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Wages, Government Payments and Other Income of Indigenous and Non-Indigenous Australians

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Abstract

This paper compares the level and source of income for Indigenous and non-Indigenous Australians using data from the 2011 wave of the Household Income and Labour Dynamics in Australia (HILDA). Three sources of income are considered: wages and salaries; government benefits; and income from businesses, investments and other private transfers. Consistent with many previous studies, Indigenous Australians have, on average, lower total income than non-Indigenous Australians, with this difference being largest for those who are full-time employed. The difference is also larger for males compared to females. In terms of non-wage income, Indigenous men and women receive a much smaller proportion of income from other sources than their non-Indigenous counterparts (primarily business and investment income). This is particularly the case for those who are not in the labour force (NILF). Correspondingly, government benefits constitute a higher proportion of income for the Indigenous population than for the non-Indigenous. This is true for both males and females, and for all labour force states, although the difference is largest for part-time employed and those who are NILF. Given Indigenous persons are also more likely to be unemployed than non-Indigenous persons, they are more likely to be dependent solely on government payments as a source of income at any one time. The implications of these findings are discussed, as well as directions for future research.

JEL Classification: J15, J21, J78

Keywords: Personal income, wages, government payments, Indigenous employment, labour market segmentation

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1. Introduction

There is an extensive literature on the extent to which there are differences in the income of Indigenous and non-Indigenous Australians (e.g., Altman and Hawke 1993; Altman, Biddle and Hunter 2005; Biddle 2013; and Hunter and Gray 2008). This literature has consistently found that Indigenous Australians have a much lower average[1] income than non-Indigenous Australians. For example, according to the 2008 National Aboriginal and Torres Strait Islander Social Survey, the average disposable weekly income of Indigenous males was 63 per cent that of non-Indigenous males and, for Indigenous females, it was 79 per cent that of non-Indigenous females (Biddle 2013).

There however is very little research on source of income for the Indigenous population and whether this differs to that of the non-Indigenous population. This type of information can be used in a variety of ways. First, it can help understand the reasons for differences in income levels and where policy should best focus. Second, the ability to estimate hourly wage rates which is important for understanding differences in labour market productivity and the extent to which income differences are due to lower employment rates or lower labour market income if employed. From an economic perspective, the hourly wage is particularly important, because this variable is used in many economic models that involve choices about the amount of time spent in paid employment (see for example, Killingsworth 1983; Mincer 1974). Third, differences in lifetime individual and family labour market earnings and in inheritance are likely to mean that Indigenous Australians have smaller levels of income generating assets. Fourth, it is important information for understanding the economic incentives for a range of behaviours, including labour supply decisions, decisions about investments in education, geographic mobility and fertility decisions.

The limited research that is available on source of income for the Indigenous population is based on data from the 1994 National Aboriginal and Torres Strait Islander Survey which is now more than two decades old.[2] The availability of more recent data on income source for a useable sample of Indigenous Australians is now available from wave 11 of the Household Income and Labour Dynamics in Australia (HILDA) survey. The ability of HILDA to provide data on Indigenous Australians has been increased by the addition of a top-up sample in the 2011 wave, which boosted the number of Indigenous respondents to a sufficient number to allow statistically valid estimates.[3]

This gap in the evidence base is unfortunate because the effective design of policies aimed at reducing income disparities between Indigenous and non-Indigenous Australians would be assisted by having an accurate understanding of source of income for Indigenous Australians and differences between the Indigenous and non-Indigenous populations. Examples of source of income include wages and salaries, public transfers and investment and business income.

[1] In this paper the terms average and mean are used interchangeably.
[2] Subsequent National Aboriginal and Torres Strait Islander Social Surveys have not collected information on income by source, nor does the census.
[3] One of the advantages of the Household Income and Labour Dynamics in Australia (HILDA) data compared to the publicly released data from the 1994 National Aboriginal and Torres Strait Islander Survey is that that HILDA releases continuous data on income.

In this paper the 2011 wave of HILDA is used to estimate income from wage and salaries, government benefits, and income from businesses, investments and other sources for the Indigenous and non-Indigenous populations. The extent to which there are differences in the source of income of Indigenous and non-Indigenous people according to labour force status is also examined.

The analysis is of personal income, rather than income at the family or household level. The focus on personal income is important for several reasons. First, it is at the individual level that many policies primarily operate (e.g. labour market and education policies). Second, the income received by an individual is often in recognition of their behaviour (e.g. productivity in the workplace), endowments (e.g. personal assets), or individual family and social circumstances. It is important to understand the various sources of personal income to understand Indigenous economic behaviour. Although there have been some analyses of personal (individual income) of Indigenous Australians,[4] much of the literature has focused on income measured at the household level, which considers questions of financial living standards, poverty and related concepts (e.g. Hunter 2012).

The next section of this paper provides an overview of the HILDA dataset and the measures of income and labour force status used. The third section focuses on personal income level and source and provides a decomposition of the income differential between Indigenous and non-Indigenous population that accounts for differences in labour force status. The fourth section considers wage and salary income and hours worked in order to allow hourly wage rates to be estimated, the fifth section presents data on non-wage income from private sources and the sixth income from government payments. The seventh section analyses source of income by proportion of year an individual was employed, while the eighth section reports findings for age-standardised estimates. The final section reflects on the implications of the findings for future research.

2. Data

2.1 The HILDA survey

The HILDA survey is a longitudinal survey of the Australian population that started in 2001, with interviews conducted each year. The survey covers a broad range of social and economic topics. The sample began with around 15,000 persons at wave 1, almost half of which have participated in each subsequent year. In 2011, a general top-up sample of 2,153 responding households was added to the sample. The top-up sample allowed for the inclusion of four groups of respondents who could not have been included in the wave 1 sample (i.e. immigrants arriving in Australia after 2001, long-term visitors arriving since 2001, Australians not in Australia in 2001 and the Australian-born children of these groups). The top-up sample also increased the number of respondents in other groups, including Indigenous respondents.

The analysis here is restricted to the working age population (15-64 years). In wave 11 of HILDA, there were 460 Indigenous respondents and 14,200 non-Indigenous

[4] For example, Daly (1995), Daly and Hunter (1999), Daly and Liu (1997), Nepal and Brown (2012), Biddle (2013), and Birch (2014).

respondents. Although this is a large enough sample to allow a broad analysis of the Indigenous population, the ability to use the HILDA data to look at subgroups (e.g. by location, education and occupation) is limited.

