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Changing components of demographic and housing structure in Gold Coast City

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1.0 Introduction

Much research in urban areas has measured residential differentiation on socio-economic, demographic and spatial dimensions. These dimensions represent the extent to which particular characteristics concentrate or disperse through areas. Some common underlying dimensions frequently identified are measures of socio-economic status and one or more measures of different family types.

These techniques provide a means of investigating one of the defining characteristics of post-modern cities by measuring differentiation between areas. These are multivariate methods of representing a complex social reality that portrays variation in a set of social characteristics across geographic areas. Such research can also be a valuable starting point for the generation of further hypotheses and subsequent investigations.

The current research investigated changing patterns of demographic and housing structure in Gold Coast City between 1991 and 1996. The objective was to identify housing dimensions constructed from a set of demographic and social indicators reflecting particular aspects of the Gold Coast housing market. A selection of demographic and housing variables from the 1991 and 1996 Census of Population and Housing were prepared. Analysis was initially undertaken at the Statistical Local Area (SLA) level and some analysis was subsequently undertaken for Census Collection Districts (CDs). Principal components analysis was used in an iterative approach to identify the main components of demographic and housing variation between areas of the City at both points in time.

This comparative factorial ecology considered the interaction of demographic and housing characteristics in Gold Coast City and how this interaction has changed over time. It sought to identify the general underlying housing and demographic dimensions and how variables have changed in their contribution to these dimensions.

Changing patterns of loadings on the common main components can suggest differences in the patterns of consumption and usage in the Gold Coast housing market between 1991 and 1996. Analysing changes to the variables measuring common family, household and demographic characteristics, provide an indication of how people with these characteristics are participating in the housing market and how their behaviour is changing over time.

2.0 Previous research

Patterns of social differentiation arise from the operation of land rents that, by way of market and economic factors, segregate different types of people according to their ability to pay the rent determined at different locations (Timms, 1971).

Early investigations into these patterns of urban differentiation identified three main dimensions: socio-economic status, family status and ethnic status with additional dimensions subsequently being described (Bell, 1955, Anderson and Bean, 1961). The composition of these dimensions varies with the type of city and the characteristics selected for analysis (Murdie, 1969). However, these additional dimensions can be considered as sets of sub-factors that are closely related to the main dimensions of socio-economic and family status.

In Australia, early studies by Johnston (1965) and Jones (1965, 1968) led the way for subsequent studies in most capital cities (Stimson, 1982). The common finding was the identification of socio-economic, family and ethnic status dimensions. Timms (1971) in a study of Brisbane using 1961 Census data, found some evidence for a sectoral pattern of social rank and a zonal pattern of family status similar to patterns identified in North American studies (Murdie, 1969).

Some investigations considered how these dimensions of social variation changed over time. Murdie (1969) found in his study of social change in Toronto between 1951 and 1961 that economic status had moved outwards in a sectoral pattern while family status moved outwards in a concentric pattern and ethnic status varied in sectors.

Johnston (1973) analysed social change in Melbourne between 1961 and 1966 using a factor analytic approach. In both studies of social change, the ecological structure was found to have remained stable in that similar dimensions were able to be identified at both time periods. However, some change had occurred in the spatial distribution of these dimensions. In Melbourne, the changes were associated with increasing numbers of British and European migrants combined with a related increase in people aged between 15 and 44 years. Changes to the socio-economic status and family dimensions were slight suggesting immigration was the main driver of social area change in Melbourne in the early sixties.

However, marked changes in urban social structure have followed the decline of the older style industrial cities and the emergence of global cities has resulted in the development of a new urban form with new patterns of differentiation. This new urban form has typically been described as post-industrial or post-modern with a polycentric or multinucleated spatial pattern. South East Queensland, including Gold Coast City, has been described as one such region (Western and Larnach, 1998).

Marcuse (1993) described the patterns of the contemporary city as quartered; these include the luxury housing areas, the gentrified areas, the suburban parts of the city, the tenements and abandoned areas of the city. Marcuse notes that while these patterns are reflected in space they are not rigid patterns, with variations occurring from city to city and country to country. Thus, research investigating the outcomes in individual cities is necessary to isolate the particular and localised patterns of differentiation and localised responses to change.

Soja (1997, 245-246) echoed this emphasis on spatially informed investigations into ambiguity, fragmentation, multiplicity and difference, qualities or characteristics he described as the material social realities of the contemporary world. Thus, Soja suggests development of planning theory responsive to post-modern conditions

should include critical investigations into local conditions and differences, particularly focussing on the intersections of class, race and gender for their importance to social cleavages.

Several major social issues have contributed to the formation of contemporary cities: entrenched social inequalities plus the new structure of social inequality; increasingly global, urban-based culture; concern with urban crime; changing urban politics and growing concerns with the impact of urban growth on both the environment and on people's lives. Increasing polarisation on both income and social measures has been evident in major Australian cities over recent years. Simultaneously, changes to class and occupational structure have occurred with the downturn of the rural sector, growth of professionals, para-professionals, managers and administrators, the decline of manual jobs, increasing participation of women in the workforce and the increase in the insecure service working class and the new urban poor (Kemp et al, 1997, Murphy and Watson 1994).

This polarisation is also reflected in the changing family and household structure with single parent families in particular experiencing high rates of poverty. Indeed, increasing urban land and dwelling construction costs, high rents and interest rates on home mortgages mean that for a growing number of Australians, particularly for families on one income, financing a home purchase is becoming more remote. These social issues need to be acknowledged and investigated for their continuing impact on well being including fundamentals such as securing shelter through participation in the housing market.

Housing markets are also affected by social and demographic changes. For example, in Australia rapid rates of household formation, the ageing of the population, the decline in the proportion of children and the influence of migration have all been significant demographic factors impacting on the operation of housing markets. Other related social changes such as delaying marriage, increases in the average length of time between marriage and the first child, declining average family size and the higher number of marriages with children ending in separation have also resulted in changes to people's need for and use of housing.

Within each of the sectors of the housing market (the private owners, the private rental and government rental sectors), there exists demand for different types of dwellings according to the needs of people and families as they progress through life and family cycles (Stimson, 1982). However, there are considerable inequalities in the ability of people and households to participate in the housing market. Badcock (1984, 182) has suggested that lines laid down in the labour market are primarily responsible for divisions within the housing market. In particular, low income and lower socio-economic status groups are restricted in their choice of residential location and dwelling with resulting trade-offs in terms of amenity, environmental quality, level of social prestige, access to goods and services and opportunities for employment. Thus the workings of the housing market have concentrated the poor into fairly discrete areas, marginalizing them by geography (Badcock, 1997, 258).

