Workplace Atlas
Adelaide Statistical Division, 2006

January 2011
The Workplace Atlas provides valuable information on the nature and geographic distribution of employment in the Adelaide Statistical Division. This information will assist the implementation and monitoring of the employment targets in The 30-Year Plan for Greater Adelaide.

For further information
Please visit www.dplg.sa.gov.au or contact the Strategic Policy Division of the Department of Planning and Local Government on 08 8303 0600.

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The place of work data from the Australian Bureau of Statistics’ (ABS) Census of Population and Housing is an often under-utilised source of information. It is a complex data set, which has become easier to analyse and visualise with the advent of spatial information systems. This study is based on the most detailed information currently available - the 2006 Census. The report broadly provides a baseline about the nature and geographic distribution of employment in the Adelaide Statistical Division (ASD) as at 2006.

During the next 30 years the Plan for Greater Adelaide is allowing for the creation of 282,000 additional jobs. It is envisaged that these new jobs will be located in areas of residential growth and in areas well serviced by transport networks - see Appendix 1.

Information contained in this report will assist the implementation and monitoring of the Plan by providing a valuable resource for urban planners, transport engineers, social researchers and economists in both the public and private sector.
INTRODUCTION

The significance of job location is often overlooked with most analyses confined to people’s place of residence. However, work is responsible for 20% of trips, with employed persons spending as much as eight to ten hours per day at their place of employment. The characteristics of employment locations vary markedly according to industry type, physical location and services. In fact, the profile of an area can change markedly during the day. For example, the City of Adelaide has only 17,000 residents, which swells to almost 100,000 persons during a working day.

There is a corresponding need for services at these locations. Immediate worker needs include transport, parking and lunch. In addition they may utilise nearby shops, banks and Post Offices, purchase tickets for events, socialise and follow other recreational pursuits after work. This happens especially in the case of the city and regional centres where these facilities are concentrated.

The diversity of the workforce, especially with increased female participation rates, means additional facilities may be required. In particular, childcare centres and schools may need to be located nearby or along the route to the person’s place of employment. With time constraints combined with an increasingly busy world, families may choose to purchase groceries near their place of work as well. In short, job location and the characteristics of those places influence many of our spending, socialising, family and recreational decisions.
DATA LIMITATIONS

To avoid the identification of individuals in the statistics, the ABS randomises some data, which has affected the data used in this report. Although census data is not available at the unit record level, cross classification of census data by Census Collection District (CD) can still reveal individual household information if the number of people in the CD meeting the specified criteria is very small. This problem is compounded if the same data is obtained for several different areal units and the difference calculated for overlapping areas. To overcome this potential confidentiality issue, the ABS randomise all output data which has three or less people in that classification to produce cells with either zero or three as their value. Unfortunately for the user, this creates a problem in marginal areas where the number of people is low. For many applications this may not cause any major problems. For the Place of Work however, which has several hundred destination zones, many cells within a cross-classified table will fall into the marginal category. To address this issue, all cells with a value of three or less are generally excluded from small scale analysis, such as that involving destination zone analyses, although they remain in total numbers. Due to the aggregation of randomised numbers, each of the cross classified tables used in this report have differing total employee figures. However, the difference between the minimum and maximum total employed persons figures is less than 1%.

Some employed persons working in the ASD had no fixed work address. Persons in professions such as taxi driving and some trades (plumbers, electricians etc) were in this category. These persons could not be coded to a work destination zone and are therefore not included in the maps and statistics.

This edition of the Workplace Atlas follows on from the original Atlas produced using 2001 workplace data. Despite the availability of similar data from two Census’, a time-series analysis has not been undertaken. This is due in part to employed persons not stating some information on variables such as income, family type, industry of employment etc. The number of persons not stating some information varies for each census and also for each variable. There has also been changes to the boundaries of some destination zones and an increase in the number of zones.

Also, employed persons’ responses to industry of employment related questions in the 2006 Census were classified using the new Australian and New Zealand Standard Industry Classification (ANZSIC) 2006 (Catalogue 1292.0). In the 2001 Census, responses were coded to the Australian and New Zealand Standard Industry Classification (ANZSIC) 1993 (Catalogue 1292.0). Some industries such as retail have therefore changed classification between the 2001 and 2006 Census, so a direct comparison of workplace data from two Census years will produce misleading results.

With each successive Census the ABS and state transport agency have worked on improving the coding of persons to the destination zone in which they work. As a result, the number of persons coded to some destination zones changes between Census’ due to alterations to the coding process, rather than legitimate increases or decreases in the number of persons working in a destination zone, thereby making a time-series analysis somewhat invalid.
STUDY AREA

The study area for this report is the Adelaide Statistical Division - see Figure 1. Within the ASD there are 319 destination zones. Designed by the State/Territory transport agency in each state, they vary markedly in area and number of employed persons. This may be visually misleading at times so users should make allowance for these differences when viewing this document.

Figure 1 shows the major landuses within Adelaide including industrial, retail and commercial areas, education facilities and hospitals. Although some landuses can be predominantly vacant (eg industry), the map does indicate the distribution of employment within destination zones.
Figure 1: Journey to Work Destination Zones and Major Employment Areas
Adelaide Statistical Division
EMPLOYED PERSONS

At the 2006 Census there were 471,051\textsuperscript{1} people working in the ASD. Of these people 20.9\% (98,531) were employed in the LGA of Adelaide. Figure 2 shows the destination zones in the LGA of Adelaide that are dominated by retail, business, government, medical and health, and education activities had the highest numbers of workers.

Many of the destination zones north, south and west of Adelaide LGA with high numbers of workers were dominated by industry. These suburbs included Wingfield, Regency Park, Port Adelaide, Gepps Cross and Elizabeth in the north, and Thebarton and Mile End South in the west, and Edwardstown and Lonsdale in the south. In some of these suburbs, many of the workers were employed by large manufacturers such as Holden (GMH), Hills Industries and Bridgestone.

Destination zones containing major shopping centres or retail and entertainment precincts also employed significant numbers of people. These included Tea Tree Plaza, Noarlunga Centre, Glenelg, Unley Road, The Parade - Norwood and Prospect/Main North Road. These destination zones also tended to have relatively high densities of employment. Conversely, the majority of destination zones with low densities of employment were located in the Adelaide Hills.

Relatively large numbers of people also worked in destination zones containing the major hospitals and universities. The hospitals include Flinders Medical Centre, Royal Adelaide, Queen Elizabeth and Lyell McEwin. The university campuses are located in Adelaide, Thebarton, Mawson Lakes, Magill, Urrbrae and Bedford Park.

Adelaide Airport has seen a large increase in employment in recent years due to the construction of the new terminal, subdivision of several parcels of surplus airport land for business parks and the introduction of large scale retail activities including Harbour Town and IKEA.

Graph 1 (page 51) compares the number of employed persons working in each Local Government Area (LGA) with the resident labour force\textsuperscript{2} in that LGA. Adelaide (the largest employer with 98,531 employed persons), Port Adelaide Enfield, West Torrens and Norwood, Payneham and St Peters LGAs are the only council areas where the number of employed persons exceeds the resident labour force.

After Adelaide, Port Adelaide Enfield, West Torrens, Charles Sturt and Salisbury LGAs are the next largest employers. These LGAs have significant industrial areas which employ large numbers of persons.

Salisbury, Onkaparinga, Campbelltown and Tea Tree Gully have large imbalances between numbers of employed persons and resident labour force. Salisbury and Onkaparinga are fairly representative of the northern and southern regions of Adelaide and they are similar in size and socio-economic profiles. The residents of Tea Tree Gully and Campbelltown utilise work opportunities in the city, which is highly accessible via the O-Bahn. Salisbury has some large employment areas abutting its boundary, and in addition, Adelaide’s future development and employment is focused on this region. Onkaparinga, however is the most populous LGA in the ASD and has the largest imbalance of resident labour force to employed persons. The employment deficit in Onkaparinga is particularly significant, because the only substantial employment opportunities outside of the council are virtually limited to the city regions, a considerable distance to the north.

