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Accounting for Big-City Growth in Low-Paid Occupations: Immigration and/or Service-Class Consumption

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abstract

The growth of “global cities” in the 1980s was supposed to have involved an occupational polarization, including the increase in low-paid service jobs. Although held to be untrue for European cities at the time, some such growth did emerge in London a decade later than first reported for New York. The question is whether there was simply a delay before London conformed to the global city model or whether another distinct cause was at work in both cases. This article proposes that the critical factor in both cases was actually an upsurge of immigration from poor countries that provided an elastic supply of cheap labor. This hypothesis and its counterpart based on the growth in elite jobs are tested econometrically for the British case with regional data spanning 1975–2008, finding some support for both effects, but with immigration from poor countries as the crucial influence in late 1990s London.

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Increased inequality in labor market outcomes during the past 30 years has been a subject of note, concern, and academic investigation in a number of advanced economies, notably the United States and the United Kingdom. In much of the academic literature, the issue of interest has been that of widening earnings differentials across occupations (and sometimes industries), often seen in terms of changing returns to particular components of human capital (increasing returns to "skills" or, more specifically, to educational qualifications). The dominant approach to explaining this situation has been in terms of shifts in the demand-supply balance for these assets, driven by a demand for upskilling, stimulated by some combination of technological change and reinforcement of patterns of comparative advantage by increasingly globalized economic competition. An alternative approach has emphasized structural changes in the context of the determination of pay, within increasingly deregulated labor market institutions—itsself perhaps a response to intensified competition and these market forces, but one mediated in different ways by national political and social systems and the established power of labor unions (Bound and Johnson 1992).

Within the more neoclassical (supply-demand) accounts of this change, shifts in the occupational distribution—generally seen as one toward more sophisticated high-skill jobs—play an important intermediate role. Their direct compositional effects on the aggregate distribution of earnings or incomes has been of less interest, although on some plausible assumptions (if technological change were particularly biased toward the elimination or deskilling of intermediate jobs, à la Braverman 1974), they may have led to a significant increase in the variance, as well as to an upward shift of the whole distribution. A number of studies have suggested, however, that the occupational structure of advanced economies may actually be polarizing, in the sense that the share of the least well-rewarded jobs may be increasing as well as that of the most rewarded types.

This hypothesis was first advanced by sociologists and political economists in the context of debates about an emerging postindustrial–post-Fordist economy (Bell 1973; Pahl 1988; Sassen 1991). More systematic evidence of this pattern was subsequently presented by labor economists (Goos and Manning 2007 for the United Kingdom; Autor, Katz, and Keane 2006 for the United States). The key obser-

vation was that the least well-paid jobs were typically to be found in activities with (more or less) untradable products, notably personal services and construction, which could not as readily be offshored to cheap labor economies, in accordance with comparative advantage, and might not have been readily merchandisable because of some barriers to standardization. Urban sociologists and geographers tended to focus on the former, pointing to the service nature of these jobs as requiring face-to-face contact and thus geographic proximity between the high-income consumers and the low-paid producers. Labor economists tended to focus on the latter and to base their analysis on a nonmonotone impact of technological progress. In particular, Autor, Levy, and Murnane (2003) distinguished between routine tasks that are substitutable by technology and nonroutine tasks that are not, while Goos and Manning (2007) pointed to the concentration of nonroutine tasks at the two ends of the pay spectrum (e.g., among professionals and cleaners) as a cause of polarization. Recent work has combined the two approaches, relating the growth of employment in the lowest paid occupations to the rising demand by affluent and time-poor consumers for personal services that are both untradable and unmerchandisable (Manning 2004; Mazzolari and Ragusa 2007; Kaplanis 2007, 2010a).

The global cities thesis (originated by Friedmann and Wolff 1982 and Sassen-Koob 1984) linked this phenomenon specifically to concentrations of the higher echelons of the service class (i.e., those in professional and managerial occupations) in global command and control centers such as New York and London. Sassen (1991) claimed empirical support from analyses of the development of key global cities during the 1980s. But this claim was vigorously contested in relation to European centers by urban geographers and sociologists, who contended that the observable trend in the job mix was simply one of professionalization, not polarization (Hamnett 1994; Buck 1997; Buck et al. 2002).

A decade later, however, there were indications, for London at least, that some such occupational polarization might have belatedly been emerging (Buck et al. 2002). Indeed, whereas at the UK level, a trend toward polarization was evident throughout the 1980s and 1990s (Goos and Manning 2007), in London this only clearly emerged within the 1990s, but then proceeded more vigorously than in the rest of the country (Kaplanis 2007). Econometric analyses suggested a causal association between the growth of jobs in the top and bottom quintiles of the occupational distribution (Kaplanis 2010a, 2010b) as implied by the global city thesis—although the timing was problematic since both globalization and rapid growth in the service class in London seemed as evident in the 1980s as in the 1990s. To account for the reported break in trends toward polarization in London between these decades and for the apparent discrepancy between trends in New York and London in the 1980s (as reported by Sassen and Buck/Hamnett respectively) requires another hypothesis. The one that we propose and investigate in this article is that the actual growth in employment in the bottom segment of jobs is conditional on the availability of an elastic supply of cheap labor, which was afforded—in New York from the 1980s on, but only more recently in London—by the emergence of large-scale immigration from low-wage economies to these cities in particular (Buck et al. 2002; Hamnett 1996). Recognition of an association between these phenomena is not new, having been emphasized by Sassen (1991). But whereas Sassen saw increased immigration simply as a *consequence* of the demands for personal services from an expanding elite in the global cities, our hypothesis is that exogenous boosts to immigration (from policy and crises elsewhere) were necessary *causal* factors for a growth in low-wage service employment to be secured in these economically pressurized cities.

The impact of international migration on wages and employment has been a matter for intense study and debate among labor economists (since Card 2001 and Borjas 2003). A key issue has been the distribution of the skills of migrant workers and how it is related to that of native workers (Dustmann, Glitz, and Frattini 2008). Low-skill migrants, who have been perceived as making up most of the upsurge in immigration to the United Kingdom from the 1990s onward, would be expected to compete mainly with low-skill natives and thus have an asymmetrical effect on the wage distribution. In the lower tail of the skill distribution there should be a downward shift in wages, engendering some growth in employment, while productivity spillovers could induce an increase in the wages of those higher up the distribution—with an unclear overall effect on the average wage. Indeed, evidence has shown a modest negative effect on the wages of low-skilled workers and a positive effect on the wages of high-skilled workers (Ottaviano and Peri 2008; Manacorda, Manning, and Wadsworth 2006; Dustmann, Frattini, and Preston 2008).

70 Skill as such may not be the critical factor, however, particularly if it is defined in relation to formal qualifications. Our approach in this article starts instead from a simple ordering of occupations in terms of pay rates (for a benchmark time and area) to represent the hierarchy of sublabor markets into which migrants are inserted. Our thesis is that rather than being intrinsically “low skilled,” most recent migrants to the United Kingdom have a substantial skill potential (and formal qualifications), but that initially those coming from poor countries get crowded into the bottom rungs of the occupational ladder (see Table 1). The reasons for this situation are various—ranging from language problems through the nonrecognition of qualifications to discrimination. But the effect is that many highly educated immigrants downgrade, in terms of occupation at least, upon their arrival in the country before they start to climb back to positions that are consistent with their capacities (Gordon, Travers, and Whitehead 2007). According to this interpretation, there should be an identifiable association between depressed wages in bottom-tier jobs and *recently* high levels of in-migration (from poor countries)—rather than from a longer-term accumulation of (intrinsically) low-skilled migrant workers. And the growth in jobs associated with the provision of local services, should reflect the elastic labor supply that new migrants provide—not just a growth of the potential demand for such services from an expanding elite of money-rich time-poor professionals in global city roles.

