



New Migrant
databank

The estimation of sub-national immigration flows using administrative data sources

<http://arxiv.org/ftp/arxiv/papers/0903/0903.0507.pdf>

Peter Boden & Phil Rees

Leeds
March 2009



What happens when international migrants settle?

Ethnic group population trends and projections for UK local areas

ESRC Research Award RES-165-25-0032, 2007-2009

Information on the project:

<http://www.geog.leeds.ac.uk/projects/migrants/>



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Information on the project:

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This presentation...



1. Migration Context
2. The development of the New Migrant Databank (NMD)
3. Patterns and trends in immigration evident from alternative sources
4. Alternative methods for sub-national estimation and the impact upon population estimates and projections
5. Ongoing research

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MPs attack migrant count methods

Existing methods of estimating migration and population figures are not "fit for purpose" say MPs.

The International Passenger Survey, designed to provide data for tourism, now plays a central role in migration estimates, the committee of MPs said.



The MPs say it is "now impossible" to estimate numbers of migrants in the UK

They said it was "not fit for this purpose" and methods of measuring movement in the UK "unsatisfactory".

The committee said new surveys were needed. The Lib Dems said ministers had "totally lost track" of the population.

In its Counting the Population report, the Commons Treasury Committee accepted that the UK was in a period of "significant population change" which made it harder to estimate numbers of

UK IMMIGRATION DEBATE

LATEST STORIES

- ▶ EU migrants 'settling across UK'
- ▶ Half EU migrants 'have left UK'
- ▶ UK told not to fear immigration
- ▶ Brown rejects cap on immigration

FEATURES AND ANALYSIS



Mapping migration
How Eastern Europeans have spread across UK

- ▶ Poland entices its workers home
- ▶ If all Poles left...
- ▶ £7-per-hour jobs locals don't want
- ▶ Defusing the row?
- ▶ Shifting the economic debate



- Alternative reviews of migration data sources and estimation methods:
 - Rees, P. and Boden, P. (2006) Estimating London's new migrant population: Stage 1 – review of methodology. A Report commissioned by the Greater London Authority for the Mayor of London.
<http://www.london.gov.uk/mayor/refugees/docs/nm-pop.pdf>
 - Green, A. E., Owen, D. and Adam, D. (2008) A resource guide on local migration statistics. Report prepared for the Local Government Association.
<http://www.lga.gov.uk/lga/publications/publication-display.do?id=1308025>
 - UK Statistics Authority (2009) Review of migration statistics. Forthcoming

Migration Statistics Improvement Programme



Migration Statistics Improvement Programme

WG1. Entry & Exit (Home Office)

- IPS enhancements
- Points Based System data
- e-borders data

WG2. Local Population Estimates (CLG)

- Application of HESA data
- Administrative data for sub-national distribution
- NMGi/NMGo modifications
- Short-term migration estimates
- Reference Panels

WG3. Alternative Sources (DWP)

- WPLS
- Communal Establishments Survey
- New Migrant Survey

WG4. Analysis & Indicators (ONS)

- Timely national data
- Local level statistics
- Migrant characteristics

WG5. Migration Reporting (ONS)

- Periodic publication of migration 'report'



- Substantial number of studies have supplemented existing statistics with primary data collection, specifically to examine the ‘impact’ of new migrants upon:
 - Economy
 - The workplace
 - Integration and cohesion
 - Local service provision
- Yorkshire & Humber – 120 studies identified 1999-2008
- Lewis, H. et al (2009) Refugees, asylum seekers and migrants in Yorkshire and Humber, 1999-2008.
http://www.yorkshirefutures.com/siteassets/documents/YorkshireFutures/5/E/5E092F65-DFFC-4407-9291-2A02620D183A/Refugees_asylum%20seekers%20and%20migrants%20report.pdf
- Some attempts at producing improved migration estimates but generally constrained by sampling difficulties



Purpose:

