



Study to examine the interface between housing & the economy in the West Midlands region

Report slide set
17 August 2007

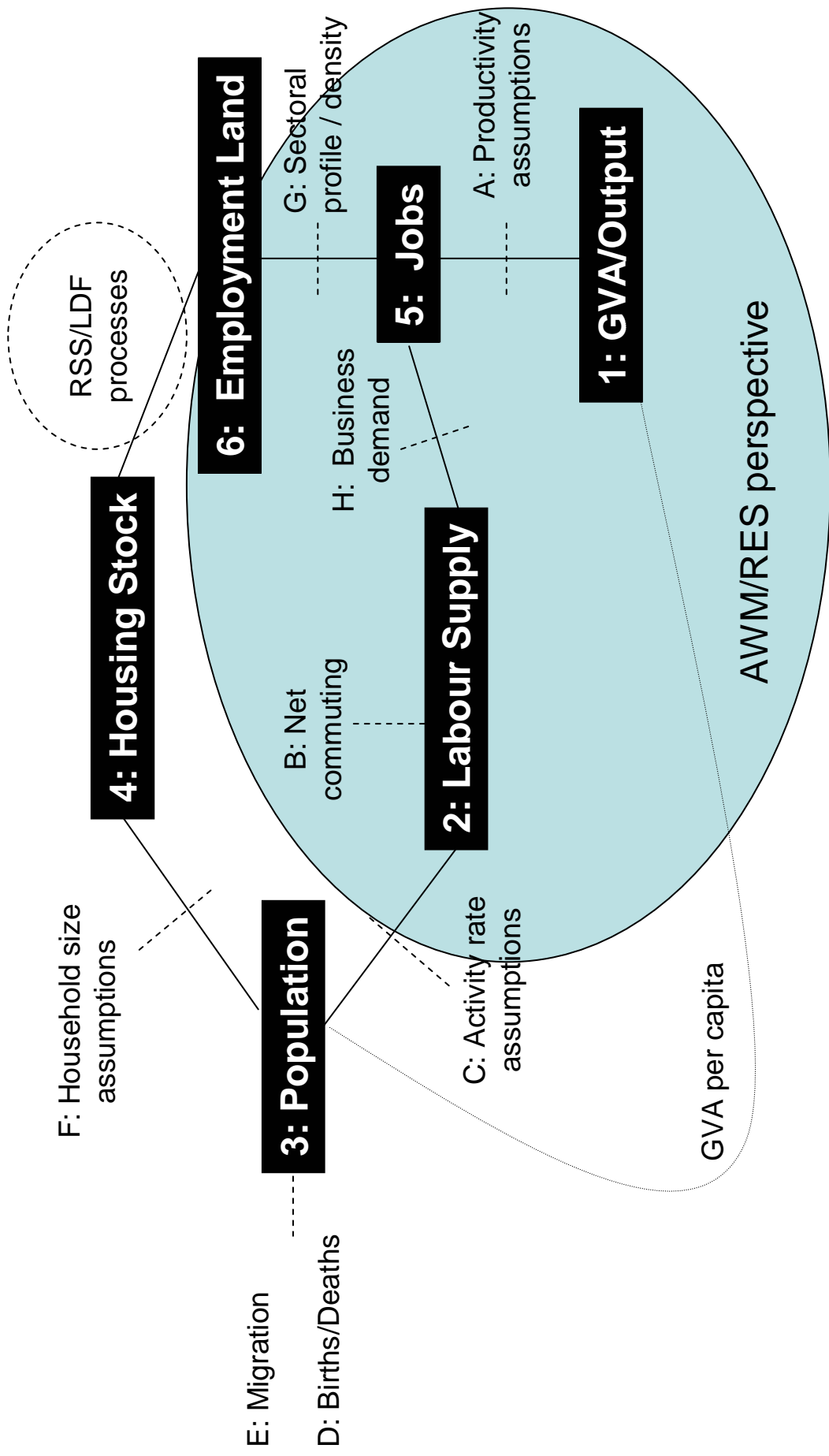


Objectives, methods & assumptions

Study objectives

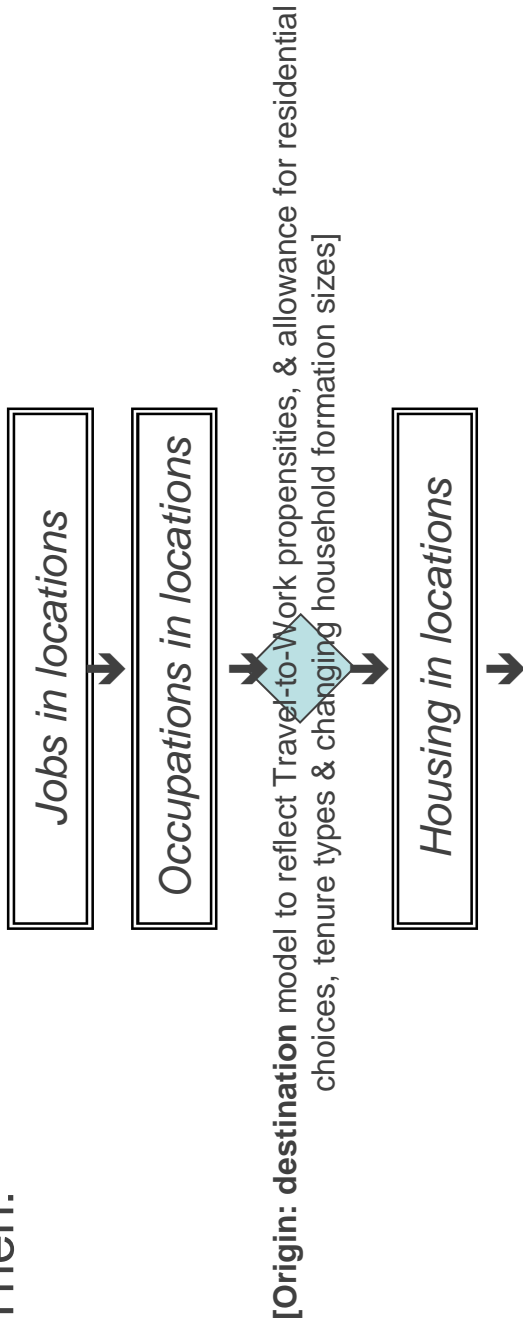
- AWM-commissioned study looking at the inter-relationship between housing & the economy
- 3 objectives:
 1. Inform policies to enhance regional competitiveness through housing growth
 2. Understand housing as a driver of the economy, & housing requirements of the economy
 3. Contribute to the emerging WMES, the partial review of the RSS, & the RHS update
- *The core issue*
 - What's the scale of housing demand *driven by economic growth* between 2006 & 2026, & how does this inform wider thinking about housing issues regionally?

Approach – understanding the interdependent factorsand complexities.....



Method on one slide

- Mapping economic growth between now & 2026, using Cambridge Econometrics' 40-sector projections
- 2 scenarios on the GVA growth-spectrum modelled
 1. Trend-baseline growth
 2. Convergence with UK rate by 2026
- Work does not include 'vision' or 'policy-on' options
- Then:



How does this demand for housing from economic growth compare with supply proposals, & what are the policy options?

Agreed framing of work

1. 2 scenarios on GVA growth-spectrum modelled to 2026
 - > Past recent history continues - *Trend Baseline*
 - > WM closes GVA 'growth rate gap' with UK by 2026 (reflecting draft WMRES intent) – *Convergence*
2. Growth in AWM's clusters will drive closing of GVA growth rate gap under *Convergence* scenario
 - > Basis for cluster ↔ SIC mapping = WMRO research work in 2005
3. Housing supply numbers to compare against
 - > Reference Point (Approximate-Option 3) 2006/2026 = net 412,557 houses (figure provided by WMRA colleagues 18 June 2007, Birmingham)
4. Housing focus, yes, but downstream consideration of knock-ons for
 - > Employment land
 - > Growth vs. distributional balance

Agreed framing of work

- 5. On geography
 - Work undertaken at LAD level (x34 LADs)
 - Reporting at HMA & sub-geographies, as follows
 - > South
 - > West
 - > Central including
 - Coventry, Birmingham/Solihull, Black Country, Telford,
 - Rugby/Nuneaton/North Warwickshire, Lichfield/Tamworth
 - South Staffs/Cannock
 - > North
 - Urban areas –Stoke, Newcastle
 - Outside MUA – Stafford, East Staffs, Staffs Moorlands
 - > Plus
 - Major Urban Areas
 - Central Urban Areas
 - **No final detailed district-by-district reporting**

The 4 Housing Market Areas

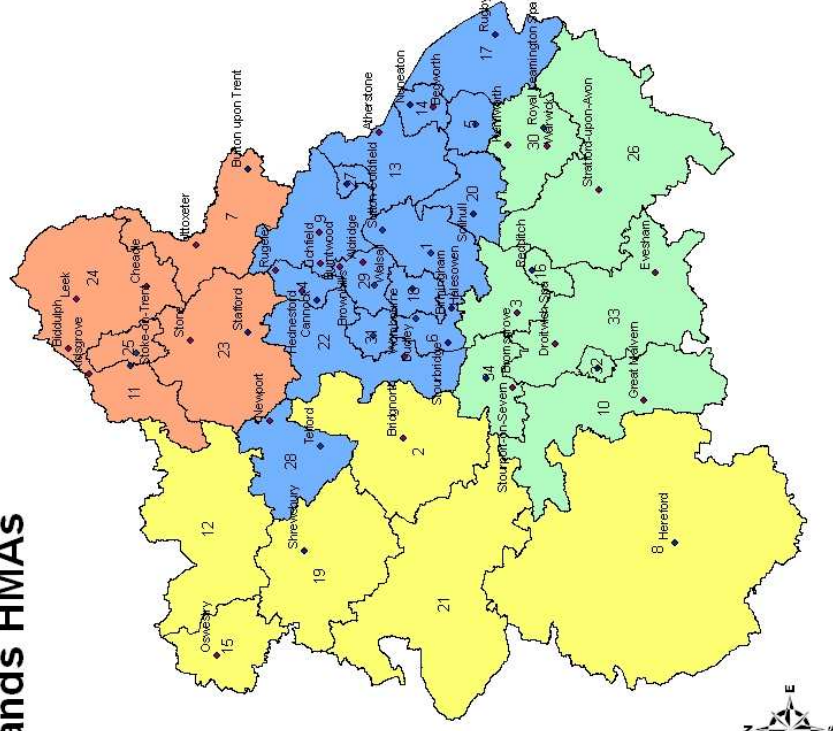
Map of West Midlands HMAs

Legend

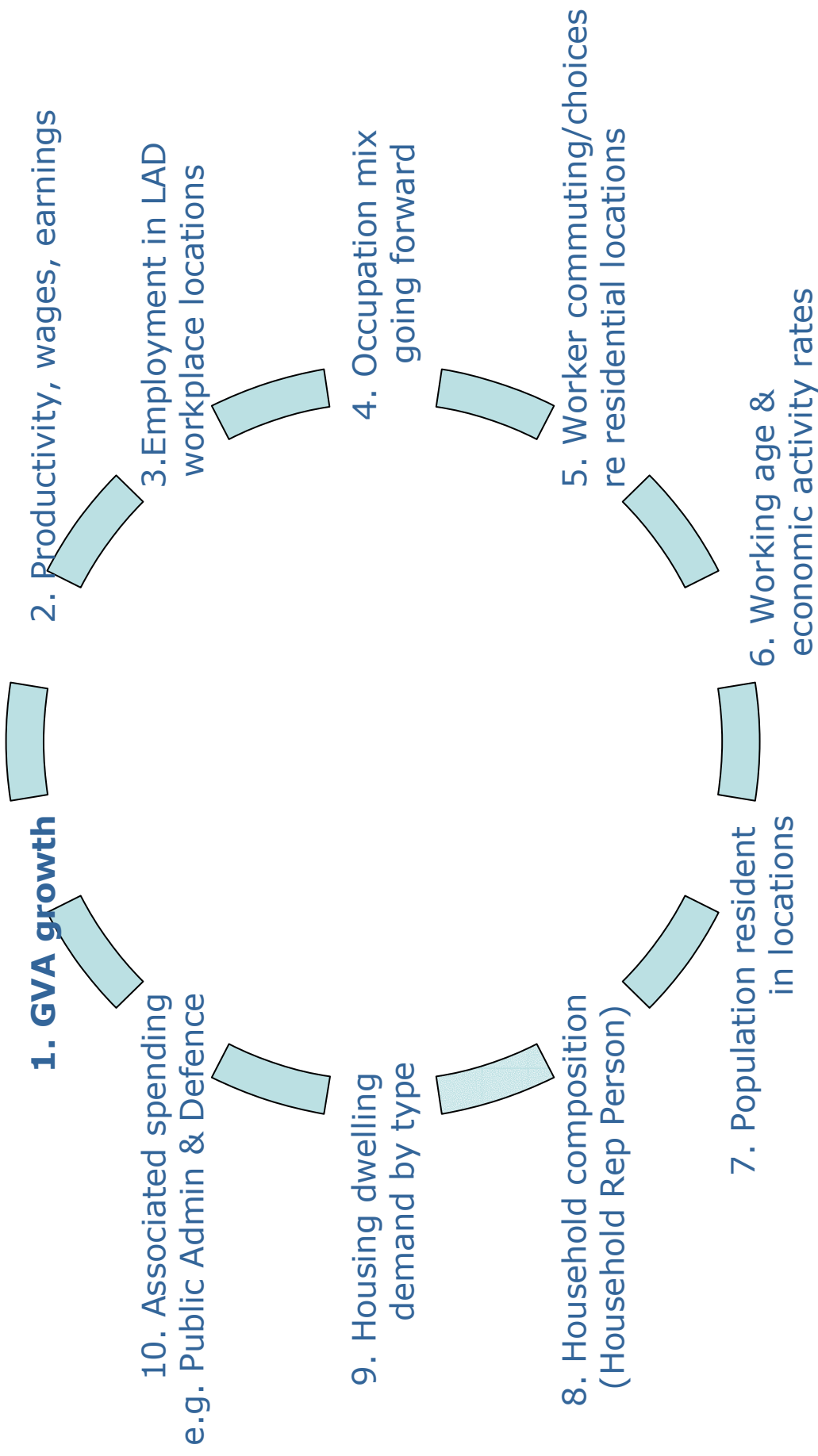
HMA	Color
Central	Blue
North	Orange
South	Green
West	Yellow

KEY

- | | |
|----------------------------|----------------------------|
| 1 Birmingham | 18 Sandwell |
| 2 Bridgnorth | 19 Shrewsbury and Atcham |
| 3 Bromsgrove | 20 Solihull |
| 4 Cannock Chase | 21 South Shropshire |
| 5 Coventry | 22 South Staffordshire |
| 6 Dudley | 23 Stafford |
| 7 East Staffordshire | 24 Staffordshire Moorlands |
| 8 Herefordshire, County of | 25 Stoke on Trent |
| 9 Lichfield | 26 Stafford-on-Avon |
| 10 Malvern Hills | 27 Tamworth |
| 11 Newcastle-under-Lyme | 28 Telford and Wrekin |
| 12 North Shropshire | 29 Walsall |
| 13 North Warwickshire | 30 Warwick |
| 14 Nuneaton and Bedworth | 31 Wolverhampton |
| 15 Oswestry | 32 Worcester |
| 16 Redditch | 33 Wychavon |
| 17 Rugby | 34 Wyre Forest |



How GVA growth & employment demand in work locations links to employee housing demand



The model's core – residential housing demand in locations is driven by propensity to travel to work

Destination = place of employment

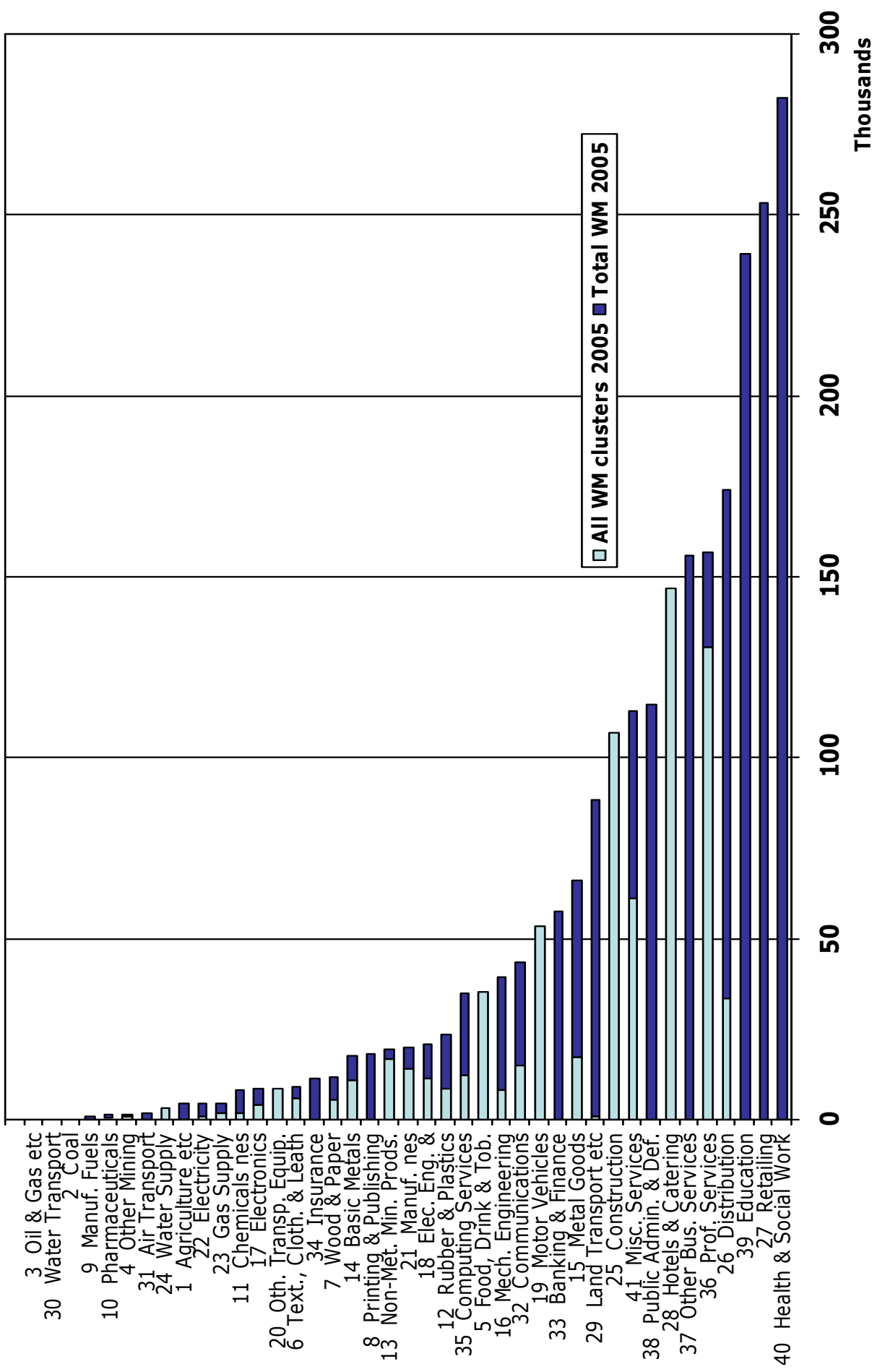
Live & Work in locality 1 (=self containment)	Working elsewhere 2	Working elsewhere 3	...	All living in locality 1
Living elsewhere 2	Live & Work in locality 2 (=self containment)		...	All living in locality 2
Living elsewhere 3		Live & Work in locality 3 (=self containment)	...	
...	
Total working in locality 1	Total working in locality 2	Total working in locality 3	...	All workers