HILDA has three key strengths for estimating source of income for the Indigenous population. First, it has detailed income data. Second, the large non-Indigenous sample allows comparisons between Indigenous and non-Indigenous populations. Third, the survey is longitudinal, which will allow for the first longitudinal analysis of sources of income for the Indigenous population. While this paper does not use the longitudinal nature of the HILDA survey it is hoped that it will establish a benchmark which potentially inform future analyses of the data.[5]

2.2 Income measures

In this paper, income from the following sources are examined: wages and salaries; government benefits; and other income which includes business and investment income, and private transfers such as workers compensation, accident and sickness, child support, regular transfers from non-resident parents, regular transfers from non-household members and other regular private transfers.

The HILDA survey collects information on income for the most recent financial year (the 2010-11 financial year for wave 11). In this paper, the main overall income measure used is annual gross income. Missing income data have been imputed by the HILDA survey and the imputed income variable is used in this paper. Government benefits are also imputed. Summerfield *et al.* (2012) provides details of the imputation procedure and the construction of the measure of the value of government benefits received.[6] The use of a 12-month measure of income means that people who were not employed at the time of the interview, but who had any paid employment during the 12-month reference period will be recorded as having labour market income. For people who were employed at the time of the interview, hourly wages are derived from information on weekly wages and hours worked per week. However, for those persons who are not employed at the time of the interview, information on hours worked in previous jobs is limited and it is not possible to construct a valid measure of hourly wage.

Personal income tends to increase with age until around the age of 55 years, after which income starts to decrease (e.g. ABS 2013a). There are many reasons as to why this happens, including productivity in the labour market (age is a proxy for labour market experience) and capital accumulation that generates an income stream. In this paper, when comparing the income of Indigenous and non-Indigenous, differences in the age structure of the Indigenous and non-Indigenous populations are controlled for by age-standardising income.

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[5] If a sufficient number of these Indigenous respondents are reinterviewed in future waves of HILDA.

[6] Missing data is on indication of data quality that can vary between sub-populations. Melbourne Institute (2013) argues that while less than half of the Indigenous respondents have been re-interviewed in every wave of HILDA, 69 per cent were interviewed in wave 11 – this is slightly higher than the proportion of non-Indigenous sample interviewed in that wave. The overall data quality for the Indigenous sample of wave 11 does not appear to be a particular concern, at least in terms of interview rates.

The analysis is conducted separately for men and women. Studies have also found that gender is strongly associated with personal income. This partly reflects the potential impact of child bearing and rearing on female labour market participation. Studies of the Australian population have found substantial differences in the source of income for men and women (Headey, Marks & Wooden 2005; Jefferson & Ong 2010).

2.3 Labour force status

Two measures of labour force status are used in this paper. The main measure used is based on labour force status the week before the interview. A second measure used is the proportion of the previous 12-months which the individual was in paid employment.

The labour force states used in this paper are full-time employed (working 35 hours or more per week), part-time employed, unemployed and not-in-the labour force. Table 1 provides information on labour force status by gender and Indigenous status estimated from the HILDA data and for benchmarking purposes estimated from the 2011 Census. The 2011 Census data is restricted to non-remote areas in order to maximise comparability with the HILDA sample.

One of the reasons for distinguishing between full-time and part-time employment is that the Australian social security system is designed so that many people in part-time employment will continue to receive income-support payments (e.g. Parenting Payment, Newstart Allowance), and many people in part-time and full-time employment will receive payments such as the Family Tax Benefit, the Child Care Benefit and the Child Care Rebate (although the amount received decreases as income increases).

The distribution of labour force status estimated from HILDA is broadly comparable to the census, although the differences between HILDA and the census are larger for Indigenous than non-Indigenous Australians. This is not surprising given the relatively small Indigenous sample in HILDA. In general, the differences in the Indigenous and non-Indigenous employment rates is very similar when estimated using HILDA and the 2011 Census, but there is a bigger Indigenous / non-Indigenous gap for women when HILDA is used than when the 2011 Census is used. The proportion of Indigenous men and women in full-time employment is much lower than that of non-Indigenous men and women. The part-time employment proportion of Indigenous men is slightly lower than that of non-Indigenous men, but Indigenous women are much less likely to be employed part-time than are non-Indigenous women.

Indigenous unemployment rates are about 4.5 times higher than non-Indigenous rates, regardless of gender. A higher proportion of Indigenous persons are also not in the labour force (NILF). Indigenous employment is correspondingly lower than the non-Indigenous estimates for both workers employed part-time or full-time.

Table 1 - Labour force status, by gender and Indigenous status (%), 2011

	Male		*Female*	
Labour force status	*Non-Indigenous*	*Indigenous*	*Non-Indigenous*	*Indigenous*
HILDA data				
Employed full-time	68	45	35	19
Employed part-time	13	10	34	19
Unemployed	4	13	4	14
NILF	15	32	27	48
Total persons	6,836	191	7,428	269
2011 Census data				
Employed full-time	62	38	35	23
Employed part-time	14	11	31	20
Unemployed	5	12	4	9
NILF	19	40	31	49
Total persons	6,090,264	113,625	6,282,594	121,974

Notes: Data include people aged 15-64 years. Census figures refer to persons living in non-remote areas only. The HILDA estimates are weighted using the enumerated person weights supplied with the data.
Source: HILDA, wave 11; ABS (2011a).

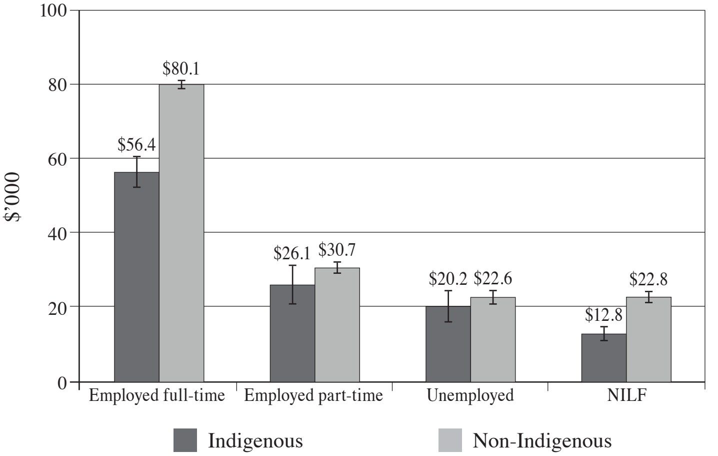
3. Personal income

3.1 Income level

According to HILDA, the mean of total personal gross annual income for Indigenous males was $34,500, substantially lower than that for non-Indigenous males which was $62,600. For Indigenous women, the average income was $26,200 compared to $37,400 for non-Indigenous women. Figures 1 and 2 show total income by labour force status by Indigenous status for males and females, respectively.