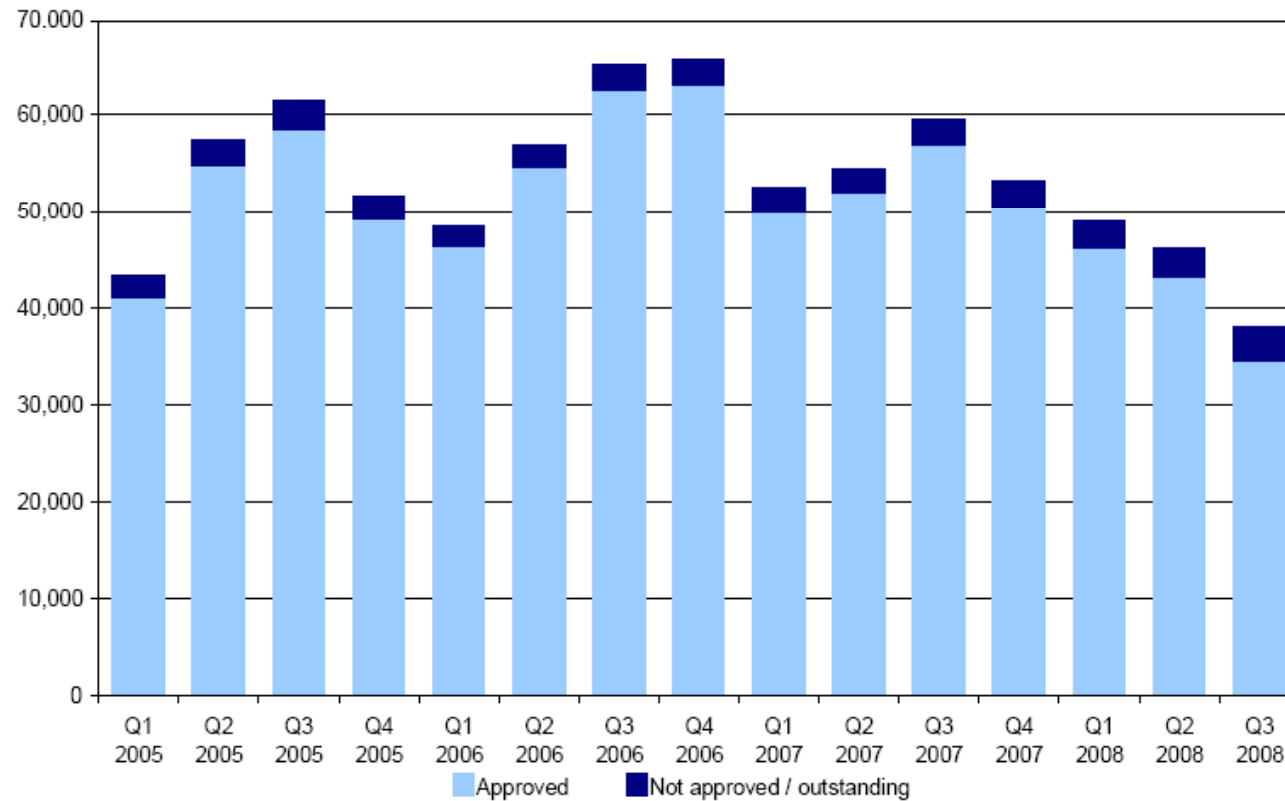
- ‘Single view’ of alternative statistics
- Clarity of conceptual and measurement differences
- Framework for analysis of trends and patterns in migration
- Analysis of short-term and long-term migration measurement
- Derivation of ethnic-group migration estimates



New Migrant **databank**

Demonstration

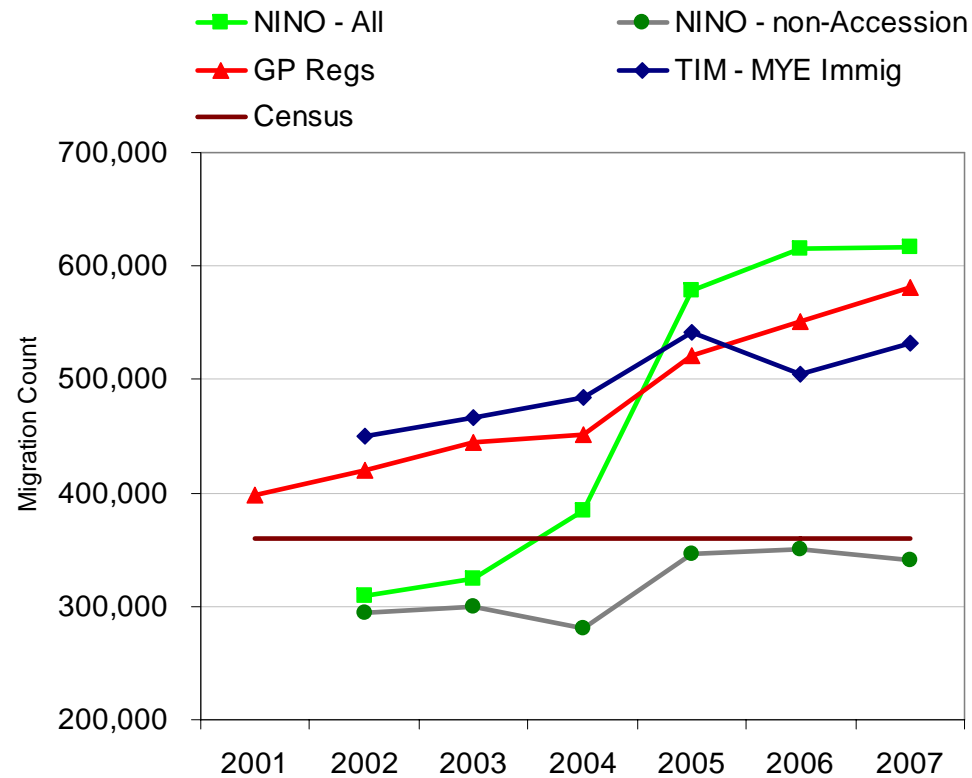
WRS – A8 migrant flows



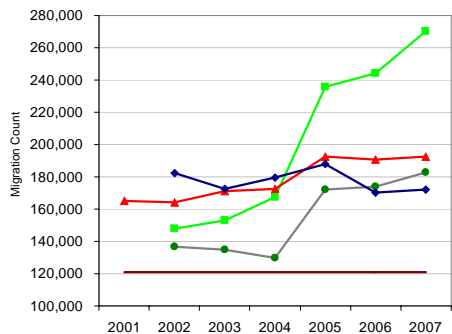
Source: Accession Monitoring Report, Home Office 2008

