

Stats Talk WA

December Quarter, 2010

Edition #36 (cat. no. 1304.5)

PARTY TIME!

**ARE YOU MIXING
YOUR DRINKS?**

STATS TALK

A View From The Top *From the Regional Director*

Another Christmas is fast approaching and I would like to take the opportunity to reflect on some of the statistical achievements over the last year.

The biggest achievement for this office has been the development of the Regional Spotlights program. Earlier this year the Spotlight on the Pilbara was released on an independent website through a co-operative venture with the Pilbara Development Commission. The Spotlight is a collection of indicators around key social, economic and environmental issues defined by the community of the Pilbara.

We were proud to have it launched by the Minister for Regional Development, the Hon. Brendan Grylls MP and it has led to the development of a broader suite of regional indicators for the entire State. We have been involved in a range of projects with State Government including statistics around food security, spatial price indicators, improving indigenous administrative data for statistical purposes and regional crime profiles.

We are continually looking for ways to work with State Government to improve the National Statistical Service for WA and our partnerships with State Agencies are highly valued. Our statistical community, the Statistics WA Network (SWAN) has been active as has our Statistical Policy Committee of State Government and I would like to thank those valued people who have contributed their time and expertise to these forums.

A Merry Christmas to you all and I look forward to working with you again in 2011 (don't forget the Census).



Michael Tindall,
Government Statistician and
ABS Regional Director,
Western Australia



Cheers?

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Latest WA Statistics

	WA	Australia
Population (Mar 2010)	2.3m	22.3m
CPI (annual rate, Sep 2010)	3.1% (Perth)	2.8%
Merchandise Exports* (Oct 2010)	\$9,048m	\$20,301m
Merchandise Imports* (Oct 2010)	\$2,126m	\$17,678m
Unemployment Rate**(Oct 2010)	4.6%	5.2%

* Original estimates based on Australian Customs Service records. Figures are not based on a Balance of Payment basis.

** Trend data.

PERTH

POSTCARDS FROM THE CENSUS

In our final Postcards for this year, we turn now to Perth, the party capital of Western Australia. While for some it is the place where we come to work every day, to others, the city is where they call home.

According to the 2006 Census 11,573 people stated that they were usual residents of the Local Government Area of Perth. Of these, 56% were males and 44% were females.

Half of Perth residents were aged 25-54 years. There were significantly more couple families without children (67%) when compared to those with children (19%).

Residents appeared to be foot loose and fancy free as only 32% were married at the time of the 2006 Census compared to the national percentage of 50%.

Significantly more residents stated they were born overseas (44%) than the Australian percentage (22%).

English was the only language spoken at home by half of residents. The most common languages other than English spoken at home were: Mandarin (4%), Cantonese (4%), Indonesian (2%), Japanese (2%) and Italian (1%).

The most common industries of employment for people who resided in Perth at the time of the 2006 Census, were Cafes, Restaurants and Takeaway Food Services (6%) and Architectural, Engineering and Technical Services (6%).

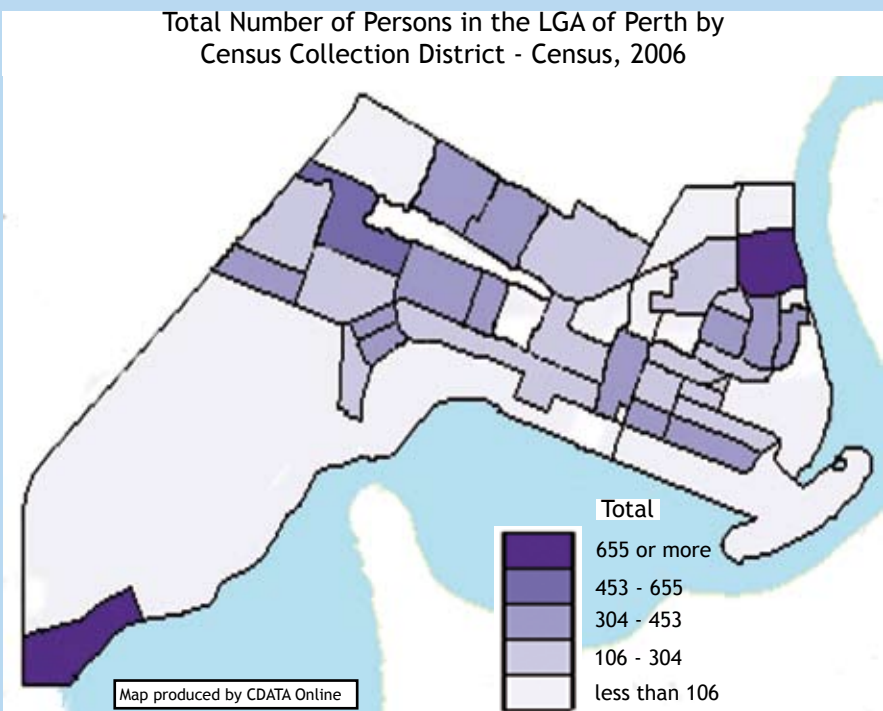
The top three occupations were Professionals (35%), Managers (18%) and Clerical and Administrative Workers (13%).

