

Some free earnings figures

A paper by Rodney Stinson, downloaded from www.jobmarkets.com.au

This is a short review of some free sources of job incomes on the Internet and their usefulness for citation in matters before the Courts, in workers compensation cases, or in other contested fields where earnings considerations are significant issues.

It looks at three websites that provide free income figures. Two are Australia's largest job vacancy sites: www.seek.com.au and www.mycareer.com.au. The third is <http://joboutlook.gov.au/>, which is the responsibility of the Department of Education, Employment and Workplace Relations.

Free income figures from the biggest job vacancy sites

The job income figures on www.seek.com.au are compiled from the earnings stated in job vacancies posted on their pages. The same method is followed by www.mycareer.com.au.

Both websites have been collecting and analysing job income from their vacancies for many years, and they would certainly be adept and accurate in their compilations. We can be confident that their published figures faithfully report advertised incomes by industry and occupations, the differences nationally and/or by State and capital city, and for other sub-sets such as graduates and type of work stream (e.g. Admin/Office Support).

What we are not told is how representative the job vacancies are of all employment in an occupation, industry or other classification in their series. Without knowing that, we cannot know how representative the stated job incomes are for any of the classifications. In fact, we can't even know how representative they are for all job vacancies now or at some period of time (say, the last month).

The job income figures on www.seek.com.au and www.mycareer.com.au are an accurate reflection only of incomes included in job vacancies on their respective websites at some period of time. This is simply fact, and no implied criticism is intended.

If the job vacancies were in some way representative, we could expect to see congruence in the two websites' job income figures. In other words, they would need to be similar in important respects such as the minimum or maximum levels in the same classification for the same period.

Let's choose the Legal classification, as that exists in the two websites, as does Administration and Office Support.

Job incomes for the Legal classification

	Minimum	Maximum	Mid-Range
www.seek.com.au	\$83,985	\$112,695	\$98,339
	Avg. Minimum	Avg. Maximum	Average
www.mycareer.com.au	\$57,078	\$199,688	\$121,179

The two websites have markedly different income figures for the Legal classification. Taken as stated, www.seek.com.au's figures range from a minimum of \$83,985 to a maximum of \$112,693, and the mid-range or mid-point between them is \$98,339. Its minimum figure is about 47% higher than www.mycareer.com.au's average minimum, but its maximum is 77% lower than the latter's average maximum. It can be inferred that the absolute maximum on

www.mycareer.com.au was more than the average maximum, and that the same website had Legal job incomes below the average minimum.

The magnitude of the differences just outlined is enormous. Whereas www.mycareer.com.au allows a click through to the components that make up the Legal classification, access to the components is not generally available on www.seek.com.au's salary page. So we can't be positive the make-up of Legal is the same for both websites, nor whether one more than the other attracts the better-paid legal jobs all the time or just for the period in question (one being a month and the other ninety days), or whether a trend has begun of cashed-up, optimistic legal firms recruiting top-flyers going to one website and a string of suburban and country practices replacing tired baby-boomers going to the other.

Job incomes for Administration and Office Support

	Minimum	Maximum	Mid-Range
www.seek.com.au	\$48,734	\$57,430	\$52,082
	Avg. Minimum	Avg. Maximum	Average
www.mycareer.com.au	\$32,276	\$100,592	\$55,721

www.seek.com.au figures start at a higher level but have a modest maximum and mid-range. www.mycareer.com.au's average job incomes have a far bigger range, starting lower but having an average maximum three times that of the average minimum. That said, the latter's overall average is not too far from the former's. The components in www.mycareer.com.au's classification must include more skilled jobs. Again, there are insufficient details available to help us understand how the figures came to be so different, except that they were the job incomes on a particular website at a particular time.

The www.mycareer.com.au website also supplies a chart of the "average Australian salary". Its figure for July, 2012 is about \$98,000, as against just under \$88,000 in June, 2013. A note to the chart informs us that the figures "may include total pkg." – that is, total salary package. I think they mean some of the underlying figures do so, but not all of them. As that is the case for the "average Australian salary", it also applies to the income figures in the various classifications and to their components. Incidentally, how many part-time jobs were included? We're not told.