England – new migrant trends

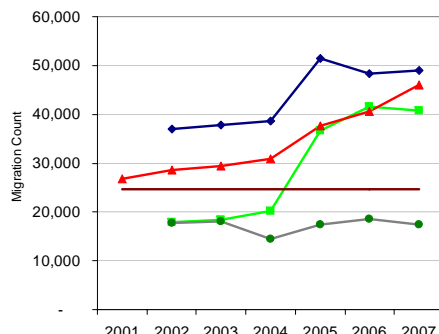
England



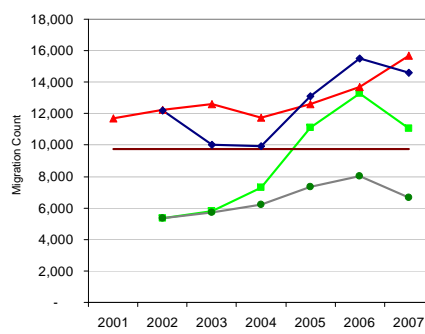
London



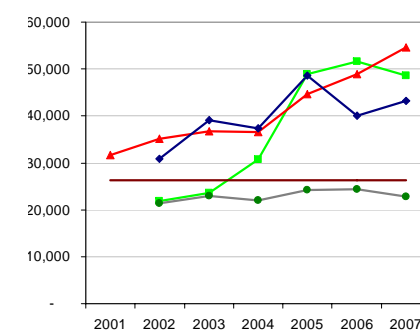
Yorks & Humb



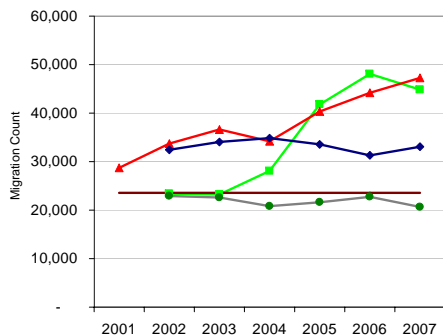
North East



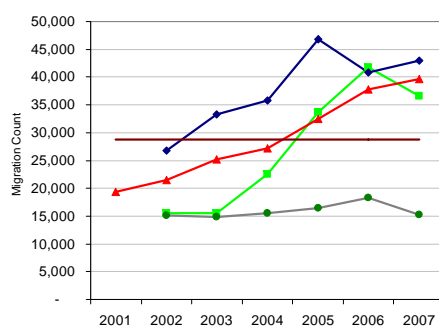
North West



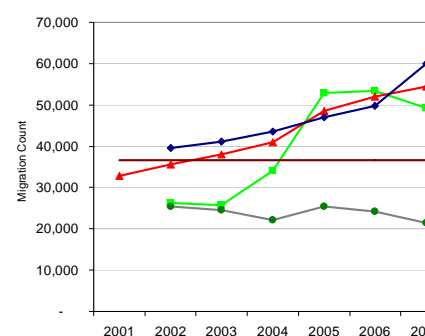
West Midlands



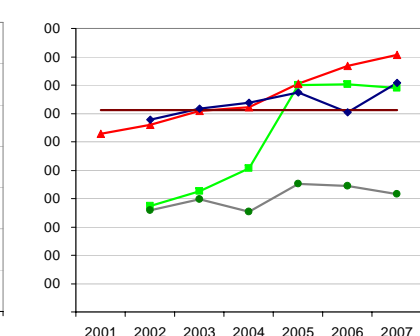
South West



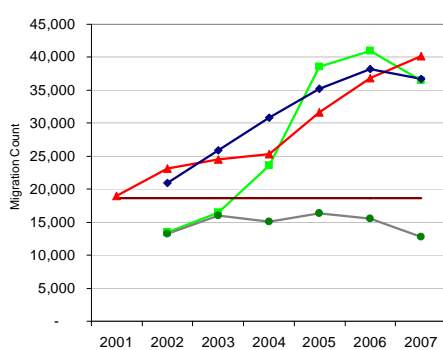
East



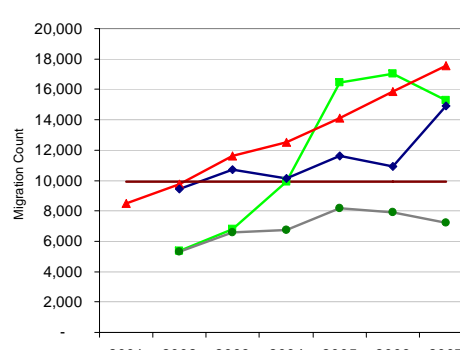
South East



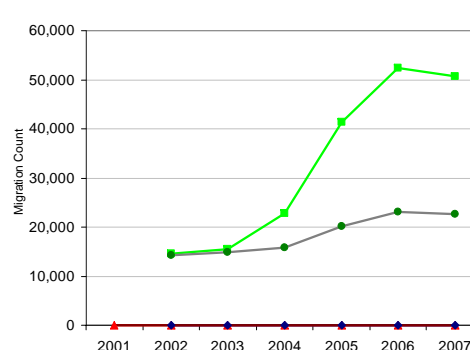
East Midlands



Wales



Scotland





Estimation Methods



National Statistics

Estimates of international migration

International Passenger Survey

Primary source

+

Home Office

Asylum seekers and dependants

+

Irish CSO

Migration between UK and Irish Republic

+

Adjustments

Visitor switchers & Migrant switchers



National Statistics

Sub-national immigration estimates

International Passenger Survey

England & Wales



IPS/Labour Force Survey

GOR / Wales level

10 zones



IPS (smoothed) & LFS (London)

Intermediate Geography (NMGi)