\textsuperscript{1} In this data table the total number of employed persons who could be coded to a work destination zone in the ASD is 471,051.

\textsuperscript{2} Labour Force includes all persons aged 15 years and over who are employed or looking for work.
Figure 2: Number of Employed Persons by Destination Zone
(Total employed persons: 471,051)
EMPLOYED FEMALES

48.5%³ (228,628) of persons working in the ASD at the 2006 Census were females.

Almost a quarter (55,160) of all female workers in the ASD were employed in the LGA of Adelaide. This LGA is dominated by retail, business, government, medical and health, service and education activities.

Apart from the concentration in the LGA of Adelaide, female employment was spread widely across the ASD. This is a function of the distribution of the major industries in which women work. Almost 50%⁴ of all employed women residing in the ASD were employed in the health and social assistance, education and training or retail sectors.

Many of the destination zones in suburban Adelaide with significant numbers of female workers, were dominated by a mix of retail, health and education activities. These areas include:

- Gawler - Murray Street retail, Gawler Hospital, aged care facilities, three primary schools, Gawler Tafe
- Salisbury - Parabanks and Salisbury Town centre retail, community health services and aged care facilities, three primary schools, Salisbury Tafe
- Modbury - Tea Tree Plaza, Modbury Hospital, Tea Tree Gully Tafe
- Prospect - Prospect and Main North Road retail, six aged care facilities and five schools
- Norwood - The Parade retail strip, six aged care facilities, three primary schools
- Morphett Vale - Main South Road retail, Woodcroft and Reynella Shopping Centres, aged care facilities and sixteen schools
- Noarlunga Centre - Colonnades Shopping Centre, Noarlunga Hospital, Noarlunga Tafe

Other destinations zones including Unley, Kent Town, Eastwood, Wayville and Oaklands Park (Marion Shopping Centre) with significant retail and/or commercial employment had high numbers of female workers.

The destination zone containing Flinders Medical Centre, Private Hospital and University contained the highest number of female workers (4,455) outside of Adelaide LGA. Females accounted for 70.7% of all employed persons in this destination zone.

Three destination zones had high proportions of female workers (greater than 75%). Each contained hospitals, including Ashford, Women’s and Children’s, Memorial and Lyell McEwin.

The high number of females employed in the destination zone covering Woodville South is attributable to the Queen Elizabeth Hospital.

Of all the LGAs, Gawler had the highest proportion of employed females (58.7% - 3,119) - see Graph 2 (page 51). 47.9% (2,525) of all jobs in Gawler were in the retail trade, education and training, or health care and social assistance industries which accounts for the high proportion of female workers. In the ASD these industries accounted for 34.9% (162,947)⁵ of all jobs.

The LGA with the lowest proportion of female workers was Port Adelaide Enfield (33.2% - 17,312). This is related to the dominance of manufacturing jobs in the area which are more likely to be filled by males and accounted for 26.8% (13,834) of all jobs in the LGA. In general, LGAs with minimal industry tended to have higher proportions of female workers.

³ In this data table the total number of employed persons in the ASD is 471,051. Employed persons totals may vary from section to section in this report due to randomisation. Refer to Data Limitations for more detail.

⁴ Derived from ABS CDATAOnline - 2006 Census of Population and Housing. Industry of Employment by Sex by Place of Usual Residence (ASD). Figure is a percentage of all employed females resident in the ASD (235,220) who stated and/or adequately described their industry of employment.

⁵ In this data table the total number of employed persons in the ASD is 471,047. Of these employed persons 467,340 stated their industry of employment.
Figure 3: Number of Employed Females by Destination Zone
(Total employed females: 228,628)
FULL-TIME EMPLOYED FEMALES

Of the 225,468 women working in the ASD at the 2006 Census, 48.9% (110,346) were employed full-time. Of the 110,346 women employed full-time, almost 30% (31,914) were employed in the LGA of Adelaide.

The majority of destination zones with high proportions of female workers employed full-time were dominated by industry. These include the suburbs of Outer Harbor, Gillman, Ottoway, Regency Park, Dudley Park, Devon Park, Beverley and Bowden.

Edinburgh also had high proportions of female workers employed full-time. The major employers are the Defence Science and Technology Organisation (DSTO) and RAAF Base.

Full-time employed females in the city fringe suburb of Eastwood are likely to have been employed in the various offices along Greenhill Road. These include the Cancer Council of SA, St John Ambulance and AGL, all of which have call centres.

In Keswick, the majority of full-time employed females are likely to have been employed by ETSA utilities, on the corner of Anzac Highway and Richmond Road.

More than 40% (1,324) of all employed persons in the destination zone to the north east of Victoria Square in Adelaide were females employed full-time. This destination zone contains several buildings occupied by government departments, including the State Administration Centre and the Department of Education and Children’s Services.

Outside of Adelaide LGA the destination zone with the highest number of full-time employed females (2,190) was at Bedford Park which contains Flinders Medical Centre, Private Hospital and University. Full-time employed females in this destination zone accounted for 35.1% of all employed persons in the zone.

Adelaide LGA had the highest proportion of females employed full-time (58.5% - 31,914) - see Graph 3 (page 52). These women accounted for 32.8% of all persons employed in Adelaide LGA who stated their hours worked. The majority of females were likely to have been employed in business, government, medical and health, and education related activities. The northern and western LGAs of Port Adelaide Enfield (53.4%), West Torrens (52.9%), Salisbury (50.7%) and Charles Sturt (48.4%) had significant proportions of full-time female workers. This is likely to be related to the large concentrations of industry in these LGAs.

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6 In this data table the total number of employed persons in the ASD is 471,051. Of the 228,628 employed females in the ASD, 225,468 stated their hours worked. Employed persons totals may vary from section to section in this report due to randomisation. Refer to Data Limitations for more detail.
Figure 4: Females Employed Full-Time as a Percentage of all Employed Females by Destination Zone
(Total females in full-time employment: 110,346)
PART-TIME EMPLOYED FEMALES

Of the 225,468 women working in the ASD at the 2006 Census, 51.1% (115,122) were employed part-time. These 115,122 part-time employed females represented 24.8% of the ASD’s total employed persons.

The majority of destination zones with high proportions of female workers employed part-time, were on the fringes of the metropolitan area. Towards the east and south in the foothills these suburbs included One Tree Hill, Fairview Park, Skye, Auldana, Crafers, Coromandel Valley, Flagstaff Hill and Onkaparinga Hills. Along the western coastal strip the suburbs included Semaphore Park, Seaciff and Sellicks Beach. All of these suburbs had significant proportions of persons working from home, which may account in some part for the high proportions of females employed part-time.

The suburbs of Sefton Park, Fulham Gardens, Glengowrie, Westbourne Park, Leabrook and Erindale had significant proportions of females employed part-time. The high proportion of females employed part-time in the destination zone containing West Lakes Mall is obviously related to retailing jobs, while the intermittent nature of events at Football Park would have provided part-time rather than full-time work.

Some of these part-time employed females would have been young adults attending high school or university, who also worked part-time. Of the 111,749 females residing in the ASD who worked part-time, 22.1% (24,721) were aged between 15 and 24 years.

In terms of actual numbers of part-time employed females, large numbers worked in the city and some regional centres. The destination zones that contain Tea Tree Plaza and Marion Shopping Centre each had more than 1,400 part-time employed females, who accounted for around 50% of all employed persons in the destination zones.

The destination zone with the highest number of part-time employed females (2,235) outside of Adelaide LGA contains Flinders Medical Centre, Private Hospital and University.

On an LGA basis, workplaces in the Adelaide Hills Council (part) had the highest proportion of female workers employed part-time (64.7% - 1,471) - see Graph 4 (page 52). Women working in the Council area probably also resided in the hills and were likely to work at home in agriculture and on hobby farms, or in retail, service or hospitality jobs in local townships. Over 62% (6,405) of female workers in Tea Tree Gully LGA were employed part-time. Of these 6,405 women, over a quarter (28.7%) worked in the destination zone that contains Tea Tree Plaza, Modbury Hospital and Tea Tree Gully Tafe.

