

**1996 Census of
Population and Housing**

Perth
... A Social Atlas

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AUSTRALIAN BUREAU OF STATISTICS

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INQUIRIES

- For information about other ABS statistics and services, please refer to the back of this publication.
- For further information about these statistics, contact Graham Walker on Perth (08) 9360 5332.

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Introduction

ABOUT THIS ATLAS

This *Social Atlas* is one of a series of atlases of Australian capital cities. It contains maps illustrating a range of social, demographic and economic characteristics of the population of Perth using data collected in the 1996 Census of Population and Housing. A commentary accompanying each map briefly analyses these characteristics and highlights the main features.

The region mapped in this atlas comprises the urban areas of the Perth Statistical Division and the City of Mandurah. In the commentaries, this region has been referred to as the Perth–Mandurah region.

The number of people counted in the Perth–Mandurah region on census night, 6 August 1996, excluding overseas visitors, was 1,205,618.

ABOUT THE CENSUS

The 1996 Census of Population and Housing aimed at counting every person who spent census night, 6 August, in Australia. This included people in private dwellings, non-private dwellings, camping out, on vessels in or between Australian ports, and on overnight transport. All people, including visitors and tourists, were counted where they actually spent census night, which may not have been where they usually lived.

All private dwellings were counted, whether occupied or unoccupied. Occupied non-private dwellings, such as hotels, motels, hospitals and prisons, were also included.

MAP TOPICS

A set of core topics has been selected from the characteristics of the population to enable comparability between atlases. In addition, some city-specific topics have been included in this atlas because of their particular relevance to the Perth–Mandurah region. These are: People born in the United Kingdom or Ireland, People born in Southern Europe, People born in Southeast Asia, People who work in the CBD and Occupancy ratio.

STATISTICAL BOUNDARIES

Topics are mapped by census collection districts (CDs), which are the smallest geographic areas used for collection and dissemination of census data. In towns and cities there are usually between 200 to 300 dwellings in each CD and where possible they have easily identified boundaries, such as streets and waterways.

CDs are the basic building blocks for the aggregation of statistics to larger areas, such as statistical local areas (SLAs) and local government areas (LGAs). As can be seen from the maps, CDs vary in shape and size.

LGAs are geographic areas under the responsibility of an incorporated local government council. In the Perth–Mandurah region, SLAs are the same as LGAs, except for the LGAs of Fremantle (C), Perth (C), Stirling (C) and Wanneroo (C), each of which comprises two or more SLAs. LGAs used in the Census were those current at 5 August 1995.


INTERPRETING THE MAPS

Each topic is mapped using different colours to represent different proportions of the mapped characteristic. With the exception of two topics, 'Population density' and 'Occupancy ratio', the maps express the various characteristics as a percentage of the relevant population; e.g., unemployed people as a percentage of the labour force. Population density shows the number of people per square kilometre and Occupancy ratio shows the average number of people per occupied private dwelling.

MAP SYMBOLS

Maps are oriented conventionally with north to the top of the page, and each map is accompanied by a legend showing the colour and values for each class of the mapped data. CDs containing less than 50 people have been left unshaded.






The maps show major roads, selected coastline and CD boundaries. The following symbols are used on the maps:

	CD boundary
	Coastline
	Major roads

Topographic data are provided under an agreement with the Public Sector Mapping Agencies.

MAP LEGEND

The map legend identifies the colours used to shade each class on a map e.g.

Per cent	
	30 or more
	22 – 30
	15 – 22
	9 – 15
	Less than 9

Although the value '15' is shown on the legend twice, any region with this value for the mapped attribute falls into one class only. The class '15 – 22', for example, will include all values from and including 15 and up to but not including 22. However, for simplicity, the ranges are shown as '15 – 22', '22 – 30' and so on.

CLASS INTERVAL SELECTION

Selecting appropriate class intervals for each map is a key aspect of representing statistical data. For each map, five classes have been used so that the reader is able to distinguish each class clearly. Class intervals which reflect the distribution of the data were calculated using the Dalenius-Hodges algorithm¹. The aim of this clustering algorithm is to group CDs with similar values in the same class.

NON-RESIDENTIAL AND FARM LAND

No distinction has been drawn between residential land and non-residential and farm land within a CD. The census data are assumed to be homogeneous, or evenly spread, across the entire CD, even across large parklands and industrial estates, etc.

REFERENCE MAPS

Reference maps are also included with this atlas showing:

- selected locations noted in the text accompanying the maps (p. 41);
- SLAs in relation to the mapped area (p. 42–43); and
- Postal Areas based on CD boundaries (p. 44).

These may be photocopied to produce overlays to be placed on the CD-based maps.

Translucent tracing paper is recommended for this purpose rather than transparent film as it is easier to identify selected areas.

¹ T. Dalenius & J. L. Hodges, Jr, 'Minimum variance stratification', *Journal of the American Statistical Association*, vol. 54, 1959, pp. 88–101.

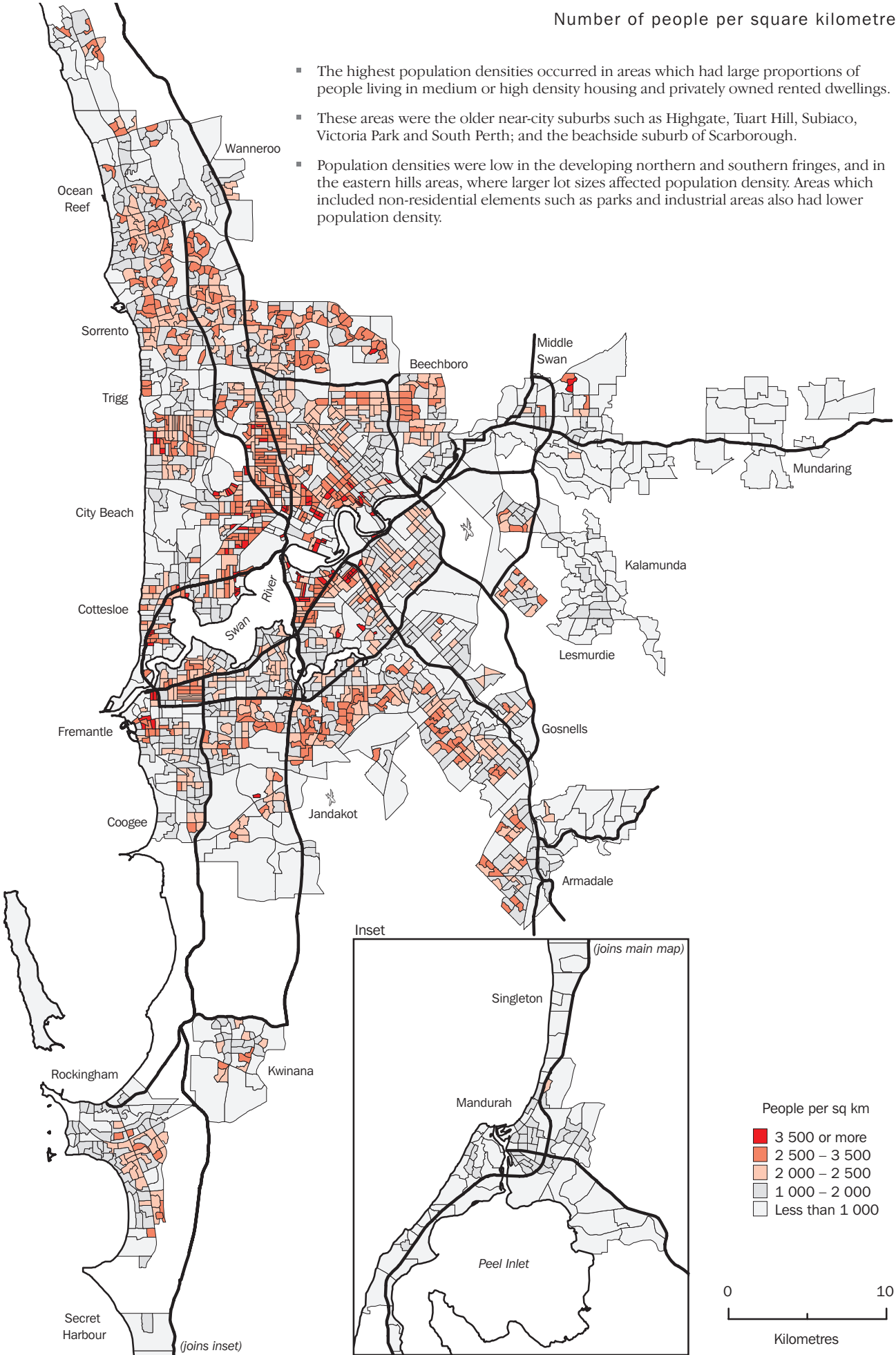
COMPARABILITY WITH 1991 ATLAS

DINKs	The definition of DINKs is the same as that for 1991 with the exception that the younger partner of the couple must be less than 40 years old. In 1991 the female partner had to be less than 36 years old.
Family relationships	There have been several changes to the classification of family relationships (including dependent children). For further information consult the <i>1996 and 1991 Census Dictionary</i> (Cat. no. 2901.0) or contact the ABS.
Income	Additional categories were included in the 1996 Census for nil and negative incomes. For purposes of aggregation to household income, negative income is given a value of zero.
One parent families	The map relating to one parent families excludes those families with non-dependent children only. These families were included in this topic in 1991.
Overseas visitors	There were 9,781 overseas visitors counted in the mapped area on census night. These people have been excluded from all maps except for the 'Population change' map. Overseas visitors were included in previous atlases.
Private dwellings	Self-care units in retirement villages and manufactured homes on estates are classified as private dwellings. These were treated as non-private dwellings in previous censuses.
Qualifications	Qualifications maps refer to people in the labour force. In 1991 these maps related to the population aged 15 years and over.

Population density

Number of people per square kilometre

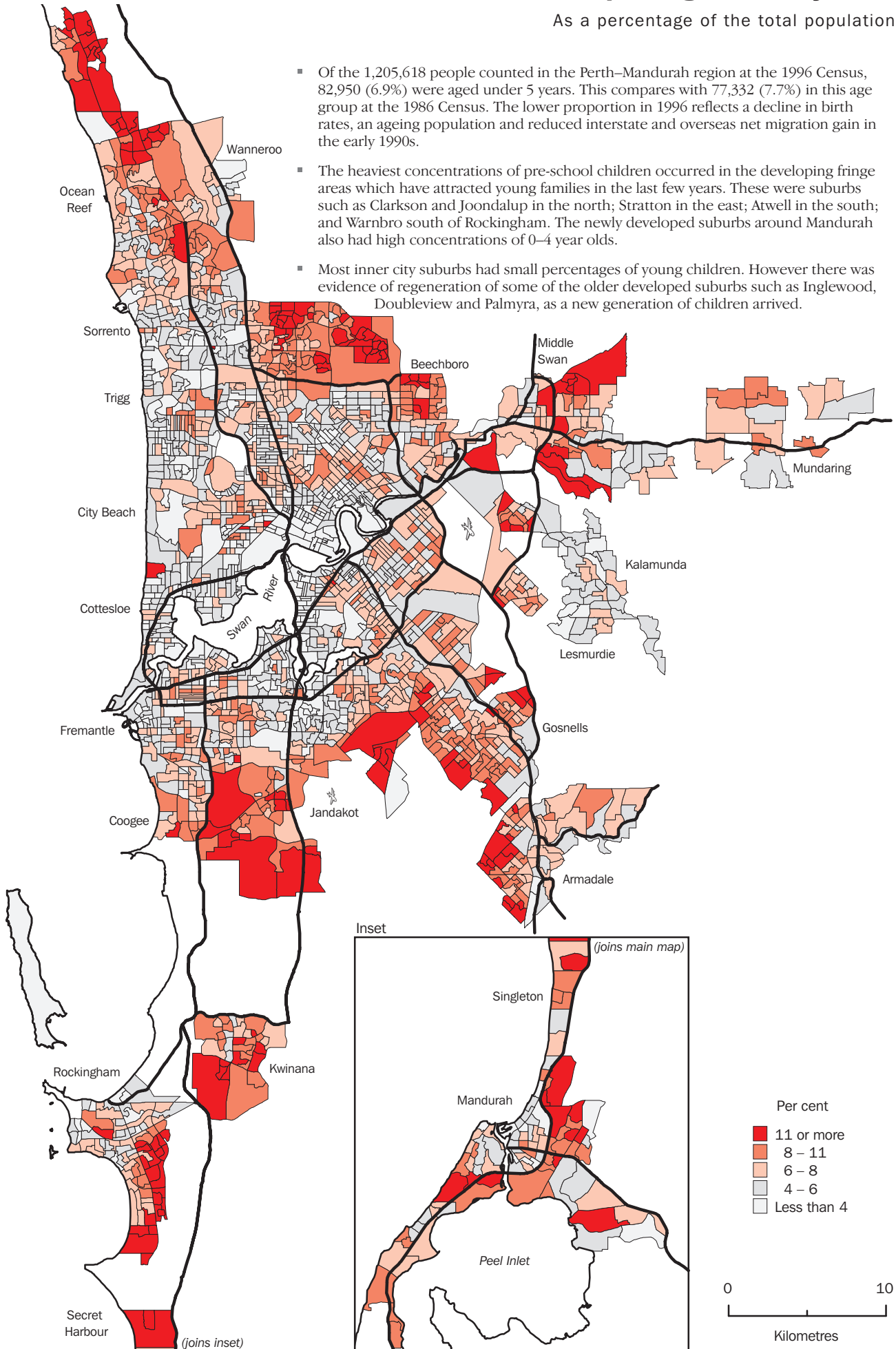
- The highest population densities occurred in areas which had large proportions of people living in medium or high density housing and privately owned rented dwellings.
- These areas were the older near-city suburbs such as Highgate, Tuart Hill, Subiaco, Victoria Park and South Perth; and the beachside suburb of Scarborough.
- Population densities were low in the developing northern and southern fringes, and in the eastern hills areas, where larger lot sizes affected population density. Areas which included non-residential elements such as parks and industrial areas also had lower population density.



People aged 0–4 years

As a percentage of the total population

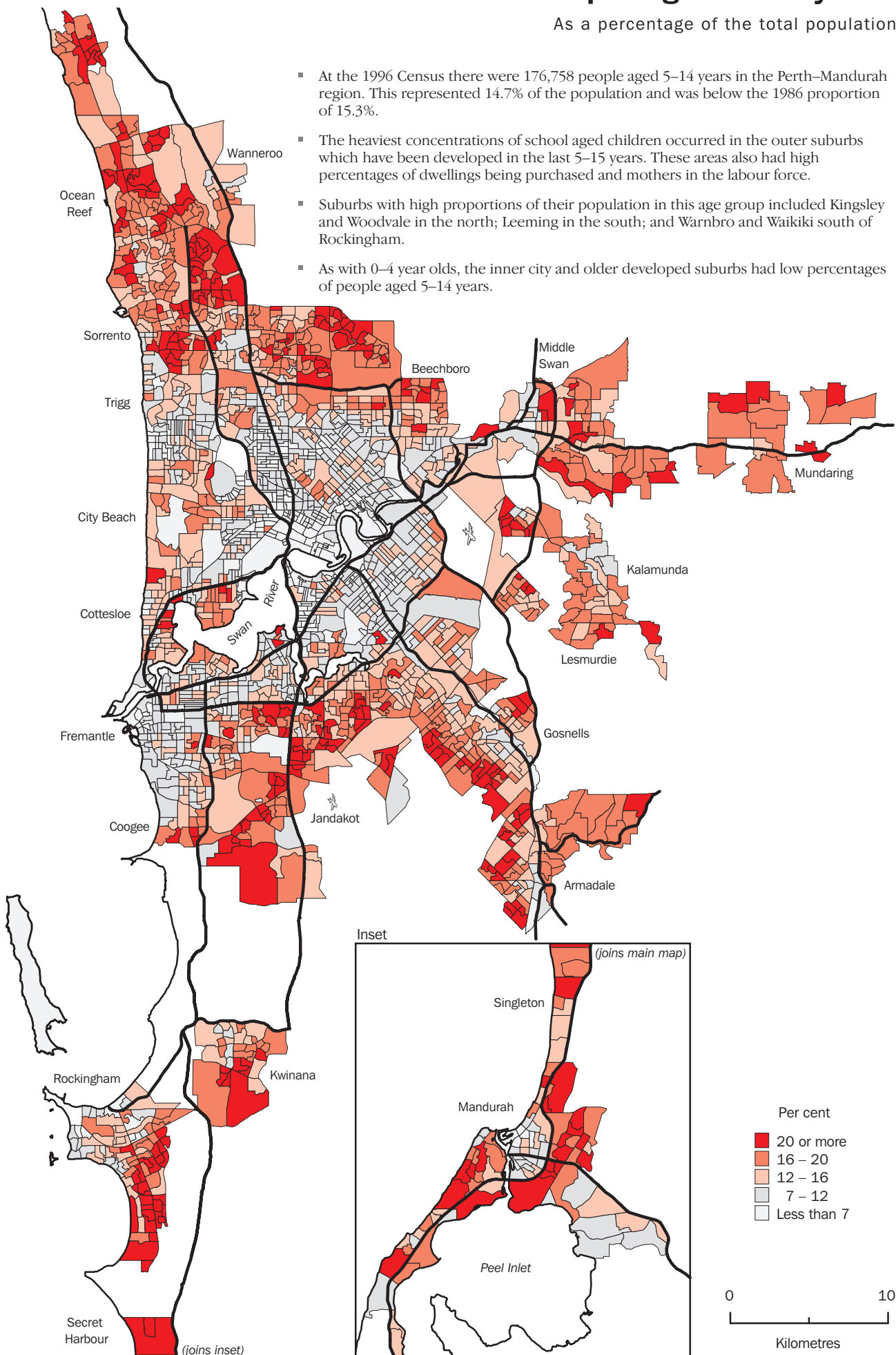
- Of the 1,205,618 people counted in the Perth–Mandurah region at the 1996 Census, 82,950 (6.9%) were aged under 5 years. This compares with 77,332 (7.7%) in this age group at the 1986 Census. The lower proportion in 1996 reflects a decline in birth rates, an ageing population and reduced interstate and overseas net migration gain in the early 1990s.
- The heaviest concentrations of pre-school children occurred in the developing fringe areas which have attracted young families in the last few years. These were suburbs such as Clarkson and Joondalup in the north; Stratton in the east; Atwell in the south; and Warnbro south of Rockingham. The newly developed suburbs around Mandurah also had high concentrations of 0–4 year olds.
- Most inner city suburbs had small percentages of young children. However there was evidence of regeneration of some of the older developed suburbs such as Inglewood, Doubleview and Palmyra, as a new generation of children arrived.



People aged 5–14 years

As a percentage of the total population

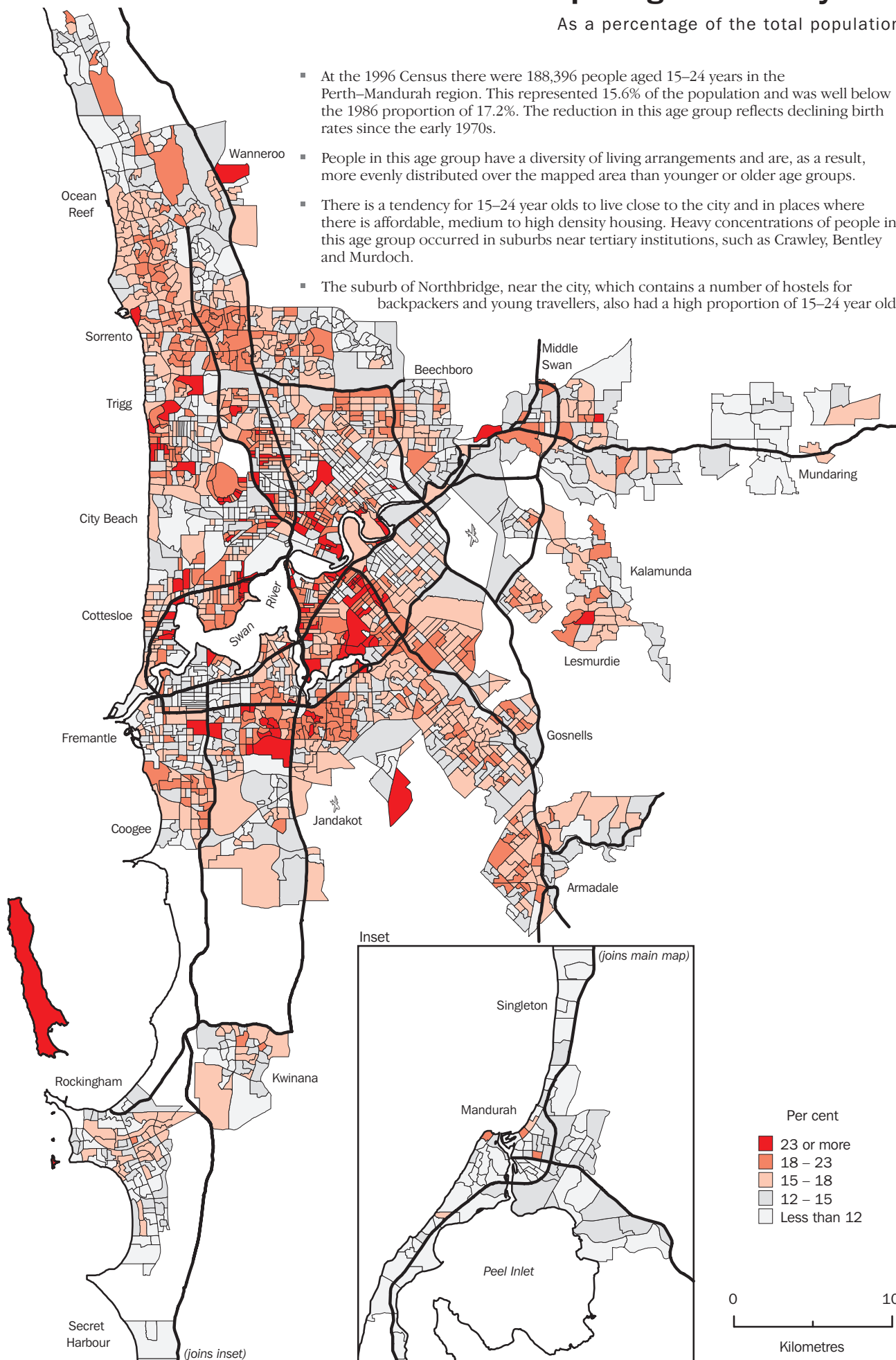
- At the 1996 Census there were 176,758 people aged 5–14 years in the Perth–Mandurah region. This represented 14.7% of the population and was below the 1986 proportion of 15.3%.
- The heaviest concentrations of school aged children occurred in the outer suburbs which have been developed in the last 5–15 years. These areas also had high percentages of dwellings being purchased and mothers in the labour force.
- Suburbs with high proportions of their population in this age group included Kingsley and Woodvale in the north; Leeming in the south; and Warnbro and Waikiki south of Rockingham.
- As with 0–4 year olds, the inner city and older developed suburbs had low percentages of people aged 5–14 years.



