

LOCAL MEASURES OF THE ABILITY OF WORKING HOUSEHOLDS TO BECOME HOME OWNERS IN NEW ZEALAND



Report prepared by the Research and Evaluation
Team of Housing New Zealand Corporation

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LOCAL MEASURES OF HOME OWNER AFFORDABILITY

New Zealand has a strong culture of home ownership. Its internationally high rates of ownership were fuelled between the Second World War and the late 1980s, by government actively promoting the benefits of home ownership and supporting families wishing to buy or build their own homes.¹

DECLINING HOME OWNERSHIP

From 1991 to 2001 home ownership rates fell by six percentage points, from 73.8% to 67.8%. This is a significant fall over a short time period, albeit from a high level.

The decline in home ownership rates has been most acute among younger age groups. Whereas overall home ownership rates dropped by six percentage points between 1991 and 2001, ownership rates fell by 12.7 percentage points for 25-29 year olds, 12.5 percentage points for 30-34 year olds, and 10.4 percentage points for 35-39 year olds. The decline in home ownership rates has also been acute among single parent households.²

If these trends persist, the home ownership rate will fall to 62.5% by 2011. This would mean that 80,000 fewer households would be home owners than if today's rate of home ownership applied.³

Declining home ownership rates is thought to result from a number of factors:⁴

- ▶ Changing labour market dynamics resulting in more casual work and job changes that affect security of income and therefore mortgage servicing ability
- ▶ Changing social dynamics resulting in more fluid and changeable family arrangements
- ▶ Increased competition between first home buyers and residential property investors at the lower end of property markets
- ▶ Increasing uptake of tertiary education and student loans, along with people having families later in life
- ▶ House prices rising faster than household incomes, and increased levels of consumer debt
- ▶ Removal of specific assistance for entry into home ownership.

The decline in home ownership rates in New Zealand over the past decade contrasts with the experience of other Anglo countries over this period, who presumably have roughly similar preferences around home ownership as New Zealand households. Home ownership is rising in

the UK, the US and Canada even though affordability has worsened in the UK.⁵ New Zealand historically had the highest rates of home ownership among these countries, but this is no longer the case.

Australian home ownership rates seem to have declined slightly over the past decade, and are now approximately 70% – slightly higher than in New Zealand. Australia has also experienced a reduction in home ownership rates among the young.⁶ The Australian Productivity Commission provides evidence to suggest that the age of first home buyers has increased over the past decade.⁷

For many households, home ownership contributes to positive economic outcomes and associated improvements in health, educational attainment and well-being. High home ownership rates have positive effects within communities, and are associated with the growth of social capital and increased neighbourhood stability.⁸

The expectation that home ownership will serve as a vehicle for retirement savings through equity growth is also well established. The ability of home ownership to fill this role in the future is less certain though, as increasing ease of access to mortgage finance is leading to higher debt over longer periods.

In addition, the decline in home ownership rates alongside the strong increase in house prices means that the distribution of household wealth is likely to have become more unequal. Existing home owners have experienced a strong increase in household wealth, while prospective home owners have not benefited and face an increase in the cost of housing. In some senses, this represents a transfer of wealth from prospective home owners to existing home owners.⁹

The decline in home ownership has prompted policy initiatives to assist people move into home ownership. These initiatives recognise that the costs, and difficulties, of accessing home ownership vary sharply from one location to another, and that these difficulties are most acute in the larger urban areas, particularly in the Auckland region.

VARIATIONS IN HOUSING AFFORDABILITY LOCAL HOUSEHOLD INCOMES

Recent research has improved our understanding of the variations in housing affordability in New Zealand.¹⁰ What distinguishes this research from other research on housing affordability is the focus on the ability of working households to purchase their first home, and the emphasis on a spatial analysis of patterns of housing affordability at a local authority and sub local authority scale.

To undertake this research requires the availability of consistent measures of local house prices and data on local household incomes.

LOCAL HOUSE PRICES

Local house price data is readily available from Quotable Value New Zealand (QVNZ) and the Real Estate Institute of New Zealand (REINZ). But the QVNZ and REINZ data most commonly cited gives little or no indication of the mix of properties sold in an area. Yet survey data indicates that the size of dwellings varies over time, both regionally and more locally.¹¹

In order to provide a consistent measure of house prices between one locality and another, the analyses in this study make use of a specially commissioned data set obtained from QVNZ. This data set provides house prices for every local authority, and suburb in New Zealand, based on properties with two or three bedrooms.

Lower quartile house prices are used for the affordability analyses in this study in preference to average or median house prices. Lower quartile house prices are used to more closely approximate the circumstances of first home buyers, who tend to purchase at the lower end of the housing market.

The results of affordability analyses differ somewhat from the AMP Affordability Index (the most commonly cited affordability measure in New Zealand). The Index looks at the change in the cost of home ownership over time. The Index is derived from average weekly earnings, the median dwelling price and the prevailing mortgage interest rate.

The Index however does not illustrate the affordability problems affecting people at the lowest income levels. The ratio and analysis results reported in this study, although only roughly comparable, indicate that the deterioration in housing affordability is more pronounced than indicated by the Affordability Index.

The most detailed local data on earned incomes is available from the five-yearly Census. Two other sources of income data are available: the Household Economic Survey and the New Zealand Income Survey (a supplement to the Household Labour Force Survey). While there are some differences in the income measures used by these surveys and those used by the Census, the main limitation of the surveys is their inability to provide data at small geographical levels. For this reason Census data on household incomes was used in this study.

The analyses focus on working households, where the household representative as recorded on the Census is aged from 20 to 39 with at least one adult in full time employment. This age range encompasses the great majority of first time home buyers.

Income data in the Census is collected via a single question where each individual aged 15 and over is asked to mark the income range that fits their annual gross income. It relies on the respondent remembering all sources of income they received over the year in gross (before tax) amounts and as such is not a perfect indicator of the income actually received. The quality of the income data used in this report is also affected by other factors.

Household Income is derived by adding together midpoints of income ranges of each individual in the household on Census night. People away from the household on census night are not “put back” into the household to calculate household income. Hence household income may be understated for these households.

The income question was not answered by a number of people in the 2001 Census. In particular this affected people on low incomes, Maori, young people and women. This may have the effect of overstating median incomes, particularly in some areas of New Zealand.

In addition, there is an inconsistency between time periods for the income question and the questions defining full-time employment asked in the Census. This may result in some household incomes being understated/overstated in Census results.

However as the Census collects data from the whole population it remains the best source of data for examining small geographical areas.

THE RATIO AND AFFORDABILITY ANALYSES

This study comprises two complementary analyses. These are:

1. *The ratio analysis.* This computes house price to income ratios for local authority and local authority sub-areas, throughout New Zealand. Ratios are calculated based on lower-quartile house prices for two/three-bedroom dwellings, and lower-quartile incomes for working households.
2. *The access analysis.* This computes the proportion of working households in each local authority and local authority sub-area, that would be able to purchase a local two/three-bedroom dwelling based on lower quartile prices.

Lender practices in defining incomes required to purchase a house vary, but a typical maximum loan would be three times gross household income. For the access analysis an affordability threshold is calculated based on a simple 3:1 mortgage to income ratio, and an assumed ten percent deposit.¹² The threshold household income level calculated in this way is then applied against the distribution of earnings from the 1991 and 2001 Census. In this way it is possible to derive estimates of the proportions of households with incomes below the threshold level required to purchase in each local authority and sub local authority area, at lower quartile house prices for 2/3 bedroom dwellings.

Both the ratio and access analyses use the same household income data derived from the 1991 and 2001 Census, plus QVNZ house price data for the same years, to investigate changing patterns of housing affordability over this period.

This study focuses on housing affordability at local authority and sub local authority levels. Analysis was conducted at a sub local authority level in an attempt to learn more about the variation in housing affordability that exists within local authorities, especially within the larger urban local authorities.

The factors used in determining local authority sub areas included:

- ▶ The population of the local authority – local authorities with populations above 50,000 were divided into sub areas.
- ▶ The income profile of groups of contiguous statistical area units (SAUs) – where possible SAUs with similar income profiles were grouped together.
- ▶ The ‘visual coherence’ of the sub area when mapped.
- ▶ Knowledge about local housing markets.

In general, sub areas were the equivalent of three to four suburbs, each sub area with a population of 25,000 to 35,000. For example, the Auckland region was divided into 31 sub areas, and both the Wellington and Canterbury regions into 9 sub areas.

Ratio and access analyses for sub areas were conducted in the same manner as for local authorities. The tables and figures in Appendix 1 and 2 show the results of the analyses for all local authorities and for 71 sub areas.

A summary of the results of the ratio and access analyses are considered in turn below.

The ratio analysis

Table 1 lists the local authorities with the highest house price to income ratios, including four cities and eleven districts. Table 1 indicates that local authorities in the Auckland region feature prominently in having high house price to income ratios, between 4 and 6 to 1.

TABLE 1 Local authorities with the highest house price to income ratios

(lower quartile house prices to lower quartile incomes)

| Territorial Local Authority | 2001 house price to income ratio | 1991 house price to income ratio |
|--------------------------------|--|--|
| Queenstown Lakes District | 5.67 | 3.56 |
| Thames Coromandel District | 5.54 | 3.60 |
| Auckland City | 5.06 | 3.44 |
| Tauranga District | 4.69 | 3.36 |
| Rodney District | 4.68 | 3.28 |
| North Shore City | 4.67 | 3.20 |
| Tasman District | 4.61 | 3.62 |
| Western Bay of Plenty District | 4.56 | 3.25 |
| Wellington City | 4.46 | 3.18 |
| Manukau City | 4.42 | 2.88 |
| Opotiki District | 4.34 | 2.16 |
| Whakatane District | 4.23 | 2.55 |
| Papakura District | 4.20 | 2.83 |
| Far North District | 4.11 | 2.79 |
| Taupo District | 4.10 | 2.77 |

Table 1 highlights that a number of less populous local authorities with relatively low household incomes also have high house price to income ratios. These include Thames Coromandel District, Western Bay of Plenty District, Opotiki District, and Tasman District.

Household incomes vary significantly in different localities, as do house prices. For example, in 2001 the lower quartile income for working households in Wellington City was \$47,100, the highest of any local authority in New Zealand. The comparable figure for Opotiki District was just \$24,200, the lowest of any local authority in New Zealand. Yet Wellington City (4.46:1) and Opotiki District (4.34:1) had similar, and relatively high, house price to income ratios.

Figure 1 and 2 (see Appendix 1) illustrate house price to income ratios for all local authorities for 1991 and 2001.

Key points from the ratio analysis include:

- ▶ House price to income ratios vary widely across New Zealand. In 2001, ratios ranged from a high of almost 6 to 1 for parts of Auckland City and the Queenstown Lakes District, to around 1 to 1 for the Gore, Rangitikei and Clutha Districts.
- ▶ House price to income ratios deteriorated in most local authorities. From 1991 to 2001, house price to income ratios increased in 66 local authorities and decreased in just 9.
- ▶ Increases in house price to income ratios over the decade were most pronounced in the Auckland Region and in smaller fast growing areas, including the Queenstown Lakes District, Thames-Coromandel District, Tasman District and the Bay of Plenty.
- ▶ House price to income ratios were relatively stable in rural locations and areas that experienced little population growth over the decade.

These results can be compared with those of a UK study, similarly entitled *Can work – can't buy: local measures of the ability of working households to become home owners*.¹³ A key finding of this UK study was that the difficulties in purchasing a house were not confined to areas with the highest house prices (London and the South East region). The study demonstrated that households in the South West of England faced comparable housing pressures to London and fared worse than households in the South East of England. This was due to a combination of relatively low household incomes in the South West region (compared to London and the South East region), and moderately high house prices. The ratio analysis for New Zealand show similar patterns. The results confirm the difficulty many households face in purchasing a house in the Auckland region, and identify a number of fast growing local authorities with relatively low household incomes who face comparable housing affordability pressures.

Appendix 1 and 2 provides more detailed results of the ratio analyses.

The access analysis

The access analysis provides a measure of the proportion of households that would be unable to afford a house, at lower quartile house prices, for each local authority and sub local authority area.¹⁴ A household is deemed able to afford a house if three times its gross annual income is less than or equal to the lower quartile house price figure for that local authority, based on an assumed ten per cent deposit.

It is also important to note that a further proportion of working households would be able to purchase a house with prices below the lower quartile level for 2/3 bedroom dwellings. In many cases these would be smaller properties. The precise numbers and proportions will vary from one area to another, depending on the distributional profile of house prices and sizes, and household incomes in each area.

Additionally some households will be able to purchase utilising significant levels of savings to supplement their mortgage, while some households will be unable to save a ten per cent deposit.

While the analysis does not provide an absolute measure of working households unable to purchase in any circumstances, it nonetheless provides a consistent measure of the relative difficulty of accessing the lower end of the housing market.

Table 2 lists the top fifteen local authorities ranked by the proportion of working households unable to purchase. While many of the high ranking authorities in the ratio analysis also have high ranking in the access analysis, there are also some marked differences. These differences reflect variations in the distribution of house prices and incomes within each area.

In 2001 Queenstown Lakes District was the highest ranked (least affordable) local authority. Many areas within the Auckland region were as, or more, unaffordable (see Appendix 1 and 2, Auckland sub area tables and maps).

Figure 3 and 4 illustrate the results of the access analysis for all local authorities for 1991 and 2001 respectively.

TABLE 2 Local authorities with the highest households unable to afford a house at lower quartile house prices

| Territorial Local Authority | Percent unable to purchase 2001 | Rank 2001 | Percent unable to purchase 1991 | Rank 1991 |
|-----------------------------|---------------------------------|-----------|---------------------------------|-----------|
| Queenstown-Lakes District | 71.4 | 1 | 31.2 | 11 |
| Auckland City | 69.4 | 2 | 38.3 | 3 |
| North Shore City | 65.3 | 3 | 52.7 | 1 |
| Rodney District | 63.8 | 4 | 32.0 | 9 |
| Wellington City | 60.4 | 5 | 47.8 | 2 |
| Waitakere City | 57.1 | 6 | 28.0 | 17 |
| Tasman District | 54.7 | 7 | 32.4 | 8 |
| Banks Peninsula District | 53.4 | 8 | 33.5 | 7 |
| Manukau City | 53.1 | 9 | 29.6 | 15 |
| Christchurch City | 51.0 | 10 | 30.7 | 13 |
| Waimakariri District | 49.7 | 11 | 34.4 | 5 |
| Nelson City | 49.0 | 12 | 31.6 | 10 |
| Whangarei District | 48.6 | 13 | 30.1 | 14 |
| Papakura District | 47.0 | 14 | 23.2 | 21 |
| Upper Hutt City | 45.6 | 15 | 33.9 | 6 |

The access analysis

Overall results from the access analysis indicates that between 1991 and 2001:

- ▶ There was a widespread and significant increase in the proportion of working households unable to purchase a 2/3 bedroom house at lower quartile house prices.
- ▶ The proportion of working households unable to purchase increased most sharply in Queenstown Lakes District (up 40% to 71%), Auckland City (up 35% to 69%), Waitakere City (up 29% to 57%), Tasman (up 22% to 55%) and Manukau City (up 23% to 53%).
- ▶ The ability to purchase at lower quartile house prices decreased by over 20 percentage points in 15 local authorities, by 10-20 percentage points in 19 local authorities, and by 0-10 percentage points in 34 local authorities. Housing became marginally more affordable in 5 local authorities, but these were areas where housing was already relatively affordable.

Appendix 1 and 2 provides more detailed results of the affordability analyses. Appendix 1 illustrates patterns of housing affordability with maps for the Auckland, Wellington and Christchurch regions. Appendix 2 provides tables of results for all local authorities and for 71 local authority sub areas.

SUMMARY

The ratio and access analyses illustrate that the ability to purchase a home varies greatly across New Zealand, within regions and local authorities.

The ratio and access analyses highlight the increasing difficulty faced by working households seeking to buy a house in 1991 compared to 2001. The results confirm the difficulty of purchasing a house in the Auckland region, and highlight a number of smaller urban areas who face similar housing affordability pressures.