With the 'mining boom' and apparent increase of apartment building activity, it will be interesting to see if the number of residents has increased since 2006.

All will be revealed after Census 2011.



A Selection of Statistics for the LGA of Perth (sourced from 2006 Census Quick Stats)	
Number of people born overseas	5,099
Total families	2,005
Total participating in the labour force (15+)	5,705
Median individual income (\$/weekly)	626
Median household income (\$/weekly)	1,110
Total private dwellings (includes unoccupied dwellings)	7,285
Median rent (\$/weekly)	250



WATER CHOICES

WESTERN AUSTRALIAN STATISTICAL INDICATORS (CAT. NO. 1367.5)

“Water water everywhere but not a drop to drink.”

Securing and conserving our water resources is of fundamental importance for environmental, social and economic sustainability. The average ‘wet season’ rainfall in the south west of Western Australia has declined by 10% since the mid 1970s, resulting in a 50% reduction in the stream flows into Perth dams.

In 2007-08, almost nine in ten survey respondents aged 18 years or over in Perth were concerned about water shortages. However, just over half (51%) of all adults stated that their water use had stayed the same while for 8% it had increased in the past 12 months.

Efficient Machines

A key factor in future water conservation will be the use of more water efficient appliances in households. Currently, around half of all household water use occurs within the home. A 2009 ABS study investigated the use of water efficient appliances such as shower heads, tap equipment, toilet and urinal equipment, clothes washing

machines and dishwashers. Between 2006 and 2009, the proportion of dwellings in Perth with at least one dual flush toilet increased from 84% to 91% while those with at least one low flow shower head increased from 51% to 60%. The proportion of dwellings with front loading washing machines grew from 25% to 34% over the same period.

The prevalence of water saving devices in the home varied by household type. In general, households that had higher incomes, occupied separate houses or dwellings that were owned or being purchased were more likely to have water efficient fixtures and appliances in the home than other household types. For example, almost half (47%) of Perth households with an annual income greater than \$110,000 per year had a front loading washing machine compared with 20% of those with an annual income of less than \$25,000.

Thirsty Lawns

Households in separate houses (over three-quarters of Perth households) were more likely to have higher water usage outside

the home, with almost all of these homes (98%) containing a garden and/or lawn. In contrast, multiple dwellings (such as flats and apartments) are likely to have smaller living areas and smaller gardens and therefore generally reduced water consumption.

Boring

Although separate dwellings are more likely to use water outside the home than other dwelling types, these homes were also more likely to have access to water sources other than mains water for use on gardens and lawns. For example, those living in a separate house (31%) were much more likely to have bore access than those living in a semi-detached, terrace or townhouse (4%).

For further information see the full feature article Water Choices of Perth Households in *Western Australian Statistical Indicators* (cat. no. 1367.5).

Western Australian Statistical Indicators offers opportunities for in-depth analyses on economic, demographic, social or environmental topics to be undertaken on your behalf.

Suggestions for analytical articles on issues of relevance to the WA community are always welcome. Contact Sue Lee on (08) 9360 5391.

