

Housing, Location and Employment: Project Outline

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Abstract

Do housing markets and housing policies provide incentives for people to live in areas of low employment opportunities? Does living in such an area directly impede employment prospects? This paper presents the research plan for a project that will examine these questions focusing on working age income support recipients and other members of the low-income population across Australia.

The project has the following two objectives:

1. To describe the role of employment and housing in influencing the locational choice and geographic mobility of income support recipients and other low-income groups.
2. To estimate the direct effect of housing location on employment outcomes.

These research questions are relevant to policy decisions about the location of public housing, planning regulations, geographical aspects of housing assistance as well as a wider range of policies directed at people in different tenures and locations.

Though the association between location and employment outcomes is well established, the causal relationships underlying this are not. Existing research does not identify whether it is the characteristics of the locality that influences employment outcomes, or whether it is simply that people with poor labour market prospects can only afford to live in certain regions (or whether both factors are at work). This study will use the longitudinal data in the FaCS Longitudinal Data Set to estimate these relationships, focusing on the labour market outcomes of people who move between localities. This will be supplemented by an analysis of Census data.

1. Introduction and Research Questions

Do housing markets and housing policies provide incentives for people to live in areas of low employment? Does living in such an area directly impede employment prospects? Does policy encourage geographic mismatch between jobseekers and jobs? This project will examine these questions focusing on income support recipients and other members of the low-income population across Australia.

It is speculated that housing factors may lead to unfavourable labour market outcomes because the geographic location of affordable housing encourages people to live in regions with poor employment opportunities.

More specifically, the project will address two sets of research questions:

1. What factors influence the geographic mobility of income support recipients and other members of the low-income population? How important are housing costs? Do housing cost patterns encourage people to move to regions with poor employment opportunities?
2. Does location influence labour market outcomes, or is it simply that people with poor labour market prospects can only afford to live in certain regions? Which characteristics of location matter most for employment outcomes?

These questions are important both for effective operation of the labour market and for the well-being of individuals. Among job seekers, higher levels of geographic mobility are often argued to reduce labour market friction and lead to a more efficient labour market and lower levels of unemployment (see Dockery, 2000). This mobility will be most effective if job seekers respond to labour market conditions and move to areas where they are more likely to find employment.

If, on the other hand, low incomes together with the operation of housing markets and housing policies lead people to move to regions where they are less likely to find employment, then labour market efficiency and individual welfare may be detrimentally affected. The answers to the questions posed above are thus relevant to more concrete policy questions. These include

- To what extent is the location of public housing an impediment to employment?
- Similarly, does the location of other forms of affordable housing (both private rental and private ownership) in our cities and regions reinforce the prospect of poor employment outcomes for disadvantaged groups?
- Should policies such as rent assistance be adjusted to encourage people to move to higher employment regions?
- What policy options are available to improve the characteristics of location to enhance employment outcomes?

Note that the answers to these questions depend both upon the impact of policy on locational choice, but also on whether location actually has an impact upon employment

outcomes. Hence, it is important to address both the questions raised above.

It is well known that some outer urban and rural/regional areas have higher unemployment and lower employment rates than other areas in Australia. It is possible that this reflects the disadvantages associated with these regions (eg lack of economic growth, transport problems). If this is the case, then there may be a policy case for measures to encourage unemployed people to either not move to, or to move out of these regions.

On the other hand, this association might simply be a reflection of the fact that these locations are the only regions where people with low income earning potential can afford to live. If this is the case, then a policy that encouraged an unemployed person to move to a region of greater employment opportunity might not have any impact upon their labour market prospects.

Most likely, both these effects are in operation and we wish to ascertain the relative importance of the two. It is also likely that the answers to these questions will depend upon the types of location considered. For example, the higher unemployment rates in the outer regions of Australia's major cities are less likely to be due to low levels of labour demand than are the high unemployment rates in rural regions. In the cities, commuting between low and high employment areas is generally feasible (though may be expensive and time-consuming).

