

What Jobs Pay and Job Markets Australia Earnings Series

The *What Jobs Pay and Job Markets Australia* earnings series, located on the www.whatjobspay.com.au website, provides average weekly full-time earnings by occupation and age from 1978 to 2025. The only source of such comprehensive earnings in the Australian labour market, it was created using the Australian Bureau of Statistics' most disaggregated earnings and employment data from the five-yearly *Population Census* and the Bureau's employee earnings surveys, conducted as supplementary to the monthly *Labour Force* survey. Rodney Stinson devised the methodology. He has been employed in researching, analysing, and reporting and publishing on the Australian labour market and market rate earnings for more than 45 years. He undertook that work in government departments for ten years, and since 1987 has worked in the same general field in his small business, Yorkcross Pty Ltd.

In the late 1970s he trained as a labour market and employment researcher in the Federal Department of Employment's Sydney office, identifying employment characteristics and assessing and forecasting the work situation for skilled and semi-skilled occupations. He analysed and reported on regional labour markets, market rates of pay by occupation and industry sectors, career paths and general employment/unemployment trends. The Department had well-structured, on-the-job training which equipped the researcher to research, plan and write, on the Department's behalf and with minimal supervision, reports, findings, and recommendations in this specialised area of labour market research.

After completing his training and working on short and extended projects, he went to the Department's central office, where he supervised six staff and devised research methodologies, among other duties. For a time, he worked in the job creation division of the Victorian Department of Employment. He returned to the Sydney office in 1984, where he supervised eight staff in the national and State occupational research programs and assessed employment, training and pay issues in skilled migration cases.

In self-employment, he researched and wrote two standard reference books, *Job Prospects Australia* and *What Jobs Pay*, which ran to five and thirteen editions respectively. Initially on CD-ROM and then online, there have been 26 annual issues of his comprehensive *Job Markets Australia* database, which has been available on the www.jobmarkets.com.au website since 2004. The database has a wealth of original and analysed statistics and other information to assist labour market research, vocational and career assessment, job match and related purposes. It is the largest publicly available integrated database on occupational labour markets and the key characteristics of local occupations, and it includes the latest average earnings by occupation and age from the *What Jobs Pay and Job Markets Australia* earnings series. The series went online in 2013 and was expanded to include more occupational groups and the ten years before the first edition of the *What Jobs Pay* book in 1988.

Defendant and plaintiff lawyers, rehabilitation providers, careers and related professionals, and forensic accountants are users of *Job Markets Australia* and the *What Jobs Pay and Job Markets Australia* earnings series. Other professionals cite and rely on earnings data, labour market information and occupational data (including physical demands and average retirement ages) from these resources in reports they prepare in matters before the Courts or for vocational assessments and rehabilitation/re-training plans developed in connection with workers compensation claims or for other reasons.

Beginning in the early 1990s, Rodney Stinson has prepared numerous reports on the labour market and earnings that have been admitted as evidence in the Supreme, District, Compensation, and other Courts in New South Wales, and Courts elsewhere, most often in regard to claims for lost past and/or future earnings, whether due to inability to work in one's old job or any job or resulting from other causes. He has been accepted as a labour market, earnings, and employment expert in those Courts.

His academic qualifications are the Bachelor of Arts and Diploma of Education, which he completed at Macquarie University between 1969 and 1972, after which he worked as a Secondary School Teacher for several years.

Methodology

The *What Jobs Pay and Job Markets Australia* earnings series has average weekly full-time (pre-tax) earnings by occupation and age nationally since 1978 and for five States since 1996. The methodology has remained substantially the same throughout that time, though modification was necessary for the earliest years and certain missing years in the series, as explained on the next page.

The methodology first entails obtaining from the Australian Bureau of Statistics customised tables from the *Population Census* of interest which include, as calculated by the Bureau, the average weekly incomes for persons employed full-time in defined age-groups, occupations, and occupational groups, nationally and, from the *2011 Population Census* onwards, States and Territories. The next step is to set income relativities by age within an occupation or occupational group for a geographic location against the average weekly full-time earnings figure in the same occupation or occupational group in the Bureau's national earnings survey conducted in the same Census year. These income relativities are applied to estimate earnings in the ensuing years when calculated against the relevant (updating) annual figures in the Bureau's national earnings survey, until customised tables from the next *Population Census* become available and new income relativities are then established and applied as before.