63 zones

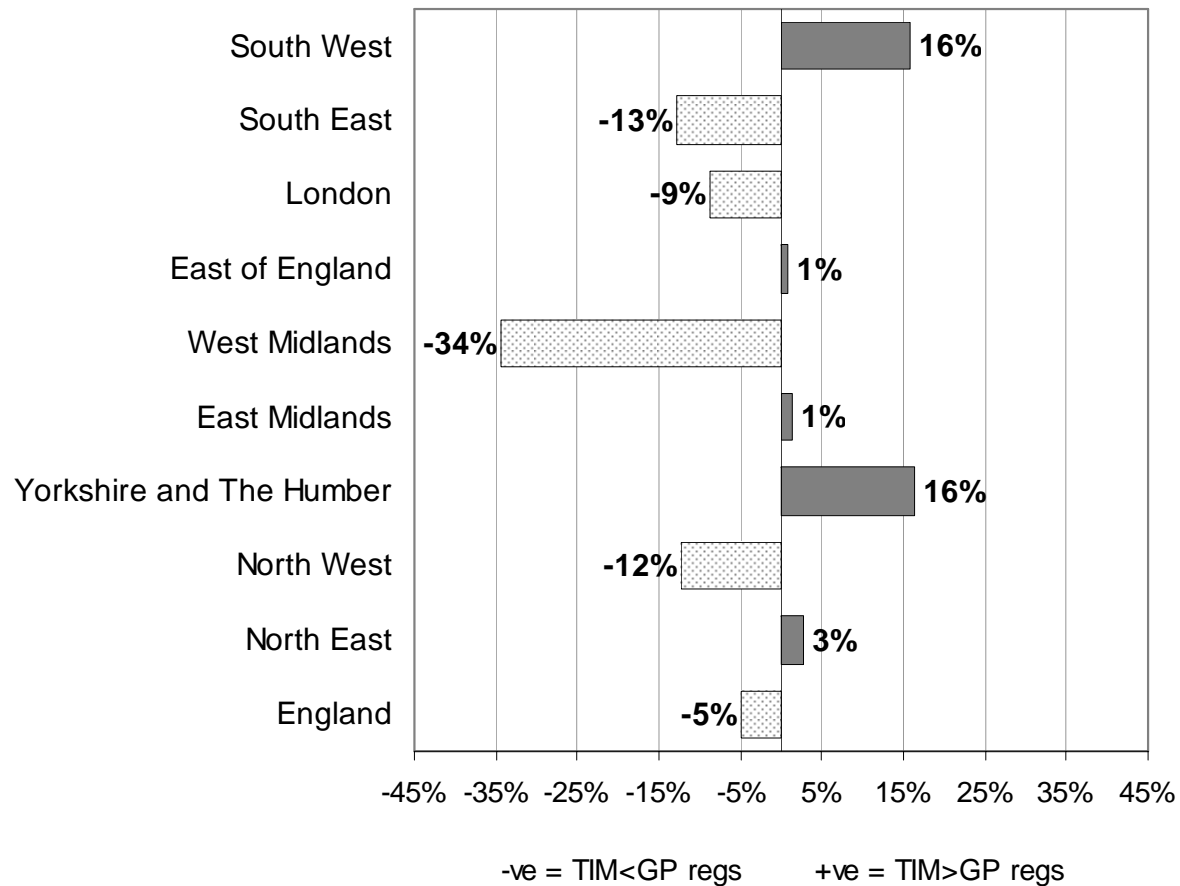


Census 2001

Local Authority District / Unitary Authority

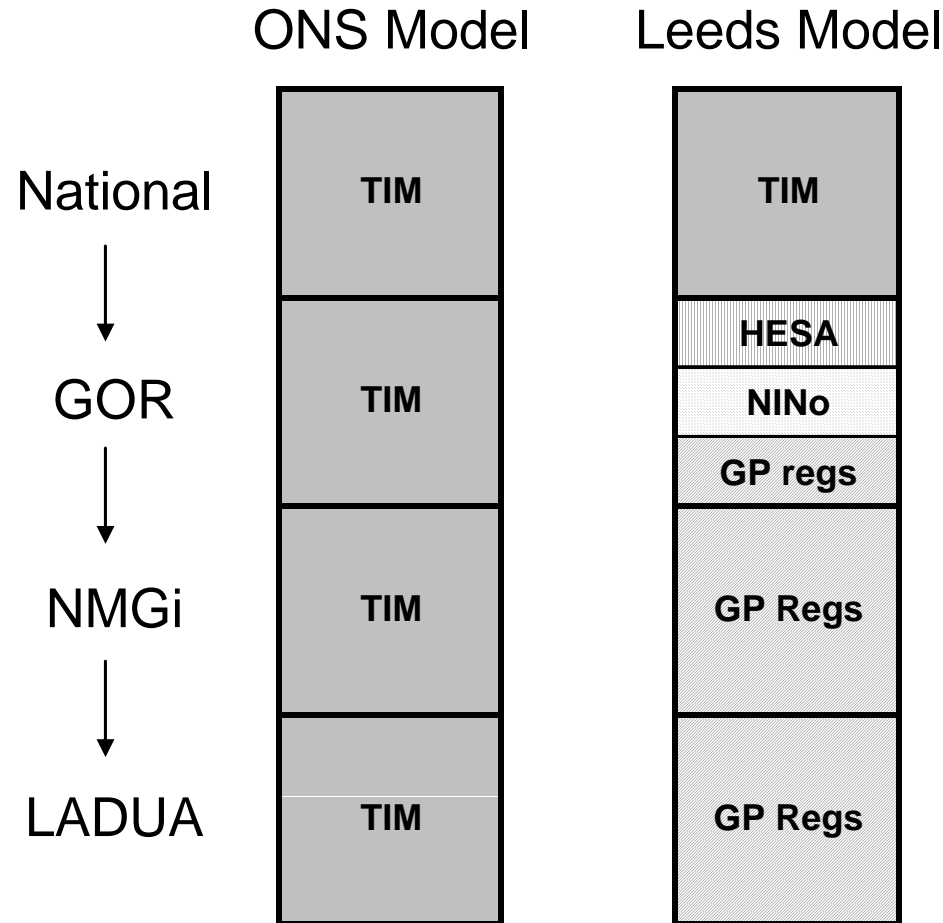
376 zones

GP Registrations vs TIM estimates

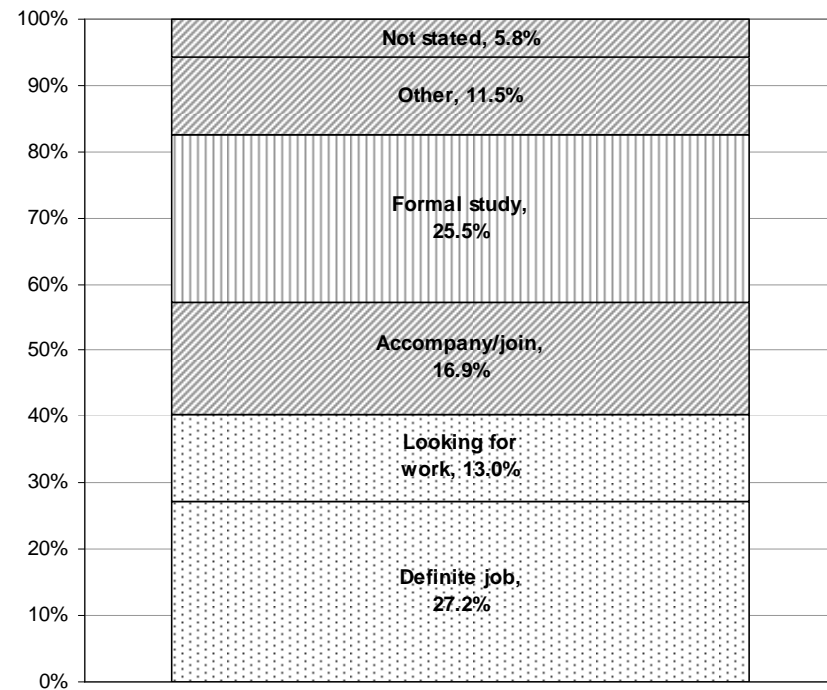
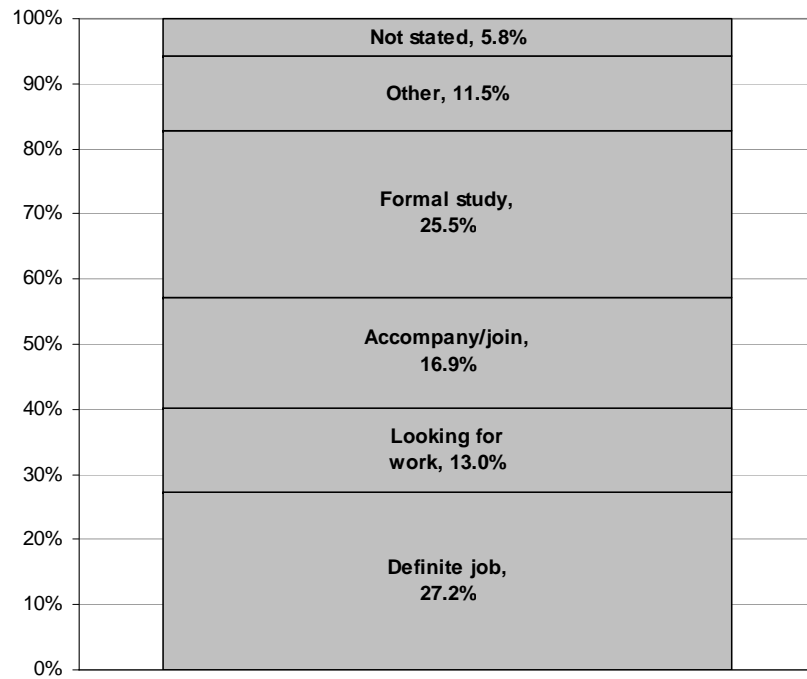


Three year comparison

NMD - Immigration estimation



IPS – Reason Profile



Model specification



$$M_j = \left[\sum_k M \cdot r_k \cdot q_{jk} \right] S_j \quad (1)$$

where,

j = local authority district
J = Government Office Region (GOR)
k = Reason for immigration

1 = formal study
2 = definite job or looking for work
3 = other

M = Total International Migration (TIM)

M_j = TIM estimate by local authority district j

r_k = TIM proportion by migrant type k

q_{jk} = Proportion of administrative dataset count, for GOR J and migrant type k