Although Adelaide LGA had by far the highest number of women employed part-time (22,634), it had the lowest proportion (41.5%). This is related to the high number of full-time jobs in the city.

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7 Of the 228,628 employed females in the ASD, 225,468 stated their hours worked. Employed persons totals may vary from section to section in this report due to randomisation. Refer to Data Limitations for more detail.

8 In this data table the total number of employed persons in the ASD is 471,051. Of these employed persons, 463,473 stated their hours worked.

9 Derived from ABS Basic Community Profile - 2006 Census of Population and Housing. Labour Force Status by Age by Sex.
Figure 5: Females Employed Part-Time as a Percentage of all Employed Females by Destination Zone
(Total females in part-time employment: 115,122)
FEMALES WITH CHILDREN UNDER 15 YEARS OF AGE

Of the 471,044\(^{10}\) people working in the ASD at the 2006 Census, 69,385 (14.7\%) were females with children under 15 years of age. This equates to 30.3\% of all employed women.

Destination zones within Adelaide LGA had high numbers of females with children under 15 years of age (14,376) by virtue of the large numbers of people who work in this region. Despite the high numbers, Adelaide LGA had the lowest proportion of female workers with children under 15 years of age (26.1\%) - see Graph 5 (page 53).

Many of the destination zones with high numbers of females with children under 15 years of age were dominated by the retail industry. These shopping precincts included Gawler town centre, Parabanks Shopping Centre and Salisbury Town Centre, Tea Tree Plaza, The Parade - Norwood, Marion Shopping Centre, Woodcroft and Reynella Shopping Centres and Noarlunga Centre. The majority of these destination zones were also characterised by high numbers - 1,000 or more - of females employed part-time - see destination zones with green outline in Figure 5.

The destination zone containing Flinders Medical Centre and University also had high numbers of females workers with children under 15 years of age (1,447). These women accounted for 32.5\% of all women working in the destination zone.

Graph 5 (page 53) shows that after Adelaide, the LGAs of Onkaparinga, Port Adelaide Enfield and Charles Sturt had the highest numbers of employed females with children under 15 years of age.

In Gawler LGA, 38.9\% (1,212) of all employed females had children under 15 years of age, which is higher than the ASD as a whole, where 30.3\% (69,385) of all women had children under 15 years of age.

Interstate research of journey to work patterns has observed that part-time workers generally have shorter trips to work than full-time workers (O’Connor, 2002:2). This research, combined with the patterns identified in Figure 6 suggests that women with children under 15 years of age - particularly those who work part-time - are likely to work closer to home.

\(^{10}\) In this data table the total number of employed persons in the ASD is 471,044. Employed persons totals may vary from section to section in this report due to randomisation. Refer to Data Limitations for more detail.
Figure 6: Number of Employed Females with Children Under 15 Years of Age by Destination Zone
(Total employed females with children under 15 years of age: 69,385)
FEMALES FROM SINGLE PARENT FAMILIES WITH CHILDREN UNDER 15 YEARS OF AGE

Of the 69,385 women with children under 15 years of age who worked in the ASD, 17.8% (12,339) were single parents. This equates to 5.4% of all women and 2.6%\(^\text{11}\) of the total employed persons. Almost 80% of the 15,585 employed single parents with children under 15 years of age in the ASD at the 2006 Census were women.

The patterns of single female workers with children under 15 years of age were very similar to those of all females with children under 15 years of age - see Figures 6 & 7. The high numbers of single females with children under 15 years of age (2,393) in Adelaide LGA is related to the large numbers of people who work in the region. Despite the high numbers, Adelaide LGA had the lowest proportion of employed females who were single with children under 15 years of age (4.3%).

35.0% (4,252) of the 12,159\(^\text{12}\) single females with children under 15 years of age were employed full-time. This is slightly higher than the proportion of women with children under 15 years of age from couple families who worked full-time - 30.7% or 17,266. These single women may have needed to work full-time out of economic necessity.

Graph 6 (page 53) shows that the LGAs of Playford, Gawler, Salisbury and Port Adelaide Enfield had among the highest proportions of employed single females with children under 15 years of age. These LGAs also had the highest proportions of resident single females with children under 15 years of age. In fact, 41.0%\(^\text{13}\) of the ASD’s resident single females with children under 15 years of age lived in these LGAs.

The green shaded areas in Figure 7 show Census Collection Districts with relatively high proportions (25% or greater) of resident females who are single with children under 15 years of age.\(^\text{15}\) In some destination zones there is a strong correlation between high numbers of single female workers with children under 15 years of age and high proportions of resident single females with children under 15 years of age. This correlation is obvious around the areas of Elizabeth and Salisbury in the north and some of the suburbs surrounding Noarlunga Centre in the south. As mentioned previously, this is likely to be related to the general trend of women with children under 15 years of age working closer to home.

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\(^\text{11}\) In this data table the total number of employed persons in the ASD is 471,044. Employed persons totals may vary from section to section in this report due to randomisation. Refer to Data Limitations for more detail.

\(^\text{12}\) Of the 12,339 employed single females with children under 15 years of age, 12,159 stated their hours worked.

\(^\text{13}\) Derived from ABS TableBuilder - 2006 Census of Population and Housing. Family Type (FMCF) by Sex.
Census Collection Districts where 25% or more of females in resident families are single parents with children under 15.

Number of Females

<table>
<thead>
<tr>
<th>Local Government Area Boundary</th>
<th>Number of Females</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salisbury</td>
<td>75 - 149</td>
</tr>
<tr>
<td>Tea Tree Plaza</td>
<td>50 - 74</td>
</tr>
<tr>
<td>The Parade, Norwood</td>
<td>25 - 49</td>
</tr>
<tr>
<td>Flinders University &amp; Medical Centre</td>
<td>Less than 25</td>
</tr>
<tr>
<td>Elizabeth</td>
<td>150 or Greater</td>
</tr>
</tbody>
</table>

Figure 7: Number of Employed Females from Single Parent Families with Children Under 15 Years by Destination Zone

(Total employed single females with children under 15 years of age: 12,339)
EMPLOYED MALES

51.5% (242,423) of the 471,051\textsuperscript{14} people working in the ASD at the 2006 Census, were male.

17.9% (43,371) of all male workers in the ASD were employed in the LGA of Adelaide. The destination zones that were dominated by government, finance, insurance and professional services had high numbers of male workers.

In general, there was a strong correlation between suburbs with high numbers of male workers and areas dominated by industry. These areas were located north, south and west of the city and included Elizabeth West, Elizabeth South, Gepps Cross, Wingfield, Port Adelaide, Regency Park, Thebarton, Mile End South, Edwardstown and Lonsdale.

Edinburgh also had high numbers of male workers. The major employers are the Defence Science and Technology Organisation (DSTO) and RAAF Base. Significant numbers of males also worked in the eastern suburb of Norwood. The suburb is transected by The Parade and is bounded by three major roads - Magill, Fullarton and Kensington - that are lined with retail shops and professional services (doctors, lawyers, real estate agents etc) and light industry. The schools, nursing homes and numerous pubs would also employ male staff.

The destination zone covering the industrial suburb of Wingfield contained the highest number of male workers (6,090) in the ASD, accounting for 81.6% of all persons employed in the destination zone.

Over 60% of employed persons in the LGAs of Port Adelaide Enfield and Salisbury were males - see Graph 7 (page 54). More than 20% of all jobs in both LGAs were in the manufacturing industry, which is more than double the proportion of manufacturing jobs in the remainder of the ASD - 10.8% (40,821).