People aged 15–24 years

As a percentage of the total population

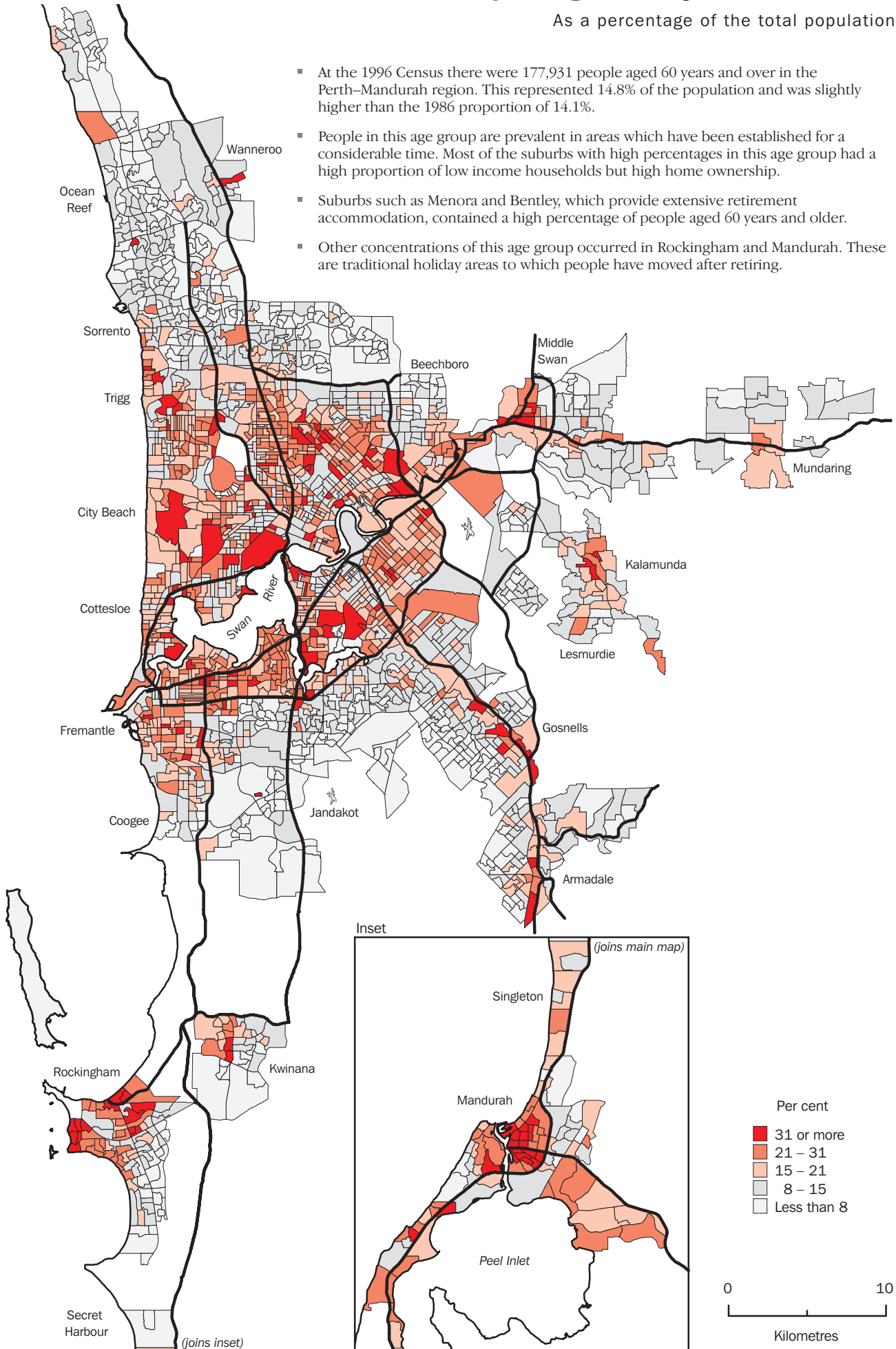
- At the 1996 Census there were 188,396 people aged 15–24 years in the Perth–Mandurah region. This represented 15.6% of the population and was well below the 1986 proportion of 17.2%. The reduction in this age group reflects declining birth rates since the early 1970s.
- People in this age group have a diversity of living arrangements and are, as a result, more evenly distributed over the mapped area than younger or older age groups.
- There is a tendency for 15–24 year olds to live close to the city and in places where there is affordable, medium to high density housing. Heavy concentrations of people in this age group occurred in suburbs near tertiary institutions, such as Crawley, Bentley and Murdoch.
- The suburb of Northbridge, near the city, which contains a number of hostels for backpackers and young travellers, also had a high proportion of 15–24 year olds.



People aged 60 years or older

As a percentage of the total population

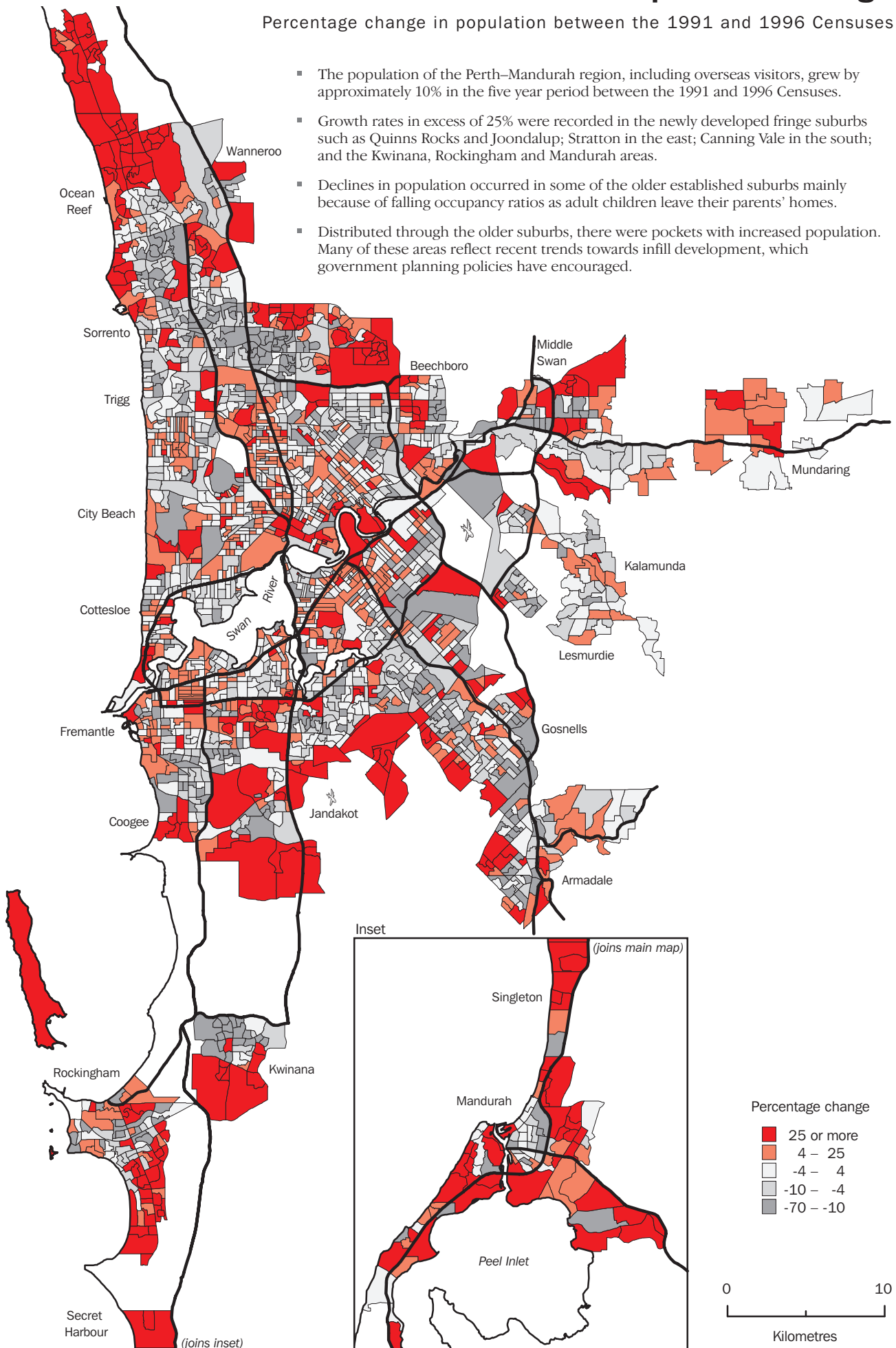
- At the 1996 Census there were 177,931 people aged 60 years and over in the Perth–Mandurah region. This represented 14.8% of the population and was slightly higher than the 1986 proportion of 14.1%.
- People in this age group are prevalent in areas which have been established for a considerable time. Most of the suburbs with high percentages in this age group had a high proportion of low income households but high home ownership.
- Suburbs such as Menora and Bentley, which provide extensive retirement accommodation, contained a high percentage of people aged 60 years and older.
- Other concentrations of this age group occurred in Rockingham and Mandurah. These are traditional holiday areas to which people have moved after retiring.



Population change

Percentage change in population between the 1991 and 1996 Censuses

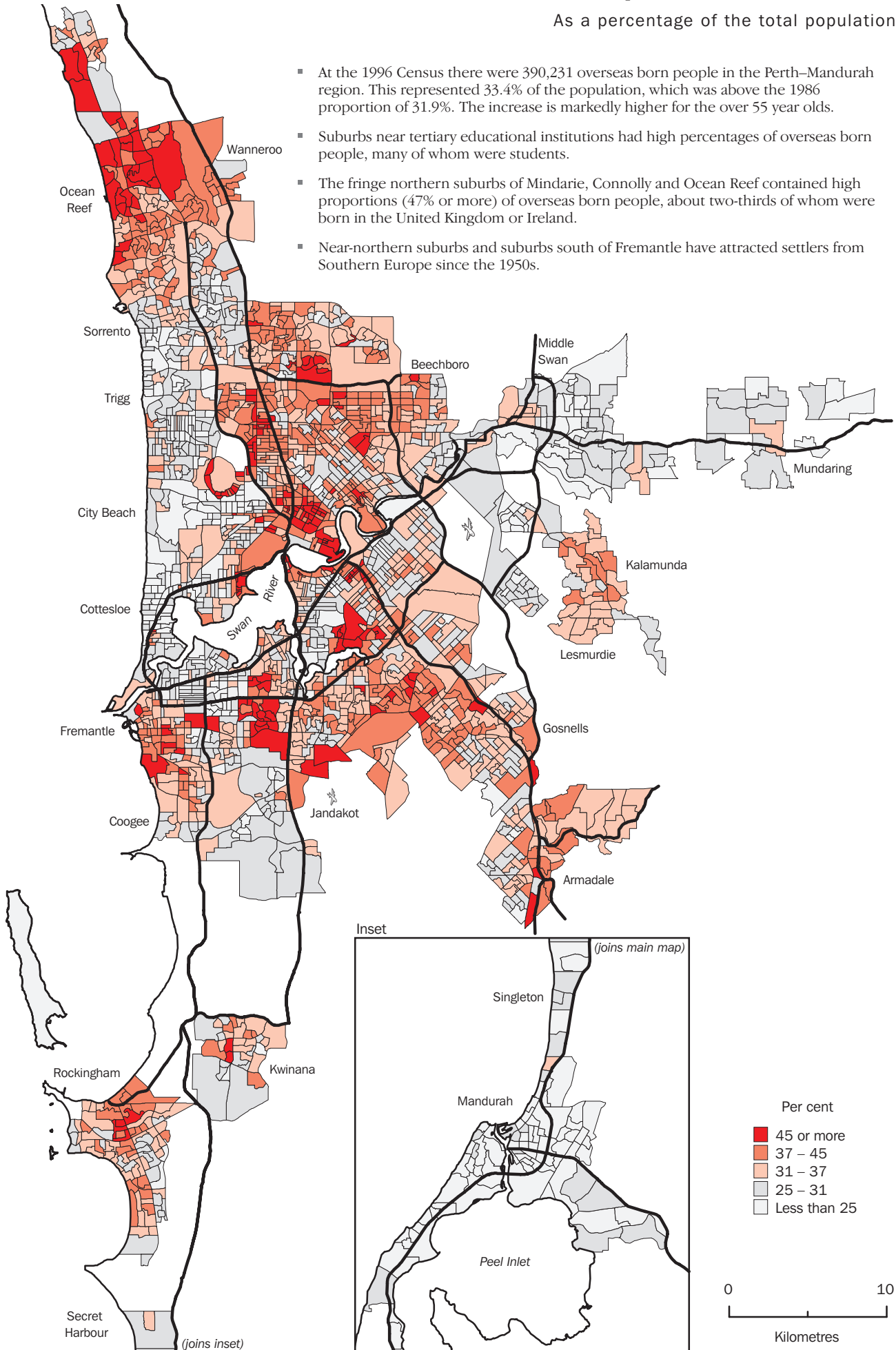
- The population of the Perth–Mandurah region, including overseas visitors, grew by approximately 10% in the five year period between the 1991 and 1996 Censuses.
- Growth rates in excess of 25% were recorded in the newly developed fringe suburbs such as Quinns Rocks and Joondalup; Stratton in the east; Canning Vale in the south; and the Kwinana, Rockingham and Mandurah areas.
- Declines in population occurred in some of the older established suburbs mainly because of falling occupancy ratios as adult children leave their parents' homes.
- Distributed through the older suburbs, there were pockets with increased population. Many of these areas reflect recent trends towards infill development, which government planning policies have encouraged.



People born overseas

As a percentage of the total population

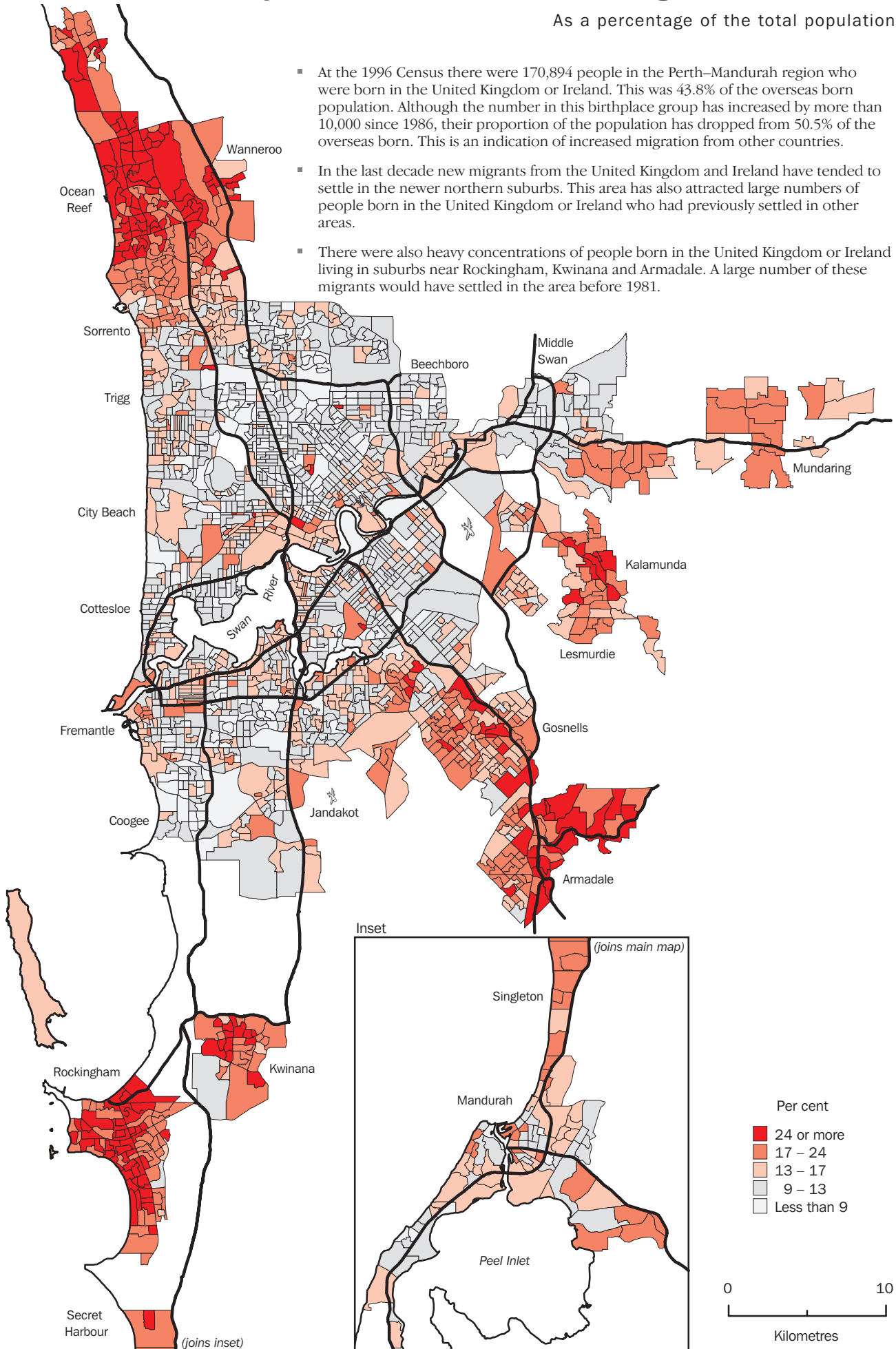
- At the 1996 Census there were 390,231 overseas born people in the Perth–Mandurah region. This represented 33.4% of the population, which was above the 1986 proportion of 31.9%. The increase is markedly higher for the over 55 year olds.
- Suburbs near tertiary educational institutions had high percentages of overseas born people, many of whom were students.
- The fringe northern suburbs of Mindarie, Connolly and Ocean Reef contained high proportions (47% or more) of overseas born people, about two-thirds of whom were born in the United Kingdom or Ireland.
- Near-northern suburbs and suburbs south of Fremantle have attracted settlers from Southern Europe since the 1950s.



People born in the United Kingdom or Ireland

As a percentage of the total population

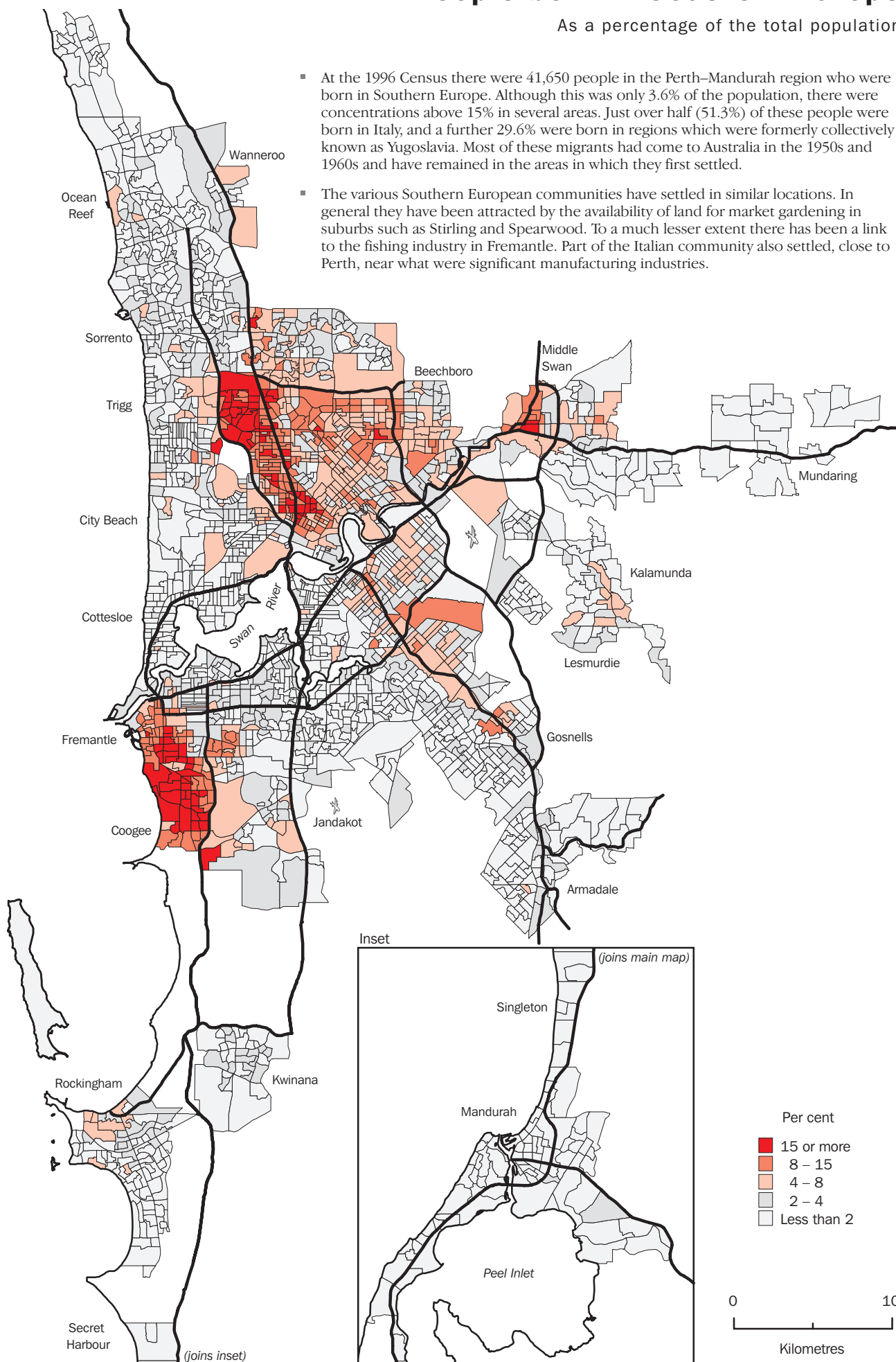
- At the 1996 Census there were 170,894 people in the Perth–Mandurah region who were born in the United Kingdom or Ireland. This was 43.8% of the overseas born population. Although the number in this birthplace group has increased by more than 10,000 since 1986, their proportion of the population has dropped from 50.5% of the overseas born. This is an indication of increased migration from other countries.
- In the last decade new migrants from the United Kingdom and Ireland have tended to settle in the newer northern suburbs. This area has also attracted large numbers of people born in the United Kingdom or Ireland who had previously settled in other areas.
- There were also heavy concentrations of people born in the United Kingdom or Ireland living in suburbs near Rockingham, Kwinana and Armadale. A large number of these migrants would have settled in the area before 1981.