There are two key methodological problems associated with any attempt to identify the direct impact of location on employment outcomes. First, both a person's location and employment outcome will be influenced by unobserved factors such as their underlying 'ability' (which influences past income and hence capacity to afford to live in certain areas). This means that the simple association between low cost location and low employment probability will be an overestimate of the extent to which employment is influenced by location.

One way to control for this is by using longitudinal data to look at the association between *changes* in the location and labour market outcomes of individuals. This automatically controls for any unobserved characteristics that are constant over time.

However, it is possible that these unobserved characteristics that determine both location and employment may change over time (for example, an increased desire to work due to arranging informal child-care), or the individual might move to take up a new job. In the second case, employment is influencing location rather than the other way round. Again, the existence of these phenomena means that the simple association between region and employment outcomes will be an overestimate of the causal impact of location.

In general, it is difficult to control for all these influences at the same time. In this project therefore, we will undertake several different analyses using different data sets, methods and study populations. Whilst no perfect data exists for the analysis of these questions, it is hoped that the use of different methods, each requiring its own assumptions, will provide a robust methodology.

2. Previous Research

2.1 The Determinants of Mobility

Whilst there has been some previous research in Australia on the determinants of geographic mobility (eg Hugo and Bell, 1999),¹ little of this has focused upon low income groups or income support clients specifically. Two recent exceptions are the work of Morrow (2000) and Dockery (2000). These both use data from the FaCS longitudinal data set (LDS) of administrative data on income support payments. The two main determinants of mobility that both authors examine are of housing costs and labour market opportunities.

Morrow (2000) looks at the mobility of workforce-age FaCS clients over a twelve-month period in 1996 and 1997. He finds that clients receiving unemployment benefits tend to move towards regions with greater employment opportunities. In particular, he finds positive net migration towards the major cities accompanied by migration away from the industrial towns and coastal regions of northern New South Wales and southeast Queensland. When statistical sub-divisions are categorised on the basis of their unemployment rates, he finds that unemployed clients have a net movement out of those regions with the highest unemployment rates and a movement into the regions with the lowest unemployment rates. At the same time, the housing rent of those who move goes up faster than the rent of those who do not move. He concludes "This pattern suggests that jobseekers are willing to incur the extra costs of housing in the capital cities in exchange for greater access to employment opportunities and important services available in the capital city regions." Morrow (2000, p.27)

In contrast to the unemployed, he finds that Sole Parent and Disability Pension clients, on the other hand, were more likely to move out of the cities.

Dockery (2000) uses similar data to model the determinants of mobility.² Consistent with Morrow's results, he finds that those unemployment benefit recipients who moved tended on average to be slightly more likely to move to an area with a lower unemployment rate. On the other hand, he finds that the male unemployed tended to move to areas with *lower* rents.

These housing and labour market variables, together with personal characteristics, are then included in a multivariate model predicting the probability that a person will move out of a particular local labour market (LLM). Controlling for other variables changes the apparent impact of labour market conditions on mobility. When controlling for the other variables he finds that the unemployed are *less* likely to move out of regions with higher

¹ Some British studies on migration flows have suggested that out-migration is encouraged by high unemployment (Pissarides and Wadsworth, 1989; Jackman and Savouri, 1992). However, Henley (2000) and Hughes and McCormick (1994) conclude that migration flows are largely unresponsive to demand for labour.

² He uses the 1% sample from the LDS between April 1997 and April 1998. Morrow's results appear to be based on the full LDS population.

unemployment rates (though the difference is not significant for men).³ They continue to be more likely to move out of regions with higher rents. He concludes that “although the unemployed are generally more mobile than persons on other forms of income support, their locational decisions do not seem responsive to regional employment opportunity” (Dockery, 2000, p 419).