\textsuperscript{14} In this data table the total number of employed persons in the ASD is 471,051. Employed persons totals may vary from section to section in this report due to randomisation. Refer to Data Limitations for more detail.
Figure 8: Number of Employed Males by Destination Zone
(Total employed males: 242,423)
FULL-TIME EMPLOYED MALES

Of the 238,005\textsuperscript{15} males working in the ASD at the 2006 Census, 78.9\% (187,720) were employed full-time. These full-time employed males represented 40.5\% of the ASD’s working population.\textsuperscript{16}

The majority of destination zones with high proportions of male workers employed full-time, were dominated by industry. These destination zones covered the suburbs of Salisbury Plain, Salisbury South, Cavan, Wingfield, Ottoway, Birkenhead, Largs North, Osborne, North Haven, Athol Park, Regency Park, Kilburn, Woodville North, Royal Park, Beverley, Bowden, Netley, North Plympton, St Marys and Lonsdale.

The destination zone containing Holden and various other industries in Elizabeth South had the greatest proportion (92.4\%) and the third highest number of males (3,719) employed full-time in the ASD.

The suburb of Keswick offers a variety of employment including ETSA Utilities head office, commercial along Richmond and South Road, and light industry towards the middle, which accounts for the high proportion of full-time employed males.

In Marion LGA at the 2006 Census, the destination zones incorporating the suburbs of Edwardstown and Clovelly Park accounted for 51.2\% (4,098) of all full-time male employment in the LGA. However, since the closure of the Mitsubishi assembly plant in 2008 and sale of Hills Industries’ Edwardstown site in 2007 the number of jobs - particularly those typically filled by full-time employed males - would have decreased significantly.

Edinburgh also had high proportions of male workers employed full-time. The major employers are the Defence Science and Technology Organisation (DSTO) and RAAF Base. Of the 225 men working in the destination zone containing Golden Grove and Gould Creek who stated their hours worked, 193 (85.8\%) were employed full-time. The majority of these workers were likely to have been employed by the industries or quarries located to the east of Golden Grove Road.

Despite a significant decrease in the actual number of jobs in the southern industrial suburb of Lonsdale due to the closure of Port Stanvac oil refinery in 2003 and Mitsubishi’s engine assembly plant two years later, the destination zone accounted for almost a third (3,748 - 31.1\%) of Onkaparinga LGA’s full-time employed males at the 2006 Census.

The LGA of Adelaide had the highest number of males employed full-time (34,611) - see Graph 8 (page 54). Most of these males would have been white collar workers employed in finance and insurance services, government and professional service related jobs. In Port Adelaide Enfield LGA full-time male workers accounted for 84.4\% of all employed males. This is related to the significant concentrations of industry in the area. The LGAs of West Torrens, Charles Sturt and Salisbury are also dominated by industry and had more than 16,000 full-time employed males.

\textsuperscript{15} Of the 242,423 males employed in the ASD, 238,005 stated their hours worked. Employed persons totals may vary from section to section in this report due to randomisation. Refer to Data Limitations for more detail.

\textsuperscript{16} In this data table the total number of employed persons in the ASD is 471,051. Of these employed persons, 463,473 stated their hours worked.
Figure 9: Males Employed Full-Time as a Percentage of all Employed Males by Destination Zone
(Total males in full-time employment: 187,720)
PART-TIME EMPLOYED MALES

Of the 238,005\textsuperscript{17} men working in the ASD at the 2006 Census, 21.1\% (50,285) were employed part-time. This equates to 10.8\% of the ASD’s total employed persons.\textsuperscript{18}

In some cases, high percentages of males employed part-time were found in destination zones containing medium to large shopping centres or retail strips. These included Tea Tree Plaza, Dernancourt Shopping Centre, Regency and Sefton Plaza, West Lakes Mall, Fulham Gardens and Marion Shopping Centre. Considering that more than a third (17,365)\textsuperscript{19} of the 50,023 part-time male workers residing in the ASD, were aged between 15 and 24 years, a significant proportion of these retail workers were likely to have been high school or university students.

The destination zone covering part of Rundle Mall and Rundle Street in Adelaide had the highest number of males employed part-time (862) in the ASD, due to the high number of retail and service jobs.

Outside of Adelaide LGA, the destination zone covering the suburb of Norwood, had the highest number of part-time employed males (732). These males are likely to have worked in retail or service jobs located along The Parade.

The high proportion of males employed part-time (55.3\%) in the destination zone containing West Lakes Mall is related to retailing jobs, while the intermittent nature of events at Football Park would have provided part-time rather than full-time work.

Graph 9 (page 55) shows that while Adelaide LGA had the highest number of part-time male workers (8,169) it had one of the lowest proportions in the ASD (19.1\%). The majority of other LGAs’ male workforces consisted of between 20\% and 30\% part-time employed males.

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\textsuperscript{17} Of the 242,423 males employed in the ASD, 238,005 stated their hours worked. Employed persons totals may vary from section to section in this report due to randomisation. Refer to Data Limitations for more detail.

\textsuperscript{18} In this table the total number of employed persons in the ASD is 471,061. Of these employed persons, 463,473 stated their hours worked.

\textsuperscript{19} Derived from ABS Basic Community Profile - 2006 Census of Population and Housing. *Labour Force Status by Age by Sex.*
Figure 10: Males Employed Part-Time as a Percentage of all Employed Males by Destination Zone

(Total males in part-employment: 50,285)
PERSONS EMPLOYED IN THE MANUFACTURING INDUSTRY

Of the 467,340\textsuperscript{20} people working in the ASD at the 2006 Census, 62,968 (13.5\%) were employed in manufacturing, making it the second largest employer after the health industry.

Suburbs with high numbers of manufacturing workers included Elizabeth West and South, Salisbury South, Wingfield, Dry Creek, Regency Park, Beverley and Bowden in the north, and Edwardstown, Clovelly Park and Lonsdale in the south. Some of these suburbs were dominated by large manufacturers such as Clipsal, Mitsubishi, Holden (GMH), Hills Industries and Bridgestone. The majority of destination zones with high numbers of manufacturing workers were located west or north of the CBD, within close proximity to main transport routes such as South, Port and Grand Junction Roads and railway lines.

Some 29.7\% (6,207) of persons working in Playford LGA were employed in the manufacturing industry - see Graph 10 (page 55). More than 20\% of persons working in Port Adelaide, Charles Sturt and Salisbury LGAs were employed in the manufacturing industry.

The LGA of Port Adelaide Enfield had the greatest number of persons employed in the manufacturing industry (13,834) - see Graph 10 (page 55). More than 50\% of Port Adelaide Enfield’s manufacturing employment was concentrated in the destination zones that cover the central suburbs of Regency Park, Wingfield, Dry Creek and Dudley Park. This concentration of manufacturing employment also occurred in several other LGAs. For example, around 93\% (5,769) of manufacturing jobs in Playford council were in the suburbs of Elizabeth South and West. The manufacturing jobs in these two suburbs accounted for 27.6\% of all employment in Playford LGA. Similarly, the suburbs of Edwardstown and Clovelly Park accounted for almost 85\% of Marion LGA’s manufacturing employment. The 2008 closure of the Mitsubishi assembly facility at Clovelly Park and sale of Hills Industries’ Edwardstown site in 2007 would have reduced the number of manufacturing jobs significantly.

The industrial suburb of Lonsdale in Onkaparinga LGA had 3,341 persons employed in the manufacturing industry. Despite the closure of Mitsubishi’s engine assembly plant in 2005, Lonsdale accounted for 54\% of manufacturing employment in the LGA, and had almost five times as many manufacturing jobs than any other destination zone in the LGA. In general this concentrated pattern is largely related to the development of industrial areas over-time, and zoning regulations which tend to encourage the concentration of manufacturing and related activities.

\textsuperscript{20} In this data table the total number of employed persons in the ASD is 471,047. Of these employed persons 467,340 stated their industry of employment. Employed persons totals may vary from section to section in this report due to randomisation. Refer to Data Limitations for more detail.
Figure 11: Number of Persons Employed in the Manufacturing Industry by Destination Zone
(Total persons employed in the manufacturing industry: 62,968)
PERSONS EMPLOYED IN THE RETAIL INDUSTRY

At the 2006 Census, 58,891 (12.6%)\(^{21}\) persons working in the ASD were employed in the retail industry.