Origin = Home

Key Assumptions 1

- The model's jobs metric is based on Census 2001 data (rather than ABI), given the housing emphasis of the study
- There are no innovations in infrastructure/labour supply/business models that change TTW propensity
- Earnings differentials by sector across LADs are projected to remain stable through to 2026
- House price differentials do not move to constrain high demand locations
- GVA Scenario 2 - Convergence to UK GVA growth rate by 2026 – is achieved by differential growth of AWM's existing clusters

Shares are employment in AWM's clusters in CE's 40 sectors, as at 2005 (ABI)



Key Assumptions 2

- Household formation & dwellings assumptions
 - Household size adjustment comes from DCLG's 2004-based assumptions for WM LADs (key message from these data is that smaller households going forward boosts the dwellings required)
 - Dwellings for social housing are driven out of future projections of unemployment & inactivity/disability



Study conclusions at this point

Study conclusions at this point

- The analysis shows a strong link between employment growth & net housing market demand
- Changing patterns of household formation are *critically* important in driving the future economic demand for housing . . .
- . . . GVA growth rates are less so
- There has been a considerable reduction in affordability over 2002-2006, which future economy-driven housing demand will accentuate
- Future employment demand-led housing requirements will concentrate housing demand in already favoured local areas

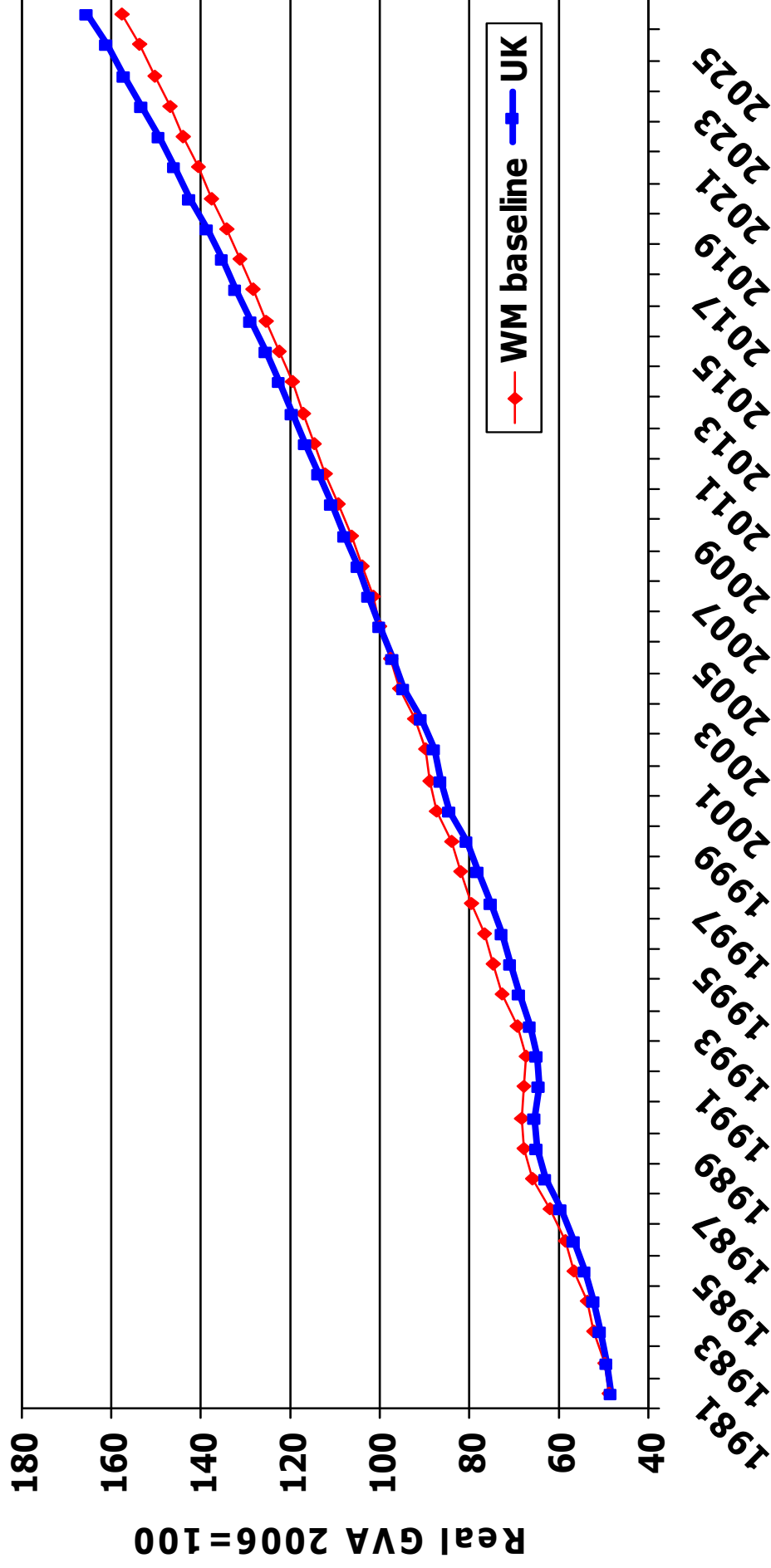
Study conclusions at this point

- Housing demand volumes are not very responsive to price signals, indicating potential private house price hikes in favoured locations
- From an economic growth perspective, meeting the “reference point” figures for housing *in particular places* will demand very pronounced employment growth
- *Note*
 - *No in-model treatment, so far, of household formation, price & earnings feedback effects, Public Admin & Defence, Health & Education investment – all of which could be significant - or active policy initiatives*

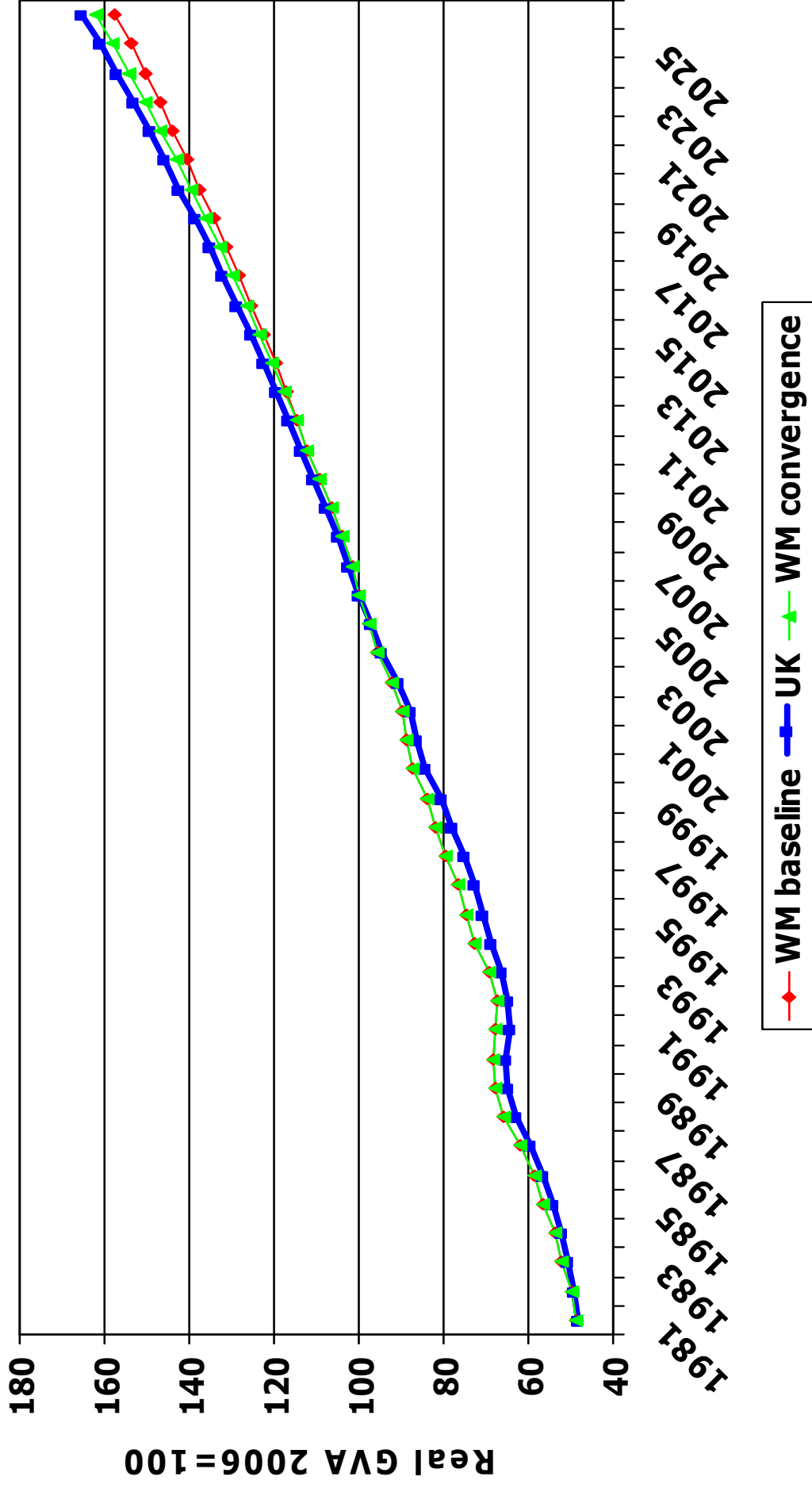


Detailed Findings

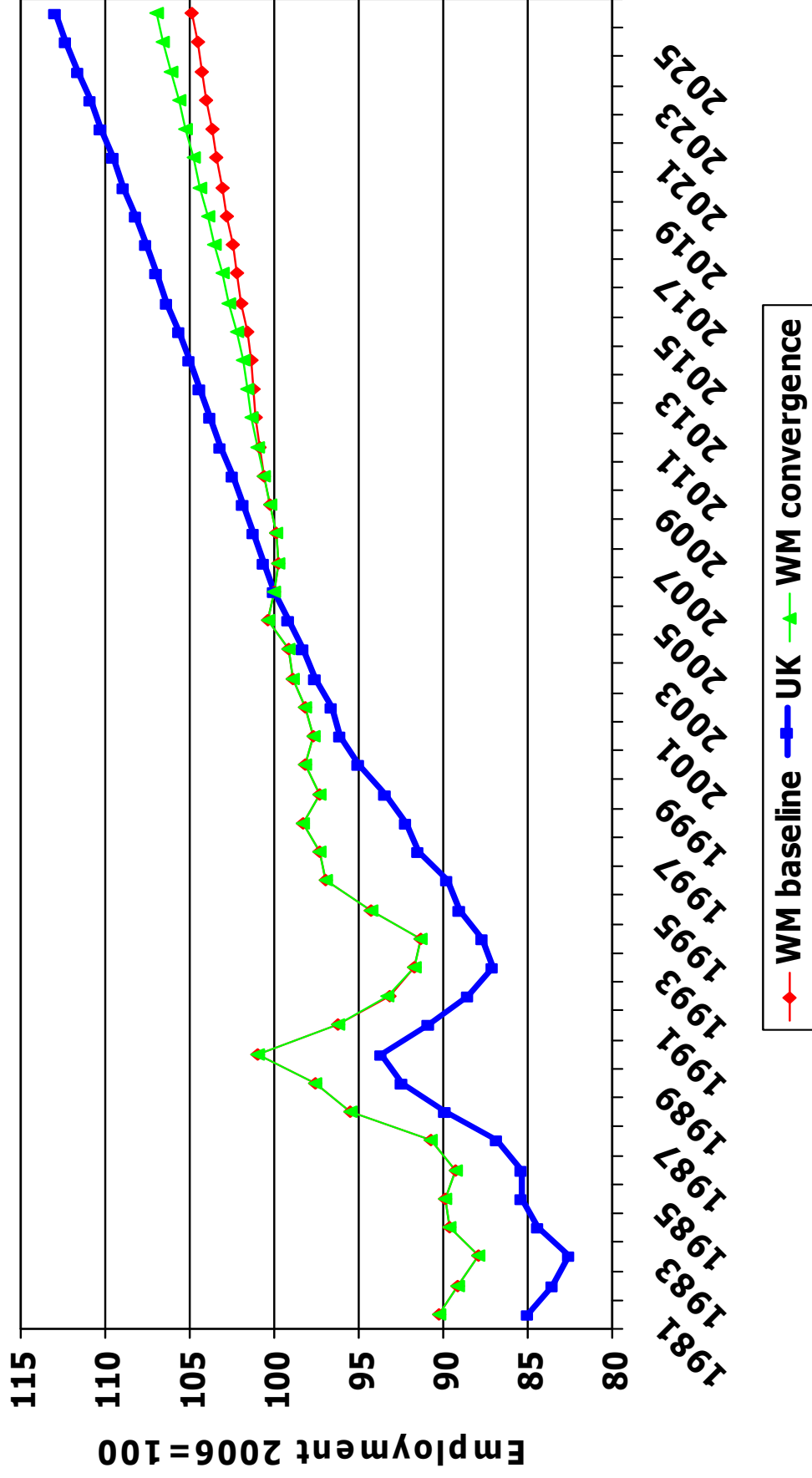
West Midlands' *Baseline* real GVA growth to 2026 is projected to be slower than that of UK as a whole



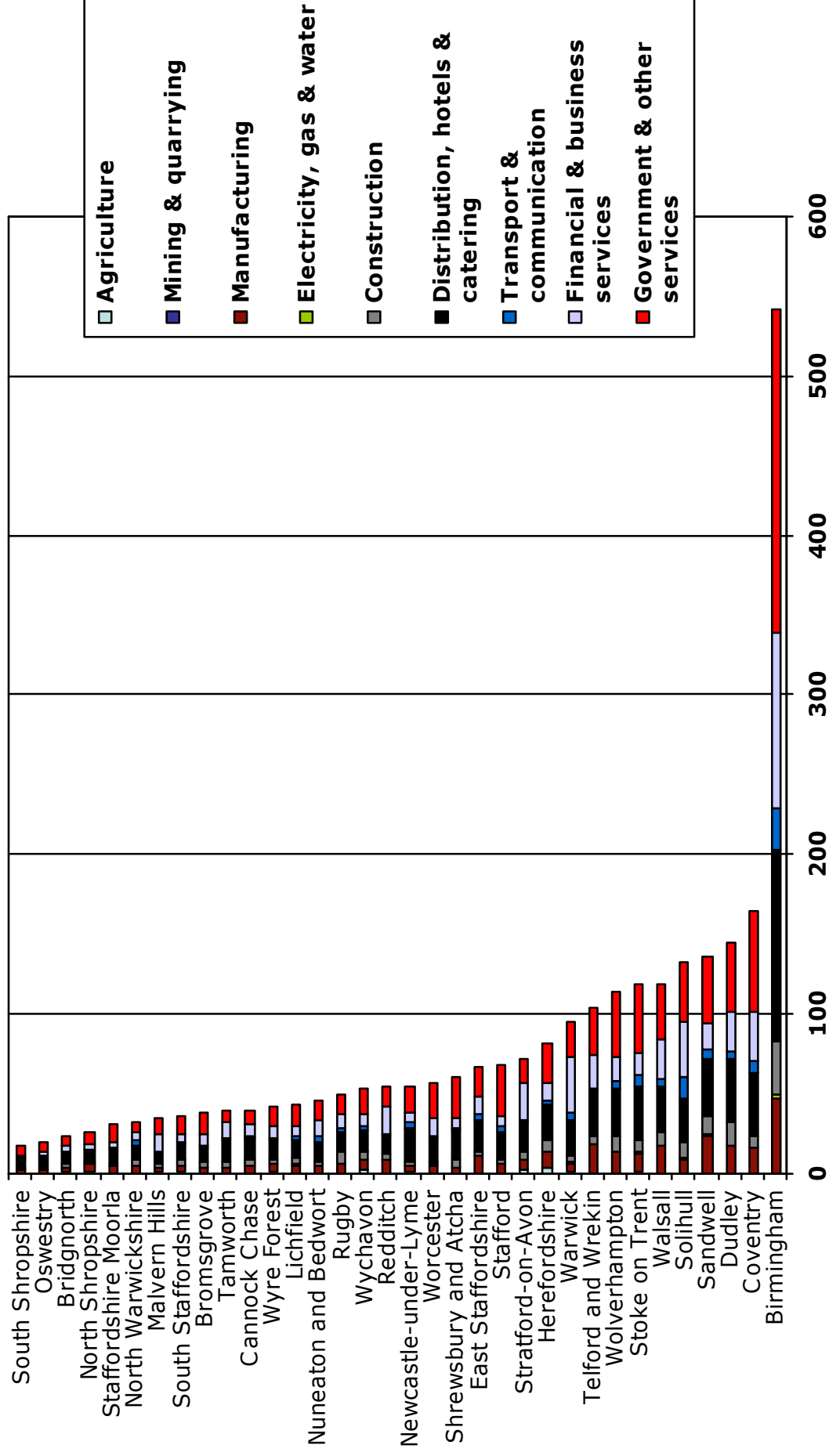
WM Convergence scenario projects faster GVA growth, resulting from differentially better growth in clusters



