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**Familiar Faces, Worn Out Places:
The Effect of Personal and Place Prosperity On Well-Being**

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Abstract

Higher rates of income inequality are correlated with lower average well-being across different domains (such as health, financial security, friendship etc.) across nations. It is unclear, however, whether this pattern is driven by income differences between people or if places also play a role. In this paper, I test this by constructing a Senian Capability Index of well-being and then testing the relative role of personal and place-based prosperity on its domains using linked individual-area data. I find that while personal income has the strongest link to well-being domains, places also have a significant, non-uniform, association as well. These effects differ between the labour market and neighbourhood level spatial scales. Local labour market prosperity gives its residents higher potential incomes and is associated with greater financial security and more friends. Moving to a more prosperous labour market also indirectly improves well-being by increasing potential incomes. Neighbourhood prosperity is associated with greater overall well-being, physical security, and a lower probability of death. These results suggest that policies aimed at improving personal and place-based characteristics are needed to create a “*good life*” for all citizens.

Keywords: Sen’s Capability Approach, Well-Being, Local Labour Markets, Neighbourhoods

JEL Codes: D31, I14, I15, I31, R10, R12

I INTRODUCTION

More unequal countries have lower levels of life expectancy, trust, financial security, leisure time and relationship quality while homicides and obesity are higher. The influential epidemiologists Pickett and Wilkinson argue that more unequal nations have worse outcomes solely due to higher rates of interpersonal inequality leading to status competition-related stress ([Wilkinson and Pickett 2006, 2007, 2010](#)). The data they use, which is aggregated at geographic level is not, however, suited to estimating the separate impacts of individual and places on the various domains of well-being.

The major contribution of this paper is to analyse the relative contribution of personal and place-based prosperity on different domains of well-being (e.g. health, financial security, physical safety etc.) by using individual-level data matched to places measured at different spatial scales within England.

I find that personal income has the strongest association with well-being outcomes. Places do, however, matter *and* places have differing effects at different spatial scales - larger labour markets have different effects on well-being domains than granular neighbourhoods. Living in a more prosperous local labour market has a substantive association with aspects of well-being associated with living in an area with greater employment prospects - better financial security, greater physical security, worse living conditions, and (surprisingly) more friends. The effects on physical and financial security increase over time. Living in a more prosperous labour market also indirectly increases most domains of well-being by increasing potential incomes. Living in a more prosperous neighbourhood, on the other hand, has little impact on one's potential incomes but does have a positive impact on overall well-being as well as domains associated with peer effects - better physical safety, and a lower probability of dying.

Whether places do have an impact on well-being is important in both academic and policy terms. Less-educated middle aged people are dying in ever greater numbers from

drugs, alcohol, and suicide in both the United States and United Kingdom as both their individual economic prospects and the places they live have gone into relative economic decline (Case and Deaton 2017; Joyce and Xu 2019; Case and Deaton 2020). This has led to life expectancy falling overall in the United States as well as in the most deprived areas of the United Kingdom (Cooke 2020; Fleming 2020). If individual prosperity was linked to rising deaths of despair, then it suggests the correct policy response would be to implement individual-based policies (e.g. increasing social security payments). If place-based prosperity also plays a role, then other place-based policies could be required (e.g. investing in local community infrastructure). Here, I find that both individual and spatial prosperity are linked to longer life expectancy, indicating that a mixture of individual and place-based policies are needed to reduce deaths of despair .

I use Sen’s Capability Approach to measure well-being in this paper. This philosophically robust method seeks to assess what actually constitutes a good life rather than equate it arbitrarily with a mental state such as Subjective Well-Being (SWB) (Sen 2001; Robeyns and Byskov 2020). People with the same level of SWB have substantially different outcomes on other well-being domains - some who are completely satisfied with life, for example, also have very poor physical health. The Capability Approach views the good life as made up of beings and doings (e.g. “being healthy, “doing” a good job) known as functionings. When an individual can substantively achieve a functioning (e.g. be able to do a good job), they have achieved a capability. Well-being is measured as the capabilities an individual possesses. While the precise list of capabilities varies somewhat between authors, the same substantive items are included across different lists (e.g. health, social life, incomes) (Nussbaum 2003; Alkire and Kovesdi 2020). In this paper, I use the capability domains in the LSE’s Multidimensional Inequality Framework, an interdisciplinary collaboration with academics, practitioners, and activists that uses Sen’s Capability Approach, *“to provide a systematic approach to analysing multidimensional inequality,”* using Sen’s Capability Approach (McKnight et al. 2019).

The current Capability Approach literature focuses on how best to measure well-being for population groups and nations rather than analysing the individual and spatial factors that are associated with improvements in multidimensional well-being ([Chiappero-Martinetti and Roche 2009](#); [Alkire 2015](#); [Alkire et al. 2015](#); [Vizard and Speed 2016](#); [Greco 2018](#); [Alkire and Kovesdi 2020](#))¹. This paper builds on this literature by providing evidence on what determines well-being as well as constructing a multidimensional Capability Index of Well-Being for individuals.

The current literature that analyses the impact of place does so for one or a few domains such as health, financial security, safety etc. (e.g. [Chetty and Hendren \(2018a\)](#); [Leventhal and Dupéré \(2019\)](#); [Jivraj et al. \(2020\)](#)). This literature also rarely differentiates between different spatial scales when considering the impact on outcomes. This paper contributes to this literature by first creating a comprehensive index of well-being, allowing me to show the differing impacts of place prosperity on the range of domains that make up a good life, as well as examining their impacts at different spatial scales. In particular, I show how differences in spatial prosperity impacts each domain of well-being within an advanced democracy.

Spatial inequality has risen across advanced economies as high-valued economic production now takes place in large cities while former manufacturing areas have gone into relative decline ([Moretti 2013](#); [Iversen and Soskice 2019](#); [Kemeny and Storper 2020](#)). The United Kingdom is one the most spatially unequal economies in the OECD, with London and the surrounding commuter belt constituting the economic, political and financial centre of the country ([McCann 2016](#); [Sandher 2018](#)). The relationship between the various domains of well-being and spatial prosperity is not, however, uniformly positive. More prosperous regions have better health outcomes and higher disposable incomes, but also have lower levels of life satisfaction, social connections, and housing space ([Zymek and Jones 2020](#)). The urbanicity of an area also matters - people living in more urban areas experience more crime for a given level of prosperity. [Alkire and Kovesdi \(2020\)](#) find that London has the lowest

¹Literature at the country level does examine the impact of economic growth on multidimensional well-being ([Santos et al. 2019](#); [Seth and Alkire 2021](#))

well-being when constructing a Capability Index for the United Kingdom.

Less-skilled workers are less mobile than graduates and so are less likely to be able to move to and live in more prosperous areas ([Amior 2015](#); [Autor et al. 2015](#); [Swinney and Williams 2016](#)). I find that a given level of prosperity has no greater effect on well-being domains for less-educated people. Less-skilled workers still, however, gain an indirect “locational” surplus from living in more prosperous areas because they are less likely to be able to move to and live in more prosperous areas unlike graduates. These non-graduates have greater employment rates and higher wages in stronger local labour markets ([Moretti 2013](#)). They also possess fewer financial and emotional resources that would allow them to shield themselves from negative place effects ([Sharkey and Faber 2014](#)).

In order to estimate the separate effects of individual and place-level factors on well-being, I use Understanding Society data that is linked at the geographic level to local authorities as a measure of local labour markets (average population 180,000) and Middle Super Output Areas as a measure of neighbourhoods (average population 7,500). I control for the prosperity of the surrounding areas using a spatial lag variable, which has the added benefit of adjusting measures of prosperity for the differing sizes of administrative boundaries. I use the percentage deviation of the median wage from the average as the geographic measure of spatial prosperity at the local authority level. At the MSOA level, I use the percentage deviation of income-related social security claimant rates from the average. These percentage deviation measures show the impact that both spatial prosperity and spatial inequality have on well-being.

There is no perfect way to control for selection bias in where people choose to live and so perfectly estimate the causal impact of places on well-being outcomes. (Quasi-)experimental studies also have significant selection effects in which people choose to move and where they choose to move ([Gallagher et al. 2019](#)). Here, I use a range of different methods to analyse the impact of places on well-being. Individual fixed-effects regressions are used to show the association between personal incomes, place prosperity, and well-being. Models

with fixed effects at the local authority level are also included to control for time-invariant characteristics of places. Event study regressions that exploit (quasi-) exogenous moves are also used to show the impact of moving to a better area as well as their impacts over time. Finally, a logistic regression is used to show the association between the prosperity of places and the probability of dying.

The rest of this paper proceeds as follows. First, I discuss how individual and place-based prosperity impact well-being as well as the philosophical foundation of Sen's Capability Index. I then move on to discuss how (spatial) income and well-being inequality has evolved in advanced economies and the United Kingdom. I then set out hypotheses, data, and the measurement of the key variables - the Capability Index of well-being and spatial prosperity. Results are then presented. Finally, I close with a discussion of the results, their policy implications, and directions for future research.

II INDIVIDUAL VS. PLACE-BASED PROSPERITY AND WELL-BEING

Higher rates of income inequality measured at the national level are correlated with lower average well-being across a number of different indicators across OECD nations including, but not limited to, life expectancy, trust, obesity, educational attainment, homicides, financial security, leisure time, and relationship quality. The influential epidemiologists Richard Wilkinson and Kate Pickett argue that this is due to the psychological impact of increasing social distance between individuals ([Wilkinson and Pickett 2006, 2010](#); [Marmot 2016](#); [Wilkinson and Pickett 2018](#); [Nolan and Valenzuela 2019](#)). They argue that social distance between individuals is larger, and therefore more important, in more unequal societies. This leads to higher levels of stress and anxiety for everyone, which then also leads to behaviours that reduce well-being – either as a means to maintain one’s relative social position (e.g. violence, conspicuous consumption) or as a coping mechanism in response to extreme stress (e.g. drug use, excessive eating). Subjective perceptions that inequality is rising has been found to lead to worse self-reported health ([Gugushvili et al. 2020](#)).

Wilkinson and Pickett argue that it is income differences between people at the national level that is largely driving differences in well-being outcomes as this is the level at which we make social comparisons. They discount the impacts of places themselves, arguing that, *“the health of people in deprived neighbourhoods is poorer ... because they are deprived in relation to wider society”* ([Wilkinson and Pickett 2006](#), p.1774). They argue that studies that find that places have an impact on well-being outcomes are actually picking up the difference between people living in these separate areas - that what they actually end up measuring is the difference between rich and poor people rather than rich and poor places ([Wilkinson and Pickett 2006, 2007](#)).

The data used in their analyses are not, however, suitable to estimate the relative effects of places and people on well-being. Indicators taken at the population-area level (e.g. regional

life expectancy) cannot tell us what happens to similar individuals within different areas. Data is required at the individual-area level to analyse the relative impacts of individual and place based characteristics. If place has no impact on well-being, then people with similar incomes in areas with differing prosperity should have broadly similar well-being outcomes, invariant to the characteristics of that area.

The distinction is important in both academic and policy terms. In both the United States and the United Kingdom, there has been a rise in deaths of despair from drug, alcoholism, and suicide for non-university educated middle-aged people who are more concentrated in former industrial areas (Moretti 2013; Joyce and Xu 2019; Case and Deaton 2020; Zymek and Jones 2020). Life expectancy is now falling in the United States and the most deprived areas of the United Kingdom (Cooke 2020; Fleming 2020). Falling life expectancy and rising deaths of despair higher could, however, be caused by place-based and/or individual characteristics - and the recent literature finds evidence for both having an impact. Quasi-experimental research shows that increasing individual income through rises in the minimum wage and in-work social security payments leads to lower deaths of despair (Dow et al. 2020). Places do appear to have an impact on health outcomes, including mortality rates (Deryugina et al. 2020; Jivraj et al. 2020). This paper adds to this literature by differentiating between impacts at different spatial scales as well as considering the impact of place-based prosperity on overall well-being as well as its components.

II.1 What is well-being?

I define well-being using Sen’s Capabilities Approach because it represents a philosophically sound method that uses an appropriately broad set of information to evaluate whether a person is able to live a good life, rather than arbitrarily equating the full breadth and richness of the human experience to some single mental state or income (Sen 2001; Robeyns and Byskov 2020). Sen (2001) stated that, in order to assess an individual’s well-being, we have to assess whether they have the substantive ability to live a *“life one has reason to*

value” (Sen 2001, p.1774). The life one has reason to value is made up of “*beings*” and “*doings*” e.g. “*being healthy*”, “*doing*” a job etc., which are known as “*functionings*” The substantive ability to achieve a functioning (a “*beings*” or “*doing*”) is a capability and the different combinations of functionings that an individual can achieve is their Capability Set. It is possible for one to have a capability but not to achieve a functioning out of choice. For example, one could have the ability to, “*be well nourished,*” but choose to starve as a matter of protest. From the social scientists’ perspective, functionings are used to evaluate well-being in practice as it is not possible to evaluate capabilities with precision from available datasets. While this may lead to some mismeasurement at the individual level, it is unlikely to do so at the group level. When a group does not achieve a particular functioning, it is safe to conclude that they did not possess the capability to achieve it in the first place (Alkire 2015)

These functionings, or “beings” and “doings” can be grouped into various domains that well-being is evaluated against (e.g. education, health etc.). There is no set list of capabilities or domains that make up a good life - Sen himself believed that this set should be determined by people through enlightened public reasoning (Nussbaum 2003; Sen 2005). In practice, most people come to similar views (and even similar rankings) about what they value in life - health, for example, is consistently ranked as one of the most important, if not the most important, capability (Benjamin et al. 2014; OECD 2021). The Capability Approach does not merely allow but requires us to consider the broad range of well-being domains that are negatively associated with inequality.

