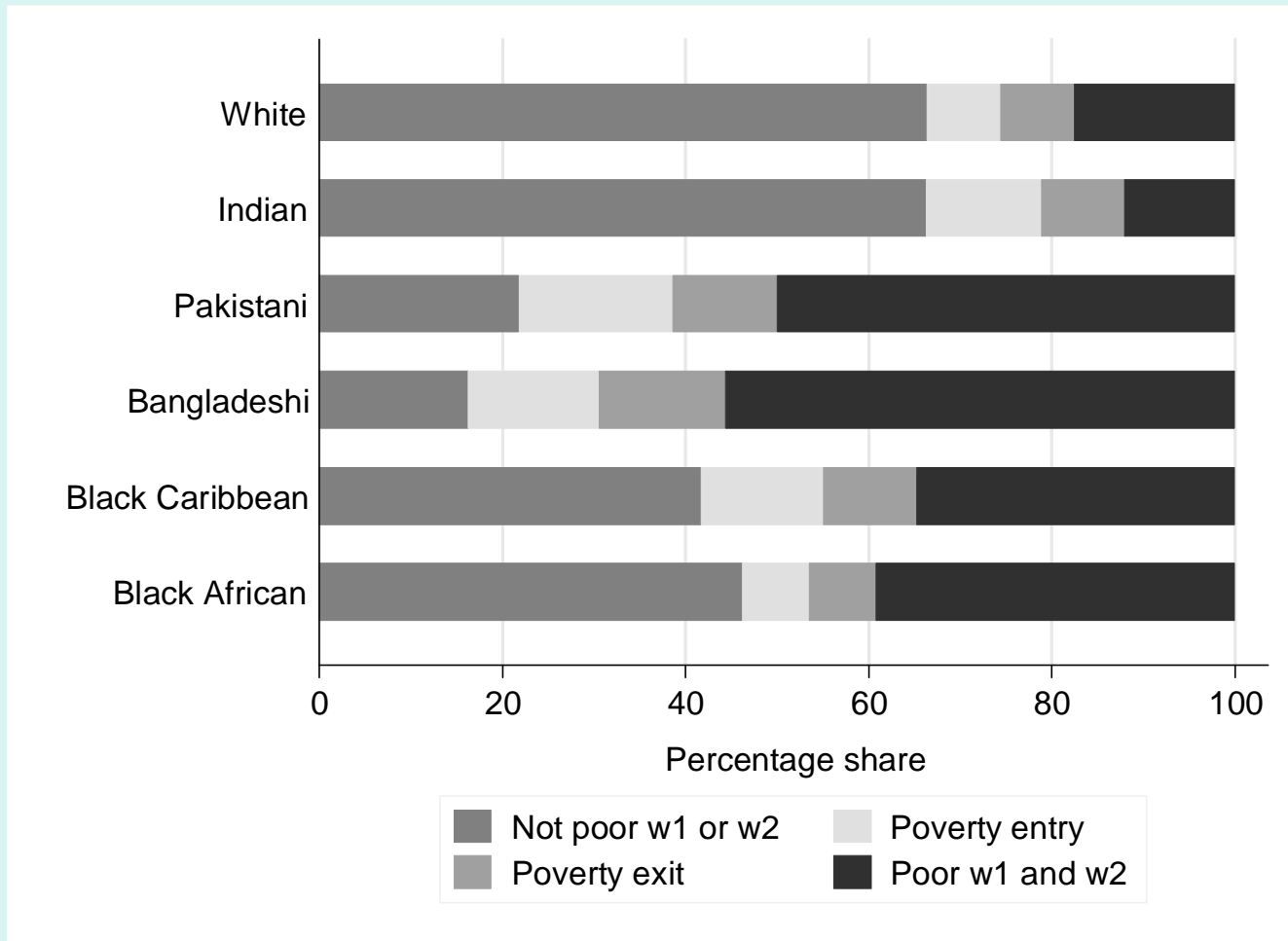
Source: MCS Waves 1-4, estimates adjusted for design effects and non-response, own analysis



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FOCUSING ON SWEEPS 1 AND 2...