Whilst previous research found spatial variations in income, unemployment and education levels, this variation has traditionally been explained by the spatial sorting of residential property markets combined with life-cycle stages and a degree of

cultural clustering (Murphy and Watson, 1994, 583). However, studies since the 1970s have found that poorer areas of Australian cities have gained a larger than expected share of the unemployed and low income earners including particularly single parents and the long-term unemployed (Murphy and Watson, 1994, 583). Such areas have a higher proportion of people lacking the skills and resources to participate effectively in the changing economy and housing market. In addition, these people are amongst those moving in large numbers to metropolitan fringe areas and high amenity coastal locations such as Gold Coast City, seeking lower cost housing.

In fact, Gold Coast City has recorded the rapid growth and significant aged and female population said to distinguish tourism urbanisation and has been described as the epitome of a post-modern city (Mullins, 1994). Areas of tourism urbanisation are specially built to cater for large numbers of visitors so they can consume pleasurable goods and services, as distinct from other urban areas that have primary functions of manufacturing or commerce. In addition, a certain economic volatility resulting from dependence on the two major industries of tourism and construction and urban development characterise areas of tourism urbanisation. If post-modernity is defined as the culture of contemporary western capitalism, a culture focussed on the obsessive consumption of pleasure, then a post-modern city is an urban form built to achieve this goal (Mullins, 1994, 596).

Gold Coast City is one such city. Its development, initially along the coastline, then progressively northwards and westwards, has resulted in the lack of a dominant central business district, higher dwelling densities in selected locations due in part to high rise apartments catering for visitors and different urban forms such as canal estates and gated communities. These distinctive characteristics will impact on the operation of the housing market and the resulting patterns of differentiation and experience of recent social changes may also be distinctive. Indeed, Gold Coast City's housing market and particularly the availability of low cost, short-term accommodation is acknowledged as being significantly impacted by the high number of visitors especially in peak periods (Gold Coast Housing Network, 1998).

In a recent investigation into social differentiation in South East Queensland, 1991 Census data were used to describe household structure, socio-economic status, ethnicity and disadvantage factors (Western and Larnach, 1998). Differences were found in the population's socio-economic characteristics in the region's major centres and hinterland areas. There were found to be both poor and wealthy suburbs comprising largely traditional households as well as poor and wealthy suburbs comprising largely non-traditional households. Non-traditional households were different to the more traditional nuclear family with goals of home and car ownership historically typical of Australian society (Western and Larnach, 221). Further, the study found that locational disadvantage associated with social polarisation was evident in the spatial patterns of South East Queensland.

Whilst evidence of social disadvantage in Gold Coast City has been reported elsewhere (Taylor, 1997), the current study seeks to investigate the extent of this differentiation in a set of indicators reflecting consumption and participation in the Gold Coast housing market. Recent changes to these social area housing patterns are also investigated in this research. The components of housing and demographic

structure are empirically described assisting the development of theories concerning socioecological structure and change in a post-modern city.

Recent patterns of spatial segregation are likely to have arisen as the well off and socially advantaged households are differentiated from the large and expanding urban underclass. Of interest is the differentiation occurring through the ability to consume or participate in the housing market. Further, increasing ethnic diversity in the population, greater variation in family and household types, changing patterns of labour force participation, marriage, child bearing and divorce are also likely to cause ongoing changes to patterns of residential differentiation.

Marcuse (1993) has suggested that one recent impact of the social inequality resulting from the rise of global cities has been a sharp decline in the availability of cheap, good quality housing, but at the same time, a growth in luxury housing and very poor housing. Such changes must cause variations in the spatial patterns reflecting residential differentiation. In addition, homelessness has become a permanent phenomenon, new residential areas are sometimes created out of previously low income housing areas and increasing social segregation has resulted in more gated communities and high walls for security (Marcuse, 1993 quoted in Kemp et al, 1997). Some of these impacts have been noted in Gold Coast City (Gold Coast Housing Network, 1998).

In summary, in Gold Coast City, with its relatively recent rapid growth and urban development, its multi-node pattern of centres, the significant influence of its physical features and the well established tourist industry, patterns of social differentiation can be expected to vary somewhat from the traditional sectoral variation of socio-economic status and the zonal patterns of the family status dimensions. This research seeks to uncover what patterns have resulted from this particular set of characteristics and to identify the social inequalities or cleavages in the consumption of housing in Gold Coast City. Further, it seeks to identify how these patterns have changed over time and which types of households may be contributing to this change.

3.0 Analysis of demographic and housing structure at 1991

A selection of 35 variables from the 1991 Census of Population and Housing were prepared for SLAs and CDs in Gold Coast City. These variables were in the form of the proportion of the population at risk. The variables were chosen to reflect a range of dwelling characteristics and included measures covering the structure of dwellings, the number of persons usually resident, the tenure of dwellings and the number of people in non-private dwellings. Complex variables measuring a number of characteristics were included to provide additional interpretation. These variables were chosen in the context of a concurrent study involving analysis of complementary sets of broad demographic indicators. The primary basis for selection of variables in the current research was their connection with ability to participate in the housing market.

Characteristics that were thought to have some relevance to the ability to occupy particular dwellings (for example, low household incomes) or have been shown to result in different patterns of housing consumption (for example, couples without children and group households) were included. Similarly, the proportion of the

population with a different address compared to five years earlier was included to reflect the level of turnover of residential properties in the area. Variables reflecting crowding have been found to be significant in English research (Herbert, 1967) and were therefore included in this investigation with variations measuring dwellings with four or more bedrooms and one person usually resident also included.

Variables reflecting housing costs were considered important to include in the analysis as an indicator of economic ability to participate in the housing market. A variable measuring high monthly housing repayments was selected for analysis. A similar variable measuring high weekly rental payments was included. Due to the relative significance of caravans as permanent accommodation in the Queensland housing market, the proportion of households that were caravans in caravan parks was also selected. Similarly, Queensland has some areas, including Gold Coast City, with relatively high vacancy rates (that is, unoccupied at the time of the Census collection) that may be due to the construction of new dwellings not yet occupied, the presence of holiday homes or high levels of turnover. Thus a variable measuring the proportion of all private dwellings that were unoccupied on Census night was included. Most of the variables chosen for analysis related to dwelling structure and tenure with family structure and variables reflecting aspects of social and economic status also included. Appendix One contains a complete listing of variables used in this analysis.