The Australian Bureau of Statistic's headline series for average weekly full-time total earnings recorded \$1,413.10 in May, 2012, which is \$73,481 annualized. In November, 2012, the figure was \$1,458, or \$75,816 annualized [source: *Average Weekly Earnings, Australia*, Nov 2012, catalogue no. 6302.0]. Both of the Bureau's annualized figures are well below what is called the "average Australian salary". The Bureau's series shows no sign of a major impending fall such as that outlined by www.mycareer.com.au, nor do other series and indicators.

Whereas the Bureau's statistics are based on a representative sample of employers and come with relative standard error advice, the two vacancy websites base their income figures on what they are told in vacancies they are given in a specific period.

The Job Outlook database

With its published and commissioned tables arising from surveys, the Bureau always provides advice about the relative standard errors attaching to the statistics in the tables. That practice would have been followed when the Department of Education, Employment and Workplace

Relations acquired unpublished earnings statistics for use in its *Job Outlook* database on <http://joboutlook.gov.au/>, this year and in earlier years.

The *Job Outlook* website gives statistical and other information for “around 350 individual occupations”. The imprecision is surprising, as the unpublished table from the source survey, *Employee Earnings, Benefits and Trade Union Membership*, has all 358 unit group occupations in the *Australian and New Zealand Standard Classification of Occupations (ANZSCO) Dictionary*. I know because I acquire the same data every year. There are a handful of omissions of non-mainstream occupations from the *Job Outlook* database (such as Legislators).

Tucked away in the website’s Help page are the observations that many of the *Job Outlook* statistics are from surveys and are thus “subject to sampling variability” and that “[r]elative standard errors (sampling errors relative to the size of the estimates) are very high for small occupations”.

These observations are well and good, but the database users cannot determine from that advice, for example, exactly which of the website’s earnings figures have relative standard errors (RSEs) that are “very high”. The users should be informed which published figures in the *Job Outlook* database have high or very high RSEs (and are therefore unreliable).

The *Job Outlook* database included median full-time earnings and median total earnings for a little over 350 occupations, when I counted them in previous years. The current *Job Outlook* database would probably also have just over 350 occupations with median full-time and median total earnings. The current database has the earnings for August, 2012.

Unfortunately, owing to survey-constraints:

- 121 (or 33.8%) of the 358 unit group occupations have median full-time earnings with high or very high RSEs.
- 91 (or 25.4%) of the 358 unit group occupations have median total earnings with high or very high RSEs.
- High entails RSEs of 25% to 50%, and very high RSEs are 50% or more.

Let’s take Café Workers as an example. Their median full-time weekly earnings are \$650, but the Bureau has advised the RSE attached to that estimate is 25% to 50%. (The precise RSE can be calculated but has not been done for this exercise.)

There are two chances in three that the median full-time earnings figure for Café Workers is likely to be at least 25% either side of \$650; that is, between \$487.50 and \$812.50. That’s quite a range and quite a lot of uncertainty . . . and, one could add, quite a lot of unreliability. If the RSE is actually higher than 25%, then the range would widen, and uncertainty and unreliability would increase.

It was noted above that the Department observed that RSEs “are very high for small occupations”, but there were an estimated 23,056 Café Workers employed in August, 2012, when the earnings survey was undertaken. With that job total, Café Workers is by no means a small occupation; however, about three-quarters of them work part-time, which didn’t leave enough full-timers to produce a reliable full-time earnings figure.

As the Department has not followed the Bureau’s practice and advised *Job Outlook* users which of the published earnings statistics are unreliable, a full listing is given below. To reiterate: all of the occupational earnings in the listing are unreliable. From year to year, the occupations in the list of unreliable earnings figures vary. In all, a third have been unreliable over the last decade.