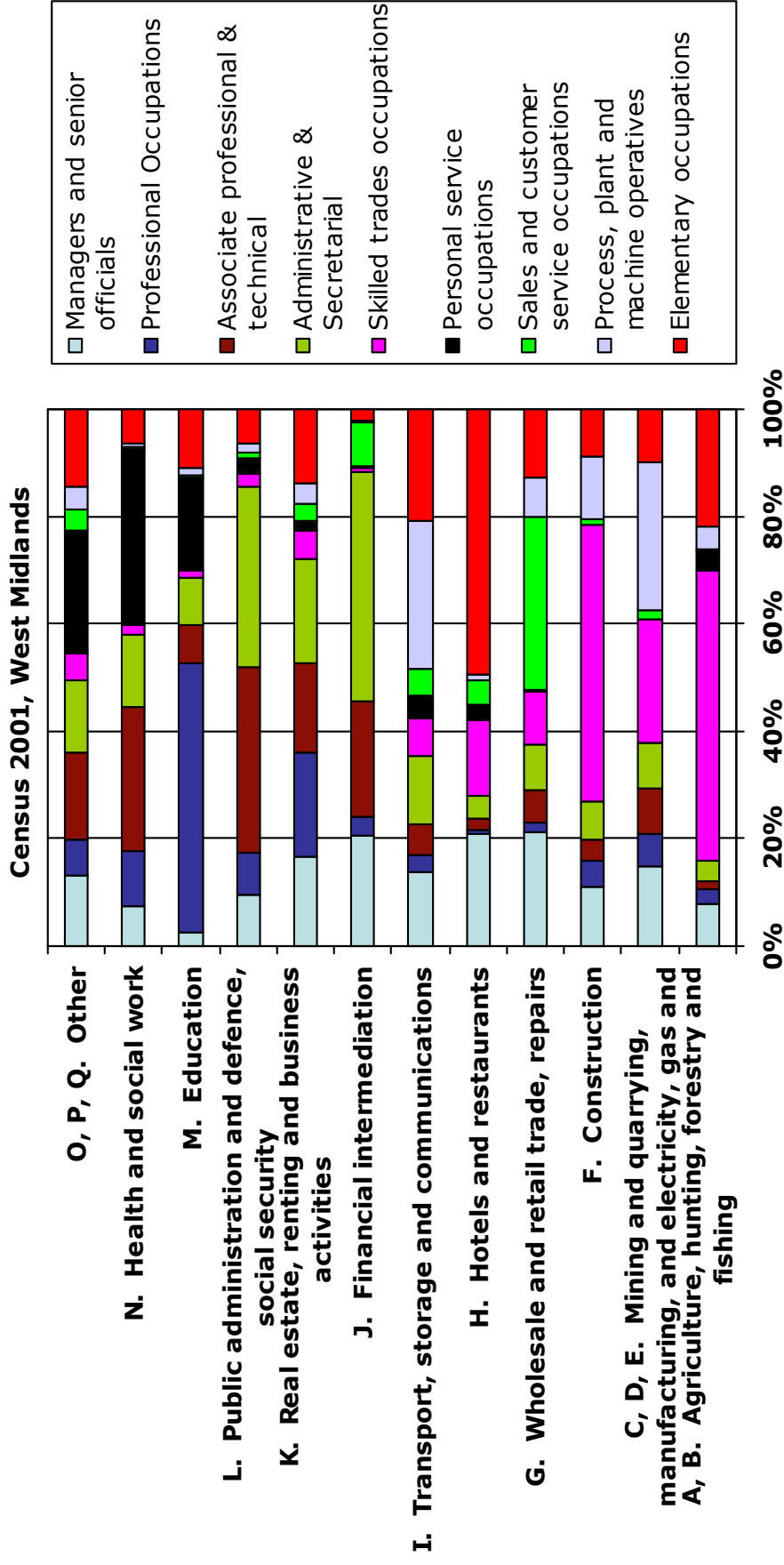
. . . but WM employment will be slower than the UK's through to 2026, as WM productivity accelerates



The Baseline scenario's resulting projection of total employment (by broad CE sector) by WM LAD in 2026 is as follows . . .

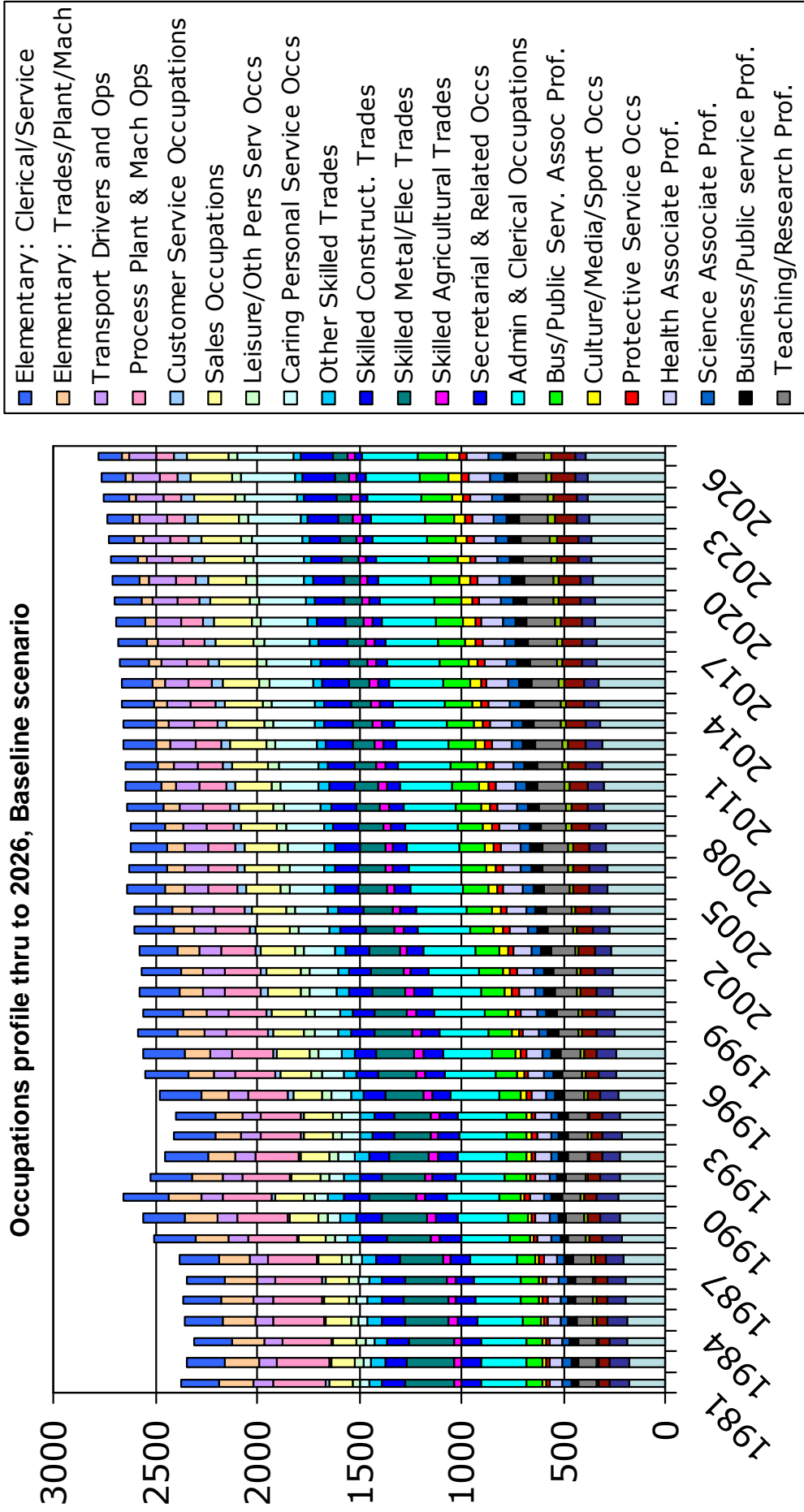


Having identified total employment at 2026, how does this relate to *occupations* in workplaces? The start point is the Census 2001's occupational distribution . . .

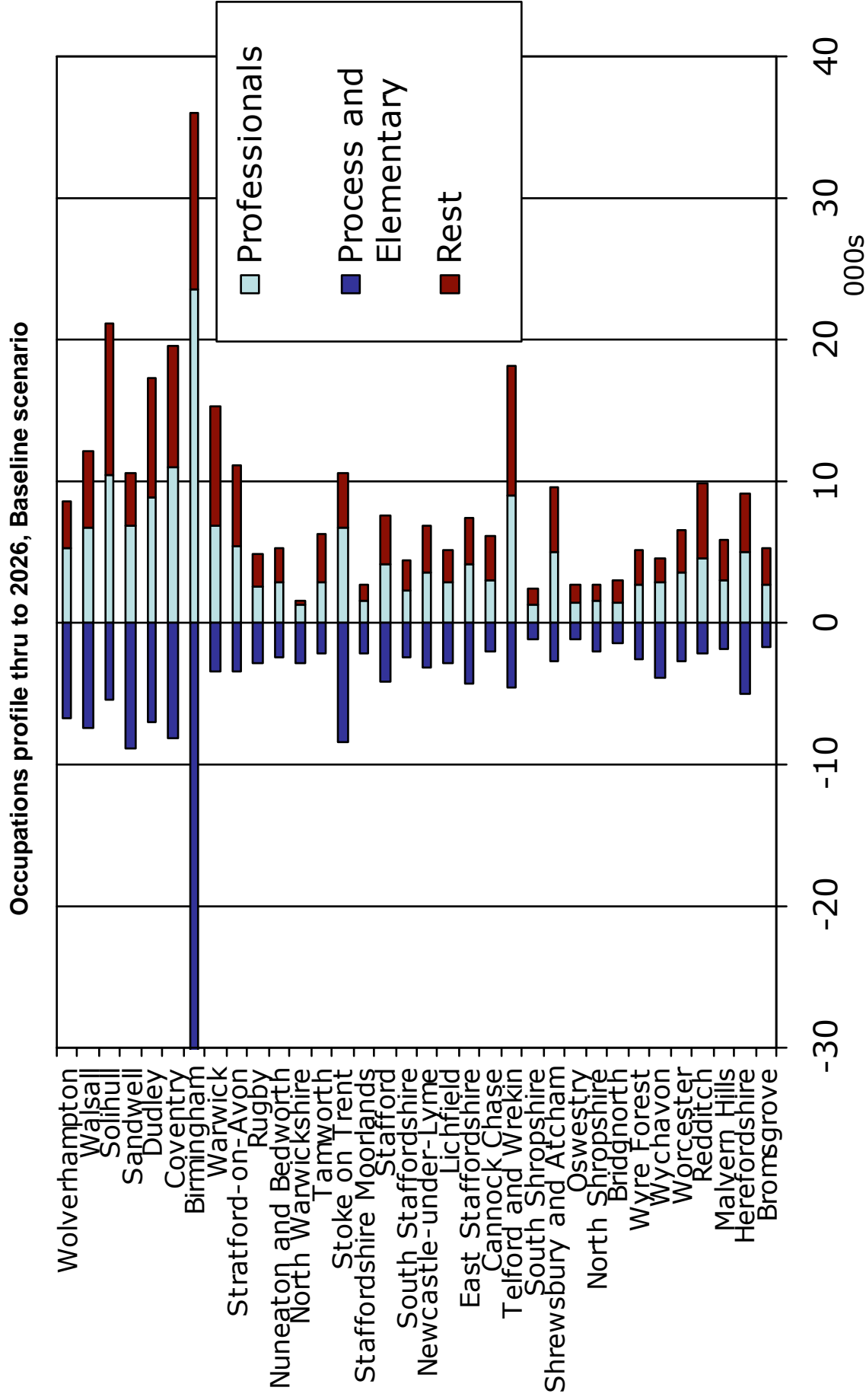


Note that the region has relatively less skilled content sector-by-sector than, for example, the SE

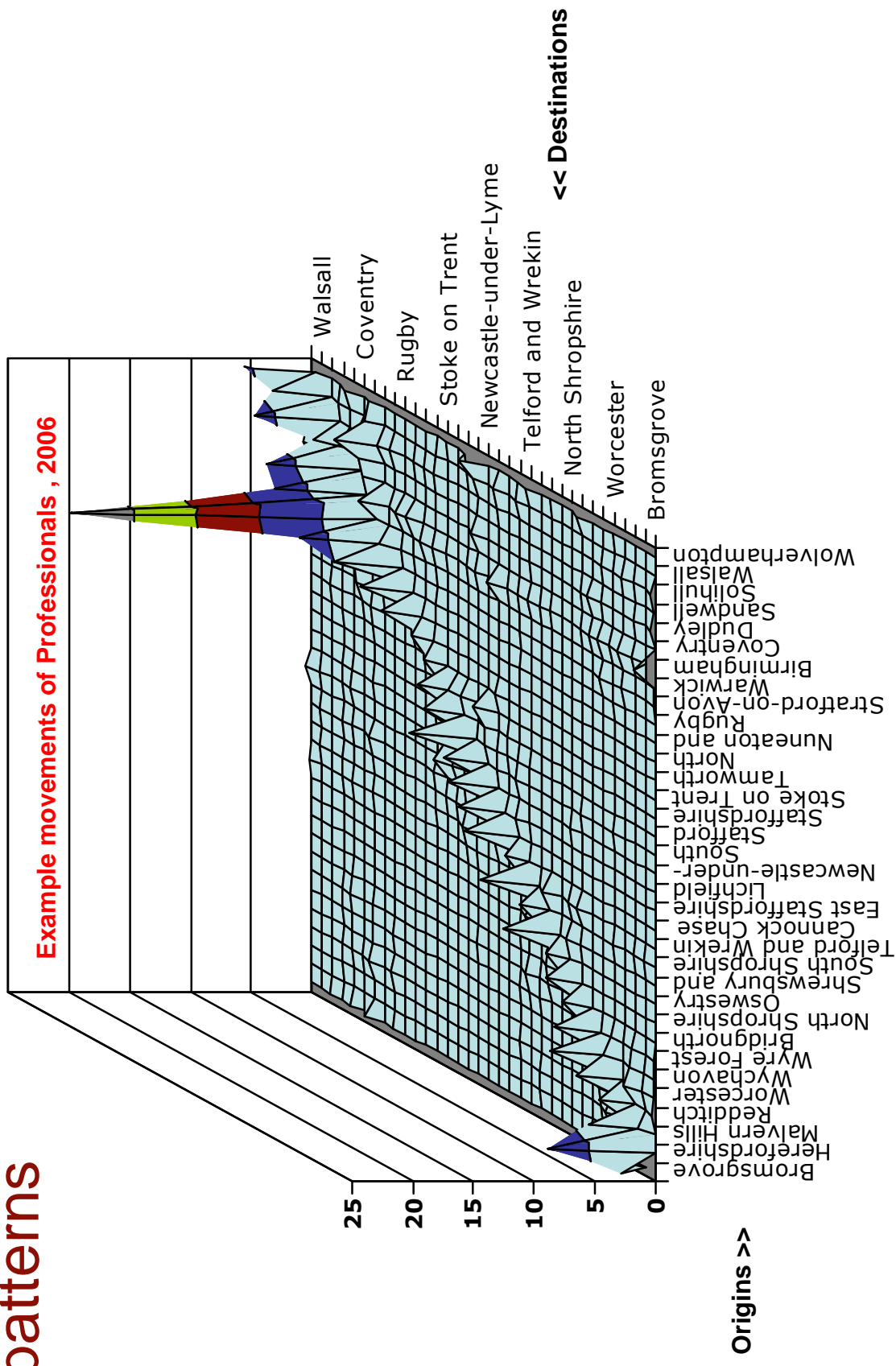
Under both scenarios, occupations in workplaces will become higher-end (e.g. Corporate Managers, Professionals, Leisure/Sales)



.. The net demand for Process & Elementary occupations will fall sharply to 2026

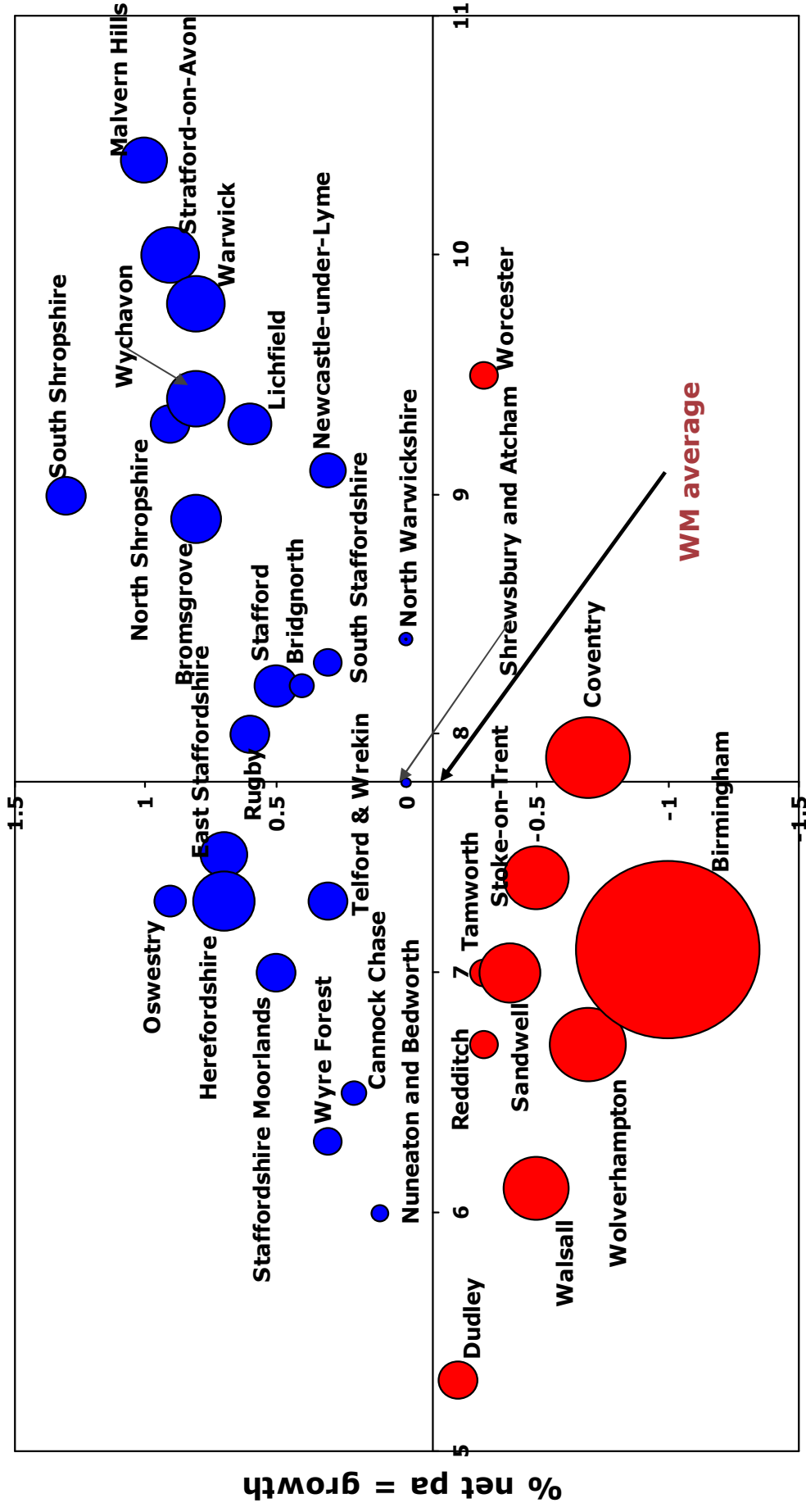


To these future occupations in workplaces, we then apply origin:destination shares from the Census 2001 to understand likely future travel-to-work (TTW) patterns