The rapid rise in house prices since 2001, outpacing rising household incomes, will have accentuated these affordability pressures still further. Ongoing research at small area scales is warranted to better understand and respond to changing patterns of home ownership.

ENDNOTES

- ¹ HNZC (2004) Building the Future: Towards a New Zealand Housing Strategy [A discussion document].
- ² DTZ New Zealand (2004a) Changes in the Structure of the New Zealand Housing Market.
- ³ HNZC (2004) Building the Future: Towards a New Zealand Housing Strategy [A discussion document].
- ⁴ Ibid.
- ⁵ Statistics Canada (2003), US Department of Housing and Urban Development (2004), Australian Department of Family and Community Services (2003), Wilcox (2003).
- ⁶ NATSEM (2003) Income and Wealth of Generation X.
- ⁷ Australian Productivity Commission (2003) First Home Ownership Issues Paper.
- ⁸ HNZC (2004) Building the Future: Towards a New Zealand Housing Strategy [A discussion document].
- ⁹ The New Zealand Institute (2004) The Wealth of a Nation.
- ¹⁰ For example, (1) DTZ New Zealand (2004a) Changes in the Structure of the New Zealand Housing Market, (2) DTZ New Zealand (2004b) Housing Costs and Affordability in New Zealand, (3) Motu Economic and Public Policy Research Trust (2003) Housing and Economic Adjustment.
- ¹¹ DTZ New Zealand (2004a) Changes in the Structure of the New Zealand Housing Market.
- ¹² First home buyers with loan to income ratios of 3:1 and ten percent deposit levels are usually able to obtain a mortgage. When offering a mortgage, banks also consider a range of other factors including, security of employment, number of dependents, and other financial assets and liabilities.
- ¹³ The UK report 'Can work – can't buy' by Steve Wilcox (2003) calculated house price to income ratios for all regions and local authorities in the UK. The study used average house prices and average household incomes to calculate ratios. The present New Zealand study calculates ratios based on lower quartile house prices and lower quartile household incomes. Both studies focus only on working households with a household representative aged from 20 to 39 inclusive.
- ¹⁴ Chatham Islands Territory is excluded from all analyses.

FIGURE 1: Ratio Analysis for Local Authorities - 1991

Lower quartile household incomes to lower quartile house prices

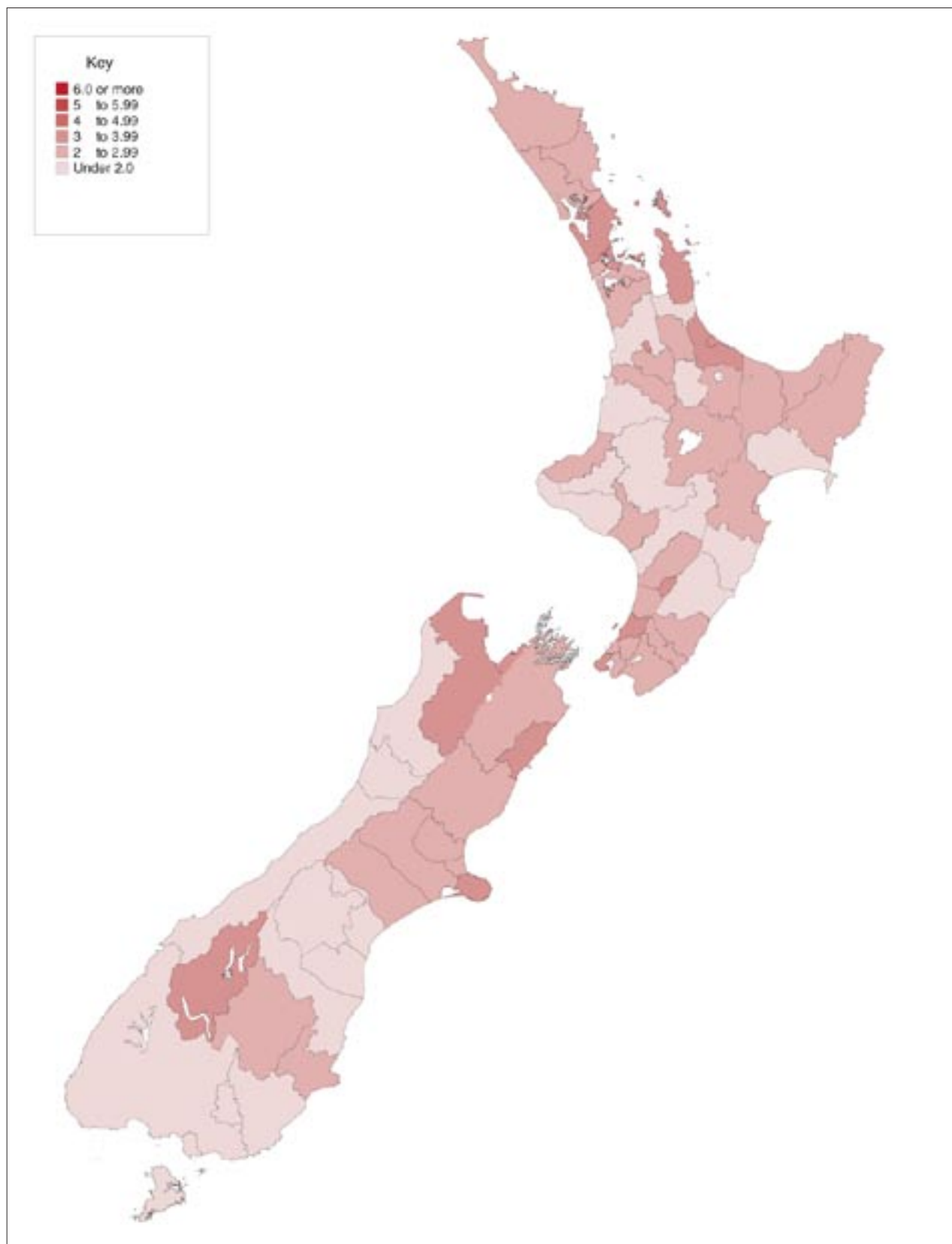


FIGURE 2: Ratio Analysis for Local Authorities - 2001

Lower quartile household incomes to lower quartile house prices

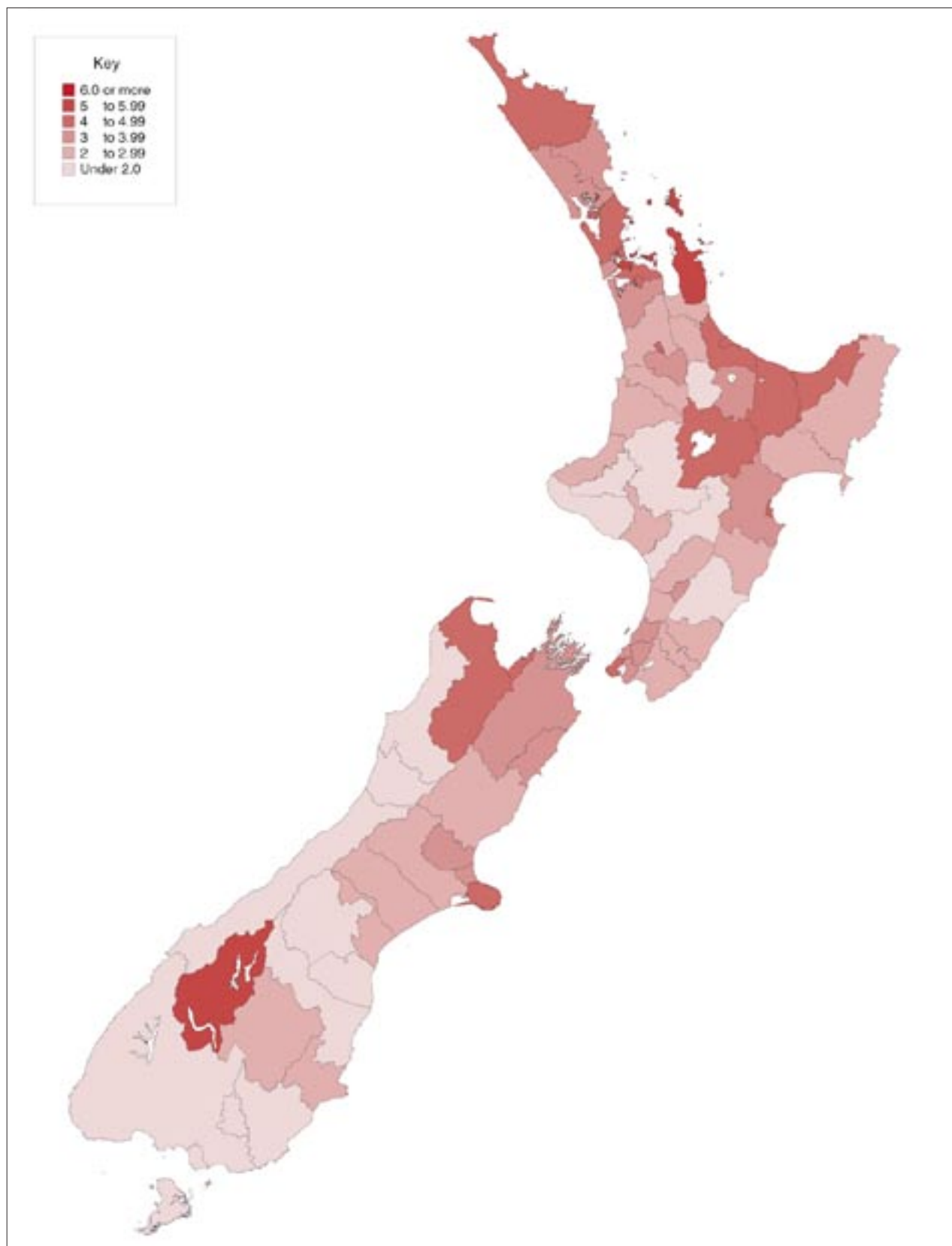


FIGURE 3: Access Analysis for Local Authorities - 1991

Proportion of working households unable to purchase at lower quartile house prices

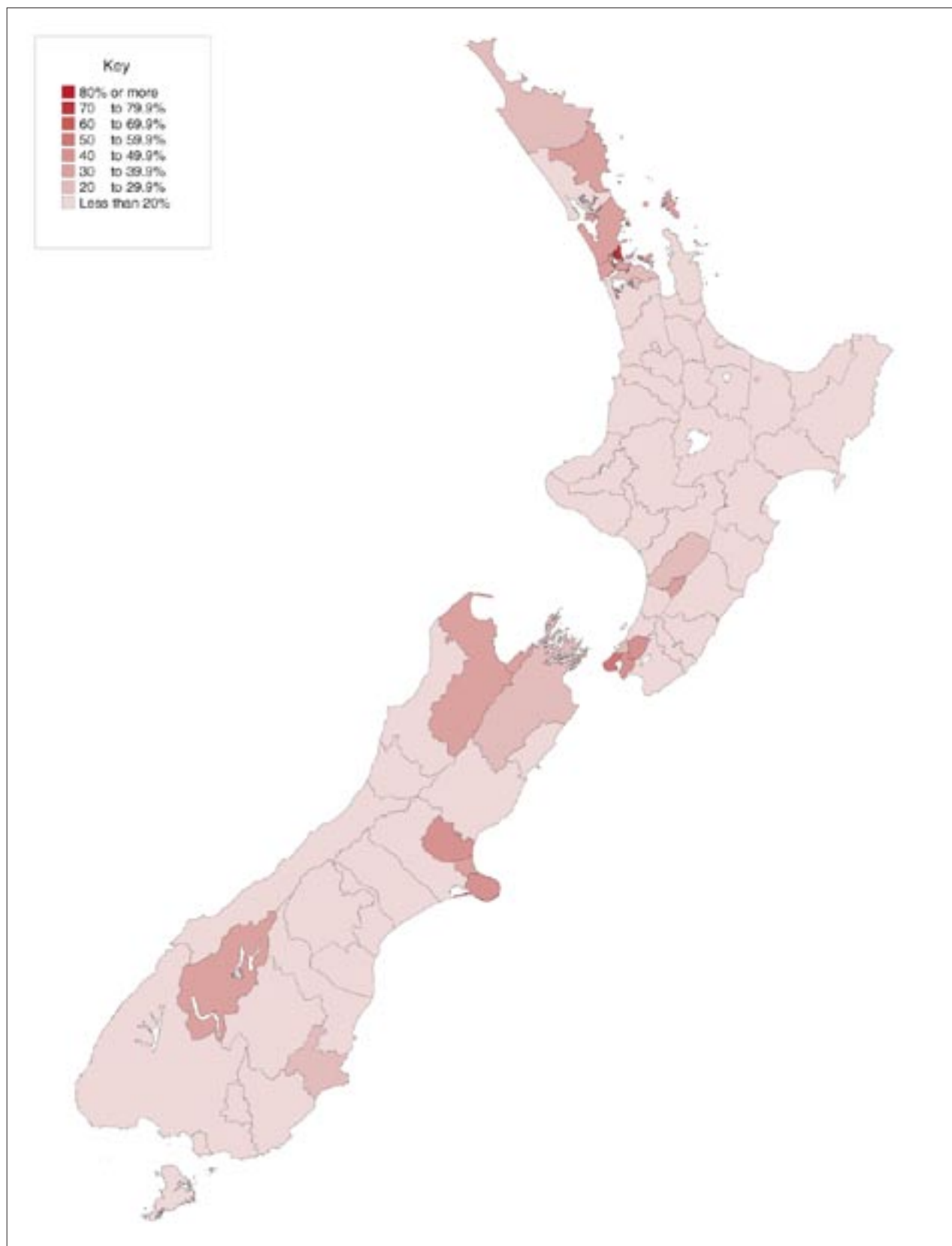


FIGURE 4: Access Analysis for Local Authorities - 2001

Proportion of working households unable to purchase at lower quartile house prices