In this article we address these hypotheses by investigating demand and supply-side influences on the evolving occupational profile of employment in British regions via a

Table 1

London Employment by Type of Migrant Type and U.K. Pay Quintiles (Percentages), 2008

Origin of Migrants	Years in the United Kingdom	Bottom Quintile	Second Quintile	Third Quintile	Fourth Quintile	Top Quintile	All Jobs
Nonmigrant	—	11.3	16.0	17.4	24.0	31.3	100
High-wage countries	0–3	13.5	11.6	10.2	24.3	40.5	100
	>3	9.5	12.6	9.8	24.3	43.8	100
Low-wage countries	0–3	40.5	19.7	9.0	9.1	21.7	100
	>3	23.9	21.3	17.7	17.3	19.8	100

Source: Labour Force Survey data from the online Economic and Social Data Service (ESDS).

panel model of earnings and employment dynamics for quintile¹ segments of jobs during the years 1976–2008. The model is initially set up in simple supply-demand terms, with wages in each segment potentially influenced by international migration and employment levels responding to these wages as well as to exogenous demand factors. Uneven impacts from the introduction of a national minimum wage (NMW) during the period are controlled for. The scale and earnings of the top segment are included in the demand equations for lower segments; interdependences between earnings in neighboring segments are allowed for; autocorrelation across segments is handled through estimation with 3SLS; and spatial interdependences are explicitly investigated. Results from these interregional analyses are then applied to the explanation of what happened to lower-tier jobs in London during the late 1990s and whether their growth then was due mostly to an influx of rich (global city) consumers or of poor migrant workers.

Theory

The conceptual background to this simple equilibrium model may be sketched in terms of an economy consisting of two economic sectors, three types of labor, a number of internal regions, and an external region with substantially lower wages that serves both as a trade and migration partner. One sector produces a mix of *tradable* goods and services for intermediate and final demand; the other produces only services for private consumers that cannot be traded because personal contact is required. The service sector is taken to be less amenable to capital-labor substitution because of this type of contact. In the traded sector, demand is assumed to depend both on price and quality, whereas in the nontraded sector, it is determined by a combination of price, local real incomes, and sociodemographic influences on tastes and on the opportunity cost of self-servicing. The three types of labor are professional, routine, and low skilled, with high, medium, and low levels of human capital, respectively.

The internal regions are distinguished in terms of centrality and thus in the potential for agglomeration economies. But these effects are taken to apply primarily to the professional jobs in the traded sector because of the role of exchanges of tacit knowledge for workers with high human capital in quality-sensitive activities (Graham 2009). Within the traded sector (only), production may be functionally disaggregated across regions (and/or internationally). At the regional scale, there are thus effectively three independent trading sectors, each employing just one type of labor, as well as a local service sector employing all three types.

Wages are set competitively at the regional scale, but with spillovers between both regions and occupations. The strength and rapidity of interregional spillovers depend on both proximity and the relative mobility of occupational groups (varying positively with their levels of human capital). Although subject to external shocks affecting competitiveness in the traded sector and driving the flow of international migrants, real wage levels (adjusted for differences in the cost of living) are assumed to converge strongly, although never fully equalized for the low-skill group. Differences in money wages remain, however, because of the inelastic supply of space (for residences and untraded services) in the most central region.

Migrants from the (poor) external region are assumed to settle disproportionately in the core region and to have a distribution of (general) levels of human capital levels mirroring that in the host economy—but to take time acquiring those specific assets that

¹ Defined on the basis of national earnings and employment shares observed at a reference date, with the actual share of employment in each quintile varying both over time and across areas.

allow access to skilled or professional jobs (Wills et al. 2010). In the context of nationally inflexible wages in these occupations, in times of recession, new migrants may be joined in competing for unskilled jobs by others who have been “bumped down” from skilled employment (Reder 1964).

72 Although there are gaps in this sketched specification of the economy, it has a number of evident implications. In particular, as spatial divisions of labor are facilitated, they imply a pattern of specialization in which the home economy as a whole comes to concentrate solely on professional and skilled activities, plus an inescapable segment of unskilled jobs within the untradable service sector, while the core region (whether formally global or not) specializes solely in professional occupations, with only a residue of skilled or unskilled jobs in that untradable sector. Overall, growth in the home economy should be focused on professional jobs, implying a more rapid overall growth (both in jobs and money incomes) within the core region and the likelihood (because of space constraints) that residence costs at least will rise there. And, in turn, whether local employment in such jobs is sustained or even grows would seem to depend both on the “luxury” (high-income and low-price elasticity) character of the demand for untradable services—the essence of the global city hypothesis—and on the extent to which external migration to the core region keeps unskilled wages down.

In this article, we investigate the significance of (one, the other or both) these factors for the shifting pattern of change in employment in the bottom segment of the labor market (where untraded services now clearly predominate) across British regions. On the demand side, we look both at the potential impact of employment and earnings in the top group of jobs and at that of induced changes in household structure. On the supply side, we focus on the impacts of recent international migration: first on relative earnings in the bottom group of occupations and then (indirectly) on employment levels there. Derived estimates of quantitative relationships are then applied to the specific London “global city” case.

Framework of Analysis

Operationally, the analysis is framed in terms of a simple equilibrium model² of regional labor supply and demand for the quintile groups, applied to a panel data set for the years 1976–2008 and the 10 NUTS1 regions of Great Britain. The region and quintile sublabor markets are seen as related to each other and to an external world via sets of spatial and occupational mobility processes.

The Basic Model

The basic model estimated for the bottom quintile (Q1) involved a supply/hourly earnings equation and a demand/employment equation, taking the general form:

Supply: *Wage in the quintile*—related to employment in the quintile, international migration (in gross and/or net terms), and house prices, plus spillovers from adjacent quintiles and regions and differential impacts of the NMW.

Demand: *Employment in the quintile*—related to wages in the quintile, together with employment or earnings in the higher-paid quintiles and other household characteristics that have the potential to influence the substitution of marketed (but untraded) personal services for self-servicing.

² That is, one in which market-responsive wage levels tend to bring supply and demand into balance over some period, although this balance may be continually disturbed by shocks from either side of the market.

In each case, we specified a dynamic panel model, in log-linear form, with lagged values of the dependent variable reflecting the likelihood of an extended adjustment toward equilibrium earnings and employment, levels. With fixed effects, the two basic equations are

$$W_{rt}^q = \gamma_1 W_{rt-1}^q + \gamma_2 W_{rt}^{q\pm 1} + \gamma_3 W_{r\pm 1t}^q + \gamma_4 L_{rt}^q + \gamma_5 MigD_{rt-1} + \gamma_6 NMW_{rt}^q + \gamma_7 HP_{rt} + d_r^q + d_t^q + \varepsilon_{rt}^q \quad (1)$$

$$L_{rt}^q = \beta_1 L_{rt-1}^q + \beta_2 W_{rt}^q + \beta_3 Pop_{rt} + \beta_4 LD_{rt}^{q2.5} + \beta_5 LD_{rt}^{d10} + \beta_6 WHhld_{rt} + d_r^q + d_t^q + \varepsilon_{rt}^q \quad (2)$$

where L = (log) number of jobs, LD = (log) job density (as a proportion of the population), W = log wages (hourly earnings), $MigD$ = international migration (as a proportion of the population), NMW = the expected direct impact of the NMW on (log) earnings, HP = (log) average house prices, Pop = the (log) population, $WHhld$ = the proportion of fully employed working-age households, and d = a fixed effect. The subscripts r and t refer to region and year, respectively, and superscripts to (pay-ranked) quintiles or deciles of occupations (with 1 as the lowest); ± 1 for r or q refers to adjacent region(s) or quintiles and the parameters are all specific to a quintile.

