Paid and Unpaid Work in Australian Households: Trends in the Gender Division of Labour, 1986-2005

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Abstract
Changes in labour force participation rates of men and women over the last three decades raise questions about how men and women manage the combined responsibilities of paid and unpaid work. In the majority of couple families both partners are now engaged in paid employment highlighting the necessity to consider both paid and unpaid work when examining household divisions of labour. In this study, we use data collected in three national Australian surveys in 1986, 1993 and 2005 to examine the combined paid and unpaid workloads of men and women in dual-earner families. We find that the gender gap in men’s and women’s combined workloads has narrowed with men and women having similar loads when both are employed full-time. But this pattern does not hold for households with dependent children. We conclude that parenthood is a constraint on equality in the division of labour within Australian households.

1. Introduction
The prevalence of the ‘traditional’ male breadwinner family with a single male earner and a non-employed female partner has steadily declined due to an increase in the labour force participation rate of married women. The labour force participation rate of married women in Australia increased from 35 per cent to 56 per cent between 1972 and 2004 (ABS, 1976, p. 43; and ABS, 2006, p. 124). Consequently, the proportion of couple families with both partners employed has increased. The proportion of Australian families with dependent children where both parents are in paid employment increased from 46 per cent in 1985 to 60 per cent in 2007 (ABS, 1996; and ABS, 2008a).

Given these trends it is timely to consider the workloads of Australian men and women in couple families to assess whether gender specialisation in paid and...
unpaid work has declined and whether there is any evidence of increasing gender equality in overall work time. Earlier research has reported mixed evidence about these trends. On the one hand, Baxter (2002) reported that although women had reduced their hours of domestic labour over time, there was little evidence of a marked change in men’s involvement in domestic work. On the other hand, research conducted in the US has found that men are doing more in the home than in the past suggesting that overall workloads have become more equal (Bianchi et al., 2006; and Sayer, 2005).

Although there has been a great deal of research examining the division of labour within couple families, there is continuing debate regarding the salience of different explanations of why women spend more time on housework than men. The various theories developed to explain the allocation of labour within households have been well-canvassed in previous literature and it is not necessary to review these arguments in detail here (see, for example, Baxter, 1993). Briefly, however, some researchers argue that time spent on housework is inversely related to time spent on paid work with the partner spending the least time in paid employment spending the most time on housework (Blood and Wolfe, 1960). Becker (1981) argued that the division of labour into paid work for men and unpaid work for women was a rational choice based on sound economic principles. According to Becker’s argument, men had a comparative advantage in the labour market due to their higher levels of human capital and women had a comparative advantage in the home due to their biology. Therefore, the gender division of labour was the most efficient way to utilise the resources of both partners. However, now that women are increasingly likely to remain employed throughout their child bearing and child rearing years, this specialisation of labour is no longer so widespread (Brynin and Ermisch, 2009). According to Brynin and Ermisch (2009, p. 17) due to women’s increased education and earning power, the returns of work exceed the marginal value of home production making it less efficient for women to withdraw from the labour market to specialise in care and housework. Thus men’s comparative advantage in the labour market is weakened and the allocation of domestic labour must be negotiated rather than assigned on the basis of gender.

A variant of the economic approach popular in sociological accounts of the domestic division of labour is bargaining theory. This approach also takes into consideration the comparative resources of both partners and can be applied to the division of labour within dual-earner families. According to bargaining theory, higher levels of economic resources translate into increased bargaining power. The partner making the largest contribution to household income is thus able to delegate housework to the other partner. Although some researchers have found an inverse relationship between relative income and housework hours (Baxter, 1993; Baxter et al., 2005; and Bianchi et al., 2000), they conclude that this effect is not gender neutral. Overall, researchers have found that economic exchange theories can explain why men do less housework but not why women do more housework (Baxter, 2002; Bianchi et al., 2000; Bittman et al., 2003; and Greenstein, 2000). For a more detailed discussion of the various theories about the allocation of unpaid work within households see Baxter (1993).

In this paper, we examine the combined workloads of men and women living in dual-earner families in Australia in 1986, 1993 and 2005 to determine whether there has been any change over time in the allocation of time to paid work and housework. Rather than examine within couple variations, we examine within gender variations. In other words, we are interested in whether the allocation of time between
paid work and housework of men in 2005 differed from that of men in 1986 and whether the allocation of time between paid work and housework of women in 2005 differed from that of women in 1986.

