

*UK LS Census Linkage Launch Event
at Church House, London, 6th March 2014*

Are we becoming more migratory? An analysis of internal migration 1971-2011

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with many thanks to Kevin Lynch (ONS)**

Acknowledgements & disclaimer

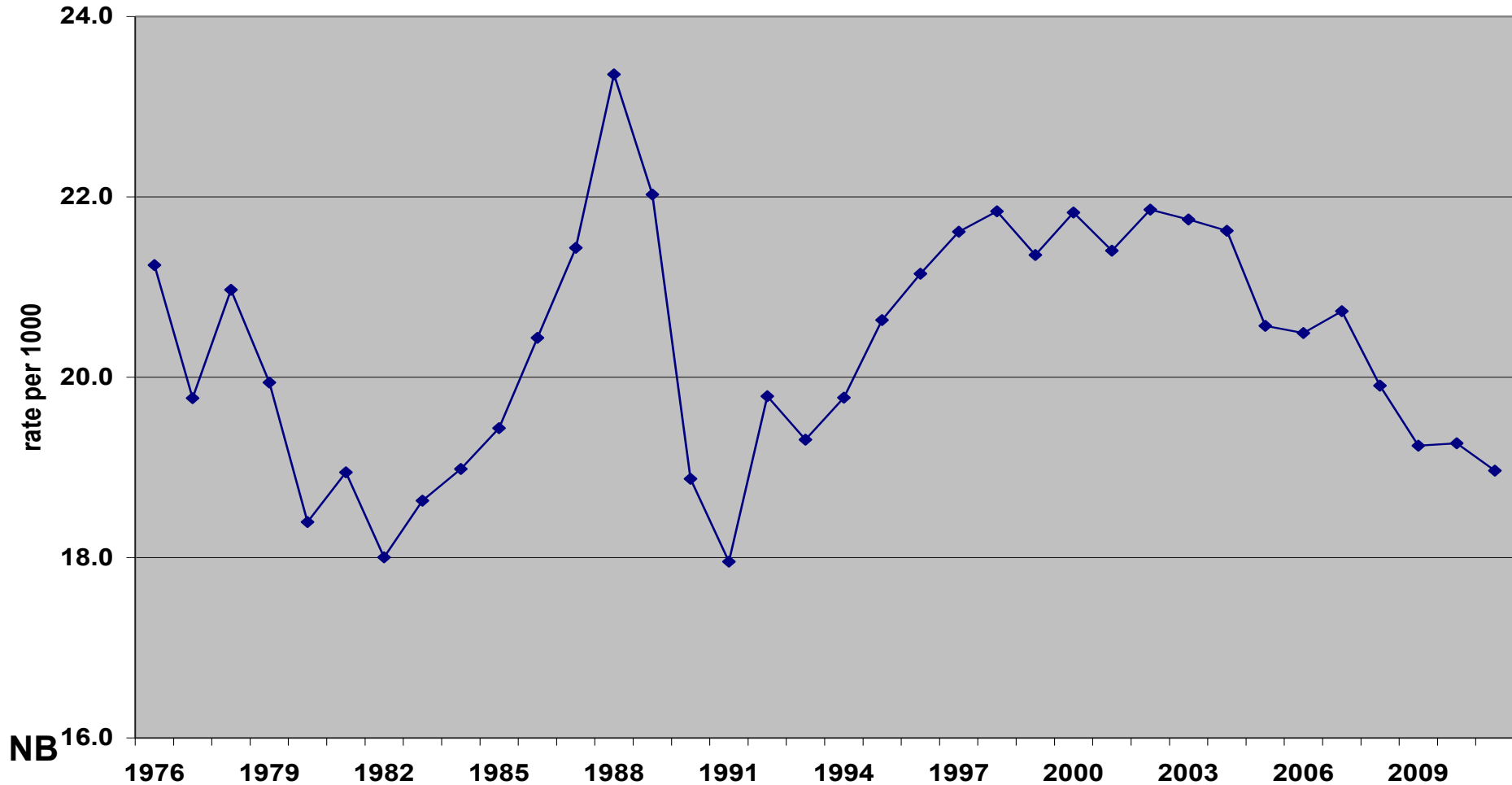
- This presentation reports on work undertaken as part of the ONS-LS 2011 Census Link Beta test programme, with results revised using the finally released version
- The permission of the Office for National Statistics to use the Longitudinal Study (LS) is gratefully acknowledged, as also is the help provided by staff of the Centre for Longitudinal Study Information & User Support (CeLSIUS) which is supported by the ESRC Census of Population Programme (Award Ref: ES/K000365/1)
- This presentation has been cleared by ONS (Clearance Number 401006), but the authors alone are responsible for the interpretation of the data

