



Resolution Foundation

BRIEFING

Moving Matters

Housing costs and labour market mobility

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June 2019

Acknowledgements

The author would like to thank the Nuffield Foundation for funding this work and especially Alex Beer for her comments throughout the process. Richard O'Donnell, Robert Owens, Chihuro Udagawa and Chris Donaldson very generously shared rental data, without which much of the analysis in this note would not have been possible. Colleagues Laura Gardiner, Stephen Clarke and Dan Tomlinson provided invaluable research guidance and support alongside the project advisory board's useful steers. All errors, of course, remain the author's own.

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Summary

Making a move – to a new job, a new home or both – can be born of many things. It can be entirely positive – a response to a promotion, perhaps, or a happy change in personal circumstances. But equally, such moves can have more negative motivations – leaving an area because it is hard to find employment there, for example, or because housing costs are a burden. It is this complex topic of residential *and* job mobility that is the subject of this briefing note.

The received wisdom is that living standards gaps between different parts of the UK have widened over time, with opportunities largely found in cities or in the South. In fact, when it comes to moving for work across areas, we show that as a nation the rate at which we take up a new opportunity *and* change residence has fallen over time. This is especially true for younger age groups - a surprise finding given that young people are more likely to be graduates, non-UK born and private renters than in the past, changes that should have *increased* rather than decreased moves made for work.

So what can explain the fall in job-plus-home mobility we observe? While changing preferences may play a role, we focus on three possible economic explanations. First, we show that the ‘push’ of a lack of employment has diminished over time. While it would be wrong to say that weak local labour markets are a thing of the past, the variation between the employment rates observed across local authorities has reduced over time. Put another way, it is easier to find at least some type of work in the vast majority of local authorities today than it was two decades ago.

Second, we explore whether the ‘pull’ of more buoyant areas has fallen apace: if the gap between earnings across local authorities has widened over time, the benefits to moving to better paying areas will have grown too. Again, however, we show this has not been the case. While the earnings uplift of moving local authority is often still very considerable, the difference in the average ‘wage premium’ achieved as a result of such a move has fallen since the turn of the century.

Third, we consider whether changing housing costs have acted as a headwind or tailwind when it comes to moving area for work. We find the propensity of young private renters to move home and job has fallen by two-thirds between 1997 and 2018, and suggest that this partly reflects the fact that private rents have risen consistently faster in higher-paying areas of England. Rents have risen by almost 90 per cent in the highest-paying 30 per cent of local authorities over the past 20 years, compared to just over 70 per cent among the 30 per cent lowest paying places. As a result, not only has the earnings boost of moving to a more productive area diminished as a result of closing wage differentials; so, too, has the broader living standards uplift once housing costs are taken into account.

Moreover, we find a similar picture when we consider owners, with house prices growing four times as fast as wages in the 10 per cent of local authorities with the highest earnings

over the past 20 years, compared to less than three times as fast in the bottom decile. Not only does this increase in price relative to other areas reduce the incentives to move in terms of the impact on ongoing housing costs; the widening absolute gap between earnings and house prices will effectively lock out those without substantial amounts of equity or savings from moving to a more productive area.

Small wonder, then, that job-plus-residence mobility rates have fallen over time, and that a larger share of those changing address are relocating to lower-housing-cost areas than in the past. We note that 41 per cent of cross-local authority moves were to lower-rent areas in 2002-03 compared to 47 per cent in 2017-18. For those that do continue to move, this outcome has two implications for living standards. First, if such movers take a new job in the same area as their new home, they forgo the pay premium of the more productive area of origin. But equally, continuing in an existing role is likely to entail a longer commute. Indeed, we find that commuting times have been on the rise – the average travel-to-work time for 25-34 year olds increasing from 25 minutes in 1996 to 32 minutes in 2017, for example – meaning higher costs in terms of both time and money.

With the evidence showing that efficiently matching with job opportunities is especially important for young people at the beginning of their working lives, the intergenerational implications of this briefing note are clear. While two of the reasons we identify that potentially explain the fall in job-plus-residence moves can be viewed as positive, our findings about the way that rising housing costs are determining the behaviour of younger renters in particular is a real cause for concern.

All age groups are moving jobs less frequently than before, but the fall for young people is especially pronounced

Moving matters for living standards. While many receive a pay rise as their time in, and mastery of, a role grows, the evidence is clear that the real boosts to earnings are achieved by moving jobs. Critically, taking a new post in a different firm has a larger pay uplift than simply being promoted within the same organisation,^[1] and moving to denser, more productive areas comes with an even bigger pay premium.^[2] We know that job mobility is especially important at the start of one's working life, when progression depends on testing out new roles and developing new skills.^[3] Moreover, an agile workforce is generally viewed as good not just for the individuals concerned, but also for the economy as workers 'match' more efficiently with business requirements.^[4]

Figure 1, then, should give us all pause for thought. As this makes clear, the share of those currently in employment starting a new job over a year has fallen over the last two decades, from around one-in-ten in 1996 to one-in-seventeen by 2018.^[5] Even more worryingly, young people have seen the sharpest decline: their job entry rate has fallen by one-quarter over the period, belying the idea that they are all working more nimbly than

[1] See, for example: S Clarke, *The RF Earnings Outlook Q4 2017*, Resolution Foundation, March 2018

[2] E Moretti, *The New Geography of Jobs*, Houghton Mifflin Harcourt, 2012

[3] L Gardiner & P Gregg, *Study, Work, Progress, Repeat? How and why pay and progression outcomes have differed across cohorts*, Resolution Foundation, February 2017

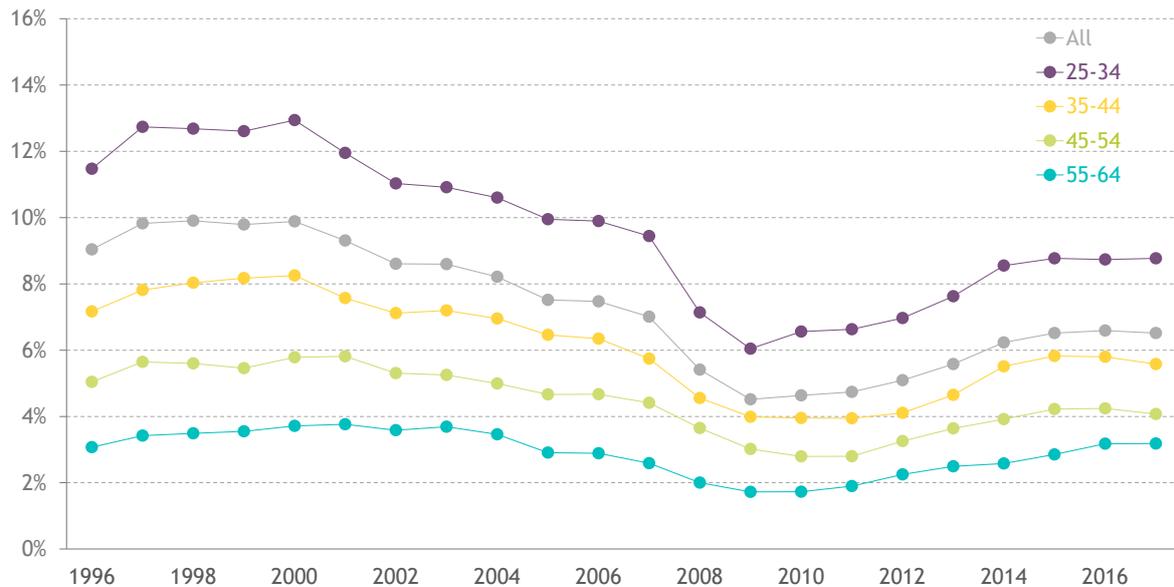
[4] A Haldane, *The UK's productivity problem: hub no spokes*, Speech given at Academy of Social Sciences Annual Lecture, London, June 2018

[5] While previous Resolution Foundation research has explored voluntary (i.e. following a resignation) job-to-job mobility, here we expand our measure slightly to include all job-to-job moves, and also those entering work from unemployment, inactivity or study.

previous generations or ‘gigging’. In fact, while four times as many 25-34 year olds started a new job as their 55-64 year old peers in 1996, today they are little more than twice as likely to start a new job as older workers.