Examples of recent articles include:

- ▲ A View of Housing Density in Western Australia 2005-2009.
- ▲ Adult Literacy in Western Australia.
- ▲ Housing Finance - Subsidies for First-Home Buyers.
- ▲ Preparedness for Emergencies and Household Assistance Required.



123,123...

DANCING WITH THE STATS

Tra ra ra boom de ay!

Dancing and statistics may seem an odd couple but you may be surprised at what we can come up with to match a great title! Come and take a whirl with me as I look at the different dancing styles and how they match our statistics!

Waltzing Matilda

Let's start with the slow yet classic style of the waltz. Do you think of '123,123...' when some one mentions a waltz? The really good thing about a waltz is that a lot of people know what it is and most people can come up with something that would resemble a waltz.

I think the Census is the statistic that is the ABS equivalent of the waltz; it is regular and slow (every five years - don't forget it's next year on 9 August) and it has been around for a really long time (did you know that we are celebrating 100 years of Census next year?).

If I was to get a bit smaltzy I might suggest that in the same way that the waltz relies on a partnership between two people to be a beautiful spectacle, the Census relies on a strong partnership between the ABS and the community to be a beautiful set of numbers.

Do the Macarena

What about the macarena? It is another one of those dances that generally people of a certain age know all the steps, it's a more modern dance and it's a little bit nerdy, a bit like the biannual, *Internet Activity* (cat. no. 8153.0)! The macarena was pretty big in its heyday and likewise the *Internet Activity* enjoys media attention when it is released (keep your eye out for the December 2010 edition due out in March 2011).

Hip Hop Houses

Some groovy stats which move up and down like the hip hop style of dance are the building statistics. In fact the way the original figures in the monthly *Building Approvals* publication (cat. no. 8731.0) move up and down (as opposed to the steady trend series) it looks like they have got their own beat.

Sexy Figures

Other racy figures include the *Retail Trade Statistics* (cat. no. 8501.0). Like the building approvals statistics the original retail figures show a flurry of activity with regular highs and sweeping lows.

However, I feel that as the statistics are to do with shopping and have that extra passion or buzz that comes from retail therapy, these statistics are more akin to the tango. The tango is a passionate and sexy dance - much like the figures in retail trade (the September figure for WA turnover is \$2168.6m which is a very sexy figure).

CPI or KFC

Now I know what you are thinking - what about the *Consumer Price Index* (cat. no. 6401.0)? I haven't

mentioned this highly anticipated quarterly statistic, that is often in the news and linked to contracts and pay rises.

What dance could possibly encapsulate such an important economic statistic? The answer is the chicken dance! Yes I know it seems odd because no one takes the chicken dance seriously, unlike the CPI, however whenever you go to weddings the chicken dance is certain to be played and it is important that we know the steps. Thankfully it is easy to pick up the steps just like it is easy to pick up the CPI figures.

However, unlike dancing, if you don't know the correct statistics you can't just make them up - check out the ABS website (www.abs.gov.au) or ring the National Information Referral Service (1300 135 070).



Naomi Summers
Not really known for her dancing although a bit of a groover.



MIXING DRINKS

BEVERAGE VS BEVERIDGE

The Beveridge Curve describes the relationship between unemployment and job vacancies and should not be confused with the Beverage Curve (which describes the relationship between beer and attractiveness).

In particular, data from the *Job Vacancy* (cat. no. 6354.0) and *Labour Force* (cat. no. 6202.0) surveys can be graphed to help explain the efficiency of job matching in the economy, and highlight some of the issues in having a two-speed economy.

Curvey Figures

The location of the curve relative to the origin of the graph indicates the overall level of labour market activity. When the curve moves inwards towards the origin it represents an improvement in the job matching process, as workers find jobs faster - filling vacancies and reducing unemployment. While an

outward movement of the curve suggests a decline in the efficiency of the matching process, probably due to greater structural mismatch, as both vacancies and unemployment rise.