Research questions

- Despite assumptions across the social sciences that spatial mobility has increased, there is evidence that *some* types of mobility in *some* places have decreased
- This is most apparent for inter-state and inter-county moves in the USA (Cooke and others)
- Initial analyses suggest that Canada has shared in this US pattern; but not Australia, Sweden and UK
- Analysis of migration in the USA has concentrated on (a) the impact of changing population composition; (b) the changing propensity of different groups to move
- Research questions: What has happened in England and Wales since 1971? Has changing population composition kept migration rates up? Have the migration propensities of population subgroups increased or decreased?

England & Wales: picture from NHSCR data

Migration rate between GORs and Wales for years ending in June:
All ages

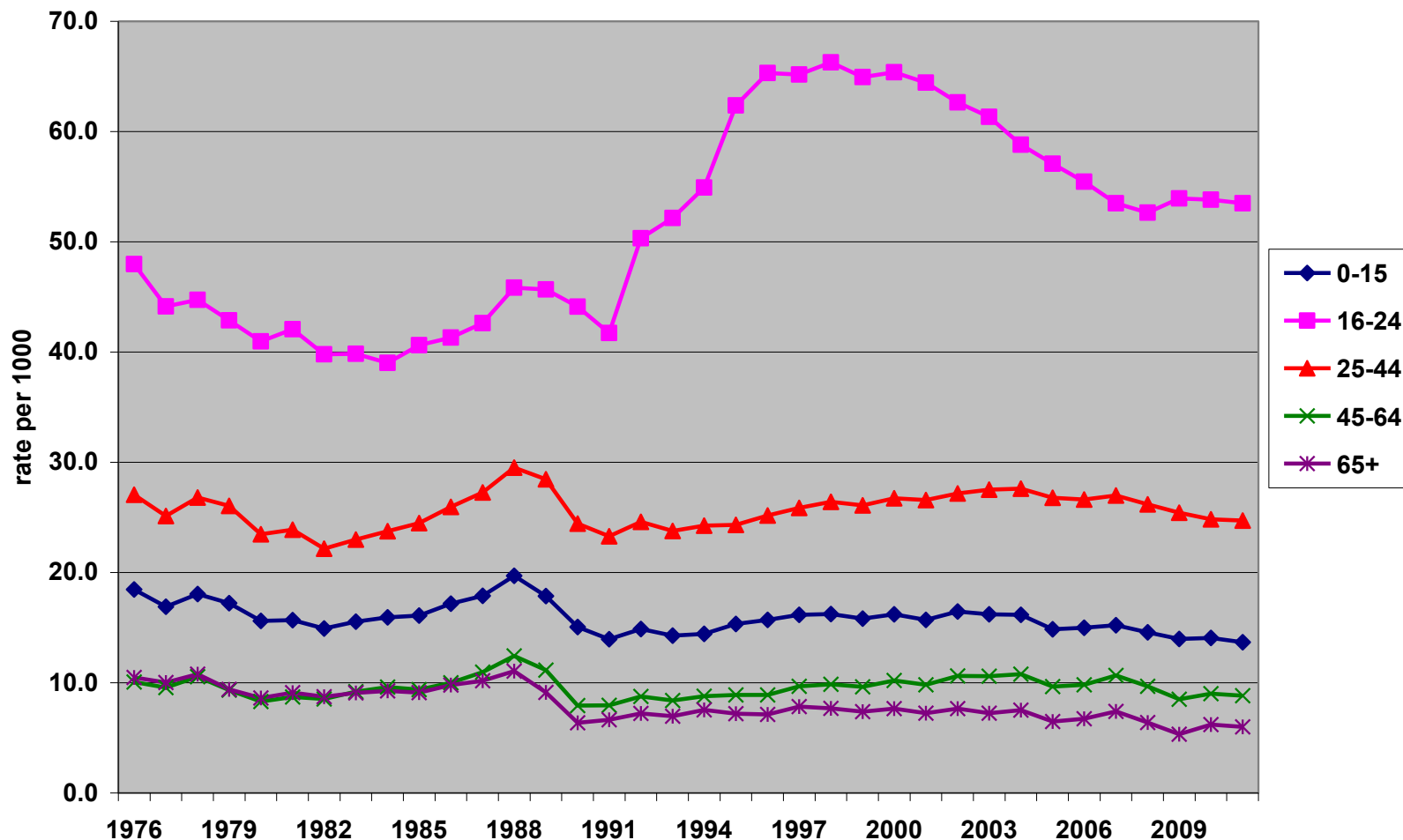


NB

This initial analysis of inter-regional migration rates uses ONS estimates based on NHSCR data. It shows no long-term decline over 1975-2011, fluctuating generally in parallel with economic cycles. (NB. 'false' base of y-axis.)

Inter-regional migration rates by age group

Migration rate between GORs and Wales for years ending in June:
Broad age groups



This broad age breakdown of the NHSCR-derived data reveals a long-term fall in migration rate for the 65+ and 0-15s, but effect offset by higher mobility for 16-24s (including going to/from university), plus no long-term fall for 25-44s and 45-64s.

The value of the ONS-LS

- The NHSCR dataset allows annual monitoring, but only by age (as previous slide) and gender (male & female very similar)
- Other sources (APS/LFS, BHPS/US, Birth Cohort Studies) include many more personal characteristics but are limited by sample size, attrition and/or time coverage
- The ONS-LS has the advantages of :
 - 4/365 of the population
 - high level of individual-person linkage between censuses
 - even longer time coverage than the NHSCR dataset, from 1971
 - detailed geography of usual residence at each census, allowing calculation of distance of any 10-year change of address
 - fair range of personal characteristics, for which categories can be made fairly consistent over time (except for students' usual address switching from vacation to termtime in 2001)

The research approach: 3 stages

- 1) **Have 10-year change-of-address rates increased or decreased, and does this vary by distance of move?**

Answer: for all moves, a decrease from 55% to 45%, but nearly all this due to reduction in moves of <10km

- 2) **Has population composition shifted towards types of people with traditionally higher or lower propensities to move?**

Answer: a mixed picture, in that the 'growth' types include high-movers (e.g. with degree, divorced) and low-movers (e.g. owner occupiers, retired), and vice versa