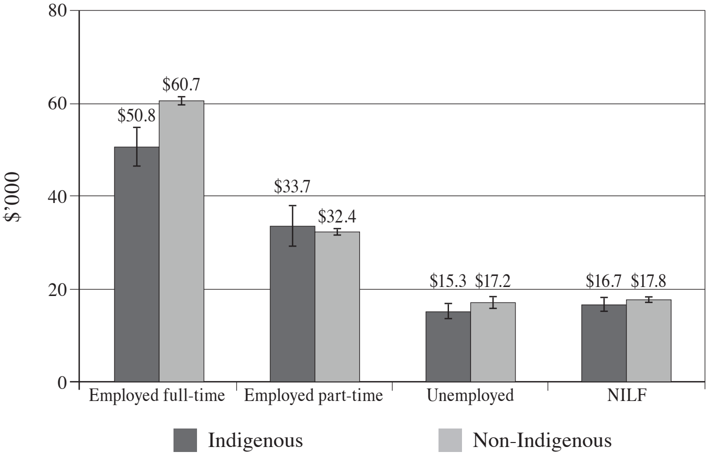
Although the personal income for Indigenous males and females is lower than that of their non-Indigenous counterparts for all labour force states, the size of the gap differs according to labour force status. For full-time workers, the difference is substantial, with Indigenous incomes being around $23,700 and $9,900 lower for males and females, respectively. In addition, Indigenous males who are not in the labour force had an income that was around $10,000 lower than non-Indigenous males. However, for the remainder of the labour force categories, the income difference between Indigenous and non-Indigenous persons is much less substantial.

Figure 1 - Total personal gross income per year ($'000), by Indigenous status, males, 2011



Notes: Population aged 15-64 years. Bars indicate 95% confidence intervals. If the endpoints of these bars overlap, the difference between the Indigenous and non-Indigenous groups is not significant. For instance, employed full-time and NILF incomes are statistically significantly different, whereas employed part-time and unemployed are not. This figure does not control for differences between the Indigenous and non-Indigenous populations in the number of hours worked within the part-time and full-time employed groups. However, as demonstrated in Table 2 the differences are mostly very small with the largest difference being that part-time employed Indigenous men work, on average, an additional 2.8 hours per week.
Source: HILDA Wave 2011.

Figure 2 - Total personal gross income per year ($'000), by Indigenous status, females, 2011



Notes: Population aged 15-64 years. Bars indicate 95% confidence intervals. If the endpoints of these bars overlap, the difference between the Indigenous and non-Indigenous groups is not significant.
Source: HILDA Wave 11.

The information on income by labour force status can be used to answer the question of how much of the difference in incomes between Indigenous and non-Indigenous Australians is due to differences in labour force states and how much is due to differences in income given labour force status. This is achieved by reweighting Indigenous income in each labour force state (Figures 1 and 2) by the proportion of the non-Indigenous population in each labour force state estimated using HILDA (Table 1).

$$\bar{Y}_I^{non-IndLFS} = \sum_{i=1}^{4} Y_i^{Ind} LFS_i^{non-Ind} \tag{1}$$

where

$\bar{Y}_I^{non-IndLFS}$ = average income of Indigenous if have non-Indigenous labour force status but Indigenous income in each labour force state

Y_i^{Ind} = income of Indigenous if in labour force state i

$LFS_i^{non-Ind}$ = % of non-Indigenous population in labour force status i

The average income of Indigenous men $34,700 which increases to $44,500 under the hypothetical scenario of Indigenous men having the same labour force status as non-Indigenous men, but income within each labour force state is the actual estimated from the HILDA survey. This implies that 35 per cent of the gap in income between Indigenous and non-Indigenous men is due to differences in labour force status and 65 per cent is due to differences in income given labour force status.

The average income for Indigenous women is $26,200 which is increases to $34,400 under the hypothetical scenario of Indigenous women having the same labour force status as non-Indigenous women. 71 per cent of the difference in income between Indigenous and non-Indigenous women is explained by the differences in labour force status, and 29 per cent is due to differences in income given labour force status.

3.2 Source of income

This section provides estimates of income by source for the Indigenous and non-Indigenous population and how this differs by labour force status (Figure 3 for males and Figure 4 for females). Complete data are provided in Appendix Table A1.

Full-time employed non-Indigenous men, on average, obtain 86 per cent of their income from wages, 12 per cent from other sources and just 2 per cent from government benefits. Full-time employed Indigenous men have a substantially lower income than their non-Indigenous counterparts, but receive a higher proportion of their income from the labour market (95 per cent), a similar proportion from government benefits and a much smaller proportion from other sources (3 per cent). The differences in income for full-time employed men is in part due to higher hourly wages (see Table 2).

Part-time employed Indigenous and non-Indigenous men receive a smaller proportion of their income from wages and a higher proportion from government benefits compared to their full-time employed counterparts. The big difference in source of income between part-time employed Indigenous and non-Indigenous men is that non-Indigenous men receive 25 per cent of their income from other sources, whereas for Indigenous men it was just 4 per cent. Part-time employed Indigenous men also receive a higher proportion of their income from government benefits than their non-Indigenous counterparts.

For those who were unemployed at the time of the interview, both Indigenous and non-Indigenous men receive 63 per cent of their income from wages (reflecting the fact that many of those who were unemployed at the time of the survey had been employed during the previous 12 months). The main difference in source of income between Indigenous and non-Indigenous men who are unemployed is that Indigenous men receive a higher proportion of their income from government benefits and a lower proportion from other sources.

