

---

**WORKING PAPERS**

# Private rental-led gentrification in England: displacement, commodification and dispossession

Antoine **Paccoud** <sup>1, 2</sup>

<sup>1</sup> LISER, Luxembourg

<sup>2</sup> London School of Economics and Political Science, United Kingdom

*LISER Working Papers are intended to make research findings available and stimulate comments and discussion. They have been approved for circulation but are to be considered preliminary. They have not been edited and have not been subject to any peer review.*

*The views expressed in this paper are those of the author(s) and do not necessarily reflect views of LISER.  
Errors and omissions are the sole responsibility of the author(s).*

# **Private rental-led gentrification in England: displacement, commodification and dispossession**

**Antoine Paccoud**

*London School of Economics and Political Science, LISER*

December 2015

## **Abstract**

While central to early gentrification studies, the idea that social and tenure changes were inseparably linked to displacement has recently fallen out of research in the field. This has led to difficulties in the context of a recent shift in the tenure trajectory associated with gentrification. While the process has historically been linked to an increase in home ownership in the UK, the situation today is marked by the return of the private rental sector, a return associated with the rise of buy-to-let investors, the loss of social housing and quickly escalating rents. Gentrification operating in the UK today must thus be thought of as private rental-led gentrification – transitions to private rental in the context of social upscaling. This is shown through a detailed comparison of small-area social and tenure data from the 2001 and 2011 UK Censuses. While this tenure shift has been documented in gentrifying areas over the years, little is known about its impacts on local neighbourhoods. This is a dangerous blind-spot as private rental-led gentrification is more pernicious than gentrification linked to ownership: it is currently more widespread and likely to displace poorer residents, creates commodified spaces and its production dispossesses low-income owners.

*Key words:* gentrification, displacement, tenure, London

## Introduction

While there are many discussions of gentrification as a social change, the process is much less often viewed as a change in tenure. But these two dimensions are inseparable: gentrification is by definition a social change, but one that can take place through a number of different tenure trajectories. The issue is that there has been no detailed empirical investigation of the types of changes in tenure linked to gentrification processes – instead, the concept remains closely tied to the idea of home ownership. Viewed in this narrow way, gentrification as a concept does not seem to offer much for the analysis of current urban change. In the UK, for example, recent discussions have focused on the rise of buy-to-let investors, the loss of social housing and on the affordability of private rents.

To gain more traction on these crucial questions, this paper draws on a comparison of small-area social and tenure data from the 2001 and 2011 censuses to argue that gentrification needs to be seen as operating through two broad tenure changes in English metropolitan regions: transitions either to ownership or to private rental in the context of social upscaling. While the first of these forms has been extensively documented in the literature on gentrification, much less is known about the second. This is a dangerous blind-spot as private rental-led gentrification is more pernicious: it is currently more widespread and likely to displace poorer residents, creates commodified spaces and its production dispossesses low-income owners.

The paper starts by showing the empirical existence of these two types of gentrification in the English metropolitan landscape. It then interrogates the gentrification literature's current focus on social rather than tenure change, a surprising fact given its establishment at a time when a shift to ownership dominated and given the important work done on other tenure trajectories in gentrifying areas. The focus then turns to an evaluation of private rental-led gentrification. The aim here will be to draw out some of the theoretical implications of thinking more broadly of gentrification as a process in which social and tenure changes intersect.

## **The two gentrifications in English metropolitan regions**

### **The return of private renting**

The UK housing market has experienced a marked return of private renting as a significant tenure category since the early 1990s<sup>1</sup>. This is noteworthy since private renting had almost disappeared: while 76% of households privately rented in 1918, only 9% did so in 1991. This was compensated by a growth in both social renting and in home ownership – the former peaking at 31% of households in 1981 and the latter at 69% of households in 2001. The return of private renting was precipitated by the 1988 Housing Act which allowed landlords to more easily retake possession of their property and limited the length of tenancies. This form of tenure then increased from 9% of households in 1991 to 12% in 2001, and then to 18%<sup>2</sup> in 2011. This translates into a 1.7 million rise in the number of households private renting between 2001 and 2011. These large changes in the tenure structure of UK housing clearly have an impact on the way in which gentrification plays out in its neighbourhoods. But as will be shown in a later section, the literature on gentrification in the UK has not caught up with the swing back to private renting initiated with the 1988 Housing Act.

This is problematic since the return of private renting has trickled down to the neighbourhood level, bringing with it new types of tenure changes accompanying gentrification. Between the 2001 and 2011 censuses, gentrification accompanied by a transition to or increase in private rental has overtaken the more ‘classical’ type of gentrification associated with increases in homeownership. These two types of gentrification will be referred to as ownership-led gentrification (OG) and private rental-led gentrification (PRG). The next section will describe the tenure changes associated with OG and PRG and justify their treatment as gentrification.

---

<sup>1</sup> The figures in this paragraph are from the ONS (2013).

<sup>2</sup> In London, 26% of households rented privately in 2011, now the second largest tenure category (GLA 2014)

## Tenure changes involved in recent UK gentrification

In this study, OG and PRG are identified according to the tenure change that accompanies the social upscaling<sup>3</sup> of a small census area<sup>4</sup>. Tenure types have been aggregated into three main categories: owners, social renters and private renters<sup>5</sup>. Three tenure changes<sup>6</sup> are associated with each type of gentrification respectively: a sole increase in either owned or private rented units, a transfer of social rented units to either ownership or private rental, and the replacement of owned by private rented dwellings and vice versa. To put it more simply, OG is associated with sole increases or transfers to ownership and PRG with sole increases or transfers to private rental.

All of these tenure changes can be understood as gentrification under the right conditions. To draw these out, PRG and OG tenure changes will be assessed using the four criteria of a widely used definition of gentrification: “(1) *reinvestment of capital*; (2) *social upgrading of locale by incoming high-income groups*; (3) *landscape change*; and (4) *direct or indirect displacement*<sup>7</sup> of low-income groups” (Davidson and Lees 2005: 1170). The second criteria is already met since the article only focuses on those OAs in which social upscaling has occurred between 2001 and 2011. In what follows, the other three criteria will be used to evaluate PRG and OG tenure changes.

The pair of tenure changes most recognisably a form of gentrification is the transfer of social housing to either private rental (1,744 OAs) or ownership (1,356 OAs). This can occur through the sale on the open market by Councils or Housing Associations of social rented dwellings, which are then purchased and either inhabited or put for rent by the new owner. Whether this is achieved through refurbishment or by knocking down estates and rebuilding in the same place, it is clear that this type of tenure change involves capital reinvestment (1). Landscape change will be more drastic in the latter case, but even refurbishment will leave a physical trace (3). Finally, the loss of social tenants makes it clear that this type of tenure change is accompanied by direct displacement of low-income groups (4).