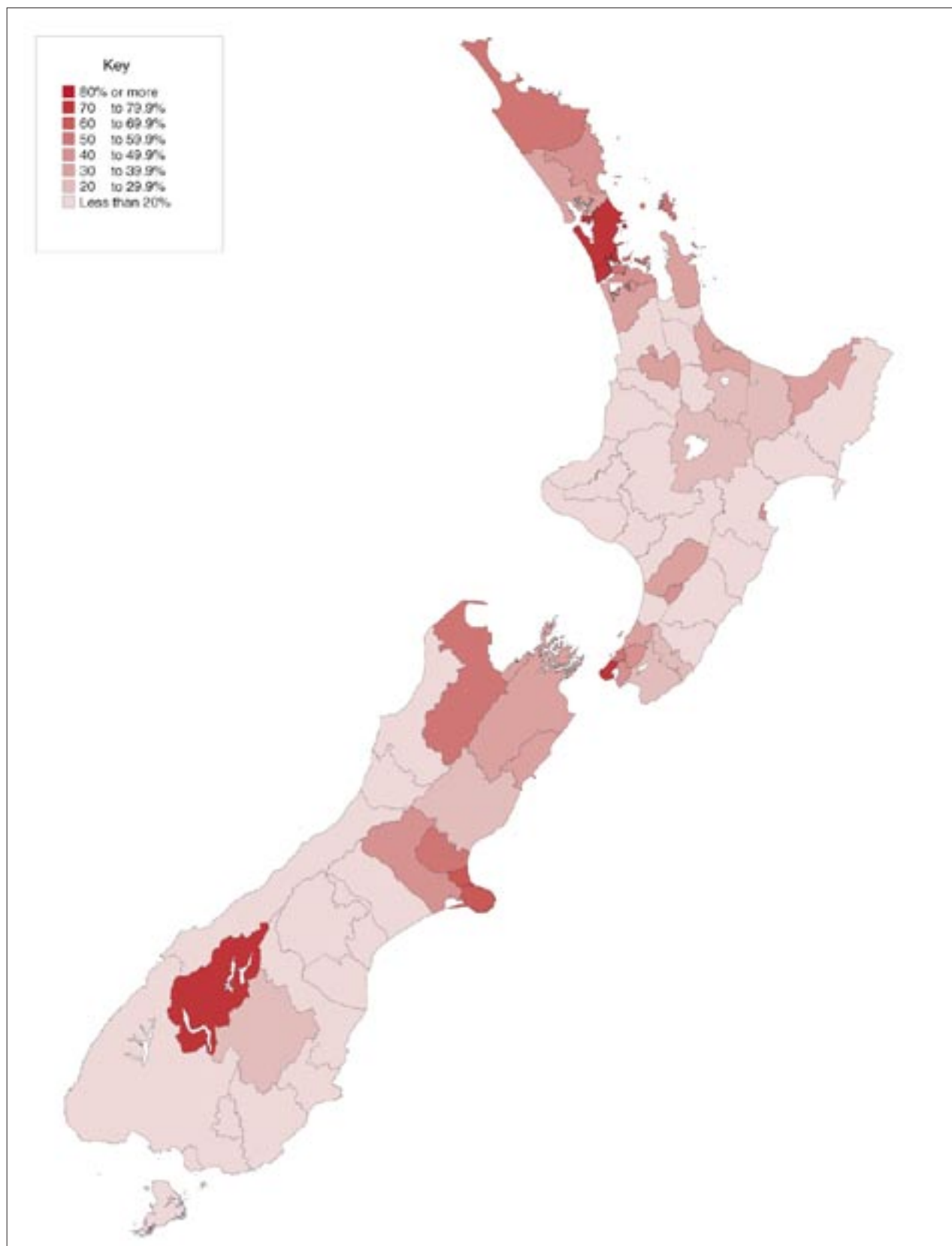


FIGURE 5: Ratio Analysis for Auckland region Sub-Areas - 1991

Lower quartile household incomes for lower quartile house prices

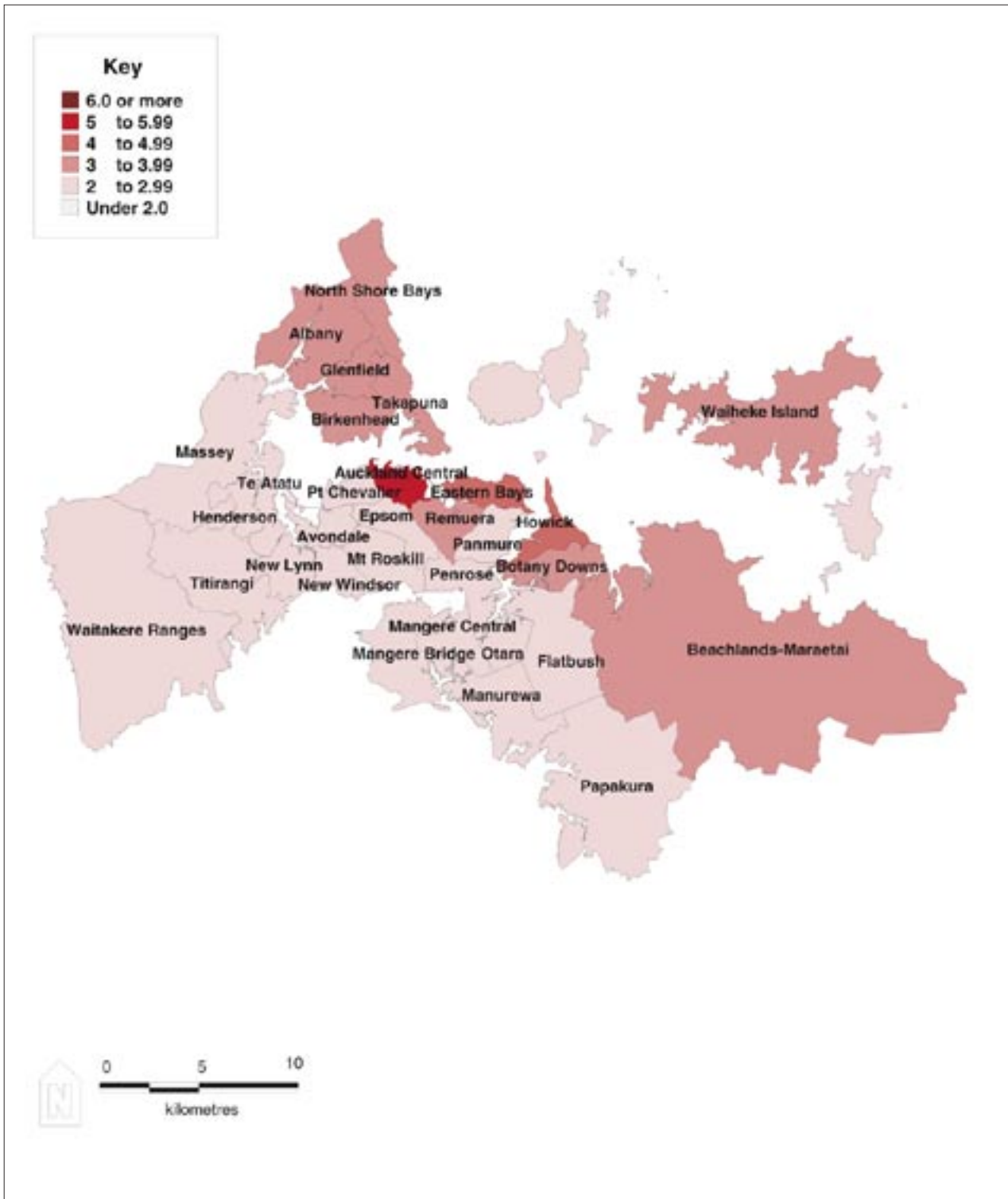


FIGURE 6: Ratio Analysis for Auckland region Sub-Areas - 2001

Lower quartile household incomes for lower quartile house prices

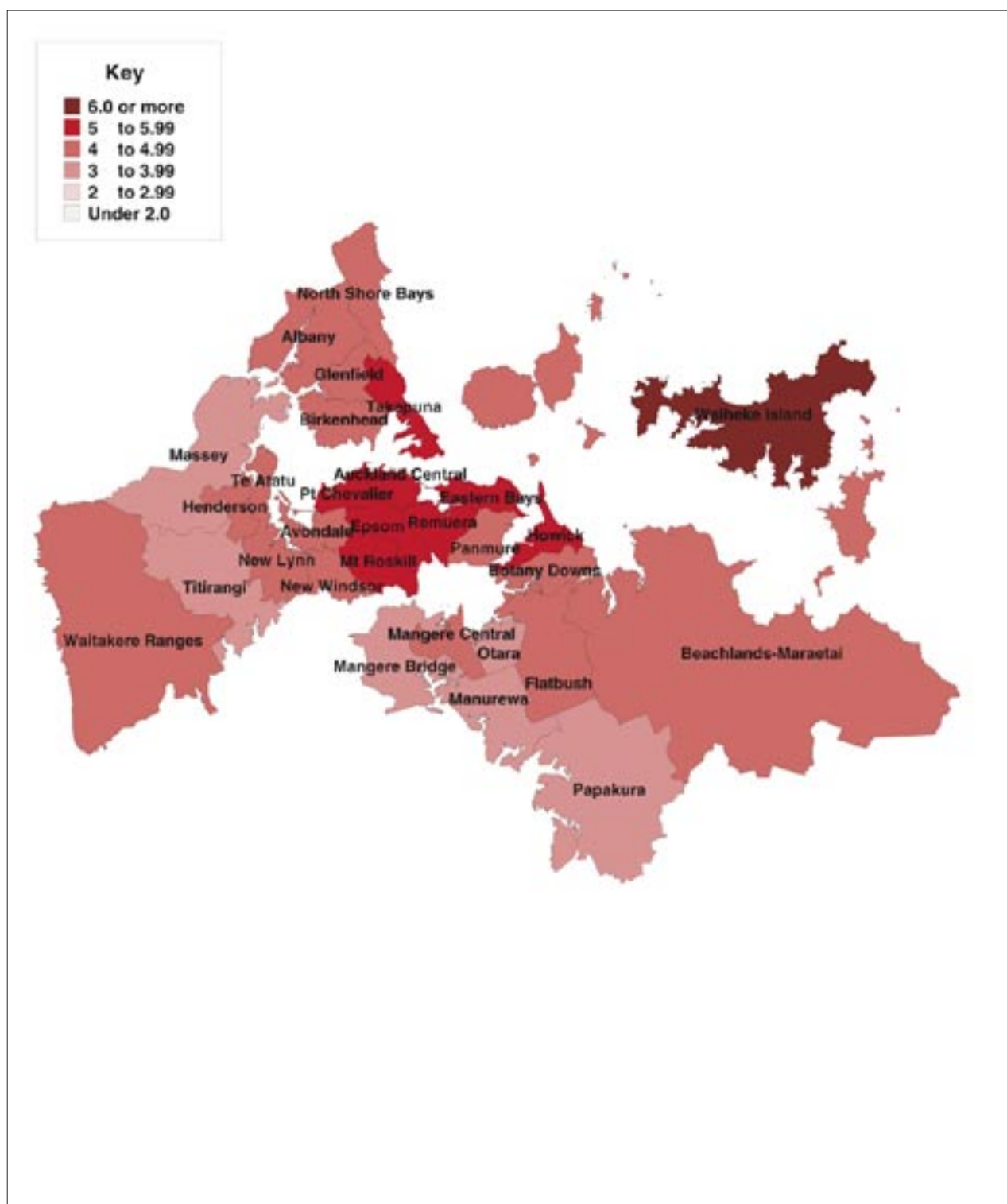


FIGURE 7: Access Analysis for Auckland Region Sub-Areas - 1991

Proportion of working households unable to purchase at lower quartile house prices

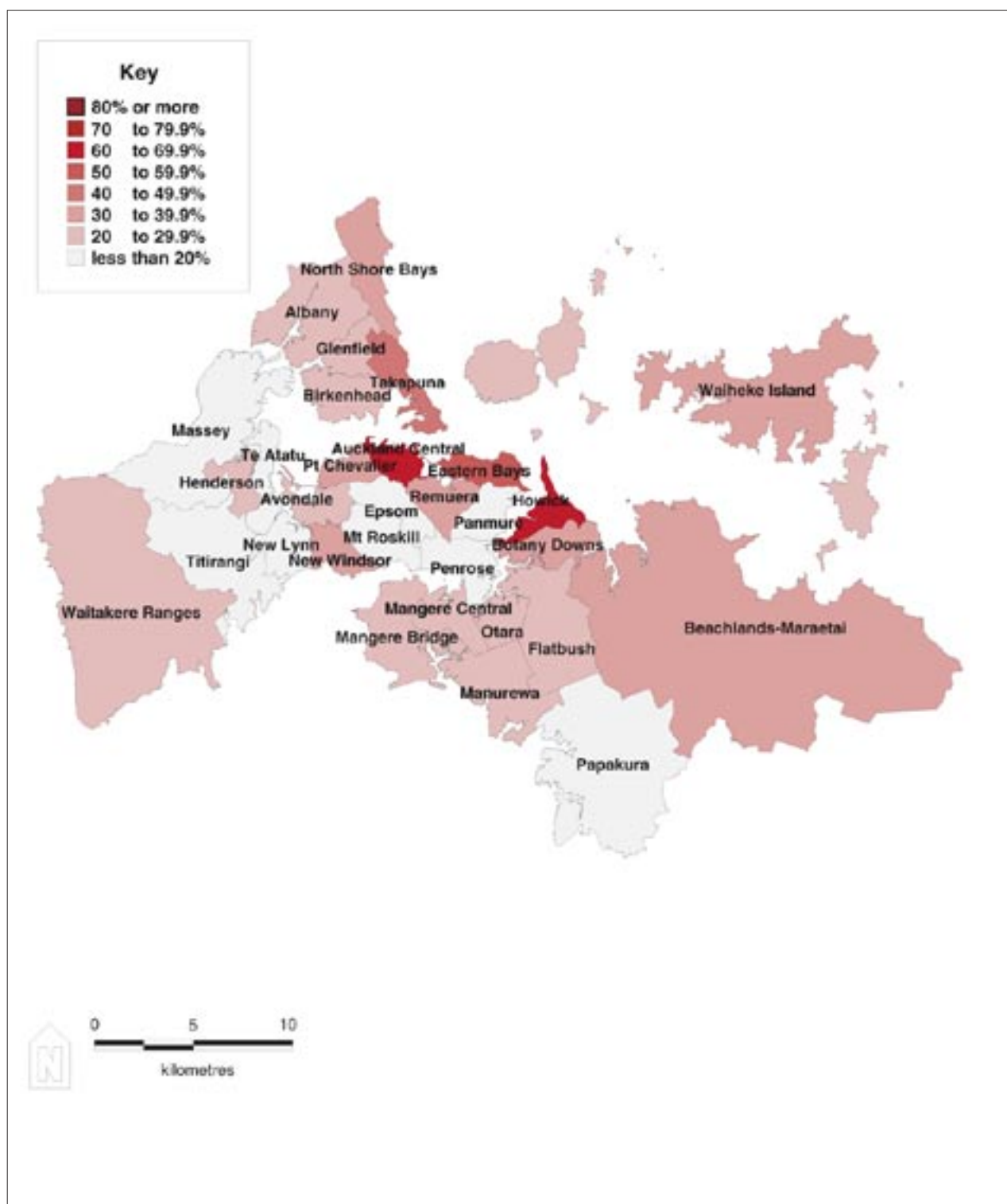


FIGURE 8: Access Analysis for Auckland Region Sub-Areas - 2001

Proportion of working households unable to purchase at lower quartile house prices