People born in Southern Europe

As a percentage of the total population

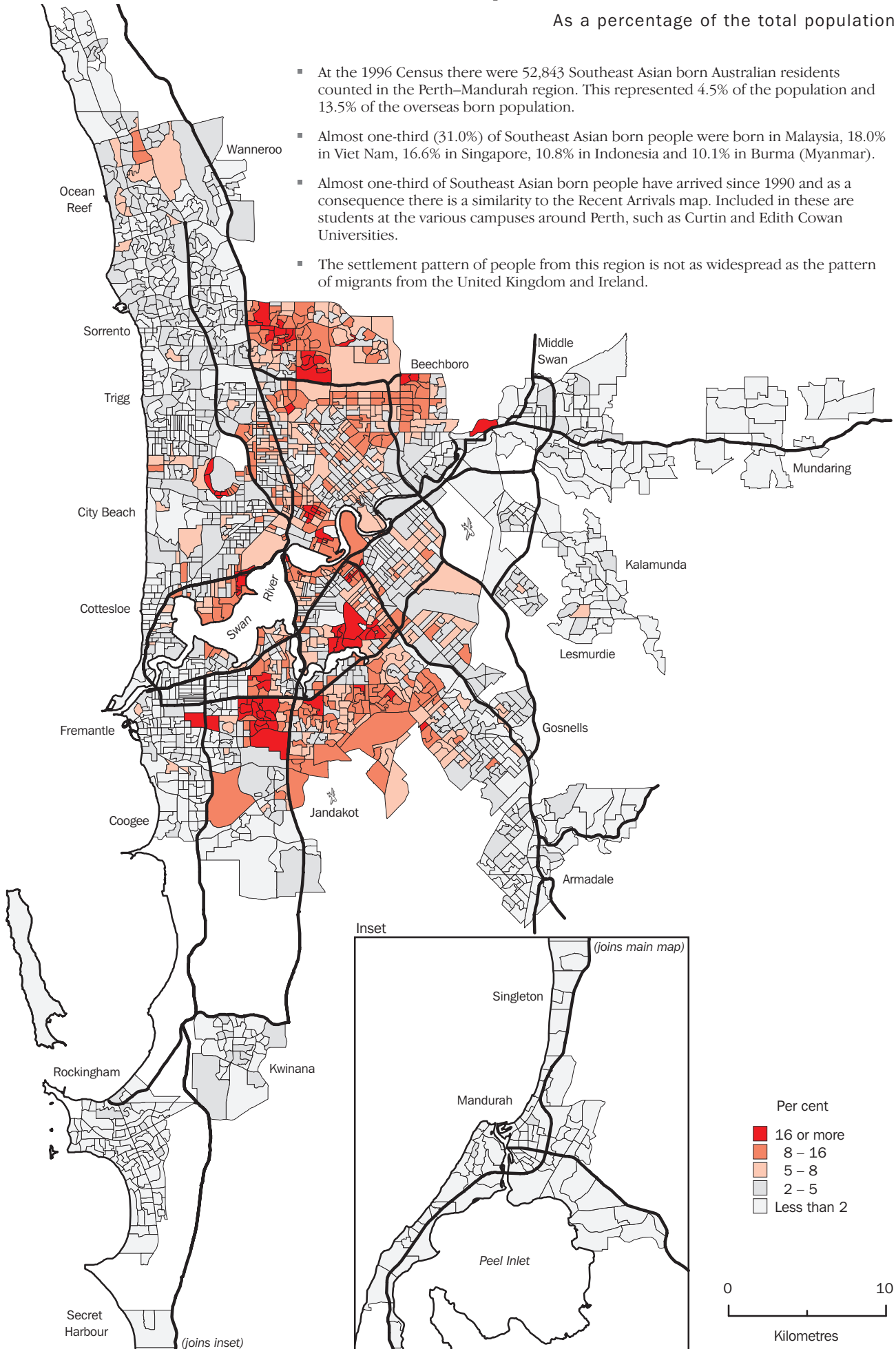
- At the 1996 Census there were 41,650 people in the Perth–Mandurah region who were born in Southern Europe. Although this was only 3.6% of the population, there were concentrations above 15% in several areas. Just over half (51.3%) of these people were born in Italy, and a further 29.6% were born in regions which were formerly collectively known as Yugoslavia. Most of these migrants had come to Australia in the 1950s and 1960s and have remained in the areas in which they first settled.
- The various Southern European communities have settled in similar locations. In general they have been attracted by the availability of land for market gardening in suburbs such as Stirling and Spearwood. To a much lesser extent there has been a link to the fishing industry in Fremantle. Part of the Italian community also settled, close to Perth, near what were significant manufacturing industries.



People born in Southeast Asia

As a percentage of the total population

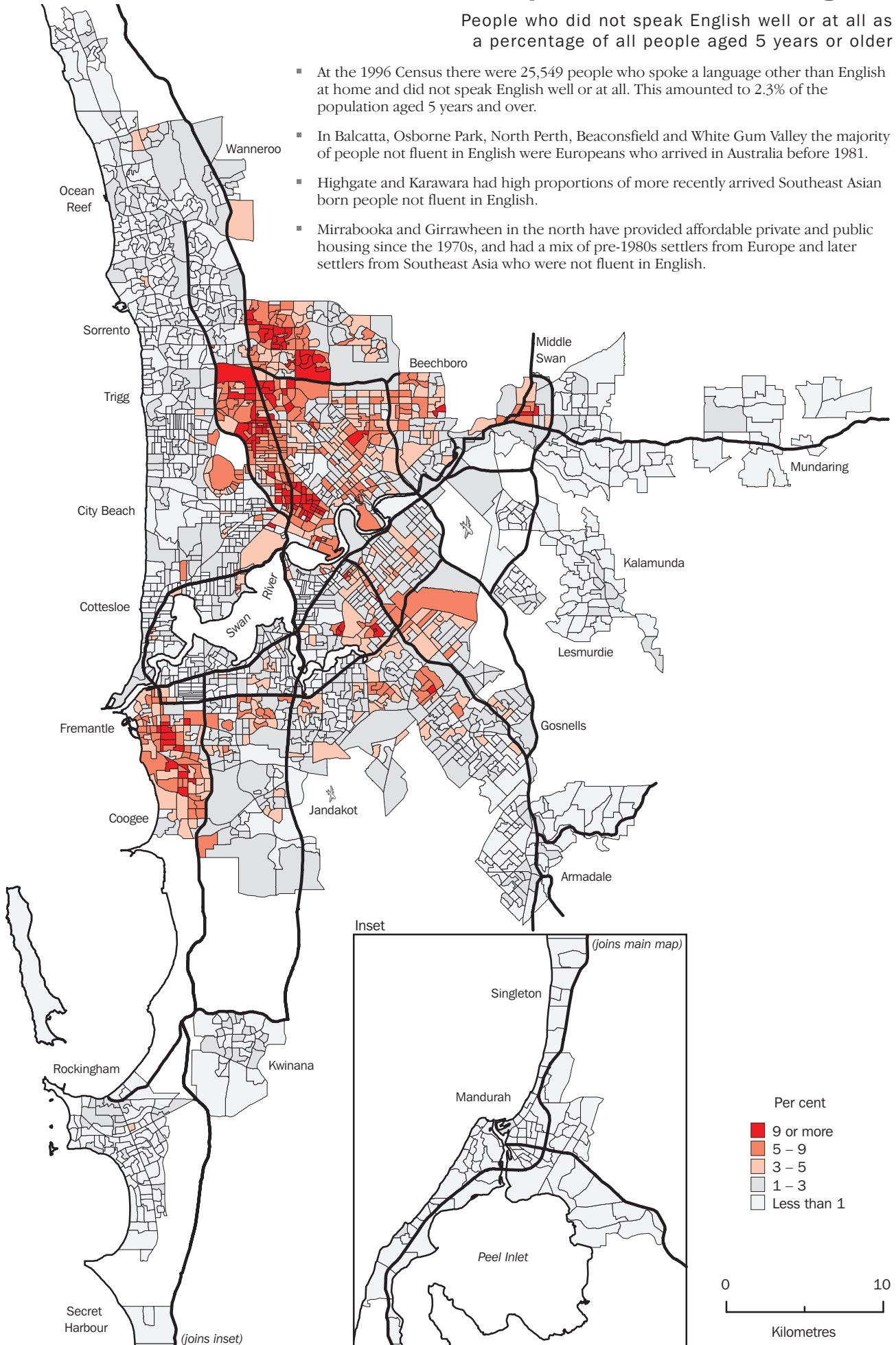
- At the 1996 Census there were 52,843 Southeast Asian born Australian residents counted in the Perth–Mandurah region. This represented 4.5% of the population and 13.5% of the overseas born population.
- Almost one-third (31.0%) of Southeast Asian born people were born in Malaysia, 18.0% in Viet Nam, 16.6% in Singapore, 10.8% in Indonesia and 10.1% in Burma (Myanmar).
- Almost one-third of Southeast Asian born people have arrived since 1990 and as a consequence there is a similarity to the Recent Arrivals map. Included in these are students at the various campuses around Perth, such as Curtin and Edith Cowan Universities.
- The settlement pattern of people from this region is not as widespread as the pattern of migrants from the United Kingdom and Ireland.



People not fluent in English

People who did not speak English well or at all as a percentage of all people aged 5 years or older

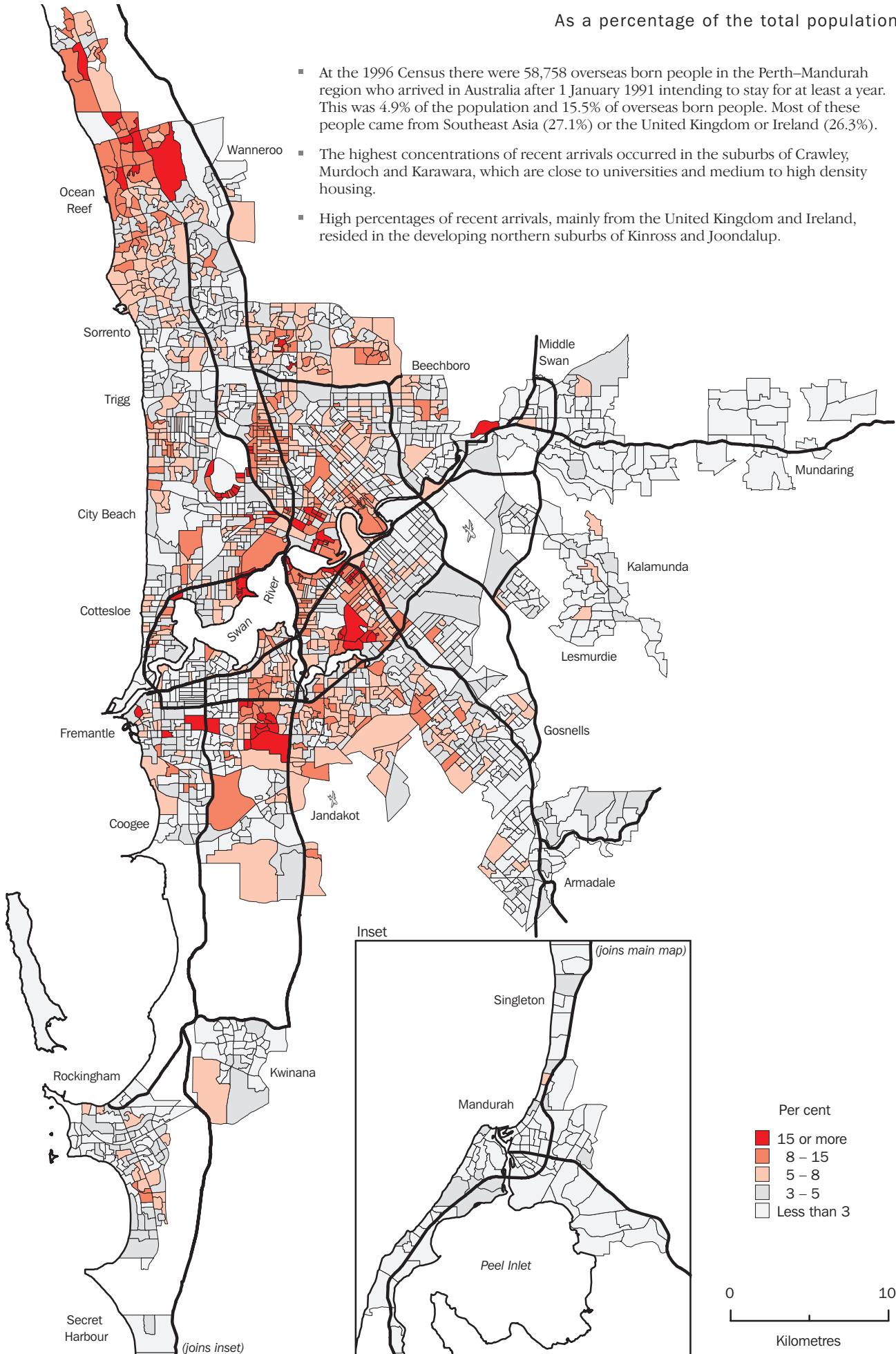
- At the 1996 Census there were 25,549 people who spoke a language other than English at home and did not speak English well or at all. This amounted to 2.3% of the population aged 5 years and over.
- In Balcatta, Osborne Park, North Perth, Beaconsfield and White Gum Valley the majority of people not fluent in English were Europeans who arrived in Australia before 1981.
- Highgate and Karawara had high proportions of more recently arrived Southeast Asian born people not fluent in English.
- Mirrabooka and Girrawheen in the north have provided affordable private and public housing since the 1970s, and had a mix of pre-1980s settlers from Europe and later settlers from Southeast Asia who were not fluent in English.



Recent arrivals

As a percentage of the total population

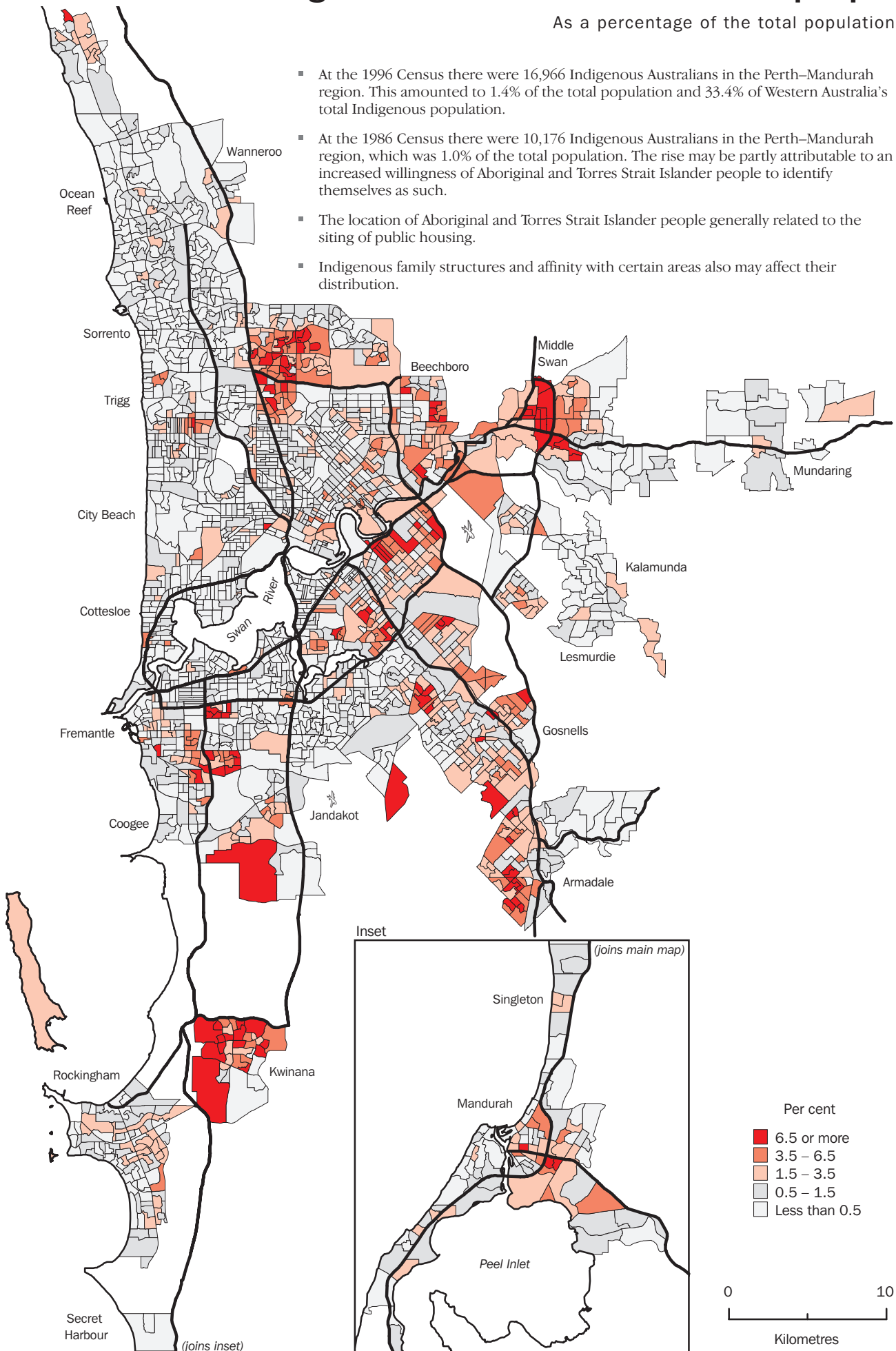
- At the 1996 Census there were 58,758 overseas born people in the Perth–Mandurah region who arrived in Australia after 1 January 1991 intending to stay for at least a year. This was 4.9% of the population and 15.5% of overseas born people. Most of these people came from Southeast Asia (27.1%) or the United Kingdom or Ireland (26.3%).
- The highest concentrations of recent arrivals occurred in the suburbs of Crawley, Murdoch and Karawara, which are close to universities and medium to high density housing.
- High percentages of recent arrivals, mainly from the United Kingdom and Ireland, resided in the developing northern suburbs of Kinross and Joondalup.



Aboriginal and Torres Strait Islander people

As a percentage of the total population

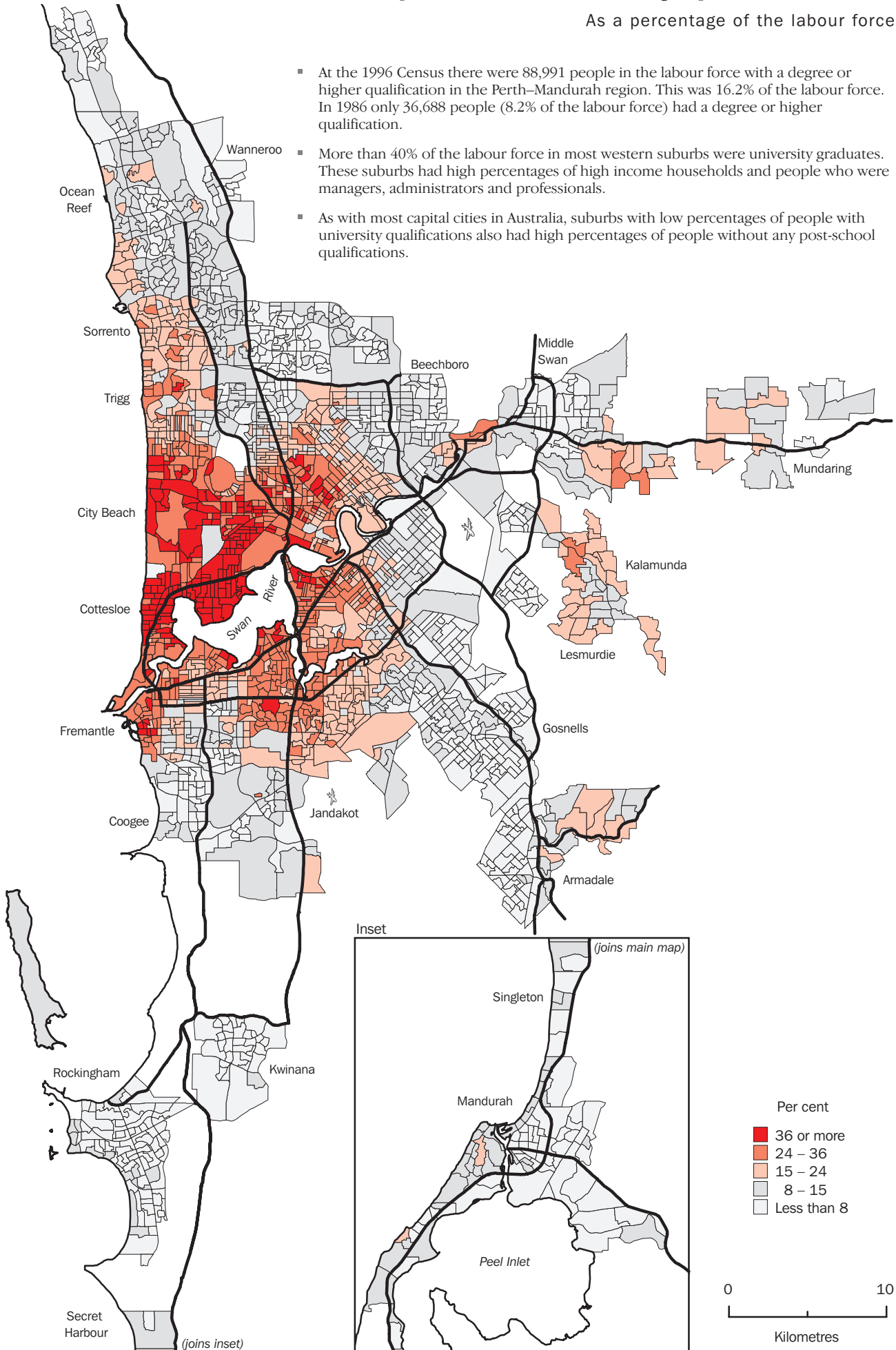
- At the 1996 Census there were 16,966 Indigenous Australians in the Perth–Mandurah region. This amounted to 1.4% of the total population and 33.4% of Western Australia's total Indigenous population.
- At the 1986 Census there were 10,176 Indigenous Australians in the Perth–Mandurah region, which was 1.0% of the total population. The rise may be partly attributable to an increased willingness of Aboriginal and Torres Strait Islander people to identify themselves as such.
- The location of Aboriginal and Torres Strait Islander people generally related to the siting of public housing.
- Indigenous family structures and affinity with certain areas also may affect their distribution.