---

<sup>3</sup> The method used to identify local areas with social upscaling between 2001 and 2011 can be found in the Appendix.

<sup>4</sup> Output Areas (OA) have a population of between 100 and 625 people. At this scale, areas tend to be more homogeneous and changes in tenure or social class are thus more easily identified. As for all census geographies, changes to OAs are made between censuses to reflect population and social change. For the 2011 census, 2.6% of OAs were changed, yielding 114,197 OAs comparable between 2001 and 2011. This means that this analysis does not consider social and tenure changes that occurred in OAs having undergone a large population change (such as the destruction of large estates, construction of large new builds, etc.).

<sup>5</sup> This grouping of tenure categories is not unproblematic. For example, Watt (2009) discusses the often contentious transfer of Local Authority housing to Registered Social Landlords in London.

<sup>6</sup> See the Appendix for methodological detail. Another pair of tenure changes was discarded because of its small size: transfers of owned and social rented units to private rental (53 OAs) and transfers of social and private rental to ownership (13 OAs).

<sup>7</sup> They are referring to Marcuse's (1985) 'exclusionary displacement' here.

Sole increases in private rental or ownership are achieved if subdivision or rebuilding leads to more units of that type, without the data showing a change in the other two tenure types (which means some units of these types are provided in the new build or as part of the subdivision). Both subdivision and rebuilding are clearly a reinvestment of capital (1) and similarly to the case above also involve landscape change (3). Direct displacement is likely to have occurred if those leaving the area were predominantly renters (either social or private). Criteria 4 is thus met only in areas in which ownership was not the majority tenure in 2001. This yields 1,853 OAs for the sole increases of private rental and 489 OAs for the sole increases in ownership that can be considered gentrifying.

In the next pair, only the replacement of owned by private rental will be considered in the rest of the article as there were only 74 OAs out of the 114,197 OAs in English metropolitan regions which experienced a replacement of private rented by owned (in itself a sign that the momentum is clearly in favour of transitions to private rental). As will be shown in a later section, the transfer of owned to private rental can be understood as a process of buy-to-let. In this process, it can be assumed that refurbishment is needed to meet the needs of the incoming wealthier residents (1, 3). While direct displacement cannot be linked to this tenure change<sup>8</sup>, it can be assumed that buy-to-let in a context of upscaling leads to rapidly increasing property prices. This is likely to lead to a very high risk of direct displacement in the near future as landlords increase rents and social housing providers consider selling off stock (4). But this can only occur where non-owners were the majority in both 2001 and 2011, yielding 1,246 OAs of this type.

### **A momentum in favour of private rental-led gentrification**

OG and PRG can thus take a number of forms depending on the tenure change involved, but each one displays the necessary features of gentrification. Some of these forms can be linked to already existing direct displacement (if there was a departure of renters) while others are likely to cause direct displacement in the near future by increasing property prices in the area. But all can be linked to Marcuse's (1985) 'exclusionary displacement' (when low-income groups are no longer able to move into the area) and 'pressure of displacement' (when changes in the area affect households beyond those actually displaced).

PRG and OG have distinct spatial distributions in England. The two maps in Figure 1 below show the percentages of OAs in English Local Authorities (LAs) in which there has been OG

---

<sup>8</sup> As it is not possible to tell why owners are leaving the area.

and PRG between 2001 and 2011 (based on the five tenure changes described above). As the focus of this study is on urban gentrification, only LAs belonging to metropolitan regions are included<sup>9</sup>.

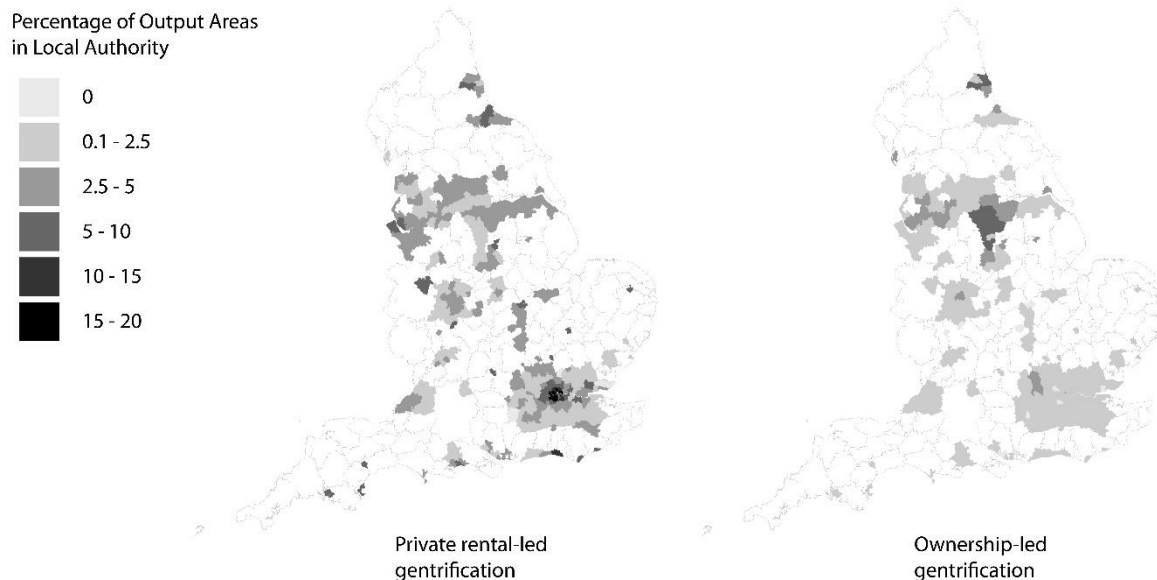


Figure 1: Spatial distribution of OG and PRG in English metropolitan regions

What is immediately clear is that there is a form of gentrification active over the entirety of the English metropolitan landscape. But this breadth of operation can be attributed to PRG rather than to OG. Indeed, tenure changes linked to OG are barely found in Greater London and in other urban centres in the Southern half of the UK. In contrast, PRG is occurring in urban centres and metropolitan fringes alike, and in each of the English regions. PRG has taken centre stage in the gentrification of English metropolitan regions.

But this is a situation that has not been adequately treated by the gentrification literature, for which gentrification is either still closely tied to a transition to ownership or has uncoupled from tenure change altogether. The need to think through the implications of PRG comes out clearly in this footnote to a study of London between 1981 and 2001: “*in the UK, it has been traditional to equate gentrification with owner-occupation which has not been the case in North America. It might be that the conception of gentrification now needs to include those who rent in such areas; given the growth of this tenure during 1991–2001, this would seem*

---

<sup>9</sup> To identify LAs belonging to metropolitan regions, the method in Paccoud (2011) was used. This method uses satellite imagery to visually identify those LAs that have a significant proportion of built-up land and which are contiguous to a large urban settlement.