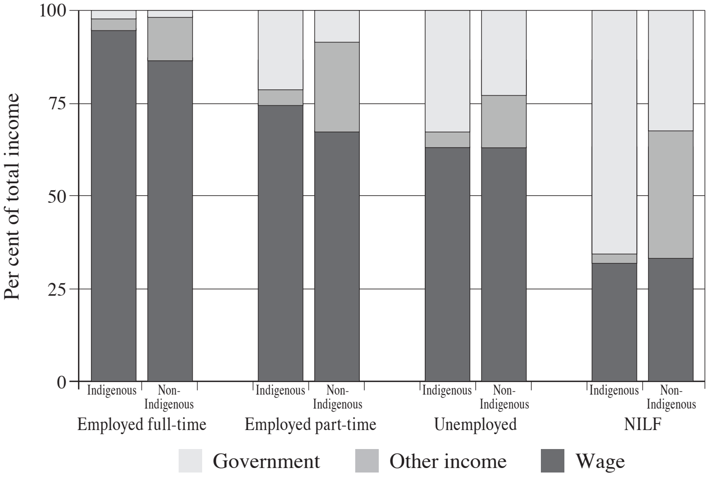
For both Indigenous and non-Indigenous men who are NILF, only around 32 per cent of their income is from wages and salaries. But, similar to other labour force categories, the main difference is that non-Indigenous men have a much higher proportion of their income from other sources compared to Indigenous men (34 per cent vs. 2 per cent) and a correspondingly lower proportion of their income from government benefits (32 per cent vs. 66 per cent).

For women, the overall pattern is generally similar to men, but there are differences in the proportion of income from different sources. Indigenous women who are not in paid employment (unemployed and NILF) obtain a much lower proportion of their income from paid work compared to non-Indigenous females. Correspondingly, Indigenous females who are unemployed and NILF obtain a much higher proportion of their income from government payments compared to non-Indigenous females.

Although the proportion of total income from other private sources is similar for both Indigenous males and females regardless of labour force status, the level of other income for non-Indigenous males is substantially higher than for females across all labour force statuses.

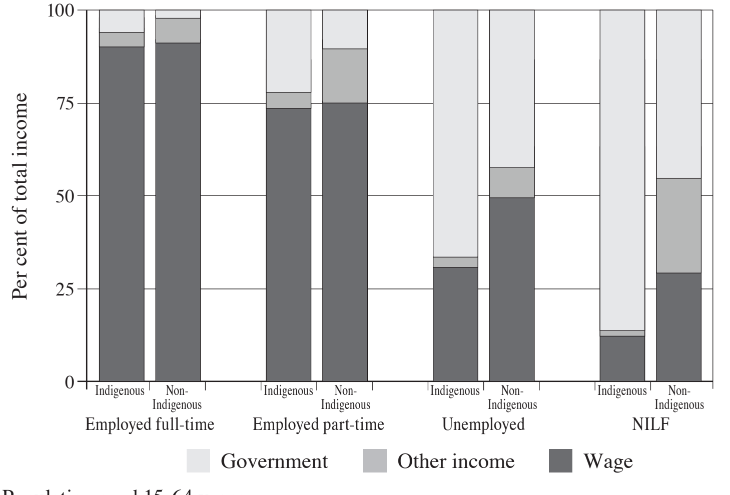
In summary, several main observations can be made. As one would expect, for both employed Indigenous and non-Indigenous Australians, the major contributor to income is wages, and the proportion of income from wages decreases as people spend less time in the labour force. In terms of non-wage income, government benefits constitute a higher proportion of income for the Indigenous population than for the non-Indigenous. This is true for males and females, and for all labour force states. However, the difference is largest for part-time employed and those NILF, and lowest for full-time employed and unemployed. Indigenous men and women receive a much smaller proportion of income from other sources (primarily business and investment income) than their non-Indigenous counterparts. This is particularly the case for those NILF. For non-Indigenous Australians, income from other sources is particularly important for part-time workers and those NILF, where it constitutes 15-35 per cent of all income. It is also worth noting that more than 50 per cent of income for unemployed males comes from wages, whereas for females it is lower, especially for Indigenous Australians.

Figure 3 - Source of personal income by labour force status and Indigenous status (%), males, 2011



Note: Population aged 15-64 years.
Source: HILDA Wave 11.

Figure 4 - Breakdown of total income by labour force status and Indigenous status (%), females, 2011



Note: Population aged 15-64 years.
Source: HILDA Wave 11.

4. Wage income

This section focuses on various aspects of wage income; hourly wage rates received, number of hours per week and per year and annual wage income. As in earlier sections the analysis is conducted by Indigenous status and gender.

4.1 Hourly wages

Average hourly wage rates are lower for Indigenous men and women than their non-Indigenous counterparts (Table 2). Overall, employed Indigenous men have an hourly wage of $23.3, around 18 per cent lower than the average hourly wage of employed non-Indigenous men of $28.3. Average hourly wages of women are slightly lower than for men, and are lower for Indigenous women ($22.6) than for non-Indigenous women ($26.1). Given the well-known disparities in level of education and other human capital between Indigenous and non-Indigenous persons, this difference in hourly wage rate at the aggregate level is not surprising.

For males, the differences in hourly wages (in percentage terms) between the Indigenous and non-Indigenous are similar for the part-time and full-time employed. For women, the hourly wage of full-time employed Indigenous and non-Indigenous women are very similar. However, part-time employed Indigenous women have a substantially lower hourly wage compared to part-time employed non-Indigenous women ($20.0 compared to $25.8). This may be because women are more likely than men to work part-time for all occupations, and so there are a high proportion of higher-income earning non-Indigenous women working part-time. One explanation for this observation is that, irrespective of occupational status, mothers might choose to work part-time immediately after the birth of their children as a means of combining the work and family aspects of their lives (ABS 2011b).

4.2 Working hours and number of weeks worked

The total income from wages earned during a year depends not only on the wage rate received, but also the number of hours worked per week and the number of weeks worked per year.

On average, Indigenous men worked 24 weeks during the past year, substantially less than the 33 weeks worked by non-Indigenous men (Table 2). Similarly, Indigenous women worked 17 weeks during the past year, compared to 28 weeks by non-Indigenous women. These averages are for the working age population and thus include those who were unemployed or not-in-the labour force for the entire past year.

For each labour force state, Indigenous men and women work between one and three weeks less per year than their non-Indigenous counterparts. This difference is much smaller than the total differences in weeks worked among the Indigenous and non-Indigenous populations. This is largely due to differences in labour force state rather than a lower number of weeks worked per year for each labour force state.

The number of weeks worked during the past year is higher among the full-time and part-time employed, but the unemployed and those NILF, on average, had spent a number of weeks employed during the past 52 weeks. For example, unemployed Indigenous people had spent 13 weeks during the past 52 weeks employed and unemployed non-Indigenous people had spent 15.5 weeks of the past 52 weeks employed.