2. Men’s and Women’s Combined Workloads

There has been little research conducted in Australia to examine whether women’s increased labour force participation has had any effect on the total workloads of men and women in couple families. In the one study examining change over time, Bittman (2004, p. 157) used time use diary data collected in 1987, 1992 and 1997 to examine the total household workloads of Australian families. Bittman included the paid and unpaid work hours of both partners in his analyses finding that the total workloads for co-breadwinner couples (both partners employed full-time) averaged 137 hours per week in 1987 and increased marginally to 138 hours per week in 1997. The average total workload for new traditional couples (those in which men are employed full-time and women employed part-time) increased from 128 hours per week in 1987 to 134 hours per week in 1997. Bittman did not examine the total work hours of each partner within the couple, so although it seems that the total workloads of dual-earner couples have become more similar over time, there is no indication of whether the total workloads of men and women in dual-earner couples have become more similar.

Bittman and Wajcman (2004, p. 179) examined the total workloads of men and women in ten countries at one time point finding that in Australia, in 1992, the total workload for full-time employed women averaged 59.5 hours per week while the total workload for full-time employed men averaged 57.3 hours per week. In their cross national comparison, full-time employed married women in Canada, Finland, Norway and the UK also recorded higher total workloads than full-time employed married men. The total workloads of married men and women in Denmark, the Netherlands, the US and Sweden were similar. Bittman and Wajcman also estimated women’s share of unpaid work time finding that Australian women employed full-time and living with partners contributed, on average, 73 per cent of their household’s total unpaid work. This was six percentage points higher than that of their counterparts in Sweden who contributed 67 per cent and four percentage points lower than that of their counterparts in the Netherlands who contributed 77 per cent.

Researchers in the US have generally found that women’s total workloads are higher than men’s total workloads (Greenstein, 2000; and Sayer, 2005). For example, Greenstein (2000) analysed data from the 1987-88 US National Survey of Families and Households (NSFH) estimating that women’s total workloads averaged around 71 hours per week compared to men’s total workloads of around 62 hours per week. Apart from routine housework tasks, Greenstein also included time spent paying bills and driving others to work and school in his estimation of unpaid work.

Examining change over time in the US, Sayer (2005, p. 291) found that the average total work hours of women increased from 56 hours per week in 1965 to 59 hours per week in 1998 whereas the average total work hours for men decreased from 57 hours in 1965 to 56 hours in 1998. According to Sayer, the increase in women’s average total work hours was the result of the increase in the proportion of women in paid employment rather than an increase in the average workloads of individual women and the decrease in men’s average total work hours was related to the decline in the labour force participation rate of men.
3. Gender Specialisation

There has been a considerable amount of research examining the extent of gender specialisation, that is, the proportion of total work time allocated to paid work and unpaid work by men and women in couple families. For example, Gershuny, Godwin and Jones (1994, p. 185) found that although the workloads of men and women who were employed on a full-time basis had become more equal, the ‘mix between paid and unpaid work activities’ was skewed towards housework for women and paid work for men, suggesting that gender specialisation remains embedded in the division of labour within households. Greenstein (2000, p. 328) came to a similar conclusion. Looking at the proportion of total work hours spent doing unpaid work, he found that wives spent 63.5 per cent of their total work time doing housework and husbands spent 30 per cent of their total work time doing housework.

Researchers using US time use diary data to investigate change in workloads (i.e. paid and unpaid work) of partners within couple families have found evidence that total workloads have become more similar with men spending more time doing unpaid work and women spending more time doing paid work (Bianchi et al., 2006; and Sayer, 2005, p. 296). Sayer (2005, p. 291) estimated that in 1965, women spent three and a half times as many hours doing unpaid work as men and one third as many hours as men doing paid work. In 1998, women spent one and a half times as many hours doing unpaid work and 0.8 times as many hours doing paid work as men. In other words, women’s allocation of time between paid work and unpaid work has become more similar over time.

Australian researchers have also found evidence of gender specialisation. Using data from the third wave of the Household, Income and Labour Dynamics in Australia (HILDA) survey collected in 2003, Headey, Warren and Harding (2006) examined the total workloads of men and women in co-breadwinner families. Their estimate of total work included time spent commuting to and from the workplace, paid work hours and a range of indoor and outdoor housework tasks and household errands. Headey et al. (2006, p. 36) found that the total workloads of co-breadwinner men and women were relatively equal with men averaging 61.5 hours and women averaging 60.6 hours. However, the mix between paid work and unpaid work differed for men and women with men spending more time doing paid work related activities and women spending more time doing housework. Men averaged 50 hours per week on employment related activities, eight hours per week on core housework tasks and four and a half hours per week on outdoor tasks whereas women averaged 44.3 hours per week on employment related activities, 14.6 hours per week on core housework and two and a half hours on outdoor tasks. Therefore, research generally shows that there is still a degree of inequality in the composition of workloads with women continuing to specialise in unpaid work and men continuing to specialise in paid work.