3.1 Housing and demographic structure 1991

Using an iterative model, the matrix of variables was subjected to principal components analysis and progressively optimised to reveal a subset of fifteen of the variables making the largest contributions to the main components. Principal components analysis produces in decreasing order of significance, a number of components or factors, each of which accounts for a portion of the total variation in the original data and can be interpreted in terms of the original variables with which each one is most highly associated.

The same main components were identified through analysis of a series of variable sets: that is, using the full set of 35 variables, a pool of 28 variables, a pool of 15 variables and subsequently an extended set of 39 variables. The components were “housing structure”, “disadvantage”, “household size” and “medium density mix”. The first and main component measured variations in types of housing. This component allowed areas with high proportions of separate housing to be distinguished from areas with high proportions of flats or apartments and where higher proportions of people were counted in higher density dwellings (townhouses, flats, units or apartments).

The main component, labelled “housing structure”, was found to be a bi-polar component measuring high levels of separate housing on one pole and high and medium density dwellings (particularly flats or apartments) on the other. The highest contributing variables to the separate housing aspect of this housing structure component were the proportion of private dwelling stock that was made up of separate housing (variable loading of -.97), separate houses with six or more people usually resident (-.80) and separate houses that were being rented (-.53). (All loadings quoted are from the 28 variable analysis of Gold Coast SLAs with varimax rotation – Table 1. Variable loadings represent the degree and direction of association

or contribution by the variables to each component.) Thus this aspect of the dimension describes areas that are predominantly separate housing, occupied by families and including some rental properties.

The high and medium density aspect of the first main component was made up of large contributions from variables measuring the proportion of people counted in medium density dwellings (.97), the share of dwelling stock that was flats or apartments (.95), the proportion of dwellings that were rented (.86) and the proportion of people who were members of group households (.85).

Mapping of areas in Gold Coast City by scores on this component clearly distinguished between those areas with predominantly separate houses from those areas with a more mixed range of dwelling types. Areas scoring highest on this component had high proportions of flats and apartments in their dwelling stock and were located along the coastal strip from Coolangatta to Runaway Bay. Hope Island was the most westerly area found in the top 40 per cent of areas ranked by this component.

Broadbeach, Coolangatta, Main Beach-Broadwater and Surfers Paradise, ranked one to four respectively on the housing structure component due to the high representation of flat and apartment dwellings in their housing stock (91.5 per cent, 67.7 per cent, 68.7 per cent and 74.6 per cent respectively). Areas with the lowest rankings on the housing structure component included Coombabah and Bundall and these were also amongst the areas with the lowest proportion of flats and apartments in their dwelling stock.

The housing structure component accounted for a large amount of variation in the original data. Using the pool of 28 variables for Gold Coast SLAs, the housing structure component alone accounted for more than one-third (36.9 per cent) of the variation in the data. With the pool of variables reduced to 15, the housing structure component explained nearly two-thirds (66.0 per cent) of the variation. It could thus be said that the housing structure component was highly descriptive of the data.

Secondary and minor dimensions are also important in understanding the complex interplay of demographic and housing characteristics resulting in patterns of residential variation and social area differentiation. The dimension accounting for the second largest amount of variation in each analysis was labelled disadvantage. This dimension appeared to reflect people's ability to utilise housing according to their socio-economic status. Highest loading variables measured the proportion of the population that was Aboriginal or Torres Strait Islander (.84), the proportion of families that were single parent families renting or purchasing their home (.81), single parent families with dependent offspring (.77) or single parent families on low incomes (.52). Two parent families on low incomes also made a large contribution to this component (.75). Each of these groups are recognised as being marginalised and subjected to economic and social disadvantage in the housing market.

The disadvantage component can also be considered bi-polar with one aspect describing families and households who appear economically disadvantaged while the other aspect measured high monthly repayments (-.77) and high weekly rents (-.73) suggesting a financial position that assists participation in the housing market. The

level of rented dwelling stock (.36) and the proportion of the population that were unemployed or not in the labour force (.34) had low loadings on the disadvantage component indicative of a weak contribution to this measure. In contrast, the proportion of people who had moved outside their SLA in the previous five years had a low to moderate negative loading on the disadvantage component (-.45). This indicates that high levels of mobility have a negative relationship with disadvantage in the housing market. In fact, the variable measuring different address to five years earlier was significantly correlated with high monthly housing repayments (.61) indicating that moving house is likely to be associated with purchasing a house which in turn requires a measure of financial security and relatively non-disadvantaged status.

The disadvantage component explained 20.5 per cent of the variation in the original data (28 variable pool for Gold Coast SLAs). The first two components together accounted for more than half (57.4 per cent) the variation. The third component, initially labelled “household size”, represented 10.7 per cent, just slightly more than the fourth component “medium density mix” that accounted for 10.2 per cent of the original variation. Together these first four components explained more than three-quarters of the variation (78.3 per cent) in the 28 variable pool.

The household size component had two aspects or poles, one measuring small households (separate houses with one person usually resident (.92) and couples without offspring (.67)) while the other aspect had highest loadings on the proportion of people with a different address to five years earlier (-.66) and high monthly housing repayments (-.45). This dimension was tentatively labelled household size according to the highest loading variable and currently does not reflect the complete pattern of variable loadings. Further analysis will possibly suggest a more appropriate label.

The medium density mix component had high loadings on variables measuring the proportion of semi-detached dwellings in the stock (-.93), the proportion of semi-detached dwellings that were rented (-.91), as well as the proportion of single parent families (-.45) and the proportion of couples without offspring (-.45). Single parent families had a moderate, but significant association with semi-detached dwellings (correlation of .41) while couples with offspring was similarly associated (.39, significant at $p < 0.05$). The proportion of people who worked at home (.69) and separate houses with six or more people usually resident (.35) had positive loadings on this component.

Thus, four main components of demographic and housing structure were identified in this set of 1991 Census variables for Gold Coast SLAs. The first and main component, housing structure distinguished between different housing structures occupied by different types of families and households. The second component reflected disadvantage in participation in the housing market while the remaining components were indicative of the spread of townhouses or medium density living and variations according to household size.