Poverty transition rates (row %)



Modelling poverty transitions

Probit regressions of

- probability of entry into poverty at T1 (given not poor at T0); and
- of exit from poverty (given poor at T0); and
- unconditional probability of being poor T1 and T2

Controls: work status of parents, 3+ adults, 3+children, lone or couple parents, age of mother (and square), disabled parent, housing tenure, region

Predicted probabilities of exit, by ethnic group



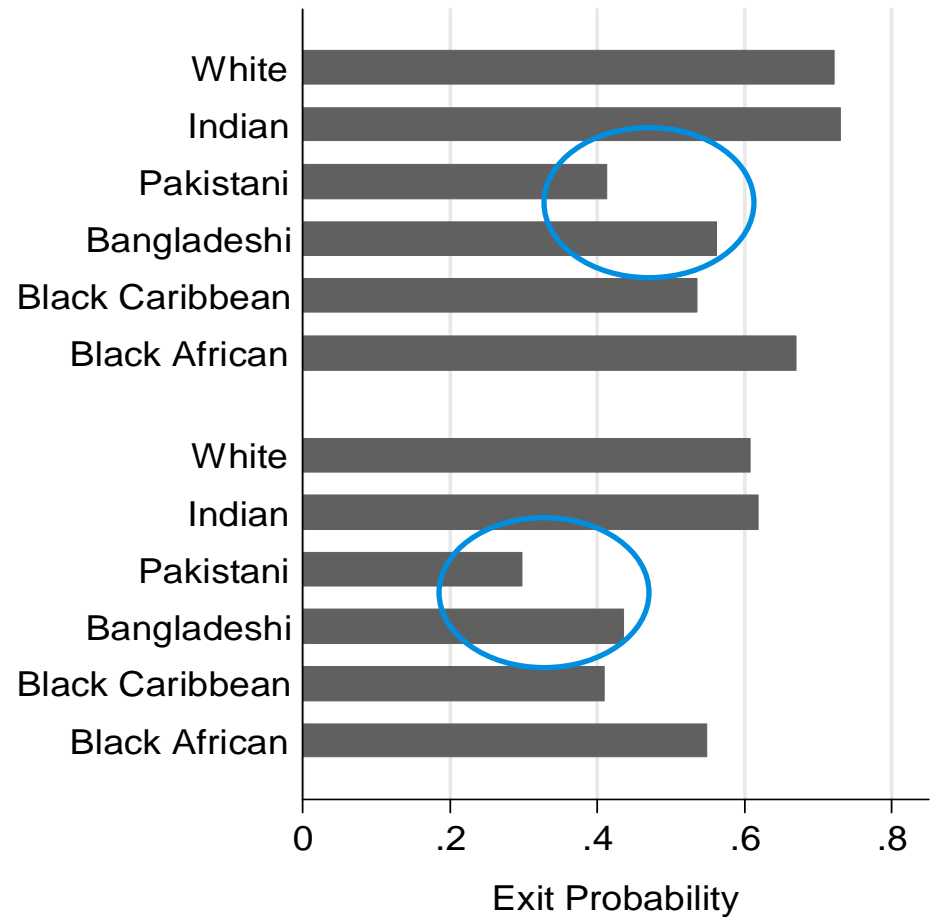
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Other characteristics: age 30, in owner occupied housing, in London, fewer than 3 children, fewer than 3 adults, no sick parent.

Exit probabilities significantly different from White for Pakistani and Bangladeshi parents.

Couple 1+ in ft work

Lone, not in paid work



Source: MCS Waves 1-2, estimates adjusted for design effects and non-response, own analysis