The advantage of using Sen’s Capability Approach to define well-being over the more commonly used measure of Subjective Well-Being (SWB) is that it provides a philosophically sound conception of what it means for one to live a good life that does not rely exclusively on mental states (Robeyns and Byskov 2020). Happiness or SWB is an important component of a good life but it is not the only component. To ask *only* whether someone is happy or satisfied with their life falls prey to adaptive expectation problems - a person can have

higher well-being than another because they are simply unaware of a better life or because they are congenitally disposed to have a more positive outlook (Sen 2001; Haidt 2006). For example, someone living in a poorer nation with a much lower life expectancy who said that they were happier than someone in the United Kingdom, would literally be living a better life under the Subjective Well-Being view. This is not a mere theoretical curiosity either, measures of life satisfaction over the past 15 years has shown Costa Rica having higher values than the UK despite its lower life expectancy - prior to Hugo Chavez's death, the same was true for Venezuela (Max Roser and Ritchie 2013; Ortiz-Ospina and Roser 2013). When controlling for income across nations, levels of life expectancy have little impact on Subjective Well-Being whereas changes in life expectancy do - on the Subjective Well-Being view, a nation that had lower, stable life expectancy would *literally* provide a better life than another nation with a higher level of life expectancy that had recently fallen (Deaton 2008). This clashes with our own intuitions of what a good life is and leads to perverse policy objectives where maximising a subjective psychological state would take precedence over all others. The dystopian vision set out in *A Brave New World* would become the ultimate aim of government policy if Subjective Well-Being was the only criteria for a good life (Huxley 2006).

II.2 How do places impact well-being?

Places do have an impact on at least some domains of well-being beyond individual effects. Across Europe, both regional and individual factors have significant impacts on Subjective Well-Being (Aslam and Corrado 2012). Recent research finds that for some health outcomes, it is inter-spatial rather than inter-personal income inequality that adversely impacts health outcomes (Yao et al. 2019). (Quasi) experimental research designs show that children and adults who move to better neighbourhoods have better health outcomes (Chetty et al. 2016; Chetty and Hendren 2018a,b; Leventhal and Dupéré 2019; Chyn and Katz 2021). For adults, there is evidence that areas have a cumulative impact on health outcomes over time but this

finding is not universal ([Jivraj et al. 2020](#); [Hagedoorn and Helbich 2021](#)). I now turn to how places impact well-being domains at the labour market and neighbourhood levels.

Firstly, more prosperous labour markets can have a positive impact on well-being domains through their greater employment opportunities and higher potential incomes. These areas provide higher potential incomes for all workers; even less skilled workers in the same occupation earn more when living in or near to more affluent areas ([Moretti 2013](#)). Higher individual incomes give individuals greater financial, emotional, and cognitive resources that lead to better physical and mental health, more friendships, greater financial security, as well as greater political participation ([Layard 2005](#); [Dolan et al. 2008](#); [Mullainathan 2013](#); [Mar-mot 2016](#); [Mood and Jonsson 2016](#)). By contrast, a lack of employment opportunities and lower incomes has been convincingly identified as a source of rising deaths of despair from alcohol, drugs, and suicide for men ([Autor et al. 2019](#); [Case and Deaton 2020](#); [Eisen et al. 2020](#)). Earlier work linked the fall in employment prospects in post-Soviet Russia to the large rises in deaths for middle-aged men from alcoholism and suicide ([Stewart et al. 1994](#)). Crime also becomes a more attractive economic prospect in areas with weaker labour markets (i.e. where there are fewer formal economic opportunities) ([Draca and Machin 2015](#)).

Higher potential earnings in more prosperous areas will be somewhat offset by higher housing costs but, as residential mobility is less than perfect, and much lower for non-graduates, those who happen to live in more affluent areas may receive a locational surplus (and so be able to “buy”) more well-being than a similarly skilled person who lives in a less affluent area ([Amior 2015](#); [Autor et al. 2015](#); [Swinney and Williams 2016](#)). This locational surplus is likely to be present for non-graduates who are less mobile whereas graduates are more willing and able to move to areas with greater well-being payoffs ([Swinney and Williams 2016](#)).

Crucially, the effects of a stronger labour market is likely to operate at a much larger spatial scale rather than the more granular scale of the neighbourhood that is often used in place-based research (e.g. [Chetty et al. \(2016\)](#); [Chetty and Hendren \(2018a\)](#)). Local labour

markets are larger than neighbourhoods as people can commute longer distances to job opportunities (Sharkey and Faber 2014; Chyn and Katz 2021). Neighbourhood prosperity does not always give a good indication of the local labour market opportunities - less deprived neighbourhoods are not necessarily closer to better job opportunities, especially for those with lower skills (Cove et al. 2008). (Quasi-) Experimental research shows that moving to a more prosperous neighborhood has little impact on employment or wages whereas moving to more prosperous places measured at a larger spatial scale (i.e. spatial scales that do capture the strength of the local labour market) do lead to higher employment and/or wages (Deryugina et al. 2018; Chyn and Katz 2021; Harding et al. 2021). The impact of stronger labour markets on domains of well-being will, crucially, also tend to operate through higher individual incomes. Spatial prosperity at the labour market level operates through increasing potential employment and wages not through measures of deprivation.

Secondly, there are positive peer effects present in more prosperous neighbourhoods - residents in these areas are more likely to practice (and so encourage) positive behaviours as well as provide more social support. Social norms and peer effects can encourage behaviours that are beneficial (e.g. eating more nutritious food, participating in politics) or damaging (e.g. crime) (Carrell et al. 2011; Cho and Rudolph 2008; Ludwig et al. 2011; Bernasco et al. 2017). In areas with high disadvantage, it is more difficult for neighbours to demonstrate these positive behaviours, act in concert to stop undesirable ones, socially interact with one another, as well as more difficult to provide support for other families within the neighbourhood (Leventhal and Dupéré 2019). People in more deprived areas report feeling more lonely and having fewer friends (Victor and Pikhartova 2020). Non-graduates are particularly affected by neighbourhood prosperity as they are less able to insulate themselves from the effects of their local neighbourhoods (Sharkey and Faber 2014).

These peer effects operate at the neighbourhood level rather than the local labour market level. The type of spatial prosperity that is important for peer effects, therefore, differs from local labour market effects. Peer effects are more closely linked to measures of depri-

vation/advantage within a neighbourhood, which indicate how people who live in the area can act collectively and demonstrate positive/negative behaviours to each other ([McCulloch 2003](#); [Leventhal and Dupéré 2019](#)). This is related to, but is not equivalent to, labour market prosperity. Wages can be high in areas where there is also high amounts of deprivation. An area can have high potential incomes alongside potentially negative peer effects. In these areas, local labour market prosperity is high while neighbourhood prosperity is low. For example, Tower Hamlets (an East London local authority), has high wages (that are 10% higher than the London average and 45% higher than the UK average) *as well as* the highest child poverty rate in the country at 55.8% ([Hirsch and Stone 2021](#); [NOMIS 2021](#)).

Thirdly, more prosperous areas are likely to have better public and private good provision. Public good expenditure may be greater in more deprived areas, but its provision is likely to be more effective in more prosperous areas where there is less need. Within the UK, the most deprived areas receive the most funding, and then saw the largest cuts during the post-2010 fiscal retrenchment - this has been linked to falling life expectancy, falling mobility from less public transport, rising violent crime, and lower incomes in these deprived areas ([Watkins et al. 2017](#); [Gray and Barford 2018](#); [Marmot et al. 2020](#)). Pubs have been more likely to close in more deprived areas and the fall in social spaces has led to a consequent rise in support for radical right parties ([Angus et al. 2017](#); [Bolet 2021](#)).

Spatial prosperity does not, however, have a uniformly positive association with all aspects of well-being. Housing costs are higher near and within more prosperous areas reflecting both the higher potential incomes and other well-being benefits that come with living there ([Florida et al. 2013](#); [Ryan-Collins et al. 2017](#)). Home size is subsequently smaller, overcrowding more frequent, and commuting times often longer, both near and within more prosperous areas ([Eurostat 2020](#)).

The urbanicity of an area is a mediating factor between spatial prosperity and well-being outcomes. People living in urban areas have lower levels of intra-community social capital due to high residential turnover making it harder to form relationships and act collectively

to stop undesirable behaviours ([Layard 2005](#); [Sørensen 2016](#)). This lack of intra-community social capital means that, for a given level of prosperity, people living in urban areas have fewer friendships and experience more crime ([Draca and Machin 2015](#); [MacDonald et al. 2020](#)).

In summation, I would therefore expect more prosperous areas to have impacts on well-being outcomes but for these impacts to differ between spatial scales. More prosperous labour markets give better employment opportunities and safety outcomes. They would also have lower levels of quality of life in terms of housing and leisure time. More prosperous neighbourhoods give residents better health outcomes, physical security, social lives, and political participation through their peer effects. These impacts are mediated by urbanicity. For a given level of prosperity, we would expect urban areas to have more crime and fewer friendships due to the lower levels of bonding social present capital there. Finally, I expect the less-educated to gain greater well-being benefits from more prosperous labour markets (as they are less able to move) and neighbourhoods (as they are less able to insulate themselves from peer effects).

III SPATIAL INEQUALITY IN ADVANCED ECONOMIES

Rising interpersonal income inequality has been coupled with rising spatial inequality in the wake of technological change and globalisation. Spatial inequality has been rising in advanced economies as secular economic forces have led to the concentration of high-wage jobs, performed by graduates, in major cities. This represented a marked difference from the post-war era, when mass production manufacturing jobs with good wages were undertaken by men with few formal qualifications in factories and industrial plants across the country. Spatial inequality subsequently fell across advanced economies in *Les Trente Glorieuses* as rising growth provided good job opportunities for people across the country (Frey 2019; Iversen and Soskice 2019; Carrascal-Incera et al. 2020; Kemeny and Storper 2020; Zymek and Jones 2020).

The secular forces of technological change and globalisation that raised the return to graduate qualifications also destroyed mid-skill manufacturing jobs leading to a divided labour market with high and low-pay jobs. In today's knowledge economy, high-value production is now undertaken by highly skilled graduates working together in offices based in major cities while low-pay production takes place across the country (Iammarino et al. 2019; Kemeny and Storper 2020).

These secular economic forces have a self-reinforcing place-based nature. They encourage the concentration of both economic advantage and disadvantage in separate areas. High-value knowledge based production requires large numbers of high-skilled graduates working in close proximity to others within cities, which leads to high productivity firms locating in these areas, and then more graduates moved to these areas, and so on (Florida and Mellander 2018; Haskel 2018; Iversen and Soskice 2019). These high productivity areas also provide higher wages and more employment for low-skilled workers in these cities as higher skill workers consume the services they work in. Economic disadvantage has become similarly concentrated in weaker economies that high-skilled workers have left, and where

high productivity firms do not locate ([Moretti 2013](#)).

The benefits of high productivity cities are more than just pecuniary. High-skill graduates are mobile and fickle – they leave potentially high productivity areas that do not have the amenities to keep them satisfied. These include good infrastructure, public services as well as a vibrant cultural scene and nightlife ([Florida and Mellander 2018](#)). These areas have other non-pecuniary well-being benefits for those who live in them and near them. In the United Kingdom, life expectancy and broadband availability are higher, and crime lower, in regions that are more productive ([Zymek and Jones 2020](#)).

There is also, however, a divide within these high productivity cities. High-skilled people live in areas of these cities that are most pleasant with the most amenities, including transport infrastructure, while low-skilled workers are pushed ever further away into relatively deprived and geographically isolated areas of the city due to the higher housing costs ([Florida 2017](#)). Segregation replicates itself on a micro scale within major cities, as well as between them and other conurbations. However, while low-income people within and near these cities are further away from well-being benefits than high-income people, they are still obviously, closer to them than less-skilled individuals on the economic periphery of these nations.

The economic periphery of advanced economies are the former industrial areas, where the manufacturing sector has shrunk precipitously due to technological change and trade ([Autor et al. 2015](#); [Beatty and Fothergill 2017](#)). The decline in local employment opportunities has led to a self-reinforcing decline in these area where high-skilled people leave and concentrated disadvantage remains ([Swinney and Williams 2016](#); [Sandher and Innes 2020](#)). These areas of concentrated disadvantage have subsequently seen large rises in the number of deaths of despair ([Autor et al. 2019](#); [Charles et al. 2019](#)).

If places themselves have an impact on well-being, then rising spatial inequality and the relative decline of former manufacturing areas will have led to widening well-being inequality within advanced democracies as well. In this paper, I examine whether this is the case.

IV SPATIAL INCOME AND WELL-BEING INEQUALITY IN THE UK

Spatial inequality has risen across advanced economies, and the UK is one of the most spatially unequal in the OECD - England contains both the richest (Inner London) and five of the ten poorest areas in Northern Europe (McCann 2016; Panjwani 2018). The UK is hyper centralised - London constitutes its major economic *and* political centre. The central government has control over most policy issues and funding decisions, while the level of subnational expenditure is one of the lowest in the OECD (McCann 2016). London is where most high-skill jobs and industries are found - it is the political, financial, and technological centre in marked contrast to other large developed nations such as the United States, Germany, and Canada (Florida 2017).

This centralisation of high-value economic activity and political power is reflected in the UK's spatial inequality. Over half of its spatial inequality is regional in nature (Zymek and Jones 2020). In particular, the United Kingdom has one large super-high productivity area that encompasses London and the surrounding commuter belt in the South East with dotted islands of prosperity around other major cities that can be seen in Figure 1² below (Florida 2017; Sandher 2018). Infrastructure spending has become similarly biased toward London (Raikes 2019). London's greater job and well-being opportunities are reflected in its higher housing costs - the house price to income ratio is around twice as high as it is in the rest of country (Ryan-Collins et al. 2017; ONS 2020).