Figure 1: Young people’s job entry has fallen especially steeply over time

Proportion of working population starting a new job in year, by age group: UK



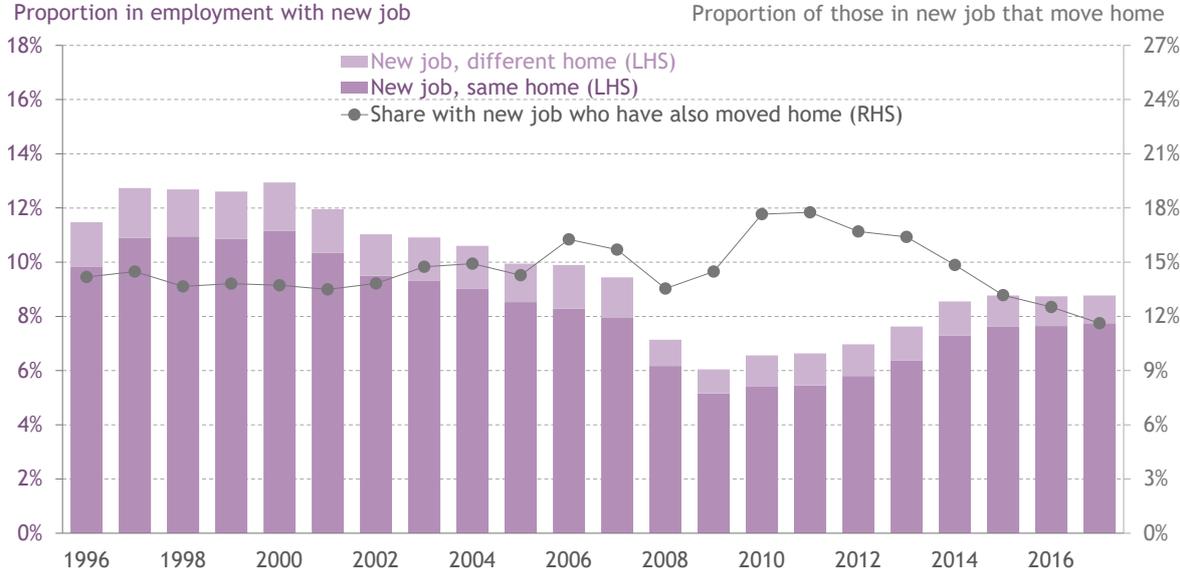
Notes: Job entry indicates those moving from one job to another, and those moving into work from unemployment, inactivity or study. Excludes full-time students.
Source: RF analysis of ONS, *Labour Force Survey*

So what could lie behind this picture? We begin our exploration of this question with Figure 2, which identifies not just the share of young people beginning a new job each year but also those who changed address at the same point. Three things are worthy of note. First, the vast majority of job moves do not coincide with a change of address, indicating how localised labour markets are, even for this most mobile segment of the population.^[6] Second, job and home moves appear more resistant to the economic cycle than job moves alone. But third, it is clear that young people today move home and work less than they did in the past, not just in absolute terms (the rate of such moves has fallen by a third) but also relative to overall job entry rates. In 1996-97, for example, 15 per cent of all job entries made by 25-34 year olds involved a change of address; by 2017-18, that figure had fallen to 12 per cent.

[6] See: A Manning & B Petrongolo, ‘How Local Are Labor Markets? Evidence from a Spatial Job Search Model’, *American Economic Review*, 107(10), October 2017

Figure 2: Young people moving job and home has fallen by one-third in the last 20 years

Proportion of working 25-34 year olds changing job and residence in year (two-year rolling average): UK

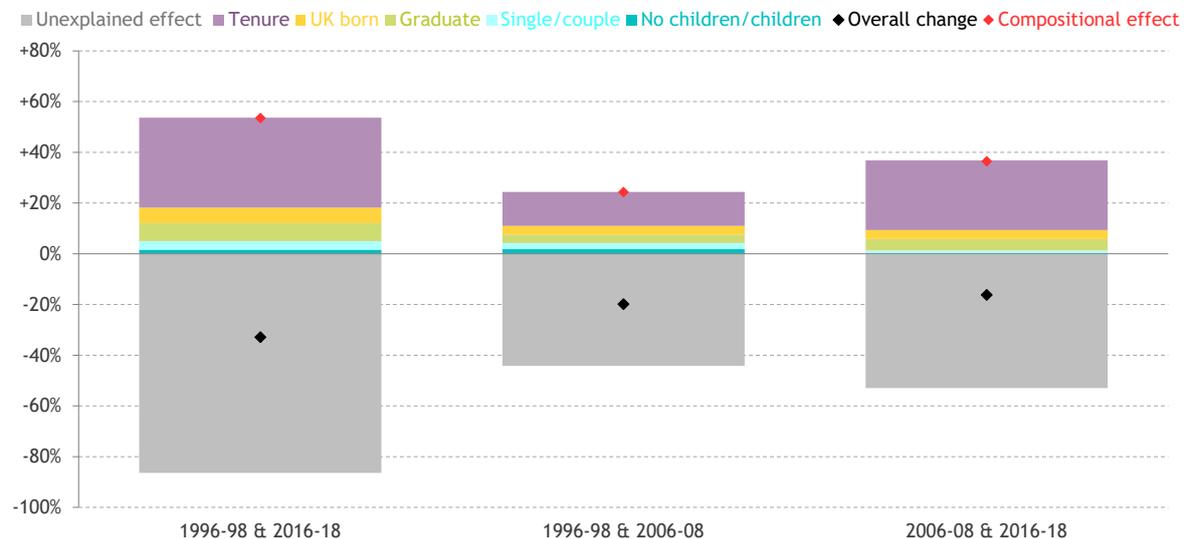


Notes: Job entry indicates those moving from one job to another, and those moving into work from unemployment, inactivity or study. Excludes full-time students. Year indicates latest year e.g.1997=1996-97.
 Source: RF analysis of ONS, *Labour Force Survey*

While this change is not dramatic, it is surprising given the way that the composition of the population has changed over this period. To begin, young people today are more highly educated than their counterparts two decades ago; they are more likely to have been born outside the UK; they couple and have children later than they did in the past; and critically, they are much more likely to live in the private-rented sector than their predecessors. We explore the way each of these factors should have affected mobility rates in Figure 3, which presents the results of a decomposition exercise. Looking at the period 1996-2018 as a whole, we can see that such population change should have served to drive up the share of young people switching jobs *and* homes today: in fact, all else being equal, such moves should have increased by 50 per cent, rather than falling by one-third. Moreover, splitting this out pre- and post-crisis shows that compositional change should have acted to increase job-plus-residence moves in both periods, but the upward effect of tenure in particular should have been stronger in recent years.

Figure 3: Compositional change means more young people should be moving jobs and homes today

Compositional effects on average change in job-plus-residence mobility rates of those aged 25-39, various time periods: UK



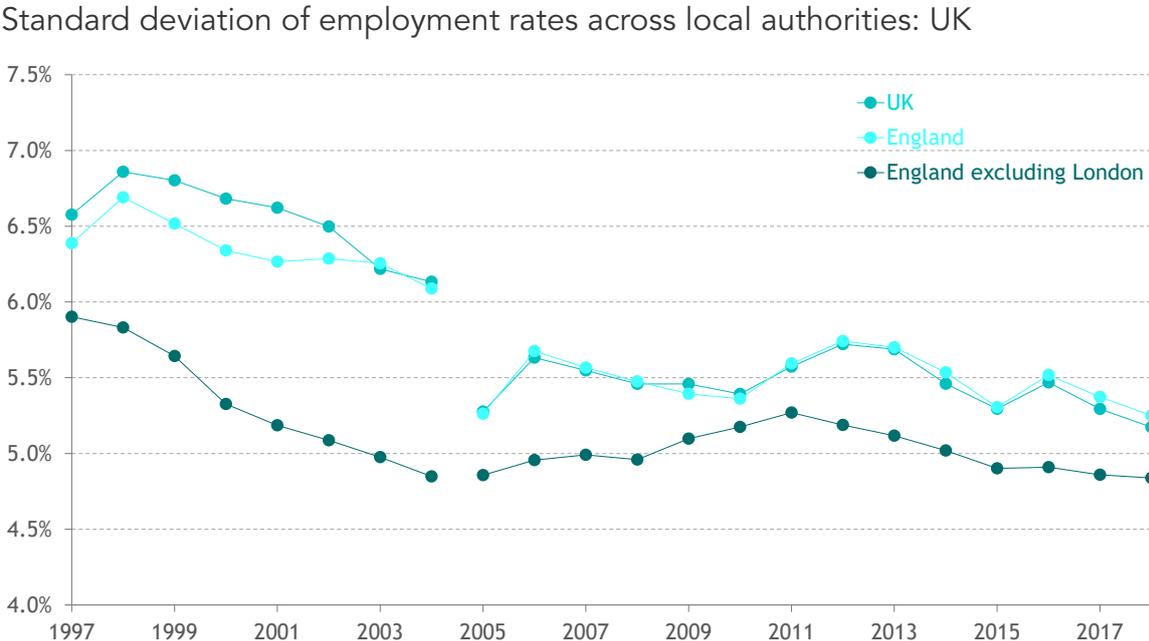
Notes: Age range used here is 25-39 to increase sample size, therefore overall change does not match previous chart precisely. To calculate compositional effects, we estimate a regression equation to determine the new-job-plus-home mark-up for various characteristics, including a quarterly time dummy to capture time-specific effects. We then calculate the effects of compositional changes for the group concerned by applying the estimated coefficients to the profile of personal characteristics in each time period. In other words, we apply the new-job-plus-home mark-ups to the population mix to assess whether compositional changes are predicted to result in rising or falling levels of mobility, controlling for time-specific effects. Finally, we compare the estimated compositional effects to actual change in mobility to derive the relative contribution of 'within group' effects and compositional effects.
Source: RF analysis of ONS, *Labour Force Survey*

The employment gap between areas has shrunk, reducing the 'push' to leave

This presents us with an intriguing question: what sits behind the large, unexplained effect that has served to drive down the share of younger people moving work and home over the last two decades? Many years ago, the then employment minister Norman Tebbit famously suggested that those in areas with high unemployment 'get on their bike' and move to places with a more buoyant labour market. Are young people today even more resistant than they were then to do just this?