People with university qualifications

As a percentage of the labour force

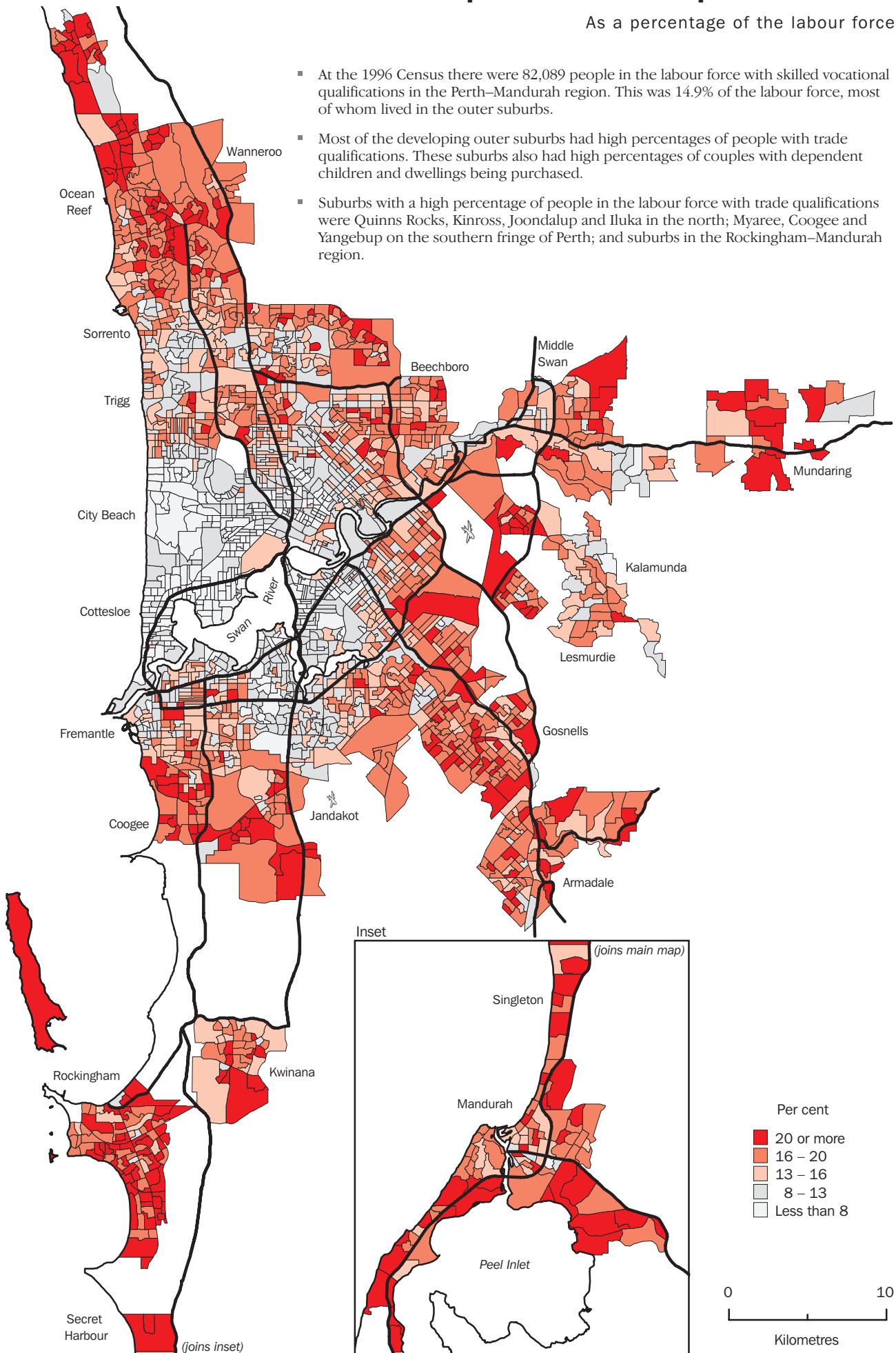
- At the 1996 Census there were 88,991 people in the labour force with a degree or higher qualification in the Perth–Mandurah region. This was 16.2% of the labour force. In 1986 only 36,688 people (8.2% of the labour force) had a degree or higher qualification.
- More than 40% of the labour force in most western suburbs were university graduates. These suburbs had high percentages of high income households and people who were managers, administrators and professionals.
- As with most capital cities in Australia, suburbs with low percentages of people with university qualifications also had high percentages of people without any post-school qualifications.



People with trade qualifications

As a percentage of the labour force

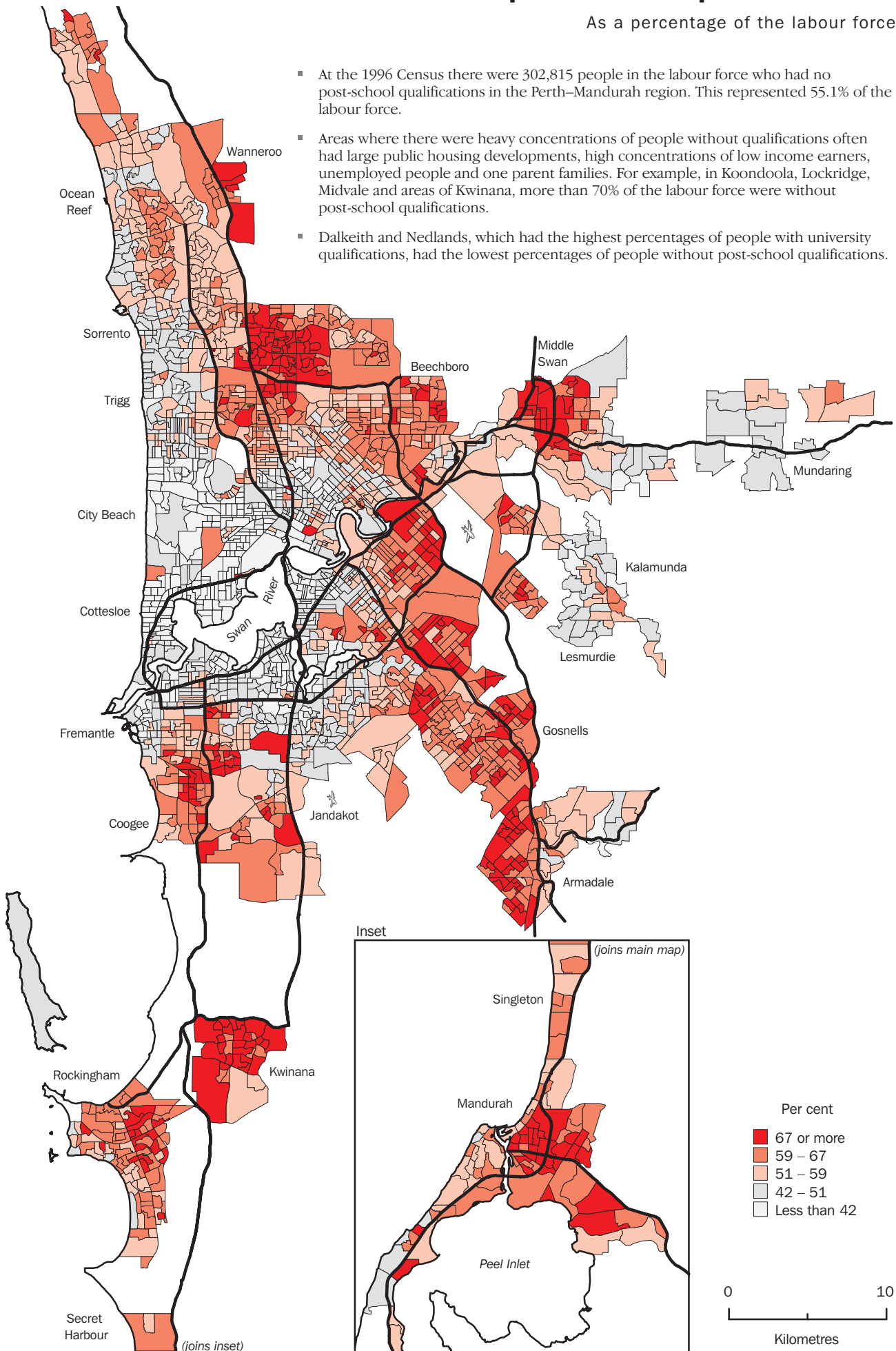
- At the 1996 Census there were 82,089 people in the labour force with skilled vocational qualifications in the Perth–Mandurah region. This was 14.9% of the labour force, most of whom lived in the outer suburbs.
- Most of the developing outer suburbs had high percentages of people with trade qualifications. These suburbs also had high percentages of couples with dependent children and dwellings being purchased.
- Suburbs with a high percentage of people in the labour force with trade qualifications were Quinns Rocks, Kinross, Joondalup and Iluka in the north; Myaree, Coogee and Yangebup on the southern fringe of Perth; and suburbs in the Rockingham–Mandurah region.



People without qualifications

As a percentage of the labour force

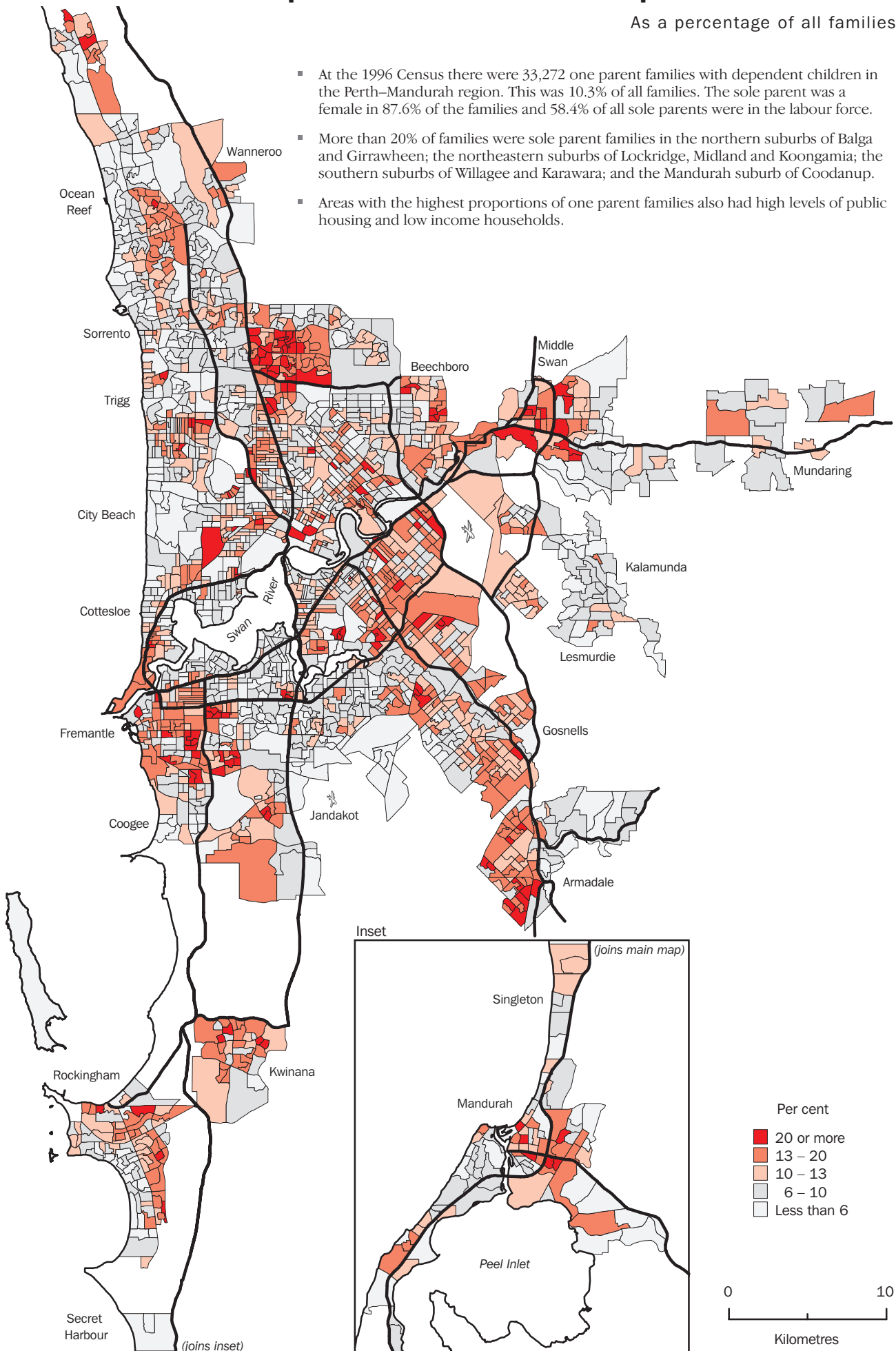
- At the 1996 Census there were 302,815 people in the labour force who had no post-school qualifications in the Perth–Mandurah region. This represented 55.1% of the labour force.
- Areas where there were heavy concentrations of people without qualifications often had large public housing developments, high concentrations of low income earners, unemployed people and one parent families. For example, in Koondoola, Lockridge, Midvale and areas of Kwinana, more than 70% of the labour force were without post-school qualifications.
- Dalkeith and Nedlands, which had the highest percentages of people with university qualifications, had the lowest percentages of people without post-school qualifications.



One parent families with dependent children

As a percentage of all families

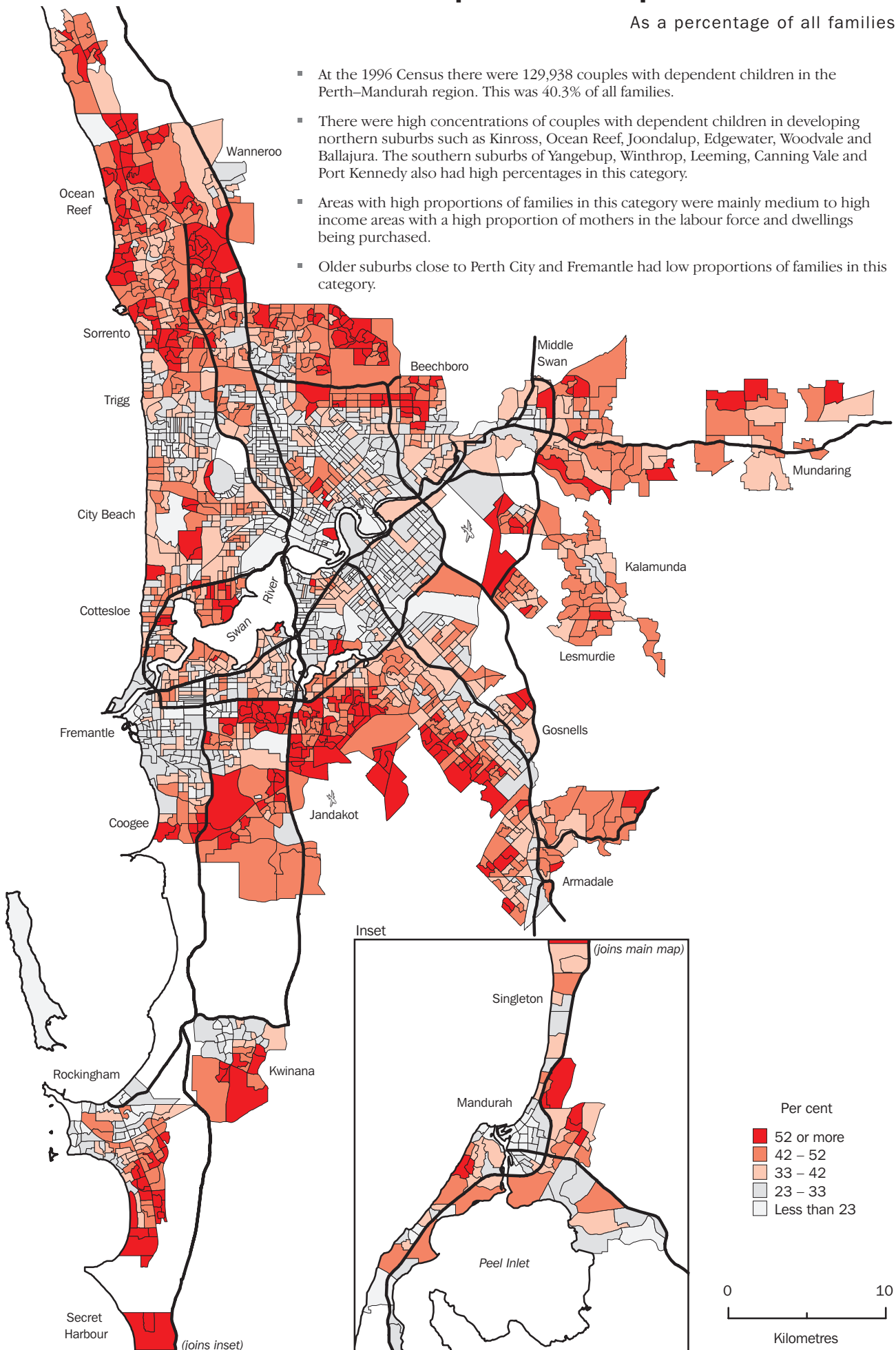
- At the 1996 Census there were 33,272 one parent families with dependent children in the Perth–Mandurah region. This was 10.3% of all families. The sole parent was a female in 87.6% of the families and 58.4% of all sole parents were in the labour force.
- More than 20% of families were sole parent families in the northern suburbs of Balga and Girrawheen; the northeastern suburbs of Lockridge, Midland and Koongamia; the southern suburbs of Willagee and Karawara; and the Mandurah suburb of Coodanup.
- Areas with the highest proportions of one parent families also had high levels of public housing and low income households.



Couples with dependent children

As a percentage of all families

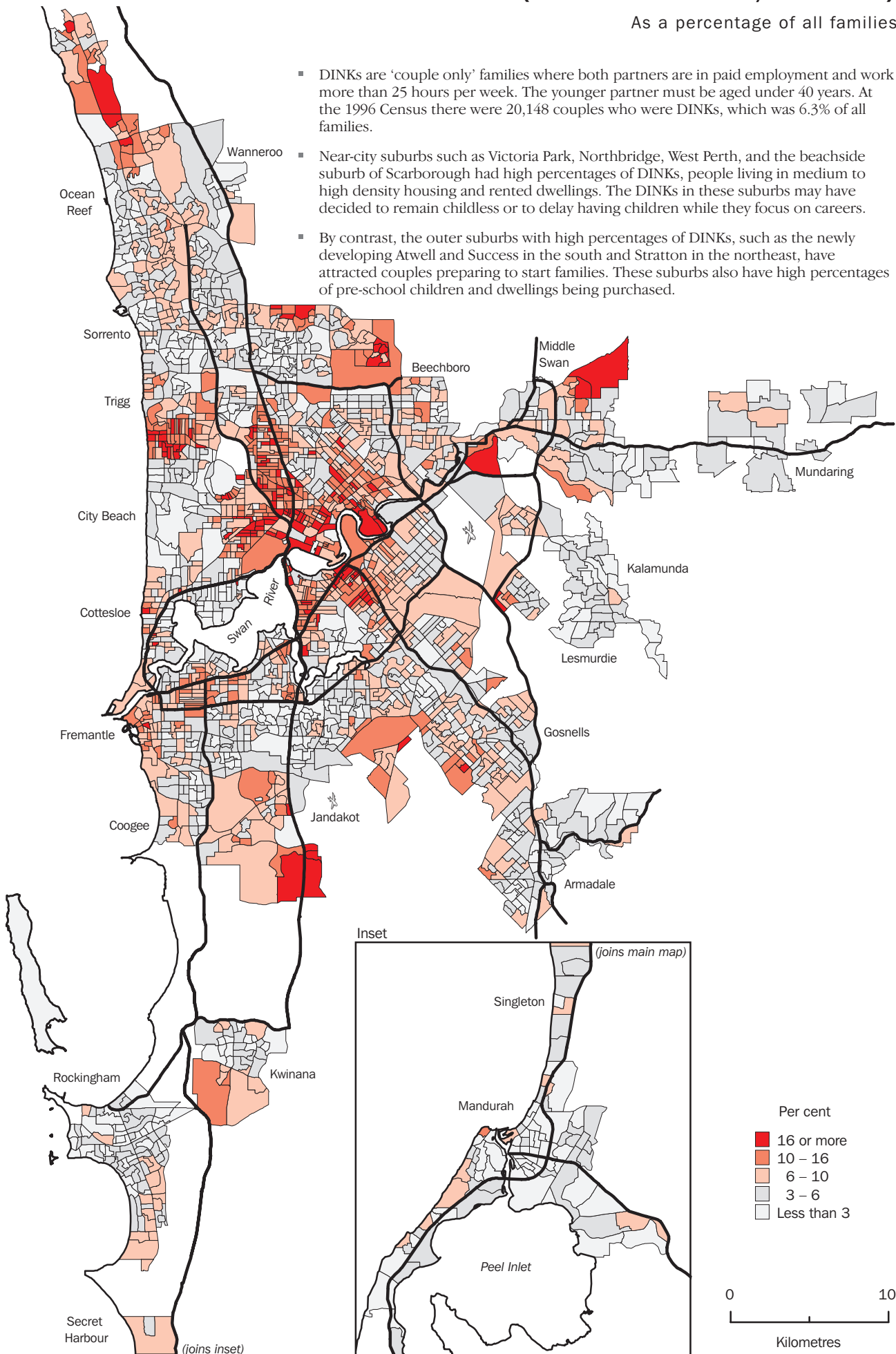
- At the 1996 Census there were 129,938 couples with dependent children in the Perth–Mandurah region. This was 40.3% of all families.
- There were high concentrations of couples with dependent children in developing northern suburbs such as Kinross, Ocean Reef, Joondalup, Edgewater, Woodvale and Ballajura. The southern suburbs of Yangebup, Winthrop, Leeming, Canning Vale and Port Kennedy also had high percentages in this category.
- Areas with high proportions of families in this category were mainly medium to high income areas with a high proportion of mothers in the labour force and dwellings being purchased.
- Older suburbs close to Perth City and Fremantle had low proportions of families in this category.