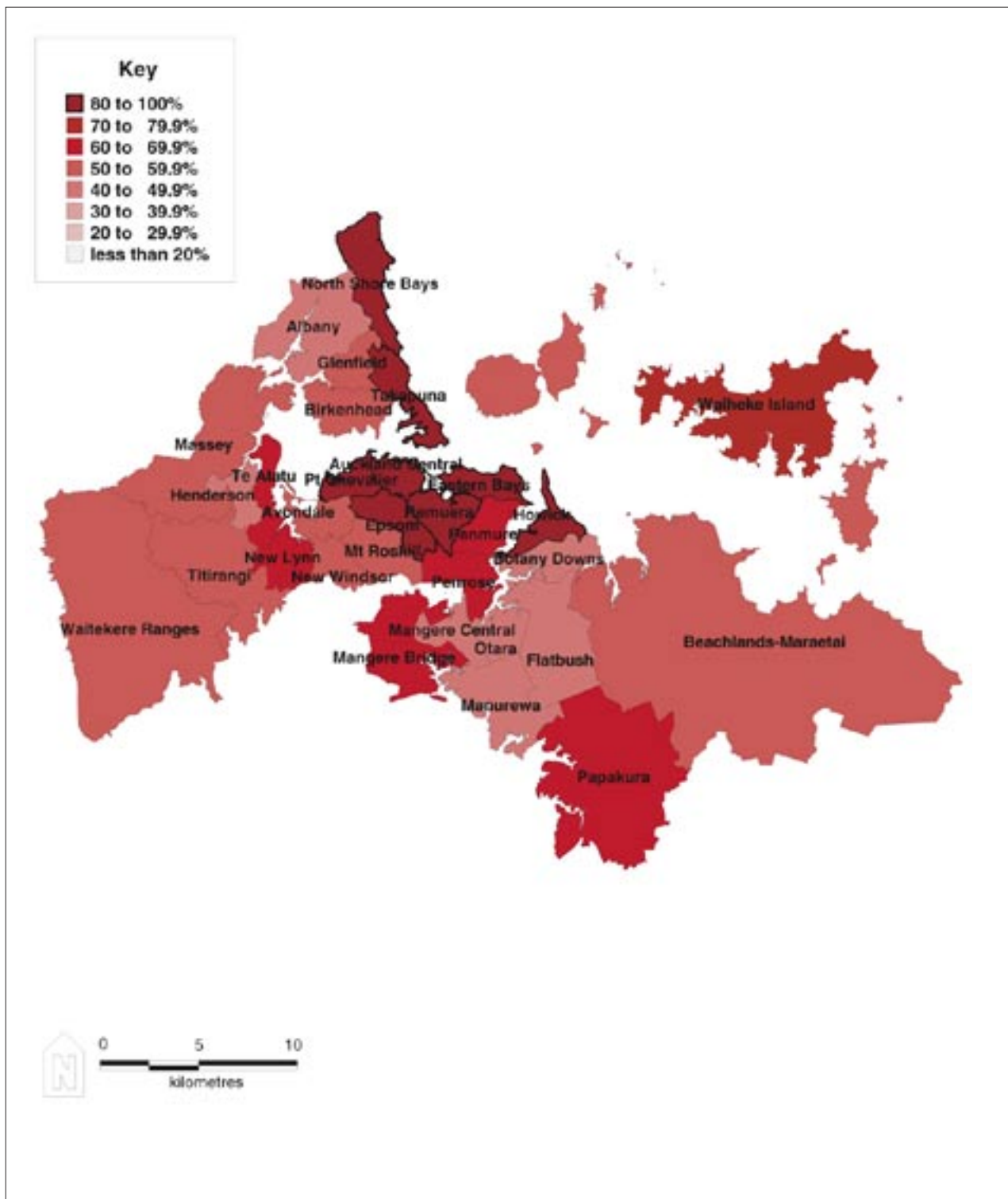


FIGURE 9: Ratio Analysis for Wellington Region Sub-Areas - 1991

Lower quartile household incomes to lower quartile house prices

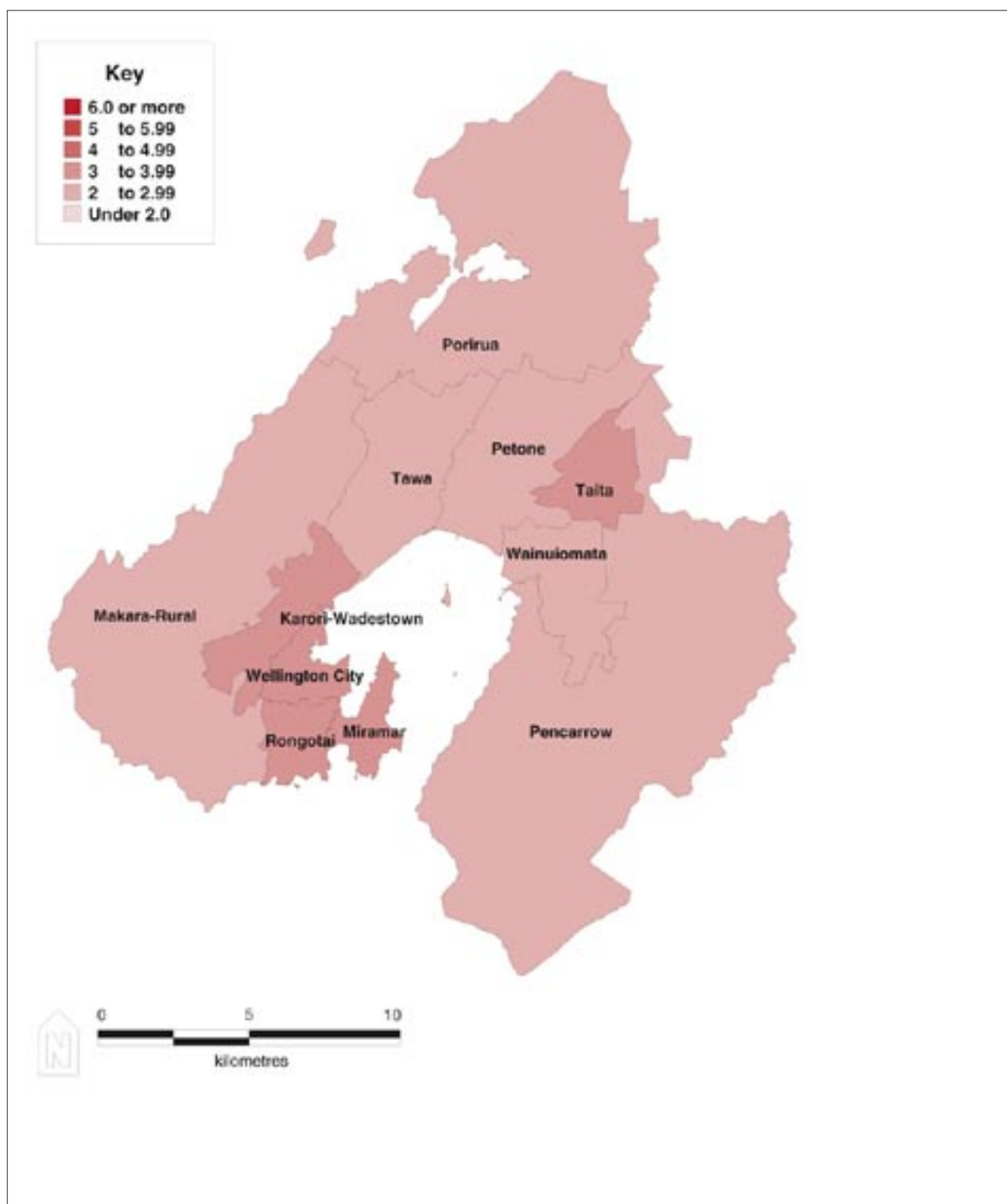


FIGURE 10: Ratio Analysis for Wellington Region Sub-Areas - 2001

Lower quartile household incomes to lower quartile house prices

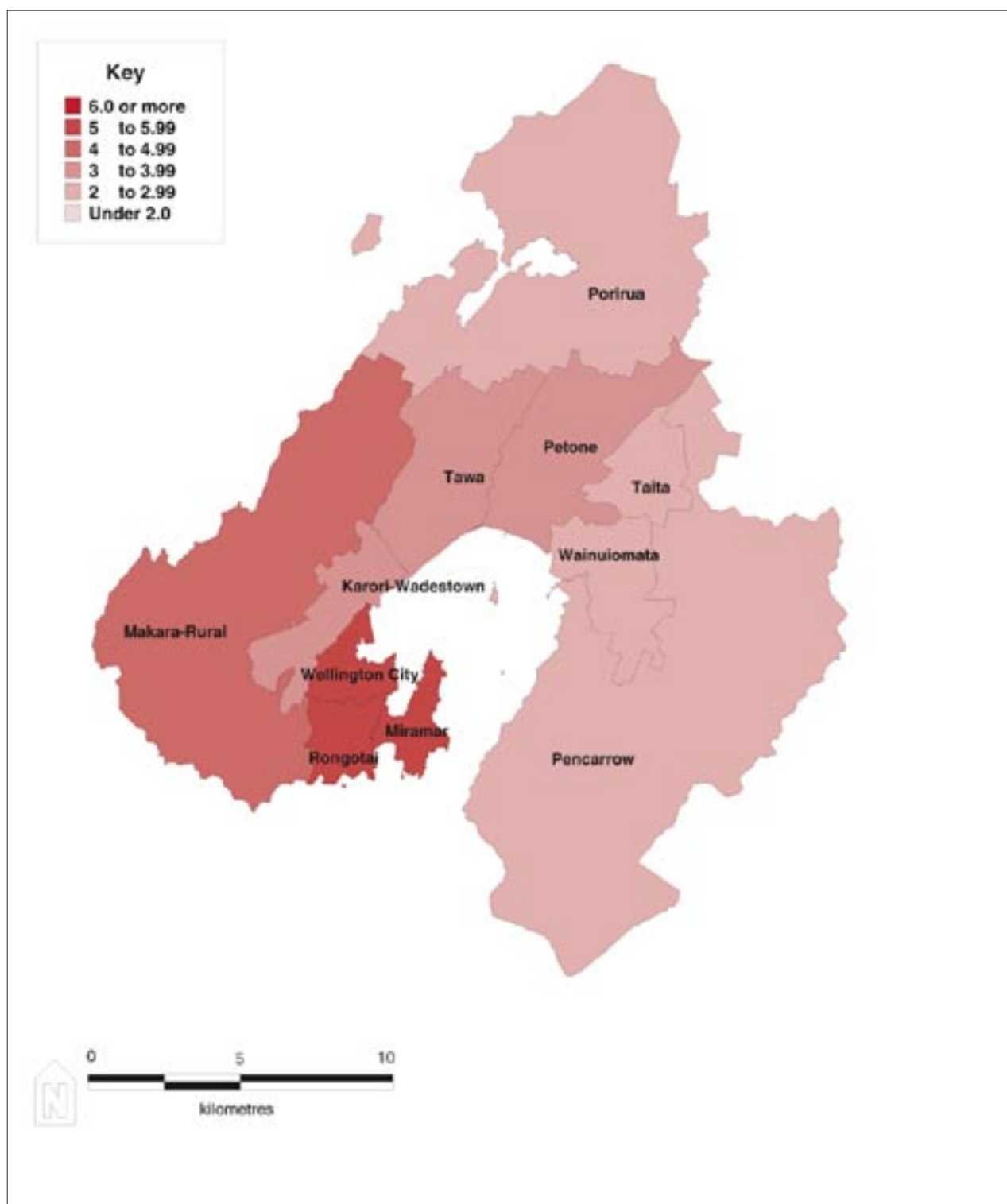


FIGURE 11: Access Analysis for Wellington Region Sub-Areas - 1991

Proportion of working households unable to purchase at lower quartile house prices

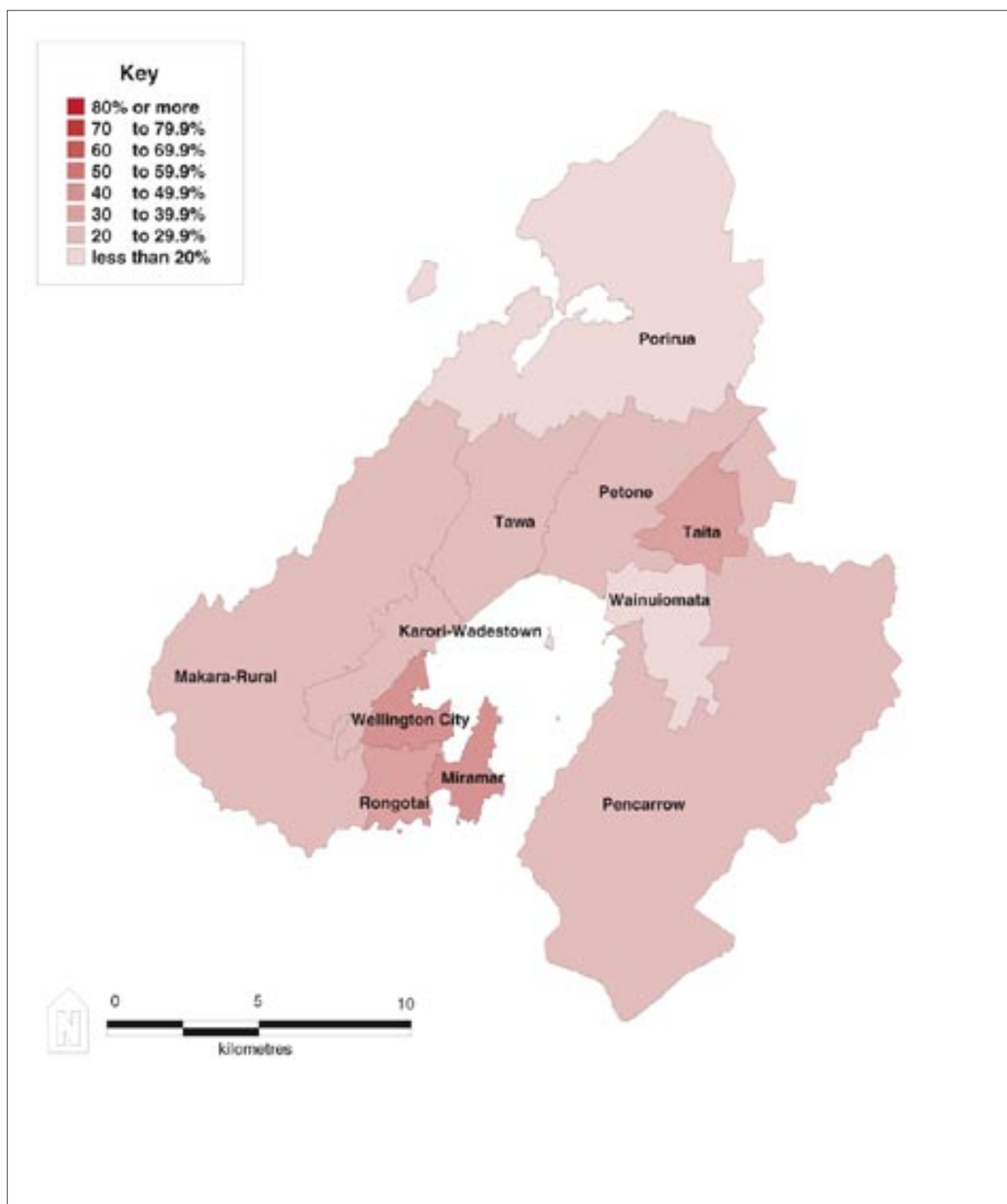


FIGURE 12: Access Analysis for Wellington Region Sub-Areas - 2001

Proportion of working households unable to purchase at lower quartile house prices