In fact, as Figure 4 shows, there is simply less need to make a job-plus-residence move today than there was in the 1990s because of unemployment. When we look at the variation of employment rates across local authorities we note that this has fallen over time, meaning that the 'push' to leave an area has diminished. While it would be wrong to think that 'left behind' areas are entirely a thing of the past, Figure 4 suggests that it is easier to find at least some type of work in one's local authority than it was in the 1990s.

Figure 4: It is easier today to find work in one’s home area, reducing the ‘push’ to move



Source: ONS, Local area Labour Force Survey (1997-2003); ONS, Annual Population Survey (2005-18)

However, it is also plausible that the types of jobs available in higher-earning local authorities have changed over time so that they increasingly do not ‘fit’ the skills of those who are keen to move from less productive areas? Trends of this type have been identified in the US and advanced as a major reason why mobility rates have fallen sharply there in recent decades. We explore whether this also looks to be the case in the UK in Box 1, finding little evidence to support the theory.

i Box 1: Exploring occupational differences across areas

Work from the US identifies a number of important structural changes to the labour market that arguably explain the (sharp) fall in residential mobility witnessed there.^[7] In 1980 and even in 2000, mid-skilled jobs were more prevalent in higher-productivity, higher-earning urban areas (alongside the highest-skilled jobs often done by graduates), whereas the lowest-skilled jobs were most prevalent in lower-productivity, rural areas. However, those gradients no longer existed in 2015, with both low- and mid-skilled employment shares similar across rural (lower-paid) and urban (higher-paid) areas. This change had eroded to a significant degree the steep urban wage premium that existed for non-graduate workers in earlier decades, thus explaining the declining residential mobility rate for this group. So are similar trends also observed in

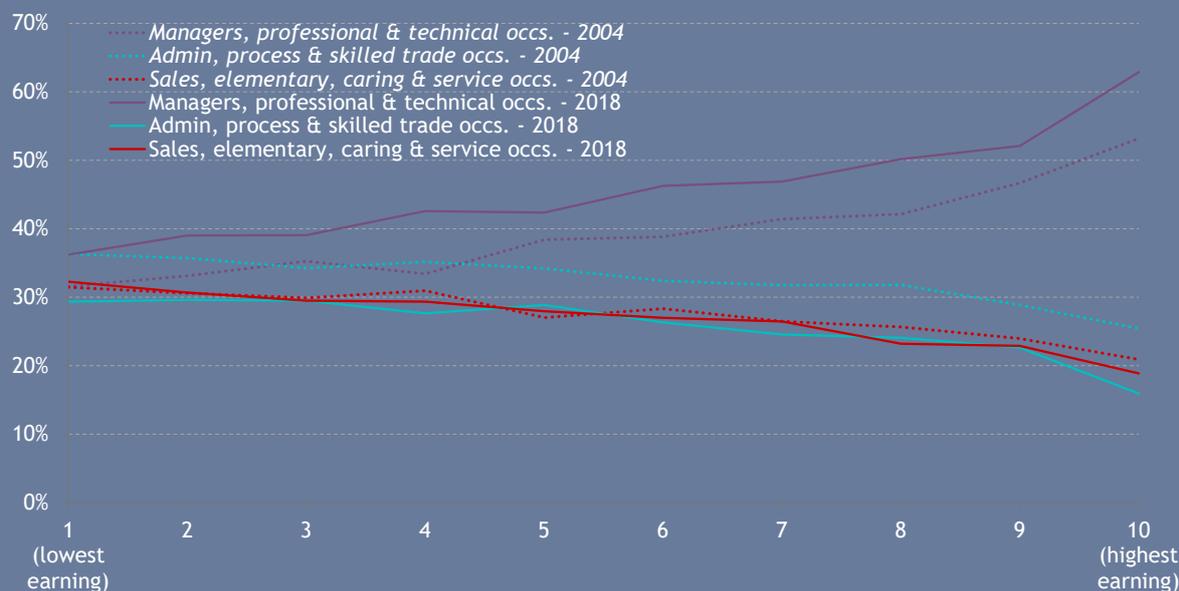
[7] D Autor, *Work of the past, work of the future*, Richard T. Ely Lecture American Economic Association: Papers and Proceeding, May 2019

the UK? In Figure 5 we bring the major occupation classes together into three groups based on their typical wages, and chart their employment shares across local authority earnings deciles in both 2004 and 2018 (this earnings rank of local authorities can be seen as equivalent to the distinction between lower-productivity, rural areas and higher-productivity, urban areas in the US). The rise in the highest-skilled occupations and fall in mid-skilled occupations over this 14 year period is clear, echoing previous work on changing occupational structures in the UK.^[8]

But beyond this shift, and in contrast to findings from the US, there is little evidence that the between-local-authority gradients in occupational employment shares have changed at any skill level.^[9] The lack of change in this occupational pattern across local authorities, when ranked by earnings level, suggests that changing occupational structures have done little to change the ‘pull’ factor with regards moving for work over the course of the 21st century in the UK.

Figure 5: The distribution of higher- and lower-skilled jobs between higher- and lower-earning areas has changed relatively little over the past 14 years

Share of employment in area by occupational class, by local authority earnings



Notes: Earnings used are weekly residence-based.

Source: RF analysis of ONS, *Annual Survey of Hours and Earnings*; ONS, *Annual Population Survey*

[8] S Clarke & N Cominetti, *Setting the record straight: How record employment has changed the UK*, Resolution Foundation January 2019

[9] Another differences between findings from the US and the UK is that, in both time periods, mid-skilled occupations in the UK are slightly less prevalent in the highest-earning local authorities than in the lowest-earning ones. This pattern is likely to reflect both differences in occupational classification systems and differences in labour market fundamentals between the two countries.

Finally, studies posit that the fall in mobility in the US is also a function of highly educated young people making the move for college, but then staying in the high-productivity areas where they graduate. The latest evidence in the UK suggests that while university cities do retain some graduates, the

majority of young people educated to this level do move on and there is a high degree of graduate churn, with moves from other cities to London particularly important.^[10] While further study of this subject would be valuable, it appears that the graduate labour market is far more integrated in the UK than the US.

