

How Far Do England's Second-Order Cities Emulate London as Human-Capital 'Escalators'?

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Abstract

In the urban resurgence accompanying the growth of the knowledge economy, second-order cities appear to be losing out to the principal city, especially where the latter is much larger and benefits from substantially greater agglomeration economies. The view that any city can make itself attractive to creative talent seems at odds with the idea of a country having just one 'escalator region' where the rate of career progression is much faster, especially for in-migrants. This paper takes the case of England, with its highly primate city-size distribution, and tests how its second-order cities (in size order, Birmingham, Manchester, Leeds, Newcastle, Bristol, Sheffield, Liverpool, Nottingham and Leicester) compare with London as human-capital escalators. The analysis is based on the ONS Longitudinal Study of linked census records, primarily for 1991-2001, and uses one key indicator of upward social mobility, the transition from White Collar Non-core to White Collar Core. For non-migrants, the transition rates for all the second-order cities are found to fall well short of London's. In only one case – Manchester – is the rate significantly higher than the average for other areas outside the Greater South East (GSE) and its performance is matched by the non-London part of the GSE. Those moving to the second-order cities during the decade experienced much stronger upward social mobility than their non-migrants. This 'migrant premium' was generally similar to that for London, suggesting that it results from people moving only after they have secured a better job. If so, second-order cities cannot rely on the speculative migration of talented people but need suitable jobs ready for them to access.

Keywords: human-capital escalator, second-order cities, England, ONS Longitudinal Study, career progression, city region

JEL Classifications: J24, J61, J62, R23

Introduction

The last few years have seen an urban resurgence in many of the countries that experienced a major decline in city fortunes in the 1960s and 1970s (Cheshire, 2006; Turok and Mykhnenko, 2007). This has been put down to a combination of factors, including the effects of globalisation, the shift towards the quaternary sector of transactional activity and a refocusing of government policy on urban regeneration (Dunning, 2000; Edmonds, 2003; Malecki, 2007; EU Regional Policy, 2009). Stress has been laid on the importance of new forms of agglomeration economies accruing to knowledge-based industries that cluster together (Krugman, 1996; OECD, 1996; Glaeser and Maré, 2001; Maskell and Malmberg, 2007). In particular, the concentration of high-skill labour in larger metropolitan areas is seen to enable their employers to make more efficient use of the available human capital, which leads to these cities being especially attractive to people from elsewhere who want to ‘get on’ in their careers (Glaeser and Saiz, 2003; Montgomery, 2006; Fielding, 2007; Florida, 2008).

The benefits of such agglomeration economies cannot, however, be expected to accrue equally to all large metropolitan areas (Berry and Glaeser, 2005). In principle, the larger the urban agglomeration, the greater is its growth potential and the more attractive it is to potential migrants from elsewhere, thereby leading to a cumulative reaction in the absence of any major checking ‘diseconomies of scale’ (Storper and Scott, 2009; MIER, 2009a). This line of reasoning poses an especially severe challenge to the economic prospects of second-order cities in countries with a primate city-size distribution and, most notably, in countries whose second-order cities are striving to throw off the legacies of the industrial era and restructure away from textiles, coal and steel and heavy engineering (Parkinson *et al.*, 2012).

A classic example of this situation is provided by the UK, with its pioneering of the industrial revolution and the growth of London as capital of the British Empire. Today London hugely dominates the urban system of the UK and – given that Wales, Scotland and Northern Ireland have some degree of political autonomy – especially that of England (see below). This is reflected in all the commentary on the drivers of the North-South divide in England (Smith, 1989; Ward, 2011), including the line of

research that has portrayed the South East as England's 'escalator region' (starting with Fielding, 1992). Inter-regional migration in England is seen to pivot on London, with young adults being drawn there from other parts of the country so as to take advantage of the faster career progression there and people 'stepping off the escalator' towards the end of their working lives (Coombes and Charlton, 1992; Fielding, 1993; Champion *et al.*, 2007).

In the context of the urban resurgence that has taken place since the 1970s, this paper seeks to discover whether England's second-order cities are managing to act as human-capital 'escalators' for their residents and also for migrants that choose them as their destination rather than the national capital. Is the 'over-sized' capital in a class of its own in terms of people's pace of upward social mobility there? Or does England's second tier of urban agglomerations show any signs of rivalling it in this respect? In short, is there any evidence that would justify aspiring young workers moving there rather than to London?

The remainder of the paper comprises four parts. The first sets out the background to this line of inquiry and its English context in more detail. This is followed by a description and justification of the approach used in the analysis, including the related issues of data source and choice of career-progression metric, as well as the selection and definition of England's second-order cities. The third section presents the results, starting with the patterns of career progression of those who stayed in the same agglomeration over the reference period and then analysing the fortunes of those who moved to them during the period. Finally, the paper provides a concluding discussion and suggestions for further research.

Background to the research question

In recent years there has been a considerable growth of interest among both policy makers and researchers in second-order cities, i.e. the tier of urban agglomerations immediately below the premier city (for reviews, see Parkinson *et al.*, 2012; Champion and Townsend, 2013). This interest has been stimulated by the decline of manufacturing and the emergence of knowledge-based industries as the major

production sector, because the latter are seen as being most vibrant where they can take advantage of the greatest agglomeration economies. Such restructuring has prompted fears of the largest city benefitting disproportionately at the expense of the second-order cities.