*reasonable*” (Butler et al. 2008: 86). The next section provides an overview of the treatment of tenure change in gentrification research.

## **Gentrification and tenure change**

Glass first identified the process of gentrification in 1963 London, just as home ownership had started to increase in a city where there were still more private renters than owners. Over half a century later, the recent return to private renting in the UK signals a need to rethink a concept which has remained bound to home ownership. The assumed link between gentrification and home ownership was only contingent – as the discussion below will show, other tenure changes have been found in gentrifying areas. What is surprising is that recent approaches to gentrification have de-emphasised tenure change in gentrifying areas.

### **Gentrification as home ownership in the UK**

Glass’ initial definition of gentrification clearly established the process as concerned with ownership: properties “*have been taken over, when their leases have expired, and have become elegant, expensive residences*” (Glass 1988: 138). Elsewhere, the focus on ownership is even more explicit. In the context of a “*switch from suburban to urban aspirations*” (Glass 1988: 154): “*it is such upper and middle class people, especially, who think of acquiring - and who indeed need and can afford to acquire - some of sort of a home, if only a pied à terre, near their places of work*” (Glass 1988: 141).

What is interesting however, is that Glass thought that the “*new demand for homes near the metropolitan centre is bound to remain largely unsatisfied*” (Glass 1988: 154), an illustration of the relative marginality of the phenomenon at that time. This was before the introduction of Mortgage Interest Relief At Source (MIRAS) in 1969 which was so effective in encouraging home ownership. In 1969 also, a new Housing Act was introduced which provided incentives for improvement grants, which Hamnett (1973) found to be strongly linked to gentrification. These new policies seem to have led to a shift in real estate investment strategies: “*as the return on rented property steadily fell behind comparable investment opportunities, landlords by their own volition or by the prompting of their agents sought to gain vacant possession and sell*” (Williams 1976: 72). The Rent Act 1977 – which prevented unlawful eviction and re-established some security of tenure – pushed investors even more strongly towards ownership. Thus, by the early 1980s, and until the 1988 Housing Act which revalued private rental opportunities, gentrification in the UK was occurring in a context in which “*previously rented*

*property with or without vacant possession became available in large quantities in these inner areas, and because of the relatively low price, good location, and other factors they were purchased for owner occupation”* (Hamnett and Williams 1980: 483). Gentrification in London, between 1961 and 1981, was thus closely tied to a *“process of tenurial transformation from private renting to owner occupation”* (Hamnett 1986: 403). This occurred to such a large extent because landlords operated as *“rational profit maximizers, closely in tune with competing investment opportunities”* (Hamnett and Randolph 1984: 269). This is the context in which Bridge could assert when looking back on the 1980s *“there is a striking tenure shift away from council and private rental tenures in favour of owner-occupation”* (Bridge 1994: 40).

So while it was normal for gentrification to be tied to ownership in this period of ‘flat break-up’, what is interesting is that gentrification has continued to be tied to homeownership, even with the return of private renting (and in the context of the significant tax advantages available to buy-to-let investors). UK-based gentrification research seems to have carried forward the initial, and contingent, link between gentrification and ownership. In 1991, even though Warde distinguished between *“the activities of large-scale property developers who buy a large tract of land to build a condominium and those of individual households that buy an old house in an ‘improving neighbourhood’ and set about restoring it”* (Warde 1991: 224), the fact remains that the end state of both these properties will still be owner-occupation. The focus seems to have shifted to the *“question of why individual owner gentrifiers undertake gentrification”* (Hamnett 1992: 118). And in the study of middle class gentrifiers in London, Butler and Robson (2001, 2003) seem to have excluded non-gentrifiers (and thus renters) from their in-depth interviews, something which can also be found in Bondi (1999).

Hamnett and Butler’s (2010) remark that recent growth in private rental in London was *“a dramatic turnaround from previous decades and the result of both the establishment of assured tenancies and the re-emergence of private landlordism in Britain through what is known as ‘buy-to-let’”* (Hamnett and Butler 2010: 59-60), has thus not been picked up by gentrification researchers in the UK. The gentrification imaginary has remained bound to home ownership.

### **Gentrification and tenure change elsewhere**

While gentrification in the UK has been associated with home ownership only because that was the form of tenure most strongly incentivised at the time of its early study, the situation elsewhere was a little different. Of course, there are many examples of early gentrification research in the United States where it is assumed to be tied to ownership. For example,

gentrifiers were often called ‘renovators’ who purchased inner city housing’ (Laska and Spain 1980) or resettlers who were purchasing their first home (Gale 1979), and even Smith (1979) refers to gentrifiers as rehabilitators. Here too, surveys and interviews targeted homeowners only, such as, in Gale (1979) and Laska and Spain (1979): “*only those people who had bought homes in the preceding three years and were occupying these homes were included in the survey*” (Laska and Spain 1979: 524).

But other work provided crucial insights into other tenure changes that could occur in gentrifying areas. A major study here is that of Smith (1979) in Society Hill study in Philadelphia. There, he found three ‘gentrifiers’: (a) *professional developers who purchase property, redevelop it, and resell for profit*; (b) *occupier developers who buy and redevelop property and inhabit it after completion*; (c) *landlord developers who rent it to tenants after rehabilitation*” (Smith 1979: 546). The difference between what he calls professional and landlord developers highlights the existence of two different types of tenure trajectories in gentrifying areas: whatever the initial tenure of the property, gentrification can occur with either its transfer to ownership or with its transfer to private rental. This is similar to the findings of DeGiovanni and Paulson’s (1984) comparative study of gentrifying neighbourhoods in Philadelphia and Atlanta: “*renters in revitalizing neighborhoods may be forced to move if the property is sold and converted to owner-occupancy, rehabilitated for higher-income renters, or converted to condominiums or cooperatives*” (DeGiovanni and Paulson 1984: 218). What is missing here, and which will be attempted in the third section of this paper, is a discussion of how these tenure trajectories may have different impacts on local neighbourhoods.

A number of interesting studies were conducted in Australia: by Logan in 1982, Maher in 1985 and Engels in 1999. For Logan, the issue was that the consensual definition of gentrification included ‘rising occupancy status’ as one of its key characteristics but that he was not finding any marked transition to ownership in the areas he investigated. Instead, he concluded that “*changes in the rental householder population explain much of the ‘emergence of a new gentry class’ in inner Melbourne, particularly in the most traditionally working-class*” (Logan 1982: 86). Maher (1985) was in a similar situation: “*if a move to owner occupancy is a basic element of the gentrification process, then that is not what is happening in inner Melbourne*” (Maher 1985: 7). Engel’s (1999) detailed work on the process of gentrification in a Sydney suburb contradicted the “*popular view that the gentrification process is driven purely by owner-occupiers, not by small-scale absentee owners and their middle-class tenants*” (Engels 1999: 1490). What is so interesting about this work is that it explicitly argues that “*there can be more*

*than one trajectory to neighbourhood change associated with gentrification*” (Engels 1999: 1479). In their own way, all three of these studies had already identified transitions to private rental-led gentrification.