In the supply–earnings equation, we included a control for the NMW because its impact was bound to be weaker in the high-cost regions of London and the southeast, where fewer of those in the bottom tier of jobs had earnings below the level of it, as initially set in 1999 or as updated subsequently (Stewart 2002). In the demand/employment equation, the proportion of all-worker households is included to reflect constraints on these households' potential for self-servicing, together with the employment (or total earnings) ratios for the higher quintiles and (as a more specific test of the Friedman-Sassen hypothesis) for the top decile (D10) of jobs, most likely to demand income- and education-elastic local services, such as child care, cleaning, and catering (Manning 2004; Mazzolari and Ragusa 2007; Kaplanis 2010a). We estimated comparable wage equations for each quintile to test hypotheses about the specific impact of migration in the bottom quintile. We estimated the employment equation only for that quintile, however, and hence omitted direct indicators of productivity, competitiveness, and growth potential in the traded sectors.

Labor Mobility

Internal labor mobility, both between regions and quintiles, is treated here as entirely endogenous. The regional distribution of international flows is, however, assumed to contain substantial elements that are independent of the current state of regional labor markets. One reason is that noneconomic factors have contributed substantially both to the scale and the timing of the growth in immigration during the past 30 years, in the form of refugee flows set in motion by internal conflicts elsewhere, shifting degrees of effectiveness in UK immigration control (temporarily loosened in the late 1990s), and the immediate opening up of UK borders to workers from the A8 countries of Eastern Europe following their entry into the EU in 2004. The other is that the regional distribution of immigrants within the United Kingdom has been heavily influenced by historic concentrations of particular national groups; a stronger perceived receptiveness of London (like other world cities) toward foreign workers and refugees; governmental efforts after 2000 to counter these influences with a dispersal of asylum seekers; and the more targeted role of private agencies in steering the recent A8 migrants toward (provincial) employers with particular recruitment problems. Especially for those coming from “poor”/low-wage

countries,³ these factors clearly matter much more than short–medium term fluctuations in destination regions that scarcely affect the magnitude of the expected earnings differential from their home countries.

In our model, immigration enters only into the supply equation because its effects on the demand for untraded services are assumed to be mediated by the aggregate local population level that is controlled for. Within the supply equation, its impact on wages could be diluted by the induced migration of others to neighboring regions, of which there is some evidence, although displacement is only partial and appears more of a housing than a labor market phenomenon (Hatton and Tani 2005; Gordon et al., 2007).

Data Sources and Groupings

Data Sources

74 Data on hourly earnings and employment came from the UK Office of National Statistics's (ONS) New Earnings Survey (NES), an obligatory annual employer-based 1 percent survey of pay records. NES's coverage of part-time workers with weekly pay below the Pay as You Earn tax threshold is known to be incomplete,⁴ as is that of recent job changers—with recent investigations suggesting the latter to be substantially more important (Pont 2007). Overall response rates have been tending to fall over time and probably vary between regions. For this reason, trends in the size of quintile groups in a region are graphed in terms of employment shares, while in the (log-linear) regression analyses, we rely on region and year fixed effects to absorb variations in coverage and response rates.

The second key source is the ONS annual series of international migration estimates for the UK regions, covering all kinds of movement into or out of the country involving people intending to stay in or out for at least a year. These estimates derive primarily from the port-based International Passenger Survey (IPS), which is supplemented from the 1990s on (in the Total International Migration series) with administrative information about asylum seekers, flows to and from Ireland, and people switching between visitor and migrant status. The IPS sample provides information on origins and destinations within the United Kingdom, although with some adjustment in recent years to correct for the reporting of initial London destinations by in-migrants who settled elsewhere. In the figures derived from administrative sources, there is also some uncertainty about areas of residence, with the regional allocation of asylum seekers for years prior to the introduction of a dispersal policy in 2000 apparently stemming from a one-off analysis of Home Office files (for cases in 1983–91) that found 85 percent to be living in London (Carey-Wood, Duke, Karn, and Marshall 1995). Despite such uncertainties (inherent in this field), the data are the best available, the basis of all serious research, and involve no predictable biases for analyses of the causal relations of interest here.

Our hypothesis about the effects of migration is primarily related to those coming from low-wage countries. For the years before 1991, however, no breakdown by origin is available at the regional level. Instead, because there is substantial continuity in the pattern of regional destinations of particular types of migrants, we used a national breakdown of flows between key types of migrants both to generate estimates of the changing regional balance between migrants from rich and poor countries and to instru-

³ This category includes countries from the less developed global south, newly industrializing countries, and the transition economies of Eastern and Central Europe.

⁴ Those in this category should still be covered, as long as their employers have other workers with pay above the threshold and a common pay system, rather than separate, informal arrangements for casual staff (Pont 2007).

ment the (known) total migration estimates for regions (which might not be independent of local wage or employment changes). Four groups are distinguished, each with a distinct regional distribution and big temporal shifts in their share: asylum applicants (as counted by the Home Office), separating those arriving before or after the introduction of dispersal policies in 2000; the A8 migrants arriving from mid-2004 on; and a residual category of “mainstream” economic migrants (coming more or less equally from poor or rich countries). The last group showed the smallest fluctuations and had a regional pattern of destinations midway between the extremes represented by (predispersal) asylum seekers who were heavily concentrated in London, and A8 migrants, who were not. As we discuss in the next section, we used time-series regressions of regional migration on these four types of flows both to instrument aggregate regional flows and to generate estimates of the rich-poor country split within them.

Supplementary data on household/demographic characteristics—including a measure of the proportion of workers living in households where all those of working age were actually employed—were derived from the ONS’ General Household Survey (GHS), supplemented by their Labor Force Survey (LFS) for missing years—both sources being accessed online through the official Economic and Social Data Service (ESDS).

Geographic and Occupational Breakdowns

Our analysis, spanning the years 1976–2008, was conducted at the level of administrative regions of Great Britain. To overcome a major discontinuity in definitions during the 1990s affecting those parts of the Greater South East, (GSE) outside London, these parts were combined into a Rest of Greater South East (RGSE) region (consisting first of the South East and East Anglia Standard Statistical Regions and then the Eastern and South East Government Office Regions), leaving 10 regional units, among which London is in a class of its own, both in agglomeration potential and in global city status. For the distinction between types of jobs in relation to levels of human capital, we relied on the NES classification of workers by occupation. These types were ordered and then grouped into quintiles on the basis of hourly pay relativities (at the UK level), taken to reflect market valuations of the range of (human capital) attributes required of workers in each. The initial grouping was in terms of quintiles, with the bottom quintile (Q1) taken to represent an “unskilled” category—now largely confined in the United Kingdom to work in untradable activities (e.g., retailing, catering, hairdressing, and social care⁵), with high shares of women and migrant workers. To represent the elite, agglomeration-sensitive “professional” tier of cash-rich and time-poor workers, however, we chose the top decile (D10), since their earnings were well above those in the next decile (by a third), as was their concentration in Central London (with a quarter of the jobs).

The underlying occupational classification changed twice during our analysis period (in 1991 and 2002), requiring rebenchmarking at the start of each period and a splicing together of the subseries. To control for compositional shifts in the quintile groups in the regression analyses, the regional fixed effects were interacted with separate dummy variables for the three subperiods.

National Minimum Wage

The NMW variable represents an estimate of the expected proportional impact on a region’s Q1 wage bill from compliance with the current NMW. This variable combines

⁵ For a listing of occupations in the bottom and top quintiles (using the three-digit Standard Occupational Classification SOC90), see Kaplanis (2007).

two sources of evidence. One (from the NES) is the ratio of the current (adult) NMW to mean earnings in the region and quintile a year previously. The other (from the LFS) is a regression-based estimate of the (nonlinear) relationship, estimated across regions or conurbations, between the proportionate cost of compliance for Q1 at the initial (1999) adult rate and the ratio of that rate to mean Q1 earnings in summer 1998 (a year before the NMW first took effect). This regression took the form of a power function with the proportionate impact estimated as 12.25 percent * $MWR^{3.7}$ (where MWR is the ratio of the NMW to mean hourly earnings in Q1). The weighted R^2 of actual on predicted impacts was 0.969.