$$= \frac{H_{kj}}{\sum_J H_{kj}}$$

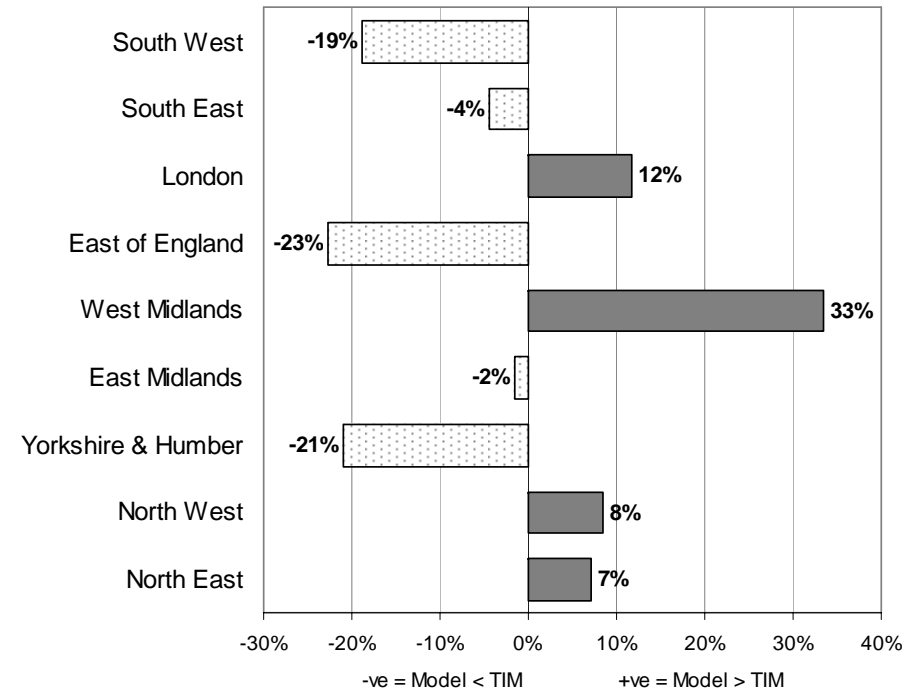
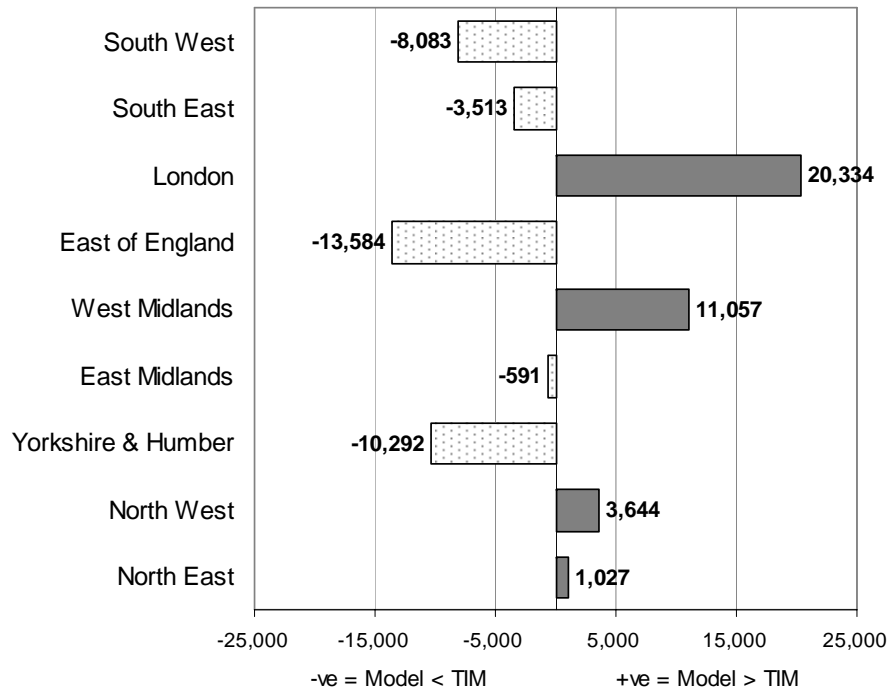
S_j = Proportion of GP registration count for local authority district j

$$= \frac{H_{aj}}{\sum_{j \in J} H_{aj}}$$

where,

H_{kj} and H_{kj} = Count for migrant type k, GOR J (local authority j)