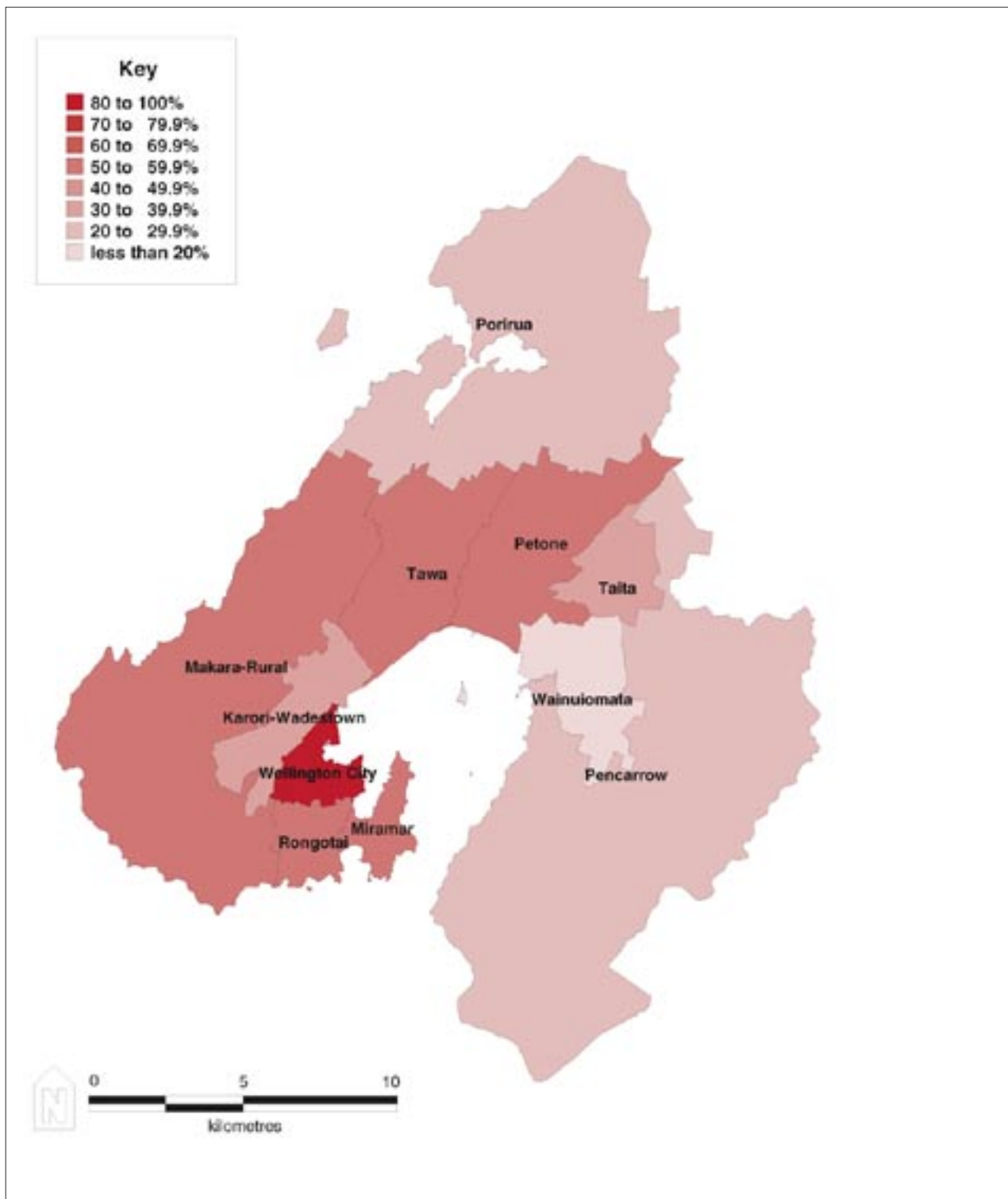


FIGURE 13: Ratio Analysis for Christchurch Region Sub-Areas - 1991

Lower quartile household incomes to lower quartile house prices

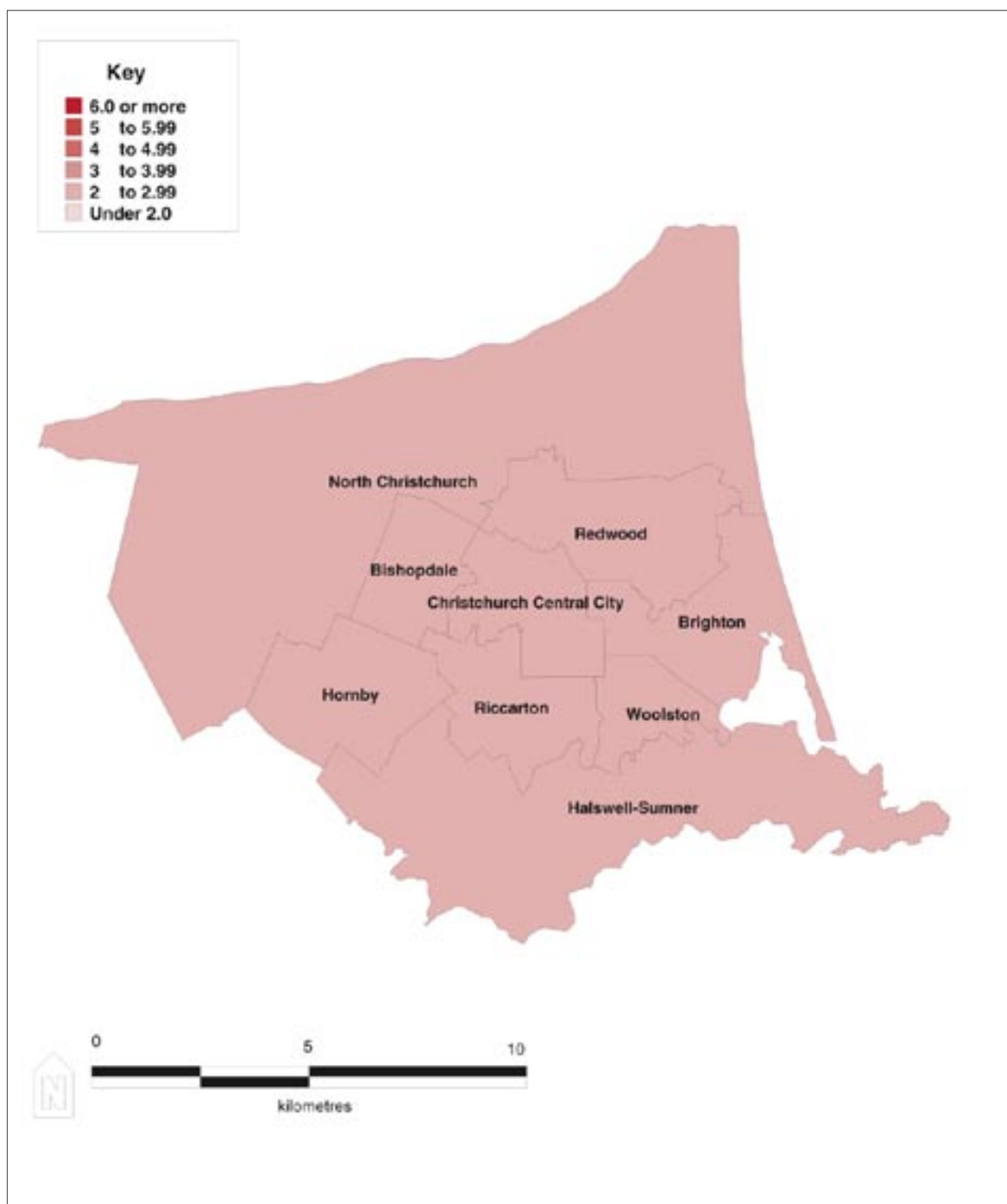


FIGURE 14: Ratio Analysis for Christchurch Region Sub-Areas - 2001

Lower quartile household incomes to lower quartile house prices

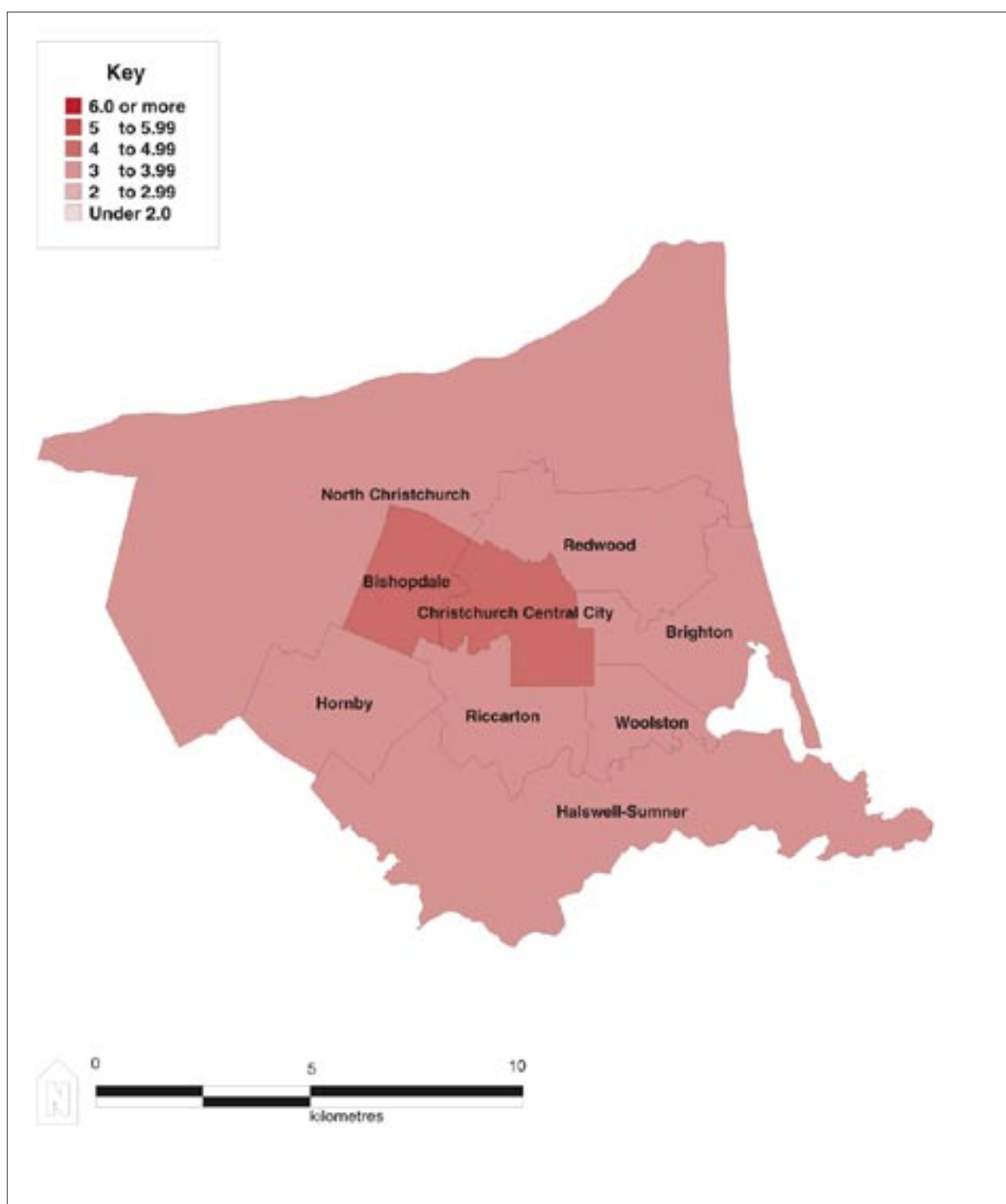


FIGURE 15: Access Analysis for Christchurch Region Sub-Areas - 1991

Proportion of working households unable to purchase at lower quartile house prices

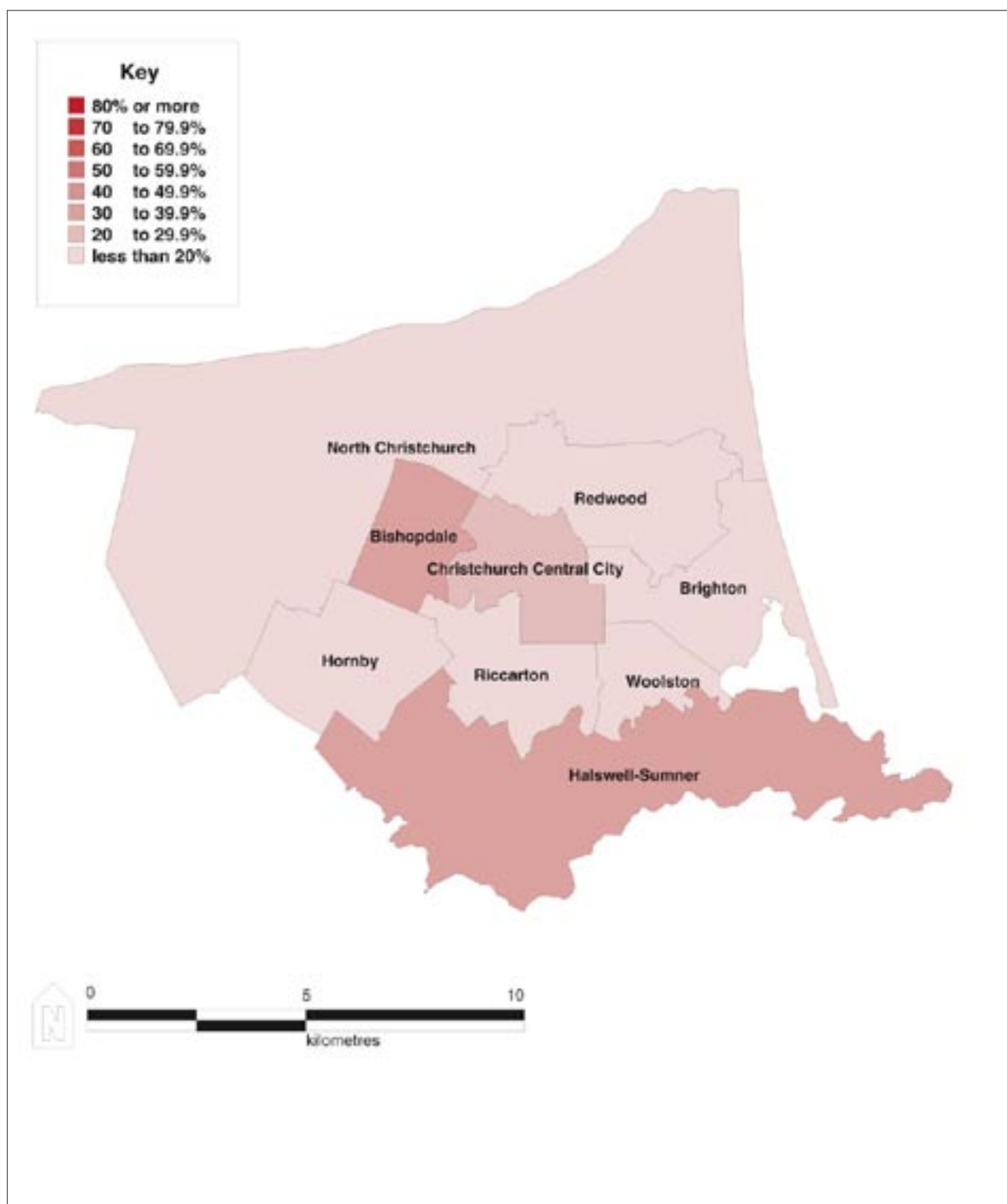
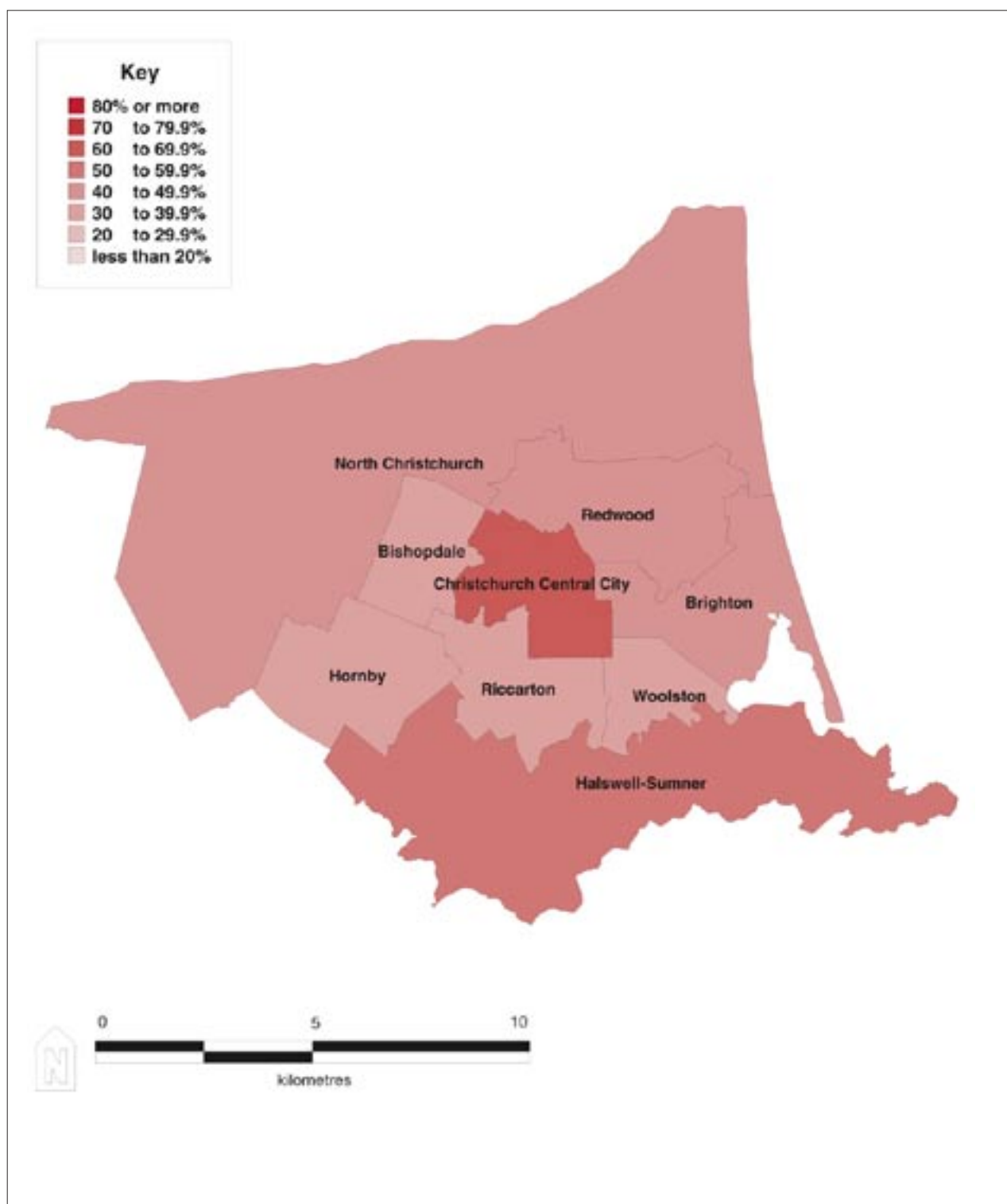