Another interesting example is Clark’s (1992) study of gentrification in Stockholm with its focus on conversions from rental to tenant ownership which can take two forms. Either *“the tenants take the initiative to form a tenant-owner association and purchase the property in accordance with the tenants’ right of pre-emption”* (Clark 1992: 23) or a landlord *“first empties a building of tenants in order to do a total modernisation of the building, and then sells to a tenant-owner association”* (Clark 1992: 23). Even more important is Clark’s (1992) point that these have different effects, even though both look similar in aggregate statistics – both lead to gentrification and follow a similar tenure trajectory. How gentrification is produced thus becomes crucial, a point that will be returned to in a later discussion on buy-to-let gentrification.

In all these cases gentrification occurred through tenure trajectories in which ownership was not the central component. Instead, many of these studies discuss a type of gentrification much closer to the PRG discussed in this article. It thus is surprising that recent gentrification research has on the whole distanced itself from tenure change.

### **Gentrification without tenure change**

More recent gentrification research has favoured definitions of gentrification based on the change in the socioeconomic characteristics of the resident population. The debate between Ley and Smith in the late 1980s is a good illustration of this new orientation. While Ley (1986) used *“a change in household social status, independent of the housing stock involved, which might be either renovated or redeveloped units”* (Ley 1986: 526) as an indicator for gentrification, Smith (1987) thought that gentrification is *“not only a social change but also, at the neighborhood scale, a physical change in the housing stock and an economic change in the land and housing markets”* (Smith 1987: 463). His ‘fix’ entailed looking at rent and income measures, indicators put to the test in his Harlem study (Schaffer and Smith 1986). The crucial point here is that tenure seems to have dropped out of the analysis of gentrification. This rest of this section will show how this can be problematic.

Recent attempts to broaden out gentrification have at times stretched the concept a little too far. For example, it is not clear that super-gentrification – *“the transformation of already gentrified, prosperous and solidly upper-middle-class neighbourhoods into much more*

*exclusive and expensive enclaves*” (Lees 2003: 2487) – really involves the type of social change usually associated with gentrification. It doesn’t seem to be linked to tenure change or displacement either: *“there is little evidence of continued social displacement in Barnsbury – the stock of suitable housing has long been converted”* (Butler and Lees 2006: 469). A similar question can be asked about new-build gentrification, which involves *“the large-scale deployment of economic capital by developers”* (Davidson and Lees 2005) but in which building is done on reclaimed land. This means that there is no base from which social (or tenure) change could be observed. What is problematic in the case of new-build gentrification is that the concept ends up conflating self-contained developments on brownfield sites – *“neighbourhood considerations are significant because of their absence in this form of gentrification”* (Davidson 2007) – with developments that come to replace demolished council estates such as Aylesbury (Davidson and Lees 2010: 403). The latter involves a social and tenure change (and thus displacement), the former features neither. A clear presence of tenure and social change (and of course displacement) might need to be made more central to definitions of gentrification to make sure the concept isn’t accused of being ‘chaotic’ again (Rose 1984).

In the case of two other research strands, the focus has shifted to highly salient forms of social change, perhaps to the detriment of more ordinary forms of displacement. One of these is the focus on gentrification as a mode of cultural consumption. For Mills, gentrification is deeply implicated in the *“the ‘discovery’ of ever-new scarce commodities which can act as vehicles for status”* (Mills 1988: 186), for Zukin it is in part *“a mode of high-status cultural consumption”* (Zukin 1987: 144). But both of these accounts are focused on very specific building types – historical or architecturally distinct for Zukin, post-modern architecture in Mills – thus perhaps obscuring the production of gentrified landscapes that are more functional and commodified than status-enhancing. This is paralleled in the idea that gentrification has recently entered a third wave (Hackworth and Smith 2001), in which the state now plays a significant role. This has perhaps given the state too much attention. For example, Watt (2013) speaks of a ‘state induced rent gap’ to refer to the contrast between the current use of land as a council estate and its *“potentially large value if only the resident base could be made to change”* (Watt 2013: 102). But in ‘selling’ an estate to a developer, the local state may only be reacting to budgetary shortfalls and a rent gap created by intense private activity around the site to raise property values. Focusing on the most visible forms of change should not obscure

more ordinary forms of displacement. This point will be returned to in the next section in the context of an estimate of OG and PRG induced displacement.

The final strand of gentrification research to be discussed here is that which emerged from Lees' early comparative work (Lees 1994), and which has broadened to a focus on 'geographies of gentrification' (Lees 2000), gentrification and comparative urbanism (Lees 2012) and more recently on global gentrifications (Lees et al. 2015). And while tenure trajectories played an important role in the early comparison – "*the leasehold system in England affects the timing of gentrification and the tenure system the flow of gentrification, this is less apparent in the US*" (Lees 1994: 215) – this seems to have slowly dropped out of more recent work. But it seems as though the comparison of gentrification processes across different contexts would be strengthened if it ensured that similar types of tenure trajectories were being compared. For example, there might be more differences between OG and PRG in England than between forms of PRG in cities in completely different geographical contexts

Recent strands of gentrification research have thus distanced themselves from considerations of tenure change. This is both surprising given the important studies which centred on tenure trajectories other than those to ownership and problematic given the issues that accompany a neglect of tenure change: concept stretching, a focus on the highly visible and more difficult comparisons. To show the importance of considering tenure change alongside social change in the study of gentrification, the next section will discuss the differences between OG and PRG. The key point is that PRG is more pernicious than OG for three main reasons: it is more likely to displace poorer residents, creates commodified spaces and dispossesses low-income owners.

## **Private rental gentrification: an evaluation**

### **More likely to displace**

This section will show that in addition to being more widespread in English metropolitan regions PRG is also associated with a higher burden of displacement for low-income populations, especially as concerns the risk of direct displacement linked to buy-to-let. As table 1 below indicates<sup>10</sup>, both OG and PRG are associated with potentially large numbers of directly

---

<sup>10</sup> Direct displacement is defined as the forced movement of low-income renters (either social or private) due either to the destruction of the dwelling they inhabited (either for purposes of subdivision or new build construction) or to its sale by Councils or Housing Associations. Direct displacement is thus estimated as the number of low-income individuals lost in OAs where social and private renters were either the majority in 2001 or those who left the area in greatest numbers. These figures do not take into account those displaced from projects that involved population numbers large enough to render 2001-2011 OA level comparison impossible. Using Marcuse's (1985) 'last-resident displacement' only (and thus not 'chain

displaced low-income residents. While the average loss per OA is actually higher in OG tenure changes (25.3) than in PRG tenure changes (21.5), the danger of PRG is clearly apparent in the significantly larger displacement associated with sole increases in private rental (30,313) rather than in ownership (9,211). Though this tenure change has the lowest average loss per OA (16.4), it points to a process that may be occurring under the radar of current gentrification studies (which as discussed in the section above tends to focus on highly visible changes). Subdivisions and small new builds – ordinary displacement – tend to be less noticed but, as a whole, also contribute heavily towards the displacement occurring under PRG.