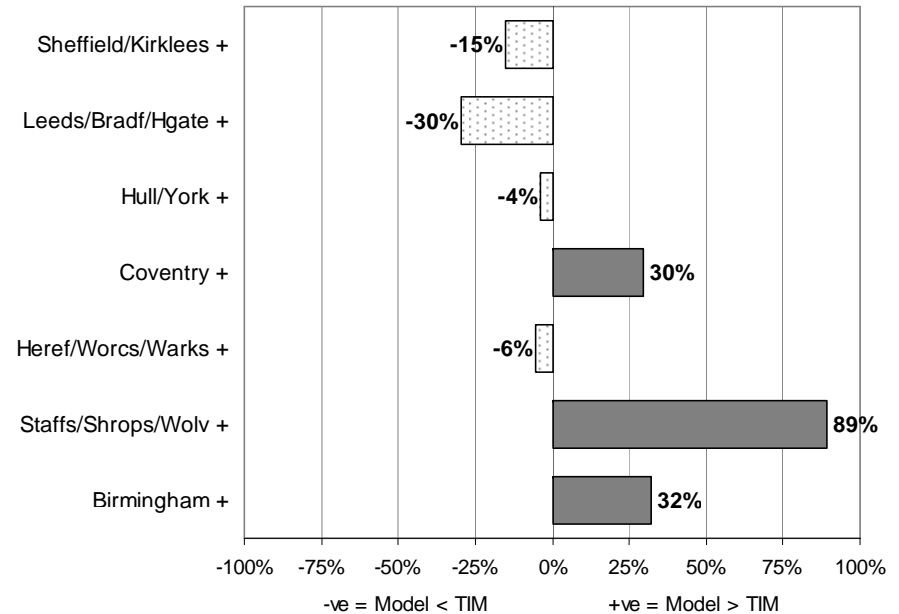
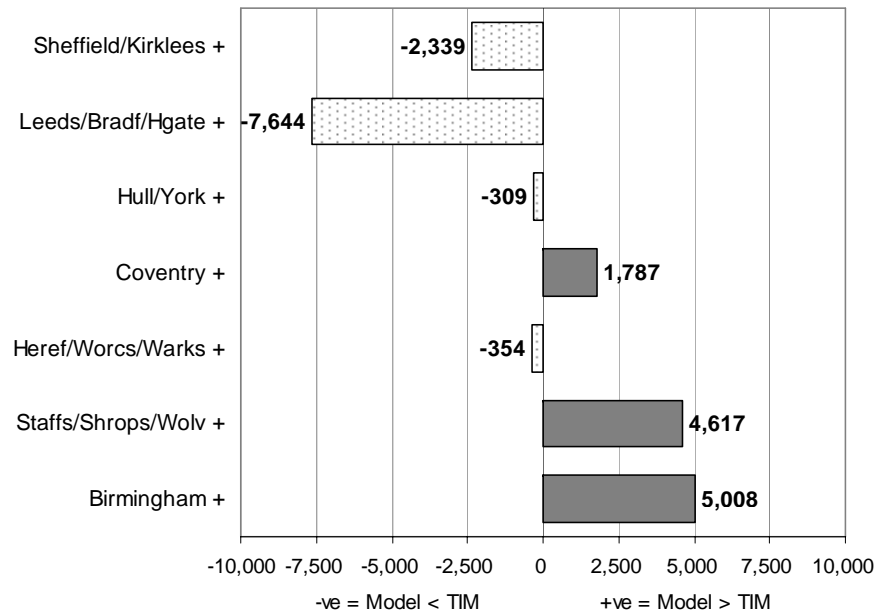
Leeds Model Estimation - GOR



Leeds Model Estimation – intermediate geography

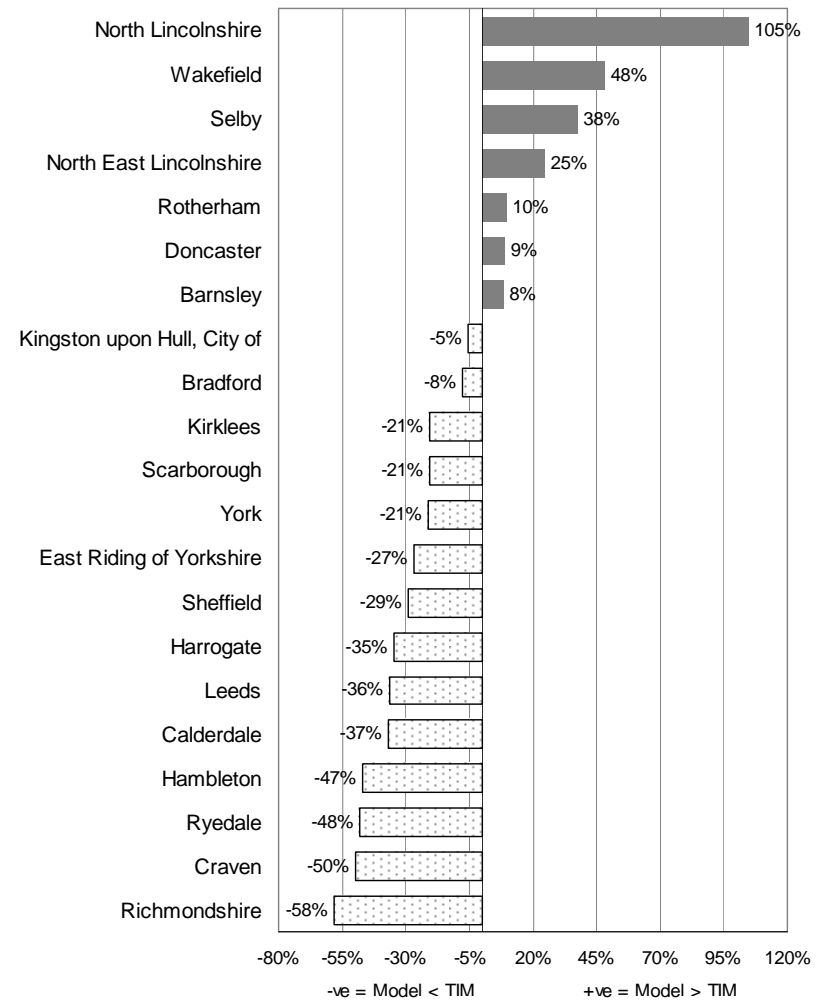
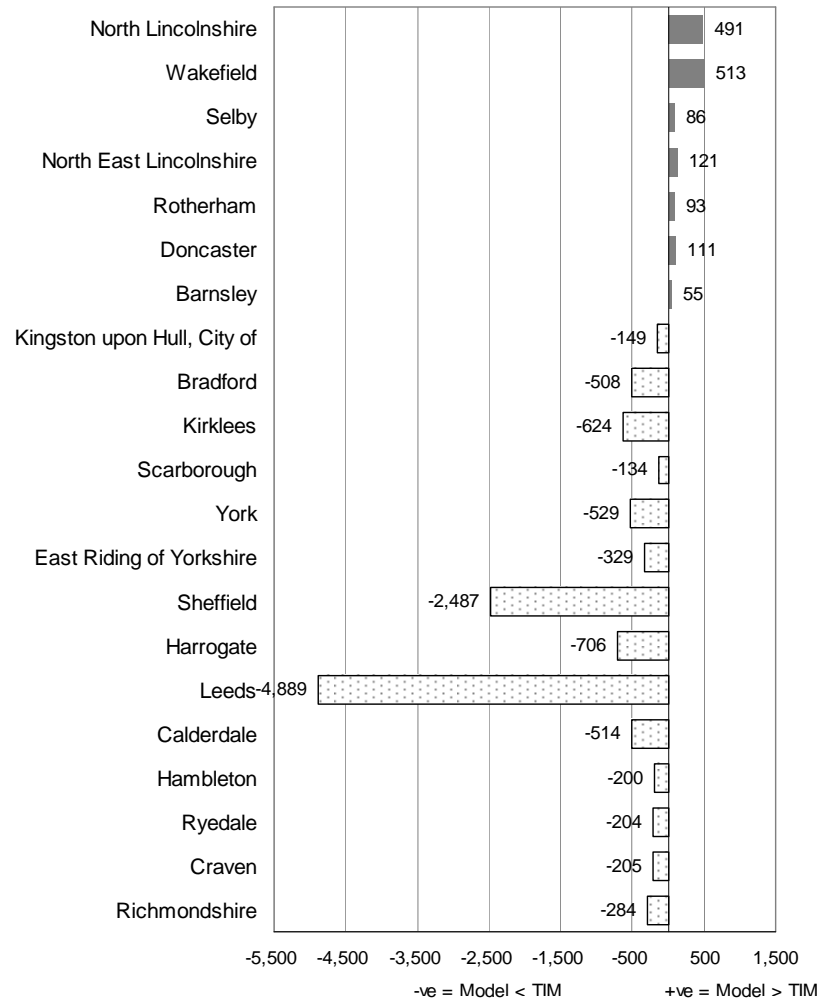