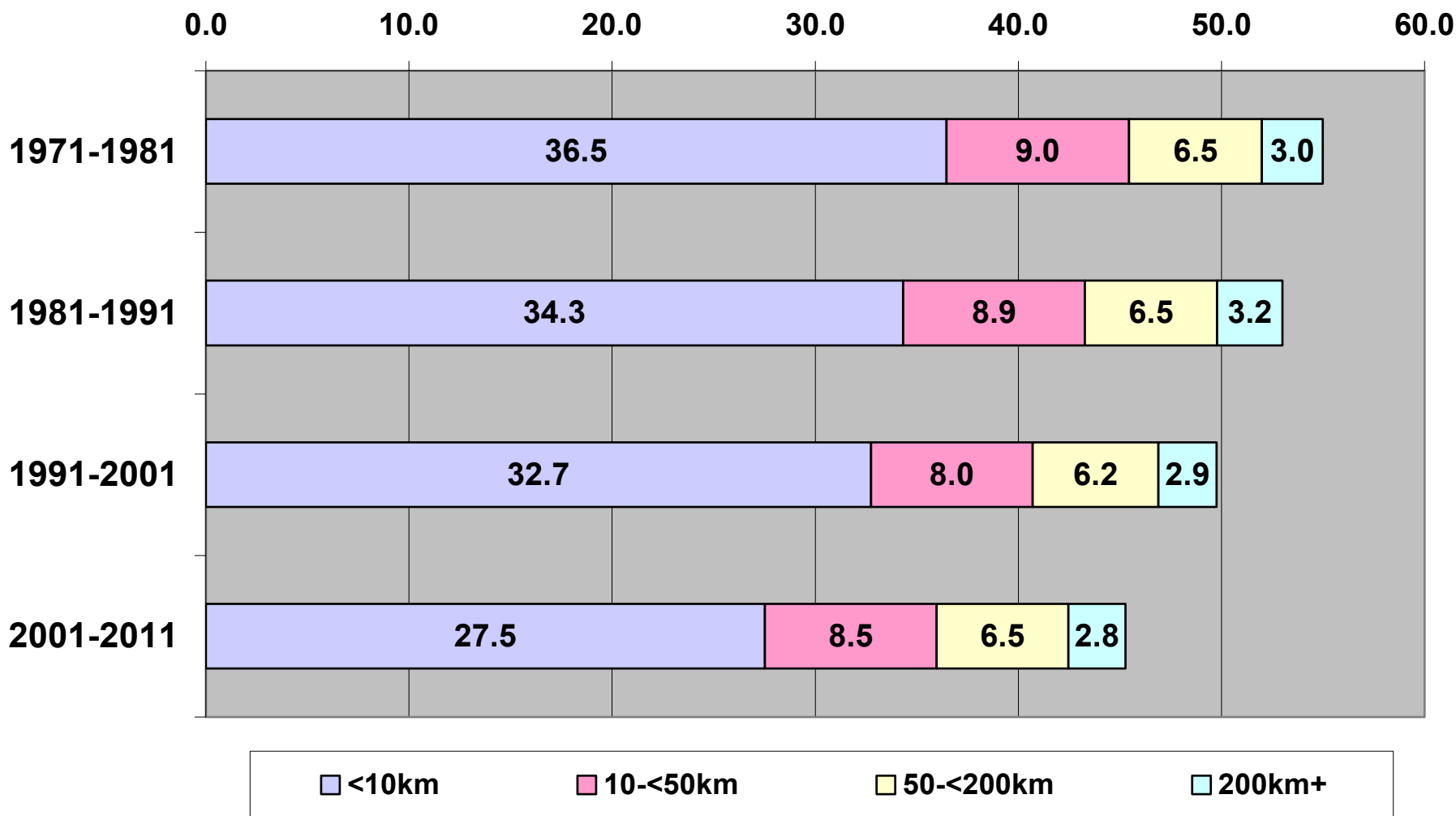
- 3) **How does the composition change effect balance out?**

Answer: when using logistic regression that allows for this, the decade dummies show a **reduction** in migration rates, especially for short distance (progressively over time); also for 50km+ (but only between 1980s and 1990s)

The evidence ->

Answer 1: For all moves, a decrease from 55% to 45%, but nearly all this due to reduction in moves of <10km

Proportion (%) of all people with a different address at the end of the decade compared to the start, by distance of move