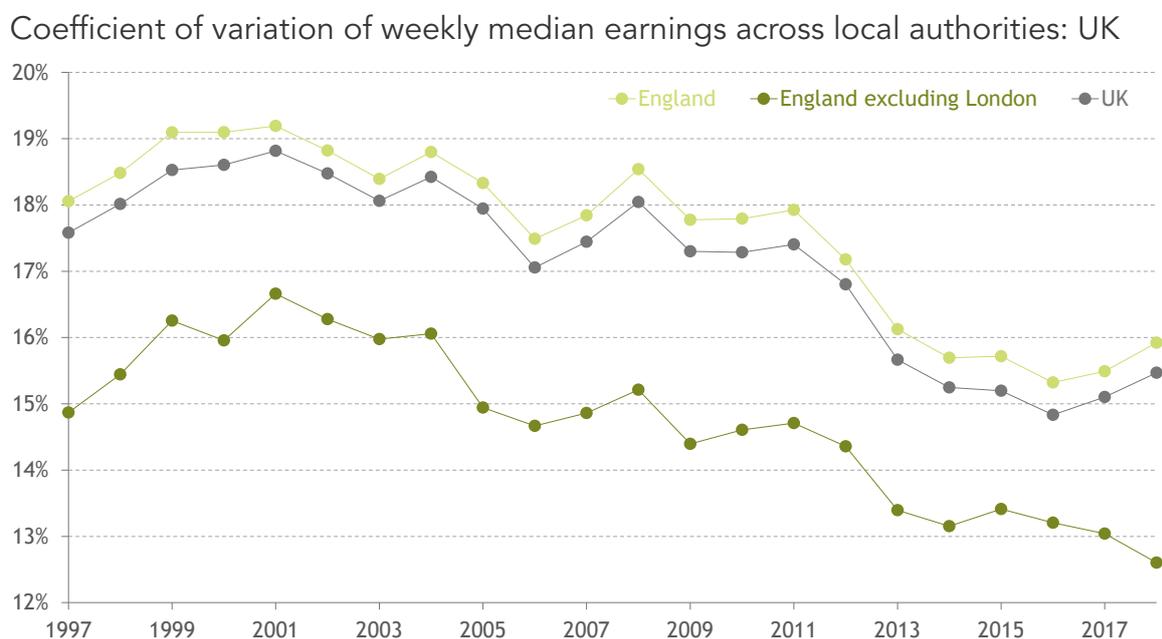
The wage 'pull' of more productive areas has also weakened over the last 20 years

If the 'push' of a lack of employment to move across local authorities has diminished over time, has the wage 'pull' from areas with better paid jobs attenuated in much the same way? In Figure 6 we show this has indeed been the case, with the variation in earnings levels observed at the local authority level falling over the period. That is not to say the pay premium of moving to a more buoyant area is no longer substantial – average weekly pay was 62 per cent higher in UK local authorities in the top earnings decile in 2018 compared to that in the bottom pay decile. But this 'productive area premium' has fallen over time: in 1997, the higher-paying areas offered an average weekly wage 80 per cent larger than the lowest-paying local authorities.

It is plausible that some of the closure of this weekly earnings gap could be accounted for by a narrowing not of pay but hours differentials between local authorities. However, when we repeat the exercise looking at hourly rather than weekly earnings this finding is even stronger: the hourly earnings 'productive-areas premium' – the ratio of the top decile of local authorities to the bottom – was 81 per cent in 1997 compared to 54 per today. This is likely to be at least in part related to the introduction of the National Minimum Wage and more recently the National Living Wage, and 'spillover' effects associated with these.

[10] P Swinney and M Williams, *The Great British brain drain*, Centre for Cities November 2016

Figure 6: The gap in earnings levels between local authorities has closed over time, reducing the 'pull' to move



Notes: The coefficient of variation is the ratio of the standard deviation of a set of data to its mean. Earnings used are weekly residence-based.

Source: RF analysis of ONS, *Annual Survey of Hours and Earnings*

The propensity of young private renters to move jobs and homes has dropped dramatically

So far we have identified two positive economic reasons why young people’s propensity to move both jobs and homes has fallen over time. But could there be something less benign at work which has also changed the incentives to up sticks and move to a more productive part of the country? In Figure 3 we noted that tenure change especially should have acted to increase the rates at which young people relocate for work. Given this, we now turn our attention to how housing tenure affects job-plus-residence mobility rates.

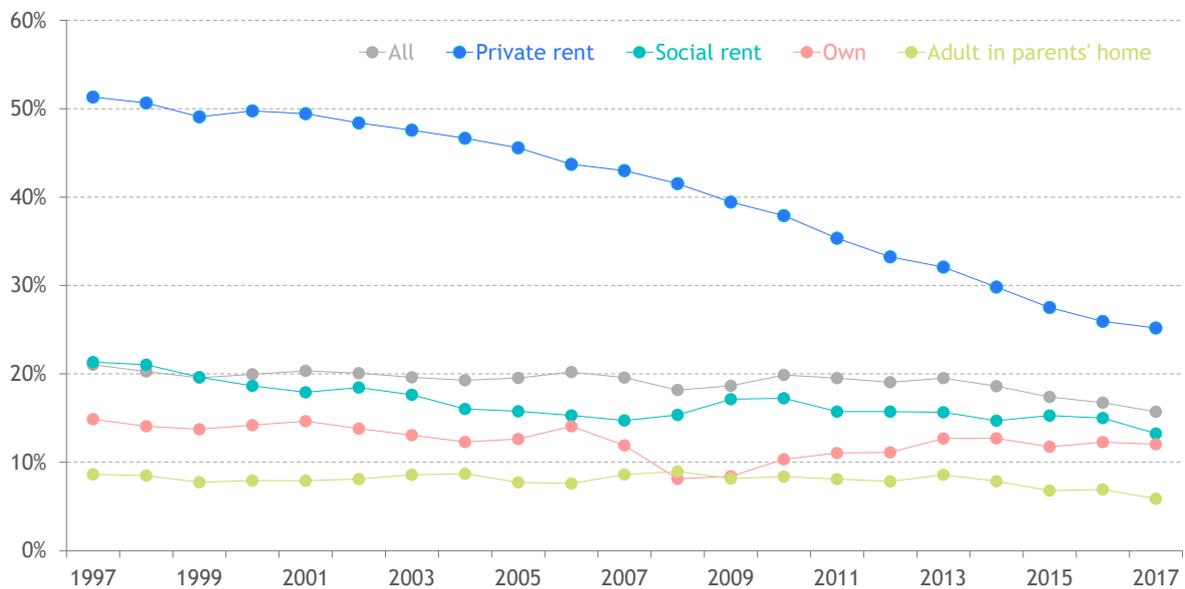
To date, the academic literature exploring the housing-mobility interface has singled out either the low rates of movement by social renters or the effect that high levels of home ownership has on mobility.^[11] Likewise, policy makers have largely concerned themselves with ‘getting the housing market moving’ to facilitate the home ownership of young people.^[12] But as Figure 7 shows plainly, when we look at residential mobility by tenure, it is young private renters who have experienced the steepest drop in rates. While those living in the private-rented sector (PRS) are still more likely to move home than owners or social renters, their propensity to do so has fallen by more than half in the last two decades, from 53 per cent in 1996 to just 25 per cent in 2018.

[11] See, for example: Y Cho & C Whitehead, *‘The immobility of social tenants: is it true? Does it matter?’*, *Journal of Housing and Built Environment*, 28(4), March 2013; D Blanchflower, *Not working: where have all the good jobs gone?*, Princeton University Press, January 2019

[12] George Osborne’s announcement at Autumn Statement 2014 of reforms to stamp duty is a good case in point.

Figure 7: Private renting is still associated with higher residential mobility rates than other tenures, but this has fallen sharply over time

Proportion of 25-34 year olds moving home in year, by tenure (two-year rolling average): UK



Notes: Year indicates latest year, e.g. 1997=1996-97. Adults in parents' home includes full-time students. Tenure indicates that in which adult currently lives.

Source: RF analysis of ONS, *Labour Force Survey*

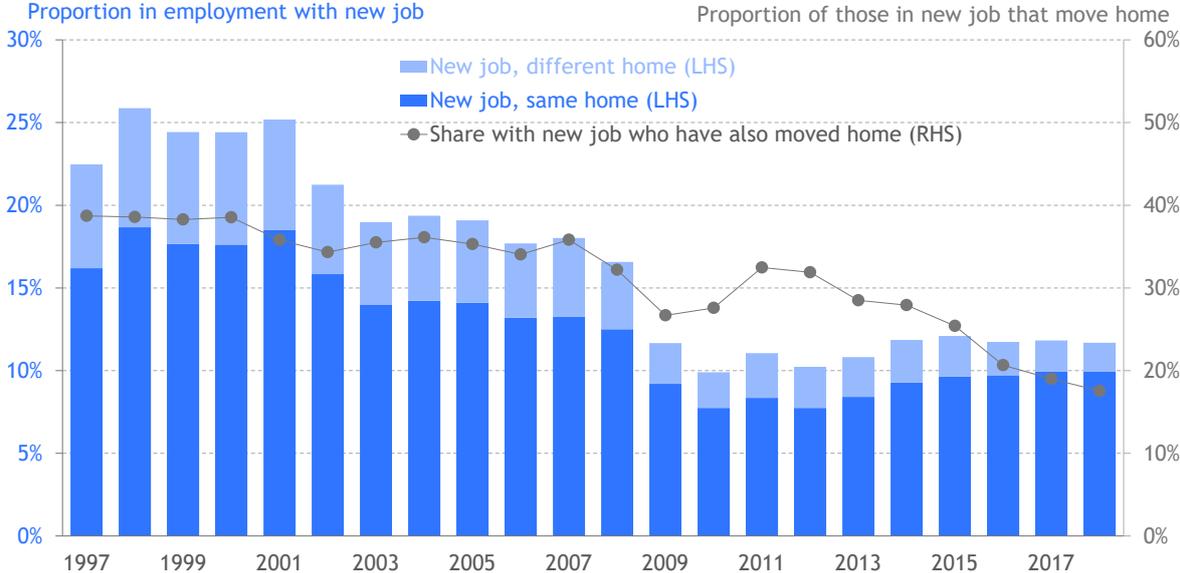
This finding is very much at odds with the received view of PRS. Although private renting has the lowest level of security, the highest level of unaffordability and the poorest quality of any tenure, its redeeming feature is generally thought to be its nimbleness. Compared to home ownership, the transaction costs a private renter encounters when moving are low (and recent government action to protect deposits from unscrupulous landlords and ban agency fees will have reduced them still further).^[13] Likewise, private renters clearly have far more agency when it comes to choosing where to live than those in the social sector.