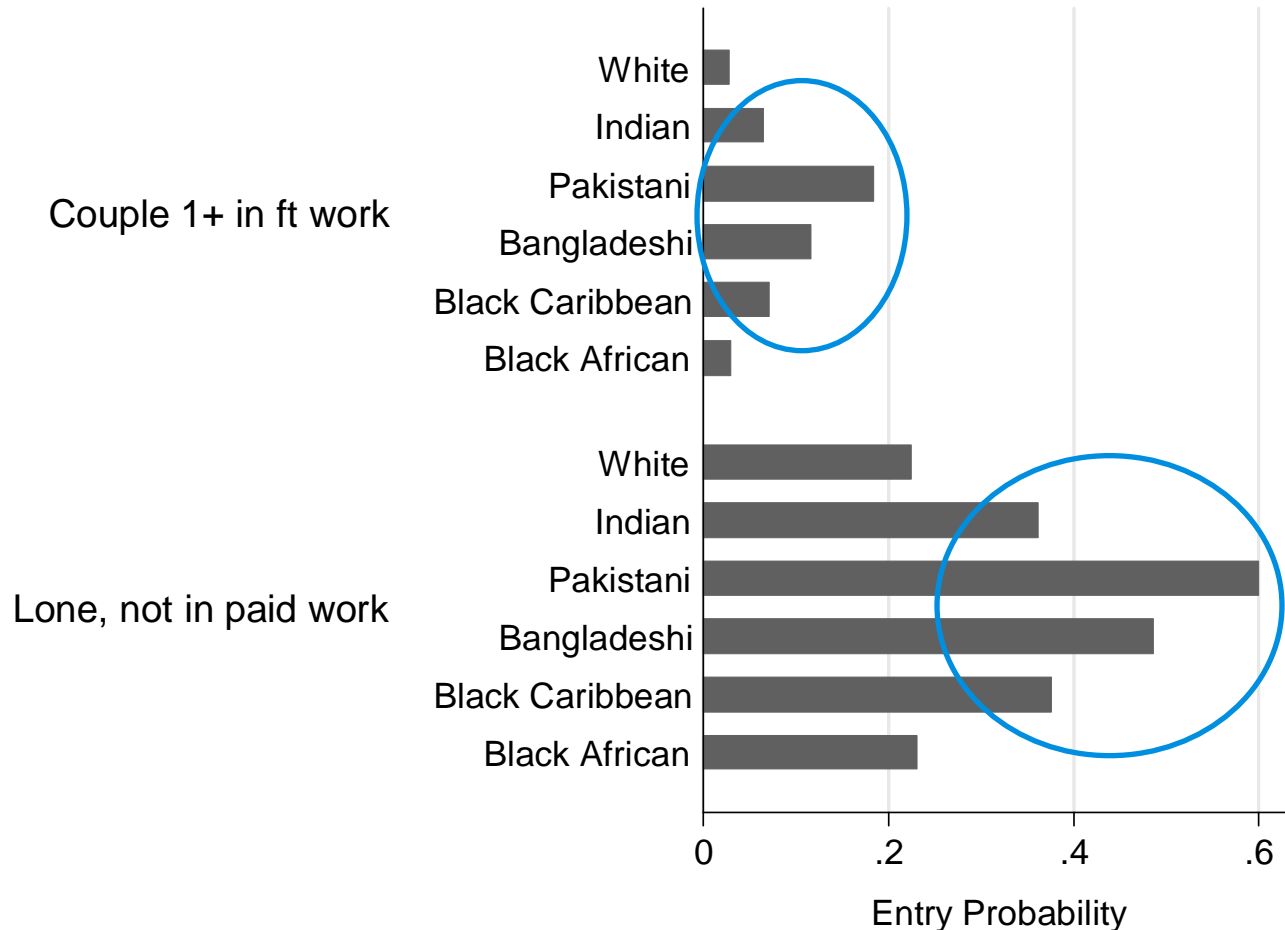
Predicted probabilities of entry, by ethnic group



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Other characteristics:
age 30, in owner occupied housing, in London, fewer than 3 children, fewer than 3 adults, no sick parent.

Entry probabilities significantly different from White for Indian, Pakistani, Bangladeshi and Black Caribbean parents.



Source: MCS Waves 1-2, estimates adjusted for design effects and non-response, own analysis