This recent research raises new questions and areas for further research. First, the regional patterns of mobility identified by Morrow appear to conflict with the conclusions of earlier research which suggested that the unemployed were leaving the capital cities and moving to coastal areas and other non-metropolitan regions (Bell 1995, Flood, 1992 and Bell and Maher 1995). It is possible that these different conclusions are due to methodological differences. The LDS results are for people who are receiving unemployment benefits both before and after their move. The earlier, Census-based, results categorise people according to their status after they move. It is therefore possible that these earlier results arose from people becoming unemployed *after* they moved out of the metropolitan regions.

That is, the apparent patterns of counter-urbanisation found in the earlier studies might be due to the impact of location on employment rather than employment status influencing location.

Though the research of Morrow and Dockery appear at first glance to offer differing conclusions as to the role of housing costs, these results are not necessarily inconsistent. Morrow finds that unemployed people who move face an increase in housing costs. Dockery finds that they tend to move to regions with cheaper housing. The two phenomena can occur simultaneously if the attraction of cheaper housing is one reason for relocation, but people who move initially face higher rents as they move into new unfamiliar rental markets.

However, the different conclusions about the impact of labour market conditions is puzzling. These results probably stem from limitations in the specification of the labour market environment in both studies. In particular, the level of regional aggregation used to describe labour market conditions in these studies leads to indicators that are not accurate measures of the employment opportunities available to people living in different regions.

To describe the labour market characteristics of the regions in which people live, Dockery uses the “Local Labour Market” concept as defined in the DEETYA publication *Small Area Labour Markets*.⁴ These regions were defined by DEETYA as “the geographical area in which individuals residing in a particular region typically commute to work or search for jobs”. However, this is not really an accurate description of these regions. In particular, the large cities are generally disaggregated into several regions,

³ He also observes an association with the employment growth of the region (in absolute numbers). However, this may reflect the size of the region, and so is difficult to interpret.

⁴ The current DEWSRB publication *Small Area Labour Markets* no longer uses this geographical grouping. Morrow uses the ABS ‘statistical sub-division’ geographic unit. The comments in the text with respect to LLMs apply equally to this geographic unit.

despite the fact that many people commute from one part of the city to another. In Dockery's study, around 35 per cent of all residential re-locations of people on unemployment benefits were between different regions of the same city. To the extent to which movements between these regions determine the results he found, it is debateable whether they are a reflection of the impact of employment opportunities.

For example, consider an unemployed person who moves from, say, the upper North shore of Sydney to the inner West region. Though unemployment rates are much higher in the latter region, geographic access to employment is very similar. In the model estimated by Dockery (and in Morrow's data), this person will contribute to the finding that unemployed people tend to move to higher unemployment regions. At least in this example, we cannot interpret this to mean that people are necessarily moving away from employment opportunities.

In general, it is not straightforward to ascertain the employment opportunities associated with a particular location. For many people, the best indicator for the employment opportunities facing a person living in one of Australia's large cities will be the unemployment (or employment) rate of the city as a whole. The variations in employment within cities are likely to reflect, in part at least, variations in housing costs and hence the ability of unemployed people to afford to live in different regions. At the same time, however, there may be other people for whom the local labour market is most important. Travel may be expensive or inconvenient for those with caring responsibilities (particularly sole parents) and for those with disabilities.

2.2 The Impact of Location on Employment Outcomes

It is well recognised that low-income families tend to be concentrated in regions with low levels of employment, and there is evidence that this association has increased over time (Gregory and Hunter 1995). However, it is equally well recognised that it is difficult to separate out the effects of local labour markets from the characteristics of people that tend to live in different regions (eg McDonald, 1995). For example, the high unemployment rates that are observed in the outer suburbs of the major cities may be due to regional characteristics that make it difficult to find work, such as poor public transport and an inadequate supply of child-care. Alternatively, these regions may have high unemployment rates because these are the only areas in which individuals that are disadvantaged in the labour market (such as the long-term unemployed and long-term low wage workers) can afford to live. The policy implications of these two sets of explanations are quite different.