Recently the curve appears to have shifted to the left and higher. However, the real question is 'has there been an improvement in the matching of vacancies to those now currently seeking work?' WA recorded 28,400 job vacancies and 54,800 unemployed people in August 2010. So to quote George Thorogood why don't all those unemployed people just "get a haircut and get a real job"?

But it isn't quite so simplistic. Other factors come into play such as the long-term unemployed (do they have the skills required to do the work?), job churn (e.g. Gen Y), labour mobility, 457 visa immigration (from an external workforce)

and the degree of participation in the labour force (e.g. ratio of social benefits to minimum wages, gender, parenthood, retirement intentions and an ageing population).

Beveridge Spiked?

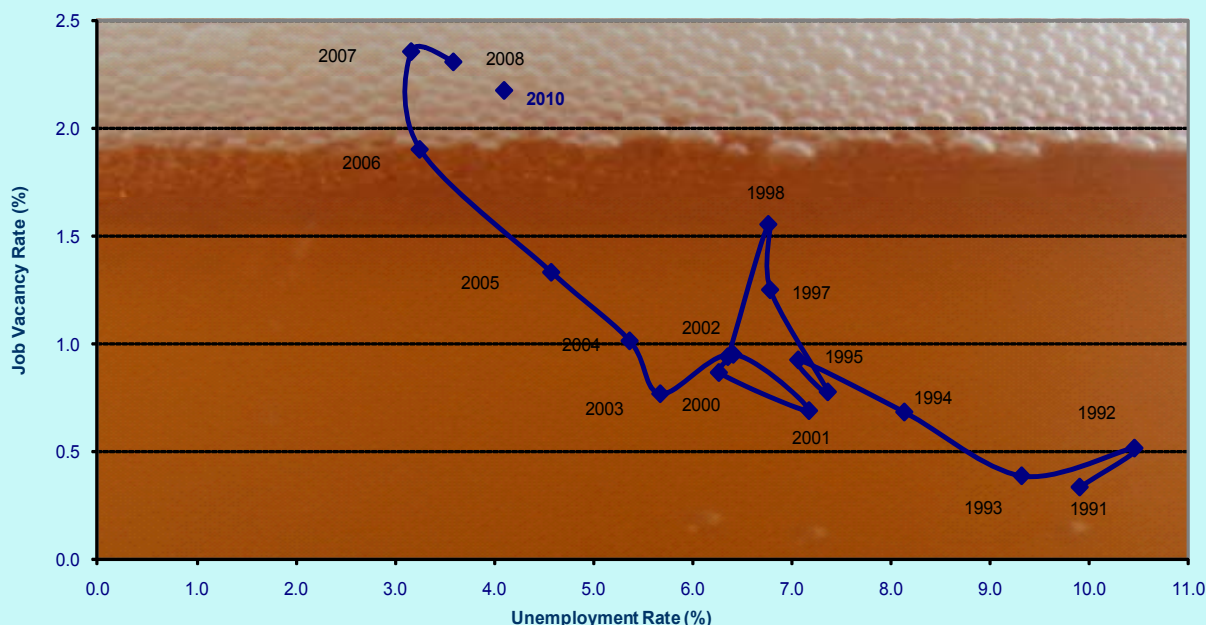
From the graph there was a large spike in job vacancies from 2003 to 2010, accompanied by a decline in unemployment, reflecting the rapid expansion of the WA economy. This implies a current shortage of skilled labour in WA.

All this economics could lead a man (or woman) to drink and many Australians already drink alcoholic beverages on a regular basis.

So how much are we drinking?

According to *Apparent Consumption of Alcohol, Australia, 2008-09* (cat. no. 4307.55.001), the apparent per capita consumption of 'pure alcohol' by persons aged 15 years and over in Australia was 10.1 litres per

The Beveridge Curve for Western Australia 1991 to 2010 (May)



Source: ABS Catalogue Numbers 6202.0 and 6354.0. (Note JVS is missing the time series for May 2009). Note also that the Imputed Job Vacancy Rate is 'job vacancies as a percentage of the labour force'.

person. Of which, beer contributed 44.5%, wine 35.3%, spirits 12.8% and pre-mixed beverages 7.3%.