4. Parenthood and Specialisation

With the majority of couple families with dependent children now supplying two workers to the labour market, researchers have shown an increasing interest in the effect that increased paid work hours has had on the workloads of families with children. There is evidence that the employment status of mothers is associated with the age of the youngest child (Chalmers et al., 2005; and de Vaus, 2004). For example, according
to Chalmers, Campbell and Charlesworth (2005, p. 45), in 2004, 14 per cent of mothers with a youngest child under five years of age, 25 per cent of mothers with a youngest child aged five to nine years and 35 per cent of mothers with a youngest child aged ten to fourteen years were employed on a full-time basis. The percentage of mothers employed on a part-time basis also varied according to the age of the youngest child. Thirty-one per cent of mothers with a youngest child under five years of age, 39 per cent of mothers with a youngest child aged five to nine years and 36 per cent of mothers with a youngest child aged ten to fourteen years were employed on a part-time basis.

There is no evidence that the presence of dependent children has a similar effect on the employment status of fathers. In 2003, 85 per cent of men in couple families with dependent children were employed on a full-time basis (ABS, 2003, p. 27). According to Chalmers, Campbell and Charlesworth (2005, p. 44) although 36 per cent of women employed on a part-time basis cited caring responsibilities as their reason for choosing part-time employment, only four per cent of men employed part-time cited this reason.

The results of research conducted on data sourced from both panel surveys using summary measures and diary based time use surveys show that parenthood increases gender specialisation. For example, Baxter, Hewitt and Haynes’ (2008) analysis of data collected over two waves of the Negotiating the Life Course: Gender, Mobility and Career Trajectories, found that the birth of a child increased mothers’ housework hours by six hours per week but had no effect on fathers’ housework hours. Baxter et al. concluded that ‘becoming a father does not appear to result in significant changes in men’s time in either housework or paid work’ (2008, p. 270). The presence of children increased the gender gap in time spent doing housework as the increased burden was carried by the mother rather than being shared by both parents.

Drago, Tseng and Wooden’s (2004, p. 10) analysis of data from wave one of the HILDA survey shows that the gender gap in paid work hours for parents with dependent children was larger than the gender gap for partners in couple families without dependent children. Within couple families, employed mothers spent three hours less in paid employment than other employed women and employed fathers spent one and a half hours more in paid employment than other employed men.

Researchers using data collected by time-use diaries have also found that the presence of dependent children has a greater effect on mothers’ workloads compared to fathers’ workloads. Craig and Bittman (2008) examined data from the 1997 Australian Time Use Survey and found that the increased time demands resulting from the presence of dependent children were largely met by mothers. The difference between the workloads of mothers and childless women was greater than the difference between the workloads of fathers and childless men. The average workload of mothers with a child aged less than two years was six hours more per week than for childless women. The average workload of fathers with a child aged less than two years was two hours per week more than for childless men. There was also a noticeable difference in the composition of the workloads leading Craig and Bittman to conclude that ‘gender inequities are exacerbated by parenthood’ (2008, p. 84; see also Craig, 2005; and Craig, 2006).

According to the ABS (1998), in 1997, full-time employed women devoted 36 per cent of their total work hours to unpaid work (housework and childcare) whereas, full-time employed mothers devoted half of their total work hours to unpaid work. For men, parenthood was also associated with an increase in the proportion of total work
devoted to unpaid work. Full-time employed men devoted 23 per cent of their total work hours to unpaid work whereas men with dependent children spent 29 per cent of their total work hours doing unpaid work. These aggregate figures include all men and women irrespective of their marital status and age.

The most recent national time use survey was conducted in 2006, ABS (2008b) and shows that, the total workloads of all full-time employed women with dependent children averaged 9.7 hours per day, 50 per cent of which was devoted to housework and childcare. The total workload of full-time employed women (with and without dependent children) averaged 8.3 hours per day and of that 31 per cent was allocated to unpaid work. In other words, the average full-time employed mother with dependent children devoted a larger proportion of her total work hours to unpaid work than the average full-time employed woman. Full-time employed men devoted 20 per cent of their total workloads (averaging around 8.7 hours per day) to unpaid work whereas full-time employed men with dependent children devoted 27 per cent of their total workloads (averaging nine hours per day) to housework and childcare.

These figures indicate that there has been a slight decline in the proportion of total work hours allocated to unpaid work during the period 1997 to 2006 for all full-time employed men and for full-time employed fathers. For women change over time in the allocation of total work hours between paid work and unpaid work varied according to whether or not there were dependent children in the home. There was no change over time in the proportion of total work hours allocated to unpaid work for mothers (50 per cent in both years) but there was a five percentage point decline in the proportion that all full-time employed women devoted to unpaid work (36 per cent to 31 per cent).