FIGURE 16: Access Analysis for Christchurch Region Sub-Areas - 2001

Proportion of working households unable to purchase at lower quartile house prices



Appendix 2 ▶ House Affordability – Ratio Analysis Tables

TABLE 1 Local Authorities – lower quartile house price to income ratios – 1991

| Local Authority | 1991 lower quartile prices, 2/3 bedroom dwellings (\$) | Working household, lower quartile incomes (\$) | House price to income ratio |
|----------------------------|--|--|-----------------------------|
| New Zealand | | | |
| Tasman District | 83,000 | 22,900 | 3.62 |
| Thames Coromandel District | 85,000 | 23,600 | 3.60 |
| Queenstown Lakes District | 90,000 | 25,300 | 3.56 |
| Auckland City | 117,000 | 34,000 | 3.44 |
| Banks Peninsula District | 85,000 | 25,300 | 3.36 |
| Tauranga District | 95,000 | 28,300 | 3.36 |
| Rodney District | 95,000 | 29,000 | 3.28 |
| Kaikoura District | 75,000 | 22,900 | 3.28 |
| Western Bop District | 78,000 | 24,000 | 3.25 |
| North Shore City | 125,000 | 39,100 | 3.20 |
| Wellington City | 124,000 | 39,000 | 3.18 |
| Nelson City | 87,000 | 28,000 | 3.11 |
| Kapiti Coast District | 94,000 | 31,100 | 3.02 |
| Hamilton City | 95,000 | 31,500 | 3.02 |
| Palmerston North City | 94,000 | 31,200 | 3.01 |
| Marlborough District | 80,000 | 26,900 | 2.97 |
| Waimakariri District | 84,750 | 28,700 | 2.95 |
| Manukau City | 100,000 | 34,700 | 2.88 |
| Selwyn District | 78,000 | 27,400 | 2.85 |
| Papakura District | 97,500 | 34,500 | 2.83 |
| Christchurch City | 85,000 | 30,100 | 2.82 |
| Far North District | 60,000 | 21,500 | 2.79 |
| Franklin District | 87,000 | 31,200 | 2.79 |
| Waipa District | 80,500 | 28,900 | 2.79 |
| Taupo District | 75,000 | 27,100 | 2.77 |
| Upper Hutt City | 97,000 | 35,100 | 2.76 |
| Whangarei District | 75,000 | 27,600 | 2.72 |
| Waitakere City | 91,500 | 33,700 | 2.72 |
| Hutt City | 97,000 | 36,000 | 2.69 |
| Hurunui District | 53,000 | 19,800 | 2.68 |
| Napier City | 78,000 | 29,400 | 2.65 |
| Porirua City | 92,000 | 35,700 | 2.58 |
| Whakatane District | 70,000 | 27,500 | 2.55 |
| Manawatu District | 72,000 | 28,300 | 2.54 |
| Hastings District | 67,500 | 27,000 | 2.50 |
| Kaipara District | 55,000 | 22,100 | 2.49 |
| Masterton District | 63,000 | 25,500 | 2.47 |
| Horowhenua District | 65,000 | 26,800 | 2.43 |
| Carterton District | 61,000 | 25,800 | 2.36 |
| Gisborne District | 59,000 | 25,000 | 2.36 |
| Matamata Piako District | 66,000 | 28,000 | 2.36 |
| Central Otago District | 58,750 | 25,000 | 2.35 |
| New Plymouth District | 68,600 | 29,300 | 2.34 |
| South Wairarapa District | 55,500 | 23,900 | 2.32 |
| Rotorua District | 63,500 | 28,200 | 2.25 |

Appendix 2 ▶ House Affordability – Ratio Analysis Tables

TABLE 1 Local Authorities – lower quartile house price to income ratios – 1991

| Local Authority | 1991 lower quartile prices, 2/3 bedroom dwellings (\$) | Working household, lower quartile incomes (\$) | House price to income ratio |
|-----------------------------|--|--|-----------------------------|
| New Zealand | | | |
| Ashburton District | 56,000 | 25,100 | 2.23 |
| Dunedin City | 63,000 | 28,800 | 2.19 |
| Opotiki District | 47,000 | 21,800 | 2.16 |
| Otorohanga District | 50,000 | 23,800 | 2.10 |
| Wanganui District | 56,000 | 27,000 | 2.07 |
| Timaru District | 53,000 | 26,600 | 1.99 |
| Central Hawkes Bay District | 47,000 | 23,700 | 1.98 |
| Hauraki District | 49,000 | 25,900 | 1.89 |
| Taranua District | 45,000 | 24,600 | 1.83 |
| Waitomo District | 43,000 | 23,600 | 1.82 |
| Wairoa District | 43,000 | 23,600 | 1.82 |
| Waimate District | 37,250 | 20,700 | 1.80 |
| Waikato District | 49,250 | 27,800 | 1.77 |
| Ruapehu District | 42,250 | 24,500 | 1.72 |
| Stratford District | 43,000 | 25,000 | 1.72 |
| Waitaki District | 43,500 | 25,300 | 1.72 |
| Invercargill City | 48,000 | 29,400 | 1.63 |
| South Waikato District | 47,000 | 30,100 | 1.56 |
| South Taranaki District | 40,000 | 26,700 | 1.50 |
| Mackenzie District | 30,000 | 20,700 | 1.45 |
| Kawerau District | 50,000 | 34,900 | 1.43 |
| Rangitikei District | 36,000 | 25,300 | 1.42 |
| Grey District | 36,000 | 25,600 | 1.41 |
| Westland District | 35,000 | 25,500 | 1.37 |
| Gore District | 34,000 | 25,500 | 1.33 |
| Buller District | 28,750 | 22,900 | 1.26 |
| Clutha District | 28,000 | 24,200 | 1.16 |
| Southland District | 25,000 | 24,600 | 1.02 |

Appendix 2 ▶ House Affordability – Ratio Analysis Tables

TABLE 2 Local Authorities – lower quartile house price to income ratios – 2001

| Local Authority | 2001 lower quartile prices, 2/3 bedroom dwellings (\$) | Working household, lower quartile incomes (\$) | House price to income ratio |
|--------------------------|--|--|-----------------------------|
| New Zealand | | | |
| Queenstown Lakes Dist | 195,000 | 34,400 | 5.67 |
| Thames Coromandel Dist | 150,000 | 27,100 | 5.54 |
| Auckland City | 225,000 | 44,500 | 5.06 |
| Tauranga District | 158,000 | 33,700 | 4.69 |
| Rodney District | 185,000 | 39,500 | 4.68 |
| North Shore City | 217,000 | 46,500 | 4.67 |
| Tasman District | 132,750 | 28,800 | 4.61 |
| Western Bop District | 139,500 | 30,600 | 4.56 |
| Wellington City | 210,000 | 47,100 | 4.46 |
| Manukau City | 187,000 | 42,300 | 4.42 |
| Opotiki District | 105,000 | 24,200 | 4.34 |
| Whakatane District | 135,000 | 31,900 | 4.23 |
| Papakura District | 173,000 | 41,200 | 4.20 |
| Far North District | 109,250 | 26,600 | 4.11 |
| Taupo District | 132,000 | 32,200 | 4.10 |
| Hamilton City | 145,750 | 35,800 | 4.07 |
| Banks Peninsula District | 135,000 | 33,200 | 4.07 |
| Napier City | 128,000 | 31,500 | 4.06 |
| Nelson City | 122,500 | 30,300 | 4.04 |
| Waitakere City | 164,000 | 41,400 | 3.96 |
| Kapiti Coast District | 140,000 | 35,800 | 3.91 |
| Whangarei District | 125,000 | 32,300 | 3.87 |
| Christchurch City | 130,000 | 34,100 | 3.81 |
| Kaikoura District | 104,000 | 27,300 | 3.81 |
| Hastings District | 110,000 | 30,600 | 3.59 |
| Franklin District | 147,000 | 40,900 | 3.59 |
| Kaipara District | 101,500 | 28,600 | 3.55 |
| Porirua City | 146,000 | 41,200 | 3.54 |
| Waipa District | 130,000 | 36,900 | 3.52 |
| Marlborough District | 110,000 | 31,400 | 3.50 |
| Waimakariri District | 120,000 | 36,400 | 3.30 |
| Palmerston North City | 113,000 | 34,500 | 3.28 |
| Rotorua District | 108,000 | 33,000 | 3.27 |
| Upper Hutt City | 129,000 | 40,400 | 3.19 |
| Hutt City | 126,000 | 40,600 | 3.10 |
| Matamata Piako District | 105,000 | 35,300 | 2.97 |
| Selwyn District | 110,000 | 38,400 | 2.86 |
| Hurunui District | 80,000 | 28,000 | 2.86 |
| Hauraki District | 85,000 | 30,300 | 2.81 |
| New Plymouth District | 87,000 | 31,300 | 2.78 |
| Central Otago District | 80,000 | 28,800 | 2.78 |
| Gisborne District | 77,000 | 28,000 | 2.75 |
| Waikato District | 90,000 | 34,400 | 2.62 |
| Carterton District | 85,000 | 33,200 | 2.56 |
| Manawatu District | 84,000 | 33,000 | 2.55 |

Appendix 2 ▶ House Affordability – Ratio Analysis Tables

TABLE 2 Local Authorities – lower quartile house price to income ratios – 1991

| Local Authority | 1991 lower quartile prices, 2/3 bedroom dwellings (\$) | Working household, lower quartile incomes (\$) | House price to income ratio |
|--------------------------|--|--|-----------------------------|
| New Zealand | | | |
| Dunedin City | 77,000 | 30,400 | 2.53 |
| South Wairarapa District | 82,500 | 32,600 | 2.53 |
| Masterton District | 74,000 | 29,600 | 2.50 |
| Ashburton District | 80,000 | 32,700 | 2.45 |
| Central Hawkes Bay Dist | 74,000 | 30,800 | 2.40 |
| Horowhenua District | 65,000 | 29,100 | 2.23 |
| Timaru District | 67,000 | 30,200 | 2.22 |
| Otorohanga District | 70,000 | 31,900 | 2.19 |
| Wairoa District | 55,000 | 25,600 | 2.15 |
| Wanganui District | 60,000 | 28,200 | 2.13 |
| Waitomo District | 59,000 | 28,900 | 2.04 |
| Waimate District | 53,500 | 28,100 | 1.90 |
| Grey District | 55,000 | 28,900 | 1.90 |
| Mackenzie District | 49,875 | 27,700 | 1.80 |
| Waitaki District | 50,000 | 28,800 | 1.74 |
| Stratford District | 50,000 | 31,900 | 1.57 |
| Buller District | 39,000 | 25,000 | 1.56 |
| Westland District | 44,000 | 28,900 | 1.52 |
| Invercargill City | 47,000 | 31,500 | 1.49 |
| South Taranaki District | 50,000 | 33,600 | 1.49 |
| Tararua District | 44,000 | 29,600 | 1.49 |
| Kawerau District | 47,000 | 32,500 | 1.45 |
| Ruapehu District | 40,000 | 28,500 | 1.40 |
| South Waikato District | 43,000 | 33,000 | 1.30 |
| Southland District | 43,000 | 33,700 | 1.28 |
| Clutha District | 36,000 | 30,500 | 1.18 |
| Rangitikei District | 32,130 | 28,700 | 1.12 |
| Gore District | 34,000 | 31,000 | 1.10 |

Appendix 2 ▶ House Affordability – Ratio Analysis Tables

TABLE 3 Sub Areas – lower quartile house price to income ratios – 1991

| Region | 1991 lower quartile prices, 2/3 bedroom dwellings (\$) | Working household, lower quartile incomes (\$) | House price to income ratio |
|------------------------|---|---|--------------------------------|
| Auckland Region | | | |
| Auckland Central | 180,000 | 32,300 | 5.57 |
| Eastern Bays | 200,000 | 42,800 | 4.67 |
| Howick | 180,500 | 43,100 | 4.19 |
| Takapuna | 151,000 | 38,600 | 3.91 |
| Remuera | 155,000 | 40,200 | 3.86 |
| Waiheke Island | 70,000 | 19,300 | 3.63 |
| Botany Downs | 148,500 | 42,000 | 3.54 |
| North Shore Bays | 140,000 | 41,200 | 3.40 |
| Glenfield | 120,000 | 38,000 | 3.16 |
| Rodney-South | 100,000 | 31,800 | 3.14 |
| Birkenhead | 120,000 | 38,600 | 3.11 |
| Beachlands-Maraetai | 105,000 | 34,000 | 3.09 |
| Rodney-North | 78,000 | 25,400 | 3.07 |
| Albany | 120,000 | 39,700 | 3.02 |
| Mangere Central | 90,000 | 30,300 | 2.97 |
| New Windsor | 105,000 | 36,100 | 2.91 |
| Mangere Bridge | 93,000 | 32,400 | 2.87 |
| Manurewa | 91,000 | 31,800 | 2.86 |
| Flatbush | 105,000 | 36,700 | 2.86 |
| New Lynn | 94,000 | 33,100 | 2.84 |
| Massey | 95,000 | 33,800 | 2.81 |
| Henderson | 89,000 | 31,800 | 2.80 |
| Pt Chevalier | 100,000 | 35,800 | 2.79 |
| Titirangi | 96,000 | 34,900 | 2.75 |
| Otara | 86,000 | 31,800 | 2.70 |
| Epsom | 90,000 | 33,800 | 2.66 |
| Te Atatu | 92,000 | 35,000 | 2.63 |
| Mt Roskill | 87,500 | 34,400 | 2.54 |
| Avondale | 82,500 | 32,900 | 2.51 |
| Panmure | 70,000 | 29,200 | 2.40 |
| Penrose | 60,000 | 27,800 | 2.16 |
| Bay of Plenty | | | |
| Tauranga Coastal | 85,000 | 27,100 | 3.14 |
| Motuopae Island | 90,000 | 29,500 | 3.05 |
| Tauranga City | 73,000 | 28,100 | 2.60 |
| Rotorua District | 63,000 | 27,900 | 2.26 |
| Rotorua City | 62,000 | 28,400 | 2.18 |

Appendix 2 ▶ House Affordability – Ratio Analysis Tables

TABLE 3 Sub Areas – lower quartile house price to income ratios – 1991

| Region | 1991 lower quartile prices, 2/3 bedroom dwellings (\$) | Working household, lower quartile incomes (\$) | House price to income ratio |
|---------------------------|---|---|--------------------------------|
| Canterbury | | | |
| Halswell-Sumner | 105,000 | 36,300 | 2.89 |
| Christchurch Central City | 80,000 | 29,400 | 2.72 |
| Bishopdale | 98,000 | 36,900 | 2.66 |
| North Christchurch | 78,000 | 31,800 | 2.45 |
| Hornby | 71,000 | 30,300 | 2.34 |
| Redwood | 75,000 | 32,300 | 2.32 |
| Brighton | 61,000 | 26,300 | 2.32 |
| Woolston | 59,000 | 26,900 | 2.19 |
| Riccarton | 63,000 | 28,800 | 2.19 |
| Hawkes Bay | | | |
| Hastings City | 55,000 | 27,100 | 2.03 |
| Hastings District | 68,000 | 26,700 | 2.55 |
| Lower North Island | | | |
| Palmerston North-East | 101,000 | 33,500 | 3.01 |
| Palmerston North-West | 89,000 | 30,200 | 2.95 |
| New Plymouth City | 55,000 | 29,900 | 1.84 |
| New Plymouth District | 50,000 | 28,700 | 1.74 |
| Northland | | | |
| Far North-North | 56,000 | 20,700 | 2.71 |
| Whangarei District | 66,000 | 25,000 | 2.64 |
| Far North-South | 58,000 | 22,200 | 2.61 |
| Whangarei City | 60,000 | 28,800 | 2.08 |
| Otago | | | |
| Otago Peninsula | 59,000 | 32,600 | 1.81 |
| North Dunedin | 51,500 | 28,500 | 1.81 |
| South Dunedin | 49,500 | 28,600 | 1.73 |
| Dunedin District | 32,000 | 26,600 | 1.20 |
| Waikato | | | |
| Hamilton-East | 81,000 | 29,100 | 2.78 |
| Hamilton-North | 94,000 | 34,400 | 2.73 |
| Hamilton-South | 82,000 | 31,600 | 2.59 |
| Wellington Region | | | |
| Wellington City | 140,000 | 36,500 | 3.84 |
| Miramar | 125,000 | 35,600 | 3.51 |
| Rongotai | 120,000 | 35,400 | 3.39 |
| Karori-Wadestown | 145,000 | 45,600 | 3.18 |
| Taita | 99,000 | 32,800 | 3.02 |
| Petone | 118,000 | 39,500 | 2.99 |
| Pencarrow | 115,000 | 38,900 | 2.96 |
| Tawa | 115,000 | 41,800 | 2.75 |
| Wainuiomata | 84,000 | 33,200 | 2.53 |