**Table 1: Estimates of direct displacement linked to OG and PRG**

Tenure change	Type of gentrification	OAs with potential displacement	Estimated number of displaced (2001-2011)	Average number displaced by OA
Sole increase in private rental where ownership was not the majority tenure in 2001	PRG	1,853	30,313	16.4
Private rented replacing social rented	PRG	1,744	47,105	27
<b>Total PRG</b>		<b>3,597</b>	<b>77,418</b>	<b>21.5</b>
Sole increase in owned where ownership was not the majority tenure in 2001	OG	489	9,211	18.8
Owner replacing social rented	OG	1,356	37,468	27.6
<b>Total OG</b>		<b>1,845</b>	<b>46,679</b>	<b>25.3</b>

But the clearest indication of the higher potential for PRG to lead to displacement can be found in buy-to-let areas, which have no significant equivalent in OG. As detailed early in the article, buy-to-let occurring in non-owner majority areas can be linked to a risk of direct displacement because it can lead to rent increases (which threaten low-income private renters) and sales of Council or Housing Association property (which affect social renters). In the 1,246 non-owner majority OAs in which there was evidence of a process of buy-to-let between 2001 and 2011, there are an estimated 115,252<sup>11</sup> low-income residents aged 16-74 still renting in 2011 (either privately or socially). As more of the remaining owned units are inhabited by wealthy tenants, the pressure on private rents and social housing will continue to increase. While not all of these residents will have to leave the area because of buy-to-let in the short term, this process will clearly lead to a long-term transformation of these areas – again pointing to the operation of

---

displacement’) seems appropriate in this context as the tenure change likely to have led to the forced departure of the previous occupant is only assumed to have happened once in the decade between the two censuses.

<sup>11</sup> This number may be lower given that some of these low-income residents may be owners, but may be higher if the knock-on effect of increasing housing prices on proximate areas (and their social and private renters) could be factored in.

‘ordinary displacement’. PRG thus seems to more seriously undermine the ability of poorer residents to remain in the city than at any other point in the ‘age of gentrification’. And this displacement has impacted some groups more than others<sup>12</sup>.

What is worrying is that PRG is being intensified by Coalition government programmes: Help to Buy (linked to rapidly increasing property prices), the revitalisation of the Right to Buy (which threatens the remaining social housing stock) and Welfare Reform. The latter is especially problematic as it puts the new private rental dwellings largely out of reach of the most marginalised. Hamnett (2010) has drawn out the implications of the housing benefit reform: *“low-income households on Housing Benefit will be effectively excluded from the private-rented sector in much of central London, reinforcing the impact of changes in social class and high house prices on the social and tenure structure of London”* (Hamnett 2010: 2818). And Fenton et al (2013) have described the commodification of social renting that is currently occurring through the *“move to personal subsidies for open-market renting”*, a trend which *“means that the socio-spatial organisation of the city is more decisively determined by market pricing, as well as diminishing security and determination for low-income tenants”* (Fenton et al 2013: 377). The displacement pressures associated with PRG will thus only exacerbate and be exacerbated by these government programmes.

### **Creating commodified spaces**

In addition to being more likely to displace, PRG impacts neighbourhoods in a manner very different to OG. This can be seen by focusing on their different temporalities and on the agents involved. OG can be thought of as both immediate and slow: with its inhabitation by the new wealthy owner, gentrification is realised, but its benefits only materialise in the long term when the property is sold on. In contrast, PRG is delayed but fast. The property is only truly gentrified with the arrival of a tenant paying rent equal to proximate high-income areas, which may be achieved only after a sequence of tenants paying increasing rents. But as long as tenants are secured, rental returns are received quickly. There are thus also different agents involved in sealing the gentrification process: in OG, it is the purchaser who is likely to stay in the area over the mid- to long-term while in PRG it is the sequence of short-term tenants. This has an implication for who is to be considered the ‘gentrifier’ in PRG. The starting point should be Smith’s call to see gentrifiers as the *“producers of gentrified properties – builders, property owners, estate agents, local governments, banks and building societies”* (Smith 1992: 113).

---

<sup>12</sup> For a comparison of the movements of first and second generation migrants of selected ethnicities in London between 2001 and 2011, see Paccoud (2014).



The question then becomes: can PRG tenants be added to the list of ‘producers of gentrified properties’?

Looking back at Smith’s (1979) *“landlord developers who rent it to tenants after rehabilitation”* (Smith 1979: 546), the answer seems to be no – gentrification is only the act of rehabilitation by the landlord. But PRG cannot be reduced to rehabilitation alone. While modern new-builds and renovated terraced housing may attract relatively wealthier tenants, the area remains majority low-income and there must be a limit to the rent that can be demanded. Gentrification is not achieved until the ‘rental income’ gap has been closed between the current rent and what could be asked if the area were predominantly high-income (such as what is achieved in already gentrified proximate areas with similar accessibility and built form). Tenants thus play an important part in making sure the initial rehabilitated unit becomes a gentrified property: they accept rents and possibly rent increases, passively (or actively) produce a change in the offer of goods and services and informally market the area through social interaction. From this perspective, each individual tenant in PRG areas is participating in the process. It thus seems as though PRG necessitates a broadening out of Smith’s (1992) ‘producers of gentrified properties’ to account both for ‘direct production’ (developers, landlords, estate agents, etc.) and ‘indirect production’ (tenants).

Viewing tenants in PRG areas as indirect producers of gentrified properties makes it possible to think of PRG as ‘gentrification at a distance’. Neither the developer/landlord nor any particular tenant is present throughout the entirety of the gentrification process – as the owner in OG necessarily is. Gentrification thus becomes faceless and more insensitive to the attachment of low-income groups to place. PRG has the potential to depoliticise gentrification and the displacement it causes by removing a ‘palpable’ gentrifier from the process. Former low-income residents are steadily replaced by a sequence of increasingly wealthy tenants who may have little sense of how the area, and its residents, used to be.

