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## Long work hours: volunteers and conscripts

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IZA DP No. 2484

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December 2006

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## ABSTRACT

### Long Work Hours: Volunteers and Conscripts<sup>\*</sup>

Panel data from Australia are used to study the prevalence of work hours mismatch among long hours workers and, more importantly, how that mismatch persists and changes over time, and what factors are associated with these changes. Particular attention is paid to the roles played by household debt, ideal worker characteristics and gender. Both static and dynamic multinomial logit models are estimated, with the dependent variable distinguishing long hours workers from other workers, and within the former, between “volunteers”, who prefer long hours, and “conscripts”, who do not. The results suggest that: (i) high levels of debt are mainly associated with conscript status; (ii) ideal worker types can be found among both volunteers and conscripts, but are much more likely to be conscripts; and (iii) women are relatively rare among long hours workers, and especially long hours volunteers, suggesting long hours jobs may be discriminatory. The research highlights the importance of distinguishing conscripts and volunteers to understand the prevalence and dynamics of long work hours.

JEL Classification: J22

Keywords: working hours, overwork, preferences, HILDA survey

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## 1. Introduction

A debate concerning overwork, sparked by Juliet Schor's *Overworked American* (1991), ultimately concluded that while there has been little change in the length of the average work week, both the average number of hours worked per annum and the number of Americans working very long work weeks has risen markedly in recent decades (Jacobs and Gerson 2004; Leete and Schor 1994; Rones, Ilg and Gardner 1997). More worryingly, researchers have also consistently reported evidence of significant disparities between actual and preferred working hours, with relatively large proportions of the workforce stating preferences for fewer hours each week (Golden 2006; Jacobs and Gerson 2004; Reynolds 2003, 2005). Further, such trends are not restricted to the U.S. (see Reynolds 2004; Stier and Lewin-Epstein 2003).

Research into the determinants and correlates of hours mismatches, however, is still in its infancy, with most empirical studies being cross-sectional (e.g., Bell 1998; Clarkberg and Moen 2001; Reynolds 2003) and thus telling us very little about how these mismatches are created and resolved. Notable exceptions are Reynolds and Aletraris (2006), who use panel data from Australia to analyze how mismatches are created and resolved over a one-year window, and Merz (2002), who estimates a model of the factors associated with working hours tension (preferred hours minus actual hours) using German panel data covering a 10-year period. Very little of this literature, however, directly connects hours mismatch with long hours of work.<sup>1</sup> This omission is surprising given we would expect the adverse consequences of “overwork”, such as poor health, stress, or work-family conflict, to be most pronounced among those working the longest hours.

This paper seeks to fill this gap in the literature. It builds on the work of Aletraris and Reynolds (2006) by analyzing how hours mismatch persists and changes over time and identifying factors that are correlated with those changes. But unlike that earlier study, we focus on the prevalence of mismatch among long hours workers, defined here as persons reporting at least 50 hours of paid employment in a usual week. A central feature of the analysis is the division of long hours workers into a group of “volunteers” who work and prefer long hours and a group of “conscripts” who work long hours but prefer shorter hours.

Drawing on insights from the work of Schor (1999) and Williams (2000), we focus on three explanations for why individuals either desire to work long hours or feel compelled to

do so. These explanations concern high levels of debt, the development and diffusion of the “ideal worker” norm, and gender inequality within the home and workplace. We employ the same Australian data used by Reynold and Aletraris (2006) to test these explanations, albeit with four years of data instead of the two years employed in that earlier analysis. As they conclude, the existence of work hours mismatch, and particularly the adaptation of preferences to mismatch, implies that we need to rethink our understanding of how labour markets function. Tests of different views of what causes long hours working may help to inform us as to the specific ways in which labour markets operate. In addition, each of the three views tested here is associated with negative assessments of long hours, and carry policy implications for reducing its prevalence. We discuss those implications in light of the empirical results presented below.

## **2. Predictions**

### *2.1. Debt, Ideal Worker Norm and Gender*

Various researchers view long hours as problematic and troubling. In particular, Schor (1991), Williams (2000) and Jacobs and Gerson (2004) express concerns that long hours leave insufficient time for family, community, sleep and leisure. Such views are at odds with traditional models of labour supply, wherein individuals freely choose the combination of work hours and non-work hours to maximize their personal utility subject to time and budget constraints. The work hours mismatch literature, however, challenges these models with the finding that long hours of work are often involuntary in the sense that an individual has preferences for fewer hours at the current wage.

As previously noted, the mismatch literature has not, to date, teased out the empirical role of different explanations for long hours mismatch and how these are created and resolved over time. Such dynamic considerations are, however, central to the theoretical models we next consider. These concern consumerism, the ideal worker norm, and gender.