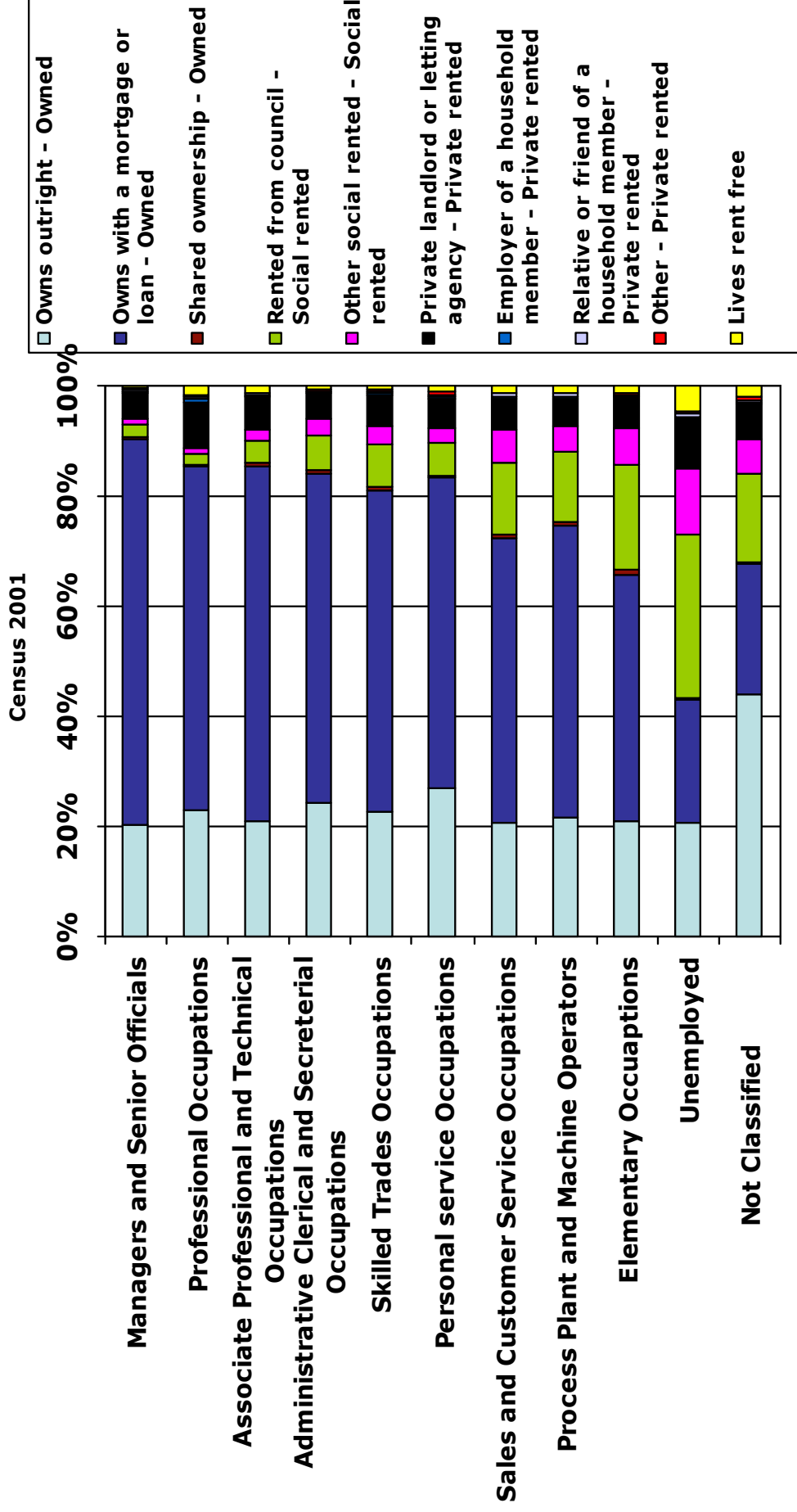
... matching with recent evidence of the already pronounced differential attractiveness of housing locations

net migration 1999-2004

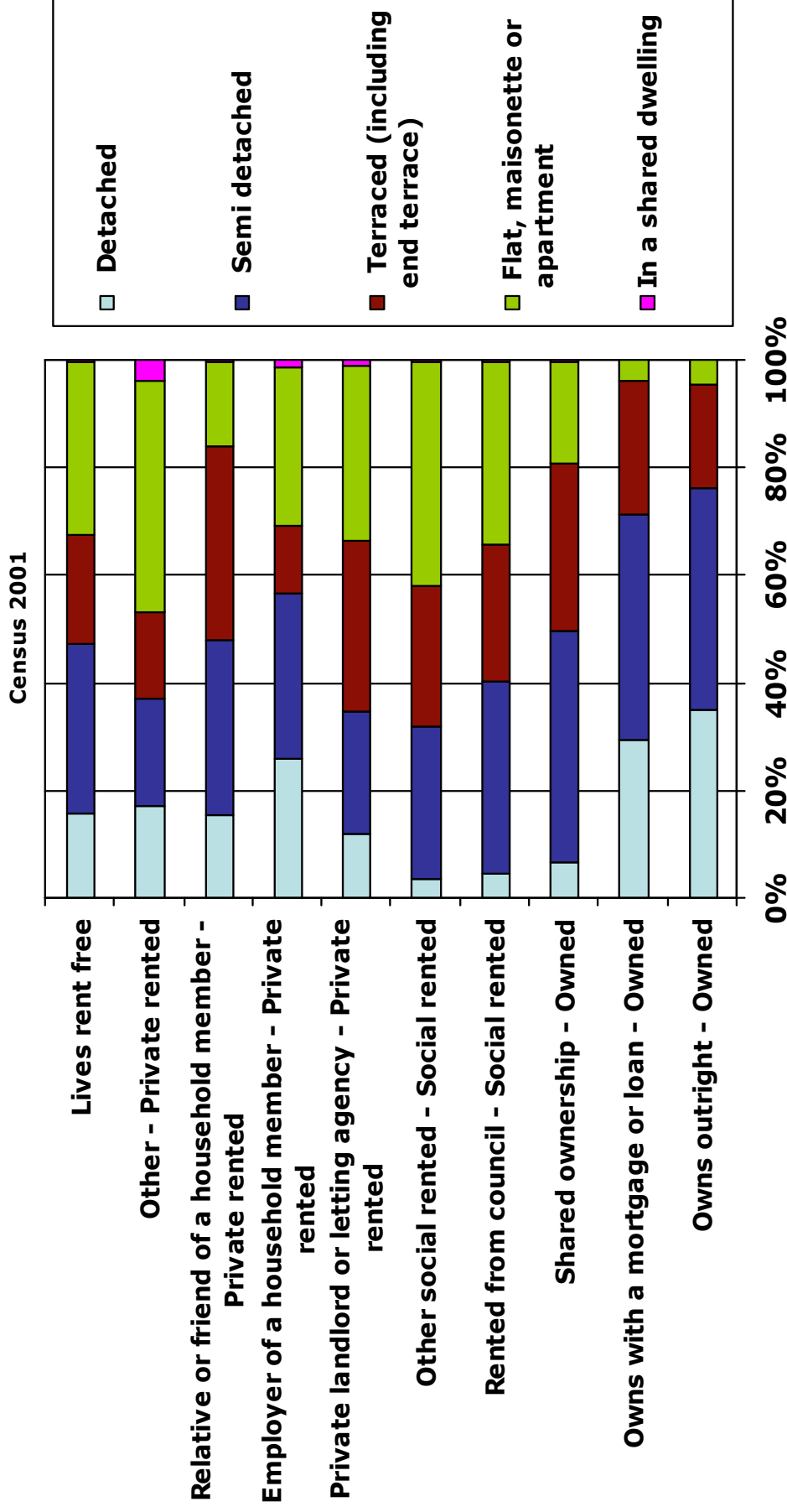


% (inflows+outflows) / pop pa = churn

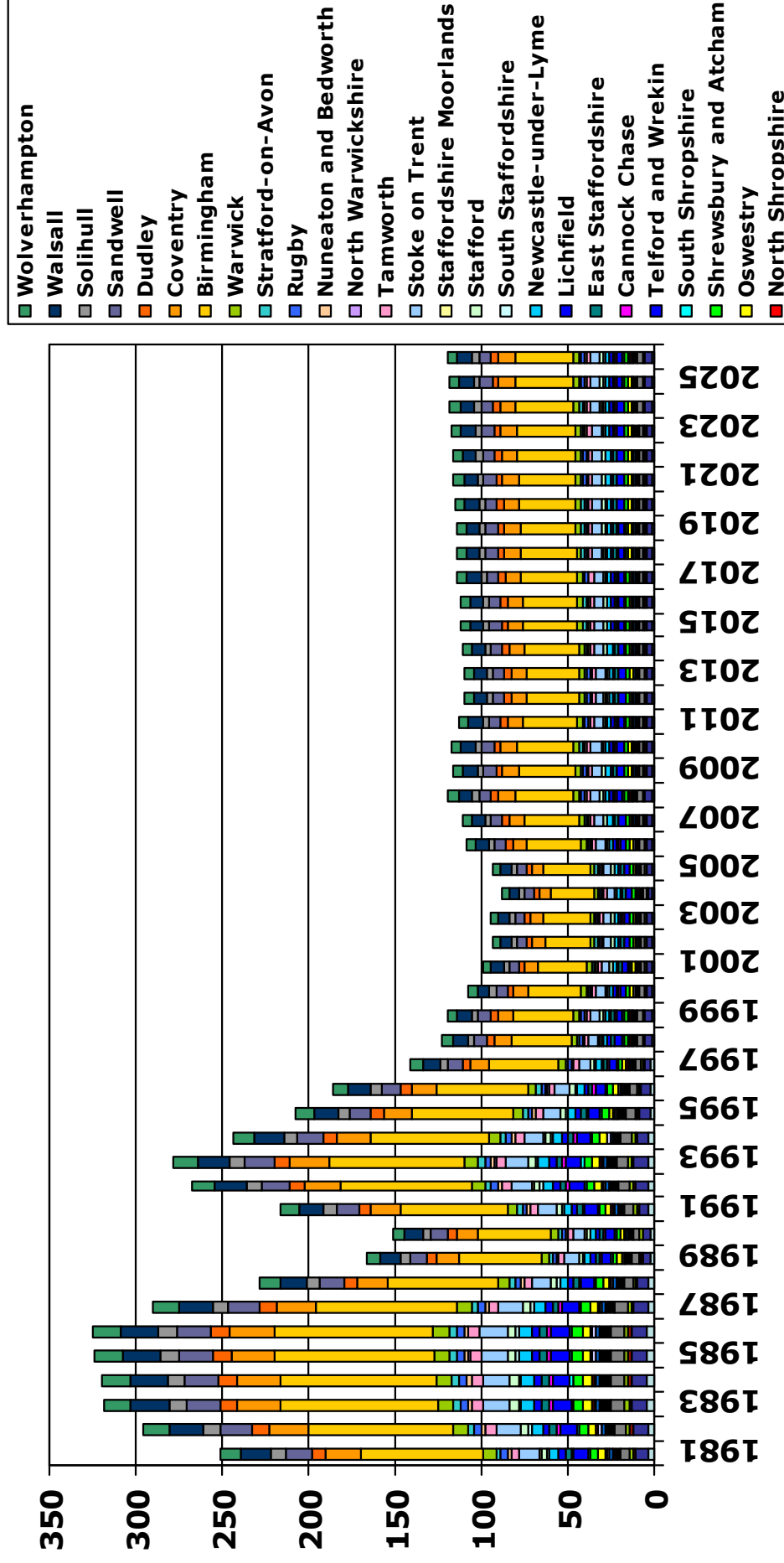
And using the Census 2001, we can translate from occupations in residential locations into tenure types



And on from tenure type to dwelling types . . .



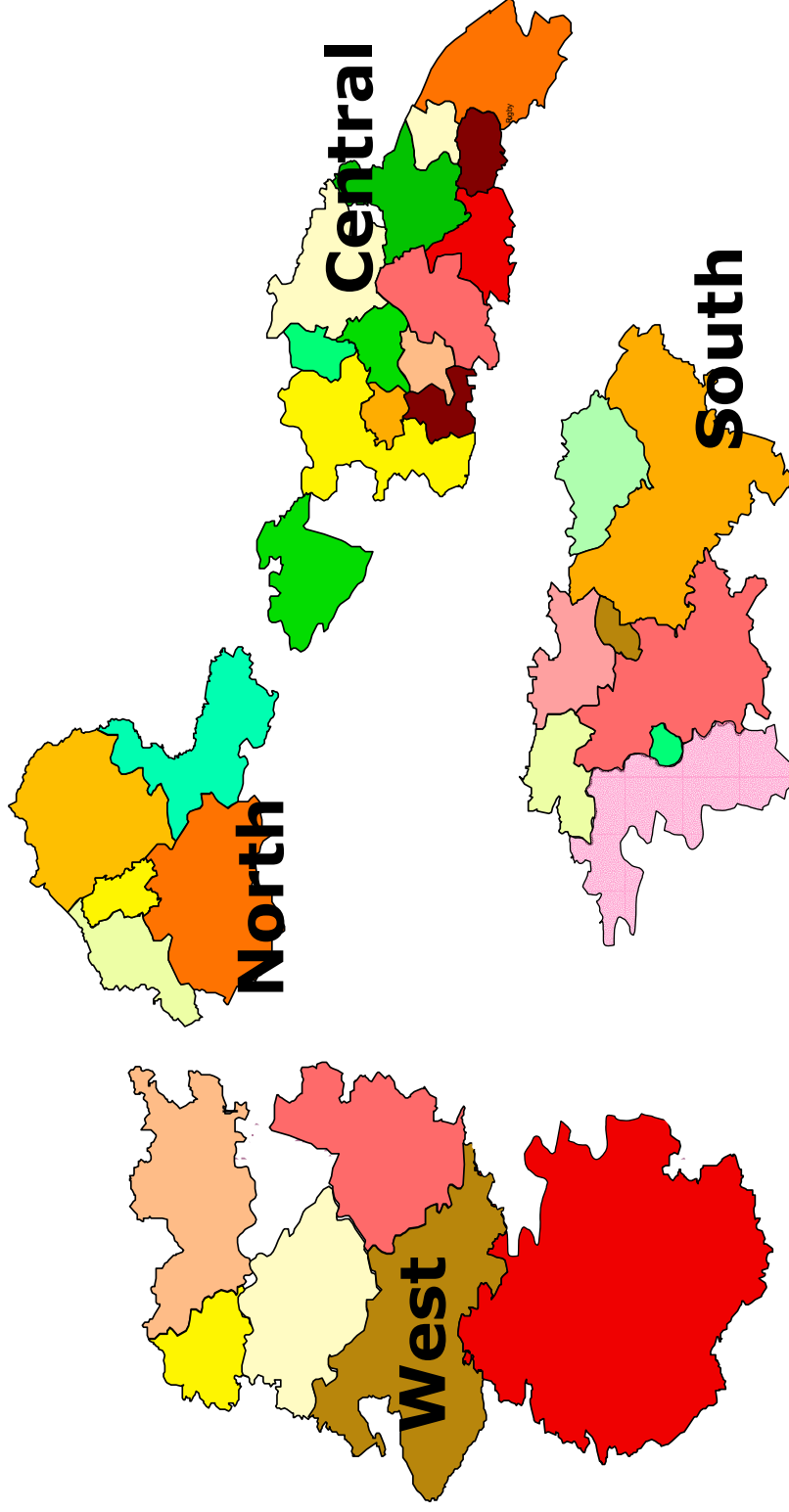
... & enabling us to project associated 'non-market' oriented tenures – for example, *projected unemployed residents by LAD*





So, what does this mean at HMA & sub-geographies?

So, what does this mean at HMA & sub-geographies?



The model suggests, under the Baseline Scenario, that demand for new housing units (2006-2026) in the HMAs & their sub-geographies would look like...