Full-time employed Indigenous people work around the same amount of hours as full-time employed non-Indigenous persons. Similarly, for the part-time employed Indigenous work a similar number of hours as non-Indigenous. This is despite spending fewer weeks in paid employment than non-Indigenous people during the year. Note that among those currently employed part-time, Indigenous males work three hours more per week on average than non-Indigenous males.

4.3 Annual labour market earnings

Table 2 also shows the annual income from wages earned in 2011. Full-time employed Indigenous men have an average annual income from wages of $53,000 compared to full-time employed non-Indigenous men who have an annual income from wages of $69,000. Similarly, Indigenous women employed full-time have an annual income from wages of $45,800 compared to $55,300 for full-time employed non-Indigenous women. The higher annual incomes for full-time employed non-Indigenous people compared to full-time employed Indigenous people reflects higher hourly wages and numbers of weeks worked per year.

However, there is no significant difference between the annual wages of part-time workers. For men, this is a combination of the lower hourly wage, but longer average hours worked by part-time employed Indigenous men compared to non-Indigenous men. For part-time employed women, Indigenous women have a lower hourly wage rate compared to non-Indigenous women, but there is no significant difference in the number of weeks worked per year or hours worked per week.

For those not in paid employment at the time of the survey, non-Indigenous Australians generally had higher incomes from previous jobs. Non-Indigenous persons who were not in the labour force earned around twice as much during the year as Indigenous persons, which is probably a combination of higher wage rates and more time spent working.

Indigenous Australians, on average, receive a lower wage rate than non-Indigenous Australians. They are also more likely to be unemployed, more likely to be out of work for longer periods of time and are more likely to change jobs than non-Indigenous persons. In addition to Indigenous persons spending more time out of the labour force, those currently in work have been with their current employer for a shorter time than non-Indigenous persons. Indigenous persons are thus more exposed to financial stress in times where there is no regular wage income. We now investigate to what extent other sources of income play a role in helping to shield from potential spells of unemployment.

Table 2 - Average weeks of work, hours per week and labour force status in current job, by gender and Indigenous status, 2011

	Hourly wage ($)				*Hours of work per week*			
Labour force status	*Indigenous*		*Non-Indigenous*		*Indigenous*		*Non-Indigenous*	
Males								
Employed full-time	**24.5**	**(1.6)**	**29.5**	**(0.3)**	**46.5**	**(1.4)**	**46.2**	**(0.2)**
Employed part-time	18.2	(2.5)	22.0	(0.9)	21.1	(1.8)	18.3	(0.3)
Unemployed	–	–	–	–	–	–	–	–
NILF	–	–	–	–	–	–	–	–
Total	23.3	(1.4)	28.3	(0.3)	41.6	(1.5)	46.2	(0.2)
Females								
Employed full-time	25.3	(1.2)	26.3	(0.3)	42.3	(1.3)	42.3	(0.2)
Employed part-time	20.0	(2.0)	25.8	(0.7)	19.7	(1.0)	19.6	(0.2)
Unemployed	–	–	–	–	–	–	–	–
NILF	–	–	–	–	–	–	–	–
Total	22.6	(1.2)	26.1	(0.4)	30.9	(1.4)	31.2	(0.20)

	Weeks in work				*Annual wages ($'000)*			
Labour force status	*Indigenous*		*Non-Indigenous*		*Indigenous*		*Non-Indigenous*	
Males								
Employed full-time	38.4	(2.4)	39.3	(0.3)	53.4	(4.2)	69.2	(0.8)
Employed part-time	32.8	(4.7)	33.8	(0.8)	19.4	(4.3)	20.6	(1.2)
Unemployed	13.0	(3.5)	15.5	(1.1)	12.7	(4.2)	14.2	(1.6)
NILF	5.1	(1.6)	6.6	(0.5)	4.1	(1.6)	7.6	(1.0)
Total	24.0	(2.5)	33.0	(0.4)	28.7	(3.4)	51.3	(0.9)
Females								
Employed full-time	37.0	(3.1)	39.5	(0.4)	45.8	(4.0)	55.3	(0.7)
Employed part-time	34.1	(3.2)	36.1	(0.5)	24.8	(4.0)	24.2	(0.5)
Unemployed	9.1	(2.6)	11.9	(1.2)	4.7	(1.4)	8.5	(1.0)
NILF	3.8	(1.0)	5.8	(0.3)	2.0	(0.7)	5.2	(0.4)
Total	17.0	(2.0)	28.0	(0.4)	15.1	(2.1)	29.4	(0.6)

Note: Population aged 15-64 years. Standard errors are in parenthesis. – = not applicable
Source: HILDA Wave 11.

5. Non-wage income from private sources

Income from private sources other than wages includes rent, interest payments, dividends, royalties and regular private transfers such as child support payments and other intra-family transfers.[7] Availability of income from private non-wage sources can be important in alleviating financial stress while an individual is out of a job.[8] This type of income has been found to have an impact upon labour supply decisions (Cai 2010; Taylor & Gray 2010).

Figures 5 and 6 show non-wage private income by labour force status for males and females, respectively. Non-wage private income is substantially higher for the non-Indigenous population compared to the Indigenous population. For example, full-time and part-time employed non-Indigenous males had $9,600 and $7,500 in non-wage private income in 2011, respectively, which is more than five times that of employed Indigenous males.

The biggest difference is between those who are NILF. Although the level of privately sourced, non-wage income for non-Indigenous persons who are NILF is on par with the working non-Indigenous population ($7,800 for males and $4,600 for females), Indigenous persons who are NILF receive a negligible amount from this source.

For non-Indigenous part-time workers, especially males, the amount of non-wage income is substantial in absolute value terms and also as a proportion of total income. Referring to Figure 5, non-wage income constitutes almost 25 per cent of income for non-Indigenous males who are working part-time, and around 15 per cent of the income of female part-time workers. It is possible that this access to reasonable amounts of non-wage private income is influencing non-Indigenous labour supply decisions.

The lower non-wage income of Indigenous Australians could also be linked to their historically lower income from wages. If Indigenous Australians are earning a lower salary, they have fewer resources and opportunities to invest in other ways of earning income, such as in real estate or the share market. As such, Indigenous persons may be more susceptible to financial stress in times of economic downturn, as they do not have as wide a range of income sources as non-Indigenous persons. Another avenue for the effect of such income on wage outcomes is that the additional resources associated with that income could be used for longer periods of job search and, hence, result in finding better jobs that are well matched to the skills of the individual (Hunter & Gray 2006).