DINKs (double income, no kids)

As a percentage of all families

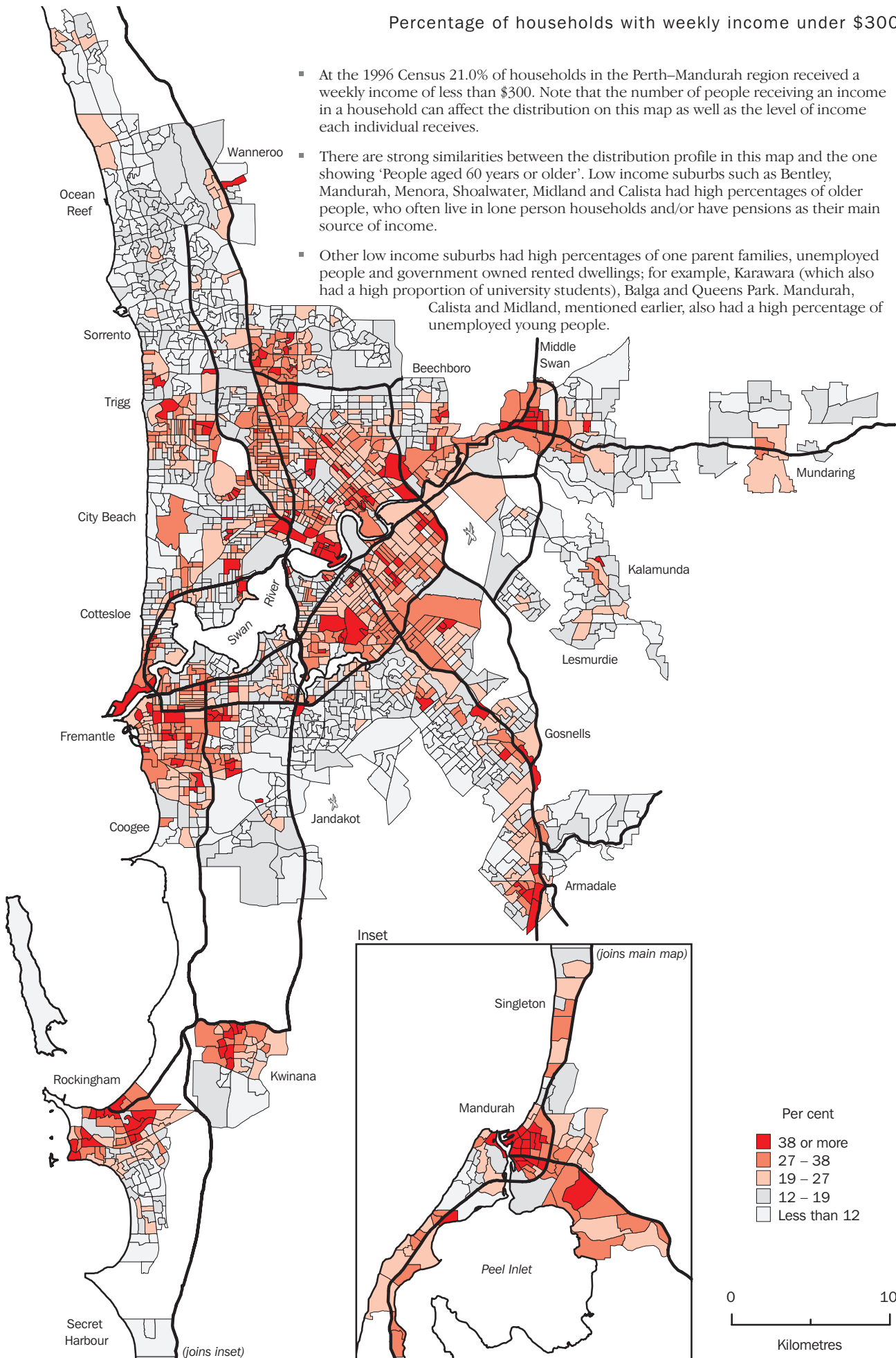
- DINKs are 'couple only' families where both partners are in paid employment and work more than 25 hours per week. The younger partner must be aged under 40 years. At the 1996 Census there were 20,148 couples who were DINKs, which was 6.3% of all families.
- Near-city suburbs such as Victoria Park, Northbridge, West Perth, and the beachside suburb of Scarborough had high percentages of DINKs, people living in medium to high density housing and rented dwellings. The DINKs in these suburbs may have decided to remain childless or to delay having children while they focus on careers.
- By contrast, the outer suburbs with high percentages of DINKs, such as the newly developing Atwell and Success in the south and Stratton in the northeast, have attracted couples preparing to start families. These suburbs also have high percentages of pre-school children and dwellings being purchased.



Low income households

Percentage of households with weekly income under \$300

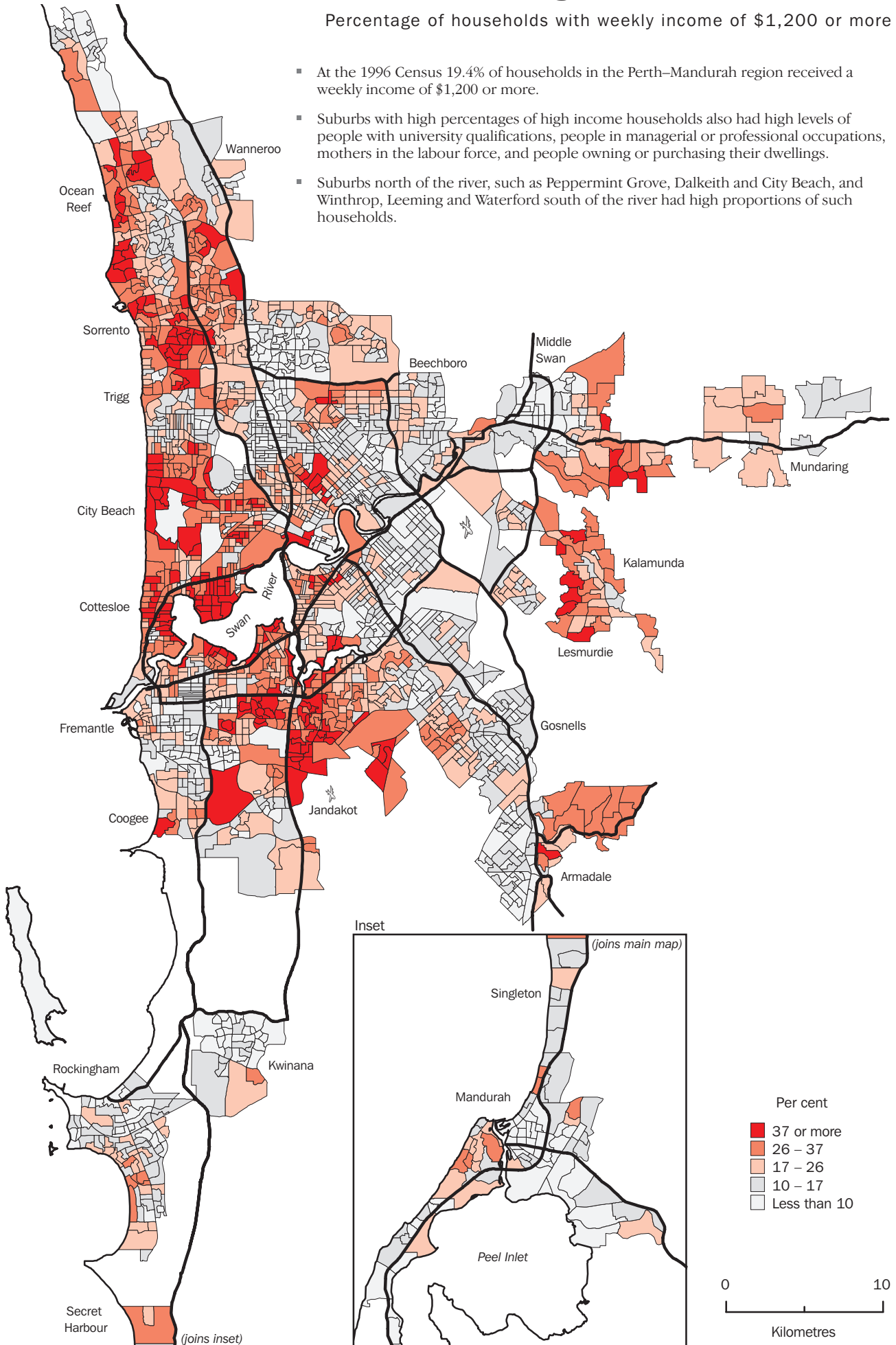
- At the 1996 Census 21.0% of households in the Perth–Mandurah region received a weekly income of less than \$300. Note that the number of people receiving an income in a household can affect the distribution on this map as well as the level of income each individual receives.
- There are strong similarities between the distribution profile in this map and the one showing 'People aged 60 years or older'. Low income suburbs such as Bentley, Mandurah, Menora, Shoalwater, Midland and Calista had high percentages of older people, who often live in lone person households and/or have pensions as their main source of income.
- Other low income suburbs had high percentages of one parent families, unemployed people and government owned rented dwellings; for example, Karawara (which also had a high proportion of university students), Balga and Queens Park. Mandurah, Calista and Midland, mentioned earlier, also had a high percentage of unemployed young people.



High income households

Percentage of households with weekly income of \$1,200 or more

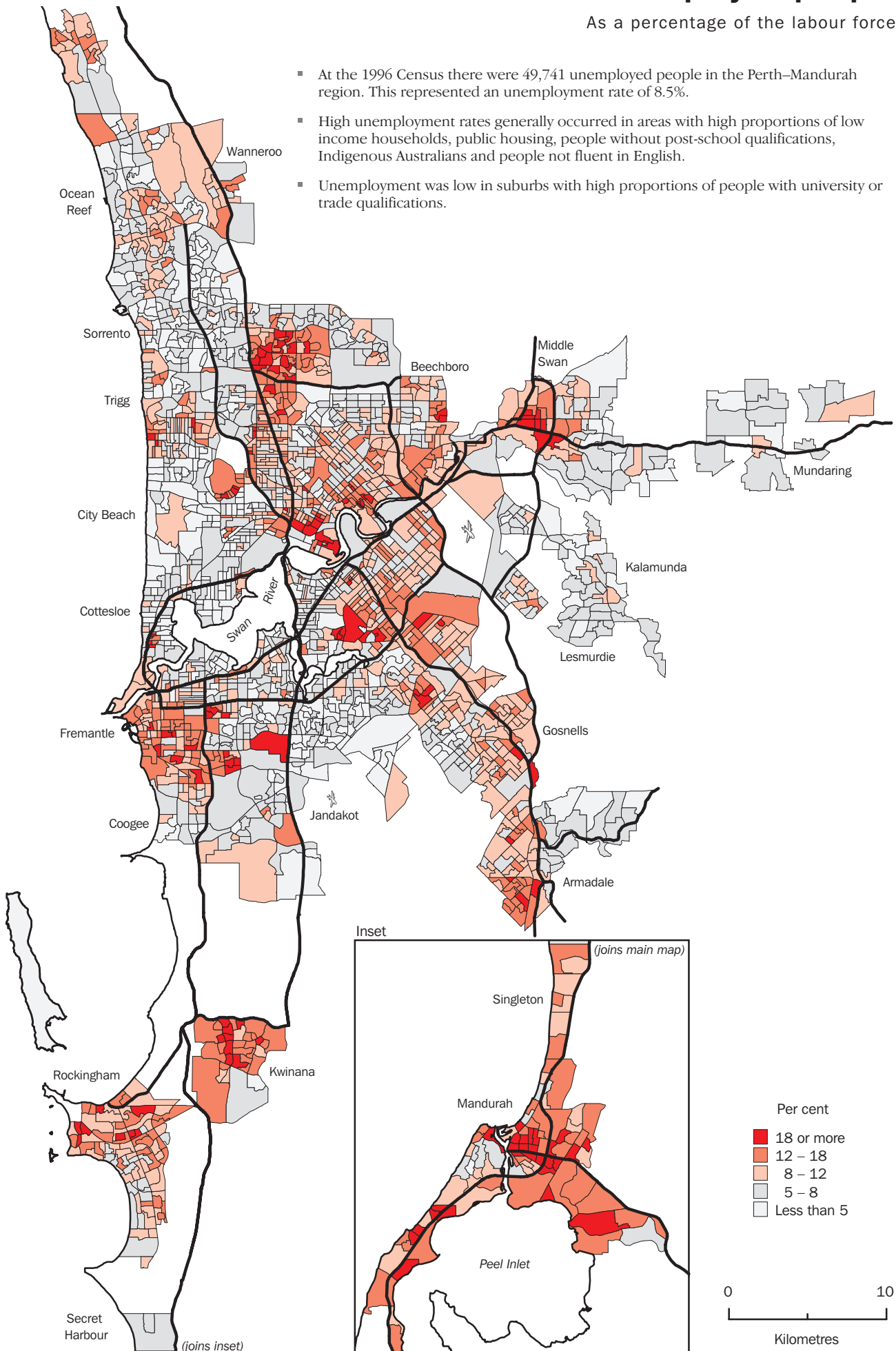
- At the 1996 Census 19.4% of households in the Perth–Mandurah region received a weekly income of \$1,200 or more.
- Suburbs with high percentages of high income households also had high levels of people with university qualifications, people in managerial or professional occupations, mothers in the labour force, and people owning or purchasing their dwellings.
- Suburbs north of the river, such as Peppermint Grove, Dalkeith and City Beach, and Winthrop, Leeming and Waterford south of the river had high proportions of such households.



Unemployed people

As a percentage of the labour force

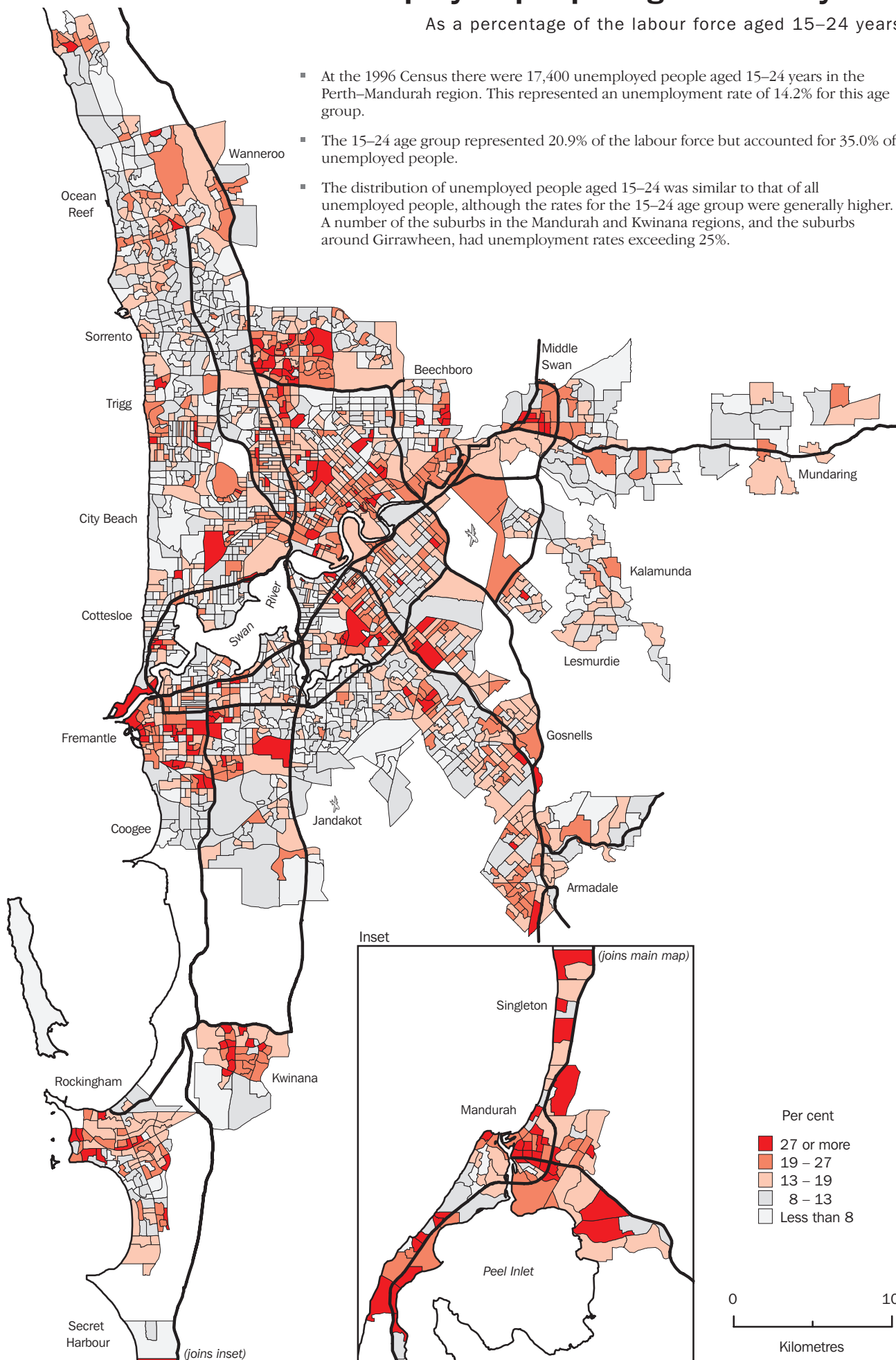
- At the 1996 Census there were 49,741 unemployed people in the Perth–Mandurah region. This represented an unemployment rate of 8.5%.
- High unemployment rates generally occurred in areas with high proportions of low income households, public housing, people without post-school qualifications, Indigenous Australians and people not fluent in English.
- Unemployment was low in suburbs with high proportions of people with university or trade qualifications.



Unemployed people aged 15–24 years

As a percentage of the labour force aged 15–24 years

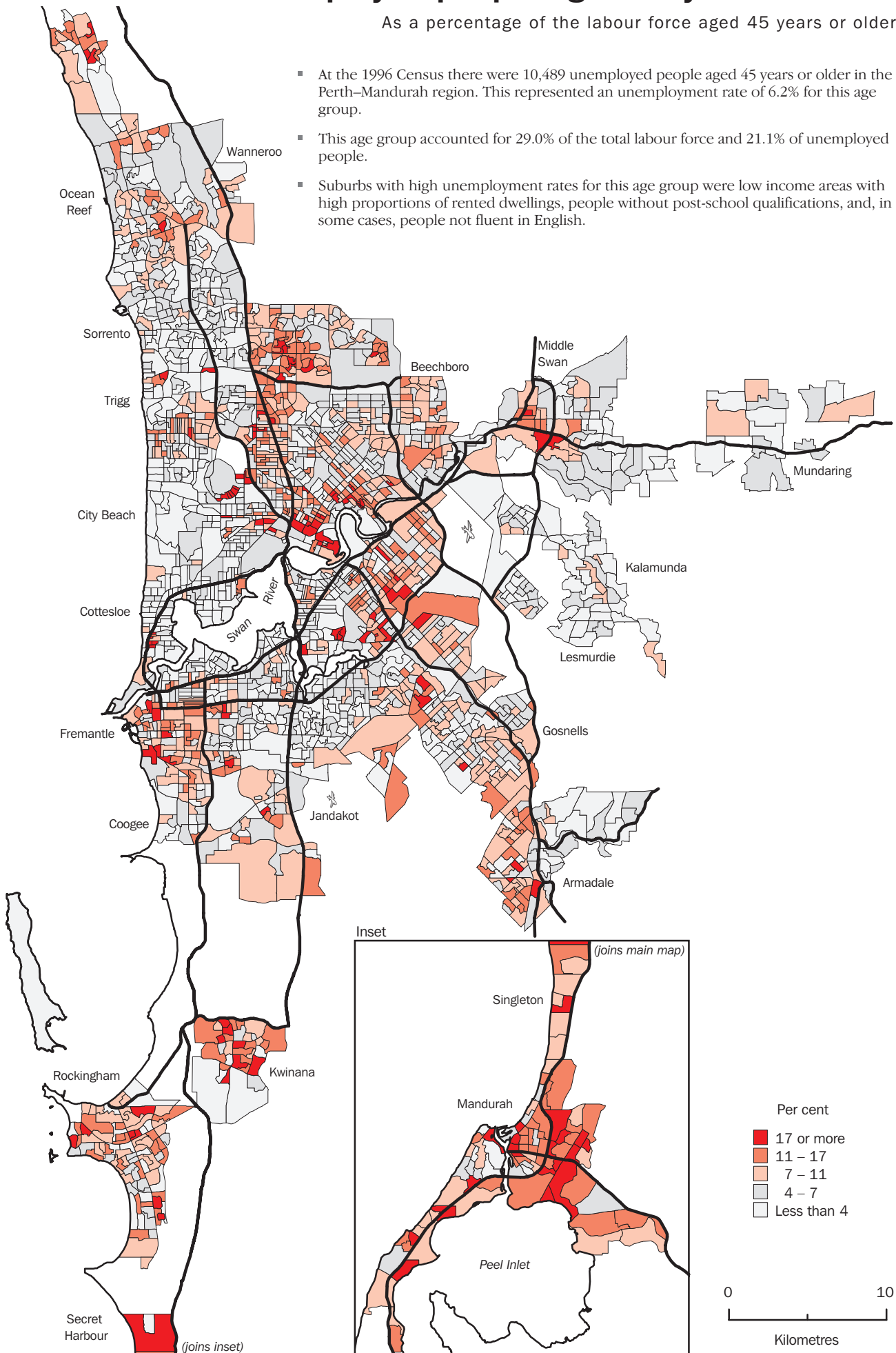
- At the 1996 Census there were 17,400 unemployed people aged 15–24 years in the Perth–Mandurah region. This represented an unemployment rate of 14.2% for this age group.
- The 15–24 age group represented 20.9% of the labour force but accounted for 35.0% of unemployed people.
- The distribution of unemployed people aged 15–24 was similar to that of all unemployed people, although the rates for the 15–24 age group were generally higher. A number of the suburbs in the Mandurah and Kwinana regions, and the suburbs around Girrawheen, had unemployment rates exceeding 25%.