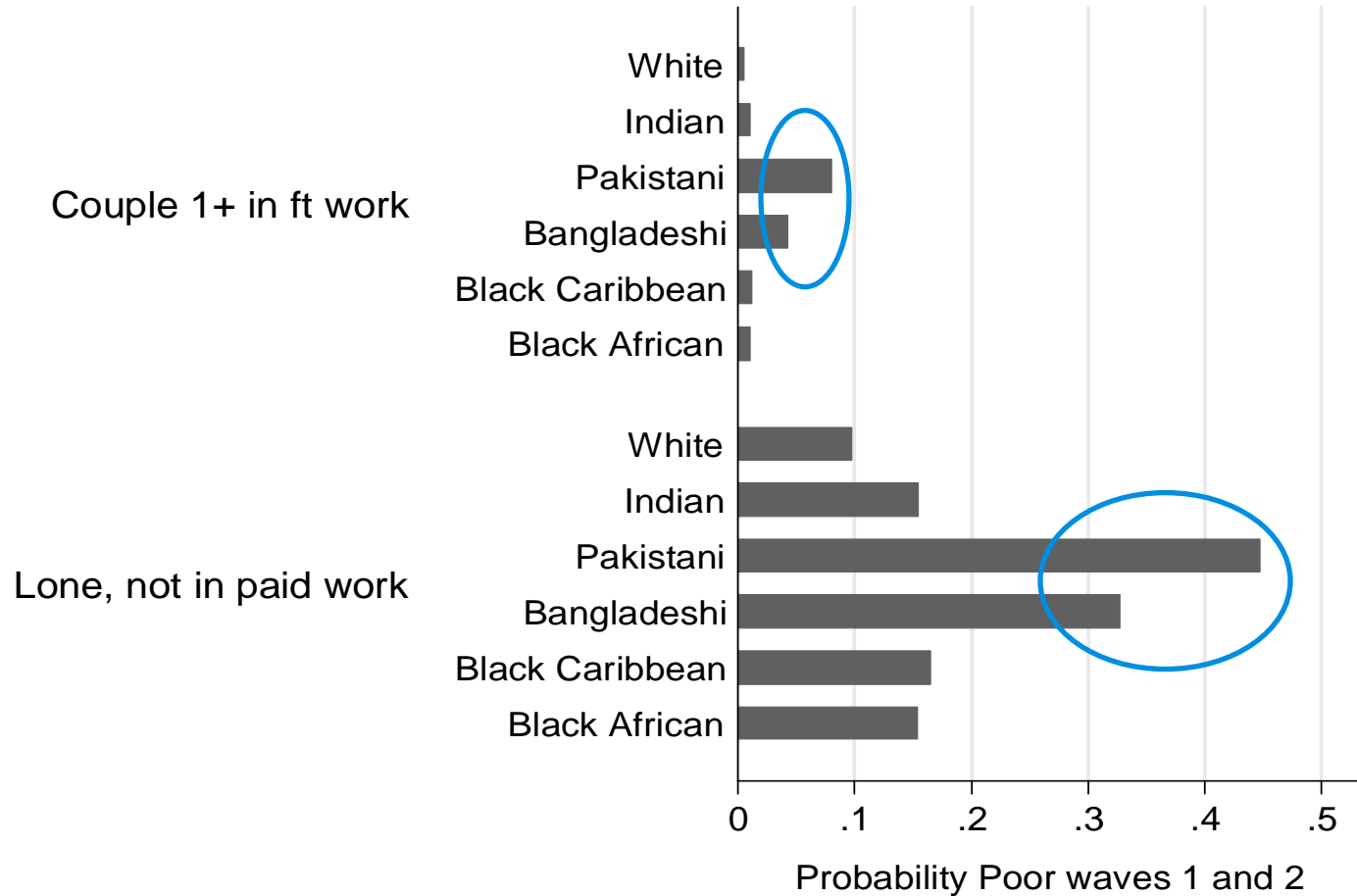
Predicted probabilities of persistently poor by ethnic group



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Other characteristics: age 30, in owner occupied housing, in London, fewer than 3 children, fewer than 3 adults, no sick parent.

Probabilities significantly different from White for Pakistani and Bangladeshi parents.