This concern about the economic prospects of second-order cities is certainly very evident in Europe and not least in the UK. For instance, following a major investigation of Europe's 'second-tier cities', Parkinson *et al.* (2012: 82) concluded that, while 'capital cities are crucially important to their national economies and must be able to compete in a global market', their growth should 'not [be] at the expense of everywhere else'. The risk is that over time the capitals will so dominate the urban system that the national economy becomes spatially and structurally unbalanced. In contrast to the experience of Germany, where a strong set of second-order cities was found to be helping to drive national economic performance, in a clear majority of EU countries the GDP of the second city in 2007 was less than two-fifths that of the national capital. On this criterion the UK lies at the other extreme from Germany, with its second largest urban agglomeration having less than one-eighth of the GDP of London: only Hungary had a lower ratio, with France and Latvia being next lowest after the UK.

Within the UK, perhaps not surprisingly given that distance and a degree of political devolution promises Wales, Scotland and Northern Ireland a measure of insulation from London, it is the situation in England that has received particular attention. While the problems of urban decline here have long been recognised, urban regeneration policies were reinvigorated by the New Labour government from 1997. The publication of the Rogers Report *Towards an urban renaissance* in 1999 was swiftly followed by a wide-ranging set of proposals in the White Paper *Our towns and cities* (DETR, 2000), aimed at promoting more balanced city growth across England. Building on this, the Sustainable Communities Plan (ODPM, 2003) established a planning framework for northern England focused on eight city regions and their principal cities (Northern Way, 2004, 2009). By this time, too, England's eight largest regional cities had set themselves up as the 'Core Cities Group' to lobby central government for more funds to help them compete with the capital (Core Cities Group, 2004).

Evidence-based assessments of the achievements and prospects of second-order cities present a very mixed picture in terms of both consistency across cities and sustainability over time. The Core Cities Group (2004) announced that ‘Our cities are back’, but Parkinson *et al.* (2006) concluded that the record across the 56 urban areas covered by their *State of the English Cities* report was distinctly patchy. Jones *et al.* (2006) identified Manchester as the second-order city most likely to capitalise on growth in the knowledge sector, with Bristol and Leeds having the next strongest prospects, while MIER (2009a) confirmed that Manchester possessed more jobs in knowledge-based industries than any other city outside London. Overman *et al.* (2009) demonstrated how improved links within northern England, especially between Manchester and Leeds, could build up local critical mass and reduce the productivity gap with London. Subsequently, the Great Recession has exposed the fragility of the progress that had been achieved, impacting less severely on the capital than the second-order cities because part of the latter’s previous growth was supported by increases in public expenditure that were then sharply reversed under recessionary conditions (ippr north, 2009; Clayton, 2011; Centre for Cities, 2012; Parkinson *et al.*, 2012; Champion and Townsend, 2013). It would seem that the extra policy support since the 1990s has not been sufficient to redress the structural weaknesses of England’s second-order city economies.

Arguably the key challenge for cities is to attract high-quality workers to foster growth. Several studies including Jones *et al.* (2006) and MIER (2009b) have followed Florida (2002) in stressing the importance of the ‘creative class’ to the achievement of sustainable economic growth in the knowledge economy. Yet second-order cities, especially those with a strong manufacturing tradition, face the difficulty of low educational aspiration in the indigenous population. Another of their problems is the environmental legacy of the industrial era, which can deter young aspirers from migrating to them from elsewhere. Indeed, second-order cities even struggle to hold on to their home-grown talent because of a long-standing ‘culture of migration’, where their high-achieving school leavers expect to move away in order to get on in their careers (Champion and Coombes, 2007; Houston *et al.*, 2008; see also Work Foundation, 2011).

This process has also become an established part of migration theory. As mentioned in the introduction, two decades ago Fielding (1992) set out the hypothesis of the ‘escalator region’ in which people move as young adults to the part of the country where they can achieve most rapid promotion and leave it later in their working lives or at retirement in order to live in a place with lower living costs and a better quality of life. His case study of England and Wales, using data for the 1971-81 intercensal decade, confirmed the escalator role of London and the South East: this region was characterised by a higher rate of upward social mobility than any other, it saw net in-migration of young adults who managed even faster promotion than the indigenous population and it experienced net out-migration of older people who overall were downshifting in labour market terms. Subsequent studies have largely reinforced these findings (see Fielding, 2007; Findlay *et al.*, 2009; Newbold and Brown, 2012; Champion, 2012; Gordon, 2012).

The question which arises is whether the identification of a South East escalator region suggests that those who choose not to move there are doomed to second-class status in their working lives. Yet, even in Fielding’s original (1992) work, it was clear that these things were relative, not absolute: people living in other regions besides the South East did experience upward social mobility over time, but just not as quickly and/or surely as in the escalator region. At the urban rather than regional scale, Devine *et al.* (2003) found evidence in Manchester that it is possible to forge a successful professional career without moving to London, while Findlay *et al.* (2003, 2008) identified considerable upward social mobility amongst migrants to Edinburgh. In the Canadian context, Newbold and Brown (2012) confirmed that those moving to Toronto achieve an income premium over that city’s indigenous population, but so too do migrants to Canada’s other large metropolitan areas, albeit a somewhat smaller one.

This previous research raises the issue of how far the concept of ‘escalator region’ should be considered in unitary terms (i.e. one per country) rather than in relative terms where potentially all places can be considered to act as escalators but operating at different speeds. It is also possible that the macro-regional scale used in Fielding’s analyses has masked the existence of second-order cities providing higher than average rates of upward social mobility. Are there any English second-order cities that

rival London as places that are attractive to in-migrants? It is to answer this question that the present paper undertakes a systematic city-level study that compares the pace of career advancement in London with England's next largest agglomerations.