Researchers in the US have also found evidence that the presence of dependent children leads to an increase in gender specialisation in the workloads of men and women in couple families (Bianchi et al., 2006; Jacobs and Gerson, 2001; and Sayer, 2005). Bianchi, Robinson and Milkie (2006, p. 54) found that even when the total workloads of parents were similar there was evidence of specialisation in paid work for fathers and unpaid work for mothers. In 2000, the total workloads of married fathers averaged 64 hours per week and the total workloads of married mothers averaged 65 hours per week. Married mothers’ averaged 80 per cent as much time as married fathers in paid work and married fathers spent half as much time doing housework as married mothers. Comparing these results with those of 1965, it is clear that although gender specialisation persists it has lessened somewhat over time. In 1965, married fathers averaged eight times as many hours in paid work as married mothers and one fifth as many hours doing housework.

Jacobs and Gerson (2001, p. 58) found that fathers spent more hours in paid work than other men and mothers spent fewer hours in paid work than other women creating a larger gender gap in paid work hours for couples with dependent children compared to couples without dependent children. These gender differences in the consequences of parenthood persisted despite the trend towards dual-earner families.

Although the broad trends are consistent, it is important to note that comparing findings across studies is not straightforward. Research into total workloads is a complex and contested issue due to differences in the definition of total work, the methods used to collect data and the context in which data are collected. Although there is some agreement that total work includes time spent doing both paid and unpaid work, there are various definitions of unpaid work. Researchers may define unpaid work as
housework, time spent managing the household, planning meals, paying bills, coordinating diaries, childcare, elder care and emotional labour or they may include only some of these elements. Paid work is more straightforward, and is usually defined as hours spent in paid employment. However, some researchers include time spent commuting to and from the workplace, whereas others do not.

The ABS (2008b) has endeavoured to clarify the categories of time use referring to time allocated to employment related activities including paid work, education and commuting, as contracted time. Time spent doing activities such as housework, childcare, elder care, voluntary work and purchasing is defined as committed time, while time allocated to sleeping, eating and personal hygiene is termed necessary time. Any time left over from these three categories is regarded as free time that can be spent doing leisure activities. In this paper, however, we use the terms paid and unpaid labour as we do not have data on time devoted to education, commuting, voluntary work or elder care. Moreover, as we are using survey estimates of time use, rather than data collected via time use diaries as employed by the ABS we feel it is more appropriate to refer to paid and unpaid labour since these terms more accurately reflect our measures.

In this paper, we examine trends over time in divisions of paid and unpaid labour across families with differing levels of involvement in paid employment and families with and without dependent children. We ask three main questions:

1. Is there evidence of increasing gender equality in the combined paid and unpaid workloads of Australian men and women?
2. Is there any evidence of a decline in gender specialisation in dual-earner families or are men continuing to specialise in paid work and women continuing to specialise in housework to the same degree as in the past?
3. Does the presence of dependent children increase the level of gender specialisation within dual-earner families as in the past?

5. Method

The data analysed in this paper were collected by three national surveys, the 1986 Social Structure of Australia Project, the 1993 Social Structure of Australia Project and the 2005 Neoliberalism, Inequality and Politics Project. The 1986 Social Structure of Australia Project was designed to be nationally representative of the employed population and was therefore restricted to male respondents working at least 30 hours per week and female respondents working at least 15 hours per week (N=1195) (Western et al., 2005). All respondents were aged 18 years or over and the data were collected via face-to-face interviews and a self-complete questionnaire. The 1993 Social Structure of Australia Project was a national survey with 2,780 respondents aged 18 years or over. The data were collected via a self-complete mail-out questionnaire (Western et al., 1993). The Neoliberalism, Inequality and Politics Project collected data from a national random sample of 1,623 individuals aged 18 years or over in 2005. Data were collected via computer assisted telephone interviews (Western et al., 2005; and Western et al., 2007). For reasons of comparability across the various project samples we restrict our analytical sample to married or cohabiting male respondents employed 30 or more hours per week and married or cohabiting female respondents employed 15 or more hours per week. Although this limits the generalisability of our findings, these surveys
provide the only Australian data on time spent doing housework spanning three decades, predating the first national time use diary survey conducted in 1992.

Only one individual per household was interviewed in each survey, but proxy data on other household members was collected, including the hours of paid work undertaken by spouses. However, since we do not know the hours of unpaid work of spouses we confine our analyses here to change over time in men’s and women’s housework hours, rather than change over time in the allocation of paid and unpaid work within couples.

Given our focus on the combined paid and unpaid work hours of men and women living in dual-earner families, we restrict our analyses to respondents aged between 18 and 64 years engaged in paid employment living with partners who were also engaged in paid employment.

Variables
There are four dependent variables: paid work hours, housework hours, combined work hours and proportion of combined work hours devoted to housework. We use the term ‘combined work hours’ rather than total work hours as total work implies a more inclusive measure including activities such as childcare, elder care and volunteer work. Time devoted to elder care and volunteer work is not included because the surveys did not include questions related to time spent doing these activities.

Although some researchers also include time spent travelling to and from paid employment in their estimation of employment related activities we are unable to do so in this study. Respondents were asked about the number of hours each week that they usually spent in paid work but not about their time spent travelling to and from their workplace, therefore, we do not include time spent commuting.