Destination zones containing major shopping centres or retail precincts naturally had the highest numbers of retail workers. The major shopping centres include Noarlunga Centre, Westfield Marion, Tea Tree Plaza, West Lakes Mall and Elizabeth City Centre. The destination zones containing these shopping centres accounted for a considerable proportion of their respective LGA’s retail jobs. For example, in Marion council 39.9% of all retail jobs existed within the destination zone containing Marion Shopping Centre.

The retail precincts of Rundle Mall, Glenelg and The Parade - Norwood also had high numbers of workers. Suburbs containing medium sized shopping centres or concentrations of retail activities along main roads also had significant concentrations of retail related employment. These suburbs included Prospect, Gawler, Salisbury, Edwardstown and Morphett Vale.

Adelaide LGA had the highest number of retail workers (7,547) in the ASD. The two destination zones covering Rundle Mall and part of Rundle Street contained 48.3% (3,648) of the LGA’s retail workers. Despite the comparatively high numbers in Adelaide, less than 8% of people working in the LGA were employed in the retail industry - see Graph 11 (page 56).

Tea Tree Gully LGA had the highest proportion of persons employed in the retail industry - (23.8% or 4,292) - see Graph 11 (page 56). The destination zones containing Tea Tree Plaza and Golden Grove Village accounted for 58.7% (2,520) of all retail employment in the LGA.

Retail jobs accounted for 23.1% (1,095) of all employment in Prospect LGA. The majority of retail jobs in Prospect were located along Churchill, Prospect and Main North Road.

\(^{21}\) In this data table the total number of employed persons in the ASD is 471,047. Of these employed persons 467,340 stated their industry of employment. Employed persons totals may vary from section to section in this report due to randomisation. Refer to Data Limitations for more detail.
Figure 12: Number of Persons Employed in the Retail Industry by Destination Zone

(Total persons employed in the retail industry: 58,891)
PERSONS EMPLOYED IN THE HEALTH INDUSTRY

The health industry employed the greatest number of persons in the ASD - 65,396 persons and 14.0% of total employment.\textsuperscript{22}

Destination zones containing the major hospitals had high numbers of health workers. These include Flinders Medical Centre, Royal Adelaide, Queen Elizabeth, Lyell McEwin, Ashford, Women’s and Children’s, Memorial and Repatriation General Hospital. Mental health, rehabilitation and disability services also employed significant numbers of health workers. These facilities include the Julia Farr Centre at Fullarton, Strathmont Centre at Oakden, Glenside Hospital and Minda at North Brighton. The community health, support and aged care facilities that are located throughout the ASD would have also employed significant numbers of health workers. There would have also been considerable numbers of doctors, specialists and other health care professionals working in private practices, companies and ancillary services (eg pathology and radiology services).

Adelaide LGA had the highest number of health workers (14,539) in the ASD - see Graph 12 (page 56). The destination zones containing Royal Adelaide, Memorial and Women’s and Children’s accounted for almost 50% of Adelaide LGA’s health related employment.

Around 32% (7,525) of persons employed in Mitcham council worked in the health industry - see Graph 12 (page 56). More than 50% (3,896) of these workers were employed in the destination zone that contains Flinders Medical Centre and Private Hospital. A further 1,417 (18.8%) were employed in the destination containing Repatriation General Hospital. Holdfast Bay LGA also had a relatively high proportion of workers employed in the health industry - 22.6%. These health workers are likely to have been employed at Glenelg Community Hospital, an aged care facility or support services such as Minda and Hartley Dialysis Centre.

\textsuperscript{22} In this data table the total number of employed persons in the ASD is 471,047. Of these employed persons 467,340 stated their industry of employment. Employed persons totals may vary from section to section in this report due to randomisation. Refer to Data Limitations for more detail.
Figure 13: Number of Persons Employed in the Health Industry by Destination Zone
(Total persons employed in the health industry: 65,396)

<table>
<thead>
<tr>
<th>Persons</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>800 or Greater</td>
<td>888</td>
</tr>
<tr>
<td>400 - 799</td>
<td>1417</td>
</tr>
<tr>
<td>200 - 399</td>
<td>1505</td>
</tr>
<tr>
<td>100 - 199</td>
<td>3896</td>
</tr>
<tr>
<td>Less than 100</td>
<td>928</td>
</tr>
</tbody>
</table>

Adelaide LGA

Figure 13: Number of Persons Employed in the Health Industry by Destination Zone
(Total persons employed in the health industry: 65,396)
PERSONS WHO WORK FROM HOME

In 2006 14,970 people worked from home. These people accounted for 3.6% of the ASD’s working population.23

Areas with high proportions of people working from home were on the fringes of the metropolitan area. In the hills, these areas ranged from One Tree Hill in the north to Kangarilla in the south. People in these regions may have been running family businesses from home or were working in their own agricultural activities or hobby farms.

Some suburbs in the foothills such as Greenwith, Redwood and Fairview Park, Highbury, Wattle Park, Stonyfell and Auldana also had high proportions of people working from home. Destination zones covering the coastal suburbs of Marino, Maslin and Sellicks Beach also had more than 20% of residents working from home. The majority of these people may have been running home businesses.

The destination zone with the highest number of persons working from home (301) covered the areas around Willunga and McLaren Vale. People working in these areas were likely to have worked on family run vineyards and businesses.

Adelaide Hills Council (part) had the highest proportion of people working from home at 18.7% (706), followed by Burnside at 8.2% (1,009) - see Graph 13 (page 57). More than half (365) of the people working from home in the Hills council area lived in the destination zones that encompass the townships of Crafers, Stirling, Aldgate and Bridgewater. Adelaide LGA had the lowest proportion of persons working from home (0.9%), which is partly related to the relatively low numbers of employed people who live in the LGA.

In the ASD 57.3% (8,421)24 of persons working from home were females. Of these women, 68.7% (5,785) worked part-time.

Graph 14 (page 57) shows that 39.4% of all persons who worked from home were females working part-time. Males working full-time from home accounted for 25.5% (3,748) of all home workers.

In general, people working from home tended to be older and earned less than other employed persons. In 2006, more than 73% (10,944)25 of people working from home were aged 40 years and over, compared with 51.9% (205,253) of persons who did not work from home. More than a third (4,914)26 of persons working from home earned less than $20,800 per annum, compared to around one sixth (65,004) of persons not working from home.

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23 In this data table the total number of employed persons in the ASD is 471,051. Of these employed persons 410,598 went to work and stated their mode of travel. Employed persons totals may vary from section to section in this report due to randomisation. Refer to Data Limitations for more detail.

24 In this data table the total number of employed persons in the ASD is 471,051. Of these employed persons 404,769 went to work, stated their mode of travel and hours worked.

25 In this data table the total number of employed persons in the ASD is 471,030. Of these employed persons 410,574 went to work and stated their mode of travel.

26 In this data table the total number of employed persons in the ASD is 471,055. Of these employed persons 405,640 went to work, stated their mode of travel and income.
Figure 14: Percentage of Employed Persons who Work From Home by Destination Zone
(Total persons who work from home: 14,970)
PERSONS USING A CAR TO TRAVEL TO WORK

84.5% (334,334) of people employed in the ASD\textsuperscript{27} travelled to work in a car either as a passenger or driver, making it the most popular method of travel.

Areas with 95% or more of persons using a car to travel to work were predominantly concentrated in the north western industrial suburbs. The suburbs of Wingfield (6,714) and Regency Park (5,148) also had the greatest numbers of persons travelling to work by car. These destination zones were also characterised by high proportions of manufacturing jobs and males employed full-time. The lack of public transport routes servicing these areas, availability of free carparking plus the prevalence of shift work contribute to the high levels of car usage.