Unemployed people aged 45 years or older

As a percentage of the labour force aged 45 years or older

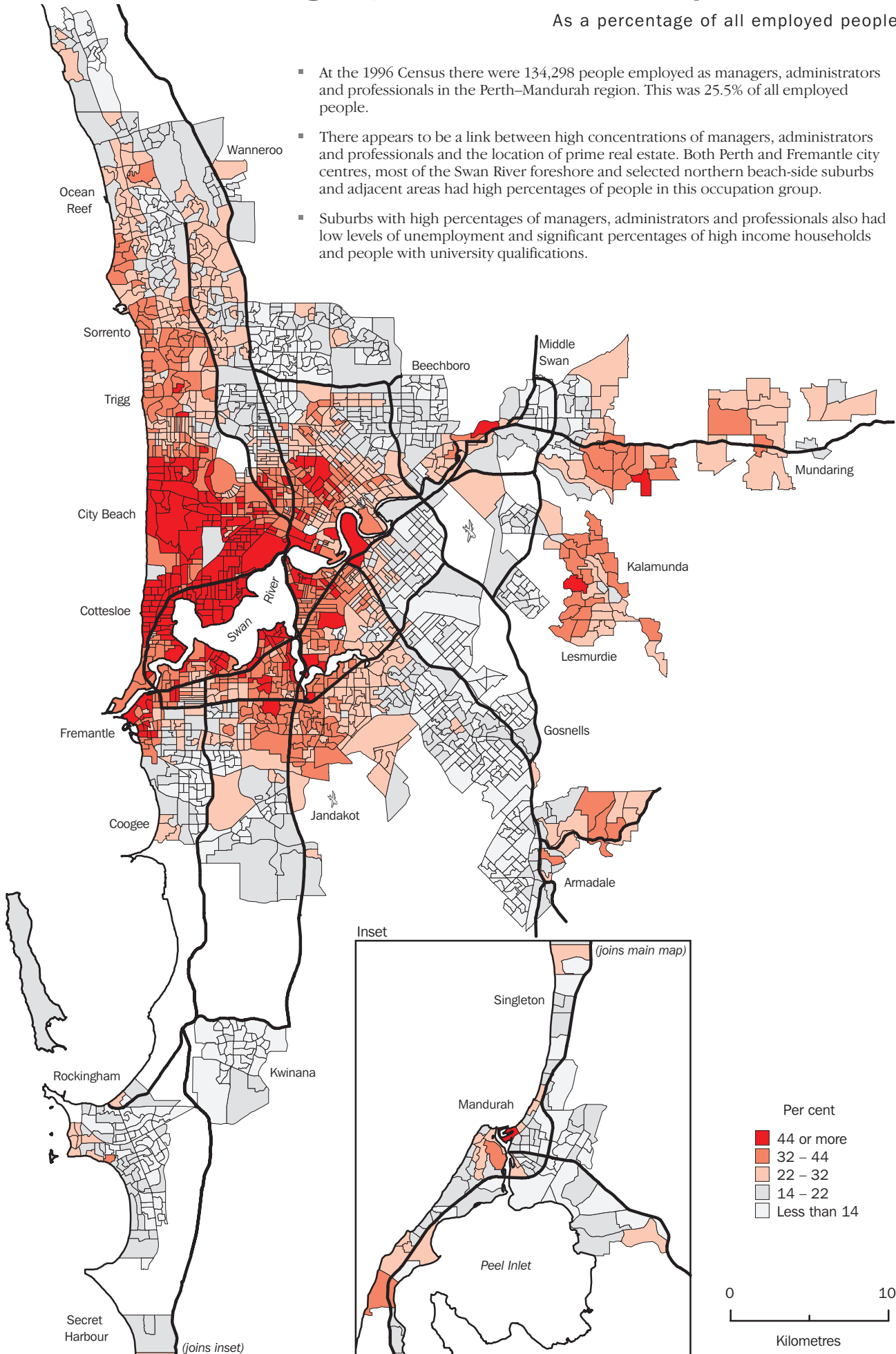
- At the 1996 Census there were 10,489 unemployed people aged 45 years or older in the Perth–Mandurah region. This represented an unemployment rate of 6.2% for this age group.
- This age group accounted for 29.0% of the total labour force and 21.1% of unemployed people.
- Suburbs with high unemployment rates for this age group were low income areas with high proportions of rented dwellings, people without post-school qualifications, and, in some cases, people not fluent in English.



Managers, administrators and professionals

As a percentage of all employed people

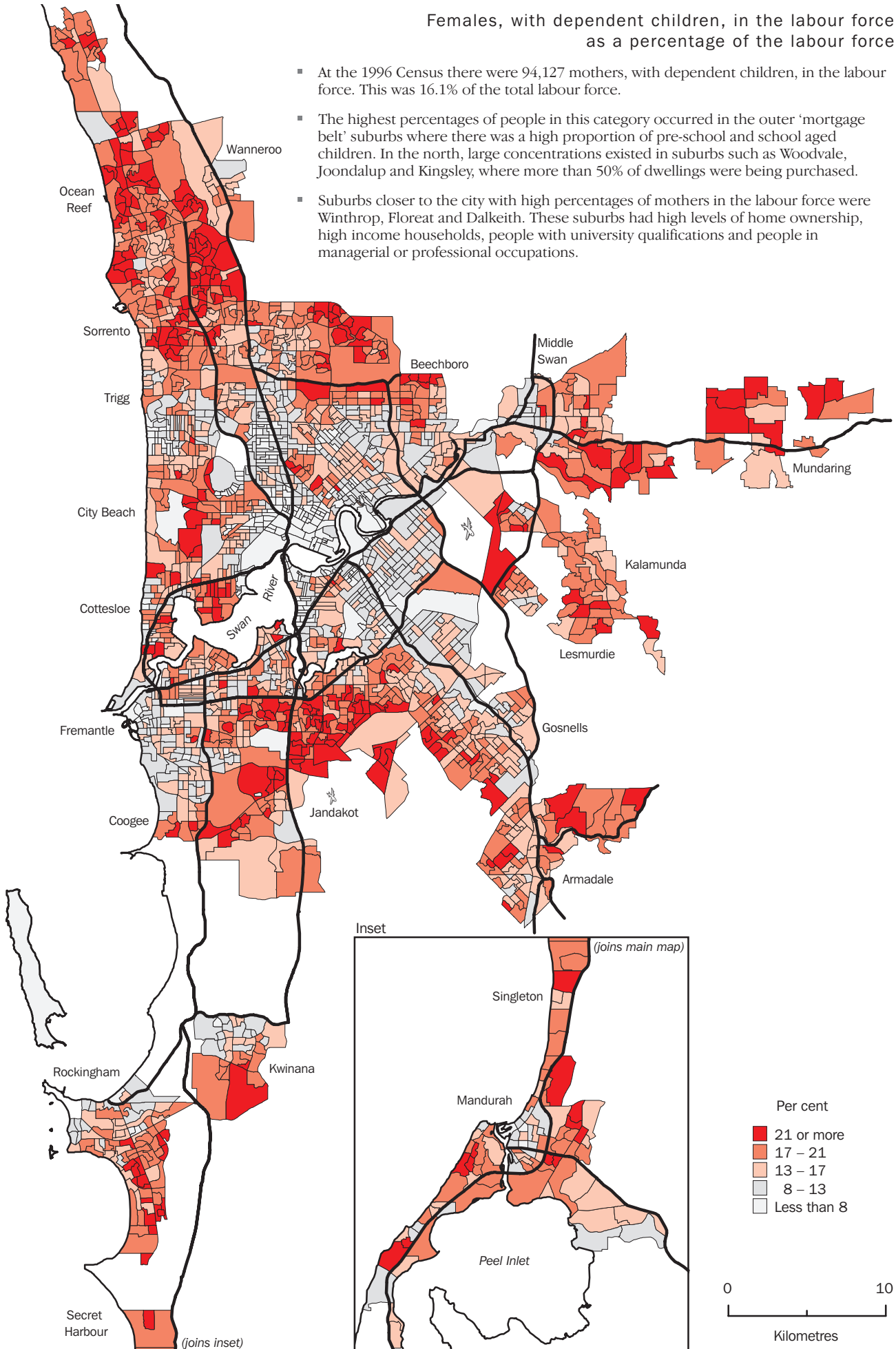
- At the 1996 Census there were 134,298 people employed as managers, administrators and professionals in the Perth–Mandurah region. This was 25.5% of all employed people.
- There appears to be a link between high concentrations of managers, administrators and professionals and the location of prime real estate. Both Perth and Fremantle city centres, most of the Swan River foreshore and selected northern beach-side suburbs and adjacent areas had high percentages of people in this occupation group.
- Suburbs with high percentages of managers, administrators and professionals also had low levels of unemployment and significant percentages of high income households and people with university qualifications.



Mothers in the labour force

Females, with dependent children, in the labour force
as a percentage of the labour force

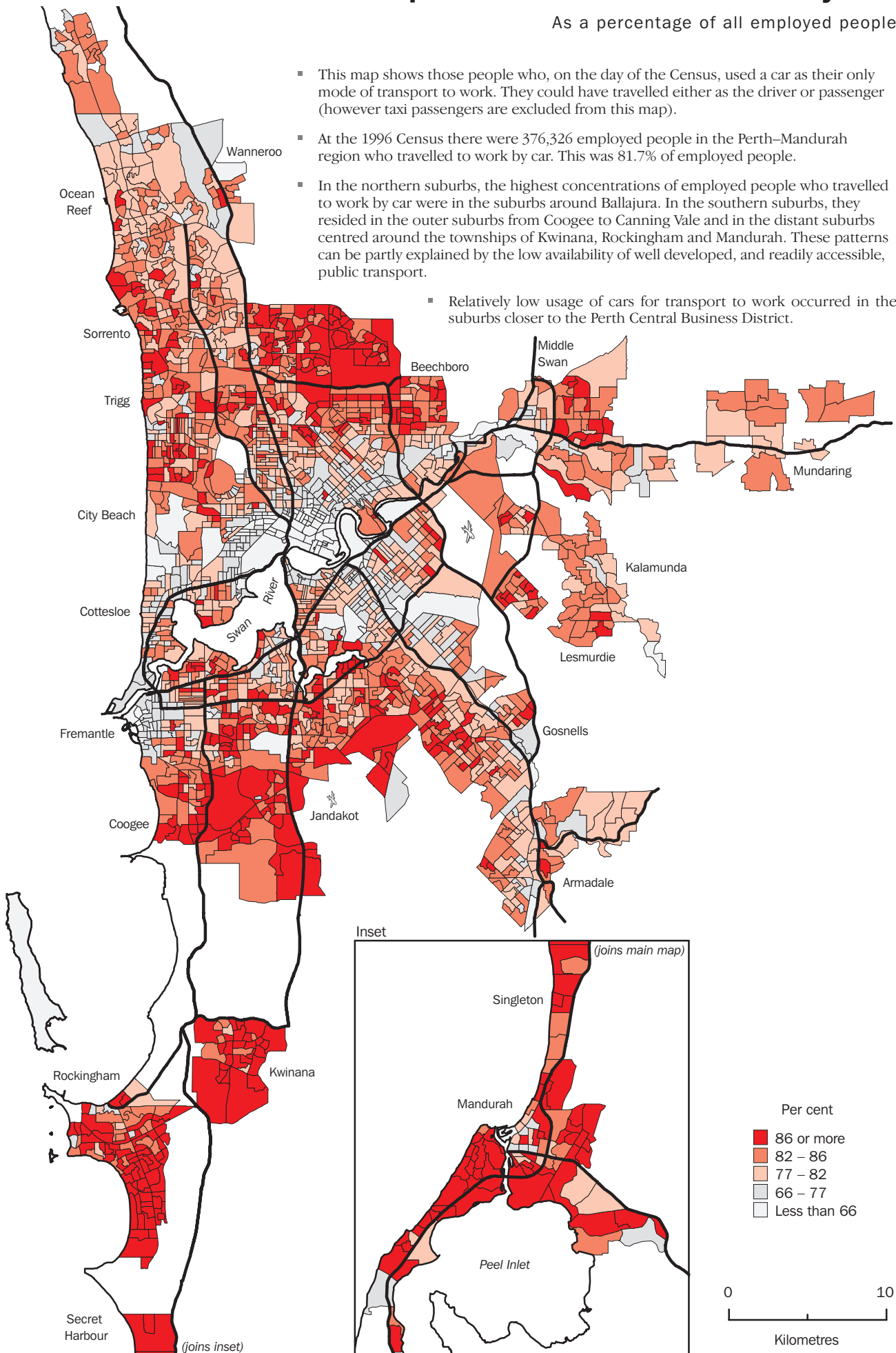
- At the 1996 Census there were 94,127 mothers, with dependent children, in the labour force. This was 16.1% of the total labour force.
- The highest percentages of people in this category occurred in the outer 'mortgage belt' suburbs where there was a high proportion of pre-school and school aged children. In the north, large concentrations existed in suburbs such as Woodvale, Joondalup and Kingsley, where more than 50% of dwellings were being purchased.
- Suburbs closer to the city with high percentages of mothers in the labour force were Winthrop, Floreat and Dalkeith. These suburbs had high levels of home ownership, high income households, people with university qualifications and people in managerial or professional occupations.



People who travelled to work by car

As a percentage of all employed people

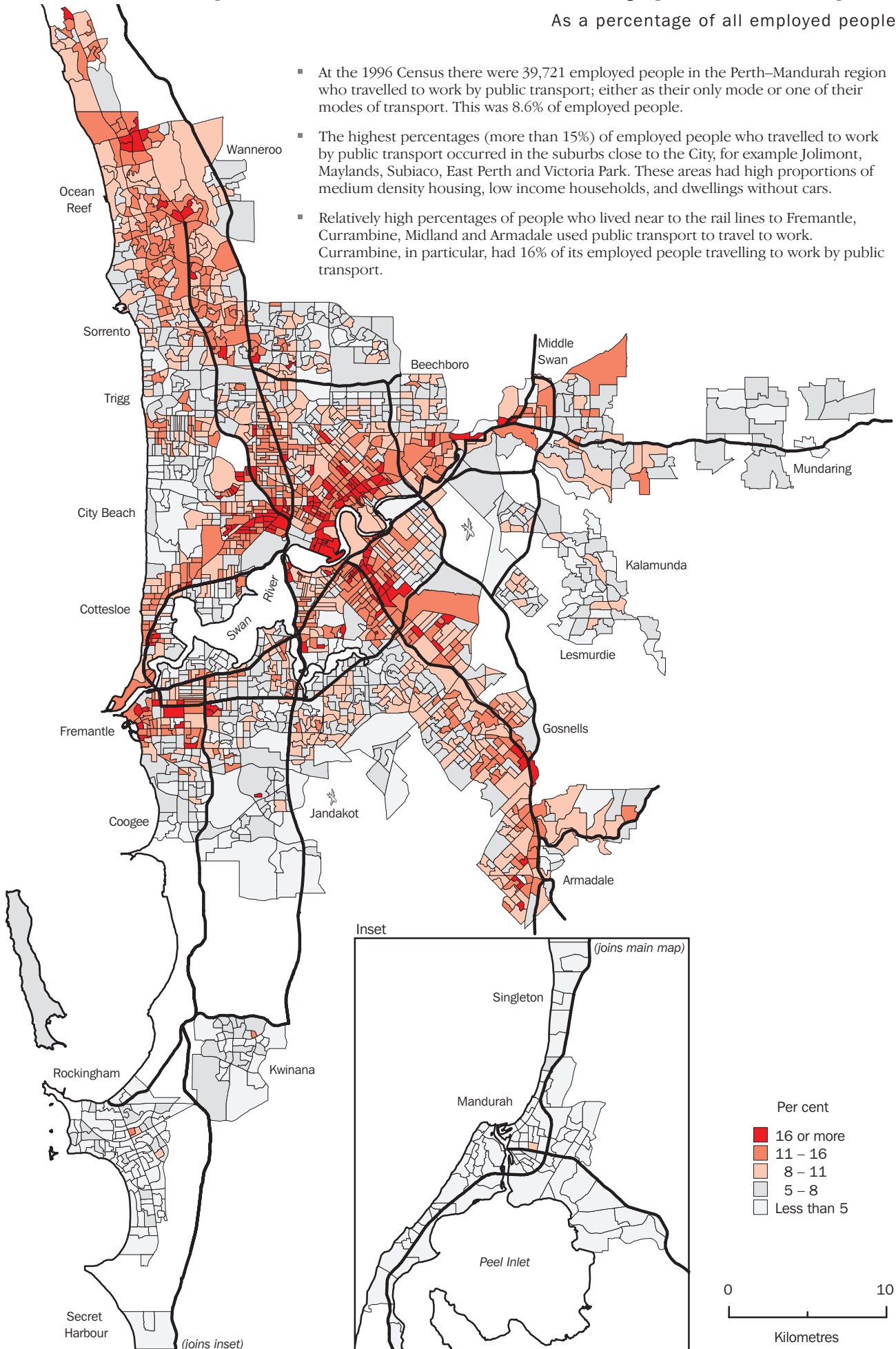
- This map shows those people who, on the day of the Census, used a car as their only mode of transport to work. They could have travelled either as the driver or passenger (however taxi passengers are excluded from this map).
- At the 1996 Census there were 376,326 employed people in the Perth–Mandurah region who travelled to work by car. This was 81.7% of employed people.
- In the northern suburbs, the highest concentrations of employed people who travelled to work by car were in the suburbs around Ballajura. In the southern suburbs, they resided in the outer suburbs from Coogee to Canning Vale and in the distant suburbs centred around the townships of Kwinana, Rockingham and Mandurah. These patterns can be partly explained by the low availability of well developed, and readily accessible, public transport.
- Relatively low usage of cars for transport to work occurred in the suburbs closer to the Perth Central Business District.



People who travelled to work by public transport

As a percentage of all employed people

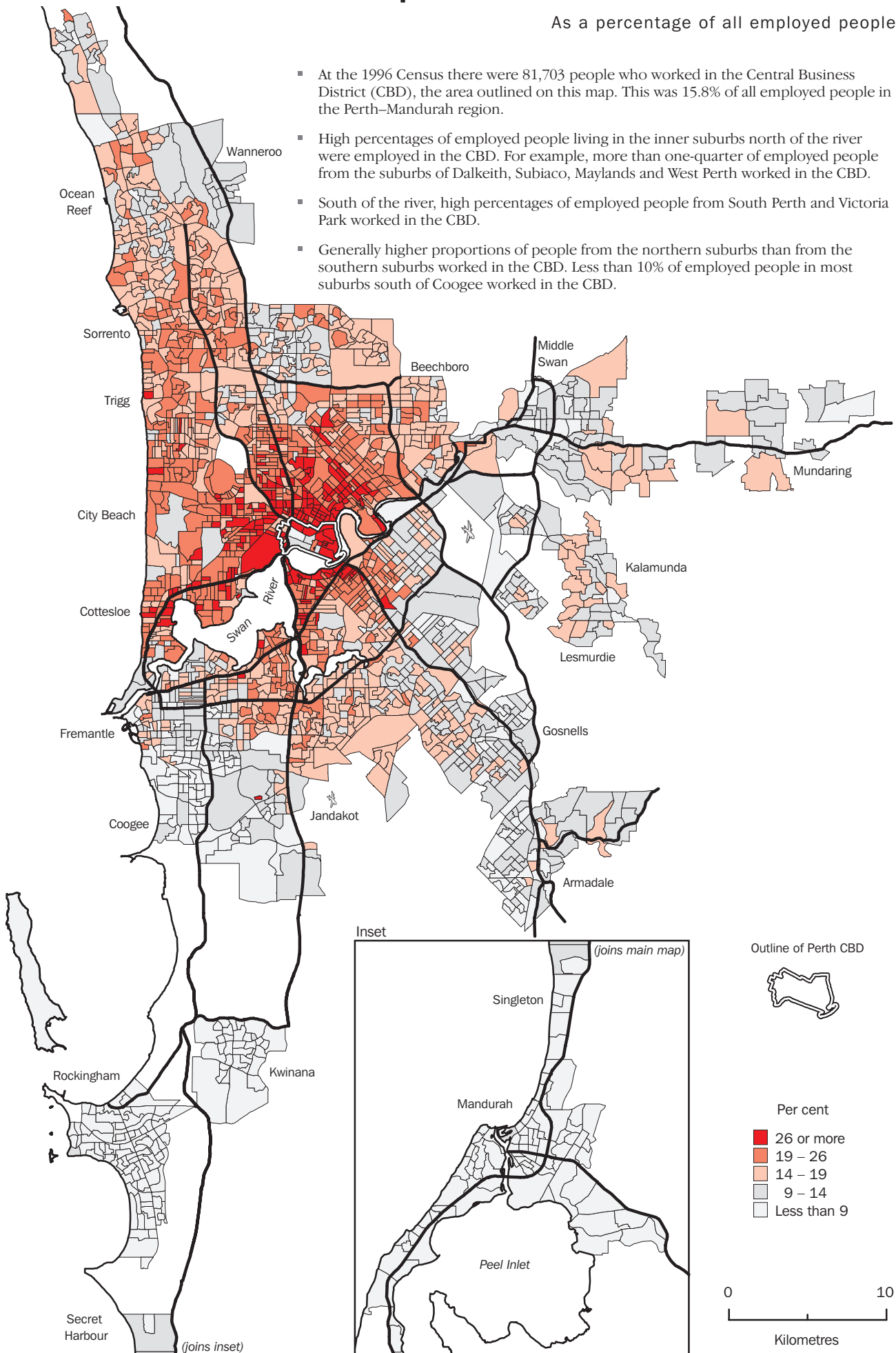
- At the 1996 Census there were 39,721 employed people in the Perth–Mandurah region who travelled to work by public transport; either as their only mode or one of their modes of transport. This was 8.6% of employed people.
- The highest percentages (more than 15%) of employed people who travelled to work by public transport occurred in the suburbs close to the City, for example Jolimont, Maylands, Subiaco, East Perth and Victoria Park. These areas had high proportions of medium density housing, low income households, and dwellings without cars.
- Relatively high percentages of people who lived near to the rail lines to Fremantle, Currambine, Midland and Armadale used public transport to travel to work. Currambine, in particular, had 16% of its employed people travelling to work by public transport.