But this also means that ‘gentrification at a distance’ has a distinctive effect on local use values. While the immediate gentrification in OG means that there has been a significant buy-in to the area, and that the new owner has a stake in its mid- to long-term development, with PRG the fact is that neither the direct nor the indirect producer have such an interest. Both are geared towards the short term, a reflection of the fact that current legislation provides little security of tenure and imposes no limits on rent increases. This favours the direct producer’s attempts to close the ‘rental income’ gap: tenant churn is likely to be high, which offers opportunities for rent increases as the area as a whole loses its low-income population. The direct producer is

likely to build or refurbish the property to a high enough standard to entice high-income renters but may then minimise maintenance once tenants are secured, what can be called ‘strategic maintenance’. The indirect producer may also be in a short-term orientation, with some populations, such as graduates or recent wealthier migrants, likely to rent for a while before setting down more permanent roots.

This is not to say that private rental cannot be associated with investment in local use values but only to highlight that the conditions of PRG push both direct and indirect producers of gentrified properties to disinvest from the dwelling and the local area more generally. This tends to create commodified and functional landscapes that serve the needs of a new and wealthier transient population rather than those of the more established population. And although neither direct nor indirect producers invest in local use values, gentrification – and its attached displacement pressures on low-income population – is in operation.

### **Dispossessing low-income owners**

Another important question is raised by the PRG tenure change described as the transfer of owned units to private rental. As highlighted in the case of Clark (1992), it is important to look more closely at how similar outcomes may be differently produced. In this case, two possibilities exist: either the low-income owner puts the property for rent (what can be called ‘incumbent landlordism’) or this owner sells the property to a new owner who puts it for rent (what is referred to as ‘buy-to-let’). The first scenario opens the possibility that this form of PRG may in some way benefit the low-income owners in gentrifying areas. This would be unique to the current gentrification landscape as all of the other four tenure changes identified involve the investment of significant amounts of capital, no matter whether the units end up inhabited by the owner or by a tenant.

However, the evidence clearly points to a predominance of buy-to-let in these areas. This can be shown by looking at the type of low-income owner which left the area between 2001 and 2011. The assumption here is that a low-income owner can only afford to offer the property for rent if it is already owned in full. Rental income can then be used to pay a mortgage on (or rent) another property<sup>13</sup>. A departure of low-income owners who fully owned their property can thus be associated with a capture of the rental income by these individuals. On the other hand, if the owner still has a mortgage to pay on the property, selling and transferring the

---

<sup>13</sup> It is assumed that the owner has the capital required for refurbishment.

mortgage to another property seems the more likely scenario. This means that the gains from rental income are captured by the new, capital-rich, owner.

Using this method, it was found that 39.9% of OAs have seen an exclusive decrease of owners with a mortgage (497 OAs) and a further 28.7% a majority<sup>14</sup> decrease of such properties (357 OAs). 68.5% of OAs with this tenure change are thus serving new (and presumably capital-rich) owners rather than the low-income owners that once lived in the area. In only 4.2% of OAs (52) and 6.7% of OAs (83) has there been a sole or majority departure of fully owning low-income owners respectively. The remaining 19.7% of OAs (246) have witnessed departures of both types of owners<sup>15</sup>. Buy-to-let rather than low-income owners putting their properties for rent thus seems to account for the vast majority of transfers of owned to private rental, dispossessing low-income owners of potential rental income. It is clear that this type of PRG can only be produced by those with enough capital to focus on more than one property at the same time, and not ‘incumbent landlords’.

It might thus be time to strip the idea of gentrification of its social mobility imaginary, the idea that it is an enrichment strategy open to the many. The issue is that the commonly used definitions do not clearly make a distinction between users and producers of gentrified properties, thus leaving open the possibility that some of the gentrifiers are either ‘owner occupiers’ or ‘incumbent landlords’. For example, for Clark, “*gentrification is a process involving a change in the population of land-users such that the new users are of a higher socio-economic status than the previous users, together with an associated change in the built environment through a reinvestment in fixed capital*” (Clark 2005: 263). This definition clearly accommodates the three types of gentrifiers Smith (1979) identified, as well as gentrification produced by an incumbent landlord. But even Smith’s (2000) definition – “*the reinvestment of capital at the urban centre, which is designed to produce space for a more affluent class of people than currently occupies that space*” (Smith 2000: 294) – and that by Davidson and Lees’ (2005) quoted early in the paper and which both focus more heavily on capital reinvestment do not allow for a distinction to be made between relatively minute amounts of capital invested by an incumbent landlord to prepare the dwelling for private rental and the capital needed to destroy a council estate and rebuild in its place. Both ‘injections of capital’ serve the same purpose of producing “*space for a more affluent class of people than currently occupies that space*” (Smith 2000: 294), but with very different social consequences.

---

<sup>14</sup> A majority decrease here is defined as a decrease in one type of owner that is over twice as large as the other.

<sup>15</sup> There were 98,250 owners with a mortgage and 46,187 fully owning in 2001 in these OAs.

Emphasising that the reinvestment of capital in gentrifying areas comes from capital-rich sources, and is thus dispossessing low-income owners, might be a way to make this distinction clearer.

## Conclusions

There are thus two gentrifications occurring simultaneously in English metropolitan regions, but only OG has been adequately treated in the gentrification literature. This is problematic since disregarding tenure change in the study of social change can lead to concept stretching, a focus on the highly visible forms of gentrification and can become an obstacle to the comparison of gentrification processes in different places. But it is also an issue because PRG is in many ways more pernicious than OG: it is associated with more widespread displacement, creates commodified spaces and dispossesses low-income owners.

This paper thus provides some evidence on the way in which PRG has re-intensified the impacts of gentrification in the UK metropolitan system. With more returns on investment now available through buy-to-let, the transfer of council estates to private rental and the intensification of the offer of private rental units, gentrification has latched on to a different set of tenure trajectories. These have had the consequence of increasing the polarisation of the cities it has affected, especially through displacement, both past and to come. This offers a strong rebuke to the claim that “*the polarisation thesis has proved extremely influential, although its evidential basis is sometimes shaky and often runs contrary to the picture provided by official statistics*” (Butler, Hamnett and Ramsden 2008: 69).

And it lends credence to an approach which centres on the ability of gentrification to adapt itself to the changing policy environment, and thus to the relative investment opportunities of different tenure trajectories. An adaptation that is allowed to occur because “*the construction of new gentrification complexes in central cities across the world has become an increasingly unassailable capital accumulation strategy for competing urban economies*” (Smith 2002: 443). PRG can be stopped if rent controls and more secure private rental tenancies are reinstated – but gentrification will continue as long as real estate remains “*a centrepiece of the city’s productive economy, an end in itself*” (Smith 2002: 443).