Graph 15 (page 58) shows that Port Adelaide Enfield LGA had the highest proportion (93.7%) of employed persons using a car to travel to work. This is related to the relatively high number of destination zones dominated by industry in this LGA. All LGAs apart from Adelaide had more than 87% of employed persons using a car. The low proportion of people travelling by car to Adelaide city (58.6%) is associated with the relatively high level of public transport provision to the area, the cost of car parking and the propensity of persons also living in the LGA to walk or cycle to work. However, the sheer size of Adelaide’s working population (84,713) meant that it had the greatest number of persons (49,675) using a car to get to work - see Graph 15 (page 58). Of the 310,915 persons working outside of Adelaide LGA, 91.6% (284,659) used a car to get to work.

The proportion of workers who used a car to get to work varied depending on factors such as gender and hours worked. Men had a slightly greater propensity to travel to work in a car than women, with around 85.9% (183,353) of men working in the ASD using a car, compared to 82.9% (150,981) of women.

Persons employed full-time were more likely to use a car than people employed part-time, with around 85.4%\textsuperscript{28} (237,120) of persons employed full-time using a car to travel to work. Of these full-time workers 64.7% (153,382) were men, thereby representing 46.5% of all persons who travelled by car.

Females employed part-time had a marginally greater propensity to use a car to travel to work (83.6% - 65,518) than part-time employed males (79.5% - 26,997) - see Graph 16 (page 58). This may be related to a greater need by women to use a car to drop off children at school or child care on the way to work.

The older an employed person was and the more they earned, the more likely they were to use a car to travel to work. In 2006, 76.0%\textsuperscript{29} (15,120) of 15-19 year olds used a car. This proportion successively increased for each age group up to 87.0% (50,209) of employed persons aged 55 years and over. Similarly, 79.1%\textsuperscript{30} (51,428) of persons earning less than $20,800 per annum used a car to travel to work, compared to 86.1% (50,770) of persons with an income of $67,700 or greater.

\textsuperscript{27} In this data table the total number of employed persons in the ASD is 471,051. Of these employed persons 395,628 went to work, stated their mode of travel and did not work at home. Employed persons totals may vary from section to section in this report due to randomisation. Refer to Data Limitations for more detail.

\textsuperscript{28} In this data table the total number of employed persons in the ASD is 471,051. Of these employed persons 390,078 went to work, stated their mode of travel and hours worked and did not work at home.

\textsuperscript{29} In this data table the total number of employed persons in the ASD is 471,030. Of these employed persons 395,645 went to work, stated their mode of travel and did not work at home.

\textsuperscript{30} In this data table the total number of employed persons in the ASD is 471,055. Of these employed persons 390,930 went to work, stated their mode of travel and income and did not work at home.
Figure 15: Percentage of Employed Persons using a Car to Travel to Work by Destination Zone
(Total employed persons using a car: 334,334)
PERSONS WHO USE PUBLIC TRANSPORT TO TRAVEL TO WORK

10.3% (40,851) of people working in the ASD\textsuperscript{31} used public transport to get to work in 2006. Of these people, 71.1% (29,048) worked in the LGA of Adelaide which is well serviced by public transport.

Within Adelaide’s CBD, the destination zones with the highest proportions tended to be clustered around the mid section of King William Street. These destination zones are within close proximity of the major bus routes of Currie and Grenfell Streets, North Terrace and King William Street and the train station and tram terminus. Car parking in these destination zones is generally more restricted and costly than in the outer destination zones, which may further encourage workers to use public transport rather than a car.

In the rest of the ASD (outside of Adelaide LGA) low proportions of the working population used public transport to get to work. Of the 310,915 people working in these areas only 3.8% used public transport, compared to 34.3% in Adelaide LGA - see Graph 17 (page 59). This equates to almost two and half times more persons using public transport to get to Adelaide LGA (29,048), than the remainder of the ASD (11,803). The lack of public transport patronage in suburban areas is related to a variety of factors that vary depending on workers’ circumstances. Some of these factors include:

- location of stops and transport routes
- timing of services
- hours of work
- other commitments that require the use of a private means of transport
- availability of car parking near the place of work

The destination zone covering Panorama and Pasadena had the highest proportion of persons using public transport to travel to work (14.7%) in the suburban areas. Around 40% of the destination zone’s 1,130 workers were employed at Bedford Industries, which provides employment opportunities for people with disabilities. The suburban destination zones containing Marion and Sefton Park Shopping Centres had higher proportions (greater than 10%) of persons using public transport to travel to work than other suburban destination zones. This may be due to the fact that they are well served by public transport. More than 50% of workers using public transport to travel to the zone containing Marion Shopping Centre were females employed part-time.

The proportion of workers who used public transport to get to work varied depending on factors such as gender and hours worked. Women had a greater propensity to travel to work by public transport than men, with around 12.8% (23,386) of women working in the ASD using public transport, compared to 8.2% (17,465) of men. The disparity was even greater in Adelaide LGA where 37.9% (17,445) of women used public transport to travel to work, compared to 29.9% (11,603) of men.

When gender was considered in conjunction with hours worked, full-time employed females had the greatest propensity (13.8% - 14,014)\textsuperscript{32} to use public transport - see Graph 18 (page 59). In contrast, 7.5% (13,174) of full-time employed males used public transport. Within Adelaide LGA females employed full-time accounted for 40.3% (11,591) of all persons using public transport to travel to the LGA.

\textsuperscript{31} In this data table the total number of employed persons in the ASD is 471,051. Of these employed persons 395,628 went to work, stated their mode of travel and did not work at home. Employed persons totals may vary from section to section in this report due to randomisation. Refer to Data Limitations for more detail.

\textsuperscript{32} In this data table the total number of employed persons in the ASD is 471,051. Of these employed persons 390,078 went to work, stated their mode of travel and hours worked and did not work at home.
Figure 16: Percentage of Employed Persons using Public Transport to Travel to Work by Destination Zone
(Total employed persons using public transport: 40,851)
INCOME OF EMPLOYED PERSONS

Of the 465,383 persons working in the ASD\textsuperscript{33} at the 2006 Census, 42.0\% (195,557) earned $41,600 or more per annum. Census income is a function of both hours worked and job type. Destination zones where the hours worked are low (e.g., retailing) show low percentages of persons earning $41,600 or more per annum. Alternatively, regions with high hours worked (overtime) and high salaries will show greater percentages. Nonetheless, it is a good indicator of wealth in each zone. In particular, Figure 17 highlights the low incomes of those working in the southern regions.

The employed persons earning $41,600 or more per annum in the northwestern suburbs of Birkenhead, Peterhead, Outer Harbor and Osborne were likely to have worked in an export/transport, boat building or cement manufacturing vocation. Persons on relatively high incomes in Mawson Lakes would have been employed at the university or in an engineering and scientific service located at Technology Park. The major employer on Torrens Island is the power station, which accounts for the high proportion of persons earning $41,600 or more per annum. Some persons working in these destination zones may have also had the opportunity to work over-time, thereby increasing their incomes.

Edinburgh also had a relatively high proportion of persons earning $41,600 or more per annum. The major employers are the Defence Science and Technology Organisation (DSTO) and RAAF base. Holden (GMH) located in Elizabeth South would have accounted for the majority of persons earning relatively high incomes in that destination zone.

ETSA head office in Keswick is likely to have employed the majority of persons earning $41,600 or more per annum in that destination zone. The employed persons on relatively high incomes in the destination zone covering Netley would have worked at the police station or in government departments. Persons who worked at the Mitsubishi assembly plant located in the Clovelly Park destination zone would have earned reasonable incomes. The plant closed in 2008.

Destination zones with low proportions of persons earning $41,600 or more per annum were spread throughout the ASD. The majority of these zones are likely to have been dominated by part-time workers and/or low-paid jobs.

In the ASD 15.3\% (7,045)\textsuperscript{34} of labourers and 18.1\% (8,752) of sales workers earned $41,600 or more per annum. This compares to 66.8\% (37,089) of managers and 70.6\% (71,595) of professionals.