Appendix 2 ▶ House Affordability – Ratio Analysis Tables

TABLE 4 Sub Areas – lower quartile house price to income ratios – 2001

| Region | 2001 lower quartile prices, 2/3 bedroom dwellings (\$) | Working household, lower quartile incomes (\$) | House price to income ratio |
|------------------------|---|---|--------------------------------|
| Auckland Region | | | |
| Waiheke Island | 165,000 | 26,900 | 6.13 |
| Epsom | 270,000 | 45,200 | 5.97 |
| Eastern Bays | 340,000 | 57,700 | 5.89 |
| Auckland Central | 250,000 | 44,600 | 5.61 |
| Remuera | 310,000 | 55,400 | 5.60 |
| Takapuna | 260,000 | 47,400 | 5.49 |
| Pt Chevalier | 290,000 | 54,600 | 5.31 |
| Mt Roskill | 225,000 | 43,300 | 5.20 |
| Howick | 257,000 | 50,500 | 5.09 |
| North Shore Bays | 250,000 | 51,000 | 4.90 |
| New Windsor | 200,000 | 40,900 | 4.89 |
| Penrose | 165,000 | 33,900 | 4.87 |
| Panmure | 175,000 | 36,200 | 4.83 |
| Botany Downs | 232,000 | 48,000 | 4.83 |
| Flatbush | 235,000 | 50,200 | 4.68 |
| Albany | 235,000 | 50,500 | 4.65 |
| Avondale | 194,000 | 41,700 | 4.65 |
| Glenfield | 200,000 | 43,100 | 4.64 |
| Rodney-North | 160,000 | 34,900 | 4.58 |
| Rodney-South | 190,000 | 42,600 | 4.46 |
| Birkenhead | 190,000 | 44,400 | 4.28 |
| New Lynn | 166,000 | 39,000 | 4.26 |
| Henderson | 148,000 | 35,900 | 4.12 |
| Beachlands-Maraetai | 184,000 | 45,200 | 4.07 |
| Mangere Central | 142,000 | 35,100 | 4.05 |
| Te Atatu | 166,000 | 41,500 | 4.00 |
| Titirangi | 172,000 | 44,600 | 3.86 |
| Mangere Bridge | 160,000 | 41,700 | 3.84 |
| Manurewa | 147,000 | 38,600 | 3.81 |
| Massey | 165,000 | 44,700 | 3.69 |
| Otara | 126,000 | 34,400 | 3.66 |
| Bay of Plenty | | | |
| Tauranga Coastal | 170,000 | 33,700 | 5.04 |
| Motuopae Island | 158,000 | 33,800 | 4.67 |
| Tauranga City | 142,000 | 33,800 | 4.20 |
| Rotorua City | 110,000 | 31,300 | 3.51 |
| Rotorua District | 125,000 | 37,100 | 3.37 |

Appendix 2 ▶ House Affordability – Ratio Analysis Tables

TABLE 4 Sub Areas – lower quartile house price to income ratios – 2001

| Region | 2001 lower quartile prices, 2/3 bedroom dwellings (\$) | Working household, lower quartile incomes (\$) | House price to income ratio |
|---------------------------|---|---|--------------------------------|
| Canterbury | | | |
| Christchurch Central City | 160,000 | 34,500 | 4.64 |
| Bishopdale | 156,000 | 38,700 | 4.03 |
| Halswell-Sumner | 175,000 | 45,300 | 3.86 |
| Riccarton | 122,000 | 31,800 | 3.84 |
| Brighton | 110,000 | 29,200 | 3.77 |
| North Christchurch | 145,000 | 40,300 | 3.60 |
| Hornby | 115,000 | 32,500 | 3.54 |
| Woolston | 110,000 | 31,200 | 3.53 |
| Redwood | 130,000 | 37,200 | 3.49 |
| Hawkes Bay | | | |
| Hastings City | 91,000 | 28,400 | 3.20 |
| Hastings District | 129,000 | 35,200 | 3.66 |
| Lower North Island | | | |
| Palmerston North [West] | 105,000 | 32,600 | 3.22 |
| Palmerston North [East] | 126,000 | 39,200 | 3.21 |
| New Plymouth District | 90,000 | 31,700 | 2.84 |
| New Plymouth City | 87,000 | 30,900 | 2.82 |
| Northland | | | |
| Far North-South | 125,000 | 27,300 | 4.58 |
| Whangarei City | 122,000 | 31,600 | 3.86 |
| Whangarei District | 125,000 | 33,400 | 3.74 |
| Far North-North | 76,000 | 25,600 | 2.97 |
| Otago | | | |
| North Dunedin | 78,000 | 28,600 | 2.73 |
| South Dunedin | 75,000 | 30,200 | 2.48 |
| Otago Peninsula | 88,000 | 36,100 | 2.44 |
| Dunedin District | 51,000 | 33,100 | 1.54 |
| Waikato | | | |
| Hamilton-East | 144,000 | 29,800 | 4.83 |
| Hamilton-North | 165,000 | 43,100 | 3.83 |
| Hamilton-South | 136,000 | 35,800 | 3.80 |
| Wellington Region | | | |
| Wellington City | 245,000 | 46,300 | 5.29 |
| Miramar | 225,000 | 43,200 | 5.21 |
| Rongotai | 215,000 | 42,600 | 5.05 |
| Karori-Wadestown | 215,000 | 55,500 | 3.87 |
| Tawa | 170,000 | 47,700 | 3.56 |
| Petone | 160,000 | 47,200 | 3.39 |
| Taita | 100,000 | 34,500 | 2.90 |
| Pencarrow | 120,000 | 43,600 | 2.75 |
| Wainuiomata | 80,000 | 36,000 | 2.22 |

Appendix 2 ▶ House Affordability – Access Analysis Tables

TABLE 5 Local Authorities – Proportion of working households unable to purchase a house in 1991 (based on lower quartile house prices for 2/3 bedroom dwellings and a 3:1 house price to income multiple)

| Territorial Local Authority | 1991 lower quartile prices, 2/3 bedroom dwellings (\$) | Income required to purchase (\$) | Households unable to purchase (%) |
|--------------------------------|--|----------------------------------|-----------------------------------|
| North Shore City | 125,000 | 37,500 | 52.7 |
| Wellington City | 124,000 | 37,200 | 47.8 |
| Auckland City | 117,000 | 35,100 | 38.3 |
| Lower Hutt City | 97,000 | 29,100 | 35.9 |
| Waimakariri District | 84,750 | 25,425 | 34.4 |
| Upper Hutt City | 97,000 | 29,100 | 33.9 |
| Banks Peninsula District | 85,000 | 25,500 | 33.5 |
| Tasman District | 83,000 | 24,900 | 32.4 |
| Rodney District | 95,000 | 28,500 | 32.0 |
| Nelson City | 87,000 | 26,100 | 31.6 |
| Queenstown-Lakes District | 90,000 | 27,000 | 31.2 |
| Palmerston North City | 94,000 | 28,200 | 31.1 |
| Christchurch City | 85,000 | 25,500 | 30.7 |
| Whangarei District | 75,000 | 22,500 | 30.1 |
| Manukau City | 100,000 | 30,000 | 29.6 |
| Manawatu District | 72,000 | 21,600 | 28.5 |
| Waitakere City | 91,500 | 27,450 | 28.0 |
| Porirua City | 92,000 | 27,600 | 26.8 |
| Marlborough District | 80,000 | 24,000 | 25.8 |
| Tauranga District | 95,000 | 28,500 | 24.0 |
| Papakura District | 97,500 | 29,250 | 23.2 |
| Far North District | 60,000 | 18,000 | 22.9 |
| Dunedin City | 63,000 | 18,900 | 20.8 |
| Horowhenua District | 65,000 | 19,500 | 20.0 |
| Selwyn District | 78,000 | 23,400 | 19.8 |
| Hamilton City | 95,000 | 28,500 | 19.7 |
| Carterton District | 61,000 | 18,300 | 18.3 |
| Kaikoura District | 75,000 | 22,500 | 18.2 |
| Waipa District | 80,500 | 24,150 | 17.4 |
| Masterton District | 63,000 | 18,900 | 17.1 |
| Kapiti Coast District | 94,000 | 28,200 | 16.8 |
| Central Otago District | 58,750 | 17,625 | 15.2 |
| Hastings District | 67,500 | 20,250 | 15.0 |
| Taupo District | 75,000 | 22,500 | 14.8 |
| Rotorua District | 63,500 | 19,050 | 14.5 |
| Napier City | 78,000 | 23,400 | 14.3 |
| Western Bay of Plenty District | 78,000 | 23,400 | 13.9 |
| Thames-Coromandel District | 85,000 | 25,500 | 13.9 |
| Franklin District | 87,000 | 26,100 | 13.8 |
| Whakatane District | 70,000 | 21,000 | 13.8 |
| New Plymouth District | 68,600 | 20,580 | 13.5 |
| Ashburton District | 56,000 | 16,800 | 13.1 |
| South Wairarapa District | 55,500 | 16,650 | 12.4 |
| Matamata-Piako District | 66,000 | 19,800 | 11.5 |
| Kaipara District | 55,000 | 16,500 | 11.0 |

Appendix 2 ▶ House Affordability – Access Analysis Tables

TABLE 5 Local Authorities – Proportion of working households unable to purchase a house in 1991 (based on lower quartile house prices for 2/3 bedroom dwellings and a 3:1 house price to income multiple)

| Territorial Local Authority | 1991 lower quartile prices, 2/3 bedroom dwellings (\$) | Income required to purchase (\$) | Households unable to purchase (%) |
|------------------------------|--|----------------------------------|-----------------------------------|
| Timaru District | 53,000 | 15,900 | 10.5 |
| Waimate District | 37,250 | 11,175 | 10.5 |
| Wanganui District | 56,000 | 16,800 | 9.9 |
| Hurunui District | 53,000 | 15,900 | 9.0 |
| Waikato District | 49,250 | 14,775 | 7.8 |
| Westland District | 35,000 | 10,500 | 7.6 |
| Grey District | 36,000 | 10,800 | 7.5 |
| Opotiki District | 47,000 | 14,100 | 7.4 |
| Kawerau District | 50,000 | 15,000 | 7.3 |
| Mackenzie District | 30,000 | 9,000 | 7.3 |
| Tararua District | 45,000 | 13,500 | 7.0 |
| South Waikato District | 47,000 | 14,100 | 6.7 |
| Waitaki District | 43,500 | 13,050 | 6.5 |
| Otorohanga District | 50,000 | 15,000 | 6.4 |
| Gore District | 34,000 | 10,200 | 6.1 |
| Invercargill City | 48,000 | 14,400 | 6.0 |
| Hauraki District | 49,000 | 14,700 | 5.8 |
| Gisborne District | 59,000 | 17,700 | 5.7 |
| South Taranaki District | 40,000 | 12,000 | 5.6 |
| Waitomo District | 43,000 | 12,900 | 5.6 |
| Central Hawke's Bay District | 47,000 | 14,100 | 5.3 |
| Stratford District | 43,000 | 12,900 | 5.1 |
| Ruapehu District | 42,250 | 12,675 | 4.7 |
| Southland District | 25,000 | 7,500 | 4.2 |
| Rangitikei District | 36,000 | 10,800 | 4.0 |
| Wairoa District | 43,000 | 12,900 | 3.8 |
| Buller District | 28,750 | 8,625 | 3.7 |
| Clutha District | 28,000 | 8,400 | 3.7 |

Appendix 2 ▶ House Affordability – Access Analysis Tables

TABLE 6 Local Authorities – Proportion of working households unable to purchase a house in 2001 (based on lower quartile house prices for 2/3 bedroom dwellings and a 3:1 house price to income multiple)

| Territorial Local Authority | 2001 lower quartile prices, 2/3 bedroom dwellings (\$) | Income required to purchase (\$) | Households unable to purchase (%) |
|--------------------------------|--|----------------------------------|-----------------------------------|
| Queenstown-Lakes District | 195,000 | 58,500 | 71.4 |
| Auckland City | 225,000 | 67,500 | 69.4 |
| North Shore City | 217,000 | 65,100 | 65.3 |
| Rodney District | 185,000 | 55,500 | 63.8 |
| Wellington City | 210,000 | 63,000 | 60.4 |
| Waitakere City | 164,000 | 49,200 | 57.1 |
| Tasman District | 132,750 | 39,825 | 54.7 |
| Banks Peninsula District | 135,000 | 40,500 | 53.4 |
| Manukau City | 187,000 | 56,100 | 53.1 |
| Christchurch City | 130,000 | 39,000 | 51.0 |
| Waimakariri District | 120,000 | 36,000 | 49.7 |
| Nelson City | 122,500 | 36,750 | 49.0 |
| Whangarei District | 125,000 | 37,500 | 48.6 |
| Papakura District | 173,000 | 51,900 | 47.0 |
| Upper Hutt City | 129,000 | 38,700 | 45.6 |
| Far North District | 109,250 | 32,775 | 44.1 |
| Lower Hutt City | 126,000 | 37,800 | 44.0 |
| Selwyn District | 110,000 | 33,000 | 42.3 |
| Palmerston North City | 113,000 | 33,900 | 40.5 |
| Napier City | 128,000 | 38,400 | 40.2 |
| Hamilton City | 145,750 | 43,725 | 39.2 |
| Kaipara District | 101,500 | 30,450 | 38.3 |
| Porirua City | 146,000 | 43,800 | 38.1 |
| Kaikoura District | 104,000 | 31,200 | 34.2 |
| Tauranga District | 158,000 | 47,400 | 34.0 |
| Kapiti Coast District | 140,000 | 42,000 | 33.7 |
| Marlborough District | 110,000 | 33,000 | 33.4 |
| Western Bay of Plenty District | 139,500 | 41,850 | 33.3 |
| Thames-Coromandel District | 150,000 | 45,000 | 33.0 |
| Waipa District | 130,000 | 39,000 | 31.3 |
| Franklin District | 147,000 | 44,100 | 31.1 |
| Opotiki District | 105,000 | 31,500 | 31.0 |
| Manawatu District | 84,000 | 25,200 | 30.5 |
| Taupo District | 132,000 | 39,600 | 29.7 |
| Whakatane District | 135,000 | 40,500 | 29.3 |
| Carterton District | 85,000 | 25,500 | 27.1 |
| Central Otago District | 80,000 | 24,000 | 23.2 |
| South Wairarapa District | 82,500 | 24,750 | 22.8 |
| Rotorua District | 108,000 | 32,400 | 22.8 |
| Hurunui District | 80,000 | 24,000 | 22.3 |
| Matamata-Piako District | 105,000 | 31,500 | 21.0 |
| Ashburton District | 80,000 | 24,000 | 19.2 |
| Dunedin City | 77,000 | 23,100 | 18.6 |
| Waikato District | 90,000 | 27,000 | 18.0 |
| Hastings District | 110,000 | 33,000 | 16.8 |