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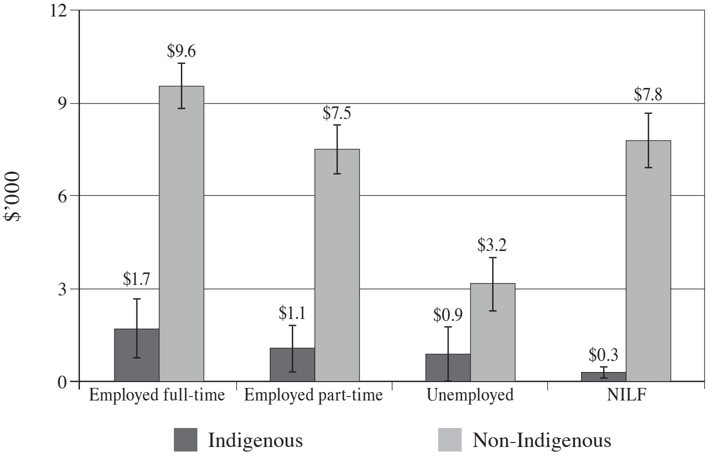
[7] It is worth noting that royalties do not make up a significant part of private income for Indigenous persons surveyed in HILDA. Although royalties are an important source of income for Indigenous Australians living in remote areas, the HILDA survey covers only non-remote areas.

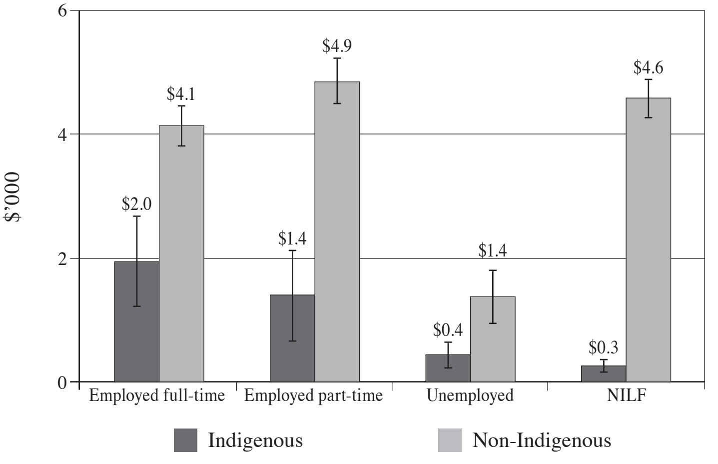
[8] Income flows from rent, interest payments and dividends will be related to the level of wealth held, but a given level of wealth can generate very different flows of income at a point in time depending upon the nature of the asset held and the way in which the wealth holdings are structured. Non-realised increases in wealth (capital gains) are not reflected in the income flows at a point in time. In other words, the size of these other non-wage private income provides an indirect indication of the size of holdings of wealth, but they are not measures of wealth itself. HILDA does collect information on net value of assets, but these data were not collected in wave 11 of HILDA.

Figure 5 - Average non-wage private income per year ($’000), males, 2011



Notes: Population aged 15-64 years. Bars indicate 95% confidence intervals. If the endpoints of these bars overlap, the difference between the Indigenous and non-Indigenous groups is not significant.
Source: HILDA Wave 11.

Figure 6 - Average non-wage private income per year ($’000), females, 2011



Notes: Population aged 15-64 years. Bars indicate 95% confidence intervals. If the endpoints of these bars overlap, the difference between the Indigenous and non-Indigenous groups is not significant.
Source: HILDA Wave 11.

6. Government benefits

The final source of income considered in this paper is government benefits (also termed public transfers). Government payments include income support payments (e.g. unemployment, parenting, carer and disability-related payments) and allowances such as Family Tax Benefit payments related to having dependent children, mobility and carer allowances. When considering differences in income from government benefit it is important to bear in mind that the amount received depends upon family income (not just individual income) and the amount received for some benefits depends upon family structure including number of children (e.g., Family Tax Benefit and Child Care Benefit).[9]

Figures 7 and 8 show total government payments by labour force status. On average, government payments are higher for females compared to males, irrespective of Indigenous status. This reflects a combination of factors, including the fact that women are more likely to have dependent children and therefore receive the Family Tax Benefit and child care–related payments. Women are also more likely than men to receive a Carer Payment, which is paid at a higher rate than unemployment-related payments, and a Parenting Payment Single, which in 2011 was paid at a higher rate than the unemployment-related benefits.

Government payments are generally higher for Indigenous persons, irrespective of gender and labour force status. The differences are most substantial for the female population; for example, Indigenous females who are NILF receive, on average, more than \$6,000 more in government payments than their non-Indigenous counterparts. However, for the male population, differences by Indigenous status are smaller and not significant (except for those working part-time). The substantial difference in government payments for women could be due to the fact that, on average, Indigenous women are more likely to have more children than non-Indigenous women, and are also more likely to be a carer and hence receive higher benefits. On the other hand, the differences in the number of dependent children (dependent as defined by the social security system) between Indigenous and non-Indigenous men is not as large, so there is not such a difference in the amount of government benefits received.

Government payments are relatively high for Indigenous males and females who are employed part-time, at \$5,600 and \$7,500, respectively. These figures are more than twice that of the non-Indigenous part-time workers. As expected the payments are also substantially higher than those received by Indigenous persons working full-time given the means testing of the Australian system (discussed in the following paragraph), The government benefits received by the part-time employed Indigenous people are substantially below those not-in-the labour force, and are relatively close to the amount received by the unemployed It may be the case that the availability of government benefits is affecting worker's decision of how much labour to supply. If available benefits are relatively high, a person may choose to work less than they otherwise would in the absence of benefits (Doiron 2004; Hu 1999).

Australia's welfare system is one of the most targeted systems in the Organisation for Economic Co-operation and Development, and these transfer payments tend to provide support to those most in need – recipients who are out of work temporarily, or permanently in the case of those with a disability or long-term illness (Whiteford 2005). Government payments are particularly important as a source of income for Indigenous persons, because they are more likely to be unemployed and more likely to be out of work for longer, and have very little non-wage income to support them.