The LGA of Adelaide had the highest number (52,257) and proportion (53.5\%) of employed persons earning $41,600 or more per annum - see Graph 19 (page 60). This is related to the high proportion of full-time jobs and dominance of professional occupations in some destination zones. In Adelaide LGA, 64.0\% (33,201) of persons earning $41,600 or more per annum were professional and managerial workers.

Tea Tree Gully LGA had the lowest proportion of persons earning $41,600 or more per annum (5,186 - 29.0\%). Around 20\% (3,499) of persons employed in the LGA who stated their occupation were classified as sales workers, compared to 10.2\% (45,623) in the remainder of the ASD. Sales and service type jobs have a tendency to be part-time, with relatively low pay which is evidenced by the 92.4\% (3,185) of persons in Tea Tree Gully LGA employed as sales workers earning less than $41,600.

\textsuperscript{33} In this data table the total number of employed persons in the ASD is 471,065. Of these employed persons 465,383 stated their income. Employed persons totals may vary from section to section in this report due to randomisation. Refer to Data Limitations for more detail.

\textsuperscript{34} In this data table the total number of employed persons in the ASD is 471,065. Of these employed persons 461,748 stated their income and occupation.
Figure 17: Percentage of Employed Persons Earning $41,600 or More per annum by Destination Zone
(Total employed persons earning $41,600 or more: 195,557)
INDIGENOUS EMPLOYED PERSONS

At the 2006 Census 2,807 people who worked in the ASD, indicated they were of Aboriginal or Torres Strait Islander origin. These persons represented 0.6% of the total working population.\(^{35}\)

Almost a quarter (695) of all indigenous workers were employed in the LGA of Adelaide. These persons may have worked in areas such as retail, service provision, business, government, medical and health, and education related activities. Considering the public sector’s commitment to employing indigenous South Australians, it is likely that a significant number of these persons were employed in government organisations.

In suburban areas relatively high numbers (20 or greater) of indigenous workers generally correlated with areas of industrial employment. The suburbs of Elizabeth West, Port Adelaide and Cavan each had more than 50 indigenous workers.

In Onkaparinga LGA 41.7% (85) of indigenous persons were employed in the destination zones containing Noarlunga Shopping Centre, Lonsdale and Morphett Vale.

Relatively high numbers of indigenous workers tended to correspond with high numbers of employed indigenous residents in suburban LGAs - see Graph 20 (page 60). For example, the LGAs of Port Adelaide Enfield and Salisbury had higher numbers of employed indigenous residents and indigenous employed persons.

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\(^{35}\) In this data table the total number of employed persons in the ASD is 471,060. Of these employed persons 467,949 stated whether or not they were of Aboriginal or Torres Strait Islander origin. Employed persons totals may vary from section to section in this report due to randomisation. Refer to Data Limitations for more detail.
Figure 18: Number of Indigenous Employed Persons by Destination Zone
(Total indigenous employed persons: 2,807)
EMPLOYED PERSONS BORN OVERSEAS

In the context of this study persons born overseas are defined as persons born outside of Australia (includes External Territories), New Zealand, Melanesia, Micronesia, Polynesia (excludes Hawaii) or Antarctica.

Of the 462,351 people working in the ASD at the 2006 Census who stated their birthplace 101,264 (21.9%) were born overseas. Of these, 69.9% (70,754) were born in North-West, Southern or Eastern Europe. High percentages of overseas born persons worked in the destination zones in the north-western suburbs of Ferryden Park, Woodville Gardens, Woodville North, Dudley Park and Mansfield Park. Of the 3,870 employed persons working in these destination zones, 37.6% (1,455) were born overseas. 83.1% of these employed persons were born in either North-West Europe, Southern and Eastern Europe or South East Asia.

Some destination zones in the eastern and north eastern foothills also had high percentages of overseas born. These destination zones incorporated the suburbs of Auldana, Skye, Highbury and Vista. The majority of overseas born workers in these suburbs were from North-West Europe and Southern and Eastern Europe. These suburbs also had high percentages of persons who work from home - see Figure 14.

High proportions of employed persons in the destination zone containing Angle Vale and Virginia were born overseas (819 or 37.1%). Of these persons born overseas who stated their industry of employment, 57.5% (464) were employed in the agricultural, forestry and fishing industry. Therefore, 54.1% of the destination zone’s 857 agricultural workers were born overseas.

Graph 21 (page 61) shows the number of persons born overseas according to the industry they were employed in and what proportion of workers in each industry type were born overseas. The manufacturing industry employed the greatest number of overseas born persons. These 16,578 persons born overseas represented 26.9% of all manufacturing workers. At 32% (1,077) the agriculture, forestry and fishing industry had the greatest proportion of overseas born workers of all industries. More than 40% (464) of these 1,077 overseas born workers employed in the agriculture, forestry and fishing industry were employed in the destination zone that includes the horticultural areas of Angle Vale and Virginia.

Graph 22 (page 61) shows what proportion of each LGA’s workforce were born overseas by gender. More than a quarter (5,317) of Playford LGA’s workforce were born overseas. The majority of these workers were employed in the manufacturing and health industries. In the remaining LGAs overseas born workers accounted for between 17 and 25% of all employed persons.

In the ASD, 53.6% (54,310) of overseas born workers were male, compared to 50.9% (183,645) of persons not born overseas. The disparity between the proportion of overseas workers by gender was even greater for persons born in Southern and Central Asian countries, with males accounting for 68% (3,036) of employed persons. Males represented 63.7% (1,446) of employed persons born in North African and Middle Eastern countries.

36 In this data table the total number of employed persons in the ASD is 471,037. Of these employed persons 462,351 stated their birthplace. Employed persons totals may vary from section to section in this report due to randomisation. Refer to Data Limitations for more detail.

37 Refer to the Glossary (pages 46-47) for a listing of the countries that make up each overseas region.
Figure 19: Percentage of Employed Persons Born Overseas* by Destination Zone
(Total employed persons born overseas: 101,264)

<table>
<thead>
<tr>
<th>Persons - Percent</th>
<th>35% or Greater</th>
<th>30 - 34</th>
<th>25 - 29</th>
<th>20 - 24</th>
<th>Less than 20%</th>
<th>Less than 20% Local Government Area Boundary</th>
</tr>
</thead>
</table>

*Persons born outside of 'Oceania and Antarctica'
REFERENCES


GLOSSARY

Collection District (CD): The census Collection District (CD) is the smallest geographic area defined in the Australian Standard Geographical Classification (ASGC). For the 2006 Census there was an average of about 225 dwellings in each CD.

Couple Family: A couple relationship is defined as two people usually residing in the same household who share a social, economic and emotional bond usually associated with marriage and who consider their relationship to be a marriage or marriage-like union. This relationship is identified by the presence of a registered marriage or de facto marriage. A couple family can be with or without children, and may or may not include other related individuals.

Destination Zone: The workplace address given by respondents for the week prior to Census Night is coded to a Destination (place of work) Zone. This question is applicable to employed persons.

Employed Persons: Employed persons includes people aged 15 years and over who:

- work for payment or profit, or as an unpaid helper in a family business, during the week prior to Census Night;
- have a job from which they are on leave or otherwise temporarily absent;
- are on strike or stood down temporarily

Family: A family is defined by the ABS as 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. Each separately identified couple relationship, lone parent-child relationship or other blood relationship forms the basis of a family. Some households contain more than one family.

Full-time Employed: Persons are considered to be employed full-time if they are aged 15 years or over and worked 35 hours or more in all jobs during the week prior to Census Night.

Income: In this study, income refers to the gross annual income of employed persons aged 15 years and over. Gross income is the income before tax, superannuation, health insurance, or other deductions are made. Gross income includes family payments, additional family payments, pensions, unemployment benefits, student allowances, maintenance (child support), superannuation, wages, salary, overtime, dividends, rents received, interest received, business or farm income (less operating expenses) and workers’ compensation received. People are not asked to state their exact income, only to indicate the range into which their income falls.