4.0 Analysis of demographic and housing structure at 1996

Using data from the 1996 Census of Population and Housing, variables comparable to those used in the 1991 analysis were extracted for SLAs in Gold Coast City. The 31 variable set contained some 1996 variables that were slightly modified compared to the 1991 selection. For example, adjustments were made for inflation and changed median values.

A comparable pool of 28 variables was analysed revealing the same first four components as were found in the 1991 analysis. These four components accounted for 84.4 per cent of the variation in the data with the first component, housing structure, explaining 40.1 per cent of the variation. The pattern of high loading variables was similar to that found in the analysis of 1991 data with the first four components explaining an even larger amount of variation in the data. The proportion of separate houses (-.97), the proportion of dwelling stock that was separate houses with six or more people usually resident (-.87) and the proportion of dwellings that were separate houses being rented (-.71) were again the highest loading variables on the separate housing aspect of the first component. High loading variables on the other pole of this dimension included the proportion of the population found in medium and high density dwellings (.97), the proportion of dwellings that were flats or apartments (.90) and the proportion of dwellings that were unoccupied (.80). Variables with moderately high loadings were couples without offspring (.78), group households (.76) and lone person households (.74).

A component that reflected disadvantage was also identified in the 1996 analysis and accounted for 23.5 per cent of the variation in the pool of variables. Highest contributing variables were three measures of single parent family characteristics; single parents on low incomes (.86), single parents with dependent offspring renting their dwelling (.85) and the proportion of single parent families (.81). The proportion of the population that were Aboriginal and Torres Strait Islander also loaded high on the disadvantage component (.78). High monthly housing repayments (-.72), people working at home (-.60) and couples without offspring (-.49) were the highest loading variables on the negative aspect of the disadvantage component, that is those in a relatively advantaged situation.

In the 1996 analysis, the medium density mix component accounted for the third largest share of variance in the data (11.7 per cent) with the household size component accounting for 9.1 per cent. This suggests that medium density living had become a more significant component of the Gold Coast City housing market by 1996 compared to five years earlier. By 1996, medium density dwellings (townhouses) made up 15.0 per cent of Gold Coast City's private housing stock having grown from 10.7 per cent five years before. A very similar pattern of loadings was found on each of the medium density mix and household size components to the patterns found in the 1991 analysis. The highest loadings on the medium density mix component were the proportion of semi-detached dwellings (.95) and the proportion of dwellings that were semi-detached and being rented (.93). These were the same variables with the highest loadings on this component in the 1991 analysis. Single parent families (.33) loaded in a different direction in 1996 while couples without offspring did not contribute at all to the medium density mix component in 1996.

The household size dimension also had a similar pattern of loadings to the 1991 analysis with variables making high contributions including the proportion who were

unemployed or not in the labour force (.76), dwellings that were separate houses with one person usually resident (.73) and low income households (.70). The variable measuring people with a different address than five years previously (-.69) had the highest negative loading followed by high monthly housing repayments (-.45) and high weekly rent (-.33).

5.0 Comparison of demographic and housing structure over time

5.1 Dimension robustness

A series of tests were undertaken to determine how the main components of demographic and housing structure in Gold Coast City had changed over the five years to 1996. To ascertain the robustness of the identified dimensions over the time period 1991 to 1996, the pattern of variables loading on or contributing to each main dimension was considered. Initially, this was achieved through simple visual comparison. Table One lists those 24 variables from the 1991 and 1996 sets that were considered sufficiently comparable for analysis. This table reports only those loadings greater than 0.3, a commonly used category. (Variables with loadings less than 0.3 explained less than 20 per cent of the variability in the data in that dimension). A full description of the variables is given in Appendix One.

Table 1: Factor loadings, 24 comparable variable pool, Gold Coast SLAs, 1991 and 1996

Variables	1991 Dimensions					1996 Dimensions			
	HS	Disad	Hhsize	Mdens	D5	HS	Disad	Mdens	Hhsize
persmedens	.97					.97			
flatapart	.95					.90		-.29	
group	.85					.76			
lonephh	.77		.41			.74			.56
unocc	.76					.80		-.31	
sephse	-.97					-.97			
sephsenp6	-.80			.35		-.87			
rent	.86	.36				.76	.55		
spfloinc	.69	.52					.86		
unemnilf	.67	.34	.46			.42			.76
spfdorent	.37	.81				-.31	.85		
sepsherent	-.53	.56			.38	-.71	.50		
2pfdoloinc	-.31	.75				-.63	.63		
ATSI		.84					.78		
spf		.77		-.45		.31	.81	.33	
mrepay		-.77	-.45				-.72		-.45
wkrent		-.73			.37	.53	-.35		-.33
diffadd		-.45	-.66					.53	-.69
sephsenpl			.92			-.45			.73
cplnoos			.67	-.45		.78	-.49		
semidet				-.93				.95	
semirent				-.91				.93	
wkhome				.69			-.60	-.55	

lohinc					.77	.52	.33		.70
Eigenvalues	10.3	5.7	3.0	2.9	1.5	11.2	6.6	3.3	2.6
Explained variance	36.9	20.5	10.7	10.2	5.3	10.1	23.5	11.7	9.1

HS = housing structure
Disad = disadvantage
Hhsize = household size
Mdens = medium density
D5 = dimension five (not labelled)

There was a high level of comparability between the dimensions found in the 1991 data and those found in the 1996 data. The housing structure dimension had a very similar pattern of high loading variables in both analyses. The proportion of the population living in medium and high density dwellings, the incidence of flat and apartment (high density) dwellings and separate houses each made significantly large contributions to the housing structure dimension in analyses at each time point. In total there were 11 variables that had loadings above 0.3 in the same direction, on the housing structure dimension in both the 1991 and 1996 analyses.

Dimensions (or factors) are said to be robust when they have many associated variables and a high, but diversified, explained variance (Palm and Caruso, 1972). The housing structure dimension explained 36.9 per cent of the variance in 1991 and 40.1 per cent in 1996. Due to the high level of correspondence in the variables loading on the housing structure dimension in both the 1991 and 1996 analyses and the large amount of explained variance, the housing structure dimension can be said to be robust over the 1991 to 1996 period.

However, some variables changed in the way they contributed to the housing structure dimension between 1991 and 1996. Single parent families, for example, had a different pattern in 1996 compared to 1991. In 1996, single parent families made a small contribution to the housing structure dimension (.31) after no significant loading was recorded in the 1991 analysis. The 1996 loading was on the aspect of the housing structure dimension that distinguished medium and high density dwellings suggesting single parent families occupancy of this dwelling type. In 1996, single parent families were negatively associated with separate houses (correlation of -.35) whilst having a low positive correlation with the population in medium density dwellings (.35).