Identifying the distinct impact of location on employment is difficult, and it is not surprising that this has not been attempted in the Australian literature (to our knowledge). As noted above, there are two identification problems. First, both location and employment outcomes will be influenced by unobserved factors such as underlying 'ability' (which influences past income and hence ability to afford to live in certain areas). Second, there may be direct effects of changes in employment status on location (eg moving in expectation of getting a job, moving after taking up a new job).

Experimental methods are the ideal method to address both these issues. Some experimental evidence from the US suggests that location does matter for a range of socio-economic outcomes. Ludwig, Duncan and Hirschfield (2001) examine the "Moving to Opportunity" experiment in the US. In this experiment, families in high poverty suburbs

were randomly assigned to a program of assistance to help them re-locate to higher income suburbs. Youth in the families that moved experienced a significantly lower crime rate. However, given the very different urban structures of the US and Australia, we would be very reluctant to generalise these types of conclusions to Australia.

The newly available panel data in the LDS allows us to begin to address these issues, though in the absence of experimental intervention (or some other random instrument) the results must be considered cautiously.

3. Proposed Activities

At this stage of the project development, we are planning to undertake the following empirical analyses. The key data sets to be used are the FaCS Longitudinal Data Set (LDS) and the 1996 Census.

3.1 The Patterns and Determinants of Mobility

The main task proposed here is a further elaboration of the methods of Morrow and Dockery using the FaCS LDS. We intend to continue their focus on the role of housing costs and labour market conditions as factors influencing the mobility of low-income groups. As discussed above, the specification of the labour market conditions facing people in different regions is not straightforward. This is probably the reason for the anomalous results reported by Dockery.

Alternative specifications of the labour market environment will be considered. Possible approaches include

- Using metropolitan-wide indicators of labour market conditions.
- Using journey-to-work data to weight labour market indicators according to the patterns of employment flows within the metropolitan regions. This would lead to indicators which incorporate some of the intra-city variation, but not all. Sub-regions which have a greater extent of intra-region employment flows would be more likely to have employment indexes that are different from the city as a whole. Ideally we would like to do this separately for different demographic groups, as patterns of journey to work are likely to be quite different.

In addition, we intend to complement this analysis of the LDS with an analysis of the residential mobility information available in the 1996 Census (using the 1% sample file). This permits an identification of the broader low-income population (as well as the overall population). Because this data is not longitudinal, this analysis needs to be interpreted in the light of the identification problem described earlier. That is, if we identify low income people moving to particular regions this could be because their income fell after moving, rather than their movement being due in some way to their low income status.

3.2 The Impact of Location on Employment Outcomes

In the absence of experimental data (or robust instruments) this project will employ a variety of approaches to identify the independent effect of location on employment.

Again, the two main sources of data are the FaCS LDS and the 1996 Census 1% Household Sample File.

3.2.1 *'Quasi-homogeneous' populations*

One way of controlling for unobserved heterogeneity in the population is to select sub-groups of the population which are reasonably homogeneous but live in locations with different employment opportunities. Two approaches will be used in this project.

First, using the 1% Census sample file, we will examine the labour market outcomes of working-age people living in public housing in different regions. Public housing authorities generally attempt to provide entry to the most disadvantaged in the community, and so within each demographic category the variation in skills among public housing tenants is likely to be lower than among the overall income support population.

How do the employment patterns of public housing tenants in the inner regions of our cities compare with those in the outer regions and with those in rural and regional Australia? We expect to find higher employment rates for those in the inner regions. Part of this might be due to some selection of those more attached to the labour market into these regions, and so again this approach will provide an upper bound for direct impact of location. However, controlling for both housing tenure and the other observed variables in the Census will substantially reduce any bias.