The consumerism hypothesis was developed by Schor (1991, 1999). She argued that corporations generate increased revenues by expanding the range of goods and services considered part of a usual or at least desirable standard of living. Larger houses, cable television, home entertainment systems, cellular phones, designer clothes, and expensive cars have, for example, all become more common in the U.S. As a result, many people may be caught in a work-and-spend cycle. In order to purchase new commodities, individuals and

families seek higher incomes, and for most that implies longer work hours. These longer hours must then be sustained over time to maintain expenditure patterns. In addition, families may take on substantial amounts of debt in order to fund consumer purchases, further driving the persistence of long hours to cover debt payments.

Such arguments imply that there should be evidence that many, and perhaps even a majority, of those experiencing the work-and-spend cycle prefer shorter hours – they will appear as long hours conscripts. If we instead found that individuals caught up in the cycle are long hours volunteers, then it could be argued that the work-and-spend cycle is simply an expression of individual optimizing behavior that no amount of persuasive writing would likely alter. That is, to the extent consumerism represents a trap, we predict the following.

*Hypothesis 1:* High levels of debt will be associated with long hours conscript status at any point in time, persistently over time, and with entry into that status.

Very differently, a variety of researchers have argued that an ideal worker norm has spread among highly educated managers and professionals such that relevant individuals expect themselves and others in similar positions to work long hours, with few breaks for holidays or vacations, for periods of years or even decades at a stretch (Bailyn 1993; Hochschild 1997; Williams 2000; Blair-Loy 2003; Jacobs and Gerson 2004; Moen and Roehling 2005). As a norm, it is partly about expectations of one self and others, but also involves prospective penalties for those who deviate from those expectations. For example, many individuals holding ideal worker positions avoid informing others in the workplace regarding caregiving commitments for fear of career penalties (Drago et al. 2006). By the same token, promotions are often provided to employees who put in the longest hours and exhibit the most extreme levels of commitment to the job (Williams 2000). In simplest terms, the economic bedrock of the norm is an exchange of long hours for high and rising incomes. We therefore predict persistently long work hours among employees with ideal worker characteristics.

If economic motivations were the only consideration here, we might expect to find ideal workers serving mainly as conscripts. Yet, as Blair-Loy (2003:21) suggests, the ideal worker norm has become “semi-autonomous from purely economic considerations.” We therefore expect to encounter a group of “true believers” in the form of persistently long hours

volunteers among those exhibiting ideal worker characteristics, and we expect to find conscripts as well.

A more subtle point is that, because norms are fundamentally social, we may encounter some individuals adapting to the ideal worker norm – moving from conscript to volunteer status among long hours employees – while others come to reject the norm – transitioning from volunteer to conscript status. The prior process is consistent with notions of cognitive dissonance, with the relevant individuals making preferences fit reality. Adaptation might also occur as individuals are trained in the ideal worker norm. Movement from volunteer to conscript status, quite differently, may result if an individual becomes disillusioned with the life of an ideal worker. These transitions might also flow from life events, such as childbirth, marriage, divorce or the death of a loved one, which set off a process of reevaluating priorities. Such reevaluations may lead to either a wholesale rejection of long hours of work or movement into conscript status. Regardless of whether movement is from conscript to volunteer status or vice versa, the ideal worker norm will be operative to the extent relevant individuals maintain long hours over time. We summarize these arguments as follows.

*Hypothesis 2:* Ideal worker characteristics will be associated with both long hours volunteer and conscript states, with entry into those states, and with movement across the two states over time in the form of adaptation and rejection.

Williams (2000) also argues that long hours jobs are connected to sex discrimination. There are two distinct logics involved here. First is inequality in the division of labour within the heterosexual home. If women take on most unpaid work for the family, an assumption that continues to be confirmed by empirical research (e.g., Bianchi et al. 2000; Lee and Waite 2005), the hours available to women for employment are reduced and those for men are expanded. Women are less often able to hold long hours jobs, and hence will both work long hours less frequently and find it difficult to serve in long hours jobs when they do. We would therefore expect women to appear infrequently in long hours jobs, but to appear relatively more frequently as conscripts.

The second logic involves the ideal worker norm and related biases against caregiving. Even if a professional woman makes the same long hours commitment as a man, she is more likely to be penalized for external commitments regarding caregiving, and hence is more likely to engage in strategic behaviors to avoid the appearance or reality of caregiving



responsibilities (Drago et al. 2006). These strategies (for example, delaying childbirth or skipping important events in a young child's life) effectively raise the costs to women for serving as ideal workers, and hence should push them more often into conscript status, or out of long hours jobs entirely. These arguments suggest the following.