Single parent families with dependent offspring who were renting their dwelling, had low loadings in both the 1991 and 1996 analyses but the direction of the loading on the housing structure dimension was reversed in 1996. This indicates that single parent families that were renting their accommodation were more likely to be found in separate houses by 1996 because the loading (-.31) was on the separate housing aspect of the dimension. Indeed, single parent families with dependent offspring who were renting a dwelling in Gold Coast City in 1996 also had a moderately high correlation with separate houses being rented (.65).

In contrast, low income single parent families had a moderately high loading (.69) on the housing structure dimension in 1991 but by 1996 none of the related variables had

a loading above 0.3. It appears that by 1996, the influence of low income on a single parent family was not explained by distinguishing housing structure. In 1996, the disadvantage dimension was best able to explain the variation amongst low income single parent families.

In summary, single parent families were less likely to be found in separate houses in 1996 (correlation of $-.35$ compared to 0.09 in 1991). However, single parent families with dependent offspring who were renting had a higher degree of association with separate houses in 1996 than in 1991 (correlations of 0.24 and $-.39$ respectively).

In contrast, low income two parent families had a low loading ($-.31$) on the housing structure dimension in the 1991 analysis which increased to be moderately strong ($-.63$) five years later. In both analyses, two parent families with low incomes loaded on the separate housing aspect of the dimension suggesting that a low income for two parent families does not result in the same pattern of housing consumption as low income does for single parent families.

In 1996, couples with no offspring had a high loading ($.78$) on the medium and high density aspect of the housing structure dimension but did not load on this dimension in 1991. In 1996, couples without offspring had a moderately high negative loading ($-.49$) on the disadvantage component suggesting that such families had improved their ability to function in the housing market with least disadvantage. People working from home also had a moderately high negative loading ($-.60$) on the disadvantage component in 1996 while a loading of $.33$ for low income households confirmed that low incomes were associated with disadvantage in participation in the housing market.

There were nine variables with significant loadings on the disadvantage dimension in both the 1991 and 1996 analyses thus signifying the robustness of this dimension. The proportion of Aboriginal and Torres Strait Islanders in the population ($.84$) was the highest loading variable in 1991 however single parent families on low incomes ($.86$) and single parent families renting their dwelling ($.85$) were the highest loading variables by 1996. The position of single parent families seems to have worsened on this disadvantage dimension during the five years to 1996. However, Aboriginal and Torres Strait Islander people have also retained a high loading ($.78$) on the disadvantage component suggesting there has been little improvement in their ability to participate in the housing market over the five year period.

The household size dimension had five variables with significant loadings in both the 1991 and 1996 analyses and explained 10.7 per cent and 9.1 per cent of the variance in the original data respectively. People living alone in separate houses had a very high loading in the 1991 analysis ($.92$) and maintained a strong contribution in 1996 ($.73$). The proportion of the population that lived in lone person households also made a moderate contribution to the household size dimension in both analyses. Other high loading variables in the 1996 analysis were persons who were unemployed or not in the labour force ($.76$) and low household incomes ($.70$).

The household size dimension reflects small households on the one hand while the other aspect indicates high levels of mobility and high monthly housing repayments. It may be useful to consider this as a dimension of residential stability. One aspect

could be said to reflect people who have recently arrived in the area or are purchasing a new dwelling with associated mortgage repayments. The other aspect reflects areas where there has been comparatively little turnover of residential properties, low household incomes and many people not working thus signifying less ability to absorb the costs of moving.

The fourth dimension identified in this research, medium density mix, had four variables with loadings above 0.3 in both analyses. (This dimension was inverted in the 1996 solution compared to the earlier analysis using 1991 data. In principal components analysis all loadings can have their sign reversed without altering the dimension. Thus all variables with a negative loading can be given a positive sign while all positive loadings can be given a negative sign.) The proportion of semi-detached housing (townhouses) and semi-detached housing that was rented were the two highest loading variables in both 1991 and 1996. Single parent families also loaded high in both analyses. The proportion of people working at home had moderately high loadings in both analyses but in a different direction to the variables mentioned above. Flats and apartments and separate houses with six or more people usually resident also had low negative loadings on the medium density mix dimension (-.29 and -.25 respectively), as did high weekly rent payments (-.28) and high vacancy levels (-.31).

While still maintaining a number of variables that consistently loaded on this dimension, the relatively small amount of variance explained by the medium density mix dimension (10.2 per cent in 1991 and 11.7 per cent in 1996) suggests that this dimension is less robust than the larger main dimensions discussed above.

5.2 Comparing dimensions from different solutions

Another measure of robustness is to determine if the same dimensions are identified using different methods of extraction. Principal axis factoring was used on the 28 variable set for Gold Coast SLAs (1996 data) and four main factors or dimensions were identified. The patterns of variable loadings on these dimensions were similar to those from the principal components analysis described above. The first and main dimension again distinguished between separate housing and couple families on one hand and medium and high density dwellings, couples without children and group households on the other.

The second dimension, again a measure of disadvantage, had high monthly mortgage repayments and people who work from home on one aspect while the other described single parent families and low income two parent families. Factor three resembled the medium density mix dimension with semi-detached dwellings, semi-detached dwellings being rented and semi-detached dwellings with a lone occupant having the highest loadings. Factor four had highest loadings on people unemployed or not in the labour force, low household income and lone person households while persons who had moved in the last five years had the highest negative loading. This was very similar to the pattern for the household size dimensions described previously.

Together these four factors represented 81.9 per cent of the variation in the 28 variable set.

A maximum likelihood model was also used to identify a similar set of four main factors. These four factors accounted for 80.9 per cent of the variation in the 28 variable set for Gold Coast SLAs. The first main factor, accounting for 38.0 per cent of variation, was clearly the housing structure dimension of previous analyses. The second factor in this solution resembled the medium density mix dimension described above and accounted for 17.9 per cent of the variation. Highest loadings were on semi-detached dwellings being rented, semi-detached dwellings and semi-detached dwellings with one person usually resident. People working from home had the highest negative loading. The disadvantage dimension described in earlier analyses appeared as factor three in this solution accounting for 15.1 per cent of variance. Highest loadings were on single parent families, low income single parent families, single parent families renting and Aboriginal and Torres Strait Islander people while high monthly mortgage repayments and couples without offspring had the highest negative loadings.