In theory, then, the PRS should afford tenants the flexibility to move for work more easily, thereby allowing them to match efficiently in the labour market and maximise their earnings. Yet when we brings jobs back into the picture, as we do in Figure 8 (which is the same as Figure 2 but restricted to private renters only), it is striking that the likelihood that young private renters change both their job and residence has fallen not just in absolute terms but also relative to the overall mobility rate over time. Whereas in 1996-97 close to two-in-five young private renters starting a new job moved house, today that figure has fallen to below one-in-five.

[13] See, for example, the Tenants Fees Act 2019, which bars agents and landlords from requiring unreasonable fees for items such as credit checks, inventories or the drafting of leases.

Figure 8: Young private renters are only one-third as likely to switch jobs and homes as they were 20 years ago

Proportion of 25-34 year olds renting privately changing residence and jobs over a year (two-year rolling averages): UK



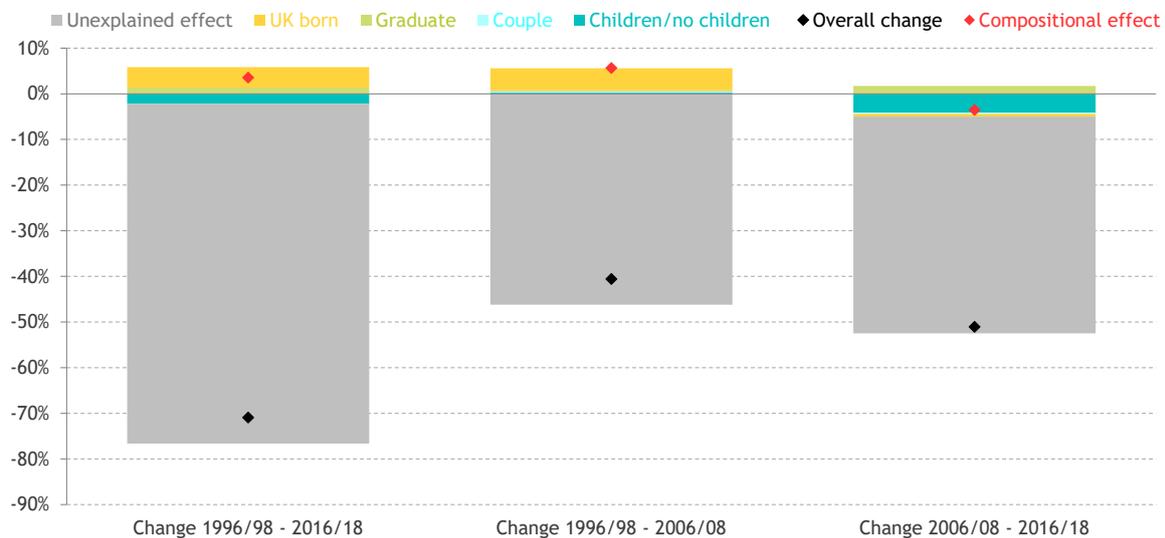
Note: Job entry indicates those moving from one job to another, and those moving into work from unemployment, inactivity or study. Excludes full-time students. Year indicates latest year e.g.1997=1996-97.
 Source: RF analysis of ONS, Labour Force Survey

Again, we should be alert to the changing characteristics of younger private renters over the period. Young people today are more likely to be renting privately later in life because they have yet to be able to buy a home (or access social housing). As a result, it is far more common for such private renters to be in couples or to have children than it was in the past, both factors which would naturally lower the rates of mobility. So could it simply be composition that has dragged down the job-plus-residence moves of younger private renters today?

Figure 9 tells us that the answer to this question is an unequivocal ‘no’. Looking at the period up to the financial crisis (1996-2008), and repeating the decomposition regression approach shown in Figure 3, we find that changes in the make-up of the young private-rented population – especially the presence of more migrants in the group - should have increased job-plus-residence mobility. While it is true that in the latter part of the period (2008-18) the growing number of private renters with dependent children has placed downward pressure on mobility rates, the effect of this change is very small. As a result, over the entire period 1996-2018, compositional change should have served to drive up the mobility of younger private renters by around 5 per cent, as opposed to the significant fall we actually observe.

Figure 9: Compositional changes explain only a tiny part of the fall in the mobility of young private renters, and only in the post-crisis period

Compositional effects on average change in job-plus-residence mobility rates of private renters aged 25-39, various time periods: UK



Notes: Age range used here is 25-39 to increase sample size, therefore overall change does not match previous chart precisely. To calculate compositional effects, we estimate a regression equation to determine the new-job-plus-home mark-up for various characteristics, including a quarterly time dummy to capture time-specific effects. We then calculate the effects of compositional changes for the group concerned by applying the estimated coefficients to the profile of personal characteristics in each time period. In other words, we apply the new-job-plus-home mark-ups to the population mix to assess whether compositional changes are predicted to result in rising or falling levels of mobility, controlling for time-specific effects. Finally, we compare the estimated compositional effects to actual change in mobility to derive the relative contribution of 'within group' effects and compositional effects.
Source: RF analysis of ONS, *Labour Force Survey*

Faster rents growth in more productive areas is acting as a deterrent to labour market mobility

Once again, we are left with the question as to what lies behind this fall in the propensity of young private renters to move for both jobs and homes over the last 20 years? Work from the US has shown that while there are higher earnings to be found in more productive states, the returns to moving to these better-paying areas have diminished since the mid-1990s because higher housing costs have absorbed much more of the gain.^[14] Is it possible that the same dynamic explains (at least in part) the significant decline in job-plus-residence mobility rates (especially of young people) in the UK?

Exploring this question means facing some genuine data constraints. While the Annual Survey of Hours and Earnings provides earnings information at the local authority level (which, while not always an exact match, is the most reasonable proxy we currently have for local labour markets), the lack of an official time series for private rents at a sub-regional level – or further back than 2005 - is a problem. However, by bringing together

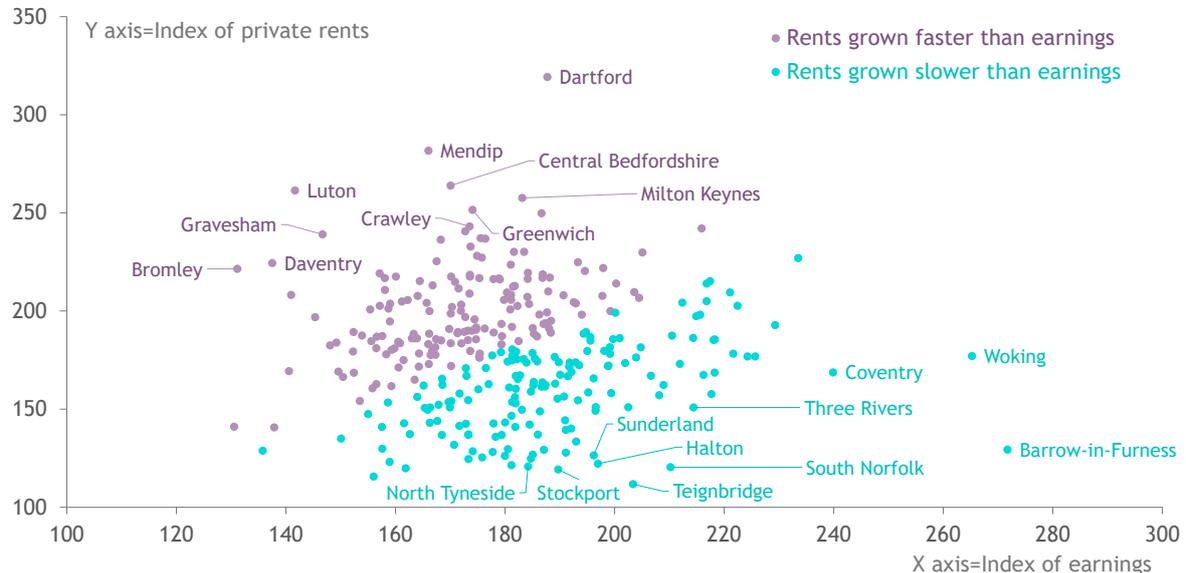
[14] P Ganong & D Shoag, 'Why Has Regional Income Convergence in the U.S. Declined?', *Journal of Urban Economics*, 102, 2017

data from Hometrack (2014-18), information on median rents used to set the Local Housing Allowance (2008-11) and Rent Officer data on the private rent mid-point (1996-2006), we produce a consistent average private rent series for the period.^[15]