*Hypothesis 3:* Women will less often appear as long hours workers, will tend to be conscripts rather than volunteers when they do work long hours, and women volunteers will tend, over time, to move to either long hours conscript status or out of long hours.

Note, however, that these predictions are also largely consistent with Hakim's (2000) claim that women prefer shorter hours because they place a higher value on caregiving and family than men. In Hakim's view, discrimination is not necessarily a factor because women simply have distinct preferences. Although we can imagine tests to distinguish the predictions of the discrimination and preferences view, we cannot perform such tests here.<sup>2</sup>

Note also that it might be of interest to consider interactions between debt, ideal worker characteristics, parenting and gender. However, as Drago (forthcoming) finds with U.S. data, only three percent of employees are mothers holding a university degree and employed for at least 45 hours per week. Therefore, even large data sets based upon a random sample of the population cannot be used to tease out these relationships.

## 2.2. *Subsidiary Predictions*

As Barnett (1998) notes, it is difficult to empirically connect overwork (i.e., working more hours than is preferred) and long hours, in part because long hours jobs also tend to be "good" jobs. This finding fits the ideal worker explanation for long hours since job rewards and desirable job characteristics should be found in settings where the norm is operative. However, the finding also suggests that the inclusion of controls for job and worker characteristics should weaken any relationship between ideal worker characteristics and either long hours conscript or volunteer status. Further, to the extent men hold such positions, findings regarding gender might also be weaker when controls are included. Nonetheless, previous empirical research on long work hours suggests we include a variety of control variables, only some of which have clear implications for conscript as opposed to volunteer status. We begin with job characteristics, then turn to demographic and family issues.

As Landers, Rebitzer and Taylor (1996) suggest, promotion systems, especially for managerial and professional employees should both motivate long hours and favour employees with a taste for long hours. If employees are selecting into long hours, as they suggest, then promotions should be linked to long hours volunteer status.

Very differently, Golden (2001) discovered that flexible working time arrangements are also associated with long hours, which he argues reflects a trade-off between leisure time and flexible work schedules. Relatedly, Hill et al. (2001) find that flexibility weakens or moderates the relationship between long hours and overwork, suggesting that flexibility will be linked to long hours volunteer rather than conscript status.

Bowles (1985) and Schor (1991) suggest that a high cost of job loss can motivate long hours; employers pay high wages to make it difficult for the employee to find employment elsewhere with similar remuneration. Where employees then know that it would be difficult to obtain similar employment elsewhere, they will tend to work long hours. To the extent a high cost of job loss represents a bargaining power advantage for the employer, relevant long hours employees should hold conscript status.

Conversely, we expect union membership to be negatively related to long hours in general, but positively to volunteer status among union members working long hours, given unions enhance employee bargaining power. Similarly, we expect public sector employees to hold a bargaining power advantage relative to their private sector counterparts, largely because public sector jobs are generally much more secure than comparable private sector jobs, so again rarely work long hours but appear as volunteers when they do.

A relatively unique feature of employment arrangements in Australia is the formal status of casual employment, which, in theory at least, specifies employment-at-will. The data set used here, for example, reveals that 24 per cent of Australian employees (in 2004) would classify themselves as being employed on a casual basis.<sup>3</sup> Casual status is also closely connected with part-time hours, so may be negatively associated with long hours. Regardless of the general pattern, to the extent casual status involves low levels of employee bargaining power, it should exhibit a relatively closer relationship with conscript status.

We also consider the role of self-employment and of multiple job holding (or moonlighting). Self-employment may be of interest in its own right since some individuals may seek self-employment to escape long hours, others may be particularly motivated and

hence serve as long hours volunteers, while a third group may be subject to income uncertainty and therefore appear as long hours conscripts due to fears of low income in the future. Moonlighting may be associated with long hours given multiple jobs are involved, but offers a unique opportunity to reduce hours by quitting only one job. We therefore expect moonlighting to be related to long hours volunteer status.

Turning to employee and family characteristics, marriage and parenting have distinct implications for the work hours of men and women. However, given that most long hours employees are men (almost 80 percent in this sample), we expect that marriage and parenting will follow a male pattern with both positively related to long hours. These long hours could be attributed to men's historic role as breadwinners (Hamermesh 1996), although Hochschild (1997) and Barnett (1998) can explain this same pattern to the extent men use long hours of employment to avoid housework or childcare.