London does not, however, provide uniformly high well-being to all of its citizens. London has both the UK's highest wage levels *and* its highest poverty levels due to both its status as a major world city and the higher housing costs that come with it (Agrawal and Phillips 2020). Within London, lower income households are pushed further away from transport

²Data on wages is unavailable for six local authorities - five due to boundary changes and one (the City of London) due to a tiny sample size

Figure 1: Spatial Prosperity in England and London in 2017 by Median Wage Deciles

and other amenities - the commuting and congestion costs that come from living in one of the world's major city are felt by the capital's poorer citizens ([Florida 2017](#)).

Empirical work using Sen's Capability Approach found London had the country's lowest levels of well-being, while subjective life satisfaction and social connections are also lowest in the capital ([Alkire and Kovesdi 2020](#); [Zymek and Jones 2020](#)). London's citizens do, however, still benefit in other ways from being closer to the nation's economic centre - intergenerational occupation-wage mobility is much higher in London and life expectancy in poorer areas of the capital is also comparatively higher than poorer areas elsewhere in the country ([Buck and Maguire 2015](#); [Authority 2018](#); [Bell et al. 2018](#)).

The former manufacturing areas of the country, on the other hand, provide uniformly lower levels of well-being for their citizens. These areas have the lowest life expectancy and proportion of graduates as well as the highest numbers on disability-related social security payments ([Beatty and Fothergill 2017](#); [Sandher and Innes 2020](#)). These former manufacturing areas, which suffered the largest employment shocks from deindustrialisation in the

1970s, are the most deprived areas today ([Rice and Venables 2021](#)).

In this paper, I describe and then analyse how living in the super-high productivity area of London and the deprived former industrial areas impact well-being for their residents. In particular, I test whether these place-based impacts on prosperity operates solely through providing greater job opportunities or whether other mechanisms, such as peer effects, also play a role.

V HYPOTHESES

I test the following hypotheses in this paper.

Hypothesis 1: Individuals with the same income will have different well-being outcomes if they live in a more prosperous area.

If individual as well as place-based prosperity impact well-being domains, then outcomes for individuals with the same income in areas should differ. The well-being impact from more prosperous places will not, however, be uniformly positive (e.g. living conditions are likely to be worse in more prosperous area).

Hypothesis 2: Measures of spatial prosperity at the labour market level will have an effect on well-being domains associated with work (financial security, safety and living conditions) while neighbourhood measures will have an effect on outcomes that operate through peer impacts (health, social life, safety, and political participation)

Greater prosperity at the labour market level will have an impact on well-being outcomes related to living in areas with greater employment and wage levels (greater financial security and physical safety but less comfortable living conditions due to longer commutes and greater

housing costs). Peer impacts will operate at the neighbourhood level, where the behaviour of those in your immediate vicinity impact your own well-being.

Hypothesis 3: Less-educated individuals will gain more well-being benefits than the highly-educated from living in a more prosperous area

Highly-educated individuals can both more easily choose where they live, and gain employment more easily wherever they are. They also have greater resources to insulate themselves from the negative impacts of their surroundings. Less-educated individuals will, on the other hand, find it harder to gain employment in more deprived areas and be more adversely affected by the negative impacts of places. I therefore expect that less-educated people will see relatively more positive well-being outcomes from living in a more prosperous area than highly educated individuals.

Hypothesis 4: Well-Being impacts increase the longer someone is in a more prosperous area

Consistent with findings that places have a greater impact on health outcomes the longer one lives in an area, I expect that places will have a greater impact on other well-being outcomes the longer someone lives in a given area.

Hypothesis 5: People will die more quickly in less prosperous areas

As deaths of despair are more concentrated in more deprived areas due to a lack of employment opportunities, and more deprived neighbourhoods also negatively impact health outcomes, I expect life expectancy to be lower in less prosperous places.

VI DATA

I measure the domains of well-being using the UK Household Longitudinal Study (UKHLS) in England between 2010 and 2017 for working age adults (i.e. those aged 16 and over), which includes a rich variety of socioeconomic data. Spatial data on the urbanicity of an area, local prosperity, and population density is taken from the Office for National Statistics. Updated data on local authority expenditure per person in each year was kindly provided by David Phillips and Kate Ogden at the Institute of Fiscal Studies ([Harris et al. 2019](#)). This helps to control for measures of need in the local area that are not captured by local prosperity measures such as the age and health needs.

VII METHODOLOGY

VII.1 Measuring Well-Being

There is a growing literature that constructs capability indices using available data. Given that capabilities are difficult to observe, I will evaluate an individual's functioning set as is common in the literature ([Alkire 2015](#)). At the individual level, this may lead to some mismeasurement where individuals choose not to achieve a functioning despite the capability to do so. These individual idiosyncrasies are, however, unlikely to affect group level estimates - people will not generally choose to be deprived on some dimension that is desirable.

There are four steps I undertake to build a Capability Index. I use the example of the Life and Health domain to illustrate how it is constructed. More information on the construction of the Index is given in the Appendix.

1. Identify Relevant Domains and Functionings - I use the list of domains as listed in the LSE Multidimensional Inequality Framework, which is similar to other lists such as the OECD Better Life Index ([Benjamin et al. 2014](#); [OECD 2021](#)). I exclude the Education

Table 1: Well-Being Domains and Data availability in the BHPS/Understanding Society

Domain	Variables	Years Data Available
Life and Health	Self-Reported Health, Life Satisfaction	2009 - 2017
Individual, Family, and Social Life	Number of Close Friends (up to 3), Friend to Relax With	2011, 2014, 2017
Financial Security and Dignified Work	Financial Situation, Employment Status,	2009 - 2017
Comfortable Living Conditions	Number of Rooms/Not Overcrowded, Leisure Time	2009 - 2017
Participation, Influence, and Voice	Have a Say In What Government Does	2011, 2014, 2017
Physical and Legal Security	Feel Safe Walking Alone at Night, Extent of People Attacked on Street	2011, 2014, 2017

domain, however, as the impacts of place and family largely have an impact on children who are excluded from this study (Heckman et al. 2006; Chetty et al. 2016). The full list of domains and the variables used to measure them are shown in Table 1. The first domain is Life and Health, and I use self reported health and life satisfaction to measure the functionings that fall within this domain

2. Measuring possession of a functioning - I use the “Fuzzy Set Theory” where an individual can either possess a functioning, partly possess, or not possess it (Brandolini and D’Alessio 1998). For example, if an individual’s life satisfaction is “Completely Satisfied” then I view them as fully functioning and the functioning is given a score of 1, if it is “Neither Satisfied nor Dissatisfied” then they are partly functioning and given a score of 0.5. If their Life Satisfaction is “Completely Unsatisfied” then they are not functioning and given a score of zero. Each functioning in a domain is weighted, usually equally, and the domain overall is given a score between 0 and 1. For example, life satisfaction and self-rated health functioning scores are halved and summed to give the overall Life and Health domain score, which is bounded between 0 and 1.

Table 2: Well-Being Domains and Weighting

Domain	Benjamin et al. (2014) Weight	Equal Weights
Life and Health	21.11%	14.3%
Comfortable Living Conditions	18.47%	14.3%
Financial Security and Dignified Work	17.06%	14.3%
Physical and Legal Security	16.57%	14.3%
Individual, Family, and Social Life	14.99%	14.3%
Participation, Influence, and Voice	11.81%	14.3%

3. Weighting - I calculate implied relative weights from survey experiment data where individuals were asked to choose between pairwise choices of well-being domains, and where the authors then use these choices to calculate the relative marginal utility for each domain (Benjamin et al. 2014). The weights assigned to each well-being domain reflect the marginal utility revealed by individual choices. This type of choice comes closest to Sen’s idea of public reasoning, where the public is asked to weight their own choices rather than being imposed by the researcher.³ From this experiment data, I take the highest relative marginal utility estimate for each domain. I compare this to equal weights. The weights are shown in Table 2.

I also construct a composite well-being index using principal component analysis. I take the factor loadings from the first principal component to calculate a PCA-derived Capability Index (Alkire et al. 2015; Greco 2018). The PCA-derived composite index has a very high correlation with the Capability Index of 0.9845. This is then rescaled to take values between 0 and 1.⁴

³This data includes 136 components of well-being and so I align each to a domain/sub-domain of well-being of well-being and then get an implied weighting. I exclude those that are exclusively other regarding and/or reflect personal choices/feelings

⁴The high correlation should not hide the fact that, for some individuals, there can be large differences between the public reasoning and PCA versions of the index

4. Aggregation - I sum the domains together in a weighted index and also consider them separately in the analysis. As will be seen below, spatial prosperity has differing impacts on the various domains of well-being that are missed in the aggregated Capability Index.

Figure 2 below shows the association between the Subjective Well-Being measure more commonly used in the literature and each domain of well-being e.g. [Dolan et al. \(2008\)](#). This shows the wide variation in outcomes that is missed when only considering Subjective Well-Being - there are, for example, many people with poor physical health who are also completely satisfied with life. As the life satisfaction measure is used as our measure of mental health, this domain has a perfect one-to-one relationship with SWB.

The closest example in the literature to creating a Capability index as I do here is [Alkire and Kovesdi \(2020\)](#). They create a multidimensional Capability index using one wave of Understanding Society data in order to show how many people do not achieve an adequate standard of well-being and how far below an adequate threshold they fall. The analysis here differs from their work in two key respects. Firstly, I aim to show what determines well-being and its components, rather than who possesses adequate well-being. Secondly, the weights derived here are arguably more robust as they depend upon a public reasoning exercise as conceived by Sen.

Figure 2: Association between Capability Index Domains and Subjective Well-Being in 2017

VII.2 Measuring Spatial Prosperity

I use ONS data to measure spatial prosperity. Data is measured at two levels - the local authority (average population 180,000) and Middle Super Output Area (MSOA - average population approximately 7,500) level. The impacts of place at the local authority and MSOA level are taken to roughly approximate the size of local labour markets and neighbourhoods respectively. Local authorities are selected as a proxy for local labour markets due to data availability. There is, however, a wide variation in their size. Some local authorities, particularly in London, are close enough together for several local authorities to constitute a single labour market. Spatially lagged measures of local prosperity, that account for the prosperity of the surrounding area, control for these differential sizes.

Local prosperity is measured at the local authority level using median wages as it reflects the strength of the local labour market and so the impact that greater potential incomes has on well-being. At the MSOA level, the (negative) percentage claiming income-related social security payments for MSOA is used as a measure of neighbourhood advantage to reflect the impact that peer effects has on well-being outcomes. These are positively but not perfectly related. Across local authorities, the correlation between these two measures is 0.29. As described above, these two measures measure the different channels that spatial prosperity has at different spatial scales - median wages measure local labour market opportunities and claimant rates measure neighbourhood peer effects, and so are not designed to be equivalent.

The main dependent variables of interest are the percentage deviations from the average. These are used to incorporate both spatial prosperity and spatial inequality. At the local authority level, the key dependent variable is the percentage deviation of the median wage in a local authority from the national median and at the MSOA the (negative) percentage deviation of the social security claimant rate from its national rate. For both variables, higher values therefore represent more prosperous areas - and are shown in Figure 3 below.

I also measure the impact of surrounding areas on an individual's well-being. As described

Figure 3: Area Prosperity (%Deviation from Mean) in Local Authorities and MSOAs

above, living in more deprived areas in London appears to confer benefits on that are that are not available in equally deprived areas elsewhere in the country and, in addition, the local labour market in large cities like London will not fall within local authority boundaries. Not accounting for this spatial dependence would lead to biased and inconsistent estimates (Fischer and Wang 2011). In order to account for the spatial dependence between areas, I create spatially lagged versions of the spatial prosperity variables, which accounts for the prosperity of the surrounding areas. These spatially lagged variables weight the impact of other areas with respect to the distance from a given area, where nearby locations have more of an impact than far away ones (Grubestic and Rosso 2014)

The spatial lag variable is given by:

$$\text{Spatially lagged Prosperity}_i = \sum_{i \neq j} w_{ij} \text{Spatial Prosperity}_j$$

where w_{ij} measures how much weight the outcome of variable in area j is given in the calculation of the spatially lagged variable. In this paper, I use the following weight matrix:

Figure 4: Spatially Lagged Prosperity in Local Authorities and MSOAs

$$w_{ij} = d_{ij}^{-2}$$

Spatially lagged prosperity measures are shown in Figure 4.

There are limitations to a measure of spatially lagged prosperity. In particular, it assumes that the impact of distance is equal across the country. This is unlikely to be true. For a given place, the spatial prosperity of areas that are 10 miles away are likely to have a greater impact in London due its better transport infrastructure than they are in rural areas, for example.

VIII DOES LIVING IN A MORE PROSPEROUS AREA IMPROVE YOUR WELL-BEING?

VIII.1 Association Between Spatial Prosperity and Well-Being - All Individuals

I use fixed effects specifications that control for individual level invariant characteristics, including their psychological dispositions, in this paper unless otherwise stated.

I estimate the following equation to estimate the association between the various domains of well-being as well as individual and spatial prosperity at the local authority (LA) and MSOA level. For all regressions in this paper, I also report separate results for functionings in the Life and Health domain (Physical and Mental Health) due to the importance of health for well-being. One cannot live a “*good life*” if one is dead.

$$\begin{aligned} \text{Well-Being}_{i,t} = & a_i + c_t + \text{Equivalised Household Income}_{i,t} + \text{LA Prosperity}_{j,t} + \\ & \text{Spatially Lagged LA Prosperity}_{j,t} + \text{MSOA Prosperity}_{j,t} + \\ & \text{Spatially Lagged MSOA Prosperity}_{j,t} + \text{Area Characteristics}_{j,t} + \\ & \text{Individual Characteristics}_{i,t} + \epsilon_{i,t} \end{aligned} \tag{1}$$

Where area characteristics include Local Authority Population Density, MSOA Population Density, Local Authority Expenditure, and a London Dummy. Individual characteristics include age, age-squared, and relationship status, which have been shown to have an impact on self-rated happiness, health outcomes, and financial security ([Dolan et al. 2008](#)). This is a deliberately parsimonious specification to avoid controlling for variables that could be intermediately impacted through place ([Jivraj et al. 2020](#)).