## References

- Bondi L, 1999, "Gender, class, and gentrification: enriching the debate" *Environment and Planning D: Society and Space* **17**(2) 261–282
- Bridge G, 1994, "Gentrification, class, and residence: a reappraisal" *Environment and Planning D: Society and Space* **17** 31–51
- Butler T, Hamnett C, 2009 "Walking backwards to the future—waking up to class and gentrification in London" *Urban Policy and Research* **27**(3) 217–228
- Butler T, Hamnett C, Ramsden M, 2008, "Inward and upward? Marking out social class change in London, 1981–2001" *Urban Studies* **45**(1) 67–88
- Butler T, Lees L, 2006, "Super-gentrification in Barnsbury, London: globalization and gentrifying global elites at the neighbourhood level" *Transactions of the Institute of British Geographers* **31**(4) 467–487
- Butler T, Robson G, 2001 "Social capital, gentrification and neighbourhood change in London: a comparison of three South London neighbourhoods" *Urban Studies* **38**(12) 2145–2162
- Butler T, Robson G, 2003 "Negotiating their way in: the middle classes, gentrification and the deployment of capital in a globalising metropolis" *Urban Studies* **40**(9) 1791–1809
- Clark E, 2005, "The order and simplicity of gentrification: a political challenge", in *Gentrification in a Global Context: The New Urban Colonialism* Eds R Atkinson, G Bridge (Routledge, London) pp 256–264.
- Davidson M, 2007, "Gentrification as global habitat: a process of class construction or corporate creation?" *Transactions of the Institute of British Geographers* **32** 490–506
- Davidson M, Lees L, 2005, "New-build gentrification and London's riverside renaissance" *Environment and Planning A* **37** 1165–1190
- Davidson M, Lees L, 2010, "New-build gentrification: its histories, trajectories, and critical geographies" *Population, Space and Place* **16** 395–411
- DeGiovanni F, Paulson N, 1984, "Household diversity in revitalizing neighbourhoods" *Urban Affairs Quarterly* **20** 211–232
- Engels B, 1999, "Property ownership, tenure and displacement: in search of the process of displacement" *Environment and Planning A* **31** 1473–1495
- Fenton A, Lupton R, Arrundale R, Tunstal R, 2013, "Public housing, commodification, and rights to the city: the US and England compared" *Cities* **35** 373–378
- Gale D, 1979, "Middle class resettlement in older urban neighborhoods" *Journal of the American Planning Association* **45** 293–304
- Glass R, 1988, "London: aspects of change" in *Clichés of Urban Doom and Other Essays* Ed R Glass (Basil Blackwell, Oxford) 133–158
- Greater London Authority, 2014, *Housing in London 2014* [http://www.london.gov.uk/sites/default/files/Housing%20in%20London%202014%20-%20Final\\_1.pdf](http://www.london.gov.uk/sites/default/files/Housing%20in%20London%202014%20-%20Final_1.pdf)

*The Guardian* 2015, "'Bad policy' sees huge drop in homes for social rent", 15 January, <http://www.theguardian.com/money/2015/jan/15/bad-policy-huge-drop-social-rent>

Hackworth J, Smith N, 2001, "The changing state of gentrification" *Tijdschrift voor Economische en Sociale Geografie* **92**(4) 464–477

Hamnett C, 1973, "Improvement grants as an indicator of gentrification in inner London" *Area* **5**(4) 252–261

Hamnett C, 1986, "The changing socio-economic structure of London and the south-east, 1961–81" *Regional Studies* **10**(5) 391–406

Hamnett C, 1992, "Gentrifiers or lemmings? A response to Neil Smith" *Transactions of the Institute of British Geographers* **17**(1) 116–119

Hamnett C, 2010, "Moving the poor out of central London? The implications of the coalition government 2010 cuts to Housing Benefits" *Environment and Planning A* **42**(12) 2809–2819

Hamnett C, Butler T, 2010, "The changing ethnic structure of housing tenures in London, 1991–2001" *Urban Studies* **47**(1) 55–74

Hamnett C, Randolph W, 1984, "The role of landlord disinvestment in housing market transformation: an analysis of the flat break-up market in central London" *Transactions of the Institute of British Geographers* **9**(3) 259–279

Hamnett C, Williams P, 1980, "Social change in London: a study of gentrification" *Urban Affairs Quarterly* **15** 469–487

Laska S, Spain D, 1980, "Introduction" In *Back to the City: Issues in Neighborhood Renovation* Eds S Laska, D Spain (Pergamon: Elmsford, N.Y) xiii–xxi

Laska S, Spain D, 1979, "Urban policy and planning in the wake of gentrification: anticipating renovators' demands" *Journal of the American Planning Association* **45** 523–531

Lees L, 1994, "Gentrification in London and New York: an Atlantic gap?" *Housing Studies* **9**(2) 199–217

Lees L, 2000, "A reappraisal of gentrification: towards a 'geography of gentrification'" *Progress in Human Geography* **24** 389–408

Lees L, 2003, "Super-gentrification: the case of Brooklyn Heights, New York City" *Urban Studies* **40**(12) 2487–2510

Lees L, 2012, "The geography of gentrification: thinking through comparative urbanism" *Progress in Human Geography* **36** 155–171

Lees L, Shin H B, López-Morales E, 2015, *Global Gentrifications: Uneven Development and Displacement* (Policy Press: Bristol)

Ley D, 1986, "Alternative explanations for inner-city gentrification: a Canadian assessment" *Annals of the Association of American Geographers* **76** 521–535

Logan W, 1982, "Gentrification in inner Melbourne: problems of analysis" *Australian Geographical Studies* **20** 65–95

Maher C A, 1985, "Building activity and socio-economic change in inner Melbourne; 1961–81" *Urban Policy and Research* **3**(1) 3–12

Marcuse P, 1985, "Gentrification, abandonment, and displacement: connections, causes, and policy responses in New York City" *Journal of Urban and Contemporary Law* **28** 195–240

ONS, 2013, A Century of Home Ownership and Renting in England and Wales, Office for National Statistics, <http://www.ons.gov.uk/ons/rel/census/2011-census-analysis/a-century-of-home-ownership-and-renting-in-england-and-wales/short-story-on-housing.html>

Paccoud A, 2011, "Cities, health and well-being: methodology for an international analysis", DP, LSE Cities, London School of Economics, <http://lsecities.net/files/2011/11/LSE-Cities-Metropolitan-HDI-and-Density-18-10-11.pdf>

Paccoud A, 2014, "Migrant trajectories in London: 'spreading wings' or facing displacement?" in *Migration and London's Growth* Ed B Kochan (LSE London: London) 26–39

Rose D, 1984, "Rethinking gentrification: beyond the uneven development of Marxist urban theory" *Environment and Planning D: Society and Space* **2**(1) 47–74

Schaffer R, Smith N, 1986, "The gentrification of Harlem?" *Annals of the Association of American Geographers* **76**(3) 347–365

Slater T, 2006, "The eviction of critical perspectives from gentrification research" *International Journal of Urban and Regional Research* **30** 737–758