In traditional labour market theories, education is a form of human capital. Individuals who invest in formal education should therefore receive higher hourly wages in return. To the extent that substitution (rather than income) effects are dominant, individuals with high levels of educational attainment will voluntarily work long hours to effectively increase the return on their human capital investment. Using similar logic, employees with high family incomes should be subject to income effects and either less often work long hours or appear as long hours volunteers relative to conscripts; a high family income provides employees with a cushion against the need to engage in involuntary work arrangements.

Finally, Jacobs and Gerson (2004:68) find that working time tends to peak during the prime earning years (i.e., 30s and 40s), but that employee preferences are relatively flat over the life course. If employers are indeed driving longer hours among mid-career employees, we would expect long hours conscripts to appear in that age range. This expectation is consistent with the finding reported by Reynolds and Aletraris (2006: Table 6) that women are more likely to experience mismatch at mid-life.

### **3. Data**

#### *3.1. The HILDA Survey*

To test the hypotheses set out in the preceding section, we make use of data from the first four waves of the Household, Income and Labour Dynamics in Australia (HILDA) Survey, a

nation-wide household panel survey with a focus on issues relating to employment, income and the family. It began in 2001 with a large national probability sample of Australian households occupying private dwellings. Members of responding households in Wave 1 form the basis of the panel for yearly interviews in each subsequent wave. Of 11,693 households identified as in-scope for Wave 1, interviews were completed with some or all eligible members at 7682 households, for a household response rate of 66 per cent. Within these households, there were 15,127 persons who were at least 15 years of age (and hence eligible for interview), and 13,969 were successfully interviewed. Of this group, 11,993 were re-interviewed in Wave 2, 11,190 were re-interviewed in Wave 3 and 10,565 were re-interviewed in Wave 4. For more details about the HILDA Survey, readers are referred to Watson and Wooden (2004).

### *3.2. Identifying Long Hours Conscripts and Volunteers*

As Reynolds and Aletraris note (2006:624), the HILDA Survey data are particularly suitable for analyses of work hours mismatch because of their longitudinal nature and because the relevant questions are carefully worded. The actual working hours variables used in this analysis are derived from self-reported data on the number of hours usually worked per week in all jobs. This question is followed by one concerning whether the individual would prefer more, about the same, or fewer hours, while taking into account how any change would affect their income. Respondents claiming to prefer more or fewer hours were then asked to specify their preferred work hours, again accounting for any relevant change in income.

We therefore define three categories of workers: long hours volunteers who report at least 50 hours per week on all jobs and prefer at least 50 hours per week; long hours conscripts who similarly report long hours but prefer less than 50 per week; and short hours workers who report actual hours of less than 50 per week. Jacobs and Gerson (2000; 2004) similarly use a 50 hours cut-off, although the OECD (2004) and Drago (forthcoming) use 45 and above to identify long work hours, while researchers in the occupational health field often use cut offs of 60 hours or greater (see van der Hulst 2003). Both in terms of actual and preferred work hours, 50 or 60 per week provide a more natural cut-off than 45, since HILDA Survey respondents tended to anchor on round figures. Regardless, we replicate all analyses reported here with a 45 and a 60 hours per week threshold to check the sensitivity of the results to specification of the cut-off. Note also that while 40 or 45 hours per week (much less

50 or 55) should probably not be classified as short hours, we nonetheless use the term as a shorthand for describing all employed persons who do not work long hours as defined here.

Tables 1 and 2 provide summary statistics on the incidence of employment in each of the three employment categories and on the extent of mobility over time between the categories. All estimates use the largest sample of workers available, and as a result of both sample attrition and movements out of employment, samples are necessarily smaller when multiple rather than single waves of data are used. The effects of sample attrition, however, are taken into account by applying weights that are designed specifically for each relevant sample to mimic the distribution of characteristics found in the population.

**Table 1.** Long and Short Hours Paths, Wave 1 to Wave 2

	Frequency (N)	Proportion (%)
Long Hours Volunteers, Wave 1	864	12.5
Persistent Volunteer	448	51.7
Volunteer to Conscript	193	21.4
Volunteer to Short Hours	223	26.9
Long Hours Conscripts, Wave 1	726	10.3
Persistent Conscript	370	50.4
Conscript to Volunteer	147	20.1
Conscript to Short Hours	209	29.5
Short Hours, Wave 1	5135	77.1
Persistent Short Hours	4646	90.6
Short Hours to Volunteer	255	4.9
Short Hours to Conscript	234	4.5
Total	6725	100.0

*Note:* Figures based upon analysis of a balanced panel of respondents from waves 1 and 2 of the HILDA data using longitudinal population weights. Analysis restricted to persons who were employed and reported hours worked and preferred hours in waves 1 and 2.