Full-time Median Earnings 25% to 50% RSEs

Actuaries, Mathematicians and Statisticians	\$1,625
Agricultural Technicians	\$812
Amusement, Fitness and Sports Centre Managers	\$1,000
Anaesthetists	\$3,731
Archivists, Curators and Records Managers	\$1,200
Auctioneers, and Stock and Station Agents	\$988
Authors, and Book and Script Editors	\$384
Barristers	\$1,600
Beauty Therapists	\$650
Boat Builders and Shipwrights	\$1,150
Cafe Workers	\$650
Canvas and Leather Goods Makers	\$1,000
Caravan Park and Camping Ground Managers	\$1,057
Caretakers	\$1,250
Chemical and Materials Engineers	\$1,495
Clay, Concrete, Glass and Stone Processing Machine Operators	\$919
Clothing Trades Workers	\$725
Commissioned Officers (Management)	\$1,174
Conveyancers and Legal Executives	\$993
Corporate Services Managers	\$1,841
Deck and Fishing Hands	\$1,500
Dental Hygienists, Technicians and Therapists	\$3,500
Dental Practitioners	\$2,991
Dietitians	\$1,600
Diversional Therapists	\$1,060
Domestic Cleaners	\$710
Economists	\$1,806
Electrical Engineering Draftspersons and Technicians	\$1,250
Electronic Engineering Draftspersons and Technicians	\$1,371
Electronics Engineers	\$1,841
Fashion, Industrial and Jewellery Designers	\$1,075
Fencers	\$900
Film, Television, Radio and Stage Directors	\$1,100
Fitness Instructors	\$800
Floor Finishers	\$1,045
Forestry and Logging Workers	\$1,200
Funeral Workers	\$1,080
Gallery, Library and Museum Technicians	\$828
Gallery, Museum and Tour Guides	\$675
Gaming Workers	\$911
Graphic Pre-press Trades Workers	\$850
Hotel Service Managers	\$920
Housekeepers	\$800
ICT Support and Test Engineers	\$2,000
ICT Trainers	\$2,100
Industrial Spraypainters	\$1,400
Insulation and Home Improvement Installers	\$987
Insurance Investigators, Loss Adjusters and Risk Surveyors	\$1,150
Interior Designers	\$1,057
Judicial and Other Legal Professionals	\$2,000

Licensed Club Managers \$1,236
Life Scientists \$1,276
Massage Therapists \$782
Middle School Teachers \$1,560
Mixed Crop and Livestock Farm Workers \$300
Models and Sales Demonstrators \$1,150
Music Professionals \$1,000
Nurserypersons \$963
Occupational Therapists \$1,350
Optometrists and Orthoptists \$1,380
Other Clerical and Office Support Workers \$990
Other Factory Process Workers \$910
Other Farm, Forestry and Garden Workers \$884
Other Health Diagnostic and Promotion Professionals \$1,002
Other Miscellaneous Technicians and Trades Workers \$921
Other Natural and Physical Science Professionals \$1,841
Performing Arts Technicians \$1,288
Plastics and Rubber Factory Workers \$840
Practice Managers \$1,100
Precision Metal Trades Workers \$900
Primary Products Inspectors \$1,150
Print Finishers and Screen Printers \$800
Printing Assistants and Table Workers \$920
Private Tutors and Teachers \$1,320
Psychiatrists \$1,707
Railway Track Workers \$1,300
Recycling and Rubbish Collectors \$1,100
Retail and Wool Buyers \$1,375
Roof Tilers \$1,000
Safety Inspectors \$1,500
Service Station Attendants \$750
Sewing Machinists \$650
Sheetmetal Trades Workers \$850
Signwriters \$966
Social Professionals \$1,315
Specialist Physicians \$2,015
Sports Coaches, Instructors and Officials \$900
Sportspersons \$1,050
Street Vendors and Related Salespersons \$826
Surgeons \$3,076
Switchboard Operators \$700
Teachers of English to Speakers of Other Languages \$1,154
Telecommunications Technical Specialists \$1,500
Telemarketers \$1,000
Timber and Wood Process Workers \$816
Toolmakers and Engineering Patternmakers \$1,000
Travel Attendants \$1,500
Upholsterers \$800
Vehicle Body Builders and Trimmers \$1,000
Vehicle Painters \$700
Vending Machine Attendants \$1,000
Veterinary Nurses \$800

Visual Merchandisers \$863
Wall and Floor Tilers \$700
Wood Machinists and Other Wood Trades Workers \$950

Full-time Median earnings RSEs of 50% and over

Aquaculture Farmers \$900
Betting Clerks \$600
Driving Instructors \$1,250
Food Trades Assistants \$755
Jewellers \$1,200
Legislators \$1,300
Library Assistants \$900
Other Accommodation and Hospitality Managers \$1,350
Other Sales Support Workers \$800
Outdoor Adventure Guides \$882
Photographers \$1,540
Podiatrists \$1,500
Shearers \$750
Special Care Workers \$1,039
Speech Professionals and Audiologists \$1,050
Survey Interviewers \$950
Visual Arts and Crafts Professionals \$1,500