People who worked in the Perth CBD

As a percentage of all employed people

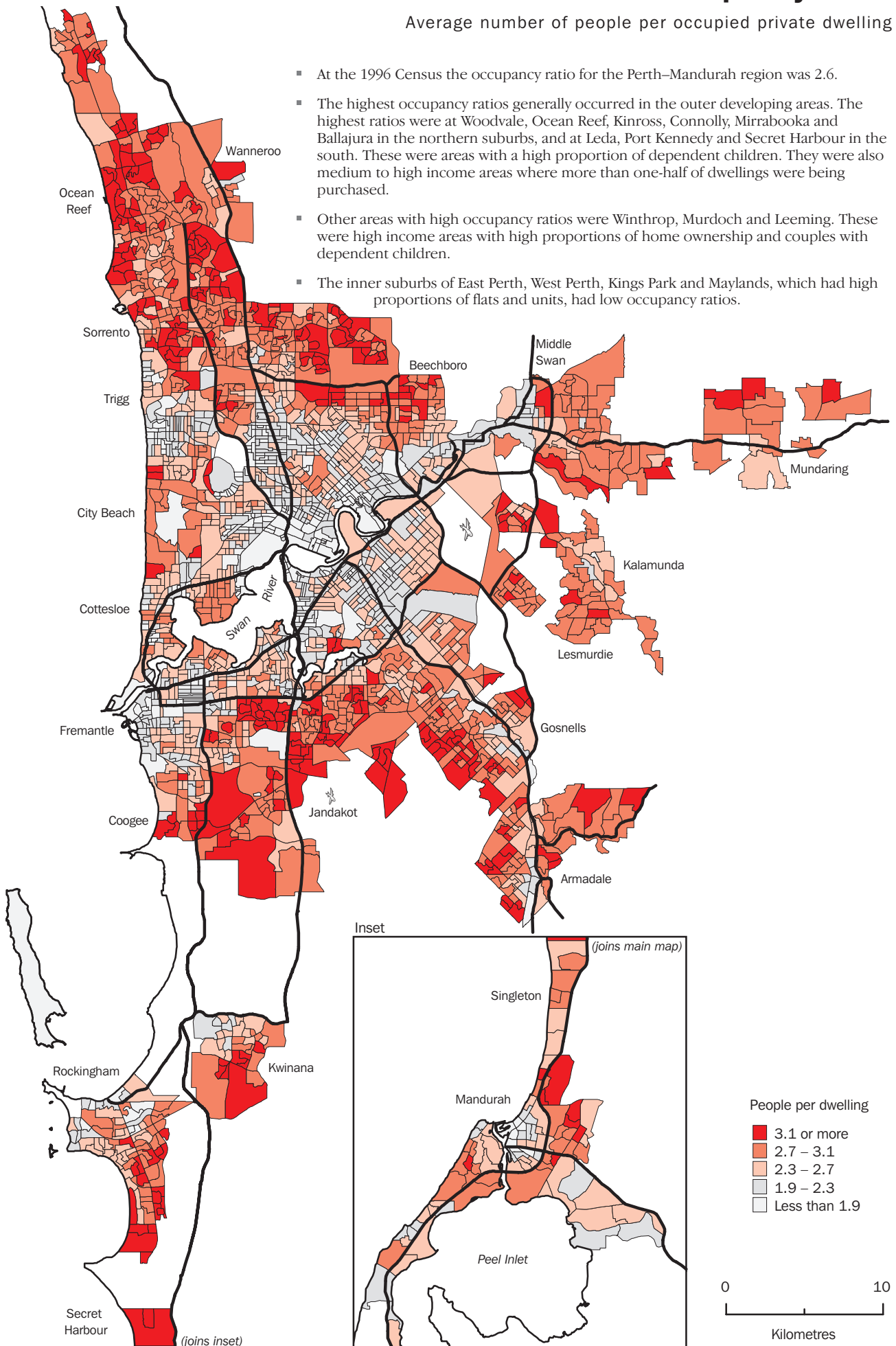
- At the 1996 Census there were 81,703 people who worked in the Central Business District (CBD), the area outlined on this map. This was 15.8% of all employed people in the Perth–Mandurah region.
- High percentages of employed people living in the inner suburbs north of the river were employed in the CBD. For example, more than one-quarter of employed people from the suburbs of Dalkeith, Subiaco, Maylands and West Perth worked in the CBD.
- South of the river, high percentages of employed people from South Perth and Victoria Park worked in the CBD.
- Generally higher proportions of people from the northern suburbs than from the southern suburbs worked in the CBD. Less than 10% of employed people in most suburbs south of Coogee worked in the CBD.



Occupancy ratio

Average number of people per occupied private dwelling

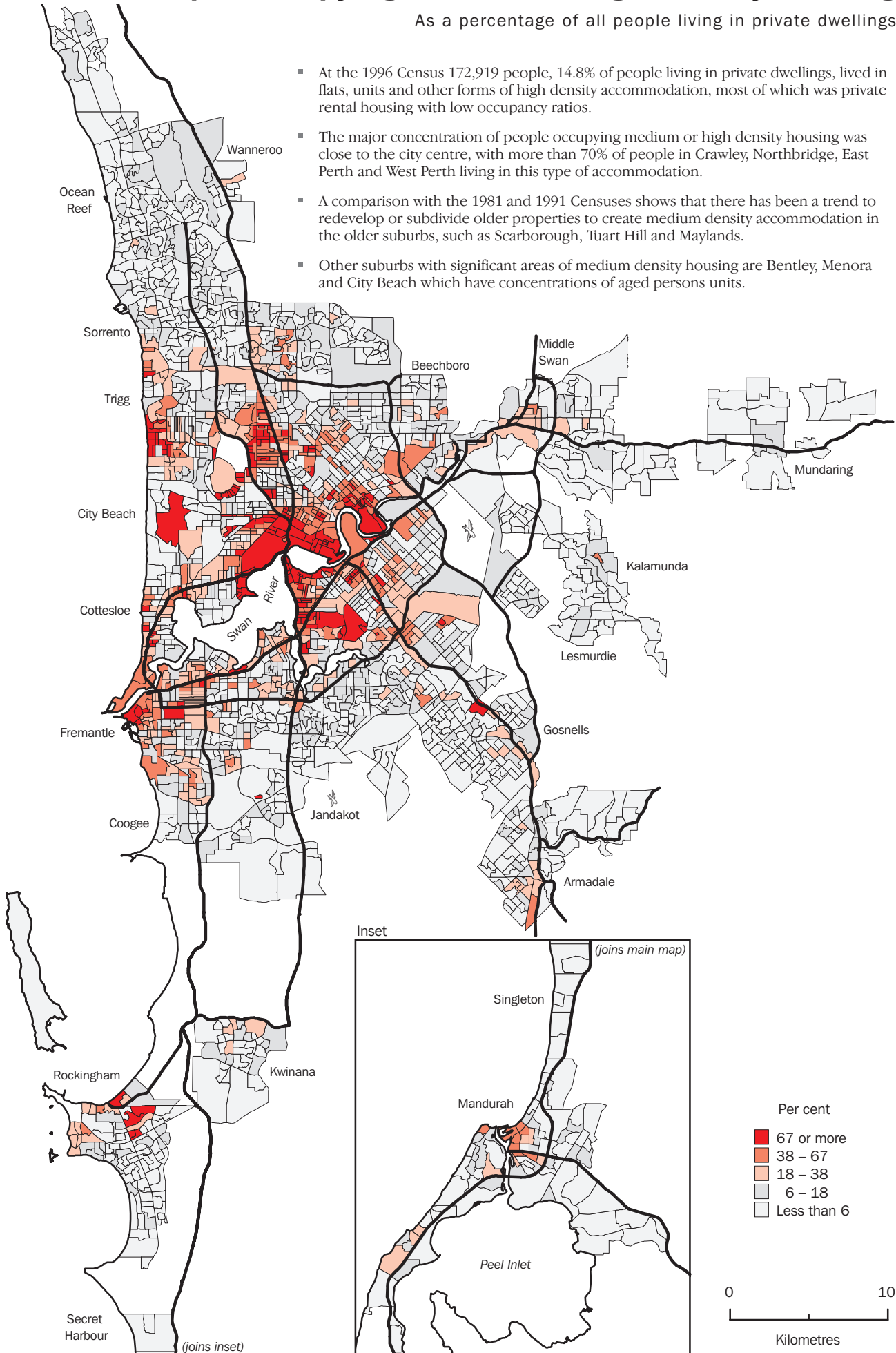
- At the 1996 Census the occupancy ratio for the Perth–Mandurah region was 2.6.
- The highest occupancy ratios generally occurred in the outer developing areas. The highest ratios were at Woodvale, Ocean Reef, Kinross, Connolly, Mirrabooka and Ballajura in the northern suburbs, and at Leda, Port Kennedy and Secret Harbour in the south. These were areas with a high proportion of dependent children. They were also medium to high income areas where more than one-half of dwellings were being purchased.
- Other areas with high occupancy ratios were Winthrop, Murdoch and Leeming. These were high income areas with high proportions of home ownership and couples with dependent children.
- The inner suburbs of East Perth, West Perth, Kings Park and Maylands, which had high proportions of flats and units, had low occupancy ratios.



People occupying medium or high density housing

As a percentage of all people living in private dwellings

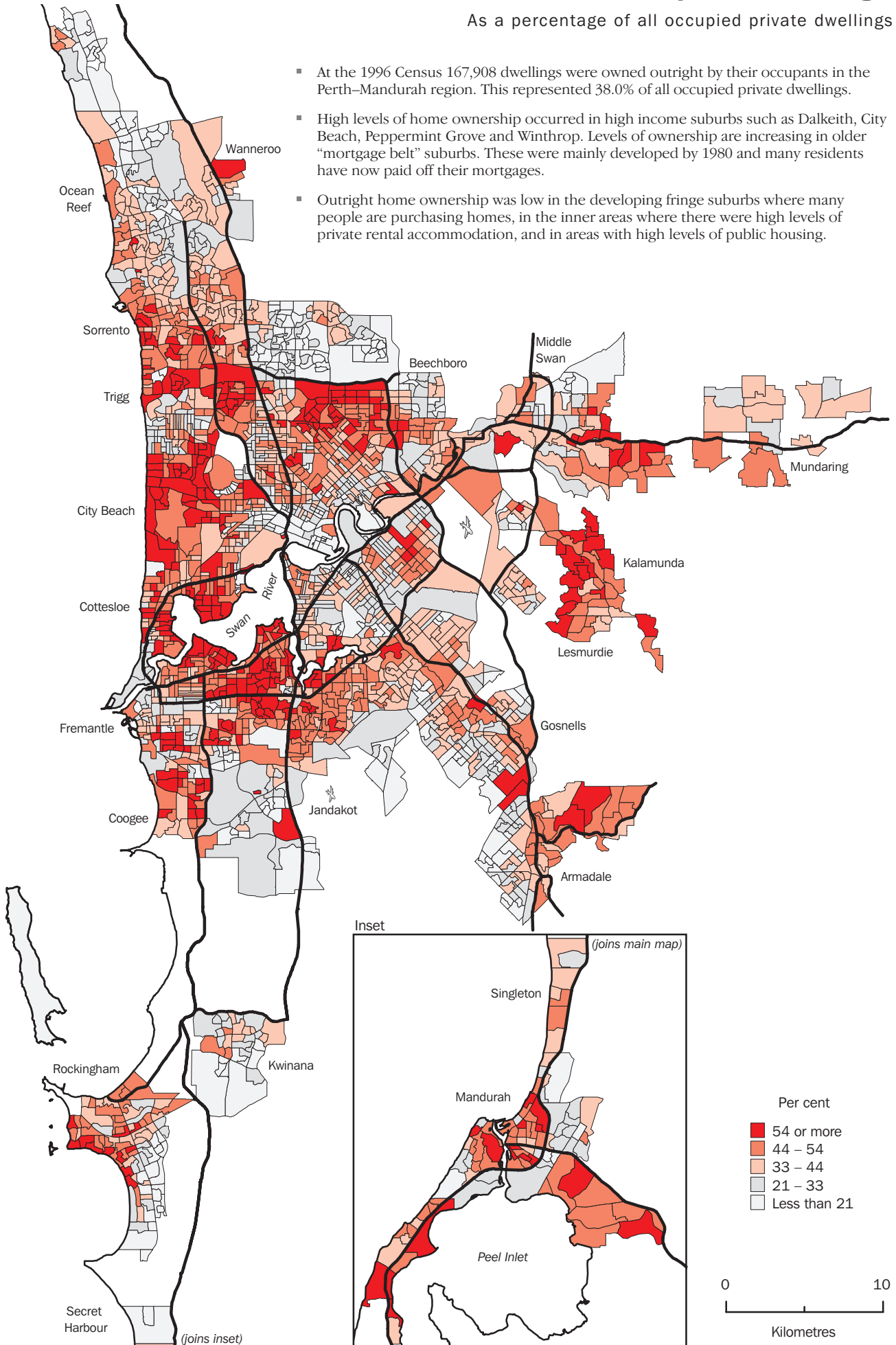
- At the 1996 Census 172,919 people, 14.8% of people living in private dwellings, lived in flats, units and other forms of high density accommodation, most of which was private rental housing with low occupancy ratios.
- The major concentration of people occupying medium or high density housing was close to the city centre, with more than 70% of people in Crawley, Northbridge, East Perth and West Perth living in this type of accommodation.
- A comparison with the 1981 and 1991 Censuses shows that there has been a trend to redevelop or subdivide older properties to create medium density accommodation in the older suburbs, such as Scarborough, Tuart Hill and Maylands.
- Other suburbs with significant areas of medium density housing are Bentley, Menora and City Beach which have concentrations of aged persons units.



Owner-occupied dwellings

As a percentage of all occupied private dwellings

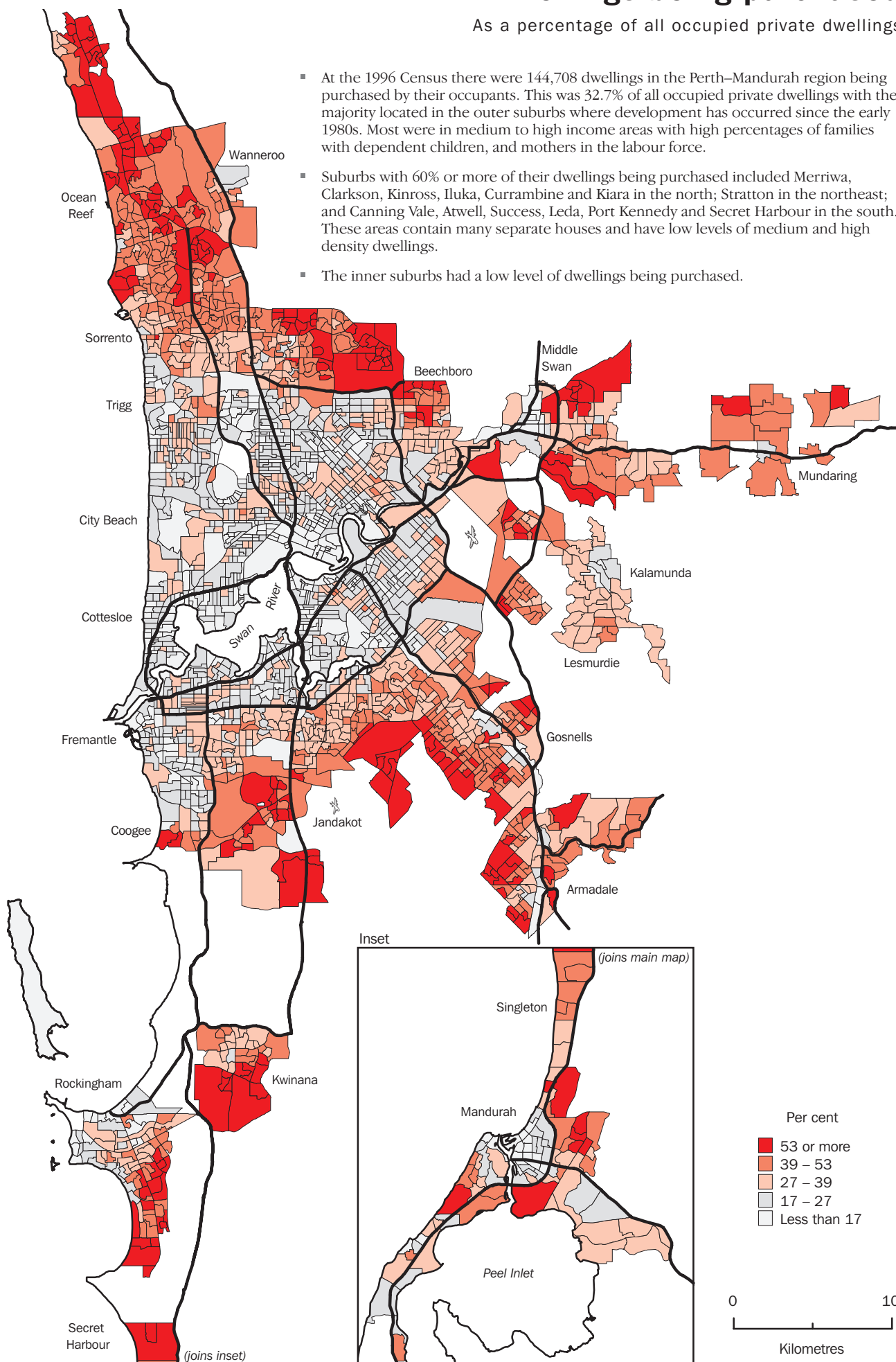
- At the 1996 Census 167,908 dwellings were owned outright by their occupants in the Perth–Mandurah region. This represented 38.0% of all occupied private dwellings.
- High levels of home ownership occurred in high income suburbs such as Dalkeith, City Beach, Peppermint Grove and Winthrop. Levels of ownership are increasing in older “mortgage belt” suburbs. These were mainly developed by 1980 and many residents have now paid off their mortgages.
- Outright home ownership was low in the developing fringe suburbs where many people are purchasing homes, in the inner areas where there were high levels of private rental accommodation, and in areas with high levels of public housing.



Dwellings being purchased

As a percentage of all occupied private dwellings

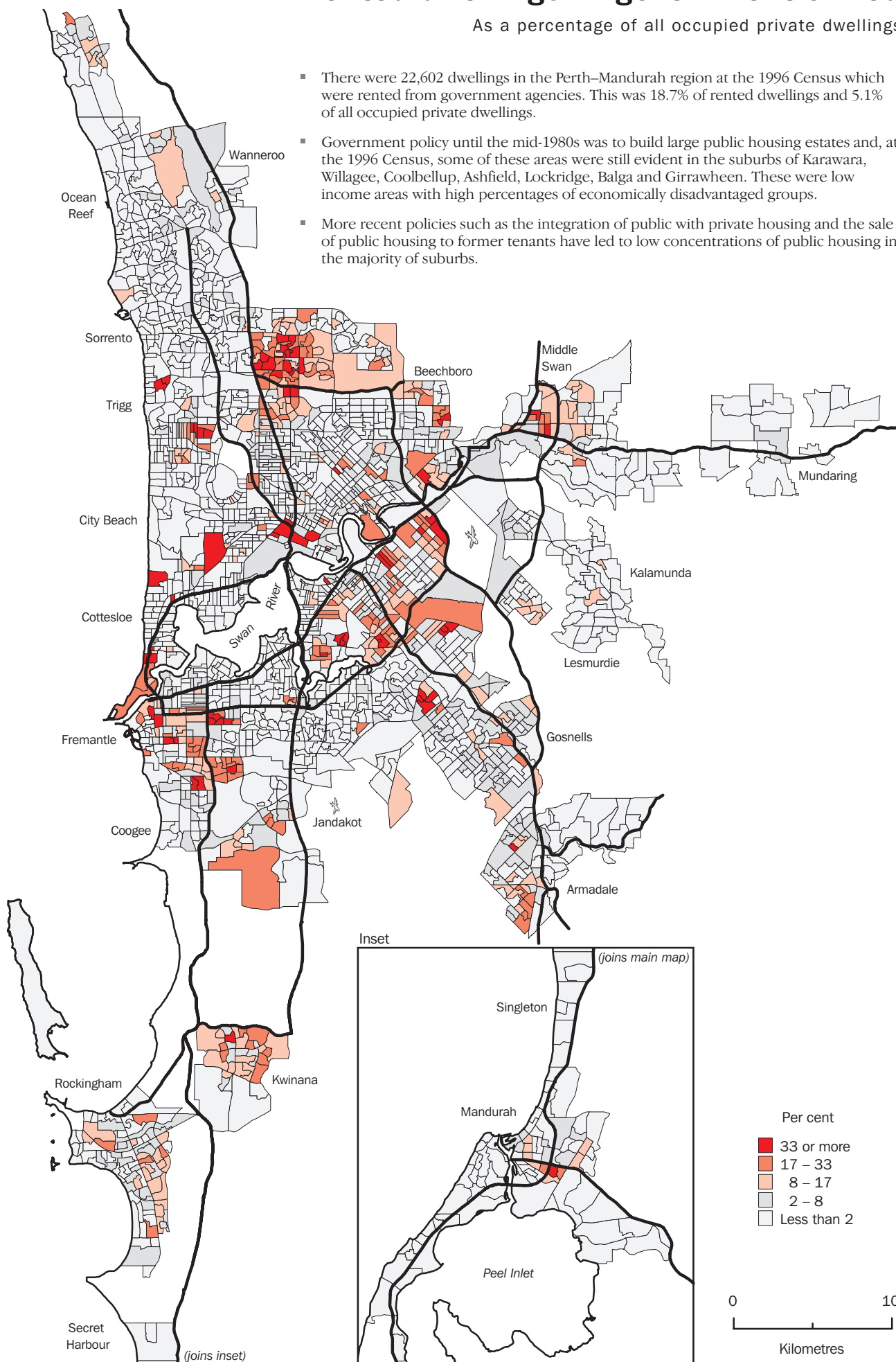
- At the 1996 Census there were 144,708 dwellings in the Perth–Mandurah region being purchased by their occupants. This was 32.7% of all occupied private dwellings with the majority located in the outer suburbs where development has occurred since the early 1980s. Most were in medium to high income areas with high percentages of families with dependent children, and mothers in the labour force.
- Suburbs with 60% or more of their dwellings being purchased included Merriwa, Clarkson, Kinross, Iluka, Currambine and Kiara in the north; Stratton in the northeast; and Canning Vale, Atwell, Success, Leeda, Port Kennedy and Secret Harbour in the south. These areas contain many separate houses and have low levels of medium and high density dwellings.
- The inner suburbs had a low level of dwellings being purchased.



Rented dwellings — government owned

As a percentage of all occupied private dwellings

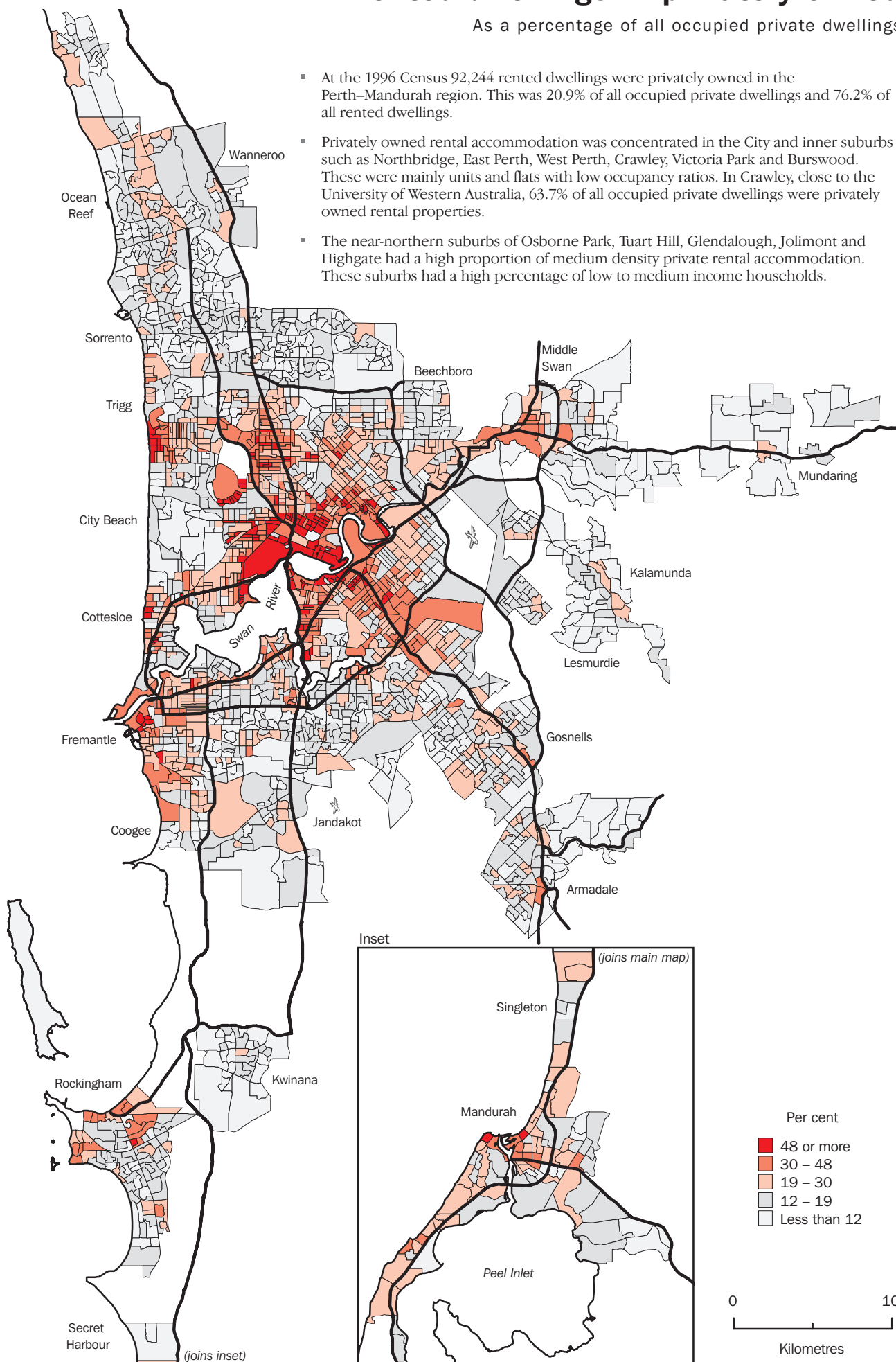
- There were 22,602 dwellings in the Perth–Mandurah region at the 1996 Census which were rented from government agencies. This was 18.7% of rented dwellings and 5.1% of all occupied private dwellings.
- Government policy until the mid-1980s was to build large public housing estates and, at the 1996 Census, some of these areas were still evident in the suburbs of Karawara, Willagee, Coolbellup, Ashfield, Lockridge, Balga and Girrawheen. These were low income areas with high percentages of economically disadvantaged groups.
- More recent policies such as the integration of public with private housing and the sale of public housing to former tenants have led to low concentrations of public housing in the majority of suburbs.