South		All	
	Bromsgrove, Malvern Hills, Redditch, Worcester, Wychavon, Wyre Forest, Stratford-on-Avon, Warwick		116,623
West			39,064
	Herefordshire, Bridgnorth, North Shropshire, Oswestry, Shrewsbury and Atcham, South Shropshire		
	Telford and Wrekin, Cannock Chase, Lichfield, South Staffordshire, Tamworth, North Warwickshire, Nuneaton and Bedworth, Rugby, Birmingham, Coventry, Dudley, Sandwell, Solihull, Walsall, Wolverhampton		196,757
Central			19,597
Central - Coventry	Coventry		68,676
Central - Birmingham, Solihull	Birmingham, Solihull		41,562
Central - Black Country	Dudley, Sandwell, Walsall, Wolverhampton		22,818
Central - Telford	Telford and Wrekin		30,541
Central - Rugby, Nuneaton, North Warwickshire	Rugby, Nuneaton and Bedworth, North Warwickshire		8,809
Central - Lichfield and Tamworth	Lichfield, Tamworth		4,755
Central - South Staffs and Cannock	South Staffordshire, Cannock Chase		
North			21,733
North - Urban areas	East Staffordshire, Newcastle-under-Lyme, Stafford, Staffordshire Moorlands, Stoke on Trent		-2,521
North - outside MUA	Newcastle-under-Lyme, Stoke on Trent		24,254
Major Urban Areas			127,314
	Birmingham, Coventry, Dudley, Sandwell, Walsall, Wolverhampton, Solihull, Newcastle-under-Lyme, Stoke on Trent		
Central urban areas			129,835
Total			374,178

The model suggests, under the Convergence Scenario, that demand for new housing units (2006-2026) in the HMAs & their sub-geographies would look like...

	All
South	120,301
West	40,938
Central	204,399
Central - Coventry	20,014
Central - Birmingham, Solihull	70,258
Central - Black Country	43,941
Central - Telford	23,159
Central - Rugby, Nuneaton, North War	31,883
Central - Lichfield and Tamworth	9,456
Central - South Staffs and Cannock	5,687
North	23,616
North - Urban areas	-1,678
North - outside MUA	25,295
Major Urban Areas	132,535
Central urban areas	134,213
Total	389,254

Bromsgrove, Malvern Hills, Redditch, Worcester, Wychavon, Wyre Forest, Stratford-on-Avon, Warwick

Herefordshire, Bridgnorth, North Shropshire, Oswestry, Shrewsbury and Atcham, South Shropshire

Telford and Wrekin, Cannock Chase, Lichfield, South

Staffordshire, Tamworth, North Warwickshire, Nuneaton and

Bedworth, Rugby, Birmingham, Coventry, Dudley, Sandwell, Solihull, Walsall, Wolverhampton

Coventry

Birmingham, Solihull

Dudley, Sandwell, Walsall, Wolverhampton

Telford and Wrekin

Central - Rugby, Nuneaton and Bedworth, North Warwickshire

Central - Lichfield and Tamworth

Central - South Staffs and Cannock

South Staffordshire, Cannock Chase

East Staffordshire, Newcastle-under-Lyme, Stafford, Staffordshire

Moorlands, Stoke on Trent

Newcastle-under-Lyme, Stoke on Trent

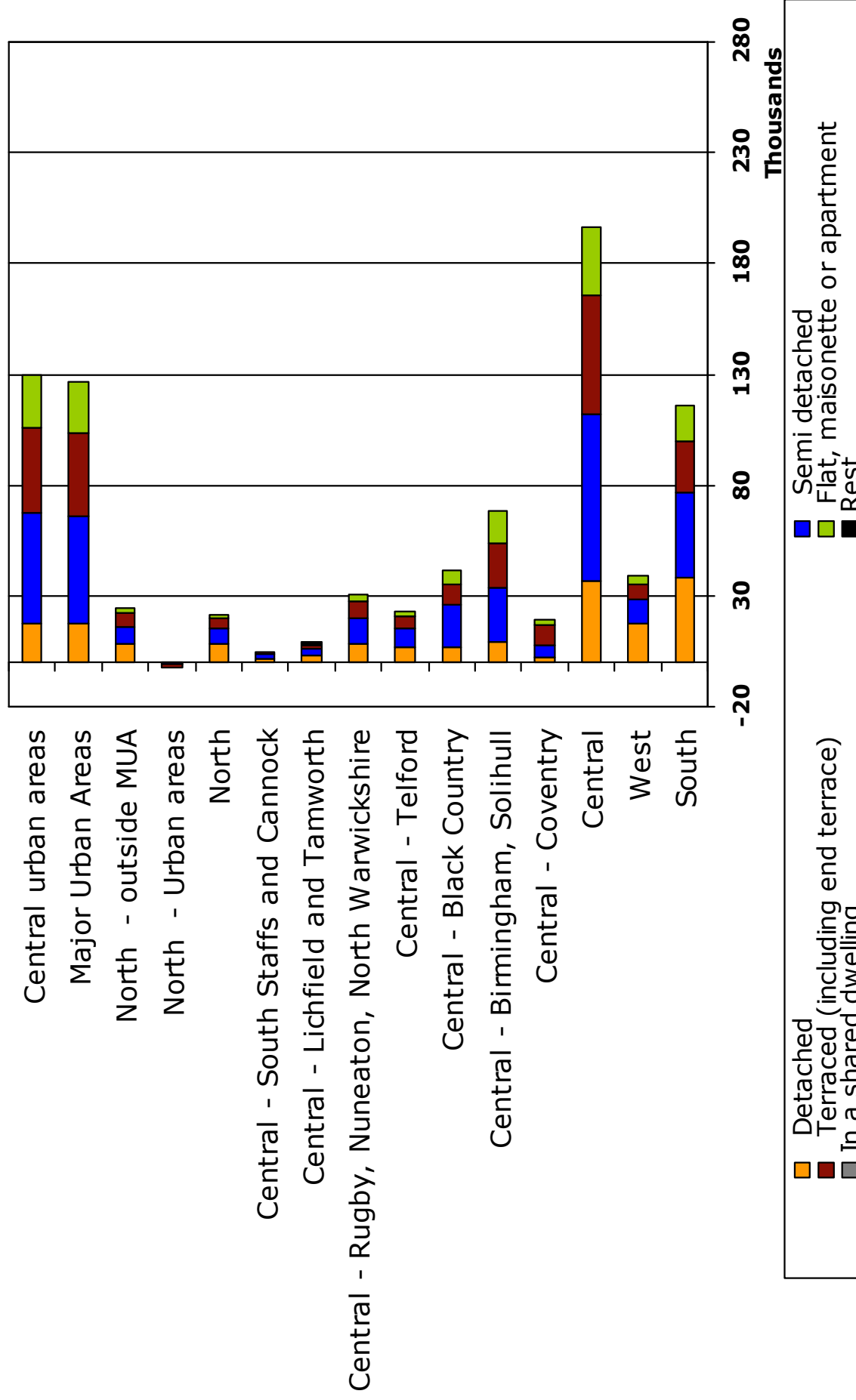
East Staffordshire, Stafford, Staffordshire Moorlands

Birmingham, Coventry, Dudley, Sandwell, Walsall, Wolverhampton, Solihull, Newcastle-under-Lyme, Stoke on Trent

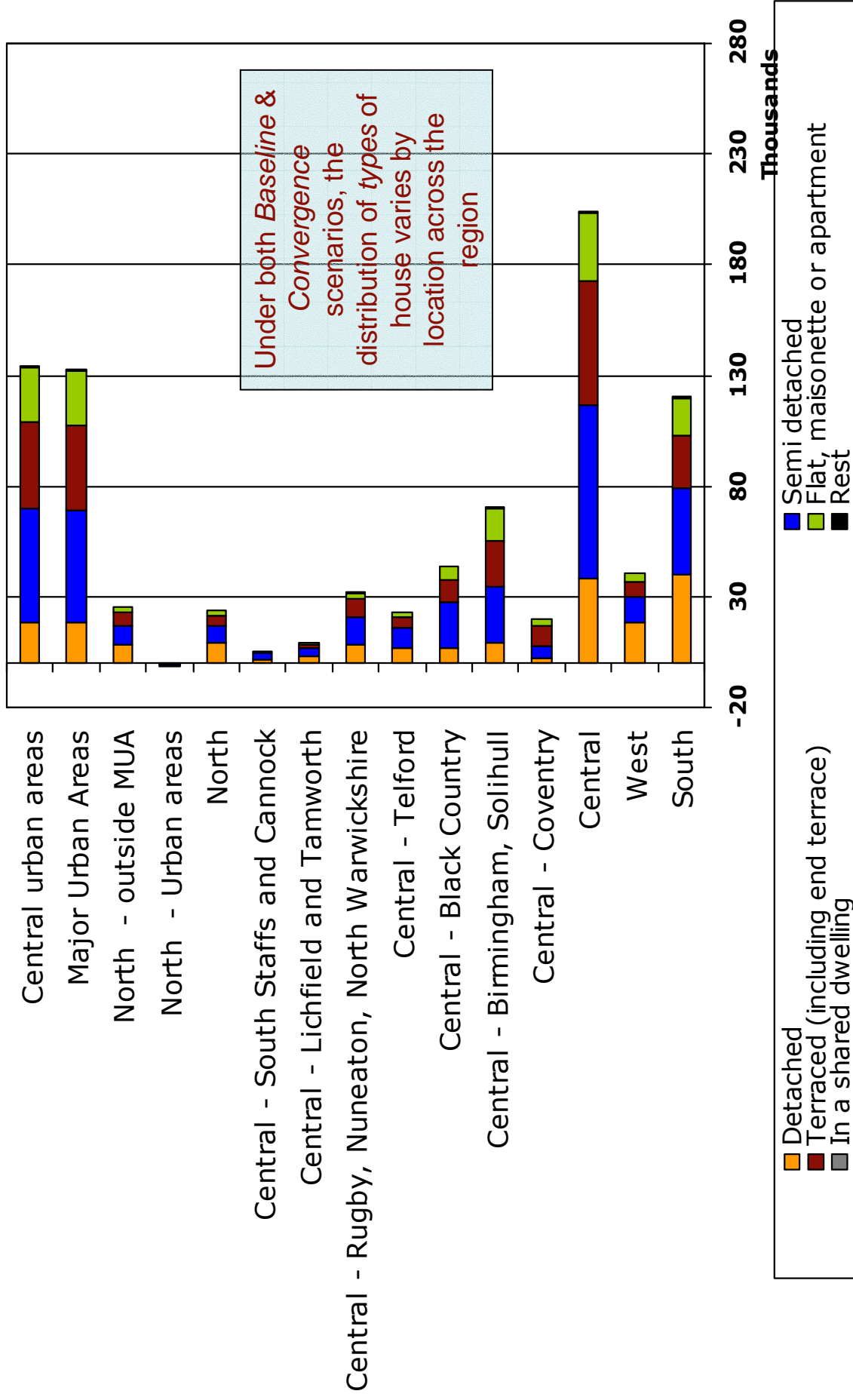
Birmingham, Coventry, Dudley, Sandwell, Walsall, Wolverhampton, Solihull

Total

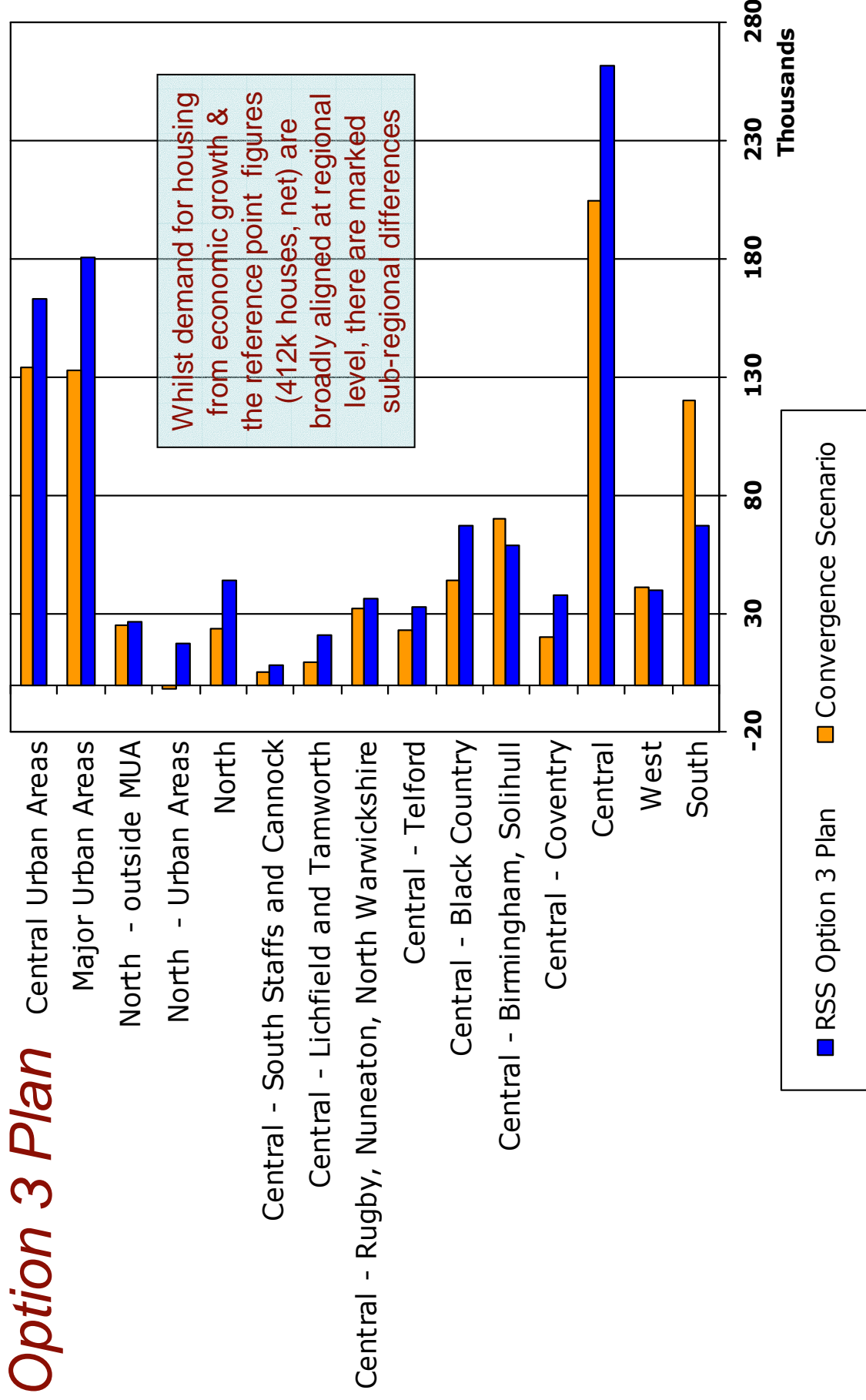
And the demand by housing type under the Baseline scenario?



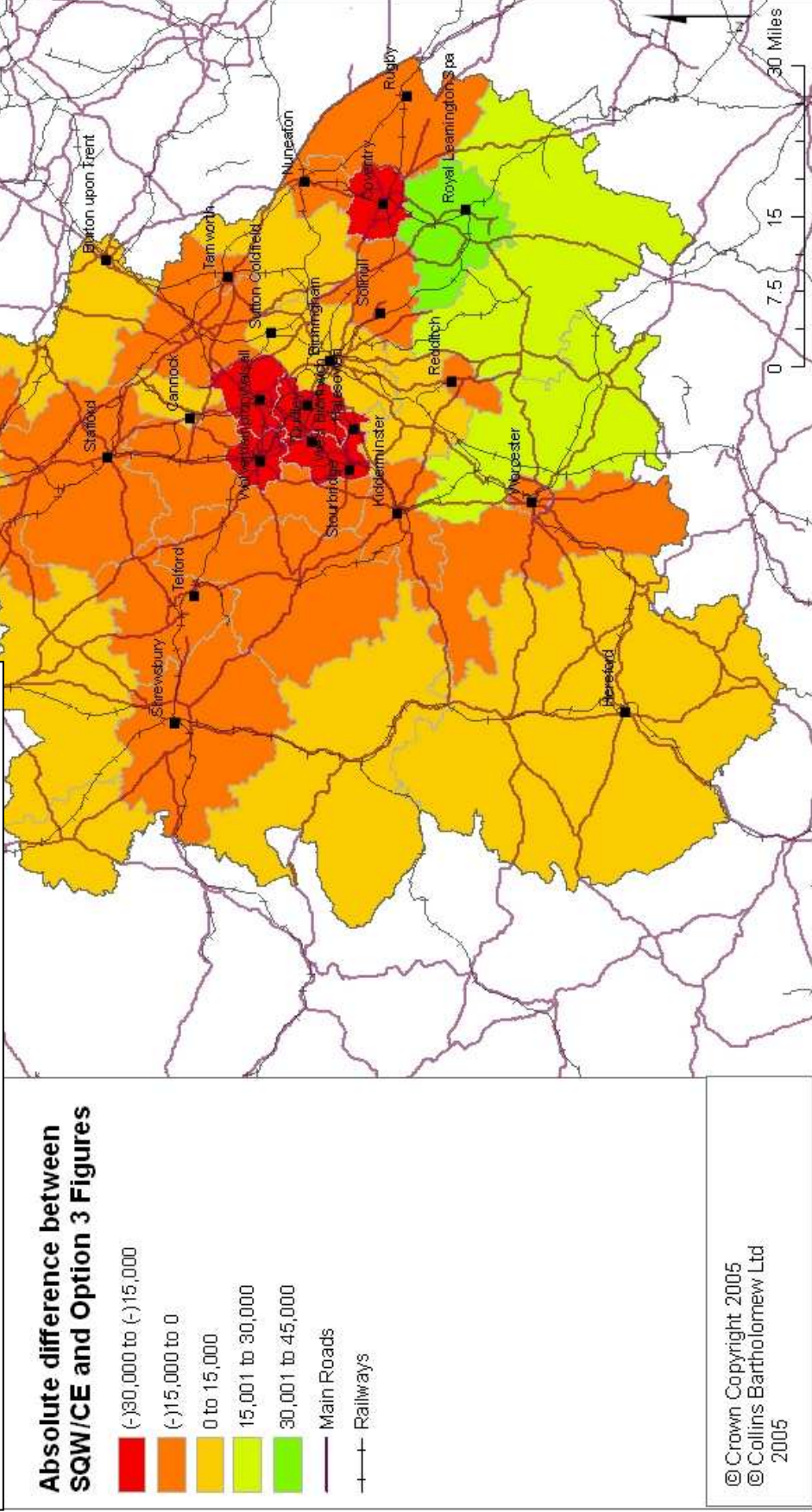
And, similarly, the change in demand by housing type under the *Convergence* scenario