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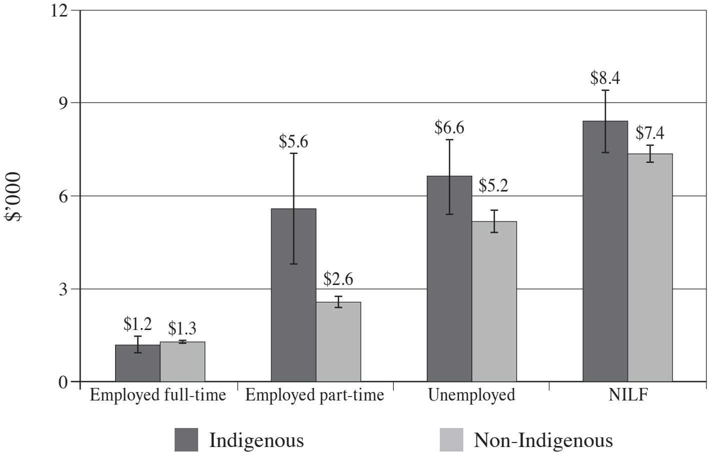
[9] A wider variety of public transfers are available to the Indigenous population. For example, ABSTUDY provides help for Indigenous Australians who are studying or undertaking an apprenticeship. There is also an income supplement available to those participating in the Community Development Employment Projects scheme. Expenditure on the Indigenous specific benefits comprise only a small proportion of government benefits paid to the Indigenous population.

Figure 7 - Average income per year from government payments ($'000) by Indigenous status, males, 2011



Notes: Population aged 15-64 years. Bars indicate 95% confidence intervals. If the endpoints of these bars overlap, the difference between the Indigenous and non-Indigenous groups is not significant.
Source: HILDA Wave11.

Figure 8 - Average income per year from government payments ($'000) by Indigenous status, females, 2011

Notes: Population aged 15-64 years. Bars indicate 95% confidence intervals. If the endpoints of these bars overlap, the difference between the Indigenous and non-Indigenous groups is not significant.
Source: HILDA Wave 11.

7. Source of income by the proportion of the year employed

The analysis of income by labour forces has to this point has compared annual income by labour force status at a point in time. However, many people are not in a single labour force state for the entire year. As noted above, this is the reason as to why people who are not employed at the time of the interview may have positive labour market income. The higher levels of average government payments received by Indigenous people will, at least in part, relate to the longer time of unemployment in the period over which the income accrued.

This section complements the earlier analysis by presenting information on source of income according to a measure of employment status over the annual period for which income is reported. Table 3 provides source of income by proportion of year employed. The groups are 0-25 per cent of the year employed, 25-75 per cent of the year employed and 75-100 per cent of the year employed.[10] The pattern of results is as expected, with wages comprising a higher proportion of income as the proportion of the year employed increases and government benefits decrease. An interesting feature of the results is that Indigenous people receive a lower proportion of income from wages and a higher proportion from government payments for all three groups categorised by per cent of the year employed. A final point to highlight from the

Table 3 - Source of income by proportion of year employed by Indigenous status and gender, 2011

	Indigenous % year employed			Non-Indigenous % year employed		
	0-25	25-75	75-100	0-25	25-75	75-100
Females						
Wages	23.0	43.3	77.6	61.1	61.9	85.3
Government payments	75.3	52.9	16.0	22.8	25.9	4.5
non-wage private income	1.7	3.7	6.4	16.1	12.2	10.2
Total (%)	100.0	100.0	100.0	100.0	100.0	100.0
Total (Number)	138	29	102	2,916	589	3,923
Males						
Wages	70.3	75.8	89.1	73.6	67.9	85.3
Government payments	27.9	22.4	6.8	8.6	14.1	2.1
non-wage private income	1.7	1.8	4.1	17.8	18.0	12.6
Total (%)	100.0	100.0	100.0	100.0	100.0	100.0
Total (Number)	83	22	96	2,155	395	4,286

Note: Population aged 15-64 years.
Source: HILDA Wave 11.

[10] The relatively small Indigenous sample means that it is not possible to analyse the proportion of the year that respondents are unemployed. analysis in Table 3 is that for the non-Indigenous population the proportion of income derived from non-wage private income is lower the higher the proportion of the year employed, whereas for the non-Indigenous population the reverse pattern is found with the proportion coming from this source increasing as the proportion of the year employed increases.

8. What is the role of age-related factors?

Income and wages are related to basic demographic factors such as age and gender, reflecting factors such as differences in employment rates and hours worked associated with participation in education, child bearing and the decline in employment rates as retirement age approaches. Hourly wage rates increase with years of labour market experience typically into the forties and fifties and then start to decline. The differences in the average age of the Indigenous and non-Indigenous population mean that it is of interest to consider how much of the difference in income remains after age standardising income.

Age differentials may have been particularly important for the NILF comparisons, especially to the extent that a particular group has access to superannuation as they approach retirement age. However, a similar point can be made for any Indigenous to non-Indigenous comparisons, given the substantial age differences between the two populations irrespective of labour force status (see Table 4). Note that the largest age differential between non-Indigenous and Indigenous people is for males who are NILF, with an average age difference of 12.4 years. These observations are consistent with the substantially lower life expectancy of Indigenous Australians, especially Indigenous males, relatively few of whom are expected to reach retirement age (ABS 2013b). Table 4 shows that not only are the overall age distributions very different for Indigenous and non-Indigenous populations, but age distributions are different even when disaggregated by labour force status.

To standardise the non-Indigenous estimates, we used the Indigenous age distribution in the 2011 Census, disaggregated by labour force status and gender, and for non-remote areas only. For each labour force status and gender, the proportion of Indigenous persons in each five-year age group between ages 15 and 64 years was used to weight the HILDA estimates of average non-Indigenous income estimated separately for each five-year age group. The resulting age-standardised estimates can be interpreted as the average amount of income non-Indigenous people of a particular labour force status would have received if they had the same age distribution as the Indigenous population. To make direct comparisons between the Indigenous and non-Indigenous results, we also age-standardised Indigenous estimates using the appropriate census distribution.

In general, the age-standardised results show very similar patterns to the non-standardised estimates discussed in earlier sections (see Table A2 in the appendix). The main effect of the age-standardisation was to lower the average income received by non-Indigenous Australians, as more weight is given to the younger age groups, who often earn lower wages and do not have potential income from superannuation. However, total income, wages and other private sources still remain substantially higher for non-Indigenous Australians compared to Indigenous Australians.

Table 4 - Average age by labour force status, gender and Indigenous status, non-remote Australia, 2011

	Average age males (years)		*Average age females (years)*	
Labour force status	*Indigenous*	*Non-Indigenous*	*Indigenous*	*Non-Indigenous*
Employed full-time	34	40	35	39
Employed part-time	29	34	32	38
Unemployed	27	31	28	30
NILF	26	39	33	41

Note: Population aged 15-64 years.
Source: HILDA Wave 11.