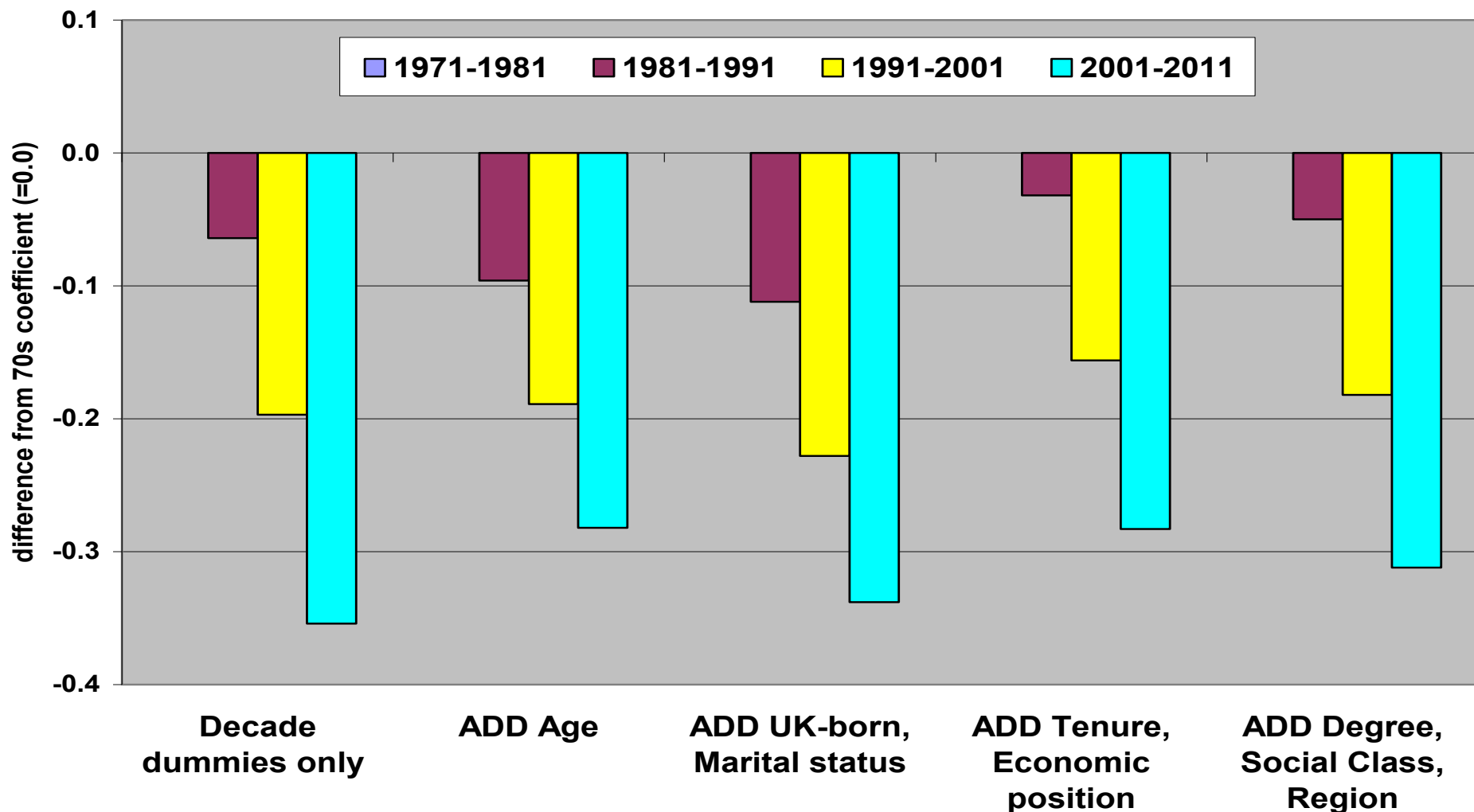
Answer 2: In the final column, the 'growth' (above ALL line) and 'decline' types (below ALL line) both include high-movers (in pink) and low-movers (in green)

Variable	% 1971	% 2001	change	% mover 1971-81
Owner occupation	52.0	77.6	25.5	47.5
Intermediate SC	12.4	28.6	16.2	55.4
Degree or equivalent	7.1	20.3	13.2	58.1
Divorced	1.3	8.7	7.4	63.0
Skilled non-manual	15.8	23.0	7.2	58.8
Retired	6.1	12.9	6.8	36.6
Single	20.5	27.0	6.5	73.5
Employed part-time	9.3	13.6	4.3	42.1
Self-employed	5.2	9.1	3.9	52.6
ALL	100.0	100.0	0.0	53.4
UK born	93.5	90.0	-3.5	52.0
Aged 15-24 (& not FTS)	19.1	10.8	-8.4	85.3
Employed full time	52.6	44.1	-8.5	56.4
Private renter	17.5	8.0	-9.5	69.3
Other inactive	21.1	10.3	-10.7	47.8
Married	73.4	60.8	-12.7	47.1
Social renter	30.4	13.9	-16.5	50.4
Unclassified SC	29.0	6.3	-22.7	47.3

Source: Calculated from ONS Longitudinal Study. Crown copyright.