The housework hours variable is derived from the number of hours or minutes respondents spent each week doing ten specific housework tasks. Respondents in each survey were asked how many hours/minutes per week they usually spent: preparing meals, cleaning up after meals, shopping, cleaning the house, washing, ironing, taking out the rubbish, mowing the lawn, gardening, and doing home repairs and maintenance.

Note that, unlike the data collected in ABS time use diaries, we are unable to differentiate between main and secondary activities. We do not know whether respondents are completing more than one task at a time. Multi-tasking is common in unpaid labour, especially when performing childcare (Craig, 2007) and it is quite possible that while spending time cleaning the house or preparing meals for example, other activities such as childcare may be performed simultaneously. This is one reason advanced in the literature to explain why survey estimates such as those used here commonly find larger estimates of time spent on activities compared to those reported in time use diaries. It has been suggested that respondents in survey estimates include both main and secondary activities when reporting time spent on activities, whereas respondents of time use diaries report only time on each specific activity.

We do not include childcare for a number of reasons. First childcare is less easy to quantify since any time spent alone with young children, regardless of whether one is performing specific childcare tasks, may be classified as childcare. For example,
even if children are asleep, time spent in the household may be defined as child minding. Whilst the presence of sleeping children does constrain the activities parents can undertake it does not prevent them from engaging in other activities within the household including unpaid work and leisure activities such as reading or watching television. Second, childcare tasks vary widely depending on the age of children. For example, the caring tasks associated with infants and pre-school children are very different to those associated with caring for older children. In order to make relevant comparisons we would need to confine the samples from each survey in very specific ways. For example, we would need to compare samples of those with a child under three, samples of those with a primary school aged child and samples of those with a teenage child under 15. Our samples are not large enough in each of these categories to enable reliable comparisons over time. Third, the data on childcare time collected in each of the surveys used here primarily asked about the activities associated with very young children and thus we are unable to provide information on activities with school-aged and teenage children. For analyses of change over time in the gender division of childcare see Baxter (2002).

To construct the combined work hours variable we take the sum of housework hours and paid work hours per week for each respondent. The housework proportion of combined work hours is constructed by dividing the respondent’s housework hours by the respondent’s combined work hours. For example, if the respondent’s combined work hours equaled 50 hours per week, and their housework hours equaled 20 hours per week, their value on the housework proportion of combined work variable would be 0.4 (20/50).

Examination of paid work hours and housework hours separately allows us to examine whether changes in workloads are due to changes in housework or paid work or both. We are also able to determine whether the proportion of combined work hours devoted to housework has changed due to changes in paid work hours or changes in housework hours. For example, if men, on average, allocate 20 per cent of their combined work hours to housework in 1986 and 30 per cent of their combined work hours to housework in 2005, we will be able to identify whether this has occurred because average paid work hours have decreased or average housework hours have increased.

We include two control variables in our analyses: family type and presence of dependent children. The presence of dependent children variable is coded 1 = child aged less than 15 years living in the household. The family type variable is constructed from the data pertaining to the employment status of the respondents and their partner. Respondents are divided into two categories: part-time paid employment (15-34 hours); full-time paid employment (35 hours or more). Partners are divided into three categories according to their hours of employment: no paid employment; part-time paid employment (1-34 hours); and full-time paid employment (35 hours or more). Only 72 respondents (16 from 1986, 35 from 1993 and 37 from 2005) were living in couple families in which the male partner worked part-time. These respondents were dropped from the analyses due to the difficulties associated with achieving statistically significant and meaningful results from analyses of small groups. Therefore, the family type variable divides respondents into two groups according to the employment status of the female partner: 1 = co-breadwinner (both partners employed full-time); 2 = new traditional (male employed full-time and female employed part-time).
Analytical Strategy
We conduct our analyses separately for men and women because, as previous research has shown, gender is a major predictor of both paid work and housework hours, explaining a significant proportion of the variance in work hours (Baxter et al., 2005; Bianchi et al., 2000; and Davis and Greenstein, 2004). Separate analyses were also conducted for each of the datasets, 1986, 1993 and 2005. Rather than average across all men and women as some researchers have done in the past (for example, Sayer, 2005), we average across men in each family type and women in each family type. Therefore, any increase in the paid work hours of women would not be a reflection of an increase in the proportion of women working on a full-time basis and any decrease in the paid work hours of men would not be due to a decline in the proportion of men employed on a full-time basis.