Now, let's put this 'pure alcohol' measure into everyday volume terms. The apparent volume of beer consumed per capita was 104.7 litres per person or about a middy a day (287 mL). While the volume of wine consumed per capita was 28 litres or just over half a glass a day (77 mL).

Apparent consumption estimates the amount of alcohol available (based on excise, import and sales data), but does not estimate the actual amount consumed as it does not account for factors such as waste or storage.

It is not a measure of the actual amount of alcohol consumed.

Interestingly, it seems that there aren't enough Aussies to drink everything that is produced domestically, with Australia being a net exporter of alcoholic beverages. From *International Trade in Goods and Services, Australia* (cat. no. 5368.0), Australia exported \$2.3 billion of alcoholic beverages in 2009-10, while we imported \$1.2 billion.

Risky Drinking

So, while it seems there is a surplus of alcoholic beverages on offer, we all know that a 'few too many' usually results in a seedy hangover. From the *National Health Survey, 2007-08* (cat. no. 4364.0), around 13% of Australians aged 15 years or over consumed alcohol at a level that posed a risk to their health in the long-term. The rate was higher for men (14%) than for women (11%).

The 2001 National Health and Medical Research Council Drinking guidelines, recommend no more than an average of 4 standard drinks a day for a man and 2 standard drinks a day for a woman.

Type of alcohol consumed by risky or high risk drinkers (a) - 2007-08

	Males		Females	
	15-24 years %	25 years or over %	15-24 years %	25 years or over %
Beer	81.0	85.0	41.0	25.0
Wine	*15.0	42.0	53.0	82.0
Spirits	36.0	18.0	52.0	14.0
RTDs(b)	35.0	10.0	44.0	9.0

* estimate has a relative standard error of 25% to 50% and should be used with caution

(a) Type of alcohol reported to have been consumed in the week prior to survey.

(b) Ready-to-drink spirits or liqueurs.

Source: ABS 2007-08 National Health Survey

Around 16% of men in the age groups between 18-64 years drank at risky or high risk levels, with the proportion dropping to 12% for those aged 65-74 years. However, for women the proportion drinking at risky and high risk levels sat generally around 12% for most age groups with a dip for those in their prime childbearing years, aged 25-34 years (9%).

From *Australian Social Trends Dec 2009* (cat. no. 4102.0), beer was the most common drink consumed by men aged 15 years or over who drank at risky or high risk levels (85%). Spirits (36%) and ready-to-drink spirits or liqueurs (RTDs; 35%) were more popular among young men who were risky or high risk drinkers than those aged 25 years or over (18% and 10% respectively).

Women who drank at risky or high risk levels had a different pattern in terms of the type of alcohol consumed. The type of alcohol consumed by young women, aged 15-24 years, who were risky or high risk drinkers was varied, with no one type significantly more popular than any other.

However, these young women were around 4.9 times as likely to have consumed RTDs, and 3.7 times as likely to have consumed spirits, than those aged 25 years or over who mostly drank wine (82%).

Pricey Drinks

So, who can afford to purchase the tippie of their choice? It seems that Perth beer drinkers are the ones benefiting from the boom and can afford to pay an annual 6.3% rise in the price of beer, while wine has increased 1.0% and spirits 1.7%. This compares to an overall CPI annual increase in Perth of 3.1% from the *Consumer Price Index, Australia, September quarter 2010* (cat. no. 6401.0).

Maybe the smaller increase in the price of wine reflects the fact that in 2008-09 wine grapes took up a rather large 12,446 hectares in WA involving 794 agricultural businesses, from *Vineyards Estimates, Australia* (cat. no. 1329.0). I'm sure that all those businesses hope that relative wine consumption increases at the expense of beer.

All the best to all our readers for the Christmas season.

Cheers in moderation!



Greg Hilton
Client Liaison Unit
Hoping to avoid a hangover from the office Christmas party.

STATISTICAL NEWS

DEVELOPMENTS IN ABS STATISTICS

Births and Fertility in WA

There were 30,900 births registered to women living in Western Australia in 2009, approximately 3% less than in 2008 (31,900). Of these births, there were 2,400 births (8% of all births) where at least one parent identified themselves as being of Aboriginal and Torres Strait Islander origin on the birth registration form.