Data and methodology

Three main methodological issues need to be addressed in order to assess how far England's second-order cities compare with London as a human-capital 'escalator' for their residents and also for migrants who choose one of them as their destination. The first step must be the choice of data source, as this influences the subsequent decisions. The second is the decision on which of England's urban centres constitutes a second-order city, along with the adoption of a valid consistent basis for delineating these and London on the ground. The third is the selection of the variable to be used to measure people's career progression over time, along with the specification of the population for which this is to be calculated.

The one viable data source is the Office for National Statistics Longitudinal Study (ONS-LS), which contains the anonymised records of a sample of just over one per cent of people enumerated in each Population Censuses of England and Wales between 1971 and 2001 (not 2011 at the time of writing). It has been used by the vast majority of the previous studies on the 'escalator region' phenomenon in England and Wales, including all the work by Fielding (see above). It comes into its own even more when the spatial focus is shifted from the regional to the urban scale, because the smaller population size of the latter unit requires a sampling fraction that is much higher than that of alternatives like the Labour Force Survey and British Household Panel Study.

At the same time, the ONS-LS is not without limitations, but for the most part these can be worked around. Being census-based, its observations of career progression necessarily span the decade that occurs between each enumeration and users are constrained to use the Census dates (which, for instance, can and do come at different points in the economic cycle). Even so, a full decade is useful in that it is a long enough period to detect a significant change in people's circumstances. More

problematically, for people migrating between Censuses, it is not possible to directly observe the part of any occupational change that occurred after their move and separate this from what may have taken place before it or indeed at the same time as moving (see Findlay *et al.*, 2009).

Secondly, the value of the Census records can be offset somewhat by changes between each enumeration in the range of topics, in the precise wording of the questions and in the specifications of each variable. Most crucial for this study was the switch in socio-economic classification from SEG to NS-SeC between 1991 and 2001. The impact of this, however, was mitigated by the derivation of a ‘pseudo-SEG’ variable from the detailed occupational data in the 2001 Census. Similarly, change between Censuses in the geographical areas for reporting the statistics was dealt with by best-fitting the smallest available areas to a fixed (2001) geography of local authorities.

A final limitation is the ONS’s policy on disclosure control. This forbids the reporting of small counts or any ratios based on these, with the threshold unfortunately being raised during the course of this study from 3 to 10, which equates to almost 1,100 people in grossed-up form and turns out to be quite a large number in relation to specific occupational transitions among migrants to individual cities (see below). On the other hand, results based on such small numbers are less likely to be robust, so not being allowed to report them is not such a loss.

Turning to the second issue – identifying England’s second-order cities – the aim was to select the largest places outside the Greater South East (GSE) defined as the former Government Office Regions of London, South East and East. Adopting the Primary Urban Area (PUA) basis used by Parkinson *et al.* (2006) for analysing their 56 cities, it was found that 9 of these contain 200,000 or more jobs, including all 8 members of the Core Cities Group: in rank order on this criterion, Birmingham, Manchester, Leeds, Newcastle, Bristol, Sheffield, Liverpool and Nottingham. Adding in the ninth in size, Leicester, makes the list correspond with that used by the Parkinson *et al.* (2012) study of ‘second-tier’ cities. As for defining their spatial extent, owing to the ONS-LS locating people by home address rather than workplace, it was important to set the PUA definition within a boundary including workers who commuted to these

jobs. This leads to a ‘city-region’ approach primarily based on commuting patterns, following the method developed for analyses of the 8 Core Cities (Charles *et al.*, 1999). Applying the same principles to Leicester and London, the resulting city regions are as shown in Figure 1. All mentions of ‘city’ below refer to places defined on this basis.

Figure 1. City regions of London and 9 second-order cities



In terms of the approach to be taken towards measuring people’s career progression, the analyses are crystallised by focussing on just one key occupational-status transition, in preference to developing an index that averaged many between-status

transitions or to designing a single scale that ranked people on some continuous indicator of occupational status. This approach affords greater transparency to the results, potentially guiding subsequent work using alternative formulations. There were two elements to the calculation of transition rate, defined as the proportion of people in a starting lower category moving to a higher category by the end of the reference period. As regards the latter, the main emphasis in the literature in this field (see above) has been on the uppermost level of the occupational ladder, i.e. higher professional and managerial work – or what Fielding (1992) termed the ‘service class’ – as opposed to lower-level white-collar work and manual labour. For the starting category, it is unhelpful to use ‘all other occupations’ because the chances of moving to high-level white-collar work differs considerably between them; the occupational composition of places varies markedly, so this effect could dominate the city-level likelihoods of transition. At the same time, given issues of sample size, the origin category needed to be quite broadly defined in order to achieve robust results. These considerations led to a focus on the transition from White Collar Non-core (WCN) to White Collar Core (WCC), with the latter being defined as SEGs 1, 3 and 4 (employers and managers in large firms and professional workers) and WCN comprising the other main non-manual SEGs 2, 5.1, 5.2 and 6 (employers and managers in small firms, ancillary workers and artists, non-manual supervisors and junior non-manual).

Lastly, a decision was required about the population to be included in the analysis. With issues of sample size in mind, the main focus is on the whole cohort of people who were in White Collar Non-core work at the start of the intercensal decade, merely restricting these to the main working-age span of 15-64, who would be aged 25-74 by the end of the decade. As far as sample size permitted, this could then be subdivided by gender and broad age group. Also, the sample was restricted to those who were also in employment at the end of the reference decade, so as to ensure as far as possible that their recorded occupational status truly reflected their situation then (rather than being inherited from their most recent job before leaving work, whether due to retirement, redundancy, ill-health or caring for family). This approach parallels that of Newbold and Brown (2012) who restrict their analysis to people in work. Two groups of people are distinguished: ‘non-migrants’ – those living in the same city region at the end of the decade as at its start – and ‘migrants’ – all those who moved

into a city region during the decade apart from those who had moved less than 40km (a precaution designed to filter out short cross-boundary moves).