Table 1 uses data from the first two waves of the HILDA Survey, and shows that close to 23 percent of employees worked long hours in Wave 1, with long hours volunteers (12.5 percent of all employed persons) outnumbering conscripts (10.3 percent). Nevertheless, long hours conscripts still account for more than one in every ten Australian workers. Just over half of those who were initially long hours volunteers or conscripts were in the same state in

Wave 2, which compares with over 90 percent of short hours employees who continued to work short hours. We therefore find substantial movement among long hours volunteers and conscripts. For both categories, the main transition, affecting over one-quarter of each group, was to short hours by Wave 2. Only around one-fifth of the long hours volunteers become trapped in the conscript state, while a similar proportion of conscripts adapt and become long hours volunteers by Wave 2. On the face of it, processes of adaptation and rejection are about equally prevalent. More troubling for traditional labour market theories, movement from conscript status to short hours is only slightly more frequent than changes from volunteer status to short hours, suggesting the labour market is not functioning effectively for many long hours employees.

**Table 2.** Long and Short Hours Paths, Wave 1 to Wave 4

	Frequency (N)	Proportion (%)
Long Hours Volunteers, Wave 1	692	13.0
Persistent Volunteer	307	42.2
Volunteer to Conscript	172	21.5
Volunteer to Short Hours	213	36.2
Long Hours Conscripts, Wave 1	576	10.2
Persistent Conscript	239	43.4
Conscript to Volunteer	104	17.5
Conscript to Short Hours	233	39.1
Short Hours, Wave 1	4109	76.8
Persistent Short Hours	3,645	88.5
Short Hours to Volunteer	204	5.0
Short Hours to Conscript	260	6.6
Total	5377	100.0

*Note:* Figures based upon analysis of a balanced panel of respondents from waves 1 to 4 of the HILDA Survey data using longitudinal population weights. Analysis restricted to persons who were employed and reported hours worked and preferred hours in waves 1 and 4.

Table 2 provides similar information for a comparison of Waves 1 and 4, and reveals patterns that are similar to those reported in Table 1, although with more turbulence. As would be expected the rate of persistence is less over the longer time period, though for short hours workers the difference is negligible. Even over this longer 3-year window the vast majority of persons in short hours jobs remain in this employment state. The situation is

slightly different for long hours workers, with just over 40 per cent of both long hours volunteers and long hours conscripts in the same employment situation three years later. A further 35 to 40 per cent moved into short hours jobs, with movement from long hours conscript status to short hours being only slightly more frequent than movement from volunteer status to short hours. Nonetheless, just under 40 percent of the initial group of long hours conscripts have achieved short hours by Wave 4, suggesting the labour market may function to meet employee preferences, but only sluggishly. Finally, around one-fifth of each group had moved across the long hours states.

### 3.3. *Independent Variables*

The potential correlates of long hours volunteers and conscripts are described in Table 3. Because data on one of the key variables (debt) and one of the control variables (promotions) were not collected in Wave 1, the independent variables are constructed from Wave 2 data. The first three variables are required for hypothesis testing. To test the consumerism hypothesis, debt is used and is proxied by the ratio of total household debt to annual disposable household income. Household income for individuals reporting zero or negative income was set to \$1, while the debt to income ratio was top-coded at 100 (an extreme value itself) to reduce the effects of a small number of cases, mostly among low income households, where the debt to income ratio was extremely high. The variable has a mean value of around 2. The second variable is a proxy for ideal worker status, which is held to exist when the employee holds at least a bachelor's degree and is in a professional or managerial occupation, characteristics that hold for a little less than one-fifth of the sample. Finally, a dummy variable for women is used, and covers just under half of the sample.

For controls, the promotion variable takes a value of unity for anyone reporting a promotion in the year prior to Wave 2 survey administration. A flexibility variable captures whether respondents believe they could alter their starting and finishing times flexibly if needed. A cost-of-job-loss variable is derived as the inverse of responses to a question to employees regarding the expected probability (ranging from 0 to 100) of finding another job with similar wages and benefits if needed.<sup>4</sup> Although the variable does not include either the likely duration of unemployment following job loss, nor expected monetary losses if a similar job were not found, it seems relevant. Dummy variables for union membership, public sector employment, casual employment status, self-employment, moonlighting, marriage, parental status and educational attainment (a bachelor's degree or above is the omitted category)<sup>5</sup>

follow. The final two controls are continuous variables for household income, again top- and bottom-coded as with the debt variable, and age. Age is specified in quadratic form to allow for the possibility that long hours are concentrated in the mid-career years.