When we set our rental and earnings data side by side we can see that their respective rates of change at the local authority level over the last two decades have been very mixed.^[16] Whereas we would expect private rents to rise broadly in line with earnings across the board, as Figure 10 illustrates, no such relationship observed (the R-squared of this series is non-existent). In fact, rents growth outstripped earnings growth in 165 out of 324 English local authorities over the period, but grew at a slower rate in almost the same number of areas. Interestingly, those areas where rents have outperformed earnings are not always the usual suspects: when we look at the top 10 areas, only one (Greenwich) is within Inner London and one other (Bromley) on the outskirts of the capital. Likewise, a look at top 10 areas where earnings have outstripped rents also has its surprises, such as Coventry and Woking.

Figure 10: Rents have grown faster than earnings in just over half of English local authorities in the last 20 years

Index of local authority earnings and private rents (1997=100): England, 1997-2018



Notes: Earnings used are weekly residence-based.
Source: RF analysis of ONS, *Annual Survey of Hours and Earnings*; Resolution Foundation private rents data series

The conclusion from Figure 10, then, is that it does not appear that the areas where rents have grown fastest are also the areas where earnings have grown fastest. Had this been the case it would imply little rent-related change in the relative ‘pull’ factor associated with moving to a different area for work, over and above the reduced cross-local authority earnings variation discussed above.

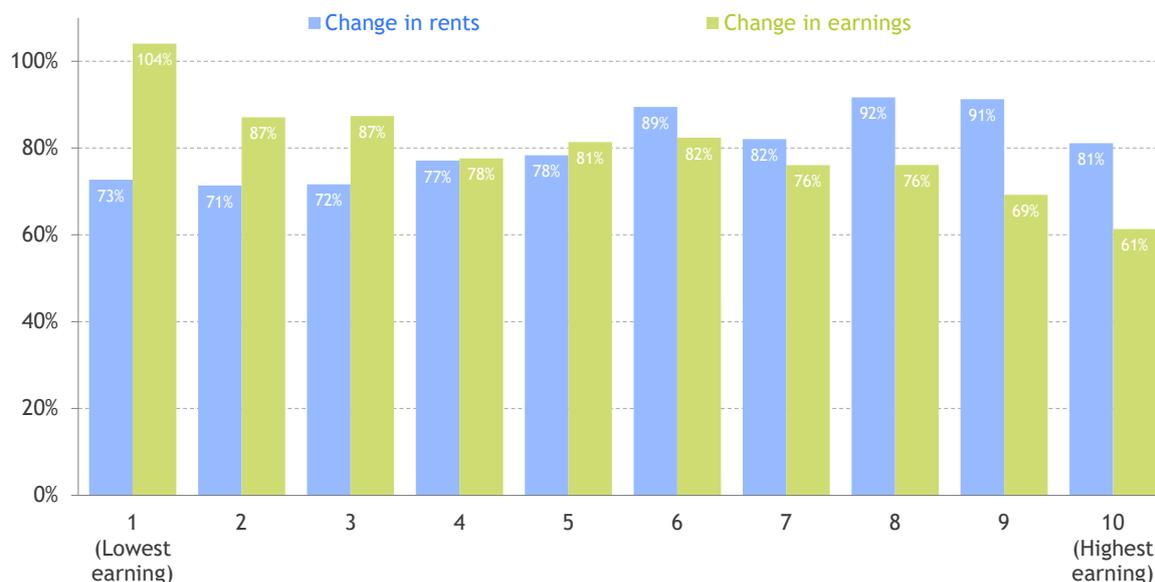
[15] See Annex for details of methodology.
[16] Due to data limitations the rents and earnings analysis in the following sections is England only.

So is there anything that does shed more light on this very mixed picture of the rates of change in rents and earnings across local areas over the past couple of decades? And does it tell us anything about the propensity to move for a job?

When we look in more detail at the local authorities which have witnessed faster rent than earnings growth, however, an interesting pattern emerges. In Figure 11 we show how private rents and earnings have changed in the 10 per cent of areas with the lowest earnings levels in 1997 (the 1st decile) up to the 10 per cent with the highest earnings levels (the 10th decile). This makes clear the point implied by Figure 6 above: reduced earnings variation between local authorities has resulted from earnings growth being strongest in those areas with the lowest starting earnings levels. As a result, median earnings have grown faster than average rents in the bottom half of areas, making them relatively more attractive today than in the past, from a living standards perspective. Conversely, rents have outstripped earnings in areas with higher pay levels, meaning the living standards premium attached to moving to such areas has diminished over time.

Figure 11: While earnings have grown faster than rents in lower-earning areas, they have lagged behind in more productive local authorities

Change in median private rents and earnings growth, by 1997 local authority earnings decile: England, 1997-2018



Notes: Earnings used are weekly residence-based.
Source: RF analysis of ONS, *Annual Survey of Hours and Earnings*; Resolution Foundation private rents data series

To illustrate the point, in Table 1 we set out the living standards gain from a range of hypothetical moves in 1997 and in 2018.^[17] A mover relocating from a local authority in earnings decile 3 (such as East Devon or Liverpool) to one in earnings decile 5 (for

[17] One obvious shortcoming of this exercise is that it takes no account of housing benefit, which could potentially underwrite a move to a higher-rent area. However, the evidence is clear that those in the lowest earnings brackets are the least mobile (see, for example: P Gregg, S Machin & A Manning, 'Mobility and Joblessness' in C Blundell & R Freeman (eds.), *Seeking a Premier League Economy*, University of Chicago Press, 2004. Here, then, we make the assumption that those who move areas are not eligible for housing support.

example, Bristol or Knowsley), would have seen their earnings after housing costs rise by 16 per cent in 1997, compared to just 1 per cent today. Likewise, a move from a mid-earning area such as Peterborough or Slough (decile 5) to a higher-earning area like Basildon or Basingstoke (decile 8), would have boosted living standards by 8 per cent in 1997, but just 5 per cent in 2018. Finally, a more far-flung move from an area in earnings decile 3 (such as Stoke-on-Trent or Sandwell) to decile 9 (say, Croydon or Hounslow), would have boosted average after-housing-costs earnings by 26 per cent in 1997; today it would leave such a mover 3 per cent worse off.

Table 1: The living standards gain of moving to higher-earning areas has diminished over time

Hypothetical increase in disposable earnings (median earnings less median rent) as a result of moving local authority: England

Uplift in after-housing-costs earnings if moving 1... in 1997 ... in 2018		
Area in earnings decile 1 to decile 3	26%	18%
Area in earnings decile 2 to decile 4	12%	8%
Area in earnings decile 3 to decile 5	16%	1%
Area in earnings decile 5 to decile 8	8%	4%
Area in earnings decile 3 to decile 9	26%	-3%

Source: RF analysis of ONS, *Annual Survey of Hours and Earnings*; Resolution Foundation private rents data series

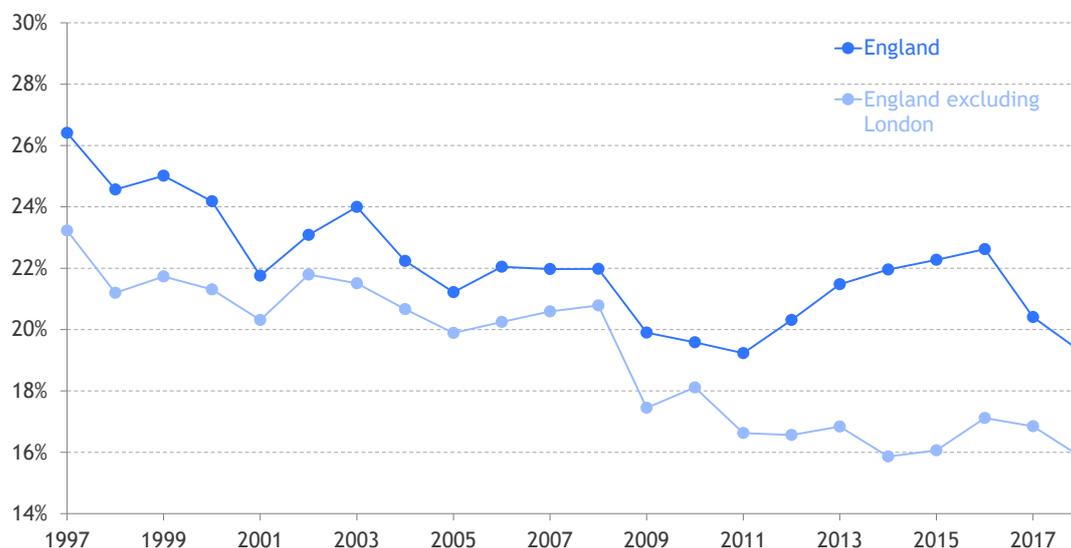
That is not to say that such a pattern would necessarily be observed across the distribution: rents at the bottom end of the market will be especially sensitive to housing benefit changes for example, while earnings at the lower end will be affected by the wage floor. But while research beyond the scope of this paper is required to investigate if the trend we note here holds beyond the average, or for the rents and earnings levels actually observed in the population, we can confidently say that at the mid-point in the earnings and rents distribution, the living standards gain to moving to more productive areas has fallen over time.