Regressions are shown with and without local authority fixed effects. Data is measured

between 2010 and 2017 where variables are available. Including local authority fixed effects has the advantage of controlling for constant characteristics of local authorities that are not otherwise measured. However, this specification has the drawback of controlling for the level effects of local authority prosperity and only therefore estimating the impacts of within-local authority changes in prosperity in this period. There is considerable persistence in local authority prosperity over time - the standard deviation of Median Wage differences is 17.0 between local authorities but only 3.5 within them. The important changes in spatial inequality that occur as a result of the Great Recession are, therefore, absorbed by the specification with local authority fixed effects ([Sandher 2018](#)).

The results in Tables 3 and 4 below provide support for Hypotheses 1 and 2. After controlling for household income, there is a significant association between well-being and spatial prosperity, and this impact differed between spatial scales. Greater prosperity at the local labour market (local authority level) led to greater financial security and worse living conditions in the specification without fixed effects. Surprisingly, living in more prosperous local authorities was also associated with a more active social life.

At the neighbourhood level (MSOA), greater prosperity led to greater overall well-being as well greater physical security. There was a lack of expected effects for health outcomes, social life, and political participation at the MSOA level, which may indicate the lack of peer effects for these well-being domains. As expected, denser and more urban neighbourhoods provide less physical security due to the lack of bonding social capital present but there was surprisingly little impact of population density on social life.

An increase in household income had a more consistent impact on almost all domains of well-being (with the exception of physical health, physical security and social life). Higher incomes also had a strong negative impact on living conditions, possibly due to the lower leisure time available richer in households. The most reliable way to raise personal well-being is still to increase personal incomes. However, the impact of living in more prosperous places was sometimes comparable to or greater than having an increase in monthly income

of £1000, (Figure 5) even if the effects were less consistent across well-being domains.

While these results do provide some support for Hypotheses 1 and 2, they do not allow a causal claim to be made nor can they account for selection effects of where people choose to live. They do, however, provide plausible evidence that local prosperity could have an effect on well-being domains, and that these effects differ between the labour market and neighbourhood levels.

Table 3: Association Between Individual/Spatial Prosperity and Well-Being in Local Authorities

	Well-Being Index/Domain									
	Capability Index		PCA Capability Index		Physical Health		Mental Health		Life & Health	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Personal Income										
Household Income	0.0025** (0.0010)	0.0025** (0.0010)	0.0022** (0.0009)	0.0022** (0.0009)	0.0003 (0.0003)	0.0003 (0.0003)	0.0020*** (0.0006)	0.0020*** (0.0006)	0.0010*** (0.0004)	0.0010*** (0.0004)
LA Prosperity										
Median Wage (10 % from Mean)	0.0014 (0.0013)	0.0016 (0.0010)	0.0011 (0.0014)	0.0011 (0.0011)	0.0017 (0.0013)	0.0007 (0.0010)	-0.0006 (0.00162)	-0.0004 (0.00126)	0.0003 (0.0011)	0.0000 (0.0009)
Spatially Lagged Median Wage	0.0028 (0.0037)	-0.0043* (0.0025)	0.0018 (0.0041)	-0.0048* (0.0028)	-0.0079** (0.0039)	-0.0070*** (0.0026)	-0.0140*** (0.0046)	-0.0080*** (0.0030)	-0.0106*** (0.0033)	-0.0069*** (0.0023)
MSOA Prosperity										
Means-tests Social Security	0.0099*** (0.0024)	0.0095*** (0.0023)	0.0088*** (0.0026)	0.0085*** (0.0025)	0.0000 (0.0021)	0.0003 (0.0020)	0.0003 (0.0026)	-0.0003 (0.0025)	0.0000 (0.0018)	-0.0006 (0.0018)
Payment Rate (1 % point decline)	-0.0071 (0.0077)	-0.0080 (0.0065)	-0.0089 (0.0083)	-0.0097 (0.0070)	-0.0056 (0.0058)	-0.0057 (0.0051)	0.0068 (0.0075)	0.0102 (0.0064)	0.0013 (0.0053)	0.0036 (0.0046)
Social Security Rate										
Area Characteristics										
London Dummy	-0.261*** (0.1000)	0.0021 (0.0097)	-0.282** (0.1140)	0.0062 (0.0106)	0.101* (0.0595)	0.0238** (0.0098)	-0.0704 (0.103)	0.0211** (0.0107)	0.0009 (0.0639)	0.0208** (0.0081)
LA Population Density	0.0066 (0.0049)	0.0036*** (0.0013)	0.0066 (0.0054)	0.0033** (0.0014)	-0.0020 (0.0044)	0.0002 (0.0011)	0.0082 (0.0054)	0.0006 (0.0013)	0.0037 (0.0040)	0.0003 (0.0009)
MSOA Population Density	-0.0034*** (0.0007)	-0.0028*** (0.0007)	-0.0036*** (0.0007)	-0.0030*** (0.0007)	-0.0009 (0.0006)	-0.0007 (0.0006)	-0.0008 (0.0007)	-0.0005 (0.0007)	-0.0009* (0.0005)	-0.0006 (0.0005)
Constant	0.803*** (0.109)	0.693*** (0.0845)	0.810*** (0.121)	0.694*** (0.0916)	0.466*** (0.0737)	0.507*** (0.0675)	0.681*** (0.110)	0.618*** (0.0800)	0.560*** (0.0715)	0.544*** (0.0579)
Individual Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Time Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
LA Fixed Effects	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
Individual Characteristics	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Area Characteristics	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
No. of Individuals	33,963	33,963	33,963	33,963	56,964	56,964	50,660	50,660	50,651	50,651
No. of Observations	63,641	63,641	63,641	63,641	252,384	252,384	221,215	221,215	221,160	221,160
Overall R^2	0.0136	0.0274	0.0142	0.0402	0.0278	0.0461	0.0075	0.0081	0.0094	0.0116

Robust standard errors calculated. Standard Errors in parentheses

Individual Characteristics include Marital Status, Age, and Age²

Area Characteristics include LA Population Density, MSOA Population Density, Local Authority Expenditure per person, and a London Dummy

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 4: Association Between Individual/Spatial Prosperity and Well-Being in Local Authorities

	Well-Being Index/Domain									
	Physical Security (11)	Finance & Work (12)	Living Conditions (13)	Living Conditions (14)	Social Life (15)	Social Life (16)	Participation & Voice (17)	Participation & Voice (18)	Participation & Voice (19)	Participation & Voice (20)
Personal Income										
Household Income (£1000 increase in)	0.0003 (0.0004)	0.0004 (0.0004)	0.0173*** (0.0037)	0.0173*** (0.0037)	-0.0023*** (0.0003)	-0.0022*** (0.0003)	0.0011 (0.0008)	0.0011 (0.0008)	0.0015*** (0.0006)	0.0013** (0.0006)
LA Prosperity										
Median Wage (10 % from Mean)	-0.0007 (0.0023)	0.0038** (0.0018)	0.0010 (0.0016)	0.0030** (0.0014)	-0.0013 (0.0012)	-0.0024** (0.0011)	0.0100*** (0.0030)	0.0067*** (0.0022)	-0.0002 (0.0032)	0.0000 (0.0025)
Spatially Lagged Median Wage	-0.0187*** (0.0066)	-0.0131*** (0.0042)	-0.0048 (0.0048)	-0.0013 (0.0036)	-0.0022 (0.0036)	-0.0060** (0.0028)	0.0270*** (0.0079)	-0.00232 (0.0049)	0.0106 (0.0086)	0.0008 (0.0054)
MSOA Prosperity										
Means-tests Social Security Payment Rate (1 % point decline)	0.0303*** (0.0041)	0.0310*** (0.0041)	0.0047 (0.0029)	0.0045 (0.0029)	-0.0014 (0.0024)	-0.0011 (0.0023)	0.0040 (0.0043)	0.0027 (0.0042)	0.0076 (0.0048)	0.0060 (0.0046)
Spatially Lagged Means-Tested Social Security Rate	0.0002 (0.0133)	0.0058 (0.0110)	0.0008 (0.0078)	0.0050 (0.0070)	-0.0034 (0.0066)	-0.0040 (0.0060)	0.0331** (0.0144)	0.0107 (0.0122)	0.0121 (0.0170)	0.0033 (0.0142)
Area Characteristics										
London Dummy	0.349*** (0.129)	0.0006 (0.0164)	-0.144* (0.0825)	0.000633 (0.0135)	-0.0409 (0.134)	0.0136 (0.0122)	-0.153 (0.133)	-0.0253 (0.0160)	0.136 (0.151)	-0.0188 (0.0191)
LA Population Density	-0.0102 (0.0069)	-0.00116 (0.0020)	0.0155*** (0.0057)	0.0048*** (0.0015)	0.0043 (0.0052)	-0.0016 (0.0015)	0.0012 (0.0084)	0.0042** (0.0019)	-0.0183** (0.0089)	0.0013 (0.0024)
MSOA Population Density	-0.0079*** (0.0011)	-0.0079*** (0.0011)	0.0007 (0.0009)	0.0005 (0.0008)	-0.0012 (0.0009)	-0.0010 (0.0008)	0.0020 (0.0012)	-0.0002 (0.0011)	-0.0005 (0.0013)	0.0009 (0.0013)
Constant	0.848*** (0.166)	0.865*** (0.146)	0.0730 (0.160)	0.00566 (0.156)	0.849*** (0.0877)	0.815*** (0.0563)	0.892*** (0.208)	0.851*** (0.185)	0.451** (0.226)	0.320 (0.205)
Individual Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Time Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
LA Fixed Effects	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
Individual Characteristics	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Area Characteristics	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
No. of Individuals	46,009	46,009	54,099	54,099	43,911	43,911	42,507	42,507	42,085	42,085
No. of Observations	91,246	91,246	244,116	244,116	182,278	182,278	84,228	84,228	83,347	83,347
Overall R^2	0.0690	0.0887	0.0049	0.0056	0.0281	0.0771	0.0001	0.0004	0.0013	0.0023

Robust standard errors calculated. Standard Errors in parentheses

Individual Characteristics include Marital Status, Age, and Age²

Area Characteristics include LA Population Density, MSOA Population Density, Local Authority Expenditure per person, and a London Dummy

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Figure 5: Association of Household Income and Spatial Prosperity with Well-being with and Without Fixed Effects

(a) With Fixed Effects

(b) No Fixed Effects

VIII.2 Places and the Less-Skilled

Equation 2 is estimated to measure the association between household income, spatial prosperity, and education. The Low Education Dummy indicates whether an individual has less than an A-Level Education. The interactions between spatial prosperity and the Low Ed Dummy are the key variables that show whether the impact of places differs for the low-educated compared to everyone else. A Graduate Dummy is also included. I restrict the sample to those who are over 24 years of age to avoid the confounding of effects from gaining a degree.

$$\begin{aligned} \text{Well-Being}_{i,t} = & a_i + c_t + \text{Equivalised Household Income}_{i,t} + \text{LA Prosperity}_{j,t} + \\ & \text{Spatially Lagged LA Prosperity}_{j,t} + \text{MSOA Prosperity}_{j,t} + \\ & \text{Spatially Lagged MSOA Prosperity}_{j,t} + \\ & + (\text{Low Ed Dummy}_{i,t} \times \text{LA Prosperity}_{j,t}) + (\text{Low Ed Dummy}_{i,t} \times \text{MSOA Prosperity}_{j,t}) \\ & + (\text{Low Ed Dummy}_{i,t} \times \text{Spatially Lagged LA Prosperity}_{j,t}) \\ & + (\text{Low Ed Dummy}_{i,t} \times \text{Spatially Lagged MSOA Prosperity}_{j,t}) \\ & + \text{Low Ed Dummy} + \text{Grad Dummy} \\ & + \text{Individual Characteristics}_{i,t} + \text{Area Characteristics}_{j,t} + \epsilon_{i,t} \end{aligned} \tag{2}$$

There is little support for Hypothesis 3 with spatial prosperity appearing to have no direct extra benefit for the less-educated. Almost none of the interaction terms are significant with the somewhat notable exception of Finance & Work in more prosperous local authorities, which is marginally significant. This is surprising, given that less-educated people have fewer financial and emotional resources to shield themselves from negative place effects ([Sharkey and Faber 2014](#)). It is particularly surprising that there is a lack of place-based effects for health outcomes, given that deaths of despair are concentrated within the less educated group

as well as the consistent finding that neighbourhoods have an impact on health outcomes (Case and Deaton 2020; Jivraj et al. 2020).