Patterns and Trends in the Data

76 An initial perspective on the evidence can be gained simply by looking at time series graphs of regional employment, real hourly wage levels for the top and bottom quintiles, and net international migration relative to regional populations (see Figures 1–5). In each case, London stands out clearly from the other regions, not only in terms of levels—with the highest earnings levels for both quintiles, the highest share of jobs in D10, the lowest in Q1, and the highest net migration ratio—but in the distinctiveness of its trends.

In terms of employment shares, in D10 (see Figure 1) the trend over the period as a whole was broadly positive across the set of regions, although the evidence for this trend is generally weak before about 1992. The takeoff in London seems slightly earlier (from 1990), and its growth thereafter was substantially faster. Its neighboring region, the RGSE, which had the second-highest share of employment in D10 throughout, also pulled further away from the others, although with less rapid growth than London.

In Q1 (see Figure 2), the employment trend was also upward in just about every region, with some fluctuations common to most regions but no clear breaks in the trend. London stands out in showing a slightly downward trend in the share of employment in this quintile in the years up to about 1990—taking it from a point only slightly below the West Midlands and RGSE to one a quarter lower. Beyond that point, the Q1 share in London started to grow, increasing sharply between 1995 and 2000 and almost converging again

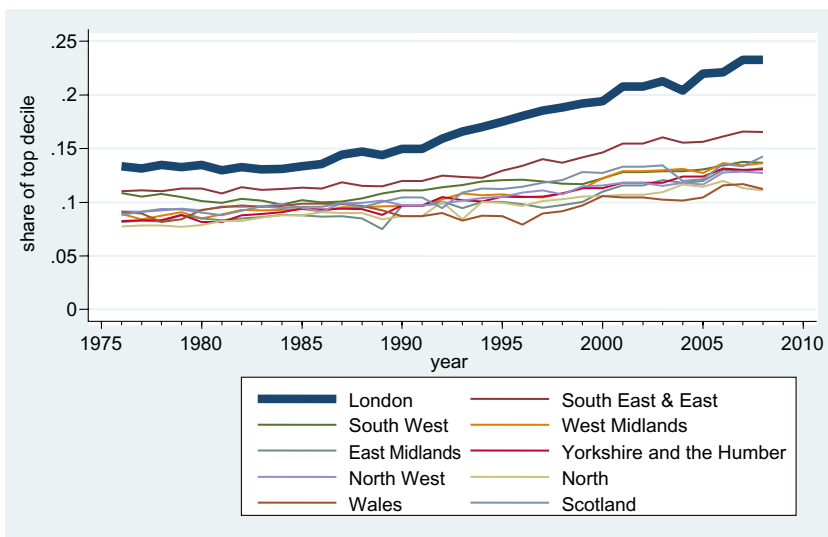


Figure 1. Top decile job share.

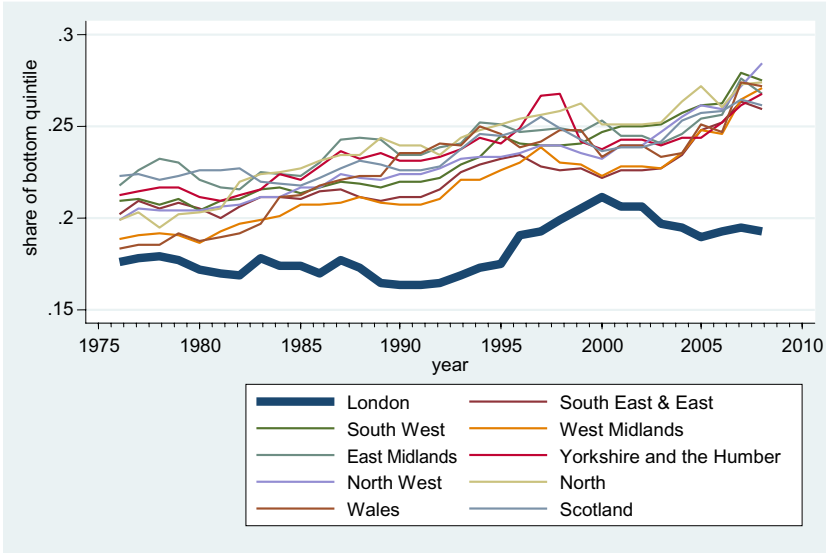


Figure 2. Bottom-quintile job share.

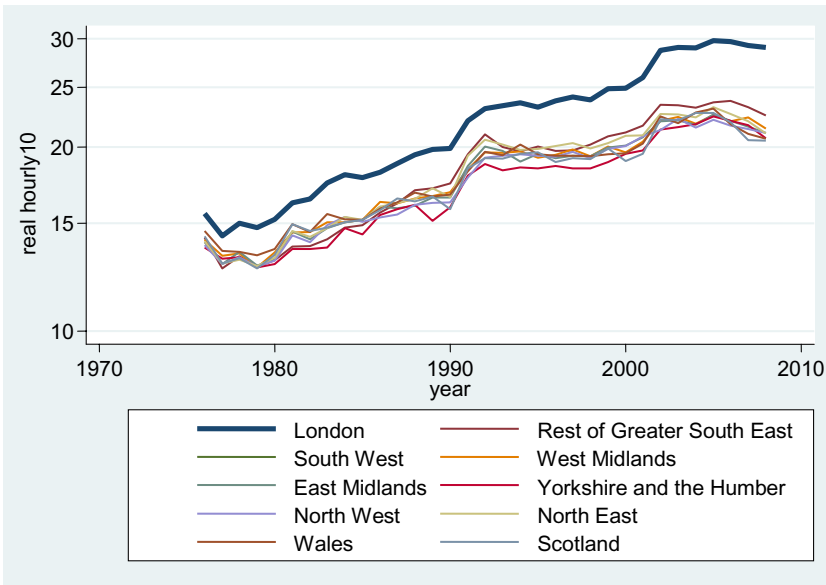
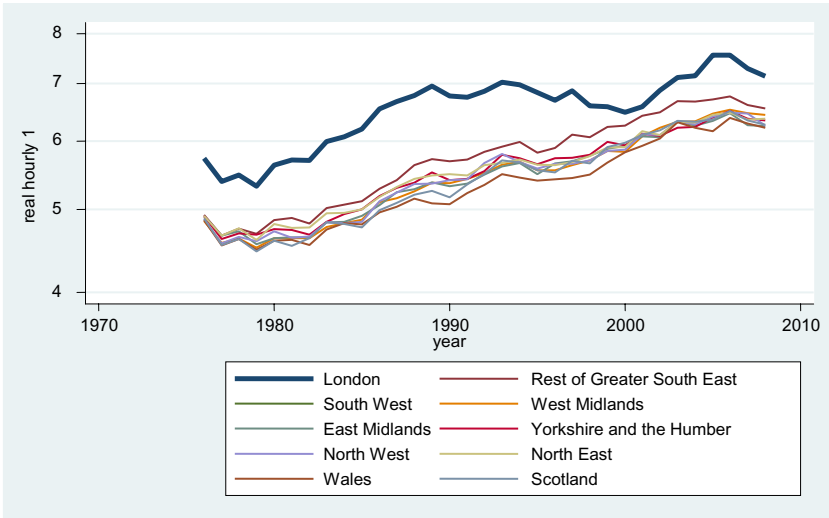


Figure 3. Top-decile real hourly earnings (£s 2008 U.K. prices).

with that pair of regions. But then it fell back almost as much over the next five years, while those in the other pair first held firm and then pulled further away, opening up an even larger gap by 2008 than in the early 1990s. There is a suggestion at least of symmetry in the trends between London, on the one hand, and the RGSE and West Midlands, on the other hand, but London's fluctuations were clearly distinct from those in any other region and unrelated to any observed for the top decile. If simultaneous growth in the shares of employment in the top and bottom groups is taken as evidence of occupational polarization, there seems to have been a weak tendency of that kind across



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Figure 4. Bottom-quintile real hourly earnings (£s 2008 UK prices).