Results

Adopting the parameters set out above, the test of how far England's second-order cities compare with London as human-capital escalators is organised in two main steps. Following Fielding (1992), the first examines the extent to which the 10 cities vary in their capacity to act as escalators for their non-migrant population, based on the transition rate from White Collar Non-core to Core (WCN to WCC) in a decade. The second step applies the same metric to the migrants to each city. Here we compare places not only to discover how strong an escalator function they perform for their migrants but also to see how the latter fare relative to their non-migrants. In both of these steps, the examination of the whole sample is followed by a breakdown by gender and broad age group to check that the results are not affected by differences in demographic composition. Initially, the focus is on the comparison between London and the other 9 cities, with the latter being treated as an aggregate so as to achieve the most robust results, but later the cities are treated individually as far as sample size permits.

Non-migrant transition rates for London compared with the 9 second-order cities combined

Looking first at London, the ONS-LS sample contains 14,372 records of people who were living in its city region (see Figure 1) in both 1991 and 2001, were aged 16-64 in 1991 and engaged in WCN work at that time and were also in work 10 years later, these being equivalent to almost 1.6 million when grossed up. A total of 2,270 of these LS members had moved up to a WCC occupation by 2001, i.e. 15.8 per cent of the WCN starters. This 'transition rate' compares with one of 12.2 per cent for the other 9 cities combined, which is very similar to the 12.4 per cent for the rest of England and Wales. This suggests that – at least at the scale of this 3-fold geographical division – London was in a class of its own in providing a greater than average chance of this career progression in 1991-2001, while the second-order cities

offer no advantage over the rest of the country. Thus, compared to the second-order cities' aggregate, the chances of making this transition were 30 per cent higher in London. The transition rate for these three zones combined is 13.1 per cent, which means a 20 per cent higher rate of upward transition for London than nationally while the 9 other cities combined are 7 per cent below it.

These results conform quite closely to Fielding's findings, despite the latter being generated by a somewhat different approach in terms of both geography and occupational grouping and relating to an earlier decade. For the former South East Standard Region, Fielding (1992) found that the chances of non-migrants moving from Working Class (including blue collar and unemployed as well as lower-level white collar) to Professional and to Manager were, respectively, 21 and 29 per cent above the norm for England and Wales as a whole. In fact, application of the present study's methodology to the non-migrants of the two previous intercensal decades (Figure 2) reveals not only that London's superiority as a place where these people can get on in their careers has survived the many significant changes in labour-market conditions that have occurred since the 1970s but also that the scale of this margin has steadily widened over time.

Can demographic composition help to explain this difference in transition rate between the second-order cities and London, with the latter containing more of the types of people who tend to progress more quickly in their working lives, notably younger people? Certainly, London's population is known to have been rejuvenating itself since the 1970s, as a result of the combined effects of older people leaving, of younger adults moving in and of increasing numbers of births (Champion, 2006; Gordon, 2010). Nevertheless, Figure 3 shows that the 'London premium' remains largely intact in analyses distinguishing four broad age groups and also in those that split males from females. Overall, women display lower transition rates than men, as do those aged 35 or over in 1991 (45 and over by 2001) compared to the two younger groups. But it is clear that London systematically outperforms the second-order cities' aggregate for both men and women and for all the age groups shown, albeit it by a smaller margin for the oldest one.

Figure 2. WCN-to-WCC transition rates for non-migrants in work at both the start and the end of the reference decade (Source: calculated from ONS-LS data. Crown copyright.)