Figure 6: Association of Spatial Prosperity with Well-being for the Less-Skilled in Local Authorities and MSOAs

(a) Fixed Effects

(b) Without Fixed Effects

Table 5: Association Between Individual/Spatial Prosperity and Well-Being by Education Status in Local Authorities

	Well-Being Index/Domain									
	Capability Index (1)	Capability Index (2)	PCA Capability Index (3)	PCA Capability Index (4)	Physical Health (5)	Physical Health (6)	Mental Health (7)	Mental Health (8)	Life & Health (9)	Life & Health (10)
Personal Income										
Household Income (£000's)	0.0023** (0.0009)	0.0023** (0.0009)	0.0020** (0.0009)	0.0020** (0.0008)	0.0004 (0.0003)	0.0004 (0.0003)	0.0019*** (0.0006)	0.0019*** (0.0006)	0.0009*** (0.0003)	0.0010*** (0.0003)
LA Prosperity										
Median Wage Difference	0.0011 (0.0015)	0.0012 (0.0012)	0.0011 (0.0017)	0.0010 (0.0013)	0.0019 (0.0016)	0.0006 (0.0014)	-0.0010 (0.0020)	-0.0006 (0.0016)	0.0007 (0.0014)	0.0002 (0.0012)
Spatial Lag Wage Difference	0.0070* (0.0042)	-0.0023 (0.0030)	0.0055 (0.0046)	-0.0033 (0.0032)	-0.0071 (0.0046)	-0.0077** (0.0034)	-0.0106** (0.0053)	-0.0069* (0.0038)	-0.0087** (0.0039)	-0.0071** (0.0029)
MSOA Prosperity										
Claimant Rate Difference	0.0081*** (0.0029)	0.0068** (0.0027)	0.0073** (0.0031)	0.0062** (0.0030)	-0.0001 (0.0028)	-0.0007 (0.0028)	-0.0035 (0.0034)	-0.0042 (0.0034)	-0.0023 (0.0025)	-0.0030 (0.0024)
Spatial Lag	-0.0032 (0.0088)	-0.0024 (0.0074)	-0.0055 (0.0095)	-0.0043 (0.0080)	-0.0096 (0.0075)	-0.0065 (0.0066)	0.0103 (0.0090)	0.0134* (0.0080)	0.0018 (0.0066)	0.0052 (0.0058)
LA Education Interaction										
Low-Ed Dummy × Median Wage Difference	0.0018 (0.00232)	0.0025 (0.00230)	0.0010 (0.0025)	0.0018 (0.0024)	-0.0014 (0.0023)	-0.0004 (0.0023)	0.0041 (0.0029)	0.0037 (0.0030)	0.0005 (0.0020)	0.0009 (0.0020)
MSOA Education Interaction										
Low-Ed Dummy × Claimant Rate Difference	0.0027 (0.0048)	0.0022 (0.0048)	0.0003 (0.0052)	-0.0004 (0.0051)	-0.0038 (0.0044)	-0.0033 (0.0044)	0.0089 (0.0055)	0.0095* (0.0054)	0.0041 (0.0039)	0.0046 (0.0039)
Education										
Low-Education Dummy	0.0045 (0.0074)	0.0024 (0.0073)	0.0051 (0.0079)	0.0026 (0.0079)	-0.0145* (0.0077)	-0.0140* (0.0077)	0.0010 (0.0097)	-0.0004 (0.0097)	-0.0086 (0.0073)	-0.0091 (0.0072)
Graduate Dummy	0.0160* (0.0085)	0.0141 (0.0089)	0.0138 (0.0088)	0.0113 (0.0091)	-0.0069 (0.0086)	-0.0076 (0.0087)	0.0046 (0.0106)	0.0011 (0.0106)	0.0003 (0.00763)	-0.0019 (0.0076)
Constant	0.921*** (0.117)	0.750*** (0.0934)	0.936*** (0.130)	0.750*** (0.102)	0.435*** (0.0986)	0.441*** (0.0927)	0.682*** (0.138)	0.509*** (0.119)	0.557*** (0.0897)	0.464*** (0.0810)
Individual Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Time Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
LA Fixed Effects	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
Individual Characteristics	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Area Characteristics	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
No. of Individuals	29480	29480	29480	29480	45717	45717	41239	41239	41231	41231
No. of Observations	29480	29480	29480	29480	45717	45717	41239	41239	41231	41231
Overall R^2	0.0137	0.0538	0.0122	0.0674	0.0258	0.0392	0.0128	0.0153	0.00286	0.0040

Robust standard errors calculated. Standard Errors in parentheses

Individual Characteristics include Marital Status, Age, and Age²

Area Characteristics include LA Population Density, MSOA Population Density, LA Expenditure per person, and a London Dummy

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 6: Association Between Individual/Spatial Prosperity and Well-Being by Education Status

	Well-Being Index/Domain									
	Physical Security		Finance & Work		Living Conditions		Social Life		Participation & Voice	
	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
Household Income (£000's)	0.0003 (0.0004)	0.0003 (0.0004)	0.0156*** (0.0036)	0.0156*** (0.0036)	-0.0024*** (0.0003)	-0.0024*** (0.0003)	0.0011 (0.0009)	0.0011 (0.0009)	0.0018*** (0.0006)	0.0016*** (0.0006)
LA Prosperity										
Median Wage Difference	-0.0001 (0.0027)	0.0036 (0.0022)	-0.0023 (0.0020)	0.0005 (0.0016)	0.0001 (0.0014)	-0.0012 (0.0013)	0.0082** (0.0034)	0.0060** (0.0026)	0.0005 (0.0039)	0.0013 (0.0030)
Spatial Lag Wage Difference	-0.0203*** (0.0073)	-0.0177*** (0.0050)	0.0001 (0.0054)	0.000145 (0.00417)	-0.0036 (0.0040)	-0.0097*** (0.0031)	0.0384*** (0.0089)	0.00655 (0.0062)	0.0150 (0.0098)	0.00512 (0.0066)
MSOA Prosperity										
Claimant Rate Difference	0.0252*** (0.0052)	0.0268*** (0.0053)	0.0075** (0.0037)	0.0053 (0.0036)	-0.0055** (0.0028)	-0.0060** (0.0027)	0.0007 (0.0054)	-0.0015 (0.0053)	0.0038 (0.0062)	0.0000 (0.0060)
Spatial Lag	-0.0087 (0.0161)	-0.0005 (0.0138)	-0.0146 (0.0094)	-0.0056 (0.0085)	0.0000 (0.0074)	-0.0006 (0.0068)	0.0291 (0.0178)	0.0063 (0.0150)	0.0207 (0.0202)	0.0190 (0.0170)
LA Education Interaction										
Low-Ed Dummy × Median Wage Difference	-0.0004 (0.0040)	-0.0007 (0.0039)	0.0054* (0.0030)	0.0050* (0.0030)	-0.0013 (0.0022)	-0.0018 (0.0022)	0.0035 (0.0054)	0.0033 (0.0054)	-0.0010 (0.0055)	-0.0027 (0.0056)
MSOA Education Interaction										
Low-Ed Dummy ×	0.0073 (0.0082)	0.0093 (0.0083)	-0.0032 (0.0058)	-0.0006 (0.0058)	0.0025 (0.0044)	0.0029 (0.0045)	0.0165* (0.0095)	0.0155 (0.00955)	0.0071 (0.0098)	0.0094 (0.0097)
Education										
Low-Education Dummy	0.0044 (0.0127)	0.0041 (0.0127)	-0.0236** (0.0103)	-0.0264** (0.0103)	0.0142** (0.00721)	0.0130* (0.00720)	0.0214 (0.0162)	0.0196 (0.0160)	-0.0283 (0.0178)	-0.0314* (0.0177)
Graduate Dummy	0.0008 (0.0148)	0.0041 (0.0146)	0.0810*** (0.0130)	0.0789*** (0.0129)	-0.0006 (0.0084)	-0.0029 (0.0084)	0.0139 (0.0172)	0.0098 (0.0177)	0.0236 (0.0199)	0.0224 (0.0199)
Constant	0.880*** (0.184)	0.768*** (0.167)	0.0447 (0.122)	-0.0160 (0.116)	0.991*** (0.102)	0.860*** (0.0818)	0.892*** (0.228)	0.774*** (0.215)	0.550** (0.248)	0.371 (0.233)
Individual Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Time Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
LA Fixed Effects	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
Individual Characteristics	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Area Characteristics	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
No. of Individuals	38198	38198	43605	43605	36766	36766	35571	35571	35396	35396
No. of Observations	78503	78503	209420	209420	162308	162308	73111	73111	72689	72689
Overall R^2	0.0535	0.0700	0.0003	0.0003	0.0061	0.0118	0.0001	0.0002	0.00003	0.0002

Individual Characteristics include Marital Status, Age, and Age²

Area Characteristics include LA Population Density, MSOA Population Density, LA Expenditure per person, and a London Dummy

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Figure 7: Education and Local Authority Prosperity

(a) Percentage of Graduates/Less Educated in Places (b) Average Monthly Income for Less-Educated in Places

However, places do still have an indirect impact on well-being domains for the less-educated through their impact on potential incomes. Personal income is still positively associated with most domains of well-being. As discussed above (and described below), the less-educated are less likely to move. They are also less likely to live in more prosperous places than graduates (Figure 7a), and when they do live in more prosperous places, their personal incomes are higher (Figure 7b). As less-educated workers are less able to move to more prosperous places, this suggests that more prosperous places have an indirect impact on their well-being outcomes by increasing their personal incomes ([Moretti 2013](#); [Amior 2015](#)). The specification used in this section cannot account for these kinds of selection effects - that people may live in more prosperous areas based upon unobserved characteristics. It is to this which I now turn.

IX MOVERS

Spatial prosperity has a significant association with some aspects of well-being, these effects are sometimes more pronounced for those with less education, and differ between the local labour market and neighbourhood spatial scales. However, it is difficult to assess the effect of places using these specifications. There is likely to be selection effects in where people have chosen to live - namely, they may have unobserved characteristics that leads them to live in more prosperous places, confounding the point estimates above. Fixed effects specifications do help to control for some of these effects when they are invariant over time.

Here I go further to correct for this selection effect and analyse whether moving to a more prosperous area is associated with subsequent changes in well-being outcomes. There is a selection bias present here too, as those who choose to move are substantially different from those who do not. It is difficult to overcome this selection bias completely as we cannot randomly assign and then enforce moves for different families. Even the impressive literature that uses experimental housing vouchers as a form of random assignment suffers from this selection bias - only 40 - 48% of those offered vouchers in the Moving to Opportunity program actually moved and movers are significantly different from non-movers ([Chetty et al. 2016](#); [Chetty and Hendren 2018a](#); [Leventhal and Dupéré 2019](#); [Gallagher et al. 2019](#)). One advantage of the specification used here is that it considers everyone who moves rather than just those on low incomes who are offered housing vouchers.

Movers are subject to a selection bias in the Understanding Society data - 31% of movers are graduates compared to 20% of the sample. Data limitations do not permit an examination of common trends prior to moves. In order to help attenuate this selection bias, I control for household income, age, and education status (that would allow individuals to move). Individual fixed effects (that account for time invariant characteristics such as ability) are used. As before, results are shown with and without local authority fixed effects.

I also estimate equation (5) below for quasi-exogenous movers - those who moved be-

cause the council offered them alternative accommodation or because their employer moved location. While this is not truly random, it does help to reduce selection bias. The number of cases for these quasi-exogenous moves is, however, low reducing the precision of these estimates - only 0.15% of the sample for MSOAs (528 cases) and .09% of the sample for LAs (214 cases) are quasi-exogenous movers compared to 17,463 in MSOAs (5.0% of the sample) and 6,982 in Local Authorities (2.4% of the sample) that were movers.

I calculate the difference in area prosperity for those move and interact this with a (Quasi-Exogenous) Mover dummy. For those who do not move, the Difference in Area Prosperity and the (Quasi-Exogenous) Mover Dummy is therefore zero and they constitute the comparison group. The estimated equation is shown in 3 below. For local authorities, I estimate this with and without fixed effects. For MSOAs, it is not possible to estimate these regressions with place fixed effects due to the low numbers of individuals in each MSOA cell.

$$\begin{aligned}
\text{Well-Being}_{i,t} = & a_i + c_t + \text{Equivalised Household Income}_{i,t} \\
& + \text{Difference in Area Prosperity}_{j,t} \times (\text{Quasi-Exogenous})\text{Mover Dummy}_{i,t} \\
& + \text{Difference in Spatially Lagged Prosperity Decile}_{j,t} \times (\text{Quasi-Exogenous})\text{Mover Dummy}_{i,t} \\
& + \text{Individual Characteristics}_{i,t} + \text{Area Characteristics}_{j,t} + \epsilon_{i,t}
\end{aligned} \tag{3}$$

Figures 8 to 11 below show the coefficient on the interaction of *Difference in Area Prosperity_{j,t} × (Quasi-Exogenous)Mover Dummy_{i,t}* term. Full regression tables are shown in Appendix Tables A3 to A6 below. I find evidence in support of Hypotheses 1 and 2 from these specifications - moving to more prosperous places has some impact on well-being outcomes and these effects differ between the labour market and neighbourhood spatial scales.

At the local labour market level, moving to a more prosperous area has a positive impact on physical security, financial security and social life but this disappears when controlling for local authority fixed effects. For quasi-exogenous movers, there are no significant impacts.

Figure 8: Impact of Moving to a More Prosperous Area on Well-Being Domains in LAs

At the neighbourhood level, moving to a more prosperous area is associated with greater overall well-being as well as greater physical safety. These are the same domains of well-being that are significant in the association regressions, providing support for that specification. For quasi-exogenous movers, mental health and social outcomes improve when moving to more prosperous neighbourhoods, which may indicate that positive impact of peer effects may exist for these domains.

These results provide support for places having an effect on, rather than being associated with, some domains of well-being. The lack of impacts for quasi-exogenous LA mover regressions may simply be an artifact of there being relatively few movers within the Understanding Society data used here.