9. Discussion

This paper presents estimates of the differences in source of income of Indigenous and non-Indigenous Australians, how source of income differs by labour force status and explores the implications of this data for where policy needs to focus to reduce the large income disparities between Indigenous and non-Indigenous Australians.

A key difference between Indigenous and non-Indigenous Australians of working age is that the Indigenous population receives significantly less income from non-wage private income. This is true for men and women and all employment states. The difference the Indigenous and non-Indigenous populations in non-wage private income are largest for those employed full-time and those not-in-the labour force. In addition, part-time employed non-Indigenous women have substantially higher non-wage private income than the part-time employed Indigenous women. There is little difference between Indigenous men and women in non-wage private income, but non-Indigenous men receive substantially more non-wage private income than do non-Indigenous women.

The lower non-wage private income of the Indigenous population has a range of explanations, but there is no doubt that a major difference is that Indigenous Australians have far lower levels of income generating assets and hence investment income than do non-Indigenous Australians. This reflects both current differences in earned income but also lower levels of assets being transferred intergenerationally, reflecting: the relatively poor employment prospects experienced by Indigenous people during a long period; and Indigenous Australians having received lower average wages since Australia was colonised and the first monetary-based labour market was established.

There is a widespread perception of labour market discrimination against Indigenous Australians (Biddle *et al*. 2013). Whatever the extent of contemporaneous discrimination in the labour market, it is almost inevitable that historical discrimination and disadvantage means that Indigenous persons have fewer resources and capital to invest in other private ventures to increase their overall wealth. This may limit the ability of Indigenous people to participate in the labour market as a worker, but it also places a constraint on the ability of Indigenous people to start their own businesses (Hunter 2013).

As a consequence of lower income from private sources and, on average, lower labour market income if employed, a greater proportion of Indigenous income comes from government payments. Given Indigenous persons are more likely to be out of work than non-Indigenous people, they are more likely to be dependent solely on government payments as a source of income at any one time. Indigenous men and women who are full-time employed have substantially lower incomes than the non-Indigenous men and women who are employed full-time. The lower income of Indigenous men is explained both by non-Indigenous men receiving a higher wage rate and being more likely to be employed full-time.

A substantial proportion of the difference of income between Indigenous and non-Indigenous Australians is due to differences in labour force status for both men and women, although there are substantial differences between men and women in the extent to which differences in labour force status explain the income gap. For men, it is estimated that 35 per cent of the gap in income between Indigenous and non-Indigenous men is due to differences in labour force status and 65 percent is due to differences in income given labour force status. For women the proportion of the difference explained by differences in labour force status is much higher at 71 per cent. This reflects that the income disparities by labour force status are higher for Indigenous men than they are for Indigenous women.

One key findings about a third of the gap in income between Indigenous and non-Indigenous men is due to differences in labour force status and about two-thirds is due to differences in income given labour force status. In contrast for women, over two-thirds of the difference income between Indigenous and non-Indigenous is explained by the differences in labour force status, and just under one-third is due to differences in income given labour force status. This is important from a policy perspective because it demonstrates that attempts to narrow the employment gap will have a substantial impact in narrowing income gaps, but there also needs to be increases in income if employed, particularly for the full-time employed. For Indigenous men, policy will also need to focus the relatively low wages relative to non-Indigenous men by removing persistent barriers to education and training.

The main implication for future research is that analysis needs to distinguish adequately between wage and non-wage sources of income when we are trying to understand economic incentives in the Indigenous labour market (cf., Birch 2014). Of course, such analysis requires that disaggregated income data is available and it is important that data collections give some priority to acquiring this information.

Appendix A

Additional data

Table A1 - Breakdown of total income sources, by gender, labour force status and Indigenous status, 2011

	Wages (%)	*Other income (%)*	*Government benefit (%)*
Indigenous males			
Employed FT	94.8	3.1	2.1
Employed PT	74.3	4.2	21.5
Unemployed	62.8	4.5	32.8
NILF	31.9	2.4	65.7
Non-Indigenous females			
Employed FT	90.2	3.8	6.0
Employed PT	73.6	4.1	22.2
Unemployed	30.5	2.8	66.6
NILF	12.1	1.6	86.4
Non-Indigenous males			
Employed FT	86.4	11.9	1.6
Employed PT	67.1	24.5	8.4
Unemployed	63.0	14.0	23.0
NILF	33.3	34.3	32.4
Non-Indigenous females			
Employed full-time	91.2	6.8	2.0
Employed part-time	74.9	15.0	10.1
Unemployed	49.6	8.0	42.5
NILF	29.0	25.7	45.2

Notes: FT = full-time; NILF = not in the labour force; PT = part-time
Source: HILDA Wave 11; ABS (2011a).

Table A2 - Age-standardised wages, other private income and government payments, 2011

Income source and labour force status	Males, $ per year				Females, $ per year			
	Indigenous		Non-Indigenous		Indigenous		Non-Indigenous	
Wages								
Employed FT	57,000	(13,913)	65,238	(2,111)	48,798	(10,791)	54,222	(1,972)
Employed PT	20,550	(51,48)	21,608	(3,591)	27,575	(8,585)	22,931	(1,343)
Unemployed	13,627	(22,26)	14,919	(4,461)	4,012	(2,948)	8,236	(2,718)
NILF	3,815	(3,083)	9,141	(3,315)	1,887	(1,415)	5,330	(1,091)
Other income								
Employed FT	1,932	(3,041)	8,390	(1,697)	2,110	(1,662)	3,912	(886)
Employed PT	801	(364)	6,995	(2,126)	1,500	(1,806)	4,208	(911)
Unemployed	824	(824)	2,148	(1,592)	612	(452)	1,403	(1,140)
NILF	345	(345)	5,076	(2,022)	980	(883)	3,226	(796)
Government payments								
Employed FT	1,235	(625)	1,272	(117)	2,546	(1,646)	1,289	(195)
Employed PT	4,735	(1,454)	2,848	(544)	6,605	(3,224)	3,393	(345)
Unemployed	6,803	(1,524)	5,514	(1,035)	9,998	(2,421)	7,574	(1,417)
NILF	10,399	(1,800)	7,378	(827)	14,398	(2,785)	7,759	(595)

Notes: FT = full-time; NILF = not in the labour force; PT = part-time.
Standard errors are in parenthesis.
Source: HILDA Wave 11; ABS (2011a).

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