**Table 3.** Independent Variables, Wave 2

Variable name	Description	Mean	Standard deviation
<i>Theoretical variables</i>			
Debt/Income ratio	Ratio of household debt to annual household disposable income	2.002	6.089
Ideal Worker	Has university qualification (at least a Bachelor degree) and working in a Managerial or Professional occupation	0.188	0.391
Female	Female	0.472	0.499
<i>Control variables</i>			
Promotion	Promoted at work in previous 12 months	0.094	0.292
Flexibility	Able to use flexible start and finish times if needed	0.578	0.494
Cost of job loss	Inverse of proportional chance that, following job loss, the next job found would be at least as good as the current job	29.41	33.66
Union member	Member of trade union or employee association	0.262	0.440
Public sector	Employed by a government organization	0.228	0.420
Casual	Employed on a casual basis	0.200	0.400
Self-employed	Self-employed	0.192	0.394
Moonlighting	Holds more than one paid job	0.093	0.290
Married	Married (legal or de facto)	0.666	0.472
Parent	Parent of resident child aged 0-14	0.341	0.474
Post-school diploma	Highest educational qualification is Advanced Diploma or Diploma	0.090	0.286
Trade certificate	Highest educational qualification is Trade or Other certificate	0.213	0.409
Completed Year 12	Highest educational attainment is completion of Year 12 (final year of secondary school)	0.156	0.363
Year 11 or below	Highest educational attainment is completion of Year 11 or less	0.289	0.453
Household income	Annual household income (\$) excluding respondent's wage and salary	41303.50	50234.63
Age	Years of age	38.38	12.64
Age-squared	Years of age squared	1632.97	1006.79

*Note:* Figures constructed from the unweighted sample of persons who were employed and who reported usual hours worked and preferred hours of work in wave 2 of the HILDA Survey data (N=6742).



#### 4. Methods

The main analyses involve the estimation of both static (one-period) and dynamic (multi-period) models of the correlates of long hours working, where we distinguish not only between long and short hours, but among the former, also between volunteers and conscripts. There are thus three possible outcomes and hence an appropriate estimator is the multinomial logit model.

For the static estimates, Wave 2 data are used for both the dependent and independent variables. These static estimates are most appropriate for indicating whether the theoretical variables help us to understand *appearance* in one of the long hours categories. Our three hypotheses then predict that debt will be positively associated with both long hours categories, but particularly with conscript status, that ideal workers will appear in both long hours categories, and that women will be negatively associated with both categories, although with an absolutely larger coefficient for the volunteer category.

For the dynamic analysis, we start with Wave 3 data on volunteer and conscript status, and use variables for Wave 2 status as volunteers or conscripts as predictors to capture persistence and movement across the states. These predictors formally model the persistence and transitions detailed in Table 1, although for a different time period. In addition, we include as explanatory variables the Wave 2 debt, ideal worker and gender variables. However, the coefficients on these variables should here be interpreted as predicting *entry into* (positive coefficient) or *exit from* (negative coefficient) long hours volunteer or conscript status given that we control for persistence and transitions. Our hypotheses predict that debt will be related to entry into volunteer and particularly conscript status, ideal workers will be associated with entry into volunteer and conscript status, and women will be unlikely to enter either volunteer or conscript status, and likely to exit both states.

In that same estimation, we also include variables interacting the debt, ideal worker and gender variables with long hours volunteer and conscript status in Wave 2. These interactions can be used to test the predictions that long hours volunteers with debt are more likely to become conscripts, and that long hours conscripts with debt are less likely to become volunteers. They also provide tests for whether ideal worker types are more likely to both persist as volunteers or conscripts, and to exhibit movement across volunteer and conscript status while maintaining long hours. For the gender interactions, we predict that women will

be more likely to move from volunteer to conscript status than men, and will be less likely to move from conscript to volunteer status.

An additional dynamic analysis uses Wave 4 data for the hours categories, and includes independent variables from Wave 2. This analysis is identical to that just described except the longer time period can inform us as to how entry into the long hours categories and persistence and movement across the categories play out over a slightly longer time frame, with predictions remaining as before.

Finally, the three analyses just discussed are replicated after including the control variables discussed earlier (and summarized in Table 3). In general, we expect results for the ideal worker and gender variables to be weaker after controls are added. Again, for the static Wave 2 analysis, the control variables will inform us as to the correlates of membership in either long hours group. In the Wave 3 and Wave 4 regressions, for simplicity, we do not include interaction terms for the control variables and initial long hours volunteer or conscript status, so the relevant coefficients only predict entry to or exit from volunteer or conscript status.