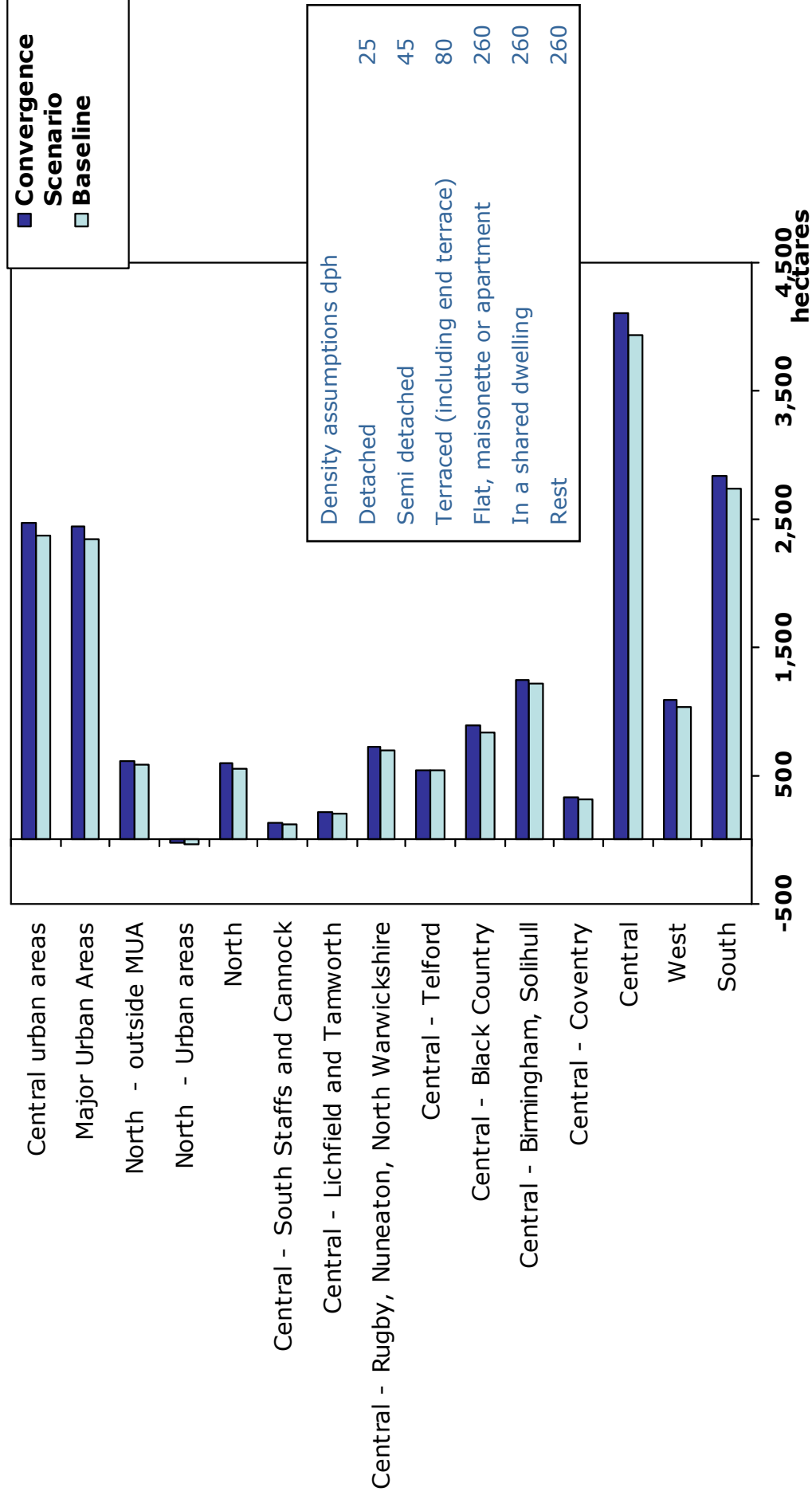
So, comparing the demand for housing arising from economic growth in HMAs & sub-geographies, 2006-2026 under the *Convergence* scenario with the *RSS Option 3 Plan*



Looking spatially at the data from the previous slide gives the following regional distribution



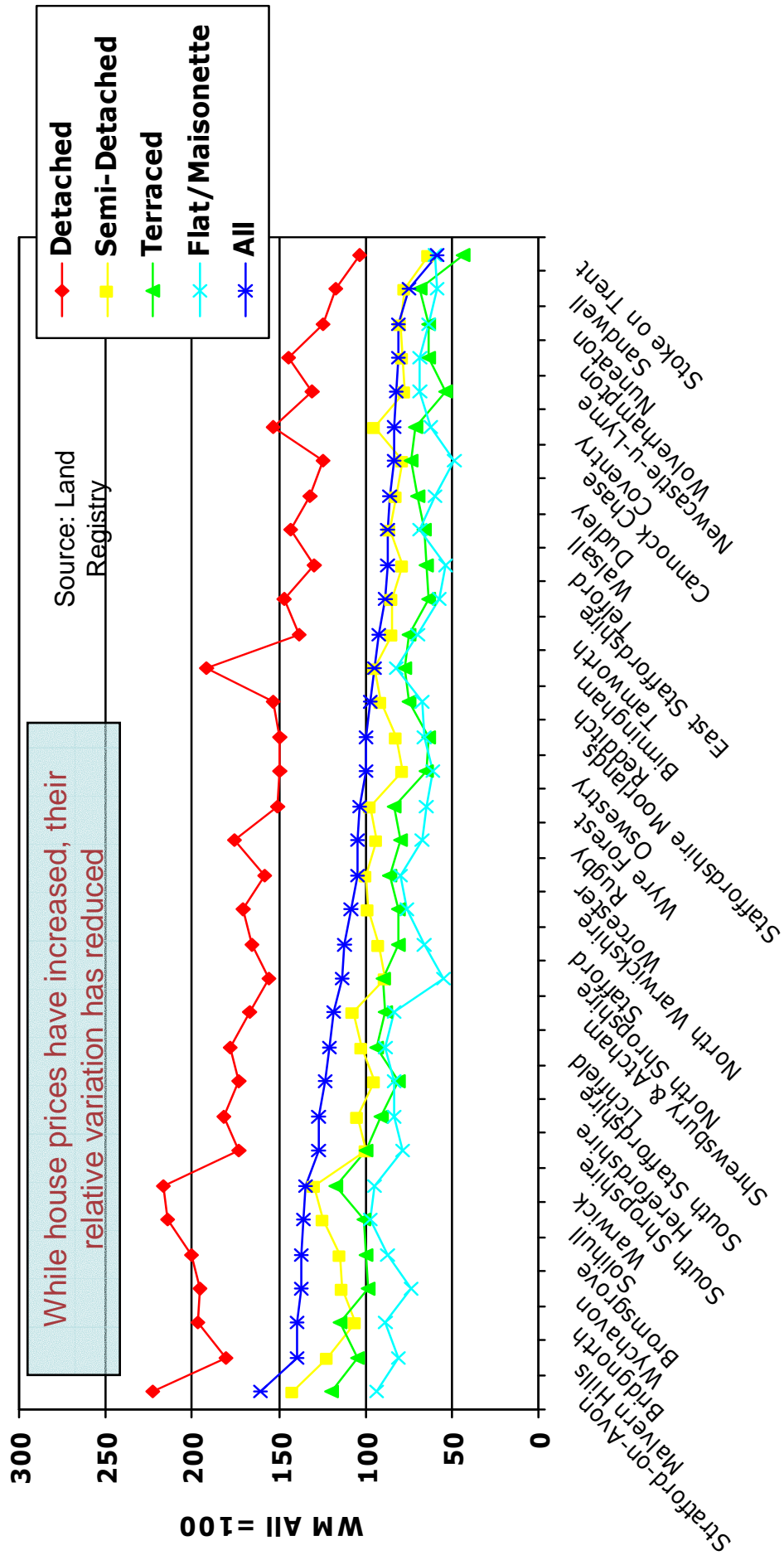
Land use associated with net housing demand under *Baseline* & *Convergence* scenarios – high density assumption



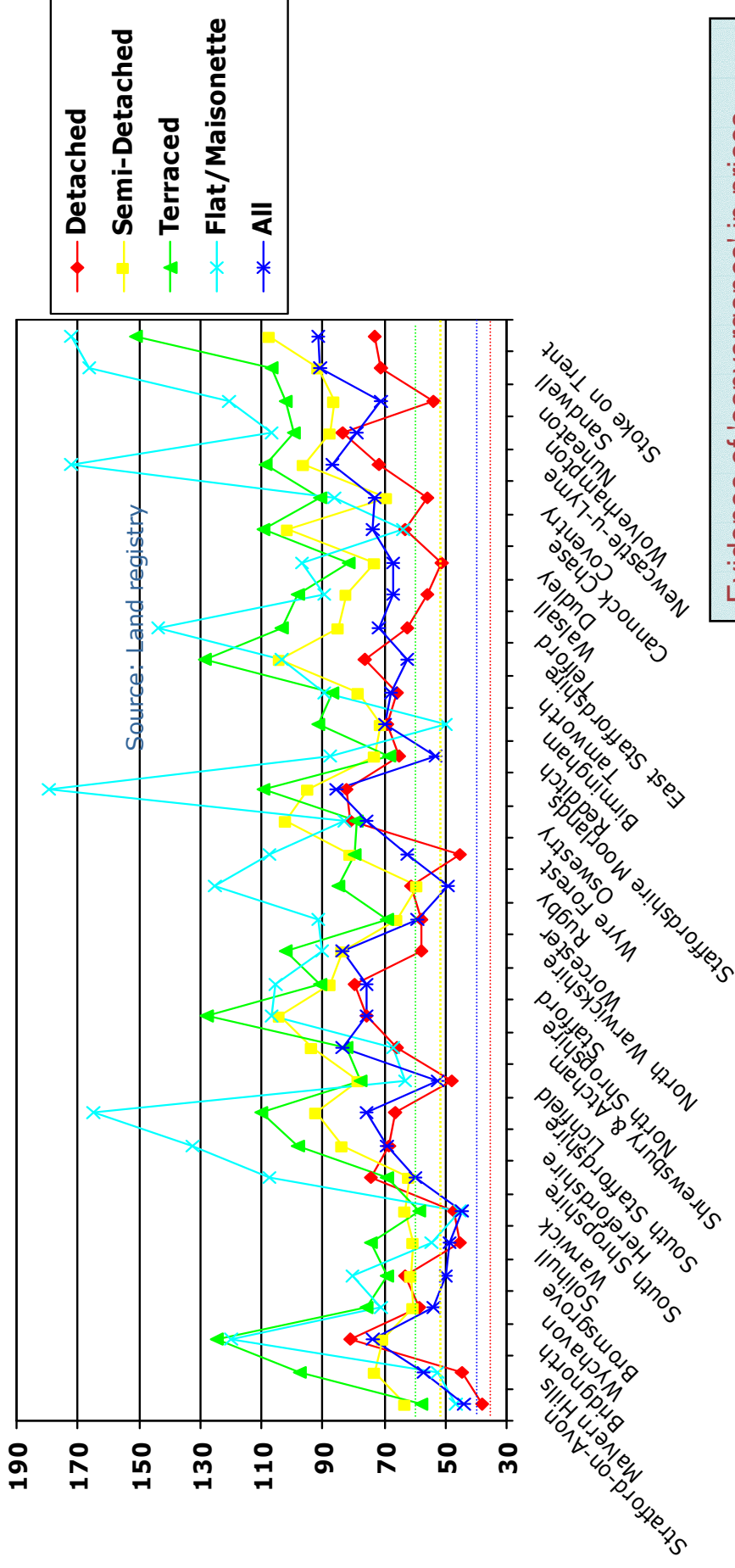


Looking at the sensitivities

Addressing the demand distribution - possible market response through variations in house prices/earnings?

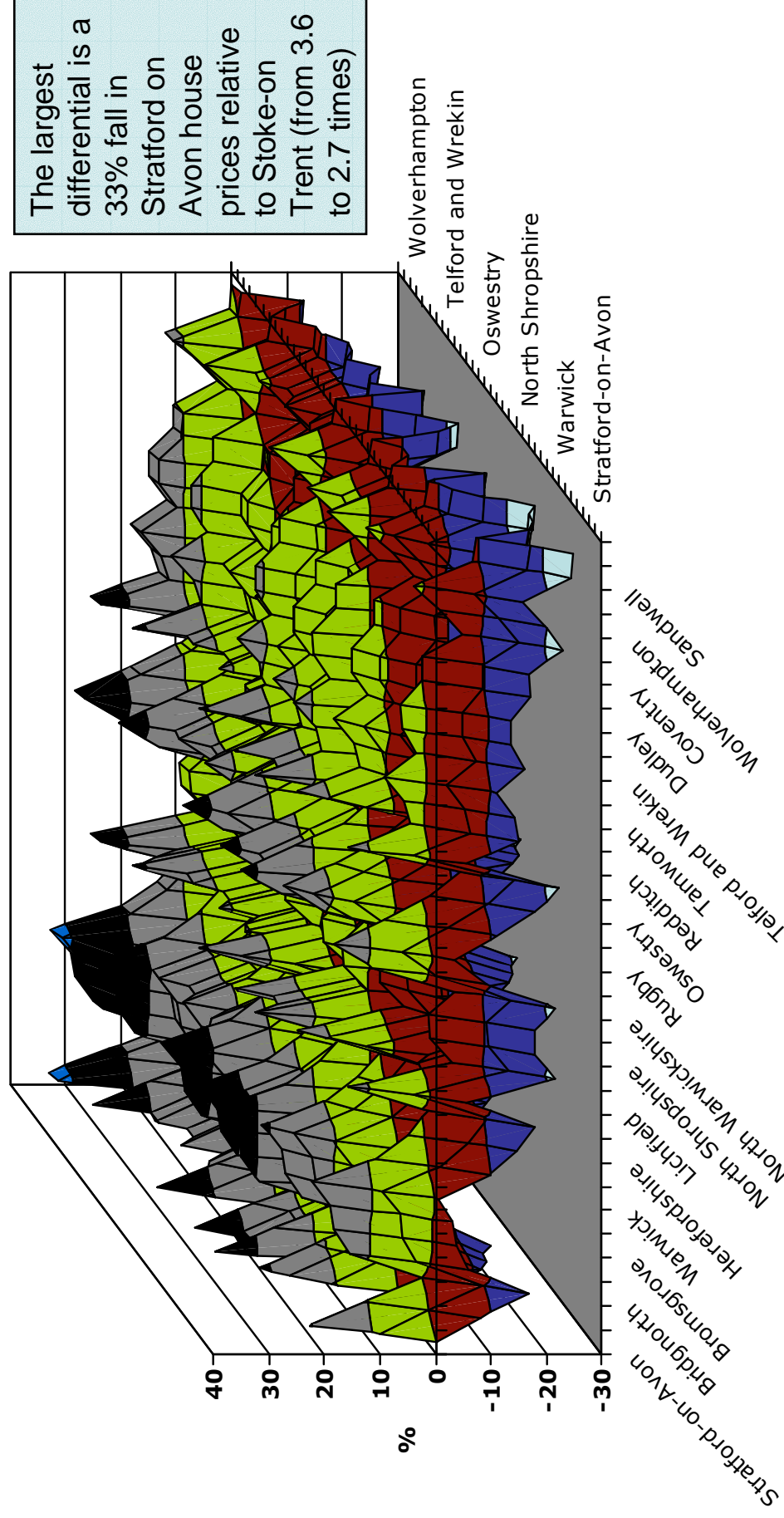


House sale price relatives changes across WM LADs to 2005 Q4 – ordered by 2005 prices



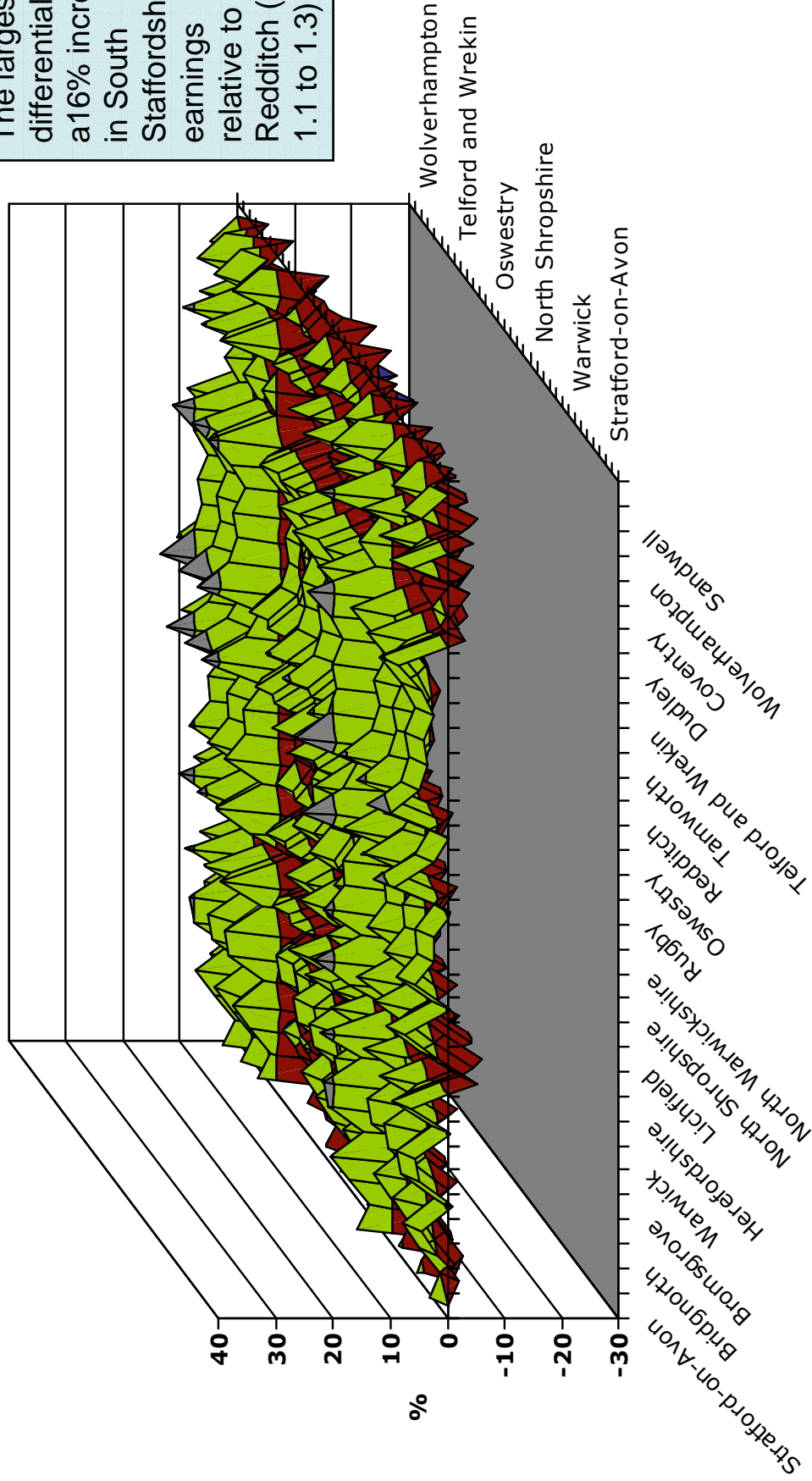
Evidence of 'convergence' in prices, especially in flats & terraces, which have shown the highest increases in the North HMA, albeit from a very low base

There have been substantial changes in relative house prices across the region over 2001-2006 . . .