To examine trends in time spent on paid, unpaid and combined work hours we compare mean differences for men and women for each year by household type. We use t-tests to examine statistically significant differences across groups. These are the appropriate tests because the time variables are continuous. To examine trends in the proportions men and women contribute to combined work and housework over time we use fractional logit regression (Wooldridge, 2002). The proportion dependent variables are bounded between 0 and 1 but the predicted values from a standard linear regression analysis are not confined to the unit interval. One strategy for such bounded data is to model a logistic function of the proportion as a linear function of covariates with ordinary least squares, but the conditional variance of the proportion is heteroscedastic. A better solution is to use quasi-maximum likelihood estimation for the fractional logit with a robust estimator for the variance matrix (Papke and Wooldridge, 1996). We adopt that strategy here. We fit a series of models with three way interactions for time, sex and family structure, examine the significance of component terms and progressively simplify the models where possible by omitting insignificant higher order interactions. We then plot the predicted probabilities from the preferred model to illustrate the trends.

6. Results
In the first stage of analyses we examine the combined work hours of men and women in dual-earner families in 1986, 1993 and 2005 to assess whether there is evidence of increasing gender equality in workloads of Australian men and women. Table 1 reports means for combined work hours and t-tests of gender differences by family type. In 1986, the average combined work hours of men in co-breadwinner families was 62 hours per week, eight hours less than their female counterparts. In 1993, the average combined work hours of men in co-breadwinner families was 64 hours per week, seven hours less than their female counterparts. In 2005, the half an hour difference in the combined workloads of men and women in co-breadwinner families is not statistically significant, indicating that their workloads were similar. Men and women in new traditional families had similar workloads in 1986 and 1993, but women reported considerably fewer combined work hours than men in 2005. In 2005, men in new traditional families averaged 65 hours per week, ten hours more than women in new traditional families.
**Table 1 - Mean Combined Work Hours of Men and Women by Family Type, and T-tests of Gender Differences in 1986, 1993 and 2005**

<table>
<thead>
<tr>
<th>Family Type</th>
<th>1986</th>
<th>1993</th>
<th>2005</th>
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<tr>
<td></td>
<td>Men</td>
<td>Women</td>
<td>Gap</td>
</tr>
<tr>
<td>Co-Breadwinner</td>
<td>61.76</td>
<td>69.89</td>
<td>8.13***</td>
</tr>
<tr>
<td>n</td>
<td>122</td>
<td>185</td>
<td></td>
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<tr>
<td>New-Traditional</td>
<td>59.46</td>
<td>59.34</td>
<td>0.13</td>
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<tr>
<td>n</td>
<td>97</td>
<td>110</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>60.74</td>
<td>65.96</td>
<td>5.21***</td>
</tr>
<tr>
<td>n</td>
<td>219</td>
<td>295</td>
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*p* < 0.05 **p < 0.01 ***p < 0.001

Overall these results suggest that women in both family types have reduced their workloads while men have increased their workloads. Furthermore, men’s combined work hours are similar in both family types even though the partners of men in co-breadwinner families spend considerably more time in paid work than the partners of men in new-traditional families. In other words, the key difference between the two types of families in combined work hours is variations in women’s, rather than men’s workloads.

We can unpack this further by examining trends in the work components that comprise combined work hours – housework hours and paid work hours. Table 2 reports mean housework hours per week for men and women by family type and t-tests of gender differences. In 1986, men in co-breadwinner families spent an average of 14 hours per week doing housework, 12 hours less than their female counterparts. By 1993, the average housework hours for men in co-breadwinner families had increased to 17 hours per week and remained at this level in 2005. Over the same period, women’s housework hours in co-breadwinner families declined from 26 hours per week to 23 hours per week.

**Table 2 - Mean Housework Hours of Men and Women by Family Type and T-tests of Gender Differences in 1986, 1993 and 2005**

<table>
<thead>
<tr>
<th>Family Type</th>
<th>1986</th>
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<tr>
<td></td>
<td>Men</td>
<td>Women</td>
<td>Gap</td>
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<tr>
<td>Co-Breadwinner</td>
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</table>

*p* < 0.05 **p < 0.01 ***p < 0.001
As expected there are greater differences in the housework hours of men and women in new traditional families. In 1986, men in new traditional families spent on average 24 hours less per week on housework than women in new traditional families. In 1993, the difference between male and female housework hours increased to 27 hours per week and in 2005, the difference between male and female housework hours declined to 15 hours per week. This decline in the gender gap is a consequence of a five hour decline in women’s housework hours and a three and a half hour increase in men’s housework hours between 1986 and 2005.

Table 3 shows the results of the t-tests conducted to determine whether there is any statistically significant difference between the average paid work hours of men and the average paid work hours of women in each year after controlling for family type. In each year men in co-breadwinner families spent between four and five hours more per week in paid work than their female counterparts. Men in new traditional families spent between 24 and 25 hours more per week in paid work than women in new traditional families in 1986, 1993 and 2005. Overall, these figures indicate that the differences in the paid work hours for men and women in both family types have remained fairly constant over the past two decades. The gender gap in paid work hours for men and women in co-breadwinner families increased marginally from 4.3 to 4.8 hours per week between 1986 and 2005. Between 1986 and 2005, the gender gap in paid work hours for men and women in new traditional families decreased marginally from 24.3 hours per week to 23.8 hours per week. These results suggest that changes in the gender gap in combined work hours are largely due to changes in time spent on housework rather than paid work.