Source: MCS Waves 1-, estimates adjusted for design effects and non-response, own analysis

The contribution of 'events'



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Regression models represent a description of dynamics, but may not help from policy perspective with understanding causal relationships (Jenkins 2000, 2008)

Instead look at events: typically divided into demographic and employment-related given no demographic change

Events associated with transitions (mutually exclusive in presentation – though unlikely to be so in fact) – as Bane and Ellwood (1986)

Alternatively, 'trigger events': probability of making a transition given an event - as Jenkins (2008)

Share (%) of exits associated with event: all children



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Event	Couples	Lone
Lone to couple parent	--	53
Couple to lone parent	6	--
Decrease in number children	3	2
Increase in household size	22	7
Decrease in household size	4	8
Move of main carer into work	15	10
Move of partner into work	6	--
Change of job type of main carer	7	4
Change of job type of partner	11	--
Increase in main carer's hours	2	1
Increase in partner's hours	3	--
Other	21	16

% of entries associated with event: all children



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Event	Couples	Lone
Lone to couple parent	--	17
Couple to lone parent	23	--
Increase in number children	26	8
Decrease in household size	3	14
Increase in household size	1	5
Move of main carer out of work	6	10
Move of partner out of work	6	--
Change of job type of main carer	9	10
Change of job type of partner	8	--
Decrease in main carer's hours	1	1
Decrease in partner's hours	1	--
³⁹ Other	15	36

% of exits & entries associated with event: by ethnic group



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Ethnic group	Share of events associated with exit			Share of events associated with entry		
	Demog	Work	Other	Demog	Work	Other
White	48	31	21	48	30	22
Indian	50	33	17	51	29	19
Pakistani	64	12	24	67	11	22
Bangladeshi	67	14	19	67	13	19
Black Caribbean	64	20	16	64	19	17
Black African	66	13	21	67	15	18

Statistically significant differences from the White group are indicated in **bold**

Source: MCS Waves 1-2, estimates adjusted for design effects and non-response, own analysis

Probability of exit and entry given event ('triggers'): couples



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	Exits		Entries		
	Move of mother into work	Move of partner into work	Become lone parent	Increase in children	Mother moves out of work
White	53	38	42	8	13
Indian	18	27	25	19	47
Pakistani	25	10	6	30	43
Black African	29	25	33	22	31

Source: MCS Waves 1-2, estimates adjusted for design effects and non-response, own analysis

Probability of exit and entry given event: lone parents



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	Entries	Exits	
	Move out of work	Become couple	Move into work
White	51	37	41
Black Caribbean	58	38	38

Preliminary conclusions

The groups with highest proportions of poverty have lower exit rates, higher entry rates and greater persistence, even controlling for key poverty-related 'risk' factors.

Apparent dominance of demographic over employment-related events for transitions.

Apparently favourable trigger events are not equally positive for all groups in terms of avoiding poverty

Individual moves into work, where a lot of emphasis has been paid, does not appear in itself sufficient as a key way to avoid poverty for those most at risk.

Intend to replicate with more sweeps of data to increase robustness of results.

4. (prospective) Analysing ethnic identity



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- **The question:** What influences strength of ethnic identity over time? And how does it vary over dimensions of personal identification and belonging, especially in relation to ‘shocks’?
- **Why is it interesting:** Identity and belonging are the source of extensive debate. It is increasingly recognised that among minorities and migrants ‘home’ and ‘host’ identities are not mutually exclusive but can vary jointly. Also distinction between dimensions of identity is being more recognised, but little research outside psychological studies
- **Source data:** *Understanding Society*: The UK Household Longitudinal Study
- **Approach:** Initially establishing baseline and how identity (differently measured) varies with years since migration and across UK born / non UK born. As study ages, explore how identity changes with time (especially for New Migrants and adolescents) and in response to major life events (e.g. marriage, children, moves, external shocks).

Understanding Society

Understanding Society is a multi-topic panel study of around 40,000 households including a new sample, the BHPS sample which has been integrated into it and a separate innovation panel, for experiments and to test methodological issues

All original household members are followed over time, even as households split,

All adults (16+) in households with original members are interviewed, and children 10-15 have a self-completion questionnaire.

It started in 2009 (with a two year fieldwork period per wave) and has full UK coverage

First full wave¹ release due Autumn 2011 (currently interim year 1 of wave 1 data available from the data archive, but excludes boost, see next slide)

Specific detailed identity questions in wave² (data available Autumn 2012).