For simplicity, we exclude from the dynamic analyses individuals who exited employment after Wave 2. However, exit can serve as a relevant mechanism for resolving mismatch (Boheim and Taylor 2004; Reynold and Aletraris 2006), so a relevant subsidiary analysis is included.<sup>6</sup> In addition, as a check for attrition bias, we replicate and compare coefficients for the static Wave 2 regressions after excluding individuals who did not respond to the HILDA survey in Wave 4.

## **5. Results**

The results for the base model without control variables are presented in Table 4. Flowing from the theoretical discussion, we trace the effects of the three major variables in turn, and generally focus on results significant at the .05 level or better.

From the static analysis of Wave 2 data reported in the first two columns, we find that high levels of debt are associated with both long hours volunteer and conscript status, suggesting that some individuals with high levels of debt are satisfied with the long working hours that may be required to service that debt. These individuals may not view debt as part

**Table 4.** Base Model of Long Hours Volunteers and Conscripts, Multinomial Logit Estimates (standard errors in parentheses)

Variables (Wave 2)	Wave 2		Wave 3		Wave 4	
	Volunteers	Conscripts	Volunteers	Conscripts	Volunteers	Conscripts
Debt/Income ratio	0.016** (0.005)	0.019** (0.005)	0.019** (0.007)	0.010* (0.005)	0.023* (0.009)	0.032** (0.006)
Ideal Worker	0.271* (0.108)	0.815** (0.095)	0.341 (0.212)	0.892** (0.179)	-0.013 (0.216)	0.534** (0.199)
Female	-1.754** (0.105)	-1.172** (0.090)	-1.368** (0.227)	-0.755** (0.176)	-1.499** (0.171)	-1.386** (0.189)
W2 Volunteer			3.034** (0.153)	2.625** (0.173)	2.629** (0.163)	1.761** (0.219)
W2 Conscript			2.428** (0.195)	3.747** (0.166)	2.015** (0.199)	2.702** (0.217)
W2 Vol.*Debt			-0.015 (0.012)	-0.026 (0.014)	0.050 (0.038)	0.046 (0.038)
W2 Vol.*Ideal Worker			-0.258 (0.331)	-0.393 (0.356)	0.103 (0.347)	-0.235 (0.374)
W2 Vol.*Female			0.823* (0.342)	0.624 (0.367)	0.325 (0.364)	1.192** (0.371)
W2 Con.*Debt			-0.029 (0.018)	0.002 (0.014)	0.018 (0.033)	0.015 (0.032)
W2 Con.*Ideal Worker			-0.119 (0.342)	-0.609* (0.282)	0.023 (0.341)	-0.453 (0.295)
W2 Con.*Female			0.155 (0.358)	-0.105 (0.276)	1.194** (0.330)	0.716* (0.292)
Chi-squared	479.23**		1513.22**		1265.09**	
Cragg-Uhler pseudo R <sup>2</sup>	0.1115		0.3071		0.3566	
N	8067		7187		6574	

Notes: Omitted category from each multinomial logit is 'Short Hours'.

\*  $p < .05$ ; \*\*  $p < .01$  (two-tailed test).

of a work-and-spend cycle, or else they are satisfied to continue participating in that cycle. Nonetheless, the coefficient for conscripts is absolutely larger, suggesting debt is more often responsible for long hours conscript than volunteer status, consistent with Hypothesis 1.

The next two columns provide the results of a dynamic analysis with predictions for Wave 3 based on Wave 2 characteristics. The debt coefficients here predict entry into volunteer or conscript status. Again, both coefficients are positive, but here the coefficient is larger for volunteers, suggesting that many individuals who take on long hours subsequent to achieving high levels of debt are satisfied with that situation. The final two columns present results for long hours status in Wave 4 as predicted by Wave 2 characteristics. Again, both debt coefficients are positive, but the conscript coefficient is almost 50 percent larger,

suggesting that the longer-term (here two-year) effects of high debt levels may involve taking on long hours, but typically on an involuntary basis. These individuals fit Schor's vision of the work-and-spend cycle as a trap, as do those from the static analysis for Wave 2. However, note that the interaction terms are insignificant; individuals carrying a high load of debt are no more likely than others to switch from volunteer to conscript status, contrary to Hypothesis 1.