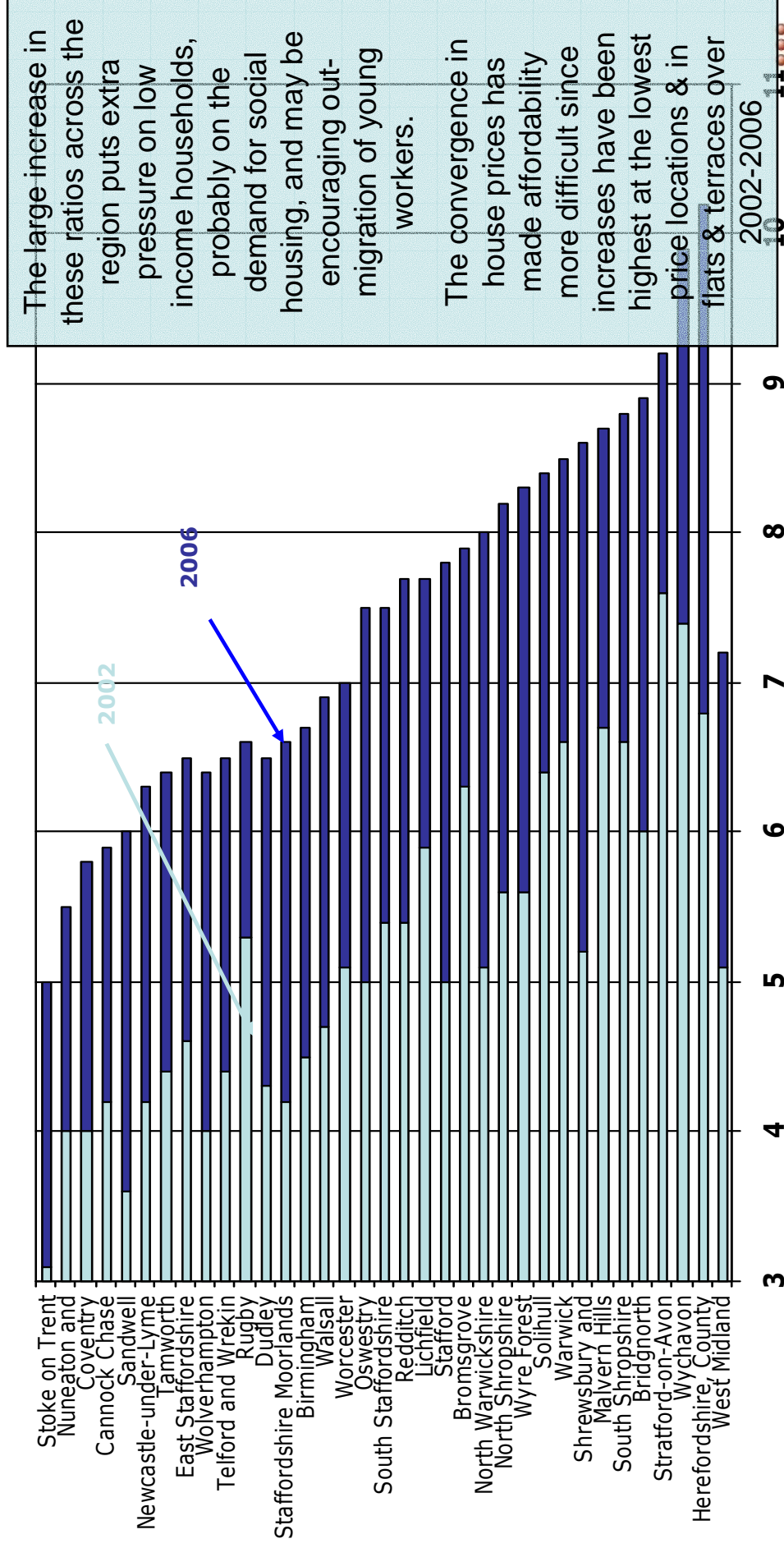
... but only small relative earnings differentials changes over 2002-2006

The largest differential is a 16% increase in South Staffordshire earnings relative to Redditch (from 1.1 to 1.3)



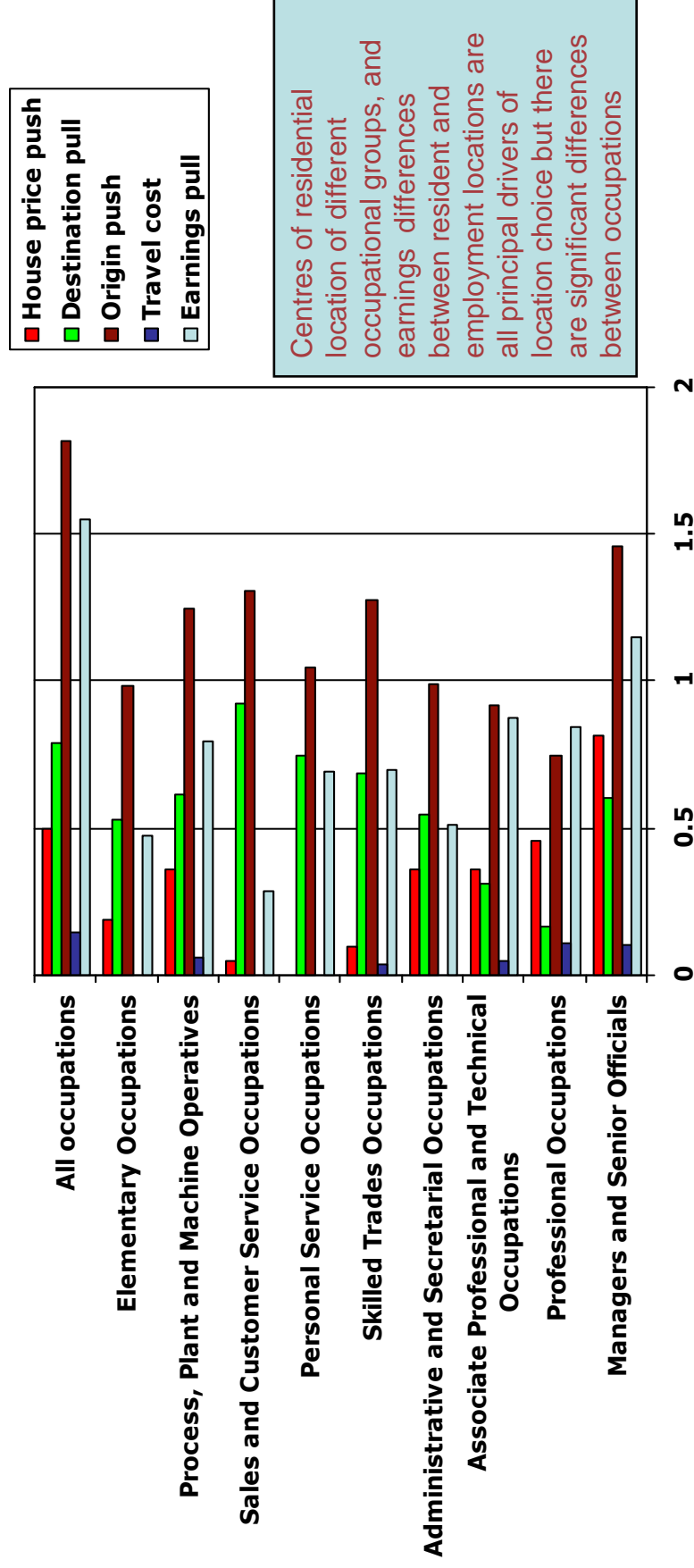
So, there has been a considerable reduction in affordability over 2002-2006

Fulltime workers' gross earnings to median house price ratio



Price effects on travel to work by occupation are relatively small compared, with for example, the SE

Elasticities 2001 - analysis by West Midlands LA Districts



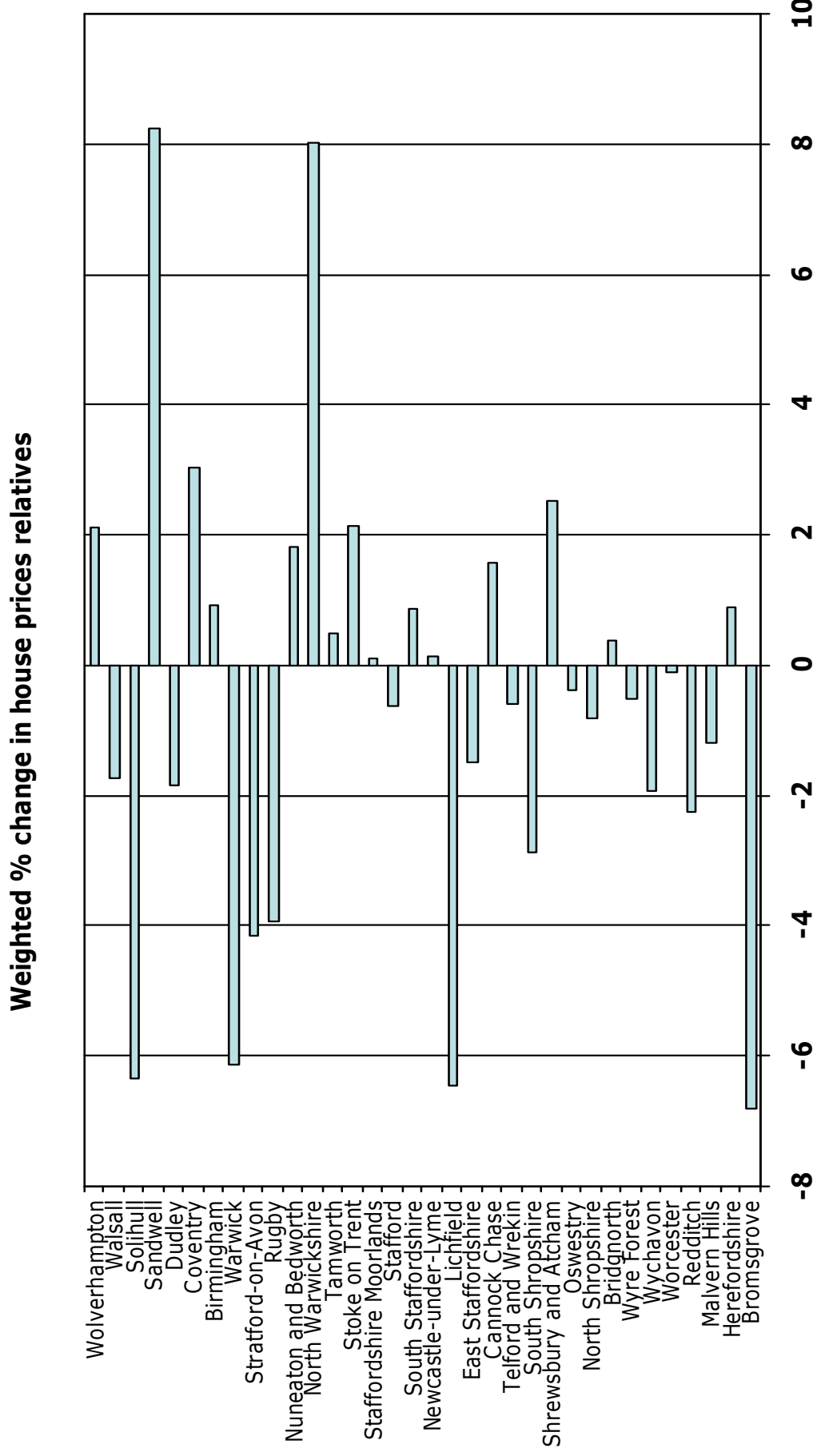
Notes: House price push - relative average house prices in destination LAD versus origin LAD

Destination pull – Total Employment in destination LAD

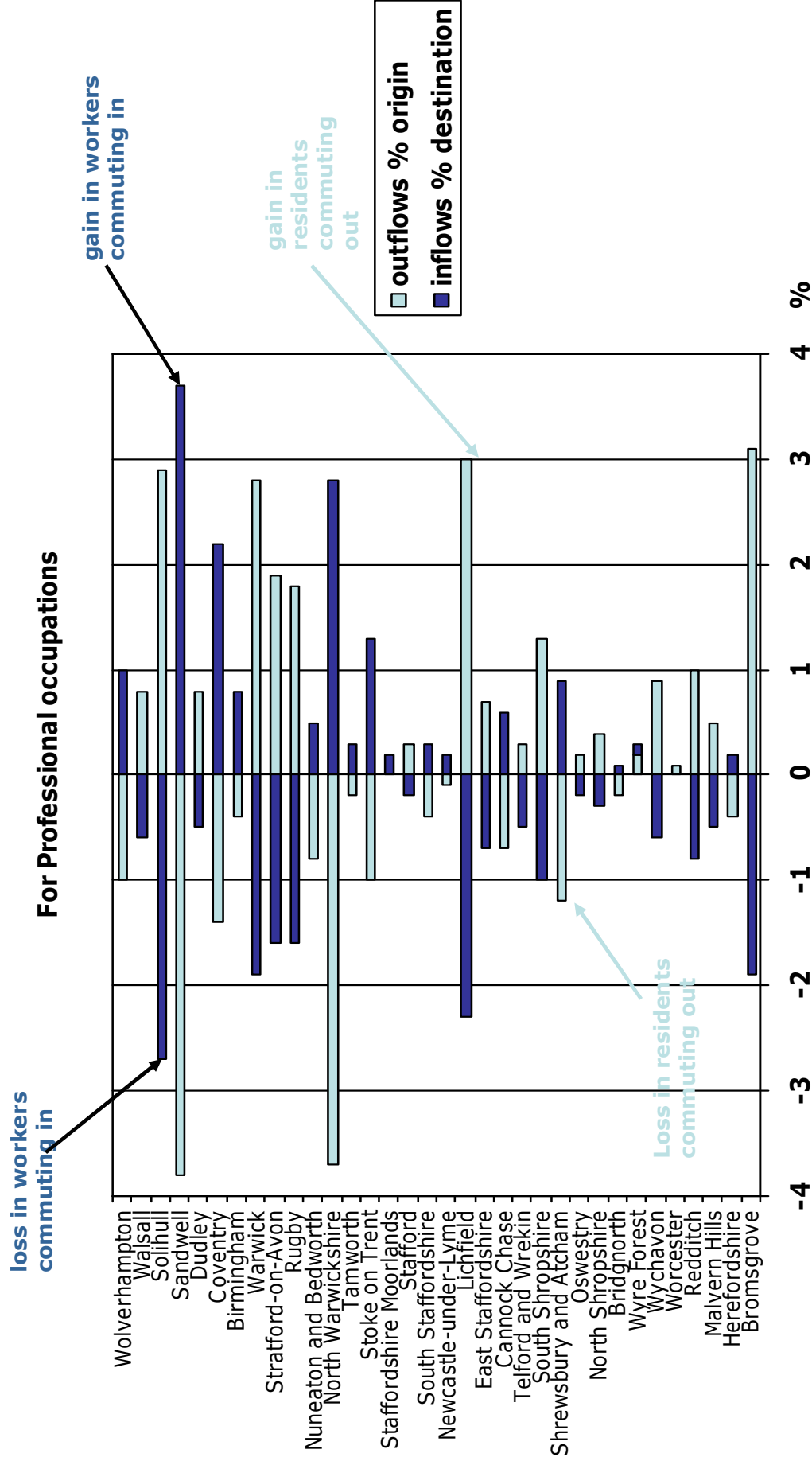
Origin push – Working Age Population

Earnings pull – relative average earnings in destination LAD versus origin LAD

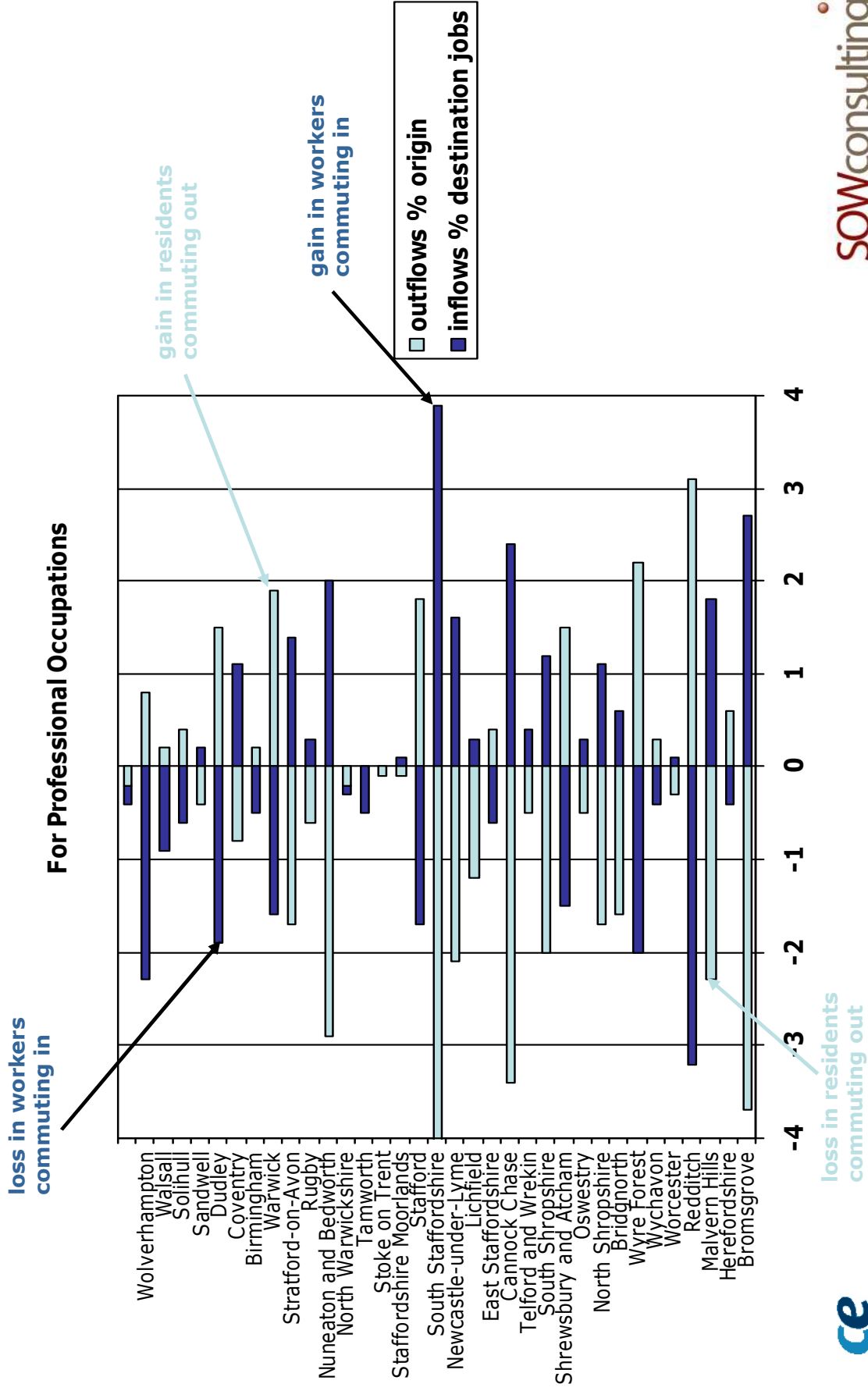
And relative house prices have moved significantly across the region between 2001-2006