Median Total Earnings RSEs 25% to 50%

Actuaries, Mathematicians and Statisticians \$1,625
Agricultural Technicians \$718
Amusement, Fitness and Sports Centre Managers \$986
Anaesthetists \$2,950
Archivists, Curators and Records Managers \$1,200
Auctioneers, and Stock and Station Agents \$988
Authors, and Book and Script Editors \$384
Barristers \$1,600
Betting Clerks \$600
Boat Builders and Shipwrights \$1,000
Canvas and Leather Goods Makers \$950
Caravan Park and Camping Ground Managers \$1,057
Caretakers \$900
Chemical and Materials Engineers \$1,476
Clay, Concrete, Glass and Stone Processing Machine Operators \$919
Clothing Trades Workers \$544
Commissioned Officers (Management) \$1,174
Corporate Services Managers \$1,841
Deck and Fishing Hands \$1,500
Dental Hygienists, Technicians and Therapists \$900
Dietitians \$1,600
Diversional Therapists \$600
Driving Instructors \$500
Economists \$1,806

Electrical Engineering Draftspersons and Technicians	\$1,250
Electronics Engineers	\$1,875
Fashion, Industrial and Jewellery Designers	\$1,075
Fencers	\$900
Film, Television, Radio and Stage Directors	\$1,100
Floor Finishers	\$1,000
Florists	\$170
Food Trades Assistants	\$357
Forestry and Logging Workers	\$1,200
Funeral Workers	\$1,080
Gallery, Library and Museum Technicians	\$807
Gaming Workers	\$887
Graphic Pre-press Trades Workers	\$850
Hotel Service Managers	\$740
ICT Support and Test Engineers	\$2,000
ICT Trainers	\$2,100
Industrial Spraypainters	\$1,400
Insurance Investigators, Loss Adjusters and Risk Surveyors	\$1,045
Interior Designers	\$1,057
Judicial and Other Legal Professionals	\$1,500
Library Assistants	\$650
Life Scientists	\$1,200
Massage Therapists	\$615
Middle School Teachers	\$1,560
Mixed Crop and Livestock Farm Workers	\$300
Nurserypersons	\$874
Optometrists and Orthoptists	\$1,150
Other Accommodation and Hospitality Managers	\$675
Other Health Diagnostic and Promotion Professionals	\$1,002
Other Hospitality Workers	\$160
Other Natural and Physical Science Professionals	\$1,500
Outdoor Adventure Guides	\$409
Photographers	\$808
Plastics and Rubber Factory Workers	\$778
Primary Products Inspectors	\$1,150
Print Finishers and Screen Printers	\$800
Printing Assistants and Table Workers	\$900
Psychiatrists	\$2,000
Railway Track Workers	\$1,300
Recycling and Rubbish Collectors	\$900
Retail and Wool Buyers	\$1,375
Roof Tilers	\$840
Safety Inspectors	\$1,298
Sewing Machinists	\$600
Signwriters	\$966
Special Care Workers	\$975
Specialist Physicians	\$2,025
Speech Professionals and Audiologists	\$923
Sportspersons	\$900
Surgeons	\$1,800
Survey Interviewers	\$500
Telecommunications Technical Specialists	\$1,500

Toolmakers and Engineering Patternmakers	\$950
Upholsterers	\$800
Vehicle Body Builders and Trimmers	\$1,000
Vehicle Painters	\$600
Vending Machine Attendants	\$575
Visual Arts and Crafts Professionals	\$731
Visual Merchandisers	\$850
Wall and Floor Tilers	\$700
Wood Machinists and Other Wood Trades Workers	\$900

Median Total Earnings RSEs 50% and over

Aquaculture Farmers	\$900
Jewellers	\$1,200
Legislators	\$1,300
Other Sales Support Workers	\$720
Podiatrists	\$1,500
Shearers	\$750

The Bureau's earnings statistics in the listing are from its *Employee Earnings, Benefits and Trade Union Membership* series, August, 2012, catalogue 6310.0. The Bureau's www.abs.gov.au website has full details on RSEs and so on: type 6310.0 in the search box and that will take you to the latest survey results and a free PDF file of the publication in Downloads.