Rented dwellings — privately owned

As a percentage of all occupied private dwellings

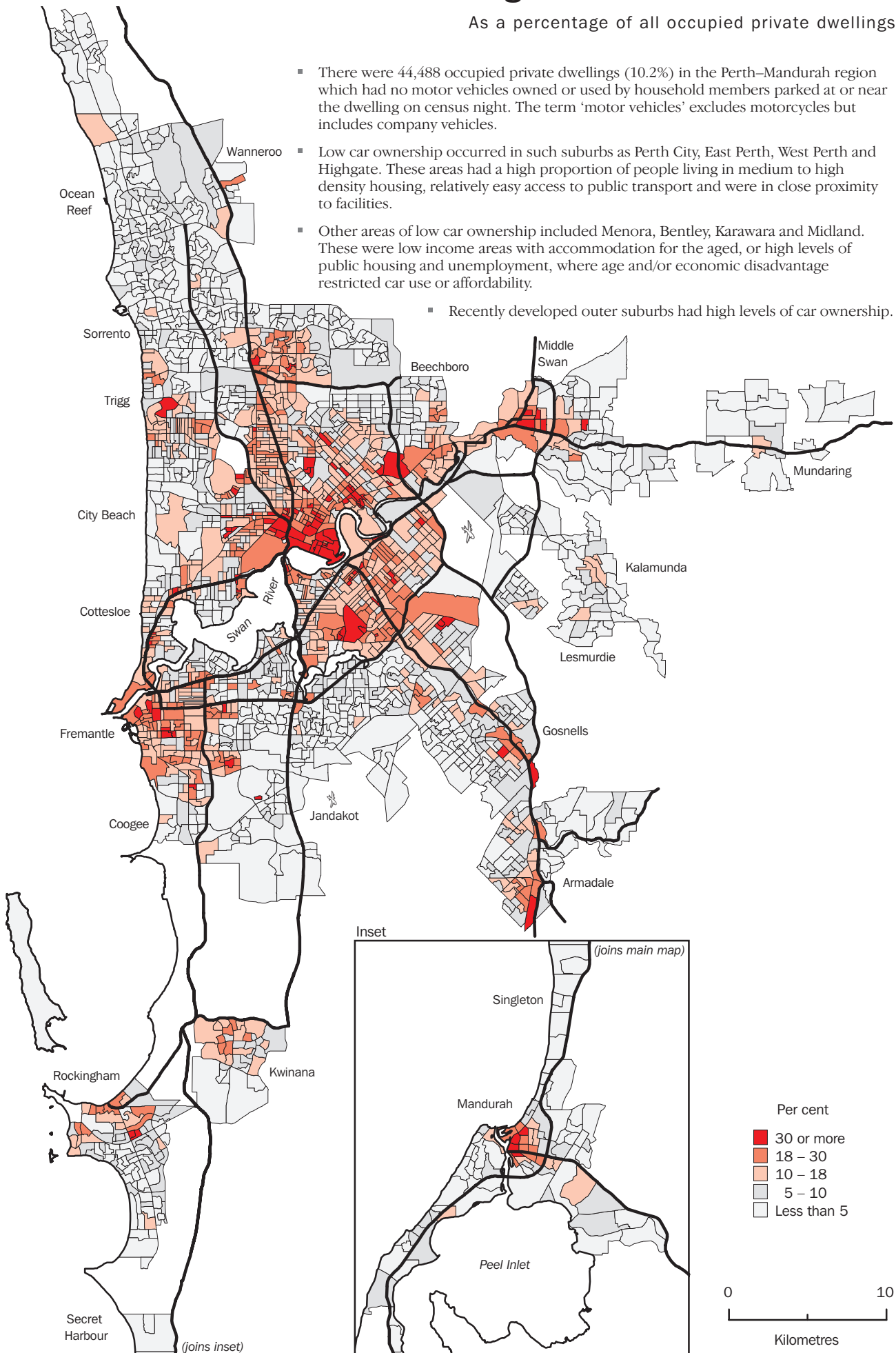
- At the 1996 Census 92,244 rented dwellings were privately owned in the Perth–Mandurah region. This was 20.9% of all occupied private dwellings and 76.2% of all rented dwellings.
- Privately owned rental accommodation was concentrated in the City and inner suburbs such as Northbridge, East Perth, West Perth, Crawley, Victoria Park and Burswood. These were mainly units and flats with low occupancy ratios. In Crawley, close to the University of Western Australia, 63.7% of all occupied private dwellings were privately owned rental properties.
- The near-northern suburbs of Osborne Park, Tuart Hill, Glendalough, Jolimont and Highgate had a high proportion of medium density private rental accommodation. These suburbs had a high percentage of low to medium income households.



Dwellings with no motor vehicles

As a percentage of all occupied private dwellings

- There were 44,488 occupied private dwellings (10.2%) in the Perth–Mandurah region which had no motor vehicles owned or used by household members parked at or near the dwelling on census night. The term ‘motor vehicles’ excludes motorcycles but includes company vehicles.
- Low car ownership occurred in such suburbs as Perth City, East Perth, West Perth and Highgate. These areas had a high proportion of people living in medium to high density housing, relatively easy access to public transport and were in close proximity to facilities.
- Other areas of low car ownership included Menora, Bentley, Karawara and Midland. These were low income areas with accommodation for the aged, or high levels of public housing and unemployment, where age and/or economic disadvantage restricted car use or affordability.
- Recently developed outer suburbs had high levels of car ownership.



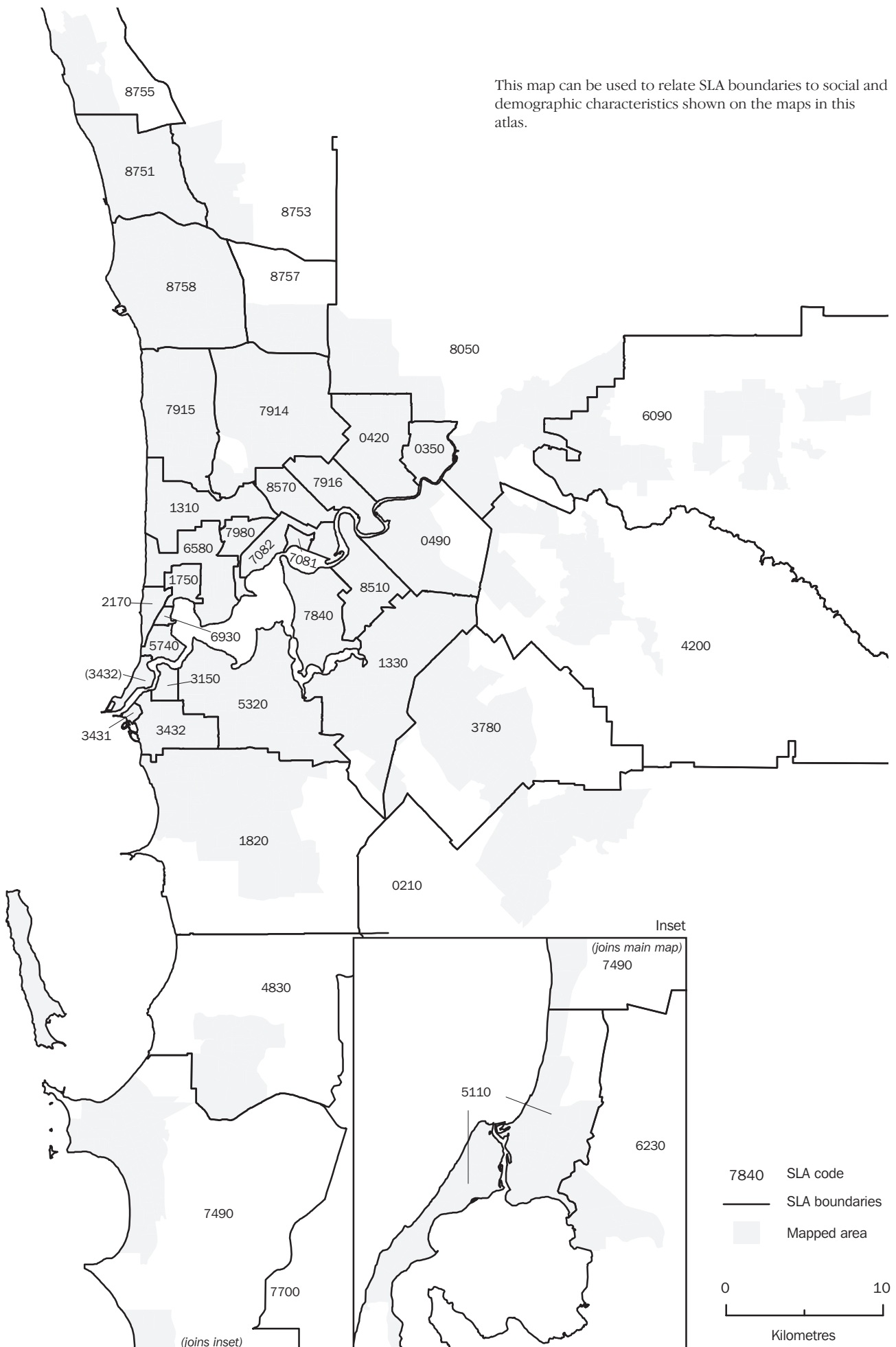
Locations

This map shows selected locations which have been mentioned in the commentaries which accompany the maps in this atlas.



Statistical Local Areas

This map can be used to relate SLA boundaries to social and demographic characteristics shown on the maps in this atlas.

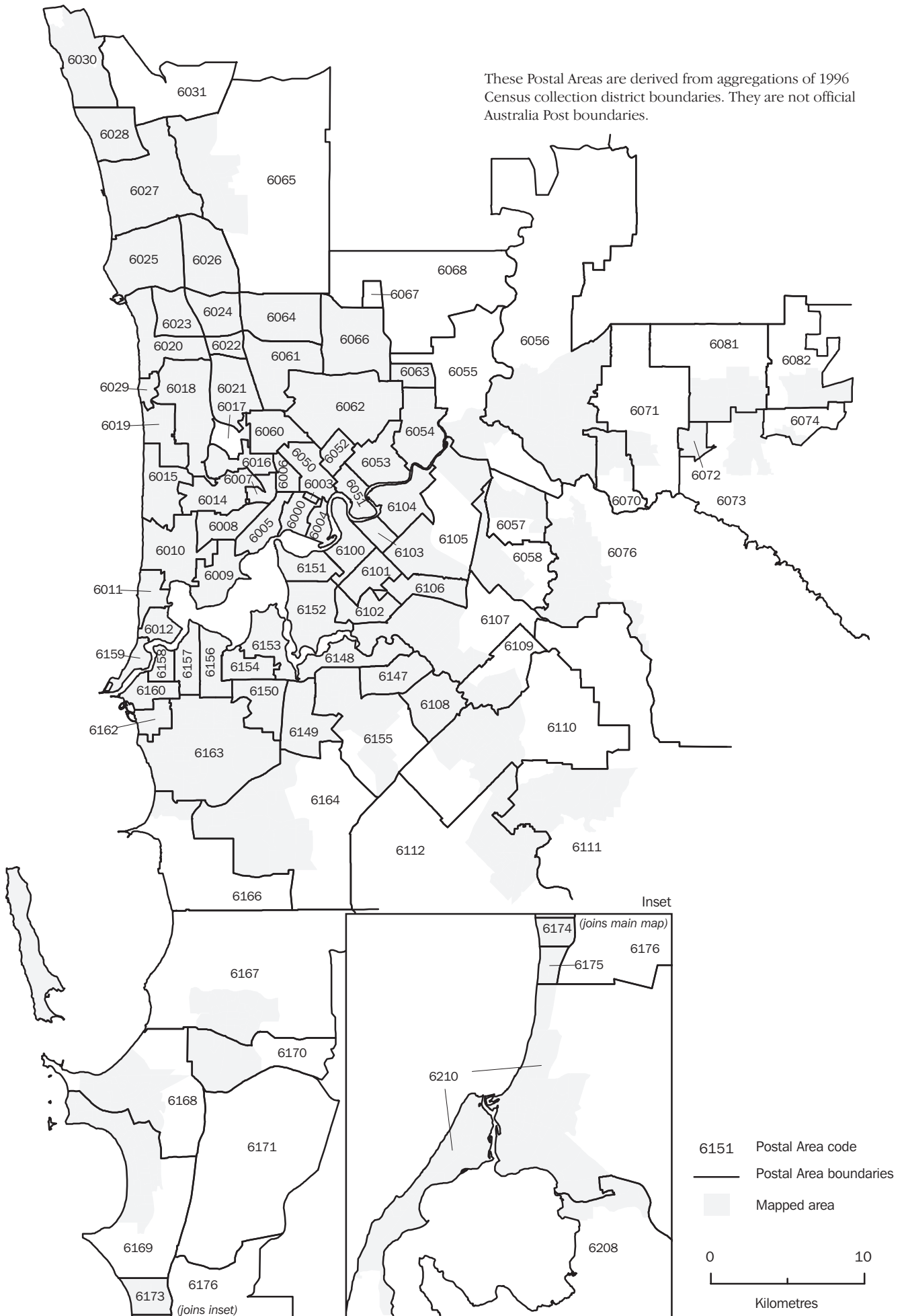


Statistical Local Areas *continued*

SLA Code	SLA Name
0210	Armadale (C)
0350	Bassendean (T)
0420	Bayswater (C)
0490	Belmont (C)
1310	Cambridge (T)
1330	Canning (C)
1750	Claremont (T)
1820	Cockburn (C)
2170	Cottesloe (T)
3150	East Fremantle (T)
3431	Fremantle (C) - Inner
3432	Fremantle (C) - Remainder
3780	Gosnells (C)
4200	Kalamunda (S)
4830	Kwinana (T)
5110	Mandurah (C)
5320	Melville (C)
5740	Mosman Park (T)
6090	Mundaring (S)
6230	Murray (S)
6580	Nedlands (C)
6930	Peppermint Grove (S)
7081	Perth (C) - Inner
7082	Perth (C) - Remainder
7490	Rockingham (C)
7700	Serpentine-Jarrahdale (S)
7840	South Perth (C)
7914	Stirling (C) - Central
7915	Stirling (C) - Coastal
7916	Stirling (C) - South-Eastern
7980	Subiaco (C)
8050	Swan (S)
8510	Victoria Park(T)
8570	Vincent (T)
8751	Wanneroo (C) - Central Coastal
8753	Wanneroo (C) - North-East
8755	Wanneroo (C) - North-West
8757	Wanneroo (C) - South-East
8758	Wanneroo (C) - South-West

Postal Areas

These Postal Areas are derived from aggregations of 1996 Census collection district boundaries. They are not official Australia Post boundaries.



Glossary

This Glossary contains information about some of the terms used in this atlas. More detailed information about these and other census terms can be found in the *1996 Census Dictionary* (Cat. no. 2901.0).

Collection district (CD)	<p>The smallest geographic area used for collection and dissemination of data from the Census of Population and Housing. In urban areas there are usually between 200 and 300 dwellings in each CD.</p> <p>CDs are redefined for each census and are current only at census time. For the 1996 Census of Population and Housing there were 34,500 CDs covering the whole of Australia. CDs are amalgamated to form larger geographical areas such as statistical local areas.</p>
Couple	<p>For census purposes, a couple is either married or in a de facto relationship and usually resides in the same household. See also Family.</p>
Dependent children	<p>Children under 15 years of age, or children, in a family, aged 15–24 years who are full-time students and who have no partner or children of their own usually residing in the household. Dependent children include adopted children, step and foster children. See also Family.</p>
DINKs	<p>This acronym stands for 'double income, no kids'. In this atlas, a DINK is defined as a couple with no children present, where both partners are in paid employment more than 25 hours a week and the younger partner is aged under 40 years. See also Family.</p>
Dwelling	<p>A building or structure in which people live. This can be a house, flat, caravan or tent, humpy or park bench. Dwellings are classified as:</p> <ul style="list-style-type: none">▪ occupied private dwellings;▪ unoccupied private dwellings; or▪ non-private dwellings. <p>See also Private dwelling; Non-private dwelling.</p>
Employed persons	<p>People aged 15 years and over who, during the week before census night, worked for payment or profit or as unpaid workers in a family business, or who had a job from which they were on leave or otherwise temporarily absent.</p>
English (proficiency in the language)	<p>People who indicated that they spoke a language other than English at home were asked to state how well they spoke English.</p> <p>Because of the subjective nature of responses to this question in the Census, data on the levels of proficiency in English of people who speak a language other than English at home should be interpreted with care.</p>
Family	<p>Two or more persons, one of whom is at least 15 years of age, who are related by blood, marriage (registered or de facto), adoption, step or fostering and who are usually resident in the same household.</p>
Household	<p>A group of two or more related or unrelated people who usually reside in the same dwelling and make common provision for food and other essentials for living; or a person living alone.</p>
Household income	<p>Calculated by adding together all the individual incomes reported by household members. See also Income.</p>

Income	People aged 15 years and over were asked to state their usual gross weekly income, which is all income before tax, superannuation, health insurance or other deductions are made. Gross income includes family allowance, family allowance supplement, pensions, unemployment benefits, student allowances, maintenance (child support), superannuation, wages, salary, overtime, dividends, rents received, interest received, business or farm income (less operation expenses) and workers' compensation received.
Labour force	Comprises people aged 15 years and over who worked for payment or profit, or as unpaid workers in a family business, during the week prior to census night; had a job from which they were on leave or otherwise temporarily absent; were on strike or stood down temporarily; or did not have a job but were actively looking for and available to start work.
Managers, administrators and professionals	These definitions follow the Australian Standard Classification of Occupations. <i>Managers and administrators</i> head government, industrial, agricultural, commercial and other establishments, organisations or departments within such organisations. They determine the policy of the establishment, organisation or department, and direct and coordinate its functioning, usually through subordinate managers. <i>Professionals</i> perform analytical, conceptual and creative tasks requiring a high level of intellectual ability and thorough understanding of an extensive body of theoretical knowledge. See also Occupation.
Medium or high density housing	Comprises semi-detached houses, row or terrace houses, villa units, townhouses, flats, home units and apartments.
Non-private dwelling	This is an establishment which provides a communal or transitory type of accommodation e.g. hotel, motel, prison, religious or charitable institution, defence establishment or hospital. Cared accommodation in retirement villages is included. See also Private dwelling.
Occupation	The ABS uses the Australian Standard Classification of Occupations to group employed people into occupations according to the set of tasks that is performed in their jobs. Occupation is collected in the Census for all employed people aged 15 years and over.
Occupied dwelling	Premises occupied by the household on census night. See also Private dwelling.
One parent family	Consists of a lone parent with at least one dependent child who is usually resident in the family household. The family may also include any number of other related individuals e.g. a sister of the lone parent. See also Family.
Owner-occupied dwelling	A dwelling owned and occupied by a usual resident of the household. This category excludes those dwellings being purchased and those occupied under a life tenure scheme. See also Dwelling.
Private dwelling	Usually a house, flat or part of a house, but can also be a house attached to, or rooms above, shops or offices; an occupied caravan in a caravan park or on a residential allotment; a craft in a marina; a houseboat; or a tent if it is standing on its own block of land. Manufactured home estates and self-care units for the retired or aged are also treated as private dwellings. See also Non-private dwelling.
Public transport	This mode of travel to work is defined as travelling to work by train, bus, ferry or tram. It excludes travelling to work by car or taxi.

Qualifications	The highest level of qualification that the person has obtained since leaving school. University qualifications include bachelor degrees, higher degrees and postgraduate diplomas. The trade qualifications category refers to people holding a skilled vocational qualification. The 'People without qualifications' map includes a small number of people who have a qualification that is out of scope of the ABS Classification of Qualifications.
Rented dwellings	Households were asked whether they rented, owned or were purchasing the dwelling in which they were counted on census night. Households who were renting were also asked who they were renting from.
Southeast Asia	Includes Brunei, Cambodia, Indonesia, Laos, Malaysia, Burma (Myanmar), Philippines, Singapore, Thailand and Viet Nam.
Southern Europe	Includes Albania, Andorra, Cyprus, Gibraltar, Greece, Holy See, Italy, Malta, Portugal, San Marino, Spain, Bosnia-Herzegovina, Croatia, Former Yugoslav Republic of Macedonia, Slovenia and Former Yugoslav Republics of Serbia and Montenegro
Statistical local area (SLA)	Consists of one or more collection districts. In aggregate, SLAs cover the whole of Australia without gaps or overlaps. They consist of a single local government area, or part thereof, or any unincorporated area.
Unemployed persons	For 1996 Census purposes, unemployed people are defined as those people aged 15 years and over who, in the week prior to census night, did not have a job but were actively looking for and available to start work.