Researching ethnicity in Understanding Society

The survey includes:

- A c.4,000 household ethnic minority boost, plus representation of minorities across the rest of the survey
- Questions of particular interest for ethnic group comparisons (largely asked across all survey members)
 - e.g. mental health, employment, social networks, religion etc.
- Questions that treat issues of ethnic identity or minority or migration specific (some asked of all survey members but some asked only of ethnic minority boost and a small general population comparison sample)
 - e.g. remittances, detailed identity questions, discrimination and harassment

Proposed research



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- Will explore responses on questions relating to strength of identification with parental ethnicity (wave 1), in relation to social class, region, age, whether UK born and for non-UK born, time since migration and migration histories
- Will explore questions on strength of identification across a range of areas (wave 2) and jointly for belonging and personal identity with similar 'predictors' (social class hypothesised to be important in the nature of identification).
- Will exploit similarities between some questions asked in wave 1 and some asked in wave 2 (around Britishness, and religious identity) to explore whether apparent stability or variation in identification, and whether any apparent association with changes in circumstances
- Will wait for recurrence of identity questions to examine this question more systematically.

Conclusions

Longitudinal processes are not common across groups

Different stories across ethnic groups – and across measures (once relevant factors controlled). For example,

- Bangladeshi children's slower exit from benefit and greater probability of re-entry
- Caribbeans' upward mobility but risks of unemployment;
- Pakistani children's lower chances of upward mobility
- Importance of demographic trigger events for minority groups

Longitudinal analysis of ethnic group comparisons are informative of themselves about the world we live in and how it is unfolding, and, in some cases, potential policy for addressing disadvantage.

It also has the potential to challenge existing explanatory frameworks and assumptions and to lead to the development of ones that can encompass the diversity and contradictions revealed.

It is not easy:

Constraints in terms of sample sizes

still may be trade offs of size versus content

Meaningfulness of categories, now and into the future

trade-offs between stability and sensitivity

Potential to compare across groups

diversity can confuse, or group categories may be misleading

Problems with interpretations of difference

especially tendency to see differences as causal (and if not causal then what?)

But it is getting easier! And it does repay the effort.

Research drawn on:



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Burton, J., Nandi, A. & Platt, L. (2010) 'Measuring ethnicity: challenges and opportunities for survey research'. *Ethnic & Racial Studies* 33 (8): 1332 – 1349.

Nandi, A. and Platt, L. (2009) *Developing Ethnic Identity Questions for Understanding Society*, the UK Household Longitudinal Study. *Understanding Society Working Paper* 2009-01. (44pp)

Platt, L. (2007) 'Making education count: the effects of ethnicity and qualifications on intergenerational social class mobility'. *The Sociological Review*.

Platt, L., Simpson, L. and Akinwale, B. (2005) 'Stability and change in ethnic group in England and Wales', *Population Trends* 121: 35-46.

Platt, L. (2005) *Migration and Social Mobility: The Life Chances of Britain's Minority Ethnic Communities*. Bristol: The Policy Press.

Platt, L. (2006) 'Social insecurity: children and benefit dynamics', *Journal of Social Policy*, 35 (3): 391-410.

Platt, L. (2003) 'Ethnicity and inequality: British children's experience of means-tested benefits', *Journal of Comparative Family Studies* 34 (3): 357-377.

For full list of publications see:

<http://www.cls.ioe.ac.uk/staff.asp?section=0001000100020003&staffItem=2066>

More on sources....

**For ONS Longitudinal Study: see CeLSIUS:
<http://www.celsius.lshtm.ac.uk/>**

**For Millennium Cohort Study: see Centre for Longitudinal Studies:
<http://www.cls.ioe.ac.uk/>**

**For *Understanding Society*: see
www.understandingsociety.org.uk**

Data Acknowledgements



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The ONS Longitudinal Study

The permission of the Office for National Statistics to use the Longitudinal Study is gratefully acknowledged, as is the help provided by the Centre for Longitudinal Study Information & User Support (CeLSIUS), in particular Julian Buxton. The above, however, bear no responsibility for the interpretation of the data.

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Millennium Cohort Study

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I am grateful to The Centre for Longitudinal Studies, Institute of Education for the use of these data and to the UK Data Archive for making them available. They, however, bear no responsibility for the analysis or interpretation of these data.

Anonymised extracts of Housing and Council Tax Benefit records were made available to me by Birmingham City Council. I am grateful to the BCC for access to and use of these records, and for facilitating the validation of ethnic group information. The interpretation remains my responsibility.



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