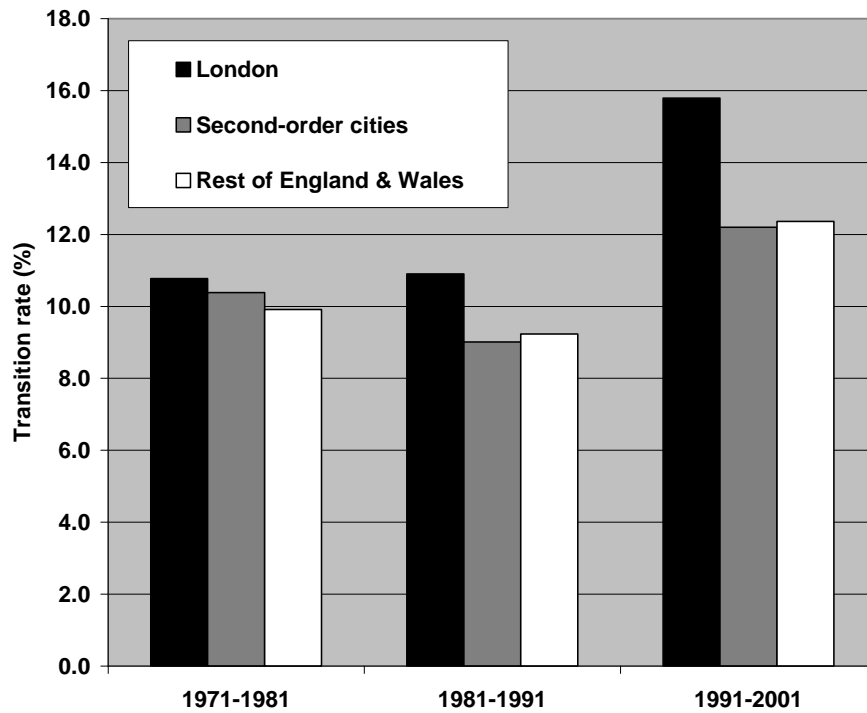
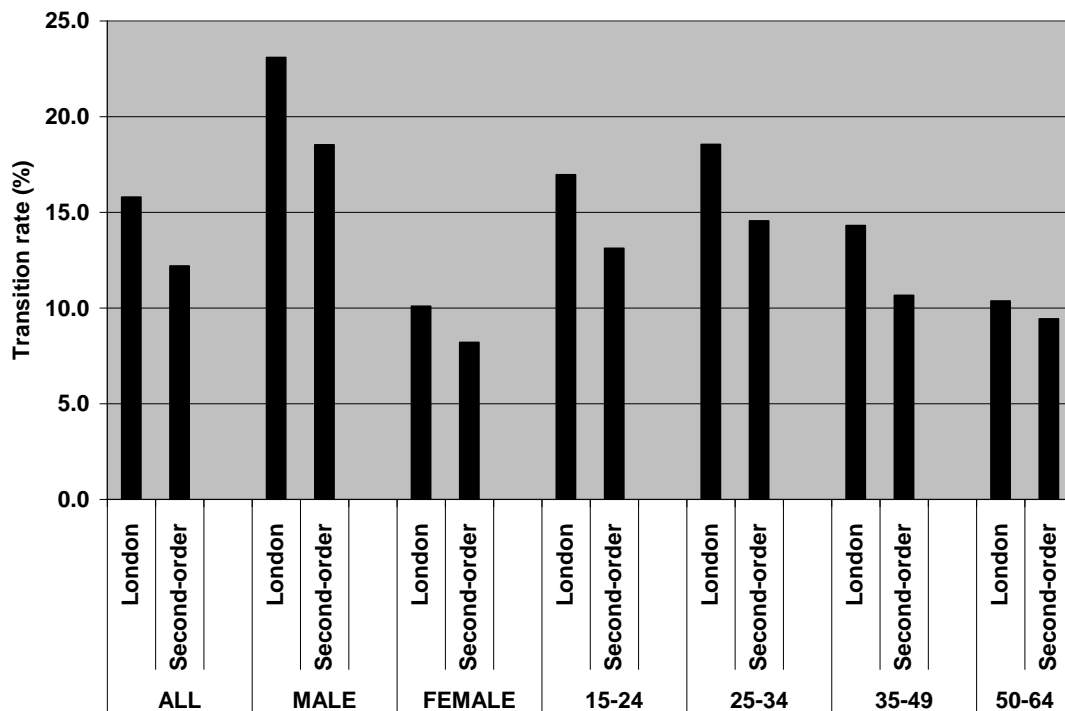


Figure 3. WCN-to-WCC transition rates, 1991-2001, for non-migrants in work at both the start and the end of the reference decade, by population group (Source: calculated from ONS-LS data. Crown copyright.)



Migrant transition rates for London compared with the 9 second-order cities combined

The second step – looking at the equivalent transition rates for these places' migrants (as defined above) – might be considered a superfluous exercise, given the difference in career progression between London and the rest of the country just observed. After all, why should any WCN starters living outside the 10 cities in 1991 go to all the cost and disruption of moving to a second-order city where their chances of transition to WCC would appear to be no higher, especially when London offers clearly superior odds? Yet many did. In all, there were 5,586 people in our sample (over 610,000 grossed up) who were living in one of the 9 second-order cities in 2001 but had been living elsewhere in England and Wales in 1991 and, of these, 22 per cent (1,231) were working in a WCN occupation in 1991 and were still in some type of job in 2001.

The literature (see above, also Boyle *et al.*, 1998) points to several reasons why people might make such a move despite the apparently less favourable conditions. Perhaps the most obvious explanation is that they did not have access to this sort of information about the poorer chances of career progression there than in London. A second possibility is that some of the migrants are leaving London after making as much headway in their working lives there as they had aimed to; in terms of Fielding's original (1992) model, 'stepping off the escalator' at a later stage of their working lives so as to cash in on their rewards and enjoy a less pressured lifestyle. Yet others could be moving for reasons unconnected with work, such as to be closer to family and friends. There is also the possibility that some of the 9 second-order cities offer much better career progression prospects than the norm for these, maybe even as good as London's, and that their migrant population is concentrated in these more promising cities.

While we check on the last of these explanations below and acknowledge that previous studies provide evidence in support of each of the other explanations, the reality is that migrants to the second-order cities actually managed to progress faster as a group than would be expected from the non-migrant transition rates described above. Of the 1,231 WCN starters, 273 had progressed to WCC jobs by 2001. This transition rate of 22.2 per cent is very much higher than the 12.2 per cent rate for the

second-order cities' non-migrants. Moreover, it is substantially above the rate for the equivalent group moving into the rest of England and Wales from all 10 cities (19.7 per cent), though well short of the 26.0 per cent rate for those moving into London during the decade.

Compositional effects need to be considered when comparing the second-order cities' migrants with their non-migrants. Given that migration tends to be a selective process, Table 1 breaks down the migrant transition rates by gender and age and compares them with the non-migrant rates that formed the basis of Figure 3 (excluding those aged 50-64 in 1991 because of small sample size for migrants).