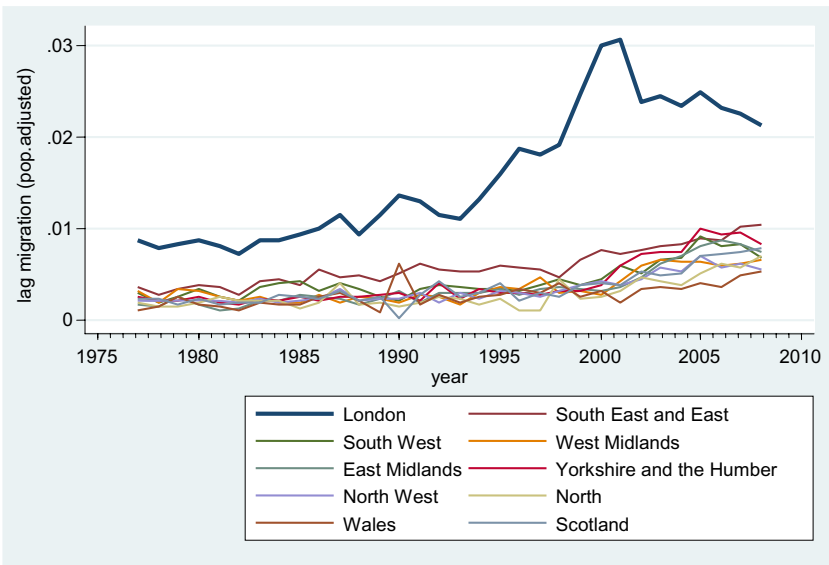


Figure 5. In-migration from overseas (population adjusted).

the country as a whole from the 1990s, most clearly in the RGSE. In London itself, however, that tendency seems true only between 1995 and 2000.

Graphs of change in real hourly earnings (deflated simply by a national cost of living index) naturally show strong upward trends, with some short-term variation but little evidence of substantial regional deviation from national patterns of change—except in one case. In the top decile (see Figure 3) both London and (to a lesser degree) its regional neighbors in the GSE seem to have grown faster than the other regions after about 1990, although the difference was quite modest. In the bottom quintile (see Figure 4) there also seems to have been little difference in earnings trends for nine of the regions. For London, however, the trend in real earnings actually appears to have been downward

during the 1990s, with the earnings gap between it and the RGSE closing rapidly between 1994 and 2000 before partially reemerging during the next five years. These trends will have been affected by the uneven regional impacts of the NMW. But since it came in at a point (in 1999) when the Q1 pay gap between London and the RGSE had already substantially closed and was stepped up (between 2003 and 2006) while the gap was again opening up, it clearly was not responsible for the big swings in the relative position of London Q1 earnings.

For gross migration from overseas (as a proportion of the population), national levels were modest and relatively stable until the late 1980s, when they were subject to one upward step, with another following a decade later. For most regions, there was little change before 2000, when almost all of them showed an upturn (see Figure 5)—most notably Yorkshire and the Humber, rising from a very low base to the second or third highest position. Over the longer run, the RGSE remained above average both in rates of inflow and their growth. But it is London that again stands out, with relative rates of inflow initially about three times larger than in the rest of the country, then rising much more steeply between 1994 and 2000, before falling back, while those in other regions started to grow. The shifts in overall rates of inflow and in their regional distribution both reflect the distinct developments for different types of inflow referred to earlier. In particular, the boom in asylum seekers was heavily concentrated in London (with about 85 percent of the arrivals) until the enforcement of dispersal from 2000, while the A8 migrants mostly went elsewhere (including to Yorkshire and the Humber).

Regressions of regional arrival rates on national migration series for asylum seekers (treating pre- and postdispersal cohorts separately), A8 migrants and “others” accounted statistically for a high proportion of the variance (between 90 percent and 98 percent for regions with substantial inflows, falling to about 80 percent for Wales and the North (together receiving just 5 percent of the in-migrants). These regressions have been used as the basis for both a synthetic set of regional estimates of inflows from rich and poor countries and an instrument to control for potential endogeneity in migration levels in analyses using this variable as a regressor⁶. It should be noted, however, that the addition of measures of relative wage levels or change in employment to these equations did not provide any significant evidence of substantive endogeneity of short- or medium-term fluctuations in the regional pattern of arrivals. In the case of the Q1 measures, this negative result contradicts Sassen’s (1991) assertion about the role of low-level job growth in the global city region as the driver of its higher rate of in-migration.

This simple descriptive overview of trends points to the coincidence at least of some major fluctuations between the mid-1990s and the mid-2000s, particularly affecting London and involving migration together with the scale and earnings of bottom-tier employment. Most notably, between 1995 and 2000, London experienced a distinctively

⁶ The measure of expected regional inflows that we used as an instrument for gross in-migration was the predicted value for this inflow from a panel regression involving four national inflow variables (for principal asylum seekers, pre- and post-2000, A8 migrants and all others) each interacted with regional dummy variables. The first three components, which account for the bulk of the regional differences in trends, are each largely the product of exogenous policy and political factors. A similar measure for net migration was calculated from regressions including outflows as a fifth national variable. Synthetic estimates of inflows from poor countries were derived from the gross migration regressions, using the coefficients on A8 migrants and the two asylum seeker variables to predict the distribution of these flows plus a constant share (54 percent, as nationally) of the “other” inward flow category. As an approach to instrumenting regional migration rates, there are similarities with Card’s (2001) strategy, but differences in the use of a policy-related (rather than geographic) split of national flows, and of regression (rather than base-period flows) to determine weights.

strong upsurge in immigration, coinciding with falling real earnings and increased employment in the bottom quintile—all three shifts being largely reversed in the five years that followed.

Estimation and Results

To examine the causal relationships more closely, we start by estimating a common set of (supply-side) wage equations for each of the five quintiles to identify where within the hierarchy of jobs international migration might actually have exerted a significant (presumably downward) effect on earnings. Having identified a significant negative effect only within Q1, we then estimate a (demand-side) employment equation for this quintile to test how far a lowering of wages, on the one hand, and a growth in the elite segment of the regional workforce, on the other hand, can be expected to have an impact on jobs in the lowest paid occupations. To check the robustness of the results, particularly in relation to the impacts of migration on Q1 employment, we then estimate some augmented and reduced-form employment equations. Finally, we translate the interregional findings to the specific case of explaining the Q1 employment boom in London during the late 1990s.

Wage Equations for the Five Occupational Quintiles

We estimated base runs of wage equations for each quintile on a dynamic panel basis, including temporal and interquintile “lags” of the dependent variable, with an intendedly robust measure of international migration based on gross inflows averaged over the two preceding calendar years, expressed as proportions of the resident population. We tried various forms of spatial lag in the dependent and independent variables experimentally without success and excluded them from the base model, although we reexamined that involving migrant inflows and Q1 wages with results reported next.

Two basic sets of estimates for the quintile wage equations are reported in Table 2, one based on ordinary least squares (OLS) and the other on 3SLS. In the latter case, current earnings and employment levels in each quintile are treated as endogenous, as are international migration and house prices. In addition to the migration instrument discussed in the previous section, instruments include two lags of other included variables and other demographic and labor market variables (drawn from the GHS). The 3SLS estimates also control for potential correlation of residuals across the five quintile groups, including those that might arise from shared reactions to aggregate shocks across a regional economy.