Indigenous: Refers to persons who indicated they were of Aboriginal or Torres Strait Islander origin.

Industry of Employment: Refers to the industry employed persons over the age of 15 work in. Industries are coded using the Australian and New Zealand Standard Industry Classification (ANZSIC).
Labour Force: For Census purposes, the labour force includes people aged 15 years and over who:

- work for payment or profit, or as an unpaid helper in a family business, during the week prior to Census Night;
- have a job from which they are on leave or otherwise temporarily absent;
- are on strike or stood down temporarily; or
- do not have a job but are actively looking for work and available to start work.

Local Government Area (LGA): The Local Government Area (LGA) is a geographical area under the responsibility of an incorporated local government council, or an Indigenous government council. The LGAs applicable to the 2006 Census output are those which existed at 7 August, 2005.

Method of Travel to Work: The principal method of travel to work of employed persons on the day of the Census.

Method of Travel to Work - Car: Refers to employed persons who travelled to work in a car as a passenger or driver. In this study, if public transport was also used during the journey to work, public transport is considered the principal method of travel to work.

Method of Travel to Work - Public Transport: Refers to employed persons who travelled to work in a train, bus or tram. In this study, if other methods of travel were also used (eg walking, car), public transport is considered the principal method of travel to work.

Method of Travel to Work - Worked from Home: Refers to employed persons who worked from home.

North Africa and The Middle East: The following countries are classified as North Africa and The Middle East.
Algeria, Egypt, Libya, Morocco, Sudan, Tunisia, Western Sahara, Bahrain, Gaza Strip and West Bank, Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Oman, Qatar, Saudi Arabia, Syria, Turkey, United Arab Emirates, Yemen

North-West Europe: The following countries are classified as North-West Europe.
Denmark, Faeroe Islands, Finland, Greenland, Iceland, Norway, Sweden, Austria, Belgium, France, Germany, Liechtenstein, Luxembourg, Monaco, Netherlands, Switzerland, Ireland, Channel Islands, England, Isle of Man, Northern Ireland, Scotland, Wales

Overseas Born: Persons born outside of Australia (includes External Territories), New Zealand, Melanesia, Micronesia, Polynesia (excludes Hawaii) or Antarctica.

Part-time Employed: Persons are considered to be employed part-time if they are aged 15 years or over and worked less than 35 hours in all jobs during the week prior to Census Night.

Single Parent Family: Families (see family) consisting of a lone parent 15 years of age or over, with one or more children under 15 years of age.

Southern and Central Asia: The following countries are classified as Southern and Central Asia.
Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, Sri Lanka, Afghanistan, Armenia, Azerbaijan, Georgia, Kazakhstan, Kyrgyz Republic, Tajikistan, Turkmenistan, Uzbekistan
**Southern and Eastern Europe:** The following countries are classified as Southern and Eastern Europe.
- Andorra, Gibraltar, Holy See, Italy, Malta, Portugal, San Marino, Spain, Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Former Yugoslav Republic of Macedonia, Greece, Moldova, Romania, Slovenia, Montenegro, Serbia, Belarus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Russian Federation, Slovakia, Ukraine

**Unemployed Persons:** A person is considered unemployed by the ABS if they do not have a job but are actively looking for work and are available to start work.
The identification of Bolivar as a new growth area is subject to a feasibility investigation study by SA Water, which will occur over the next 5 to 10 years. Whilst this is the preferred growth area, if development at Bolivar is not viable or feasible then additional land north of Roseworthy or at Two Wells (not shown on this map) will be investigated as an alternative site for urban growth in the long-term.
APPENDIX 2: GRAPHS

Graph 1: Number of Employed Persons Working in each LGA vs Number of People who Reside in each LGA who are in the Labour Force

Graph 2: Number of Employed Females and Percentage of all Employed Persons who are Female in each LGA

38 Derived from ABS CDATAOnline - 2006 Census of Population and Housing. Labour Force Status by Sex by Place of Usual Residence (LGA). Labour Force includes all persons aged 15 years and over who are employed or looking for work.
Graph 3: Number of Females Employed Full-time and Percentage of all Employed Females who Work Full-time in each LGA

Graph 4: Number of Females Employed Part-time and Percentage of all Employed Females who Work Part-time in each LGA
Graph 5: Number of Employed Females with Children Under 15 Years of Age and Percentage of all Employed Females with Children Under 15 Years of Age in each LGA

Graph 6: Number of Employed Single Females with Children Under 15 Years of Age and Percentage of all Employed Females who are Single with Children Under 15 Years of Age in each LGA
Graph 7: Number of Employed Males and Percentage of all Employed Persons who are Male in each LGA

Graph 8: Number of Males Employed Full-time and Percentage of all Employed Males who Work Full-time in each LGA
Graph 9: Number of Males Employed Part-time and Percentage of all Employed Males who work Part-time in each LGA

Graph 10: Number of Employed Persons Working in the Manufacturing Industry and Percentage of all Employed Persons in each LGA who Work in the Manufacturing Industry
Graph 13: Number of Employed Persons who Work from Home and Percentage of all Employed Persons in each LGA who Work from Home

Graph 14: Percentage of Persons who Work from Home By Gender and Hours Worked

- Part-time Males - 2,522 (17.2%)
- Part-time Females - 5,785 (39.4%)
- Full-time Males - 3,748 (25.5%)
- Full-time Females - 2,636 (17.9%)
Graph 15: Number of Employed Persons Using a Car to Travel to Work and Percentage of all Employed Persons in each LGA who Use a Car to Travel to Work

Graph 16: Car Use by Hours Worked and Gender, ASD

- 87.1% (153,382) of males employed full-time used a car to get to work.
- 82.3% (83,738) of females employed full-time used a car to get to work.
- 79.5% (26,997) of males employed part-time used a car to get to work.
- 83.6% (65,518) of females employed part-time used a car to get to work.
Graph 17: Percentage of all Employed Persons in each LGA who use Public Transport to Travel to Work

Graph 18: Percentage Public Transport Use by Hours Worked and Gender, ASD

11.9% (4,038) of males employed part-time used public transport to get to work.
7.5% (13,174) of males employed full-time used public transport to get to work.
11.5% (9,053) of females employed part-time used public transport to get to work.
13.8% (14,014) of females employed full-time used public transport to get to work.
Graph 19: Number of Employed Persons Earning $41,600 or more per annum and Percentage of all Employed Persons in each LGA who Earn $41,600 or more per annum

Graph 20: Number of Indigenous Persons Employed in each LGA and Indigenous Persons in Labour Force Resident in each LGA


- Labour Force includes all persons aged 15 years and over who are employed or looking for work.
APPENDIX 3: 2006 CENSUS QUESTIONS RELATING TO EMPLOYMENT AND PLACE OF WORK

Q 34 - Last week, did the person have a full-time or part-time job of any kind?

• A 'job' means any type of work including casual, temporary, or part-time work, if it was for one hour or more.

Q 38 - In the main job held last week, what was the person's occupation?

Q 39 - What are the main tasks that the person usually performs in the occupation reported at Question 38?

Q 40 - For the main job held last week, what was the employer’s business name?

• For self-employed persons, write name of business.
• For teachers, write name of school.

Q 41 - For the main job held last week, what was the person’s workplace address?

• For persons who usually worked from home, write the home address.
• For persons with no fixed place of work:
  - if the person usually travels to a depot to start work, write the depot address;
  - otherwise write ‘NONE’ in ‘Suburb/Locality’ box.

Q 42 - Which best describes the industry or business of the employer at the location where the person works?

Q 43 - What are the main goods produced or main services provided by the employer’s business?

Q 44 - Last week, how many hours did the person work in all jobs?

• Add any overtime or extra time worked and subtract any time off.

Q 45 - How did the person get to work on Tuesday, 8 August 2006?

• If the person used more than one method of travel to work, mark all methods used.