The living standards impact of rising housing costs

Put another way, the difference in after-housing-costs earnings across local authorities is smaller today than it was two decades ago, thereby reducing the incentive for private renters to move. We confirm this conclusion formally in Figure 12, which shows the coefficient of variation between local authorities' after-housing-costs earnings, with a higher value indicating larger variation in our constructed metric of after-housing-costs earnings between local authorities in the year in question. Moreover, the downward trend is still observed when we remove London from the picture, indicating that it is not just the capital's well-documented housing affordability problems which are driving this conclusion.

Figure 12: After-housing-costs earnings have become more equal between local authorities over time

Coefficient of variation of after-housing-costs earnings across local authorities: England



Notes: The coefficient of variation is the ratio of the standard deviation of a set of data to its mean. Earnings used are weekly residence-based.

Source: RF analysis of ONS, *Annual Survey of Hours and Earnings*; Resolution Foundation private rents data series

Of course, not all young people are private renters; nor do many want to stay in the tenure even in the short to medium term.^[18] Likewise, as we showed at the outset of this briefing, job mobility rates have fallen for older age groups who are also more likely to be home owners. It is worth thinking, then, how the ‘pull’ of higher-paid areas has changed not just for renters but also for those who own (or aspire to do so at a future point). We take a brief look at this issue in Box 2.

i Box 2: The changing incentives to move for home owners

While the ongoing costs of home ownership are, of course, not the same as the house price, the latter does determine the former to a significant extent, as well as potentially creating a barrier to moving if the deposit required is unaffordable. Given this, we repeat our previous analysis with house prices instead of private rents to explore how the incentive to take

a new job that requires an address change has shifted over time for owners. Figure 13 sets out the results. The first feature of note is just how dramatic house price growth has been compared to earnings growth over the period 1997-2018. But the more interesting finding, from a mobility point of view, is the differential rates of growth of house prices across areas.

[18] For example, 58 per cent of private renters expect to own a home, with more than a quarter expecting to buy within the next two years. For more details, see Annex Table 1.11 in: Ministry of Housing, Communities and Local Government, *English Housing Survey 2017 to 2018: headline report*, 31 January 2019.

While house prices have increased 2.8 times in the bottom 10 per cent of local authorities when ranked by earnings levels, they have grown by more than a factor of 4 in the top 10 per cent. Put differently, while it has always been more expensive to buy a home in a more productive area, current (and indeed putative) owners

who wish to move to higher-earning places now need considerably more equity, or other forms of savings, to bridge the gap. Rising house price differentials often go beyond simply acting as a disincentive to move then, instead often actively functioning as a barrier.

Figure 13: House prices have grown at a far faster rate in higher-earning areas over the last two decades

Nominal change in median private rents and earnings, by 1997 local authority earnings decile: England, 1997-2018



Notes: Earnings used are weekly residence-based.

Source: RF analysis of ONS, *Annual Survey of Hours and Earnings*; ONS, *UK House Price Index*

Finally, we look once again at whether the capital is really what lies behind this finding. In fact, when we strip London out of the picture this chart looks remarkably similar, with higher

house price growth in higher-earnings areas across the board.

Those who do move today are more likely to choose cheaper areas than in the past

Whether a renter or home owner (actual or prospective), we have shown that the living standards ‘pull’ of higher-paying areas has diminished over time as housing costs absorb more of one’s earnings in such places, and house prices potentially act as a barrier. But how has this diminishing ‘pull’ factor played out in practice? We know from Figure 2 that the overall volume of new-job-plus-home moves has fallen for young people. Here we address this question further by exploring how the characteristics of those moves that do happen have shifted over the course of the 21st century. We segment moves across local authority boundaries according to the housing costs (i.e. rents) in the origin and destination local authority, which are a very strong proxy for the levels of pay and productivity in each area.^[19]

In other words, we explore whether differential housing cost increases and the consequential reduced variation in after-housing-costs earnings between areas, discussed above, have in practice shifted moves away from those that take people to more productive areas. Indeed they have, to some degree, as Figure 14 shows in terms of the profile of actual residential moves based on the housing costs (i.e. rents) of the origin and destination local authority.^[20] We find that more moves made today are to lower-rent areas compared to the early 2000s (47 per cent and 41 per cent respectively), whereas the share of those changing residence to areas with the same level of rents or higher housing costs have both fallen by 3 percentage points over the period.

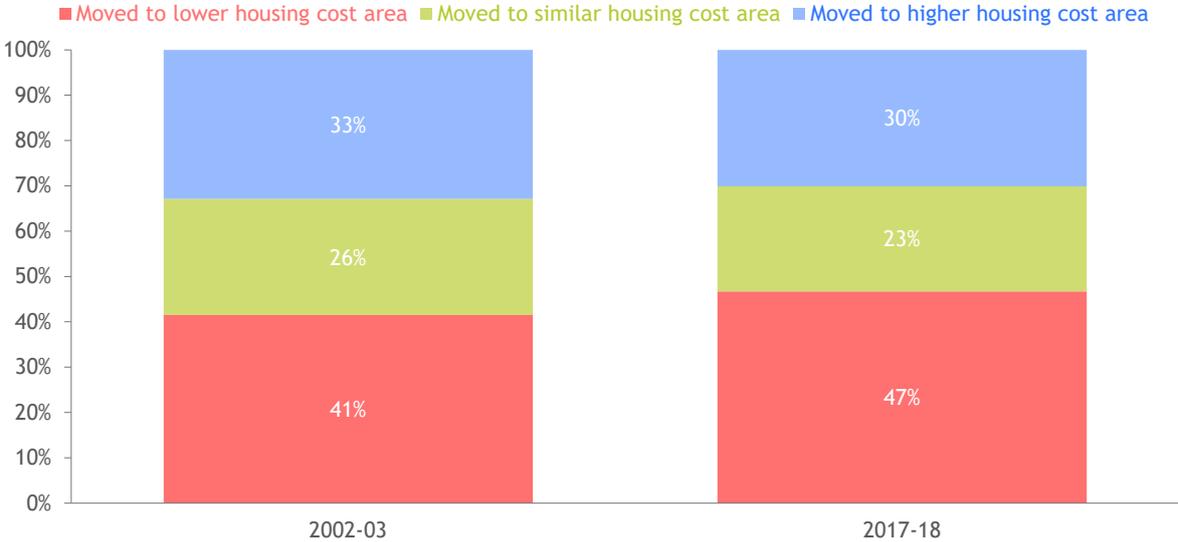
As well as answering the question of whether moves to higher-cost, higher-productivity areas have fallen - Figure 14 makes clear that they have in relative terms, alongside the absolute fall in new-job-plus-home moves for young adults shown in Figure 2 – we note two further potential drags to living standards entailed by the moves that *do* happen. There are two implications. First, if a move to a lower-housing-cost area goes hand-in-hand with the decision to also change jobs to one in that same area, such movers will be trading down when it comes to pay (as we said above, pay and housing costs are very strongly correlated across areas).

[19] In 2018, the correlation coefficient on local authority rents and local authority earnings levels across England was 0.81.

[20] Sample size issues mean that we are unable to break down new-job-plus-residence moves into our three cost brackets. Consequently, here we use all cross-local authority moves as a proxy for a job-plus-residence move.