Answer 3a: Allowing for compositional effects, the decade dummies for all moves (>0 km) show a reduction in migration rates, progressively over time

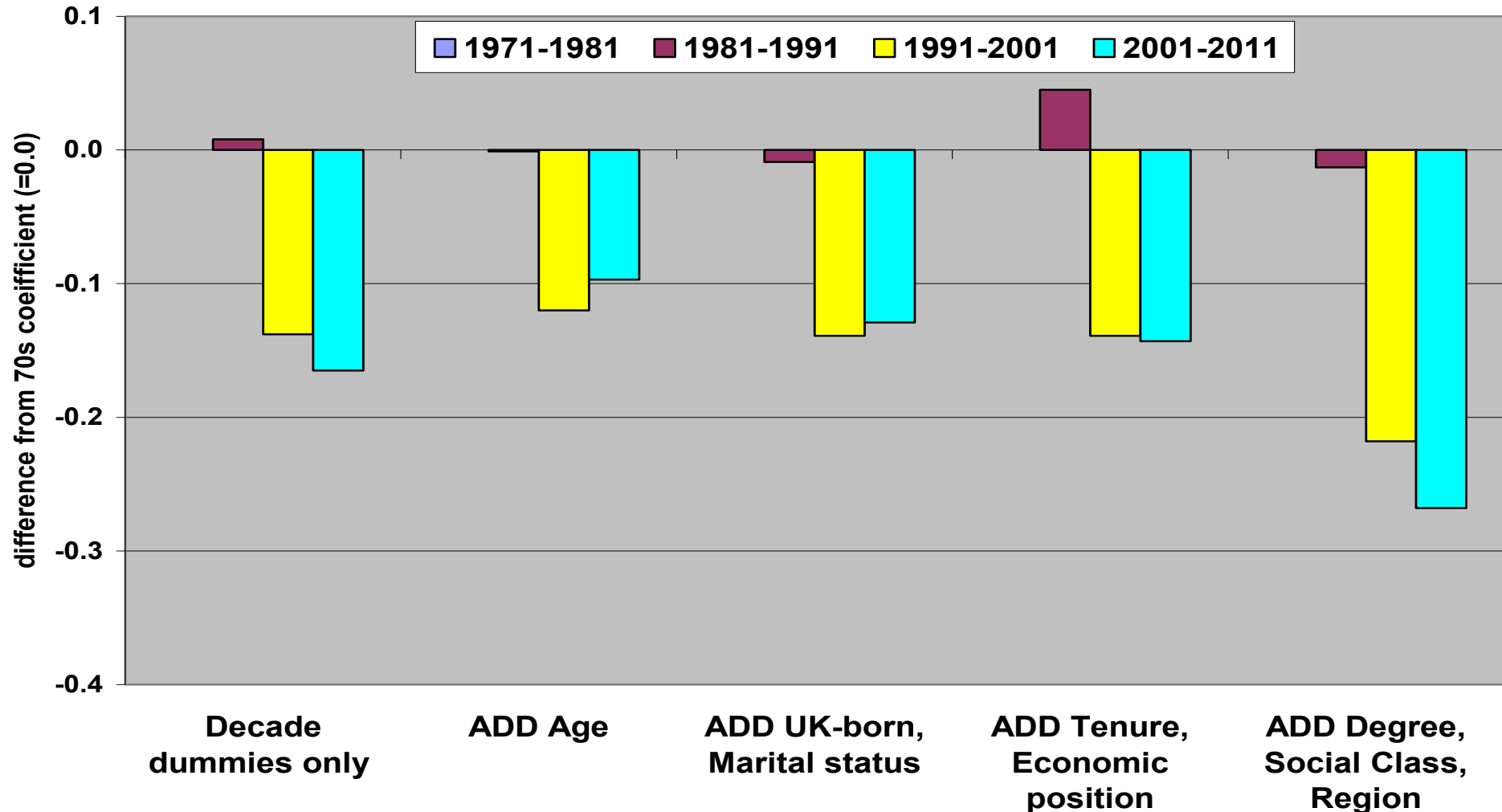
Decade dummies in models of migrating >0 km that include progressively more variables: difference from 1971-81 (=0.0)