Table 3 - Mean Paid Work Hours of Men and Women by Family Type and T-tests of Gender Differences in 1986, 1993 and 2005

<table>
<thead>
<tr>
<th>Family Type</th>
<th>1986</th>
<th>1993</th>
<th>2005</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Gender</td>
<td>Gender</td>
<td>Gender</td>
</tr>
<tr>
<td></td>
<td>Men</td>
<td>Women</td>
<td>Gap</td>
</tr>
<tr>
<td>Co-Breadwinner</td>
<td>47.43</td>
<td>43.4</td>
<td>4.03***</td>
</tr>
<tr>
<td>n</td>
<td>122</td>
<td>185</td>
<td></td>
</tr>
<tr>
<td>New-Traditional</td>
<td>46.88</td>
<td>22.61</td>
<td>24.27***</td>
</tr>
<tr>
<td>n</td>
<td>97</td>
<td>110</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>47.19</td>
<td>35.65</td>
<td>11.54***</td>
</tr>
<tr>
<td>n</td>
<td>219</td>
<td>295</td>
<td></td>
</tr>
</tbody>
</table>

* p<0.05 ** p<0.01 ***p<0.001

We now turn to our second research question and examine the level of gender specialisation in dual-earner families. Fractional logit regression was conducted to calculate the mean proportion of combined work hours devoted to housework and paid work for men and women in each year. Initially we included three way interaction terms for time, sex and family type and then progressively simplified the model by omitting the insignificant interaction terms. The three way interaction term for time, sex and family type and the two way interaction term for time and family type were
omitted. Therefore the final model includes two way interaction terms for family type with sex and time with sex.

The predicted probabilities from the final model were then graphed and are presented in figure 1. The average proportion of combined work hours that women in new traditional families devoted to housework declined from 0.60 in 1986 to 0.57 in 2005 while the average proportion of combined work hours that women in co-breadwinner families devoted to housework declined from 0.38 in 1986 to 0.33 in 2005. On the other hand, the average proportion of time that men in co-breadwinner families devoted to housework increased from 0.23 in 1986 to 0.26 in 2005 and the average proportion that men in new traditional families devoted to housework increased from 0.20 to 0.24 over the same period.

Figure 1 - Average Proportion of Combined Work Devoted to Housework for Men and Women in Co-breadwinner and New Traditional Families

In sum, the gap between the proportion of combined work hours that men devoted to housework and the proportion of combined work hours that women devoted to housework narrowed in both co-breadwinner and new traditional families suggesting a decline in gender specialisation. Interestingly, men in both family types allocated a similar proportion of their combined work hours to housework indicating that the employment status of their partners had virtually no effect on their allocation of time to paid work and housework. In other words, regardless of whether their partner worked full-time or part-time, men in dual-earner families devoted a similar proportion of their combined work hours to housework.

This apparent decline in specialisation could be the result of men reallocating time from paid work to housework, or women reallocating time from housework to paid work or a combination of both. However, the results presented in table 3 indicate that paid work hours for both men and women remained fairly constant between 1986 and 2005. Therefore, the increase in the housework proportion of combined work
hours for men is largely a consequence of an increase in men’s housework hours while the decrease in the housework proportion of combined work hours for women is largely a consequence of less housework rather than more paid work.

The final stage of the analysis compares the level of gender specialisation of men and women in dual-earner families with and without dependent children. Again, we conduct fractional logit regression to calculate the mean proportion of combined work hours devoted to housework and paid work for men and women in each year. Initially we included three way interaction terms for time, sex and presence of dependent children and then progressively simplified the model by omitting the insignificant interaction terms. The three way interaction term for time, sex and presence of dependent children and the two way interaction term for time and presence of dependent children were omitted. Therefore, the final model includes two way interaction terms for presence of dependent children with sex and time with sex.

The predicted probabilities from the final model were then graphed and are presented in figure 2. Although the proportion of combined work devoted to housework has declined slightly for all women, the level of specialisation for women with dependent children remains fairly constant. Women with dependent children spent a larger proportion of their combined work hours doing housework than women without dependent children or men with or without dependent children in each of the three years, and the gap between the average proportion of time spent doing housework for women with dependent children and the proportion for women without dependent children shows little variation over time.

Figure 2 - Average Proportion of Combined Work Devoted to Housework for Men and Women in Dual-earner Families With and Without Dependent Children
In 1986, women with dependent children devoted 0.52 of their combined work hours to housework, whereas women without dependent children devoted 0.41 of their combined work hours to housework. In 2005, the average proportion of combined hours that women with dependent children devoted to housework was 0.50 while for women without dependent children it was 0.40. This indicates little change over time in the proportion of time allocated to housework for women with and without dependent children but confirms that the presence of dependent children is associated with greater time spent on housework by women.