The reported \bar{R}^2 values in Table 2 indicate close fits for each of the regressions, although this finding essentially reflects the power of the fixed effects, within what are clearly highly integrated national labor markets, even in Q1, although especially for the higher quintile groups. As is suggested by the time-series graphs for Q1 and Q5 (see Figures 1 and 2), this integration has produced a rather stable pattern of regional differentials, with time-specific influences (shocks and cycles) exerting similar effects across all the regions. The fact that this is slightly less true in Q1 could reflect a lower spatial mobility and/or the weakness of national wage bargaining in a poorly organized segment of the labor market. Using separate time fixed effects for the northern and southern regions to allow for weaker integration across this “divide” further reduces the residual variance from the pure fixed-effects regressions (by about 20 percent) in all the quintiles except Q5. Our failure, in the preliminary experiments, to find specific interdependences with neighboring regions, is to be understood, then, not as pointing to an absence of spillovers but, rather, to a strength that transmits effects (in terms of earnings if not

Table 2

Average Earnings Regressions for Quintiles Across Regions and Years 1976–2008

	Average Real Hourly Earnings (logged)				
	Quintile 1	Quintile 2	Quintile 3	Quintile 4	Quintile 5
OLS					
W_{t-1} in quintile	0.473 (6.9)	0.366 (4.3)	0.273 (3.9)	0.471 (7.4)	0.324 (4.2)
W_t quintile above	0.273 (3.2)	0.362 (5.3)	0.153 (2.1)	0.087 (1.6)	..
W_t quintile below	..	0.185 (3.4)	0.453 (5.5)	0.218 (2.8)	0.305 (3.8)
$IntMig_{t-1}$	-2.397 (3.2)	0.932 (1.6)	-0.752 (1.2)	1.168 (2.1)	0.462 (0.6)
L in quintile	-0.031 (1.7)	-0.047 (2.7)	0.013 (0.5)	0.020 (1.0)	0.058 (2.2)
HP_{t-1}	0.030 (1.9)	0.011 (0.8)	-0.004 (0.2)	0.001 (0.1)	-0.016 (0.5)
Pot NMW impact	1.416 (4.3)
Standard error (SE)	0.0088	0.0074	0.0083	0.0091	0.0128
\bar{R}^2	0.9965	0.9981	0.9980	0.9986	0.9974
\bar{R}^2 fixed effects + N/S interaction	0.9866	0.9924	0.9937	0.9964	0.9954
\bar{R}^2 fixed effects only	0.9836	0.9904	0.9913	0.9954	0.9952
3SLS					
W_{t-1} in quintile	0.402 (3.8)	0.248 (2.4)	0.167 (1.8)	0.176 (1.8)	0.132 (1.8)
W_t quintile above	0.251 (1.6)	0.643 (3.1)	0.284 (1.9)	0.478 (3.8)	..
W_t quintile below	..	0.087 (0.5)	0.507 (2.5)	0.307 (2.0)	0.840 (5.0)
$IntMig_{t-1}$	-3.728 (2.8)	0.131 (0.1)	-1.393 (1.4)	1.529 (1.6)	-0.061 (0.1)
L in quintile	-0.061 (1.3)	-0.054 (1.6)	-0.005 (0.2)	-0.018 (0.6)	0.081 (1.9)
HP_{t-1}	0.061 (1.6)	0.016 (0.8)	-0.003 (0.2)	0.008 (0.3)	-0.038 (1.2)
Pot NMW impact	1.181 (2.9)
SE	0.0074	0.0065	0.0070	0.0088	0.0116
Observations	320	320	320	320	320

Sources: NES and GHS microdata (from ONS Virtual Microdata Laboratory and ESDS, respectively) and the Department of Communities and Local Government's house price series.

Notes: Wage, employment, population, and house prices are all in log form. Bracketed values are t statistics based on bootstrapped estimates of standard errors. Fixed regional and year fixed effects are included in all regressions; the regional fixed effects are interacted with dummy variables for the periods covered by different occupational coding schemes; the year effects are interacted with a north-south dummy variable. Employment in each quintile and the international migration rate are treated as endogenous in the 3SLS estimates. Additional instruments used for these estimates include one-year lagged values of employment in each of the quintile groups, exogenous variables from the demand-employment equation, and an expected migration rate derived by regressing the actual numbers on national immigration and asylum-seeking series interacted with regional dummy variables. 3SLS estimates are related to this set of five equations estimated together.

necessarily of employment rates) well beyond immediate neighbors, within the time scale picked up by annual data series.

Among the more economically substantive control variables, contrasting patterns are evident in the results for regional house prices (as the only available proxy for cost-of-living differences) and for employment within the quintile (i.e., the effective labor supply). For house prices, the only indication of a significant (positive) effect on earnings is in Q1, and even there estimated elasticities (just 6 percent on the 3SLS estimate) are much below the share of housing costs in total expenditures. At the top end (in Q5), there is no sign of a positive effect on wages.

82 By contrast, employment within the quintile only ever shows the anticipated significant positive relationship in Q5, while in the bottom two quintiles there is never a sign of a positive relationship (or of significance). In general, the indications of an elastic labor supply at the quintile and regional level are not inconsistent with evidence about the high degree of openness of such disaggregated “submarkets.” From this perspective, it does seem perverse that it should be only in what appears to be the most spatially open segment of the labor market (Q5) that eliciting a larger supply of labor in a specific region seems to require a significant increase in relative earnings. The most plausible explanation is that a combination of high levels of specialization, a continuously growing demand, and the monopoly power available to key workers with firm-specific human and social capital has made this the least “perfect” of the broad segments of the labor market.

For the NMW, the results bear out our expectations about its impact on regional differentials in Q1 earnings. Our computed measure of the potential direct effect of introducing the NMW involves average values for the years from 1999 of 4.3 percent in London, compared with 6.7 percent across the rest of the country. The estimated coefficient on this measure in the 3SLS estimates implies a relative increase in earnings for areas outside London of 3 percent in the short term and 5 percent over the long run.

For evaluation of the two hypotheses about the causes of the expansion of employment of the bottom quintile in the core (London) region, the key issue on the supply side is whether earnings in this quintile show a distinctively strong negative impact from overseas migration. On this point, the message from our quintile regressions is pretty clear-cut, since there is significant evidence of such an effect only in Q1. In most other quintiles, the parameter estimates are negative, but not significant. In Q4, the relationship actually appears to be positive and possibly significant (at the 5 percent level) in the OLS estimates. There is good support, then, for the hypothesis that the negative effects of migration from overseas on wages are confined to the bottom tier of jobs. But among these Q1 jobs, such migration does seem to be capable of depressing wages substantially. The relevant parameter estimate from the (preferred) 3SLS estimates imply that increasing the level of inflow by the equivalent of 1 percent of a region’s population could be expected to reduce Q1 wages by nearly 4 percent in the short run, rising to 6 percent in the longer run. The strength of this specific effect from international migration contrasts with the evidence (just noted) that without migration, Q1 employment can apparently be expanded significantly without any detectable increase in average earnings.

To look more closely at the character of this Q1 pay-migration relationship, we undertook a series of alternative regressions, focused on the time lags involved, whether there was a symmetric effect from outflows, overspills from migration into neighboring regions, and the specific significance of flows from poor countries. The main results are reported in Table 3. These results suggest first (comparing columns

Table 3

Average Earnings Regressions for the Bottom Quintile Across Regions and Years 1976–2008 with Alternative Measures for International Migration