In 2009, the median age of Western Australian women who gave birth was 30.2 years, while the median age of fathers (where age was known) was 32.7 years. These were both slightly lower than the median ages recorded for Australia (30.6 years and 33.0 years respectively).

In Western Australia, 62% of births were to parents in a registered marriage. Of the births where the parents were in an exnuptial relationship, 10% were registered without acknowledgment from the father.

Western Australia's total fertility rate (TFR) in 2009 was 1.96 babies per woman, a decrease from 2.10 babies per woman in 2008. Over the past decade, the TFR for West-

ern Australia has followed a similar trend to the TFR for Australia. In 2009, the TFR for Aboriginal and Torres Strait Islander women in Western Australia decreased to 3.06 babies per woman, down from 3.16 babies per woman in 2008. However, as with most other states and territories, the TFR for Aboriginal and Torres Strait Islander women remained higher than the TFR for all women.

Fertility rates differ across the reproductive age groups. Women in Western Australia aged 30-34 years experienced the highest fertility rate of all age groups in 2009, with 125 babies per 1,000 women, while the teenage fertility rate was 20 babies per 1,000 women aged 15-19 years.

More details on births in Australia, the states and territories, and regional data are available in *Births, Australia, 2009* (cat. no. 3301.0).

New Edition of Australian Social Trends

The ABS released the latest edition of *Australian Social Trends* (cat. no. 4102.0) on 29 September 2010. The

publication draws together a wide range of statistics from the ABS and other official sources to provide a picture of Australian society and how it is changing over time.

Some of the articles include:

Parental divorce or death during childhood. Compared with people whose parents did not divorce or separate, those who did, were less likely to finish school, more likely to enter a de facto relationship at a younger age, and of those who married, they were less likely to remain married.

The city and the bush: Indigenous wellbeing across Remoteness Areas. While there have been improvements in a range of indicators for Indigenous Australians in recent years, such as school completion rates and employment, inequalities remain evident between Remoteness Areas.

Older people and the labour market. Just over one-third of all people aged 55 years and over (or 1.9 million people) were in the labour force in 2009-10, with this participation rate increasing strongly over the past decade.

Australian workers: Educational and workplace training. The labour force is becoming increasingly skilled with 66% of workers having a non-school qualification in 2009, up from 59% in 2001. One third of people aged 25-34 had a bachelor degree or higher, making this group the most qualified.

Further information is available in the September edition of *Australian Social Trends, 2010* (cat. no. 4102.0), available for free download from the ABS website, www.abs.gov.au.



CLIENT LIAISON

SUMMARY OF EVENTS

Senior's 'Have a Go Day'

The Seniors Recreation Council of WA held its annual 'Have a Go Day' event on Wednesday 3 November at Burswood Park.

This is a free event for the over 45's to try a range of different sporting and recreation activities (such as canoeing and rock climbing). Organisations are invited to display information that might appeal to that age group.

In keeping with the mantra of "Census, Census, Census" the ABS had a stand to promote the 2011 Census.

It was well patronised and not only were many of the goodies taken (there are sure to be a lot of thankful grandchildren sporting Census water bottles, wristbands, mini-footballs etc), but there were many inquiries about Census jobs and information.

World Statistics Day

The inaugural World Statistics Day on 20th October 2010 was celebrated in style at the ABS with a special presentation to the sWAN group.

The sWAN group or the Statistical Western Australian Network, are a group of like minded people from predominately government agencies who come together regularly to discuss the latest statistics.

Presenters for the morning included Paul Jelfs from the ABS who gave an overview of the ABS and statistics and made specific reference to the National Health Survey.

The other presenter for the morning was Richard Weller whose book Boom Town discusses Perth's sustainability and population growth as we head towards 2050.

Training and Development

The WA Office of the ABS received a visit from the Census Products and Services area to fill us in on the new and exciting products that will be released in conjunction with 2011 Census data.