In 1986, men with dependent children devoted 0.21 of their combined work hours to housework compared to 0.20 for men without dependent children. In 2005, men with dependent children devoted 0.27 of their combined work hours to housework compared to 0.26 for men without dependent children. This indicates that in 2005, men spent a greater proportion of their combined work hours doing housework compared to men in 1986. However, men in each year devoted a considerably smaller proportion of their combined work hours to housework than women. Overall, these results provide further evidence of continuing gender specialisation, albeit with some small declines, with men spending a smaller proportion of their combined work hours doing housework than women.

7. Conclusion
This paper examined the combined workloads of men and women in dual-earner couple families to determine whether there was any evidence that their workloads had become more similar over time. The results presented here show that although women in co-breadwinner families had significantly higher workloads than men in co-breadwinner families in 1986, this is no longer the case. There is no statistically significant difference between the combined work hours of men and women in co-breadwinner families in 2005. Headey et al. (2006, p. 36) report a similar finding from their analysis of the third wave of the HILDA survey. In new traditional families, there is no statistically significant difference between the combined work hours of women and men in 1986. In 2005, however, the combined work hours of the average woman in this family type was around 10 hours per week less than their male counterparts. This suggests that women in new traditional families may have lower workloads than men in new traditional families, but recall that we have not included time spent on childcare in our analyses of combined work hours. We know that most women enter part-time employment in order to accommodate the demands of young children and families and research has shown that women may be reallocating time away from housework to childcare activities. Bittman (2004, p. 160) found that between 1974 and 1997 there was a significant increase (from 21 to 30 hours per week) in the amount of time parents spent with their preschool children and Craig (2006, p. 132) estimated that, in 1997, mothers spent three and half times as many hours doing childcare activities as fathers. This suggests that women in new-traditional families may be allocating an increasing number of hours to childcare.

We were also interested in whether there had been any decline over time in the level of gender specialisation, that is, the allocation between paid work and housework along traditional gender lines and whether the presence of dependent
children continued to increase the level of gender specialisation within dual-earner families. Figure 1 illustrates the convergence in the proportion of combined work hours devoted to housework by men and women in dual-earner families. Overall, men in dual-earner families are spending more, and women in dual-earner families are spending less, of their combined work hours doing housework, suggesting that specialisation is declining. This is a welcome development. But this trend is much weaker for families with dependent children. As figure 2 shows, the decline in gender specialisation here is much smaller. Overall women with dependent children devote the greatest proportion of time to housework and this proportion shows no change over time. This finding that women decrease their time in paid work and increase their time in housework when they have dependent children supports the findings of other researchers (Baxter et al., 2008; Drago et al., 2004; Craig, 2005; and Shelton, 1992). For example, Shelton (1992, p. 55) found that men in couple families increased their paid work time by one and a half hours per dependent child per week and women decreased their paid work time by just over one hour per week for each extra dependent child. Drago, Tseng and Wooden (2004, p. 10) found that the presence of dependent children increased the paid work hours of fathers by one and a half hours per week compared to all employed men and decreased the paid work hours of mothers by three hours per week compared to all employed women. Parenthood, it would seem, is ‘a real watershed transition’, encouraging new traditional rather than co-breadwinner arrangements, whereby men work long hours in paid employment and women take on part-time paid employment (Moen and Sweet, 2003, p. 26).

The finding that men with dependent children increased the housework proportion of their combined workload is in line with Sayer’s (2005, p. 291) findings that the presence of young children increased fathers’ as well as mothers’ unpaid workloads in 1998. On the other hand, the results of Australian research conducted using data collected in the 1980s and 1990s show that dependent children increased the housework hours of mothers but not fathers. For example, Craig (2005) found that the housework hours of partnered women increased by one hour per day when dependent children were present in the household, however, there was no corresponding change in the housework hours of partnered men. The results of research conducted by Baxter, Hewitt and Haynes (2008, p. 268) showed that although women’s housework hours increased with the birth of each child, men’s housework hours were unaffected by the birth of their first child and actually showed signs of decreasing with the birth of additional children.

The lack of difference in the proportion of combined work hours devoted to housework over a twenty year period indicates that gender specialisation linked to parenthood has not been affected by the overall trend for men and women in couple families to develop more egalitarian workloads. The results presented here mirror those of other researchers who have also found that although the housework hours of men and women in couple families have become more similar as their paid work hours have become more similar, parenthood slows this trend. We conclude that parenthood is a constraint on equality in divisions of labour within Australian households.
References

Baxter, J. (1993), Work at Home: The Domestic Division of Labour, St Lucia, University of Queensland Press.