e.g. Yorkshire & Humber and West Midlands



Leeds model estimation – Local Authority areas

e.g. Yorkshire & Humber





Impact upon local population estimates and projections



- Robust population estimates are a key input to local authority funding, resource allocation and planning
- Inaccurate migration assumptions have been identified as a potential source of error in population estimates in a number of local authorities
- The issue has typically been raised where the immigration estimates are seen to be TOO LOW, thus reducing the population estimate
- Situation is blurred by the difficulty of identifying short-term from long-term migrants
- Yorkshire & Humber appears to be a region where the immigration estimates are TOO HIGH (but there have been no complaints)

Population estimates & projections



2006-base

Average per year 2008-2026

Area Name	Natural Change	Net Migration		Total Change
		Internal	International	
Barnsley	495	1,216	-100	1,611
Doncaster	800	242	200	1,242
Rotherham	705	779	100	1,584
Sheffield	2,489	-2,153	3,268	3,605
Bradford	5,247	-2,721	4,347	6,874
Calderdale	937	558	516	2,011
Kirklees	2,342	47	647	3,037
Leeds	5,184	-4,368	8,547	9,363
Wakefield	758	1,416	11	2,184
Kingston upon Hull, City of	1,442	-1,921	2,642	2,163
East Riding of Yorkshire	-395	4,000	442	4,047
North East Lincolnshire	447	-58	405	795
North Lincolnshire	284	1,084	300	1,668
York	779	-326	1,947	2,400
Craven	-105	521	200	616
Hambleton	-5	558	100	653
Harrogate	189	432	1,211	1,832
Richmondshire	189	216	342	747
Ryedale	-100	384	300	584
Scarborough	-205	789	300	884
Selby	189	616	100	905
South Yorkshire	4,489	84	3,468	8,042
West Yorkshire	14,468	-5,068	14,068	23,468
Humber	1,779	3,105	3,789	8,674
North Yorkshire	932	3,189	4,500	8,621
Leeds City Region	16,016	-2,611	17,426	30,832
Yorkshire & Humber	21,668	1,311	25,826	48,805.3



Yorkshire & Humber

Scenario:

- 'Corrects' the immigration estimates
- Maintains existing emigration estimates
- Leaves natural change component unchanged

Scenario	Population (000)			
	2008	2026	incr	% incr
1 Base (SNPP 2006)	5,231	6,110	878	17%
2 Base corrected	5,231	5,890	658	13%
Difference			-220	

Result

- Projected regional population in 2026 is reduced by **220K**



Leeds

Scenario:

- 'Corrects' the immigration estimates
- Maintains existing emigration estimates
- Leaves natural change component unchanged

Scenario	Population (000)			
	2008	2026	incr	% incr
1 Base (SNPP 2006)	770	938	169	22%
2 Base corrected	770	830	61	8%
Difference			-108	

Result

- Projected regional population in 2026 is reduced by 108K



- For estimation purposes, trying to make maximum use of most appropriate dataset at each level
- Sample sources are subject to error at smaller spatial scales
- Census data is not appropriate for sub-national distribution given the demographic changes since 2001
- There are inconsistencies in current methods of sub-national estimation that are evident when compared to alternative administrative datasets
- Administrative datasets provide a robust alternative for distribution of sub-national immigration (the Scottish model)



- Working towards ‘alternative’ estimates of immigration at all levels
 - Age
 - Ethnicity (using Census & NINo country of origin statistics)
- Continued development of the New Migrant Databank
 - New data as it becomes available
 - Scottish datasets
- Development of the analysis of short-term migration and emigration



End

Link to this paper on immigration estimation:

<http://arxiv.org/ftp/arxiv/papers/0903/0903.0507.pdf>

General information on the project:

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