Table 1. White Collar Non-core to Core transition rates, 1991-2001, for migrants and non-migrants: London and the 9 second-order cities combined, by population group

Group with age in 1991	City	Non-migrants	Migrants	<i>Migrant premium</i>
All 15-64	London	15.8	26.0	10.2
	Second-order cities	12.2	22.2	10.0
	London premium	3.6	3.8	
Males 15-64	London	23.1	37.3	14.2
	Second-order cities	18.5	32.3	13.8
	London premium	4.6	5.0	
Females 15-64	London	10.1	15.6	5.5
	Second-order cities	8.2	13.4	5.2
	London premium	1.9	2.3	
All 15-24	London	17.0	27.5	10.6
	Second-order cities	13.1	22.6	9.5
	London premium	3.8	4.9	
All 25-34	London	18.6	25.6	7.1
	Second-order cities	14.6	21.9	7.3
	London premium	4.0	3.8	
All 35-49	London	14.3	24.2	9.9
	Second-order cities	10.7	22.9	12.2
	London premium	3.7	1.4	

Source: calculated from ONS Longitudinal Study data. Crown copyright.

It can be seen that the second-order cities' transition rate for migrants is higher than the non-migrant one for each of the population groups. The same is also the case for London. Moreover, the 'migrant premium' for the second-order cities is virtually identical to London's for all persons and varies more or less in tandem with London's

across the population groups. These results suggest that it is the general norm for migrants to get on better in their careers than non-migrants and that this must be related to some other factor(s) besides those of gender, age and starting occupational level allowed for here – an issue revisited in the discussion below.

Table 1 also permits a cross-group comparison of transition rates between those migrating to a second-order city and those going to London as well as facilitating a comparison of this ‘London premium’ with that of the non-migrants’ performances already described. For all the population groups shown, the migrants’ transition rates are always higher for London than for the second-order cities, just as is the case for the non-migrants’ rates. Impressively, for the most part the two sets of differences move in parallel, reinforcing the image of similarity given by the all-persons’ differences of 3.6 and 3.8 percentage points for non-migrants and migrants respectively. For instance, the London/second-order-city difference of 5.0 points for migrant males is not much greater than the 4.6 for non-migrants, while the differences for those aged 25-34 in 1991 (becoming 35-44 in 2001) are even more closely matched. While the migrant/non-migrant differences are somewhat wider apart for those aged 15-24 and 35-49, the overall impression is of the difference between London and the second-order cities in the chances of progression from WCN to WCC being about the same for their recent in-migrants as for their longer-term populations.

The 10 cities compared

The role of place can be probed further by examining the 9 second-order cities individually and comparing their transition rates with London’s. Table 2 shows the transition rates for all those who were living in a particular city at both dates and those who moved to it from elsewhere in England and Wales during the decade. The cities are arranged in size order so as to help check for agglomeration effects. As a further refinement, the rest of the country is subdivided into the rest of the GSE (see above) and the remainder, as the latter constitutes a more valid benchmark for the performance of the 9 provincial cities which lie outside this generally prosperous region.

Table 2. White Collar Non-core to Core transition rates, 1991-2001, for migrants and non-migrants: 10 cities ranked by size, Rest of Greater South East (GSE) and Rest of England and Wales (E&W)

City region	Size (000s)	Non-migrants	Migrants	<i>Migrant premium</i>
London	4,448	15.8*	26.0*	10.2
Birmingham	1,047	11.8	21.7	9.9
Manchester	878	13.9*	20.7	6.7
Leeds	397	12.1	26.0	13.9
Newcastle	365	11.3	15.2	4.0
Bristol	361	11.7	21.4	9.7
Sheffield	337	12.2	22.4	10.2
Liverpool	335	10.7	20.0	9.3
Nottingham	281	11.7	21.1	9.4
Leicester	208	13.3	27.0	13.7
9 second-order cities	n/a	12.2	22.2	10.0
Rest of GSE	n/a	13.2*	21.1	7.9
Rest of E&W	n/a	11.5	19.4	7.9

Note: Size is based on total number of employees working in the city's Primary Urban Area in 2001 (see section on methodology);

* difference from Rest of E&W significant at 5% (*t*-test).

Source: calculated from ONS Longitudinal Study data. Crown copyright.

Looking first at how strongly places perform as escalators of human capital for their non-migrant populations, it can be seen (from the first two data columns of Table 2) that agglomeration effects operate on at least a partial basis. None of the second-order cities has a higher non-migrant transition rate than London, while Manchester ranks in second place, which is close to its size ranking. Beyond this, however, the relationship is less clear, with the third highest transition rate being for Leicester, the smallest of the cities. There is then a gap before a middle group of 5 cities – including second city, Birmingham, but also Nottingham, the second smallest – that cluster in the narrow range of 11.7 to 12.2 per cent, while Liverpool and Newcastle – both considerably larger than Nottingham and Leicester – come at the bottom of the transition-rate ranking, even below the 11.5 per cent rate for the rest of the country outside the GSE. Indeed, allowing for sample size, *t* test results show that, of the 9 second-order cities, only Manchester has a rate significantly above that 11.5 per cent benchmark. Nevertheless, across the 10 cities calculations suggest a degree of size effect, with a correlation coefficient of 0.73 between the transition rate and the log of number of jobs, which is significant at the 5 per cent level and indicates that the latter can account for around half the between-place variance in the former.

Turning to the migrants, it might have been expected from the previous 3-zone analysis that there would be a stronger role for agglomeration effects, given that the migrant transition rate was seen to fall not just from London to the 9 second-order cities combined but also from them to the aggregate of the smaller labour markets that make up the rest of the country. On the contrary, however, the pattern for migrants shown in Table 2 (third data column) is found to be less related to size than the one for non-migrants. London does not stand above all the others, but on a par with it are Leeds and Leicester rather than the second- or third-largest cities. Overall, the correlation between the migrants' transition rate and the log of number of jobs is only 0.21, well below the 0.63 level required for 5 per cent significance with just 10 cases. Moreover, London is the only place where *t* test results show that migrants fare significantly better than those moving to the non-GSE rest of England.