Appendix 2 ▶ House Affordability – Access Analysis Tables

TABLE 6 Local Authorities – Proportion of working households unable to purchase a house in 2001 (based on lower quartile house prices for 2/3 bedroom dwellings and a 3:1 house price to income multiple)

| Territorial Local Authority | 2001 lower quartile prices, 2/3 bedroom dwellings (\$) | Income required to purchase (\$) | Households unable to purchase (%) |
|------------------------------|--|----------------------------------|-----------------------------------|
| Timaru District | 67,000 | 20,100 | 15.7 |
| Mackenzie District | 49,875 | 14,963 | 15.2 |
| New Plymouth District | 87,000 | 26,100 | 14.3 |
| Masterton District | 74,000 | 22,200 | 14.1 |
| Horowhenua District | 65,000 | 19,500 | 12.6 |
| Hauraki District | 85,000 | 25,500 | 11.6 |
| Waitaki District | 50,000 | 15,000 | 11.1 |
| South Taranaki District | 50,000 | 15,000 | 10.9 |
| Stratford District | 50,000 | 15,000 | 10.7 |
| Waimate District | 53,500 | 16,050 | 10.4 |
| Clutha District | 36,000 | 10,800 | 9.8 |
| Gisborne District | 77,000 | 23,100 | 9.6 |
| Southland District | 43,000 | 12,900 | 9.2 |
| Central Hawke's Bay District | 74,000 | 22,200 | 9.1 |
| Wanganui District | 60,000 | 18,000 | 8.9 |
| Grey District | 55,000 | 16,500 | 8.8 |
| South Waikato District | 43,000 | 12,900 | 8.6 |
| Westland District | 44,000 | 13,200 | 8.5 |
| Buller District | 39,000 | 11,700 | 8.3 |
| Otorohanga District | 70,000 | 21,000 | 8.2 |
| Invercargill City | 47,000 | 14,100 | 7.4 |
| Tararua District | 44,000 | 13,200 | 7.2 |
| Gore District | 34,000 | 10,200 | 7.0 |
| Wairoa District | 55,000 | 16,500 | 6.8 |
| Waitomo District | 59,000 | 17,700 | 6.4 |
| Ruapehu District | 40,000 | 12,000 | 6.2 |
| Kawerau District | 47,000 | 14,100 | 5.3 |
| Rangitikei District | 32,130 | 9,639 | 4.0 |

Appendix 2 ▶ House Affordability – Access Analysis Tables

TABLE 7 Sub Areas – Proportion of working households unable to purchase a house in 1991 (based on lower quartile house prices for 2/3 bedroom dwellings and a 3:1 house price to income multiple)

| Region | Lower quartile house price | Income required to purchase (\$) | Households unable to purchase (%) |
|-------------------------|----------------------------|----------------------------------|-----------------------------------|
| Auckland Region | | | |
| Auckland Central | 180,000 | 54,000 | 63.7 |
| Howick | 180,500 | 54,150 | 61.0 |
| Eastern Bays | 200,000 | 60,000 | 54.9 |
| Takapuna | 151,000 | 45,300 | 41.4 |
| Waiheke Island | 70,000 | 21,000 | 39.8 |
| Rodney-South | 100,000 | 30,000 | 39.3 |
| Botany Downs | 148,500 | 44,550 | 37.6 |
| North Shore Bays | 140,000 | 42,000 | 37.3 |
| Remuera | 155,000 | 46,500 | 35.2 |
| Beachlands-Maraetai | 105,000 | 31,500 | 34.9 |
| New Windsor | 105,000 | 31,500 | 30.7 |
| Pt Chevalier | 100,000 | 30,000 | 30.6 |
| Flatbush | 105,000 | 31,500 | 29.9 |
| Glenfield | 120,000 | 36,000 | 28.1 |
| Birkenhead | 120,000 | 36,000 | 27.0 |
| Albany | 120,000 | 36,000 | 25.5 |
| Rodney-North | 78,000 | 23,400 | 24.4 |
| Mangere Central | 90,000 | 27,000 | 24.3 |
| Otara | 86,000 | 25,800 | 21.9 |
| Manurewa | 91,000 | 27,300 | 21.7 |
| Henderson | 89,000 | 26,700 | 21.5 |
| Mangere Bridge | 93,000 | 27,900 | 20.7 |
| Avondale | 82,500 | 24,750 | 20.2 |
| New Lynn | 94,000 | 28,200 | 19.7 |
| Epsom | 90,000 | 27,000 | 19.7 |
| Mt Roskill | 87,500 | 26,250 | 18.1 |
| Massey | 95,000 | 28,500 | 17.4 |
| Panmure | 70,000 | 21,000 | 17.3 |
| Te Atatu | 92,000 | 27,600 | 16.2 |
| Titirangi | 96,000 | 28,800 | 15.7 |
| Penrose | 60,000 | 18,000 | 11.4 |
| Bay of Plenty | | | |
| Tauranga Coastal | 85,000 | 25,500 | 31.2 |
| Motuopae Island | 90,000 | 27,000 | 25.8 |
| Rotorua District | 63,000 | 18,900 | 20.1 |
| Tauranga City | 73,000 | 21,900 | 18.2 |
| Rotorua City | 62,000 | 18,600 | 10.7 |

Appendix 2 ▶ House Affordability – Access Analysis Tables

TABLE 7 Sub Areas – Proportion of working households unable to purchase a house in 1991 (based on lower quartile house prices for 2/3 bedroom dwellings and a 3:1 house price to income multiple)

| Region | Lower quartile house price | Income required to purchase (\$) | Households unable to purchase (%) |
|---------------------------|----------------------------|----------------------------------|-----------------------------------|
| Canterbury | | | |
| Halswell-Sumner | 105,000 | 31,500 | 30.7 |
| Bishopdale | 98,000 | 29,400 | 30.2 |
| Christchurch Central City | 80,000 | 24,000 | 26.1 |
| Riccarton | 63,000 | 18,900 | 17.1 |
| Hornby | 71,000 | 21,300 | 13.0 |
| North Christchurch | 78,000 | 23,400 | 12.2 |
| Brighton | 61,000 | 18,300 | 11.4 |
| Redwood | 75,000 | 22,500 | 11.2 |
| Woolston | 59,000 | 17,700 | 11.0 |
| Hawkes Bay | | | |
| Hastings City | 55,000 | 16,500 | 10.3 |
| Hastings District | 68,000 | 20,400 | 21.8 |
| Lower North Island | | | |
| Palmerston North [East] | 101,000 | 30,300 | 37.0 |
| Palmerston North [West] | 89,000 | 26,700 | 24.8 |
| New Plymouth District | 50,000 | 15,000 | 9.4 |
| New Plymouth City | 55,000 | 16,500 | 8.6 |
| Northland | | | |
| Whangarei District | 66,000 | 19,800 | 24.7 |
| Far North-North | 56,000 | 16,800 | 22.9 |
| Far North-South | 58,000 | 17,400 | 19.3 |
| Whangarei City | 60,000 | 18,000 | 9.0 |
| Otago | | | |
| North Dunedin | 54,000 | 16,200 | 25.1 |
| South Dunedin | 59,500 | 17,850 | 24.3 |
| Otago Peninsula | 62,000 | 18,600 | 19.6 |
| Dunedin District | 46,000 | 13,800 | 14.2 |
| Waikato | | | |
| Hamilton-East | 81,000 | 24,300 | 26.8 |
| Hamilton-South | 82,000 | 24,600 | 22.0 |
| Hamilton-North | 94,000 | 28,200 | 16.8 |
| Wellington Region | | | |
| Miramar | 125,000 | 37,500 | 46.6 |
| Wellington Central | 140,000 | 42,000 | 41.7 |
| Taita | 99,000 | 29,700 | 37.3 |
| Rongotai | 120,000 | 36,000 | 31.9 |
| Karori-Wadestown | 145,000 | 43,500 | 29.5 |
| Pencarrow | 115,000 | 34,500 | 26.6 |
| Petone | 118,000 | 35,400 | 25.7 |
| Tawa | 115,000 | 34,500 | 22.3 |
| Wainuiomata | 84,000 | 25,200 | 18.9 |

Appendix 2 ▶ House Affordability – Access Analysis Tables

TABLE 8 Sub Areas – Proportion of working households unable to purchase a house in 2001 (based on lower quartile house prices for 2/3 bedroom dwellings and a 3:1 house price to income multiple)

| Region | Lower quartile house price | Income required to purchase (\$) | Households unable to purchase (%) |
|------------------------|----------------------------|----------------------------------|-----------------------------------|
| Auckland Region | | | |
| Eastern Bays | 340,000 | 102,000 | 89.7 |
| Takapuna | 260,000 | 78,000 | 88.4 |
| Auckland Central | 250,000 | 75,000 | 85.4 |
| North Shore Bays | 250,000 | 75,000 | 83.1 |
| Pt Chevalier | 290,000 | 87,000 | 82.6 |
| Howick | 257,000 | 77,100 | 82.2 |
| Remuera | 310,000 | 93,000 | 81.3 |
| Epsom | 270,000 | 81,000 | 80.6 |
| Rodney-South | 190,000 | 57,000 | 67.8 |
| Waiheke Island | 165,000 | 49,500 | 65.5 |
| Te Atatu | 166,000 | 49,800 | 62.4 |
| Rodney-North | 160,000 | 48,000 | 62.0 |
| Penrose | 165,000 | 49,500 | 61.7 |
| New Lynn | 166,000 | 49,800 | 60.4 |
| Mangere Bridge | 160,000 | 48,000 | 60.2 |
| Birkenhead | 190,000 | 57,000 | 57.2 |
| New Windsor | 200,000 | 60,000 | 57.0 |
| Avondale | 194,000 | 58,200 | 55.8 |
| Titirangi | 172,000 | 51,600 | 55.1 |
| Glenfield | 200,000 | 60,000 | 54.9 |
| Massey | 165,000 | 49,500 | 53.7 |
| Mt Roskill | 225,000 | 67,500 | 50.2 |
| Beachlands-Maraetai | 184,000 | 55,200 | 52.1 |
| Panmure | 175,000 | 52,500 | 52.6 |
| Albany | 235,000 | 70,500 | 49.5 |
| Henderson | 148,000 | 44,400 | 48.2 |
| Flatbush | 235,000 | 70,500 | 48.1 |
| Botany Downs | 232,000 | 69,600 | 47.5 |
| Mangere Central | 142,000 | 42,600 | 45.2 |
| Otara | 126,000 | 37,800 | 44.8 |
| Manurewa | 147,000 | 44,100 | 42.6 |
| Bay of Plenty | | | |
| Tauranga Coastal | 170,000 | 51,000 | 49.4 |
| Tauranga City | 142,000 | 42,600 | 39.2 |
| Motuopae Island | 158,000 | 47,400 | 31.4 |
| Rotorua City | 110,000 | 33,000 | 24.4 |
| Rotorua District | 125,000 | 37,500 | 21.5 |

Appendix 2 ▶ House Affordability – Access Analysis Tables

TABLE 8 Sub Areas – Proportion of working households unable to purchase a house in 2001 (based on lower quartile house prices for 2/3 bedroom dwellings and a 3:1 house price to income multiple)

| Region | Lower quartile house price | Income required to purchase (\$) | Households unable to purchase (%) |
|---------------------------|----------------------------|----------------------------------|-----------------------------------|
| Canterbury | | | |
| Christchurch Central City | 160,000 | 48,000 | 63.6 |
| Halswell-Sumner | 175,000 | 52,500 | 58.2 |
| Redwood | 130,000 | 39,000 | 48.6 |
| North Christchurch | 145,000 | 43,500 | 47.5 |
| Brighton | 110,000 | 33,000 | 44.2 |
| Woolston | 110,000 | 33,000 | 39.2 |
| Bishopdale | 156,000 | 46,800 | 38.7 |
| Hornby | 115,000 | 34,500 | 35.3 |
| Riccarton | 122,000 | 36,600 | 34.4 |
| Hawkes Bay | | | |
| Hastings District | 129,000 | 38,700 | 22.4 |
| Hastings City | 91,000 | 27,300 | 13.9 |
| Lower North Island | | | |
| Palmerston North [East] | 126,000 | 37,800 | 40.7 |
| Palmerston North [West] | 105,000 | 31,500 | 35.7 |
| New Plymouth City | 87,000 | 26,100 | 15.4 |
| New Plymouth District | 90,000 | 27,000 | 13.1 |
| Northland | | | |
| Far North-South | 125,000 | 37,500 | 61.6 |
| Whangarei City | 122,000 | 36,600 | 49.3 |
| Whangarei District | 125,000 | 37,500 | 45.7 |
| Far North-North | 76,000 | 22,800 | 44.2 |
| Otago | | | |
| North Dunedin | 78,000 | 23,400 | 22.8 |
| Otago Peninsula | 88,000 | 26,400 | 19.4 |
| South Dunedin | 75,000 | 22,500 | 17.7 |
| Dunedin District | 51,000 | 15,300 | 12.6 |
| Waikato | | | |
| Hamilton-North | 165,000 | 49,500 | 46.4 |
| Hamilton-East | 144,000 | 43,200 | 40.1 |
| Hamilton-South | 136,000 | 40,800 | 33.6 |
| Wellington Region | | | |
| Wellington Central | 245,000 | 73,500 | 76.4 |
| Miramar | 225,000 | 67,500 | 59.2 |
| Rongotai | 215,000 | 64,500 | 56.3 |
| Tawa | 170,000 | 51,000 | 53.0 |
| Karori-Wadestown | 215,000 | 64,500 | 47.8 |
| Petone | 160,000 | 48,000 | 52.5 |
| Taita | 100,000 | 30,000 | 35.8 |
| Pencarrow | 120,000 | 36,000 | 28.7 |
| Wainuiomata | 80,000 | 24,000 | 18.9 |

References

- Australian Bureau of Statistics* (2003), Year Book 2003 Housing, Canberra.
- Australian Productivity Commission* (2003) First Home Ownership Issues Paper, Melbourne.
- Crews, G (March 2004) AMP Home Affordability Report, Volume 14, No 1. MUREAU.
- DTZ New Zealand* (2004a) Changes in the Structure of the New Zealand Housing Market: Vol. 1, Centre for Housing Research, Aotearoa New Zealand.
- DTZ New Zealand* (2004b) Housing Costs and Affordability in New Zealand. Centre for Housing Research, Aotearoa New Zealand.
- HNZC* (2004) Building the Future: Towards a New Zealand Housing Strategy [A discussion document].
- Hong, B and J Jensen* (2003) Assessing the Adequacy of Private Provision for Retirement: A Living Standards Perspective, Periodic Review Group Background Paper.
- Kelly, S, A. Bill and A. Harding* (2003) 'Income and Wealth of Generation X', AMP. NATSEM Income and Wealth Report Issue 6, Canberra.
- Motu Economic and Public Policy Research Trust* (2003) Housing and Economic Adjustment, Motu Working Paper #03-09 1, Wellington.
- NATSEM* (2003) Income and Wealth of Generation X, Canberra.
- Statistics Canada* (2003) 'Recent Trends Have Supported Improvements in Housing Affordability', Canadian Housing Observer (http://www.cmhc.schl.gc.ca/en/cahoob/houaff/houaff_06.cfm)
- Statistics New Zealand*, Indicator 4: Households Living in Owner Occupied Dwellings, (http://www.stats.govt.nz/domino/external/web/prod_serv.nsf/Response/Indicator+4:+Households+Living+in+Owner+Occupied+Dwellings)
- The New Zealand Institute* (2004) The Wealth of a Nation, Auckland.
- U.S. Department of Housing and Urban Development* (2004) U.S. Housing Market Conditions 4th quarter 2003, Office of Policy Development and Research, Washington.
- Wilcox, S* (2003) Can Work – Can't Buy: Local Measures of the Ability of Working Households to Become Homeowners. Joseph Rowntree Foundation, York.