Ros Harvey and Michael Walker from the Census Products and Services team gave ABS staff and external ABS clients a presentation revealing products such as new and improved Table Builder and new mapping facilities.

They also discussed key data release dates and the new Australian Statistical Geographical Standard (ASGS) that will be used for the first time in the 2011 Census.

Later, Tracey Rowley and Nellie Gaynor presented a similar presentation to participants in an Australian New Zealand School of Government (ANZSOG) training course.



RECENT RELEASES

PUBLICATIONS OF INTEREST

Publication Title	ABS Catalogue Number
Business Indicators, Australia, Sep 2010	5676.0
Water Account, Australia, 2008-09	4610.0
Education and Work, Australia, May 2010	6227.0
National Regional Profile, 2005-2009	1379.0.55.001
Children's Participation in Sport and Leisure Time Activities, 2000-09	4901.0.55.001
Deaths, Australia, 2009	3302.0
Life Tables, Australia, 2007-2009	3302.0.55.001
Western Australian Statistical Indicators, 2010	1367.5
Births, Australia, 2009	3301.0
Environmental Issues: Water use and Conservation, Mar 2010	4602.0.55.003
Research and Experimental Development, Businesses, Australia, 2008-09	8104.0
Internet Activity, Australia, Jun 2010	8153.0
Selected Characteristics of Australian Business, 2008-09	8167.0

SIZZLING STATISTICS

Holidays

There were a record 6.8 million short-term departures by Australians in 2009-10, equivalent to 31 trips for every 100 Australians. *Australian Social Trends* (cat. no. 4102.0).

Criminal Records

In 2009, the number of crime victims recorded by the Western Australia Police decreased for most offences including Homicide and related offences; Sexual assault; Robbery; Unlawful entry with intent; Motor vehicle theft; and Other theft. The single exception was As-

sault for which the number of victims increased by 4% in 2009. *Western Australian Statistical Indicators* (cat. no. 1367.5).

Late Bloomers?

Fertility rates decreased for all age groups in Western Australia between 2008 and 2009, except for women aged 45-59 years for whom the fertility rate increased. *Australian Social Trends* (cat. no. 4102.0).

Too Cool for School?

The apparent retention rate from Year 7/8 to Year 12 for

all students in WA increased between 2008 and 2009, rising to 69% for males and 81% for females. *Western Australian Statistical Indicators* (cat. no. 1367.5).

Swapsies

There were 529,200 New Zealand-born people living in Australia in 2009, up by 89% over the last two decades. In 2006, it was estimated that for every 100 New Zealanders living in New Zealand, there were 15 living in Australia. *Australian Social Trends* (cat. no. 4102.0).

ABS Statistical Training

About Our Courses

Turning Data Into Information

The course aims to equip participants with a range of statistical tools & techniques for understanding and analysing data in the context of a research objective.

At a very broad level, the course aims to enhance participants' ability to:

- Understand the research topic in its broadest context and identify the specific research question/objectives.
- Understand data, its scope and limitations.
- Understand strengths and weaknesses of various analytical techniques.
- Apply appropriate techniques to the available data in order to draw out the story and extract meaningful information from it.

The course will concentrate on how to choose a statistical technique that gives greatest insight into the data. During this process, the focus will be on the application of these techniques and not on the techniques themselves.

The course covers statistical writing to a limited extent, and course activities do provide some opportunities to apply the principles of good statistical writing.

Course outcomes:

- Define a research question/issue clearly.
- Use some basic statistical summary measures, graphs and tables to understand and describe the data.
- Build expectations of the data.
- Extract information from data using some specific tools & techniques.
- Recognise possible pitfalls in analysis.
- Use the analysis to tell a story.

Date: 29 & 30 March 2011
Venue: Level 15, Exchange Plaza
2 The Esplanade, Perth
Cost: \$750.00

Registration: (08) 9360 5205



Stats Talk:	Nellie Gaynor	(08) 9360 5152
Consultancies:	Kevin Bolt	(08) 9360 5168
Census Products:	David King	(08) 9360 5105
Training Services:	Naomi Summers	(08) 9360 5205

National Information Referral Service 1300 135 070