Source: Calculated from ONS Longitudinal Study. Crown copyright.

Answer 3b: The decade dummies for moves of 50km+ show a smaller reduction in migration rates and also a different timing: not 70s->80s and mainly 80s->90s

Decade dummies in models of migrating 50km+ that include progressively more variables: difference from 1971-81 (=0.0)



Summary of modelling results

- Analysis was based on pooled data for all 4 decades, controlling for the compositional variables
- Decade dummies on their own (expressed relative to the base category of 1971-81) show a big decrease in 10-year migration rates, and a smaller decrease for 50km+ moves
- These dummies are not 'mopped up' when compositional variables are added: (a) adding Age and Tenure & Economic Position reduces the fall of dummies; (b) adding UK-Born & Marital Status and Degree, Class & Region increases their fall – with (b) outweighing (a)
- This suggests that there is a downward pressure on mobility that cannot be explained by the other explanatory variables included in the model

Interpretation of results, in brief

- People in England & Wales are moving home less frequently now than in the past according to the ONS-LS, though this is less so for moves over longer distances (as also shown by NHSCR-derived inter-regional migration data) – in contrast to USA experience
- This is despite shifts in population composition which, on balance, are moving people into traditionally more migratory groups (e.g. with degrees); in other words, this effect has been more than offset by a decline in move rates for almost all population subgroups (see Annex)
- The main explanations for declining migration rates should be sought among the drivers of short-distance moving: mainly housing and neighbourhood reasons, but also more longer-distance commuting being aided by car ownership or being forced on 2-earner households
- Long-distance moving is possibly reduced by housing barriers and competition from international labour migrants

Study limitations and next steps

- 10-year migration rates are very relevant for studying trends in population distribution between regions and cities, but the ONS-LS cannot identify all address changes: some groups move quite frequently (e.g. students to/from university)
- The modelling part of this LS-based analysis has had to omit those who were students at the start of each decade because of the change in their usual-address definition in 2001: so their positive effect (see NHSCR) is missed
- Unfortunately, no other dataset can match the LS for detail and consistency, except perhaps the APS for recent years and into the future (but only for all moves, not by distance)
- Next step for LS-based analysis is to apply Oaxaca-type modelling in order to measure the separate effect of each explanatory variable on the overall change in 10-year migration rates (as in Cooke, 2011, on USA)

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Annex. Change in migration rate, 1970s to 2000s, examples

Variable / migration rate (%) ->	1971-81	2001-11	change
Divorced	63.1	43.5	-19.6
Non-UK-born	61.2	42.0	-19.2
Retired	37.5	20.7	-16.7
Armed forces	90.7	74.6	-16.1
Widowed	42.2	27.5	-14.7
Married	47.1	32.6	-14.5
Skilled non-manual	58.7	44.8	-13.9
Professional	58.3	44.6	-13.7
Sick	48.1	34.9	-13.2
Self-employed	52.6	40.0	-12.6
Unskilled	48.6	36.1	-12.5
ALL	55.0	45.3	-9.7
Social rent	53.3	45.5	-7.8
Partly skilled	49.6	41.8	-7.8
Employed full-time	56.4	48.7	-7.7
Employed part-time	42.1	35.9	-6.2
Single	65.6	60.2	-5.4
Private rent	71.5	76.4	+4.8
Communal	78.2	89.6	+11.4