Thus there are strong similarities in the dimensions identified using different methods of extraction.

5.3 Comparison of spatial variation of dimensions

5.3.1 Housing structure

In the analysis of 1991 data for Gold Coast City, SLAs with high factor scores on the main component of housing structure were all located along the coastline. All areas from Coolangatta in the south to Runaway Bay in the north had scores in the top 40 per cent of the score range. Hope Island was the only SLA in the top categories of scores that did not abut the coast. Areas with lower scores were located progressively westward. In the northern part of the City, Beenleigh and Edens Landing-Holmview had scores in the mid-range of the housing structure dimension whilst all other areas had very low scores.

Areas with high scores on the housing structure dimension in 1991 corresponded to the more developed urban areas of coastal Gold Coast, including the traditional tourist areas, and contained most of the older dwelling stock. In contrast, areas with low scores on this dimension included the rural balance of the City and the more recently developed and expanding hinterland suburbs.

By 1996, there was a noticeable westward movement of higher scores on the housing structure dimension indicative of higher levels of medium and high density dwellings in the housing stock. Nor was the coastal strip any longer a solid band of high scoring areas but was made up of a mixture of predominantly high scoring areas interspersed with lower scoring areas particularly Palm Beach and Burleigh Heads.

Areas that have changed from lower scores to higher scores in the five years to 1996 are those areas that had increased the level of semi-detached housing stock. If areas with predominantly separate housing are considered to be the more 'traditional' areas, primarily accommodating the traditional two parent nuclear family, then some areas have become less traditional over the five year period. Bethania-Waterford and Mt Warren Park in the northern sector of the City both had smaller proportions of their dwelling stock made up of separate houses in 1996 compared to 1991. In contrast,

areas like Helensvale, Arundel and Nerang have remained predominantly separate housing with around nine out of every ten dwellings separate houses.

5.3.2 Disadvantage

In the analysis of 1991 data, areas scoring highest on the disadvantage dimension were located in the older suburbs with significant amounts of low cost housing options, for example, Coolangatta, Bilinga, Palm Beach, Labrador, Beenleigh and Eagleby. However, some newer but relatively low-cost suburbs also scored highly on this disadvantage component, for example, Kerrydale-Stephens which had more than one-quarter of its dwelling stock made up of public housing.

Areas scoring low on the disadvantage component in the 1991 analysis reflected higher housing costs and more selectivity in housing options, for example, Windaroo-Bannockburn, Worongary-Tallai, Hope Island and Runaway Bay. These are also areas of more recent residential development. However, some well-established areas also had low scores on the disadvantage component and a group of these areas were clustered around Surfers Paradise suggesting some impact from tourism and business infrastructure in this location.

By 1996, the areas scoring highest on the disadvantage component had moved westward from the coastline with a cluster of areas found in the north of the City at Beenleigh. Four adjoining SLAs in this area scored in the highest category of disadvantage in the 1996 analysis. These areas have plenty of low cost accommodation in their dwelling stock some of which is older housing but some of which is relatively new as in Mt Warren Park.

Suburbs inland from the coastline, with lower housing costs and older accommodation options also scored highly on the disadvantage component. Thus, areas like Labrador scored in the highest categories in both the 1991 and 1996 analyses. Guanaba-Currumbin Valley, one of the newly created SLAs for 1996 was in the highly disadvantaged group. However its adjoining SLA of Coomera-Cedar Creek scored relatively low on this dimension suggesting that the poorer housing consumers and those least able to participate in the housing market are found in the southern sector of the hinterland region of the City.

Least disadvantaged areas were found in the central suburban core of the City from Burleigh Heads in the south to Hope Island in the north. This appears to represent a consolidation of the pattern identified in the 1991 analysis accompanied by a gradual westward movement associated with the main residential development fronts.

5.3.3 Remaining dimensions

The dimension labelled household size, but more likely reflecting residential stability, differentiated between areas with relatively little turnover (most stable) and those areas where more recent settlement occurred (that is less stable). Areas such as Tugun, Palm Beach, Burleigh Waters, Broadbeach Waters and Runaway Bay scored high on the stable aspect of this dimension. However, more recently developed areas such as Oxenford, Helensvale, Parkwood and Robina-Clear Island Waters scored low on this dimension indicating more movement. Due to the dominance of the new housing sector by families, larger household sizes are also found in these areas.

By 1996, areas with higher levels of turnover were found scattered throughout the City but predominantly in the central and southern sectors. Areas such as Robina-Clear Island Waters scored a high negative score on this dimension and represented locations where large proportions of the population had changed address in the previous five years (73.8 per cent of Robina-Clear Island Water's population had changed address between 1991 and 1996, the highest value of this indicator for Gold Coast SLAs). In contrast, areas with comparatively low levels of turnover had higher proportions of the population unemployed or not in the labour force and lone person households suggesting a decreased likelihood of moving. Broadbeach for example, scored high on this dimension indicating higher levels of stability and had the highest proportion of its population unemployed or not in the labour force (44.2 per cent) and the second highest proportion of the population in lone person households (13.5 per cent) for all Gold Coast SLAs.

The medium density mix dimension differentiated between areas with higher proportions of semi-detached and townhouse dwellings (medium density dwelling stock) and those areas with predominantly separate houses (more traditional dwelling stock mixes). In 1991, medium density areas were found in some older coastal locations (for example, Coolangatta and Surfers Paradise) but also in some of the hinterland and more recently developed areas (for example, Mudgeeraba and Worongary-Tallai). More traditional suburbs with fewer medium density options were areas of conventional separate housing found in the central suburban core area.

By 1996, areas with higher levels of medium density housing choice, particularly medium density dwellings being rented, as well as high levels of single parent families were found in areas of comparatively recent development and also in some coastal suburbs where older holiday accommodation may have been converted to private use. In the southern suburbs of the City, the older tourist areas of Coolangatta, Bilinga and Palm Beach each had higher levels of medium density dwellings in their housing stock while Carrara-Merrimac and Mudgeeraba are likely to have met planning requirements for higher shares of medium density dwellings in more recent development projects. Areas with less medium density and more traditional housing options were found clustered into groups, one in the south, one in central and one in the northern coastal Gold Coast City area while the Beenleigh region was also well supplied with more traditional housing options.