The methodology described above necessarily involves assumptions, which are that the income relativities determined for and within an occupation or occupational group remain unchanged in the inter-Censal years, at both the national and State/Territory levels. The average weekly full-time earnings figures produced with this methodology for the inter-Censal years are estimates, but the definitive average figures for the Census years are those calculated by the Bureau and included in the series. Owing to the lag in supply of the latest customised Census tables, the estimation methodology is initially retained for the later Census year and, at times, the following year. When the Bureau supplies average figures from the later Census, they supersede the earnings estimates in that Census year, and new estimates for the following year are determined.

The names of the Bureau's employee earnings surveys which have been part of the methodology are: *Weekly Earnings of Employees*, *Employee Earnings and Hours*, *Employee Earnings, Benefits and Trade Union Membership*, and (the current survey) *Characteristics of Employment*. The changes came about because the Bureau discontinued and/or significantly modified the surveys over time. From these surveys, the Bureau supplied customised tables having the average weekly full-time national

earnings figures and their relative standard errors (RSE). When an earnings figure for an occupation or occupational group had a high RSE, the income relativities between the Census and the updating survey for that occupation or occupational group were set at a higher level of aggregation, to ensure statistical reliability. The various updating surveys had the same definition of important concepts such as full-time work [35 hours a week or more], ensuring continuity in the *What Jobs Pay* and *Job Markets Australia* earnings series.

Another strength of the methodology is that the classification of occupations and occupational groups in the *What Jobs Pay* and *Job Markets Australia* earnings series was the same as the Bureau's classification when supplying its Census and survey earnings figures. In the early years, these classifications were the *Australian Standard Classification of Occupations (ASCO) Dictionary*, first edition 1986 and second edition 1996. From 2006, the *Australian and New Zealand Standard Classification of Occupations (ANZSCO) Dictionary*, first edition 2006, versions 1.1 to 1.3 replaced the *ASCO Dictionary*.

In 2021 the Bureau brought out its *Occupation Experimental Update version 1 (OCCEVIP)*, which changes and extends a small part of the (revised) first edition of the *ANZSCO Dictionary*. The Bureau's experimental update has 1,063 occupations, compared with 1,016 in the *ANZSCO Dictionary*, and the *What Jobs Pay* and *Job Markets Australia* earnings series has therefore adopted it for 2021 and subsequent years.

As noted above, modification of the earnings series' methodology was necessary for the earliest years and certain missing years in the series. The Bureau's occupational classification prior to 1986 was so different to the *ASCO Dictionary's* classification principles and content that Rodney Stinson decided on a different basis for estimation of occupational earnings for the earlier years. This involved creating relativities between the stated earnings for occupations and occupational groups from the *1986 Population Census* and the Bureau's total average weekly full-time male earnings for August, 1988. These relativities were then back-cast against the August figure annually to 1978, as published in the Bureau's *Average Weekly Earnings*, except for 1986, the Census year. Similar use was made of the *Average Weekly Earnings* figures to estimate average weekly full-time earnings for occupation and occupational groups by age for the missing years in the *What Jobs Pay* and *Job Markets Australia* earnings series. (It was once the Bureau's practice to publish the headline *Average Weekly Earnings* figures only for males.)

The earnings series' average weekly full-time earnings estimates for the earlier years are less robust because the relativities have been established against total earnings, not against the same occupations and occupational groups, and because the income relativities are back-cast for a decade. The very different occupational classification principles and content in the earlier years and, crucially, the unavailability of sufficiently detailed occupation by age earnings statistics before 1986, particularly with regard to the Bureau's surveys, necessitated this recourse to total earnings.

The *What Jobs Pay* and *Job Markets Australia* earnings series is a dependable guide to average weekly full-time earnings by occupation and occupational group by age. The earnings are derived solely from the statistical data of the Australian Bureau of Statistics and have been calculated using a consistent and transparent methodology.