It may seem surprising that the effect of moving to a more prosperous local authority is not more strongly associated with the Finance and Work domain of well-being. However, this is likely due to these effects being partially absorbed by increases in equivalised income and a greater probability of employment for (quasi-exogenous) movers. People are more likely to move to an area where there is a job available, and high-skilled people are the most likely to move toward higher wages. By contrast, non-movers benefit passively when living in an area where there is a stronger labour market - they gain a locational surplus from living in

Figure 9: Impact of Quasi-Exogenous Moves to a More Prosperous Area on Well-Being Domains in LAs

Figure 10: Impact of Moving to a More Prosperous Area on Well-Being Domains in MSOAs

Figure 11: Impact of Quasi-Exogenous Moves to a More Prosperous MSOA

a more prosperous area.

I test whether movers gain extra income and employment opportunities by estimating equations 4 and 5 below for those below 60 years of age. I estimate these equations for movers and quasi-exogenous movers (for housing reasons). Including those who moved for employment reasons would somewhat defeat the purpose of trying to assess whether moving to a more prosperous area led to greater employment prospects.

$$\text{Household Income}_{i,t} = a_i + c_t +$$

$$\begin{aligned} & \text{Difference in Area Prosperity}_{j,t} \times \text{Mover Dummy}_{i,t} \\ & + \text{Difference in Spatially Lagged Prosperity Decile}_{j,t} \times \text{Mover Dummy}_{i,t} + \text{age} + \\ & + \text{Graduate Dummy}_{i,t} + \text{Low Education Dummy}_{i,t} + \\ & \text{Individual Characteristics}_{i,t} + \text{Area Characteristics}_{j,t} + \epsilon_{i,t} \end{aligned} \quad (4)$$

$$\text{Employment Indicator}_{i,t} = a_i + c_t +$$

$$\begin{aligned} & \text{Difference in Area Prosperity}_{j,t} \times \text{Mover Dummy}_{i,t} \\ & + \text{Difference in Spatially Lagged Prosperity Decile}_{j,t} \times \text{Mover Dummy}_{i,t} + \\ & \text{age} + \text{Graduate Dummy}_{i,t} + \text{Low Education Dummy}_{i,t} + \\ & \text{Individual Characteristics}_{i,t} + \text{Area Characteristics}_{j,t} + \epsilon_{i,t} \end{aligned} \quad (5)$$

Moving to more prosperous local authorities has a significant positive effect on employment and a weaker effect on income as shown in Table 7 & Figure 12 below. For quasi-exogenous movers for housing related (and not employment reasons) to a more prosperous area leads to a greater probability of employment. In line with other findings in the literature, moving to an area with stronger labour markets leads to higher potential incomes, which would then help to increase well-being (Chyn and Katz 2021). These results do not

Figure 12: Effect of Moving to a More Prosperous Local Authority on Income and Employment

hold at the neighbourhood/MSOA level, which again indicates that this is not a suitable measure for labour markets as shown (Table 8, Figure 13).

Table 7: Impact of Moving on Education and Employment Incomes in Local Authorities

	Movers		Quasi-Exogenous Movers (Housing)	
	Household Income (1)	Employment (2)	Household Income (3)	Employment (4)
Mover Interactions				
Mover Flag ×	0.0056*	0.0023***		
Median Wage Difference	(0.0033)	(0.0007)		
Mover Flag ×	0.0014	0.0006		
Spatial Lag Median Wage	(0.0060)	(0.0015)		
Quasi-Mover Interactions				
Quasi-Exogenous Mover Flag ×			-0.0363	0.0373*
Median Wage Difference			(0.0413)	(0.0224)
Quasi-Exogenous Mover Flag ×			0.0585	-0.0167
Spatial Lag Median Wage			(0.0400)	(0.0159)
Mover Dummies				
Mover Flag	-0.220***	-0.0404***		
	(0.0299)	(0.0079)		
Quasi-Mover Flag			0.186	-0.335**
			(0.376)	(0.170)
Individual Fixed Effects	Yes	Yes	Yes	Yes
LA Fixed Effects	No	No	No	No
Time Fixed Effects	Yes	Yes	Yes	Yes
Individual Characteristics	Yes	Yes	Yes	Yes
Area Characteristics	Yes	Yes	Yes	Yes
Education Controls	Yes	Yes	Yes	Yes
No. of Individuals	45998	46220	47970	48171
No. of Observations	197295	198937	205579	207326
Overall R^2	197295	198937	205579	207326

Robust standard errors calculated. Standard Errors in parentheses

Individual Characteristics include Marital Status, Age, Age², *GraduateDummy*

Area Characteristics include LA Population Density,

MSOA Population Density Local Authority Expenditure per person, and a London Dummy

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Figure 13: Effect of Moving to a More Prosperous MSOA on Income and Employment

Table 8: Impact of Moving on Education and Employment Incomes in MSOAs

	Movers		Quasi-Exogenous Movers (Housing)	
	Household Income	Employment	Household Income	Employment
	(1)	(2)	(3)	(4)
Mover Interactions				
Mover Flag ×	-0.0338	0.0124		
Claimant Difference	(0.0407)	(0.0086)		
Mover Flag ×	-0.0102	0.0259		
Lagged Claimant Difference	(0.129)	(0.0261)		
Quasi-Mover Interactions				
Quasi-Exogenous Mover Flag ×			-0.179	-0.0852
Claimant Difference			(0.249)	(0.0663)
Quasi-Exogenous Mover Flag ×			0.417	0.215*
Spatial Lag Claimant Difference			(0.727)	(0.116)
Mover Dummies				
Mover Flag	-0.158***	-0.0279***		
	(0.0241)	(0.00583)		
Quasi-Mover Flag			0.252**	0.0296
			(0.125)	(0.0440)
Individual Fixed Effects	Yes	Yes	Yes	Yes
Time Fixed Effects	Yes	Yes	Yes	Yes
Individual Controls	Yes	Yes	Yes	Yes
Education Controls	Yes	Yes	Yes	Yes
Population Density Controls	Yes	Yes	Yes	Yes
No. of Individuals	44,803	45,002	44,803	45,002
No. of Observations	187,218	188,900	187,218	188,900
Overall R^2	0.0805	0.0846	0.0861	0.0881

Robust standard errors calculated. Standard Errors in parentheses

Individual Characteristics include Marital Status, Age, Age², *GraduateDummy*

Area Characteristics include LA Population Density,

MSOA Population Density Local Authority Expenditure per person, and a London Dummy

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

X LIVING TIME

I estimate equation (6) below to analyse whether the length of time after moving to an area has a significant impact on well-being outcomes. The Living Time Category consists of 0 - 3 years, and 4 years plus, with the reference year being year before moves as well as never movers. The Living Time categories are selected so that each variable is measured at least once in each category. Selection bias may be present as not all domains of well-being are measured in all years. I restrict the sample to those who remain in the study in every between 2010 and 2017 to help attenuate attrition bias. The coefficient on the interaction between local prosperity and living time are shown graphically below.

Well-Being_{*i,t*} =

$$\begin{aligned}
& a_i + c_t + \text{Equivalised Household Income}_{i,t} + \text{Difference in LA Prosperity}_{j,t} \\
& + \text{Difference in Spatially Lagged Area LA Prosperity}_{j,t} \\
& + (\text{Difference in LA Prosperity}_{j,t} \times \text{Living Time Category}_{i,t}) \\
& + (\text{Difference in Spatially Lagged Area LA Prosperity}_{j,t} \times \text{Living Time Category}_{i,t}) \\
& + \text{Difference in MSOA Prosperity}_{j,t} \\
& + \text{Difference in Spatially Lagged Area MSOA Prosperity}_{j,t} \\
& + (\text{Difference in MSOA Prosperity}_{j,t} \times \text{Living Time Category}_{i,t}) \\
& + (\text{Difference in Spatially Lagged Area MSOA Prosperity}_{j,t} \times \text{Living Time Category}_{i,t}) \\
& + \text{Individual Characteristics}_{i,t} + \text{Area Characteristics}_{j,t} + \epsilon_{i,t}
\end{aligned} \tag{6}$$

Overall, there is little evidence in support of Hypothesis 4 - places do not generally have a stronger impact on most well-being outcomes over time. However, the effect of local authority prosperity on physical and financial security does increase somewhat over time.

Figure 14: Living Time Categories with Well-Being Domains in Local Authorities and MSOAs

(a) Local Authorities

(b) MSOAs

XI DEATH

I estimate a logistic regression model to test whether living in a more deprived area is associated with a lower life expectancy. Around 0.61% of the sample die in the sample period. This is an underestimate of deaths - around 40% fewer deaths are recorded than would be expected in the general population (even when accounting for population weights). Specifically, it is those living alone who would be least likely to be non-identified after death (Lynn 2011). Deprived communities with lower wages and less-skilled individuals also tend to have lower marriage rates, which has a negative impact on health outcomes and leads to lower life expectancy (Autor et al. 2019). The effects identified here are, therefore, likely to be downwardly biased.

The equation to be estimated is shown below and is similar to the framework in Sullivan and Von Wachter (2009). Education, relationship status, age, and sex are included as controls given their significant impact on mortality rates as are dummy variables for those who are employed when under the age of 60 and those who become non-employed when under 60 (Cubbin et al. 2000; Sullivan and Von Wachter 2009; Olfson et al. 2021). I also include indicators for whether individuals were employed prior to the age of 60 as well as whether they became non-employed before the age of 60. As before, specifications are shown with and without LA fixed effects.

$$\begin{aligned}
 \ln\left(\frac{p_{i,t}}{1 - p_{i,t}}\right) = & a_i + \text{Equivalised Household Income}_{i,t} + \text{Area Prosperity}_{j,t} + \\
 & \text{Spatially Lagged Prosperity}_{j,t} + \text{Male Dummy}_{i,t} \\
 & \text{Individual Characteristics}_{i,t} + \text{Area Characteristics}_{j,t} + \\
 & \text{Employed Under-60}_{i,t} + \text{Lose Employment Under-60}_{i,t} \\
 & + \text{Year}_t
 \end{aligned} \tag{7}$$

In support of Hypothesis 5, I find that place-based prosperity does have an effect on

Table 9: Association Between Place-Based Prosperity and Probability of Death

	No Fixed Effects (1)	Fixed Effects (2)
Personal Income		
Equivalised Household Income (£1000 increase in)	-0.0896*** (0.0251)	-0.0873*** (0.0261)
Area Prosperity		
Median Wage (10 % from Mean)	0.00932 (0.0280)	0.134 (0.103)
Spatially Lagged Median Wage	-0.0262 (0.0485)	-0.0261 (0.276)
Claimant Rate (10 % from Mean)	-0.107** (0.0456)	-0.105** (0.0496)
Spatially Lagged Claimant Rate	-0.0532 (0.113)	-0.0224 (0.152)
Individual-level Controls		
Age	0.0869*** (0.0168)	0.0792*** (0.0168)
Age ²	0.0001 (0.0001)	0.0002 (0.0001)
Male Dummy	0.609*** (0.0580)	0.620*** (0.0606)
Grad Dummy	-0.135 (0.108)	-0.144 (0.112)
Low Ed Dummy	0.198*** (0.0715)	0.213*** (0.0738)
Relationship Dummy	-0.425*** (0.0623)	-0.407*** (0.0658)
Employed Under-60	-0.587*** (0.127)	-0.601*** (0.129)
Lost Job Under-60	0.416* (0.231)	0.428* (0.233)
Area Characteristics		
LA Population Density	-0.0042 (0.0229)	-0.227 (0.309)
MSOA Population Density	0.0236* (0.0134)	0.0279* (0.0157)
Constant	-10.49*** (0.605)	-9.021*** (1.349)
Time Fixed Effects	Yes	Yes
LA Fixed Effects	Yes	Yes
No. of Observations	233,286	225,937
Pseudo R^2	.22	.24

Robust standard errors calculated. Standard Errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

mortality. Surprisingly, however, neighbourhood but not local labour market prosperity, has a significant impact on death rates (Cubbin et al. 2000). This is in contrast to other findings in the literature that do find that labour market prosperity does have an impact on death rates (Deryugina et al. 2020). This could be due to the underidentification of deaths in the data and/or the inclusion of personal income as a control. I do find that being employed under the age of 60 is negatively related to death rates while becoming non-employed under

the age of 60 is positively related to death rates. Local labour market prosperity does, therefore, have an indirect impact on death by increasing the probability of employment and reducing redundancy probabilities.

XII DISCUSSION AND CONCLUSION

In this chapter, I have shown that places have a direct, differing, and non-uniform, impact on various domains of well-being. These impacts differ between the labour market and neighbourhood spatial scales. Stronger local labour markets also have an indirect impact on well-being by increasing personal incomes.

The major contribution of this chapter is to show that places have an impact on different well-being domains separate from personal income. *Contra* [Wilkinson and Pickett \(2006, 2007, 2010\)](#) contention that only income differences between people has an impact on well-being, I find that the difference in places also matters. However, personal income still makes the most important contribution to well-being domains. This paper also differentiates between spatial scales, and tests a clearer theoretical link between place attributes and well-being outcomes ([Sharkey and Faber 2014](#); [Jivraj et al. 2020](#)). Specifically, I make a clear distinction between the labour market and peer effects that is often conflated in the literature that views place as a singular category with singular effects (e.g. [Chetty and Hendren \(2018a,b\)](#)). Finally, I also construct a Capability Index and test what determines the domains of well-being rather than measure what well-being is for various groups and regions ([Alkire and Kovesdi 2020](#)). This is, as far as I am aware, the first type of this work for the United Kingdom.

The findings here have one overarching important policy implication - that increasing personal *and* place prosperity is important for raising well-being. The more nuanced policy implications are as follows.

Firstly, personal income tends to have a stronger and more consistent impact on well-being than spatial prosperity. Therefore, measures that increase incomes through, for example, increasing universal social security payments or improving individual productivity through training could help to increase outcomes across a range of well-being domains.