As suggested in previous studies of social change, the same dimensions of variation were identified in both the 1991 and 1996 analyses of Gold Coast City, however, there has been considerable movement in the spatial patterns of these dimensions over the five year period.

6.0 Conclusion

A selection of comparable variables for Gold Coast City from the 1991 and 1996 Census of Population and Housing were analysed in order to identify the main demographic and housing components of variation. Similar components were identified in each set of variables. Housing structure remained the first and main component of variation amongst Gold Coast SLAs in both 1991 and 1996. This construct distinguished between areas of predominantly separate houses or more traditional housing options from areas with high proportions of flats or apartments or

higher density living. Housing disadvantage, medium density mix and household size (or residential stability) were secondary components found in both analyses.

Cleavages in the housing market were found to revolve around these four components. Thus, different family and household groupings chose different housing options that are spatially segregated (the housing structure dimension). Groups with different socio-economic status and ethnic backgrounds chose housing options according to their ability to participate in the housing market (the housing disadvantage dimension). The medium density mix dimension described areas of recent townhouse development, while the household size dimension reflected residential stability and recency of development.

The Gold Coast housing market did exhibit some change between 1991 and 1996. Some variables had different patterns of association with the main components in 1991 compared to 1996. For example, single parent families were increasingly associated with medium density housing options towards the end of the five year period. However, single parent families that were renting their accommodation were more likely to be found in separate houses by 1996. By 1996, spatial variation amongst low income single parent families was not accounted for by distinguishing housing structure. In 1996, the disadvantage dimension was best able to explain the variation amongst low income single parent families. This is indicative of single parent families worsening ability to participate in the housing market and their increasing levels of poverty. In contrast, the distribution of low income two parent families were increasingly associated with housing structure options over the five years to 1996.

Couples without offspring also functioned differently in the housing market of 1996 compared to five years earlier. This may be related to the changing age structure of this group as increasing numbers of young couples choose to remain childless. By 1996, couples with no offspring were associated with medium and high density living after not contributing to this dimension in 1991. In addition, by 1996, couples without offspring were negatively associated with disadvantage in the housing market (loading of -.49) suggesting that such families had obtained relatively advantaged positions in the housing market.

Whilst the same dimensions were found in both the 1991 and 1996 sets of variables, there were noticeable changes to the spatial variation of the dimensions. By 1996, there was a westward movement of medium and high density stock while areas containing more traditional housing options included the rural balance of the City and the more recently developed and expanding hinterland suburbs. While some areas became less traditional in the five years to 1996 by including higher density options in their housing stock, other areas retained predominantly separate houses in their stock.

A westward movement of highly disadvantaged areas was also noted between 1991 and 1996. This is related to the population growth in these suburbs associated with expanding development fronts. However, apart from the concentration of disadvantage in the Beenleigh area, SLAs found to be disadvantaged in this analysis were dispersed throughout the City echoing previous findings of the scattered nature of this social differentiation. Further analysis at the CD scale will better inform our understanding of the complex spatial patterns of housing disadvantage.

In this study of social change between 1991 and 1996, the components of demographic structure were found to have remained stable in that similar dimensions were found. However, confirming Johnston's earlier findings on Melbourne, visible change was evident in the spatial distribution of these dimensions. The changes were associated with increasing proportions of single parent families and couples without offspring in the population as well as sustained and rapid population growth.

If traditional households are taken to be two parent families living in separate houses, the results from this research also reinforce Western and Larnach's findings of South East Queensland areas containing both traditional and non-traditional households. However, where areas contained predominantly traditional housing, there was considerable separation of these areas on the housing structure dimension.

Research such as this investigation into changing demographic and housing structure can help us understand the patterns of differentiation in a post-modern city. This knowledge can contribute to an understanding of social change, how economic change has been translated into social consequences (particularly equity outcomes in the housing market) and how opportunities to choose residential locations and housing options vary across populations and sub-groups as well as spatially and temporally.

In terms of the quartered city (Marcuse, 1993), luxury housing enclaves in Gold Coast City can be found in suburbs with lowest scores on the disadvantage dimension. Areas with the highest scores for disadvantage correspond to the tenement areas of New York. Such areas contain cheaper family housing, mostly rented, occupied by lower paid workers and unemployed people and with some of the small amount of public housing stock found in the City.

The separate housing aspect of the housing structure dimension identified suburbs that Marcuse described as the suburban city, comprising single family housing in outer city areas, occupied by skilled workers, mid-range professionals and government workers. Suburbs scoring highly on the other aspect of the housing structure dimension were areas of higher density dwellings, particularly containing flats and apartments. Marcuse termed these areas the 'gentrified city' and in New York found they contained professional-managerial-technical groups of people typically without children. Couples without offspring were one of the highest contributing variables to the housing structure component in the Gold Coast City research. However, the influence of Gold Coast City's tourist function, that is having large amounts of self-contained accommodation for visitors, was apparent in areas scoring high on this dimension.

The final group of postmodern city areas described by Marcuse has been labelled the 'abandoned city'. In New York, these areas were left for the poor, the unemployed, the excluded and the homeless. Whilst people experiencing these problems are no doubt found in Gold Coast City, it seems their numbers are not sufficiently large or perhaps their situation less polarised than their American counterparts, so that they have not been identified as a separate group in this research. With time, continuing population growth, expanding urban development and further social change, areas characterised by people with these attributes may come to represent a distinctively

different category. Identification of these patterns of differentiation within the City is useful in developing a better understanding of the housing market and the ability of different groups within the population to function effectively within it.

Involvement by local government in promoting effective housing markets, primarily as an advocate for ratepayers and as a manager of the land development process, has led to the preparation of housing policies, strategies and background information by some local councils. Whilst housing profiles should contribute much to the subsequent demand for planning information, more detailed research as described in this paper can also inform such policy development work. In Queensland, the production of a Local Government Housing Kit seeks to assist and encourage Councils to set up an on-going program of data collection and analysis to achieve better housing outcomes at the local level. Research such as that reported in this paper will add significantly to this material. In addition, major providers of housing infrastructure including state-funded social housing should find useful results in this research.

Future research may profitably investigate whether similar patterns of demographic and housing structure are evident in other cities, particularly cities less influenced by tourism urbanisation. In addition, extending the analysis to include 2001 Census data will no doubt uncover further changes, some of which may not have been evident over the relatively short time frame analysed here.