Figure 14: When working-age adults do relocate, they are moving more to cheaper areas than in the past

Share of cross-local authority residential moves by housing costs bracket: England



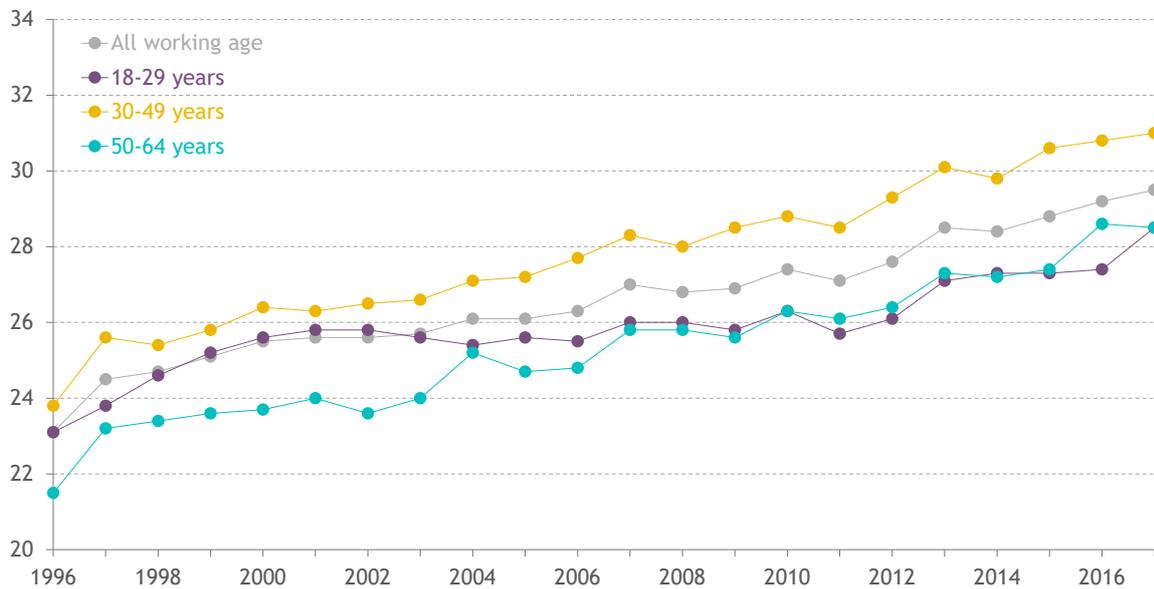
Source: RF analysis of Office for National Statistics. Social Survey Division, Northern Ireland Statistics and Research Agency. Central Survey Unit. (2018). Labour Force Survey Adult Datasets, 2002-2018: Secure Access. [29/05/2019]. 14th Edition. UK Data Service. SN:6727; Resolution Foundation private rents data series

Conversely, those that choose to move to cheaper housing cost areas but stay in the same job – or to move both job and home but to live in a cheaper area further away from where the job is located – will need to travel further to work each day. In Figure 15 we note that the average travel-to-work time for all age groups has increased over time, from 25 minutes for 25-34 year olds in 1996, for example, to 32 minutes in 2017 (a difference that may seem small but over one year can add up to a significant amount of time – and of course money). It is also interesting to note that the increase in commute times for 35-44 year olds is slightly higher, suggesting perhaps that it is those in this age bracket who are moving to cheaper areas and taking the travel time hit (while younger people might be making different compromises to continue to live in higher-earning areas).^[21]

[21] For example, we have shown before that young people today are more likely to share with others than in the past, and that this is especially pronounced in higher-housing-cost areas. See L Judge, *'The one million missing homes?'*, Resolution Foundation blog, 12 January 2019

Figure 15: All age groups are commuting for longer today

Mean travel time from home to work in minutes, by age: England



Notes: Travel times shown here are one-way.
Source: Source: RF analysis of Office for National Statistics. *Social Survey Division, Northern Ireland Statistics and Research Agency, Central Survey Unit. (2018). Labour Force Survey Adult Datasets, 2002-2018: Secure Access. [29/05/2019]. 14th Edition. UK Data Service. SN:6727*

Conclusion

Young people today are very much at the sharp end of the housing crisis. They are more likely than previous generations to be renting privately as they approach child-bearing age; less likely to have the security and living standards protection afforded by a social tenancy; and more likely to be encumbered with a large debt if they have been lucky enough to get on the housing ladder. But in this briefing note we have shown that the living standards impact of housing goes beyond the immediate; rising rents in more productive areas are having a second order effect too, by acting as a headwind to labour market mobility.

Of course, this effect is felt not just by young people today: whether renters or owners, those in older age groups will also struggle to bridge the widening housing costs gap we observe between higher- and lower-earning areas. Moreover, moving even to higher-earning areas can come with downsides: the support of family with, say, childcare may be forgone. But given we know that moving matters especially for those at the beginning of their working lives, we can see once again that the housing choices of today's younger people are bearing down on their living standards to a greater extent than they did for previous generations at the same age.

Annex: Constructing a private rents index for local authorities

The lack of Office for National Statistics (ONS) data on private rents at a local authority level, or back further than 2005, is a constraint that obliged us to construct our own index of private rents at the local level.

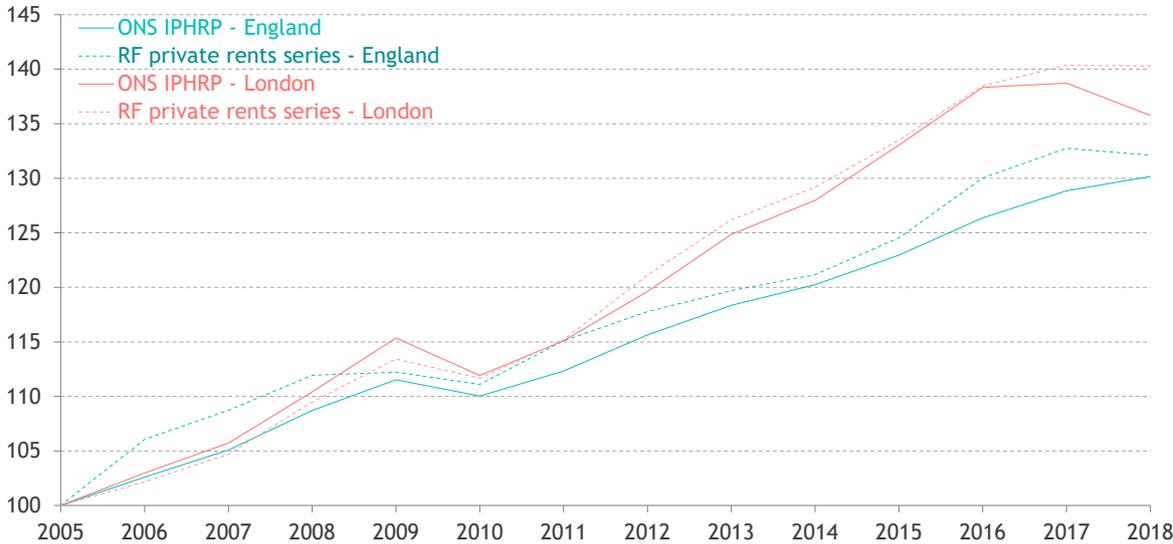
We began this exercise with Hometrack data, from which we calculate a typical private rent for each local authority in 2018, by taking the weighted average of the medians for properties with different numbers of bedrooms. This allows us to mix-adjust, i.e. reflect the fact that different areas have a different stock profile. We then index these 2018 typical rent levels back as follows:

- We use Hometrack data (applying the same approach to create a typical private rent for each local authority) to index private rents back to 2014;
- Between 2014 and 2011 we use regional trends taken from the ONS Index on Private Housing Rental Prices (IPHRP);
- From 2011 to 2008 we index back using information on median rents in broad rental market areas used to set the Local Housing Allowance, mapping these areas onto local authorities;
- Between 2008 and 2006 we once again rely on the IPHRP at the regional level;
- And finally, between 2006 and 1996 we use Rent Officer data on the private rent midpoint in each local authority.

Finally, we test how well our index ‘fits’ with the regional ONS data available back to 2005, by constructing a simple average of our rent series across local authorities in both England as a whole and in London. Figure 16 shows the findings from this exercise, which suggest that our local rent estimates provide a reasonably good fit to regional and national trends.

Figure 16: Comparing the ONS and Resolution Foundation private rents series suggests a good fit

Indices of nominal typical private rents: 2005-18



Notes: RF private rents series based on a simple average of values across local authorities in each area.
Source: ONS, *Index of Private Housing Rental Prices*; Resolution Foundation private rents series

Resolution Foundation

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- undertaking research and economic analysis to understand the challenges facing people on a low to middle income;
- developing practical and effective policy proposals; and
- engaging with policy makers and stakeholders to influence decision-making and bring about change.

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If you are using this document in your own writing, our preferred citation is:
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