A related question concerns the extent to which the fortunes of the migrants are affected by the differences between the 10 cities in their ability to perform as escalators for their non-migrants. The correlation coefficient between the transition rates of the migrants and non-migrants, at 0.57, is positive but not significant at the 5 per cent level. Instead, what is most remarkable about the migration premiums shown for the 10 cities in Table 2 is how similar they are, with the majority falling in the narrow band of 9.3-10.2 and with none differing significantly from the rest of England and Wales. This suggests more of a flat-rate bonus for the migrants in that, irrespective of the actual performance of each city's escalator, an additional 10 per cent or so of the WCNs 'stepping on to these escalators' achieve WCC status compared to the progress made by these places' longer-term residents. This migrant premium is therefore not just associated with a move to London, but applies to other destinations too. This observation helps to explain why, despite most of these second-order cities performing less strongly as escalators than London, people of working age are still prepared to move to them.

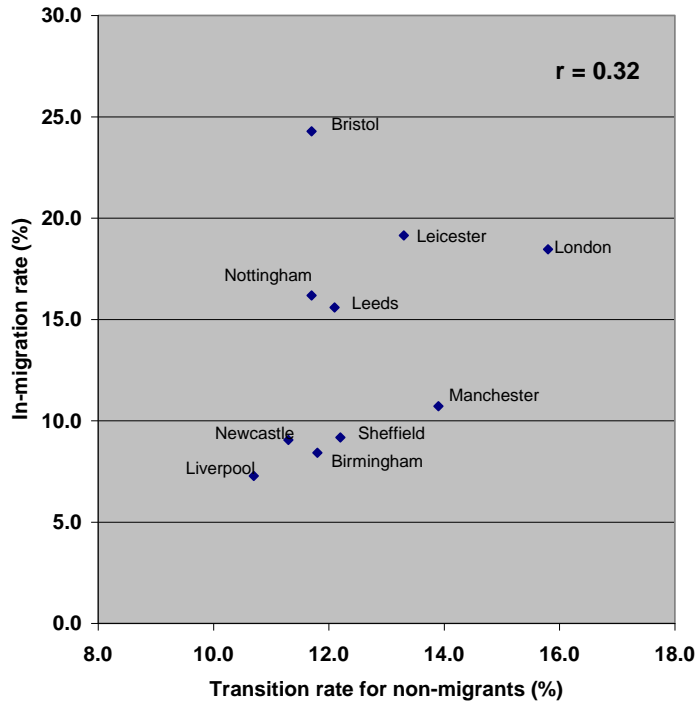
From this, too, arises the question as to just how sensitive is migration to these between-place differences in career progression prospects. The ability of London to draw in people at the early stage of their working lives was the second main criterion in Fielding's original escalator test, after the transition rate for non-migrants. To

investigate this, we focus on the migration behaviour of the cohort of people aged 15-24 in 1991 (25-34 in 2001), thereby avoiding the student migration effect (assuming that almost all of those moving to these cities for their higher education and not staying on afterwards will have left before their 25th birthday). The rate of migration of this age cohort into the 10 cities over the decade varies enormously, ranging from just 7.3 per cent for Liverpool to 24.3 per cent for Bristol, and with a substantial margin separating the other stronger performers (Leicester, London, Nottingham and Leeds, all with rates of at least 15 per cent) from the remaining four (Manchester, Sheffield, Newcastle and Birmingham, with rates of around 10 per cent or lower).

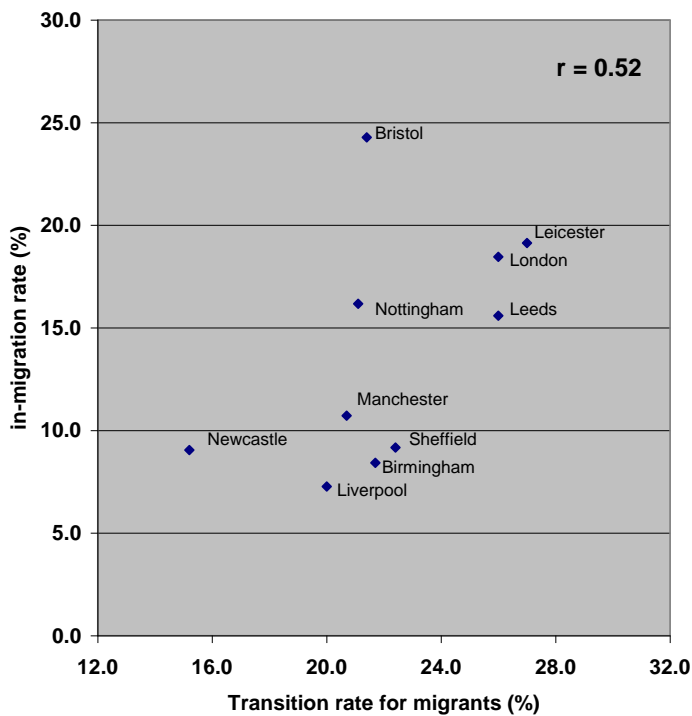
Figure 4 reveals how far this difference in migration performance across the 10 cities corresponds to the patterning of the WCN-to-WCC transition rates for both their non-migrant and migrant populations, shown in charts (a) and (b) respectively. In both cases, the relationship is positive, indicating that the cities' relative drawing power is broadly in line with the chances of promotion there. The statistical correlation is higher in terms of the migrants' transition rate than the non-migrants' one, but at 0.52 is still not significant at the 5 per cent level. On the other hand, the pattern in Figure 4(b) suggests quite a close fit for 7 of the cities including London, with just Bristol – plus Nottingham and Newcastle to a lesser extent – attracting more of this key group of people than expected from their chances of career progression.