Secondly, place prosperity also has a consistent, indirect impact on well-being by pro-

viding higher potential incomes through their stronger labour markets - direct employment creation in deprived areas will help people live better lives. This benefit will be felt most strongly by the less-educated (men) who have been left behind by technological change and automation ([Sandher 2021](#)).

Thirdly, personal and place prosperity does not lead to uniformly higher well-being on all domains. Living conditions become worse as people and places become more prosperous. Raising leisure time and housing quality is needed to ensure that people are better off as they grow richer.

Finally, more prosperous neighbourhoods have an effect on well-being domains, which is distinct from the strength of their labour market. Improving job opportunities while not reducing neighbourhood deprivation is not sufficient for raising well-being across all domains. Crucially, more prosperous neighbourhoods significantly reduce the probability of death - it is therefore plausible that reducing deaths of despair will require both labour market and other place-based policies.

This paper does suffer from some limitations that could be addressed through future research. Firstly, the estimates here cannot fully account or control for selection bias. I do make an attempt to control for this using individual fixed effects, local authority fixed effects, covariate controls, and the use of quasi-exogenous place assignment. None of these methods are perfect although such selection biases are also present in work using experimental methods such as housing vouchers, albeit to a much lesser degree ([Gallagher et al. 2019](#)). It is, however, encouraging that the results here are consistent with work that exploits exogenous moves, which shows that moving to more prosperous areas leads to better labour market outcomes ([Deryugina et al. 2018, 2020](#)).

Secondly, I use local authorities as a measure of labour markets due to data availability at this level and control for the differential size of these places using both population density and spatial lags. Future work may consider spatial scales that are more closely tied to labour market size, even where other place-based data is not available, to assess whether the results

found here are robust.

Thirdly, while this work can examine the causes of death, and provides plausible evidence that increasing personal incomes and neighbourhood conditions will improve life expectancy, it cannot examine deaths from alcohol, suicide, and drug overdoses in isolation. Deaths are also undercounted within the Understanding Society Dataset used here. Work that uses administrative data and links health outcomes to geographic identifiers is needed to provide a greater understanding of what *place-based* characteristics are associated with deaths of despair. Previous work has already convincingly linked rising personal income with falling deaths of despair ([Dow et al. 2020](#)).

Finally, this work does not examine, in detail, how the place-based labour market and peer mechanisms that impact well-being operate. In particular, it is likely that psychological dispositions mediate the link between place-based prosperity and well-being outcomes. Mental health services could, therefore, be crucial for improving well-being outcomes. I leave the relative roles of prosperity and psychology on well-being to future research.

XIII APPENDIX A: CONSTRUCTION OF CAPABILITY INDEX WELL-BEING DOMAINS

Scores for each domain are as follows:

Life and Health

Life and health = $(0.5 \times \text{Physical Health}) + (0.5 \times \text{Mental Health})$

Physical Health = 1 if General Health = Excellent

Physical Health = 0.75 if General Health = Very Good

Physical Health = 0.5 if General Health = Good

Physical Health = 0.25 if General Health = Fair

Physical Health = 0 if General Health = Poor

Mental Health = 1 if “Satisfaction with Life Overall” = Completely Satisfied

Mental Health = 0.833 if “Satisfaction with Life Overall” = Mostly Satisfied

Mental Health = 0.666 if “Satisfaction with Life Overall” = Somewhat Satisfied

Mental Health = 0.5 if “Satisfaction with Life Overall” = Neither Satisfied nor Dissatisfied

Mental Health = 0.333 if “Satisfaction with Life Overall” = Somewhat Dissatisfied

Mental Health = 0.166 if “Satisfaction with Life Overall” = Mostly Dissatisfied

Mental Health = 0 if “Satisfaction with Life Overall” = Completely Dissatisfied

Physical Safety

Physical Safety = 1 if “Extent of People Attacked on Street” = Not at all Common

Physical Safety = 0.66 if “Extent of People Attacked on Street” = Not Very Common

Physical Safety = 0.33 if “Extent of People Attacked on Street” = Fairly Common

Physical Safety = 0 if “Extent of People Attacked on Street” = Very Common

Financial Security

EITHER Financial Security = 1 if “Current Subjective Financial Situation” = “Living comfortably”

IF “Current Subjective Financial Situation” $\neq$ “Living comfortably” THEN Financial Security = (0.5 x Employment Flag) + (0.5 x Subjective Financial Situation)

Employment Flag = 1 if “Current Economic Activity” = Paid Employment

Employment Flag = 1 if “Current Economic Activity” = Self Employed

Employment Flag = 0 if “Current Economic Activity” = Not Paid Employment or Self Employed

Financial Situation = 0.5 if Current Subjective Financial Situation = “Doing Alright”

Financial Situation = 0.25 if Current Subjective Financial Situation = “Finding it quite difficult”

Financial Situation = 0.0 if Current Subjective Financial Situation = “Finding it very difficult”

Comfortable Living Conditions

Living Conditions = (0.5 x House Size) + (0.5 x Leisure Time)

House Size = 1 if number of bedrooms > number of adults 14 - number of couples

House Size = 0 if number of bedrooms < number of adults 14 - number of couples

Political Participation and Voice

Participation = 1 if “Don’t have a say in what government does” = “Strongly Disagree”

Participation = 0.75 if “Don’t have a say in what government does” = “Disagree”

Participation = 0.5 if “Don’t have a say in what government does” = “Neither Agree nor Disagree”

Participation = 0.25 if “Don’t have a say in what government does” = “Agree”

Participation = 0 if “Don’t have a say in what government does” = “Strongly Agree”

Social Life

Social life =1 if “How Many Close Friends” =>3

Social life =0.66 if “How Many Close Friends” = 2

Social life =0.33 if “How Many Close Friends” = 1

Social life =0 if “How Many Close Friends” = 0

XIV APPENDIX B: MOVER STATUS REGRESSIONS

Table A.1: Association Between Individual/Spatial Prosperity and Well-Being by Mover Status in Local Authorities with LA Fixed Effects

	Well-Being Index/Domain									
	Capability Index	PCA Capability Index	Physical Health	Mental Health	Life Health	Physical Security	Finance & Work	Living Conditions	Social Life	Participation & Voice
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Personal Income										
Household Income (£000's)	0.0025** (0.0010)	0.0022** (0.0010)	0.0003 (0.0003)	0.0020*** (0.0006)	0.0010*** (0.0004)	0.0004 (0.0004)	0.0169*** (0.0037)	-0.0023*** (0.0003)	0.0010 (0.0008)	0.0015*** (0.0006)
Mover Interactions										
Mover Flag × Median Wage	-0.0003 (0.0004)	-0.0002 (0.0004)	0.0001 (0.0004)	0.0005 (0.0005)	0.0003 (0.0003)	0.0006 (0.0007)	0.0003 (0.0006)	-0.0001 (0.0005)	0.0099 (0.0007)	0.0003 (0.0008)
Mover Flag × Spatial Lag Wage	0.0010* (0.0006)	0.0010 (0.0007)	0.0009 (0.0007)	0.0004 (0.0008)	0.0007 (0.0006)	-0.0001 (0.0009)	0.0000 (0.0009)	0.0006 (0.0009)	-0.0009 (0.0010)	-0.0001 (0.0013)
Mover Categories										
Mover Flag	0.0024 (0.0036)	0.0030 (0.0040)	-0.0031 (0.0036)	0.0034 (0.0043)	0.0011 (0.0031)	0.0039 (0.0059)	-0.0038 (0.0053)	-0.0012 (0.0042)	-0.0156** (0.0062)	-0.0093 (0.0076)
Constant	0.800*** (0.109)	0.809*** (0.121)	0.422*** (0.0843)	0.641*** (0.127)	0.522*** (0.0821)	0.854*** (0.166)	-0.0363 (0.110)	0.847*** (0.0976)	0.812*** (0.204)	0.445** (0.225)
Individual Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Time Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
LA Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Individual Characteristics	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Area Characteristics	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
No. of Individuals	33580	33580	55319	49559	49551	45262	52435	43020	41877	41547
No. of Observations	63188	63188	248237	218620	218566	90342	239743	180363	83478	82696
Overall R^2	0.0154	0.0157	0.0482	0.0061	0.0115	0.0572	0.0072	0.0357	0.0005	0.0007

Individual Characteristics include Marital Status, Age, Age², *LowEducationDummy*, *GraduateDummy*

Area Characteristics include LA Population Density, MSOA Population Density, LA Expenditure per person, and a London Dummy

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A.2: Association Between Individual/Spatial Prosperity and Well-Being in Local Authorities without LA Fixed Effects

	Well-Being Index/Domain									
	Capability Index	PCA Capability Index	Physical Health	Mental Health	Life Health	Physical Security	Finance & Work	Living Conditions	Social Life	Participation & Voice
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Personal Income										
Household Income (£000's)	0.0025** (0.0010)	0.0022** (0.0009)	0.0003 (0.0003)	0.0019*** (0.0006)	0.0010*** (0.0004)	0.0004 (0.0004)	0.0170*** (0.0037)	-0.0022*** (0.0003)	0.0011 (0.0009)	0.0014** (0.0005)
Mover Interactions										
Mover Flag × Median Wage	0.0003 (0.0003)	0.0002 (0.0003)	-0.0001 (0.0003)	0.0004 (0.0004)	0.0001 (0.0003)	0.0017*** (0.0005)	0.0009** (0.0005)	-0.0006 (0.0004)	0.0011** (0.0005)	0.0002 (0.0006)
Mover Flag × Spatial Lag Wage	-0.0003 (0.0005)	0.0000 (0.0006)	0.0005 (0.0005)	0.0004 (0.0007)	0.0005 (0.0005)	-0.002*** (0.0008)	-0.0003 (0.0008)	0.0003 (0.0008)	-0.0036*** (0.0008)	-0.0012 (0.0012)
Mover Categories										
Mover Flag	0.0037 (0.0031)	0.0046 (0.0034)	-0.0008 (0.0033)	0.0064* (0.0039)	0.0039 (0.0028)	0.0029 (0.0052)	-0.0072 (0.0048)	0.0046 (0.0036)	-0.0040 (0.0059)	-0.0052 (0.0067)
Constant	0.704*** (0.0847)	0.701*** (0.0919)	0.444*** (0.0791)	0.582*** (0.101)	0.501*** (0.0692)	0.876*** (0.146)	-0.100 (0.103)	0.792*** (0.0752)	0.843*** (0.186)	0.348* (0.206)
Individual Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Time Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
LA Fixed Effects	No	No	No	No	No	No	No	No	No	No
Individual Characteristics	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Area Characteristics	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
No. of Individuals	33580	33580	55319	49559	49551	45262	52435	43020	41877	41547
No. of Observations	63188	63188	248237	218620	218566	90342	239743	180363	83478	82696
Overall R^2	0.0333	0.0501	0.0598	0.0065	0.0127	0.0652	0.0074	0.0937	0.0057	0.0014

Individual Characteristics include Marital Status, Age, Age², *LowEducationDummy*, *GraduateDummy*

Area Characteristics include LA Population Density, MSOA Population Density, LA Expenditure per person, and a London Dummy

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A.3: Association Between Individual/Spatial Prosperity and Well-Being in Local Authorities with LA Fixed Effects

	Well-Being Index/Domain									
	Capability Index	PCA Capability Index	Physical Health	Mental Health	Life Health	Physical Security	Finance & Work	Living Conditions	Social Life	Participation & Voice
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Personal Income										
Household Income (£000's)	0.0025** (0.0010)	0.0022** (0.0009)	0.0003 (0.0003)	0.0019*** (0.0006)	0.0010*** (0.0004)	0.0004 (0.0004)	0.0169*** (0.0037)	-0.0023*** (0.0003)	0.0011 (0.0009)	0.0015*** (0.0006)
Mover Interactions										
Quasi-Exogenous Mover Flag × Median Wage	-0.0014 (0.0013)	-0.0007 (0.0015)	0.0013 (0.0014)	0.00160 (0.0023)	0.0013 (0.0014)	-0.0009 (0.0016)	-0.0003 (0.0024)	0.0009 (0.0014)	-0.0034 (0.0022)	-0.0024 (0.0031)
Quasi-Exogenous Mover Flag × Spatial Lag Wage	0.0052* (0.0027)	0.0040 (0.0031)	-0.0054 (0.0026)	-0.0024 (0.0047)	-0.0040 (0.0035)	-0.0018 (0.0027)	-0.0029 (0.0033)	0.0024 (0.0040)	0.0195*** (0.0050)	0.0039 (0.0063)
Mover Categories										
Quasi-Exogenous Mover Flag	-0.0477** (0.0234)	-0.0487* (0.0278)	0.0129 (0.0229)	-0.0160 (0.0347)	0.00215 (0.0230)	0.0290 (0.0313)	0.0081 (0.0387)	-0.0438* (0.0229)	-0.156*** (0.0504)	-0.0414 (0.0545)
Constant	0.799*** (0.109)	0.807*** (0.121)	0.417*** (0.0844)	0.633*** (0.127)	0.514*** (0.0823)	0.848*** (0.166)	-0.0378 (0.110)	0.845*** (0.0975)	0.817*** (0.204)	0.447** (0.225)
Individual Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Time Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
LA Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Individual Characteristics	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Area Characteristics	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
No. of Individuals	33580	33580	55319	49559	49551	45262	52435	43020	41877	41547
No. of Observations	63188	63188	248239	218622	218568	90342	239745	180365	83478	82696
Overall R^2	0.0150	0.0154	0.0476	0.0061	0.0114	0.0572	0.0072	0.0358	0.0004	0.0007

Individual Characteristics include Marital Status, Age, Age², *LowEducationDummy*, *GraduateDummy*

Area Characteristics include LA Population Density, MSOA Population Density, LA Expenditure per person, and a London Dummy

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A.4: Association Between Individual/Spatial Prosperity and Well-Being in Local Authorities with LA Fixed Effects