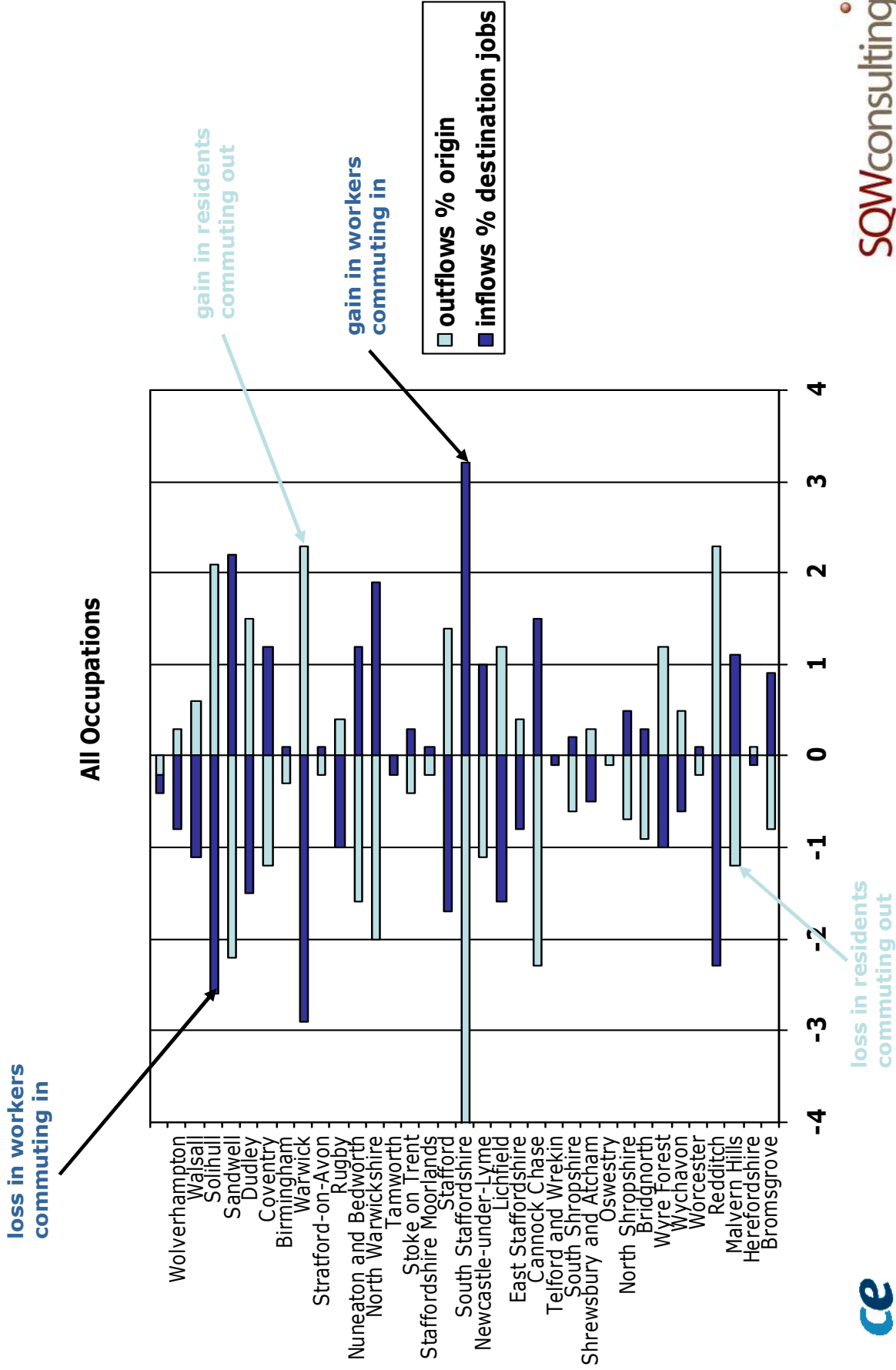
House price changes have, however, probably made small impacts on resident TTW relocations between 2001-2006



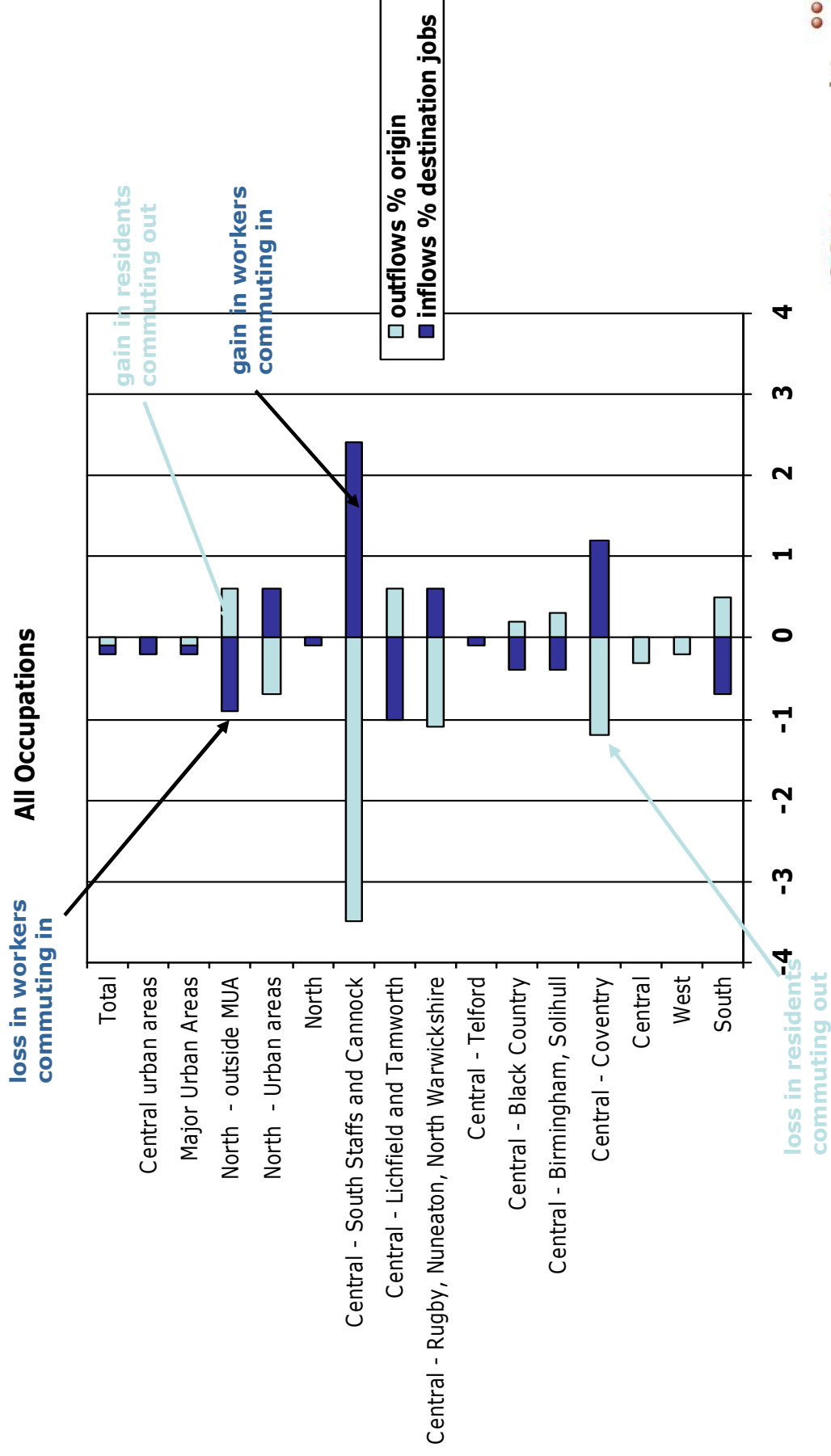
... as have relative earnings changes



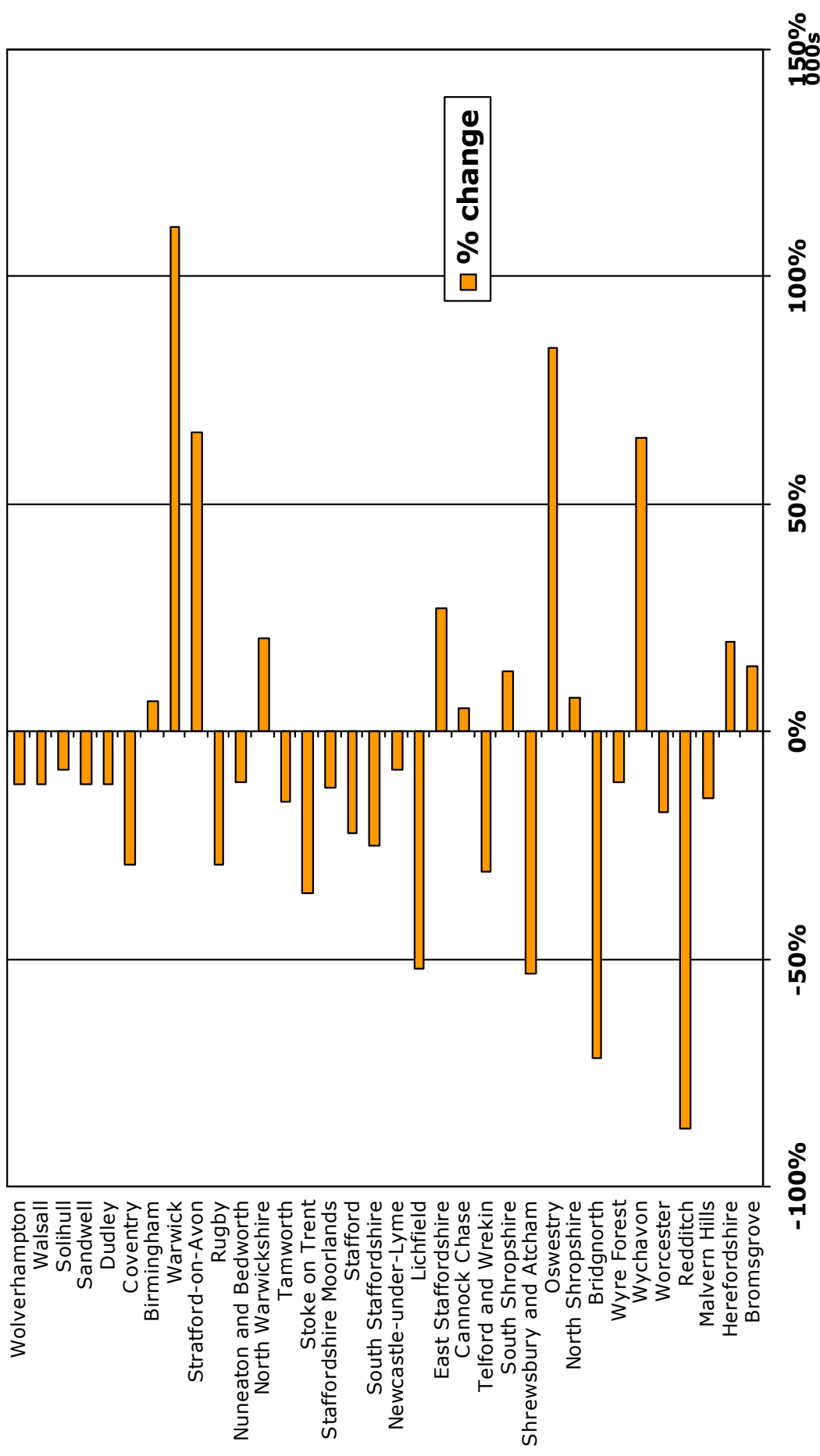
Putting this all together for earnings & house prices for all occupations over 2001-2006 . . .



The impact of earnings & house prices for all occupations over 2001-2006 by HMA & sub-geographies

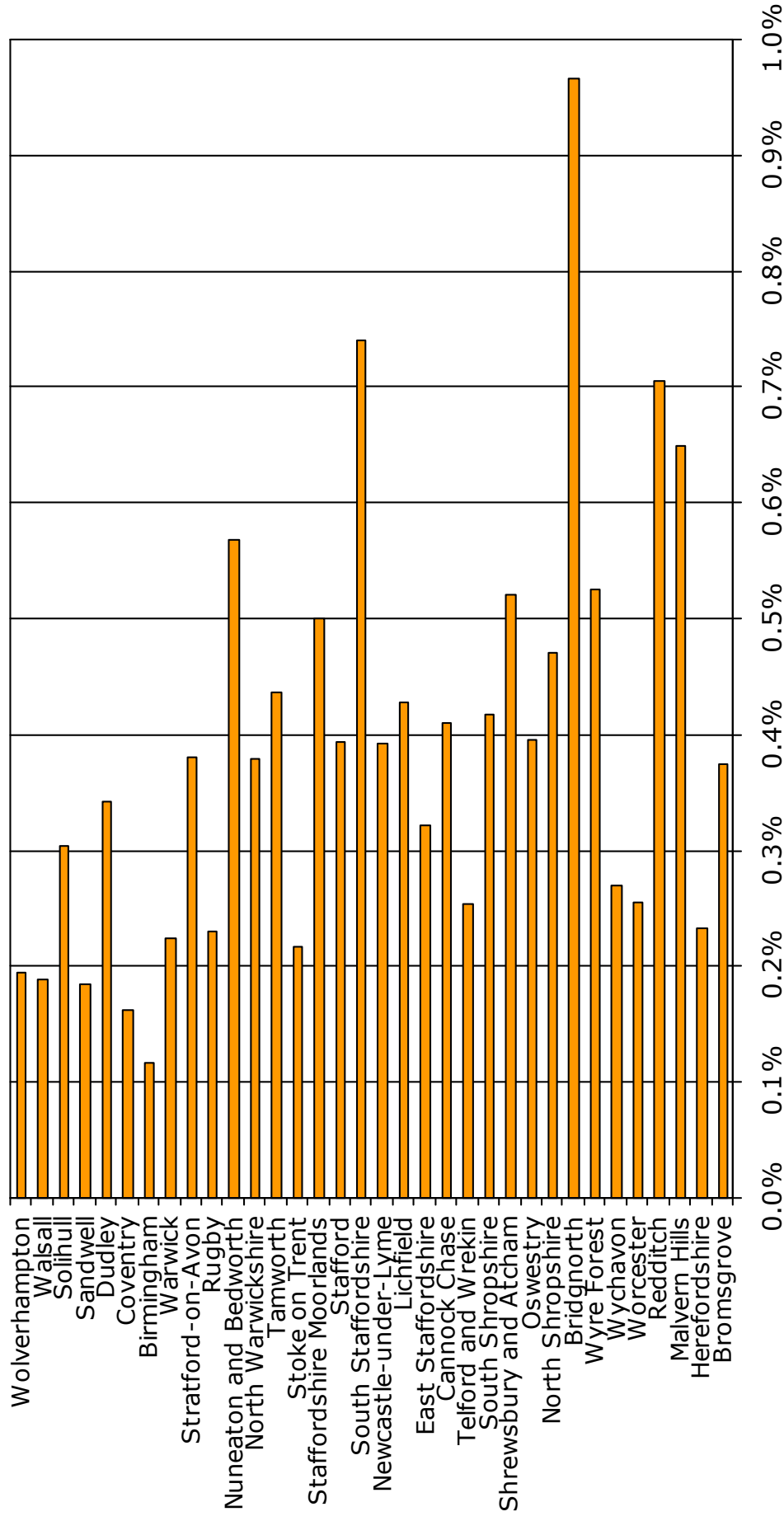


The relative house price change required to 'bridge' the housing 'gap' with the Reference Point 412k net figure is large in 2026



By contrast, the effect on dwellings of boosting jobs in locations is potentially more important over 2006-2026

Simulation - effect on LAD dwellings demand of a 1% boost in employment in each LAD





Study conclusions reprised

Study conclusions reprised

- The analysis shows a strong link between employment growth & net housing market demand
- Changing patterns of household formation are *critically* important in driving the future economic demand for housing . . .
- . . . GVA growth rates are less so
- There has been a considerable reduction in affordability over 2002-2006, which future economy-driven housing demand will accentuate
- Future employment demand-led housing requirements will concentrate housing demand in already favoured local areas

Study conclusions reprised

- Housing demand volumes are not very responsive to price signals, indicating potential private house price hikes in favoured locations
- From an economic growth perspective, meeting the “reference point” figure for housing *in particular places* will demand very pronounced employment growth
- *Note*
 - *No in-model treatment of household formation, price & earnings feedback effects, Public Admin & Defence, Health & Education investment – all of which could be significant - or active policy initiatives*