Figure 4. Relationship between the 1991-2001 in-migration rate of those aged 15-24 in 1991 and the 1991-2001 WCN-to-WCC transition rates of (a) non-migrants and (b) migrants (Source: calculated from ONS-LS data. Crown copyright.)

(a)



(b)



Discussion

This paper has examined the extent to which England's second-order cities perform a role akin to the 'regional escalator' function previously observed for London's region, using data from the ONS Longitudinal Study (ONS LS) and focusing on one key indicator of occupational mobility, namely moving up from White Collar Non-core (WCN) to White Collar Core (WCC) during an intercensal decade. This final section summarises the main findings and discusses their significance. The results are seen to confirm the value of tracking people's spatial mobility alongside their social mobility over time, but also raise questions which require further research.

The first main finding is that, while many people rise in occupational status as they age through a decade, their chances of doing so vary according to both the type of person they are and the type of place they live in. At the same time, between-place differences in the WCN-to-WCC transition rates are not caused by compositional factors, or at least not by the ones allowed for here – namely the gender, age and occupational make-up of their populations – though it is conceivable that some other facet of socio-demographic structure may play a part. The latter point aside, it would seem that, as far as the non-migrant population is concerned, the 9 second-order cities as a group did fall well short of London in terms of this transition rate for 1991-2001 and in fact fared no better than the rest of the country, while London's margin over them has widened since the 1970s. Taking the 9 separately, however, a considerable range of performance is found that can partly be explained in terms of agglomeration effects and, among them, there is one – Manchester – that posts a transition rate which justifies it being seen as a 'mini London' in the opportunities it offers its residents.

A rather different picture, however, has emerged when considering these places as potential escalators for migrants to 'step on to'. People going to a second-order city, on average, fare better than those moving to the rest of the country, especially if the latter is restricted to the part beyond the GSE. Moreover, the migrants do better than the non-migrant populations of their destination areas, wherever these are, for reasons that are not simply a matter of their relative youth. On the basis of this evidence, it seems that migrants anywhere show faster progress and that, on top of this migration premium, those going to Manchester – as well as to London or the rest of the GSE –

can also expect to enjoy the escalator effects evident among longer-term residents of these areas.

So, what is it that helps to make these second-order cities act as escalators for their migrant populations almost as well as London, given that they perform less well for their non-migrants? It does not seem to have anything to do with migrant selectivity in terms of gender, age and occupational status at the start of the reference period. One potentially important factor is what Gordon (2012) terms ‘ambition’ and which he has estimated using attitudinal questions asked by the British Household Panel Study (but not available in the census-derived data in the ONS-LS). It seems plausible that it is only the more ambitious, able and enterprising among those in WCN jobs that are prepared to up sticks and take the risk of a long-distance move to another area.

Alternatively, maybe this outcome has more to do with the way in which much of the job search and staff recruitment process works nowadays, at least in relation to the higher-skilled sections of the labour market. Fewer people are now engaging in speculative migration in search of work, while more are moving home only after they have been successful in their job search and even then may delay making a permanent move and instead commute on a weekly basis. Also, employers may be reluctant to appoint a person from a distance unless they cannot find a suitable candidate in their local area or if the more distant applicant is much better suited. Another reason behind longer-distance labour migration that is now seen as more important than in the past is the relocation of continuing employees between the branches of multi-site firms and government agencies, which in many cases would be associated with staff promotion (see Findlay *et al.*, 2003).

These possible explanations, in their various ways, raise questions about the nature of a labour-market ‘escalator’ and what exactly drives the migration of people towards it, with such issues relating just as much to the archetypal escalator of London as to second-order cities. The original model is based on the premise that, in moving to a place like London, people advance their careers faster than staying where they were living previously because they are able to ‘ride’ the faster-moving escalator at their destination alongside the local residents, with the overall effect presumably increasing the longer the in-migrant lives there. More recent research (Findlay *et al.*, 2009)

argues that this combination of spatial and social mobility should be broken down into two elements; namely, the immediate change in occupational status at the time of ‘stepping on the escalator’ and the change which takes place subsequently while ‘riding the escalator’. Fielding's analogy with an escalator emphasises the latter component. With data for a single (extended) period, however, there is no direct way of determining how much of the advances achieved by migrants are attributable to each of these separate potential components of career progression.

In conclusion, it would be over-hasty to treat the observed ‘migration premium’ as a validation of policies seeking to speed up the economic growth of second-order cities through attracting more migrant talent along the lines proposed by Florida (2002). If it is the case that most of the migration of human capital into these cities takes place only after a job has been secured, then any attempt to increase migration to them would require an initial policy package to create employment growth there. There is therefore a strong case for investigating how the phasing of migrants’ change in occupational status relates to the time at which they moved. Beyond this, research should attempt a fuller like-for-like comparison of migrants and non-migrants that takes into account the effect on career trajectories of ‘ambition’ and other personal characteristics not allowed for in the present study. Thirdly, this study has focused on just one occupational transition, albeit a key one in relation to the totality of longer-distance migration as well as to places’ economic fortunes: a case can be made for focusing on other starting occupational levels besides WCN, as well as one for examining the chances of downward as well as upward social mobility, even to the extent of using a single scale of job-status change like that developed by Gordon (2012). Finally, given that urban regeneration programmes continued after 2001, opportunity should be taken of the incorporation of the 2011 Census data into the ONS-LS (due for release in 2014) for discovering whether the most recent decade has seen any narrowing of London's advantage over the second-order cities as a human-capital escalator.

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