	Well-Being Index/Domain									
	Capability Index	PCA Capability Index	Physical Health	Mental Health	Life Health	Physical Security	Finance & Work	Living Conditions	Social Life	Participation & Voice
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Personal Income										
Household Income (£000's)	0.0025** (0.0010)	0.0022** (0.0010)	0.0003 (0.0003)	0.0019*** (0.0006)	0.0010*** (0.0004)	0.0004 (0.0004)	0.0170*** (0.0037)	-0.0022*** (0.0003)	0.0011 (0.0009)	0.0014** (0.0006)
Mover Interactions										
Quasi-Exogenous Mover Flag × Median Wage	-0.0013 (0.0011)	-0.0009 (0.0014)	0.0014 (0.0014)	0.0017 (0.0023)	0.0014 (0.0013)	-0.0007 (0.0012)	-0.0001 (0.0022)	0.0001 (0.0015)	-0.0029 (0.0034)	-0.0027 (0.0036)
Quasi-Exogenous Mover Flag × Spatial Lag Wage	0.0048** (0.0024)	0.0038 (0.0030)	-0.0068 (0.0043)	-0.0023 (0.0047)	-0.0044 (0.0039)	-0.0020 (0.0024)	-0.0038 (0.0031)	0.0020 (0.0040)	0.0193*** (0.0071)	0.0014 (0.0065)
Mover Categories										
Quasi-Exogenous Mover Flag	-0.0279 (0.0208)	-0.0260 (0.0258)	0.0164 (0.0225)	-0.0044 (0.0336)	0.0086 (0.0230)	0.0282 (0.0291)	0.0123 (0.0385)	-0.0188 (0.0229)	-0.160*** (0.0498)	-0.0088 (0.0441)
Constant	0.699*** (0.0847)	0.695*** (0.0919)	0.442*** (0.0791)	0.572*** (0.101)	0.494*** (0.0692)	0.875*** (0.146)	-0.101 (0.103)	0.791*** (0.0752)	0.849*** (0.186)	0.356* (0.206)
Individual Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Time Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
LA Fixed Effects	No	No	No	No	No	No	No	No	No	No
Individual Characteristics	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Area Characteristics	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
No. of Individuals	33580	33580	55319	49559	49551	45262	52435	43020	41877	41547
No. of Observations	63188	63188	248239	218622	218568	90342	239745	180365	83478	82696
Overall R^2	0.0314	0.0462	0.0601	0.0063	0.0129	0.0657	0.0074	0.0937	0.0049	0.0013

Individual Characteristics include Marital Status, Age, Age², *LowEducationDummy*, *GraduateDummy*

Area Characteristics include LA Population Density, MSOA Population Density, LA Expenditure per person, and a London Dummy

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A.5: Association Between Individual/Spatial Prosperity and Well-Being in MSOAs

	Well-Being Index/Domain									
	Capability Index	PCA Capability Index	Physical Health	Mental Health	Life Health	Physical Security	Finance & Work	Living Conditions	Social Life	Participation & Voice
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Personal Income										
Household Income (£000's)	0.0025** (0.0010)	0.0022** (0.0009)	0.0003 (0.0003)	0.0020*** (0.0006)	0.0010*** (0.0004)	0.0005 (0.0004)	0.0170*** (0.0037)	-0.0022*** (0.0003)	0.0011 (0.0009)	0.0013** (0.0006)
Mover Interactions										
Mover Flag × Claimant Rate Difference	0.0100*** (0.0038)	0.0097** (0.0042)	-0.0005 (0.0037)	0.0052 (0.0045)	0.0030 (0.0032)	0.0347*** (0.0067)	0.0062 (0.0055)	-0.0043 (0.0045)	0.0021 (0.0067)	0.0076 (0.0077)
Quasi-Exogenous Mover Flag × Spatial Lag Wage	-0.0120 (0.0115)	-0.0147 (0.0123)	0.0162 (0.0105)	-0.0069 (0.0130)	0.0045 (0.00929)	0.0127 (0.0174)	-0.0091 (0.0155)	0.0017 (0.0139)	0.0119 (0.0214)	-0.0318 (0.0267)
Mover Categories										
Quasi-Exogenous Mover Flag	0.0054** (0.0025)	0.0070** (0.0028)	-0.0023 (0.0026)	0.0107*** (0.0031)	0.0046** (0.0022)	-0.0022 (0.0041)	0.0013 (0.0037)	0.0045 (0.0028)	-0.0038 (0.0050)	0.0020 (0.0056)
Constant	0.710*** (0.0846)	0.709*** (0.0917)	0.449*** (0.0789)	0.576*** (0.101)	0.500*** (0.0690)	0.878*** (0.146)	-0.0949 (0.103)	0.802*** (0.0750)	0.845*** (0.186)	0.355* (0.206)
Individual Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Time Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
LA Fixed Effects	No	No	No	No	No	No	No	No	No	No
Individual Characteristics	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Area Characteristics	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
No. of Individuals	33871	33871	55913	50128	50120	45652	53006	43501	42254	41921
No. of Observations	63496	63496	249542	219866	219812	90753	241014	181375	83875	83090
Overall R^2	0.0347	0.0529	0.0589	0.0063	0.0129	0.0640	0.0075	0.0919	0.0054	0.0014

Robust standard errors calculated. Standard Errors in parentheses

Individual Characteristics include Marital Status, Age, Age², *LowEducationDummy*, *GraduateDummy*

Area Characteristics include LA Population Density, MSOA Population Density, LA Expenditure per person, and a London Dummy

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A.6: Association Between Individual/Spatial Prosperity and Well-Being in MSOAs Fixed Effects

	Well-Being Index/Domain									
	Capability Index	PCA Capability Index	Physical Health	Mental Health	Life Health	Physical Security	Finance & Work	Living Conditions	Social Life	Participation & Voice
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Personal Income										
Household Income (£000's)	0.0025** (0.0010)	0.0022** (0.0009)	0.0003 (0.0003)	0.0020*** (0.0006)	0.0010*** (0.0004)	0.0004 (0.0004)	0.0170*** (0.0037)	-0.00222*** (0.0003)	0.0011 (0.0009)	0.0014** (0.0006)
Mover Interactions										
Quasi-Exogenous Mover Flag × Claimant Rate Difference	0.0083 (0.0329)	0.0050 (0.0348)	0.0144 (0.0199)	0.0615** (0.0287)	0.0298 (0.0183)	-0.0587 (0.0519)	0.00321 (0.0326)	-0.0362 (0.0310)	0.125* (0.0653)	0.0892* (0.0476)
Quasi-Exogenous Mover Flag × Spatial Lag Wage	-0.106* (0.0617)	-0.105 (0.0645)	-0.0444 (0.0425)	-0.0956* (0.0534)	-0.0601 (0.0367)	0.0922 (0.122)	0.0190 (0.0748)	0.106* (0.0568)	-0.214** (0.0970)	-0.0779 (0.0974)
Mover Categories										
Quasi-Exogenous Mover Flag	0.0375* (0.0203)	0.0362 (0.0224)	-0.0136 (0.0168)	0.0203 (0.0206)	0.0077 (0.0142)	0.0377 (0.0345)	0.0231 (0.0224)	-0.0180 (0.0239)	-0.00317 (0.0418)	-0.103*** (0.0368)
Constant	0.696*** (0.0845)	0.693*** (0.0916)	0.451*** (0.0789)	0.559*** (0.101)	0.491*** (0.0689)	0.857*** (0.146)	-0.0979 (0.103)	0.797*** (0.0750)	0.849*** (0.186)	0.356* (0.205)
Individual Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Time Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
LA Fixed Effects	No	No	No	No	No	No	No	No	No	No
Individual Characteristics	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Area Characteristics	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
No. of Individuals	33871	33871	55913	50128	50120	45652	53006	43501	42254	41921
No. of Observations	63496	63496	249542	219866	219812	90753	241014	181375	83875	83090
Overall R^2	0.0312	0.0460	0.0587	0.0061	0.0129	0.0641	0.0075	0.0923	0.0050	0.0013

Robust standard errors calculated. Standard Errors in parentheses

Individual Characteristics include Marital Status, Age, Age², *LowEducationDummy*, *GraduateDummy*

Area Characteristics include LA Population Density, MSOA Population Density, LA Expenditure per person, and a London Dummy

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

XV APPENDIX C: LIVING TIME REGRESSIONS

Table A.7: Association Between Individual/Spatial Prosperity and Well-Being by Living Time in Local Authorities

	Well-Being Index/Domain									
	Capability Index	PCA Capability Index	Physical Health	Mental Health	Life Health	Physical Security	Finance & Work	Living Conditions	Social Life	Participation & Voice
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Personal Income										
Household Income (£000's)	0.0023** (0.0009)	0.0020** (0.0008)	0.0002 (0.0003)	0.0013** (0.0005)	0.0006* (0.0003)	0.0004 (0.0004)	0.0153*** (0.0038)	-0.0025*** (0.0003)	0.0008 (0.0008)	0.0014** (0.0006)
Living Time Interactions										
0-3 Years × Median Wage Difference	0.0002 (0.0003)	0.0001 (0.0003)	-0.0002 (0.0003)	0.0006 (0.0004)	0.0002 (0.0003)	0.0011** (0.0005)	0.0010* (0.0005)	-0.00018 (0.0004)	0.0015** (0.0006)	0.0001 (0.0007)
4+ years × Median Wage Difference	0.0002 (0.0004)	0.0002 (0.0005)	-0.0002 (0.0006)	0.0002 (0.0007)	0.0000 (0.0005)	0.0017** (0.0008)	0.0017* (0.0009)	-0.0004 (0.0005)	-0.0002 (0.0009)	-0.0001 (0.0011)
Living Time Categories										
0-3 years	0.0040 (0.0033)	0.0050 (0.0036)	0.0018 (0.0038)	0.0068 (0.0043)	0.0056* (0.0031)	0.0071 (0.0055)	-0.0069 (0.0053)	0.0046 (0.0040)	-0.0049 (0.0062)	-0.0065 (0.0073)
4+ years	0.0038 (0.0044)	0.0042 (0.0048)	-0.0045 (0.0058)	0.0072 (0.0069)	0.0024 (0.0050)	-0.0083 (0.0075)	-0.0195** (0.0078)	0.0061 (0.0052)	0.0037 (0.0092)	-0.0108 (0.0103)
Individual Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Time Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
LA Fixed Effects	No	No	No	No	No	No	No	No	No	No
Individual Characteristics	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Area Characteristics	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
No. of Individuals	22718	22718	27191	26871	26870	27037	27044	24526	26348	26094
No. of Observations	49419	49419	168941	157490	157454	66034	168060	132773	62932	62257
Overall R^2	0.0336	0.0523	0.0392	0.0098	0.00578	0.0544	0.0048	0.0003	0.0044	0.0016

Robust standard errors calculated. Standard Errors in parentheses

Individual Characteristics include Marital Status, Age, Age², *LowEducationDummy*, *GraduateDummy*

Area Characteristics include LA Population Density, MSOA Population Density, LA Expenditure per person, and a London Dummy

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A.8: Association Between Individual/Spatial Prosperity and Well-Being by Living Time in MSOAs

	Well-Being Index/Domain									
	Capability Index	PCA Capability Index	Physical Health	Mental Health	Life Health	Physical Security	Finance & Work	Living Conditions	Social Life	Participation & Voice
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Personal Income										
Household Income (£000's)	0.0023** (0.0009)	0.0020** (0.0008)	0.0002 (0.0003)	0.0014** (0.0005)	0.0006* (0.0003)	0.0004 (0.0004)	0.0153*** (0.0038)	-0.0025*** (0.0003)	0.0008 (0.0008)	0.0014** (0.0006)
Living Time Interactions										
0-3 Years × Claimant Rate Difference	0.0095** (0.0040)	0.0091** (0.0044)	0.0045 (0.0043)	0.0055 (0.0051)	0.0057 (0.0037)	0.0352*** (0.0072)	0.0116* (0.0064)	-0.0007 (0.0049)	0.0049 (0.0071)	0.0075 (0.0084)
4+ years × Claimant Rate Difference	0.0087 (0.0060)	0.0066 (0.0066)	-0.0002 (0.0071)	-0.0016 (0.0080)	0.0006 (0.0058)	0.0310*** (0.0097)	0.0097 (0.0097)	-0.0071 (0.0076)	0.0050 (0.0112)	0.0112 (0.0120)
Living Time Categories										
0-3 years	0.0042 (0.0027)	0.0058** (0.0029)	-0.0019 (0.0030)	0.0112*** (0.0036)	0.0047* (0.0025)	0.0007 (0.0044)	-0.0026 (0.0042)	0.0046 (0.0031)	-0.00413 (0.0053)	0.0030 (0.0060)
4+ years	0.0043 (0.0039)	0.0059 (0.0042)	-0.0052 (0.0049)	0.0002 (0.0059)	-0.0026 (0.00420)	-0.0035 (0.0065)	-0.0052 (0.0065)	0.0060 (0.0045)	-0.0042 (0.0077)	-0.0119 (0.0091)
Individual Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Time Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
LA Fixed Effects	No	No	No	No	No	No	No	No	No	No
Individual Characteristics	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Area Characteristics	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
No. of Individuals	22718	22718	27191	26871	26870	27037	27044	24526	26348	26094
No. of Observations	49419	49419	168941	157490	157454	66034	168060	132773	62932	62257
Overall R^2	0.0345	0.0541	0.0396	0.0098	0.0060	0.0549	0.0047	0.0006	0.0045	0.0016

Robust standard errors calculated. Standard Errors in parentheses

Individual Characteristics include Marital Status, Age, Age²

Area Characteristics include LA Population Density, MSOA Population Density, LA Expenditure per person, and a London Dummy

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

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