Second, using the LDS we will compare the exit rates from benefit for people in different regions. Whilst the LDS has a limited set of demographic and labour market variables, it does allow us to control for the length of time that a person has been on benefit. This is likely to be strongly correlated with an individual's underlying labour market skills and capability – implying a much-reduced role for unobserved differences between regions. This approach can be applied to all workforce age client groups.

3.2.2 *Employment Patterns of People Who Move*

An alternative, and more comprehensive, way to control for those unobserved common determinants of location and employment which are fixed over time, is to look at *changes* in the employment outcomes of individuals after they move. For example, do people who move to high employment opportunity regions find work or find better paying work? Does the opposite happen to those who move to low employment opportunity regions?

The FaCS LDS will be used to follow the employment outcomes of workforce-age FaCS clients who do and don't move. For those who move, any changes in employment patterns will be compared with changes in the characteristics of the region in which they live (eg housing cost and labour markets). The LDS only covers FaCS clients, and does not record location when a person is not receiving benefit. It is possible nonetheless to follow the location of people who are working and receiving part-benefit. This information will be used to analyse the part-time and casual employment patterns of the disabled, lone parents and those receiving unemployment payments (though movement off benefit will be a significant problem for the last group).

An alternative approach will also be used to examine the impact of movement on the probability of receiving benefit. In this case, we will select a sample of people who move location whilst receiving benefit. We will then examine a period of time both before and after the move (eg 12 months in each direction) and observe whether the fraction of time receiving benefits has increased or decreased and the association of this change with the change in locational characteristics. A limitation of this is that we are not able to take account of subsequent moves the person may have made. However, whilst this will reduce the precision of the results, it is not likely to lead to a bias in any particular direction.⁵

Whilst these differencing methods do control for those unobserved individual characteristics which are constant over time⁶ they do not control for the direct effect of employment changes upon location or for changes in unobserved personal characteristics. Consider, for example, someone who moves to take up a job, or who increases their preference for job-search as their children age, and thus decides to move to assist their job search. On average, jobs are more likely to be found in high employment regions, and so ignoring these types of causality will lead to an over-estimate of the effect of location upon employment.

However, the extent of this problem should not be over-estimated. In those cases where someone gains a job and *then* moves there will be no bias (we will observe a person with a job in both locations, and so not ascribe a direct effect of location upon employment). The same applies if a person loses their job and then moves. For the example of someone who changes their job search preferences and then moves, their increased chance of finding a job will arise from two factors. First they have moved to a high employment region and second, their job search effort has increased. Only the second factor leads to bias in our estimates of the direct impact of location. Hence, while the estimates provided by this type of analysis will be an upper bound to the impact of location upon employment, there are reasons to believe that this bias will not be too large.

In order to examine this issue further, the project will also explore econometric techniques for the simultaneous identification of these different influences. Identification in these techniques rests upon the existence of factors that influence location but are independent of employment outcomes. One possible variable is housing tenure. Because of the costs of moving, renters are generally more mobile than home-owners. To use this to identify the impact of location, it is necessary to assume that tenure and employment are not both caused by the same unobserved characteristic of the individuals.

⁵ Commencing in 2001 the LDS also records the receipt of the basic family benefits (paid to 85% of children). This information could be used to track families with children, however, we expect that the sample size of movers is still too small to make analysis of this data profitable in this project.

⁶ By comparing outcomes with those of people who do not move, we can also control for changes over time (such macro-economic factors) which affect both movers and non-movers.

Youth Living With their Parents

One case where we hope to be able to obtain more robust results using the above methods is for youth living with their parents. When the whole household moves, it is unlikely that this move is due to the labour market activities of the young person – and so the possible effect of employment upon location described above will not apply. Previous research (Bradbury, Garde and Vipond, 1986) has shown that young people living in a parental household that has moved location tend to have poor labour market outcomes. Here we will examine whether the change in labour market outcomes for the young person are influenced by the type of move they experience (eg to higher or lower employment regions). This analysis will require the identification of sufficient numbers of youth living with parents in the LDS.

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