Migration Variable	Gross (1)	Net (2)	Gross (3)	Net (4)	Gross (5)	Net (6)	Gross (7)
<i>Own Region</i>							
IntMig _{t-1}	-4.321 (2.9)	-2.295 (1.6)	-4.491 (3.4)	-2.972 (2.1)	-4.262 (2.3)	-2.562 (1.8)	
IntMig _{t-2}	0.585 (0.5)	0.779 (1.0)	0.442 (0.4)	0.786 (1.1)			
IntMig _{t-3 to t-5 (ave)}	0.449 (0.3)	-1.743 (1.5)					
MigPoorCountry _{t-1}							-3.232 (3.8)
MigRichCountry _{t-1}							-1.246 (0.6)
<i>Neighboring Regions</i>							
IntMig _{t-1}	0.806 (0.4)	2.493 (1.2)					
IntMig _{t-2}	0.896 (0.4)	0.558 (0.3)					
IntMig _{t-3 to t-5 (ave)}	-0.287 (0.1)	1.852 (0.6)					
W _{t-1, Q1}	0.331 (3.9)	0.449 (6.5)	0.347 (4.2)	0.456 (5.1)	0.338 (2.8)	0.450 (5.3)	0.411 (5.9)
W _t quintile above	0.269 (2.7)	0.206 (2.5)	0.231 (2.8)	0.200 (2.1)	0.231 (2.6)	0.213 (1.8)	0.187 (1.4)
L_Q1	-0.039 (1.0)	-0.045 (1.1)	-0.065 (1.9)	-0.069 (1.4)	-0.065 (1.4)	-0.064 (2.0)	-0.067 (1.8)
HP _{t-1}	0.048 (1.8)	0.013 (0.5)	0.037 (1.8)	0.018 (0.9)	0.039 (1.4)	0.020 (1.0)	0.038 (2.0)
Pot NMW effect	1.162 (2.9)	1.559 (3.9)	1.293 (3.2)	1.535 (4.4)	1.223 (2.9)	1.553 (3.7)	1.381 (4.6)
Observations	280	280	280	280	280	280	280
SE	0.0094	0.0094	0.0094	0.0096	0.0093	0.0095	0.0091

Sources: as for Table 2.

Notes: see Table 2; all estimates here are based on 2SLS regressions, treating current employment and earnings in quintiles as endogenous, together with own region migration in the most recent period; instruments are as in Table 2, with the addition of an expected value for current net migration computed as for the gross migration instrument but with reference also to a third national migration series for gross out-migration.

1–6) that only the most recent inflow (in the calendar year preceding the spring-based earnings survey) has an impact, and that rates of outflow are more or less irrelevant (since the net migrant version fits less well and with much lower coefficient values). The best-fitting model then simply involves the gross inflow into the region itself, in the most recent period. Second, when an estimate of the split between poor- and rich-country origins is introduced (column 7), it is clearly the former that exercises the dominant influence, with an effect from rich-country arrivals that looks substantially weaker and is not statistically significant. This finding is entirely consistent with our hypothesis that the impacts of migration on Q1 regional earnings are most likely to arise from the channeling of recent migrants from poor countries into such jobs—rather than any cumulative effect on the balance of supply and demand.

Table 4
Regressions of Employment in the Bottom Quintile

	(1) IV	(2) IV	(3) IV	(4a) IV	(4b) 3SLS
Lagged Emp Q1	0.438 (4.8)	0.504 (7.5)	0.494 (7.2)	0.480 (6.8)	0.419 (4.9)
W_Q1	-1.211 (1.9)	-0.738 (1.4)	-0.597 (1.2)		
In region			0.468 (1.1)		
In neighbors					
Difference from neighbors				-0.682 (1.7)	-0.732 (2.2)
Pop	0.283 (0.7)	0.767 (2.1)	0.921 (2.3)	0.904 (2.5)	1.037 (4.1)
EmpDens Q2_5	0.326 (0.9)	0.139 (0.6)	0.094 (0.4)	0.147 (0.6)	0.272 (1.0)
W_Q2:Q5	-0.382 (0.7)				
EmpDens D10	0.179 (1.2)	0.193 (1.4)	0.227 (1.4)	0.209 (1.3)	0.276 (1.9)
W_D10	-0.132 (0.3)				
PropAllworkerHhld	0.076 (0.5)	0.098 (0.7)	0.094 (0.7)	0.095 (0.8)	0.093 (0.6)
N	320	320	320	320	320
R ²	0.9969	0.9970	0.9970	0.9970	0.9970
SE	0.0272	0.0269	0.0268	0.0266	0.0218

Sources: as for Table 2

Notes: Equations also include a full set of fixed effect/interactions, as for the wage equations in Table 2. IV estimates are for single equations, with endogenous variables and instruments as in Table 2. The 3SLS equations are from the estimation of a set of wage and employment equations for each of the five quintiles. The R² and SE values for a regression with just fixed effects are 0.9908 and 0.0430; including the interaction between time and a north–south dummy variable brings these values to 0.9921 and 0.0427.

A Demand-side Employment Equation for the Bottom Quintile

On the demand side, our baseline model concentrates on intra regional influences on the untraded element of Q1 employment, starting with the aggregate local population level and the mean wage/density of employment in Q1–Q4, but with particular interest in its responsiveness to employment and earnings in the (“money-rich”) top decile, the incidence of (“time-poor”) all-worker households, and the affordability of Q1 employees in terms of hourly wages. Additional influences on the (smaller) traded component are subsumed within the fixed effects, which again deal separately with the northern and southern regions.

These hypotheses were tested, in a series of models reported in Table 4, generally as single equations (estimated with instrumental variables (IV)) but also finally with 3SLS in the context of a full set of quintile wage and employment equations. Of the control variables, there is confirmation (although with varying significance) of the positive effects of (changing) population size and the employment–population ratio for the other four quintiles, but not for their average earnings.

In relation to the variables of direct interest, there is support, if not always with statistical significance, for a stronger positive effect from the employment ratio for the top decile and (more tenuously) from a higher proportion of all-worker households. But

there is no evidence that increased earnings levels within the top decile add to the demand for Q1 employment (see column 1). The strong indication that it is the size of the elite group that matters, rather than its spending power, suggests that it may be the nature of their tastes or lifestyles that boosts the demand for the untraded services supplied by workers in Q1.

For the other key variable, the wage level within Q1 itself, the results consistently support our expectation of a negative relationship, although not quite significant at 5 percent in the base run (column 1), and a bit weaker statistically when we removed the other two wage variables, with insignificant and perversely signed coefficients (column 2). The estimated elasticity (of -0.74) is still strong, however, especially in relation to the commonly reported finding that the NMW did not significantly lower employment in this segment of the market, perhaps because the price effect was offset by new efforts to improve competitiveness in the activities concerned (Metcalf 2008). That finding held up even in the one study that looked at interregional differences (Stewart 2002). But whereas in Stewart's NMW case, the spatial contrast was a broad north-south one (between higher- and lower-cost regions), in our case more localized immigration shocks produced some sharp contrasts in Q1 changes between neighboring regions, both around London and around Yorkshire and the Humber. In these situations, even with nominally "untraded" kinds of services, there might have been spatial switching of demand between nearby areas with significantly widening or narrowing wage differences, particularly if there were established commuting, shopping, or visiting flows between them.

To test this hypothesis, we added spatially lagged Q1 wages to the regression, yielding a positive coefficient, which (although not formally significant) was of a similar scale to the negative coefficient on the own region Q1 wage (column 3). Respecifying the wage variable as a difference from that of neighbors strengthened its significance, although it did not reach the 5 percent threshold on the IV estimates (column 4a), but passed it when the equation was estimated with 3SLS as part of a full quintile system (column 4b). This is our preferred version of the employment equation, with the lowest standard error, a population coefficient with the unit elasticity that could be expected a priori, and the clearest positive relationship with the D10 employment density.⁷

To test the robustness of these results and to derive direct estimates of the impact of migration on Q1 employment, we ran a number of augmented regressions, including both a saturated model (pooling variables from the supply and demand equations for Q1) and a reduced-form Q1 employment equation (see Table 5). The results from the former suggested that migration had no impacts on Q1 employment beyond those mediated by (depressed) Q1 wages and an (increased) regional population. In line with Metcalf's (2008) analyses, however, there is a suggestion that the NMW might have had other (positive) effects on Q1 employment that countered the negative one from increased wage costs (column 1). Allowing the NMW variable to enter the demand equation served only slightly to strengthen the significance of D10 employment (columns 2 and 3).