Smith N, 1979, "Toward a theory of gentrification: a back to the city movement by capital not people" *Journal of the American Planning Association* **45** 538–548

Smith N, 1987, "Of yuppies and housing: gentrification, social restructuring, and the urban dream" *Environment and Planning D: Society and Space* **5** 151–172

Smith N, 1992, "Blind man's bluff, or Hamnett's philosophical individualism in search of gentrification?" *Transactions of the Institute of British Geographers* **17** 110–15

Smith N, 2000, "Gentrification" in *The Dictionary of Human Geography 4<sup>th</sup> Edition* Eds R J Johnston, D Gregory, G Pratt, M Watts (Blackwell: Malden, MA)

Smith N, 2002, "New globalism, new urbanism: gentrification as global urban strategy" *Antipode* **34**(3) 427–450

Warde A, 1991, "Gentrification as consumption: issues of class and gender" *Environment and Planning D: Society and Space* **9** 223–232

Watt P, 2008, "The only class in town? Gentrification and the middle-class colonization of the city and the urban imagination" *International Journal of Urban and Regional Research* **32**(1) 206–211

Watt P, 2009, "Housing stock transfers, regeneration and state-led gentrification in London" *Urban Policy and Research* **27**(3) 229–242

Watt P, 2013, "'It's not for us': regeneration, the 2012 Olympics and the gentrification of East London" *City* **17**(1) 99–118

Williams P, 1976, "The role of institutions in the inner London housing market" *Transactions of the Institute of British Geographers* **1** 72–82

Zukin S, 1987, "Gentrification: culture and capital in the urban core" *Annual Review of Sociology* **13**(1) 129–47

# Appendix

## Social change (detailed)

The datasets used to identify OAs in which there has been social upscaling between 2001 and 2011 are the National Statistics Socio-economic Classification, 2001 (UV31) and NS-SeC, 2011 (QS607EW). The NS-SeC dataset allocates individuals aged 16-74 to eight major occupational categories on the basis of their occupation title and of information on their employment status, whether they are employed or self-employed and whether or not they supervise other employees. These eight categories are:

1. Higher managerial, administrative and professional occupations;
2. Lower managerial, administrative and professional occupations;
3. Intermediate occupations;
4. Small employers and own account workers;
5. Lower supervisory and technical occupations;
6. Semi-routine occupations;
7. Routine occupations; and
8. Never worked and long-term unemployed.

For the purpose of this analysis, I have further grouped these into four categories: 1&2 (group A); 3 (group B); 4 (group C); 5&6&7&8 (group D):

- While there has been a debate about using such a grouping for an analysis of social change – in particular between Watt (2008) and Butler and Hamnett (2009) – its use here is not to create “*a novel definition of the working class*” (Butler and Hamnett 2009: 224) but to provide some traction on those who may be the victims of gentrification.
- I followed the ONS’ recommendation to combine the 'never worked' and 'not classifiable for other reasons' categories when analysing the 2001 NS-SeC data (due to an error in ONS’ processing).
- I followed the ONS’ recommendation to keep categories 3 and 4 separate given that the self-employed are distinctive in their life chances and behaviour, a status that was taken into account by making sure that in any social change identified this group was either clearly associated with group A (AC) or AB (ABC) or with D (CD) or BD (BCD).



- As students (S) may be of any socioeconomic standing, only areas in which the change in students was not significant in comparison to the change in ABCD were selected.

The table below shows the four social changes that are considered as social upscaling. Because this dataset concerns those aged 16-74, a numerical threshold was found to be problematic, given that it is not possible to know the number of dependents associated with each of these individuals. In table 2 below, the letters A,B,C,D and S stand for changes in these categories between 2001 and 2011.

**Table 2: Criteria used to identify OAs in which social upscaling occurred**

<b>Type of social upscaling 2001-2011</b>	<b>Selection criteria</b>
D down, ABC up	$D < 0$ ; $A \geq 0$ ; $B \geq 0$ ; $C \geq 0$ ; $D < 2 * S$ ; $A + B + C > 2 * S$ ; $A + B > 0$
CD down, AB up	$C < 0$ ; $D < 0$ ; $A \geq 0$ ; $B \geq 0$ ; $C + D < 2 * S$ ; $A + B > 2 * S$
BCD down, A up	$B < 0$ ; $C < 0$ ; $D < 0$ ; $A > 0$ ; $B + C + D < 2 * S$ ; $A > 2 * S$
BD down, AC up	$B < 0$ ; $D < 0$ ; $A > 0$ ; $C \geq 0$ ; $B + D < 2 * S$ ; $A + C > 2 * S$

### Tenure change (detailed)

The table below lists the criteria used to identify the eight OG and PRG tenure changes from a comparison of the datasets Tenure - People, 2001 (UV43) and Tenure - People, 2011 (QS403EW) from the 2001 and 2011 UK Censuses respectively. A numerical threshold of 20 has been used in an attempt to use only those OAs in which the tenure change identified is the only one occurring in the OA. The symbols SR, PR and O in table 3 below represent the change in the number of residents within the tenure categories ‘social renting’, ‘private renting’ and ‘owning’ respectively between 2001 and 2011.

*Table 3: Criteria used to identify OG and PRG tenure changes*

Tenure change	Criteria used to identify the tenure change
Sole increase in private rental	$PR > 19$ ; $-20 < SR < 20$ ; $-20 < O < 20$ ; $PR > 2 * (O + SR)$ ; $PR > -2 * (O + SR)$ ; $PR > 2 * \max(O, SR)$ ; $PR > -2 * \min(O, SR)$
Sole increase in ownership	$O > 19$ ; $-20 < SR < 20$ ; $-20 < PR < 20$ ; $O > 2 * (SR + PR)$ ; $O > -2 * (SR + PR)$ ; $O > 2 * \max(SR, PR)$ ; $O > -2 * \min(SR, PR)$
Replacement of owned and social rented by private renting	$O < -19$ ; $SR < -19$ ; $PR > 19$
Replacement of private and social renting by owned	$PR < -19$ ; $SR < -19$ ; $O > 19$
Replacement of social housing by private rental	$SR < -19$ ; $SR < 2 * O$ ; $PR > 19$ ; $PR > 2 * O$ ; $-20 < O < 20$
Replacement of social housing by ownership	$SR < -19$ ; $SR < 2 * PR$ ; $O > 19$ ; $O > 2 * PR$ ; $-20 < PR < 20$
Replacement of owned by private rental	$O < -19$ ; $O < 2 * SR$ ; $PR > 19$ ; $PR > 2 * SR$ ; $-20 < SR < 20$
Replacement of private rental by owned	$PR < -19$ ; $PR < 2 * SR$ ; $O > 19$ ; $O > 2 * SR$ ; $-20 < SR < 20$