The varied ability of consumers to effectively participate in the changing housing market results in patterns of variation amongst the main components of demographic and housing structure. These patterns are strong reflections of the quality of life experienced by people in these locations as well as their capacity to make decisions and control their own future.

Race, class and gender create overlapping patterns of differentiation – invidious differentiation, for there is no doubt that the differences are not simply of ‘lifestyles’ or ‘special needs’, but reflect positions in a hierarchy of power and wealth in which some decide and others are decided for (Marcuse, 1993, 356).

7.0 References

- Australian Bureau of Statistics, 1991. Census of Population and Housing, Basic community profile
- Australian Bureau of Statistics, 1996. Census of Population and Housing, Basic community profile
- Badcock, B., 1984. *Unfairly structured cities*. Basil Blackwell, Oxford.
- Badcock, B., 1997. 'Restructuring and spatial polarization in cities', *Progress in Human Geography*, 21, 2, 251-262
- Burnley, I., 1980. *The Australian urban system*. Longman Cheshire, Melbourne.
- Herbert, DT, 1968. 'Principal components analysis and British studies of urban social structure', *The Professional Geographer*, Vol XX, No 4, July, 280-283
- Johnston, RJ, 1973. 'Social area change in Melbourne 1961-66', *Australian Geographical Studies*, 11, 79-98
- Jones, FL, 1965. 'A social profile of Canberra', *The Australian and New Zealand Journal of Sociology*, Vol 1, No 2, 107-119
- Jones, FL. 1968. 'Social area analysis: some theoretical and methodological comments illustrated with Australian data', *British Journal of Sociology*, 19, 424-444
- Kemp, D., Manicaros, M., Mullins, P., Simpson, R., Stimson, R., and Western, J., 1997. *Urban metabolism: A framework for evaluating the viability, livability and sustainability of South East Queensland*, The Australian Housing and Urban Research Institute, Queensland University of Technology.
- Marcuse, P., 1993. 'What's so new about divided cities?' *International Journal of Urban and Regional Research*, 17, 3, 355-365
- Morrill, R., 1993. 'Development, diversity and regional demographic variability in the U.S.', *Annals of the Association of American Geographers*, 83, 3, 406-433
- Mullins, P., 1994. 'Class relations and tourism urbanization: the regeneration of the petite bourgeoisie and the emergence of a new urban form', *International Journal of Urban and Regional Research*, 18, 4, 591-608
- Murdie, R., 1969. *Factorial ecology of metropolitan Toronto, 1951-1961: An essay on the social geography of the city*, The University of Chicago, Chicago.
- Murphy, P and Burnley, I. 1993. 'Socio-demographic Structure of Sydney's perimetropolitan region'. *Journal of the Australian Population Association*, 10, 2, 127-144

- Murphy, P. and Watson, S., 1994. 'Social polarisation and Australian cities', *International Journal of Urban and Regional Research*, 18, 4, 574-608
- National Housing Strategy, 1991. *Australian housing: The demographic, economic and social Environment*. Issue Paper No. 1, AGPS, Canberra.
- Openshaw, S. 1989. 'Making geodemographics more sophisticated', *Journal of the Market Research Society*, 31, 1, January, 111-132
- Soja, E., 1997. 'Planning in/for postmodernity' in *Space and Social Theory: Interpreting Modernity and Postmodernity* edited by Georges Benko and Ulf Strohmayer. Blackwell Publishers, Oxford
- Spilton, D, Solomon, D. and Kendall, A., 1981. 'Developing an empirical socio-economic typology of counties in five western states', *Socio economic Planning Science*, 15, 175-190
- Stimson, R.J., 1982. *The Australian city – a welfare geography*. Longman Cheshire, Melbourne.
- Sweetser, F., 1965. 'Factorial ecology: Helsinki', *Demography*, 2, 372-385
- Taylor, A., 1997. *Indexing disadvantage: Using aggregated demographic characteristics to identify geographic disadvantage on the Gold Coast*. Social Research Studies No 7, Gold Coast City Council.
- Timms, D., 1971. *The urban mosaic: Towards a theory of residential differentiation*, Cambridge University Press, London
- Watson, S. and Coleman, L., 1986. 'Housing, demographic change and the private rental sector', *Australian Journal of Social Issues*, Vol 21, No 1, 16-27
- Western, J. and Larnach, A., 1998. 'The social and spatial structure of South East Queensland', *Australasian Journal of Regional Studies*, 4, 2, 215-237

Appendix One: Listing of comparable 24 variable pool, 1991 and 1996 analyses

Variable name	Description	Denominator
ATSI	persons identifying as Aboriginal and Torres Strait Islanders	total persons
cplnoos	persons in couples without offspring families	total persons living in occupied private dwellings
spf	persons in single parent families	total persons living in occupied private dwellings
group	persons living in group households	total persons living in occupied private dwellings
lonephh	persons living in lone person households	total persons living in occupied private dwellings
persmedens	persons living in semi-detached, townhouses, flat, unit or apartment dwellings	total persons living in occupied private dwellings
unemnilf	persons who were unemployed or not in the labour force	total persons aged 15 years and over
wkhome	persons working at home	total employed persons
diffadd	persons with an address in a different SLA to 5 years previously	total persons aged 5 years and over
sephse	persons living in separate houses	total persons living in occupied private dwellings
semidet	persons in semi-detached or townhouse dwellings	total persons living in occupied private dwellings
flatapart	persons living in flat, unit or apartment dwellings	total persons living in occupied private dwellings
unocc	dwellings unoccupied	total private dwellings
sephsenp1	separate houses with 1 person usually resident	total occupied private dwellings
sephsenp6	dwellings that are separate houses with 6 or more people usually resident	total occupied private dwellings
rent	households renting	total family, group and lone person households in occupied private dwellings
lohinc	households with low incomes	total family, group and lone person households in occupied private dwellings
sephsherent	dwellings that are separate houses being rented	total occupied private dwellings
semirent	dwellings that are semi-detached or townhouse dwellings being rented	total occupied private dwellings
spfdorent	single parent families	total single parent families

	renting or purchasing	with dependent offspring in occupied private dwellings
spfloinc	single parent families earning low incomes	total single parent families with dependent offspring in occupied private dwellings
2pfdoloinc	two parent families earning low incomes	total two parent families with dependent offspring
mrepay	high monthly housing repayments	total occupied private dwellings being purchased
wkrent	high weekly rent	total occupied private dwellings being rented