In the reduced-form equation (columns 4–6), all three estimation methods point to significant effects on Q1 employment from earnings in Q2 (negative in sign, reflecting spillover effects on Q1 wages levels) and from Q1 earnings in the adjacent region (positive, apparently reflecting price competition for locally traded services), as well as from population levels (with elasticities of +1 or a bit lower). Consistent with

⁷ Estimates for the other quintile groups suggest a much weaker (negative) wage effect in Q2 and Q3 (with none in Q4 or Q5) and no effect from D10 employment there (although positive ones again in Q4 and Q5).

Table 5

Additional Regressions of Employment in the Bottom Quintile

	Augmented Demand Equation		Reduced Form			
	Saturated IV	IV	3SLS	OLS	IV	3SLS
Lagged Emp Q1	0.458 (6.3)	0.456 (5.6)	0.452 (6.5)	0.452 (7.9)	0.452 (6.2)	0.470 (8.1)
Wage_Q1	-0.433 (2.1)					
In region	0.581 (1.5)			0.569 (1.4)	0.700 (2.1)	0.590 (2.1)
In neighbors						
Difference from neighbors		-0.731 (1.8)	-0.768 (2.8)			
Pop	0.969 (2.8)	1.042 (2.9)	1.025 (2.7)	1.030 (3.8)	1.043 (4.0)	0.782 (2.3)
EmpDens D10	0.314 (2.3)	0.281 (2.0)	0.419 (2.2)	0.281 (5.0)	0.311 (2.5)	0.340 (1.9)
W _c quintile above	-0.308 (1.4)			-0.547 (2.8)	-0.545 (3.0)	-0.762 (3.2)
IntMig _{t-1}	-0.140 (0.0)			4.590 (1.9)	2.462 (0.9)	4.259 (2.0)
Pot NMW Effect	1.845 (1.0)	2.335 (1.7)	0.734 (0.6)	1.815 (1.5)	1.473 (1.0)	0.357 (0.3)
N	320	320	320	320	320	320
R ²	0.9970	0.9969	0.9967	0.9971	0.9969	0.9970
SE	0.0268	0.0269	0.0230	0.0266	0.0273	0.0222

Sources: as for Table 2.

Notes: See notes 1 and 2 to Table 4. The 3SLS estimates for the reduced form are estimated together with the reduced-form employment equations for the other quintile groups.

Sassen's (1991) thesis, employment in the top cadre of jobs (D10) shows a consistently positive effect (with elasticity estimates of 0.3 in each case, despite varying levels of significance). There is also confirmation of an important effect from in-migration rates, however—over and above that from its impact on population levels. In this case, the coefficients vary quite a bit, with values between 2.5 and 4.6, compared with that of 3.3 implied by our preferred 3SLS estimates for the relevant structural equations. Taking account of different parameter estimates on the lagged dependent variables, the estimated long-run effects are more or less identical—with values of about 8, implying an 8 percent increment in Q1 jobs from a regional inflow equivalent to 1 percent of the resident population—from both the structural and reduced-form 3SLS estimates.

Implications for the London Case 1995–2005

Although this analysis has provided empirical support for both the growing demand for the service class and migration from poor countries as significant positive influences on bottom-tier employment, the time-series evidence reviewed earlier suggests that these influences had unequal relevance for the actual upturn in such jobs that eventually materialized in London during the late 1990s (and partially reversed after 2000). In this context, what was striking was not any clear acceleration in the growth of D10 jobs but, rather, the sharp upturn in immigration, accompanied by a lowering of Q1 wages.

Table 6

Employment and Migration Changes 1995–2000: London Versus the British Regional Average

Employment and Migration Changes	London	Average for British Regions
Bottom quintile: share of all jobs		
1995	16.1%	22.5%
2000	19.4%	22.5%
Percentage change 1995–2000	+20.5%	0.0%
Top decile job: population ratio		
1995	5.21%	2.82%
2000	5.57%	2.97%
Percentage change 1995–2000	+6.9%	+5.3%
Gross international migration: population ratio		
1995	1.57%	0.49%
2000	2.75%	0.68%
Absolute change 1995–2000	+1.18%	0.19%
Population (millions)		
1995	6.91	5.64
2000	7.24	5.72
Percentage change 1995–2000	+4.7%	+1.5%

Sources: as for Table 2

Note: D10 job: population ratios average data for three years (1993–95 and 1998–2000) to smooth out annual response variations.

The relevant indicators of change for the period 1995–2000 are presented in Table 6, comparatively for London and the average region. They show significant growth in D10 employment (by about 7 percent), but only modestly higher than in the average region, whereas international migration in London surged ahead, much faster than elsewhere, contributing to a population growth that was three times faster than nationally. Q1 employment in London appears to have grown by a full 20 percent over these 5 years against zero change nationally. Applying the estimates of the long-run impact from the 3SLS reduced-form equation to the London differentials in growth rates for the independent variables, it appears that about 8 percent of this 20 percent gap in Q1 growth rates could be attributed to London's higher in-migration rate, with a further 2 percent from its faster population growth, against just 1 percent from a proportionately larger increase in D10 jobs. Arithmetically, this is far from a complete accounting. But it is sufficient to show that the upsurge of international immigration (particularly from poor countries) into London over these years is much the more powerful of the two explanatory hypotheses in relation to this unique period of strong growth in bottom-tier jobs within the capital-global city. It is also the only one that could explain the reversal of this growth in the years after 2000, when in-migration abated or was diverted elsewhere.

Conclusions

In the late 1990s, London belatedly displayed the growth in low-paid service jobs that was anticipated a decade earlier by proponents of the global cities hypothesis. But this turned out to be a temporary phenomenon and primarily attributable to an influx of migrants from poor countries, rather than to the demands of a burgeoning global service class.

At its simplest, our findings (from British evidence) that inflows of such migrants into a region tend to push wages down in the lowest-tier jobs and that a cheapening of labor

there can lead to a significant expansion of such jobs seem simply to reflect some elementary economics, with an expanded supply serving to lower prices and thus raise demand. The second part of this diagnosis is, however, at odds with the reported insensitivity of employment in low-paid jobs to significant wage increases engendered by the NMW.

Our results imply a more specific and nuanced process, however, in two respects. First, it is not a simple accumulation of a growing supply of “unskilled” migrant labor that exerts an increasing downward pressure on wages in bottom-tier jobs but, rather, the initial channeling of (potentially skilled) new arrivals from poor countries into these jobs that engenders a temporary downward pressure on wages in that tier. This is why a slowing of the inflow (as in the later 2000s), rather than an actual reversal, was adequate to reduce that pressure. It also helps to explain the localization of impacts within the region of arrival and shifting pay differentials between neighboring regions. In turn, that links with the second significant finding, namely, that pay differentials of this kind between neighbors are capable of inducing significant spatial switches in the demand for personal services that are locally tradable (e.g., through the mobility of customers)—even where a shared change in wage levels does not affect the overall demand for these services.

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Our basic conclusion for the London case—that the (real) boost to the demands for personal services from an expanding professional elite (partly linked to global activities) would not have outweighed the negative influences on bottom-tier employment of rising wage costs and domestic out-migration without the arrival of new waves of in-migrants from poor countries—raises interesting comparative questions in relation to the experience of other international cities to which the global city thesis has been applied, although often challenged. These questions include how far migration into New York City during the 1980s was the cause or consequence of the upsurge in poorly paid service jobs that Sassen (1991) reported there. In the particular London context, there are also important follow-up questions to be explored about the contribution of depressed wages in this tier of its labor market from the late 1990s to an observable upturn in voluntary worklessness⁸, in the years prior to the financial crisis (Gordon et al. 2009).

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⁸ Although caused by unchosen circumstances, this (precrisis) increase in London may be seen as largely “voluntary” on two related grounds: in terms of its concentration (according to the LFS) among people who were not actively seeking work and (in many cases) reported not wanting it and of the lowered earnings in relevant kinds of (entry-level) work, which are quite likely to have fallen below the reservation wage for many.

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