Turning to the ideal worker variable, we find positive coefficients for both long hours volunteers and conscripts in the first two columns, as predicted by Hypothesis 2. Surprisingly, however, the conscript coefficient is over three times as large, suggesting the ideal worker norm may act less as a lure than as a system of prospective sanctions and penalties that drive long hours. The dynamic analyses fit this interpretation as well. In both the Wave 3 and the Wave 4 regressions, the volunteer coefficient is insignificant, while the conscript coefficients are positive, suggesting that entry by ideal worker types into long hours jobs is not mainly driven by internalization of the norm. Among the interaction terms, we do not find that ideal worker types are more likely to switch in either direction between long hours volunteer and conscript status, contrary to Hypothesis 2. However, there is a negative coefficient on the interaction term for ideal worker types who were long hours conscripts in Wave 2, suggesting that these individuals find it relatively easy to exit long hours conscript positions, perhaps because their financial position is more secure than individuals without high levels of educational attainment and in non-managerial or professional occupations.

Considering gender, Hypothesis 3 predicts that women will be less likely than men to be either long hours conscripts or particularly volunteers. Coefficients in the first two columns are consistent with the hypothesis; both are negative and the volunteer coefficient is absolutely larger. In the dynamic analyses we see the same patterns, with entry into volunteer or conscript status less likely for women. Further, this effect is greatest for entry into volunteer status, though the magnitude of the differential between entry into volunteer status and entry into conscript is only sizeable in the one-period (Wave 3) dynamic analysis. The interactions tell a slightly different story. Women who were long hours volunteers in Wave 2 were more likely than men voluntarily working long hours to remain volunteers in Wave 3, but were even more likely to become long hours conscripts by Wave 4, suggesting that women with high levels of commitment to long hours eventually find the situation unsustainable or at least undesirable. Among women who were long hours conscripts in

Wave 2, we find no significant results for Wave 3, but by Wave 4 this group was more likely to both adapt and become long hours volunteers and to remain as conscripts. For many women who initially work as long hours conscripts, it appears that their future choices are often limited to either accepting long hours or continuing to work long hours involuntarily.

The W2 Volunteer and W2 Conscript coefficients for the Wave 3 and Wave 4 (dynamic) analyses inform us as to persistence within and movement across the two states. All eight coefficients are significant and positive. The four largest are for persistence within volunteer or conscript states, although the coefficients decline by Wave 4, suggesting that persistence as either a volunteer or conscript is common but tapers off somewhat over time. The other four coefficients capture either adaptation via movement from conscript to volunteer status, or rejection through transitions from volunteer to conscript status. For Wave 3, the rejection coefficient is slightly larger than the adaptation coefficient (i.e., 2.625 versus 2.428). However, by Wave 4, the pattern reverses, with rejection transitions less frequent than those for adaptation (1.761 versus 2.015). One possible explanation for this pattern – that conscripts tend to drop out of employment so are not appearing as frequently by Wave 4 – is not born out (see discussion below). It therefore seems plausible to suggest that cognitive dissonance created by a divergence between preferred and actual hours becomes more severe over time, driving many conscripts to accept their situation and become long hours volunteers, an effect that is larger than that for rejection of volunteer status in favor of conscript status over time. Note, however, that this pattern only appears after controlling for other influences on volunteer and conscript status; in the raw figures presented in Table 2, rejection was more common than adaptation (21.5 percent versus 17.5 percent). Note also that the fit of the regressions is reasonable, with the Cragg-Uhler Pseudo R-squared ranging from a low of .11 in the base, static model for Wave 2, to a high of .36 for the Wave 4 dynamic model.

Results for parallel regressions with the addition of control variables are reported in Table 5, and the fit of the regressions is improved in each case. The debt results fit Hypothesis 1 more cleanly than those from the earlier analyses, with both membership (as reflected in the static Wave 2 results) and entry into long hours conscript status (as reflected in the dynamic Waves 3 and 4 results) being positively and significantly related to debt, and no significant correlation between debt and volunteer status. The work-and-spend cycle

**Table 5.** Extended Model of Long Hours Volunteers and Conscripts, Multinomial Logit Estimates (standard errors in parentheses)

Variables (Wave 2)	Wave 2		Wave 3		Wave 4	
	Volunteers	Conscripts	Volunteers	Conscripts	Volunteers	Conscripts
Debt/Income ratio	0.008 (0.006)	0.018** (0.006)	0.012 (0.014)	0.015* (0.007)	0.013 (0.011)	0.031** (0.008)
Ideal Worker	0.109 (0.228)	0.311 (0.193)	0.520 (0.332)	0.431 (0.397)	0.082 (0.329)	0.899* (0.355)
Female	-1.718** (0.122)	-0.928** (0.102)	-1.148** (0.292)	-0.686** (0.214)	-1.513** (0.204)	-1.253** (0.215)
W2 Volunteer			2.862** (0.187)	2.239** (0.202)	2.475** (0.181)	1.615** (0.205)
W2 Conscript			2.197** (0.224)	3.395** (0.188)	1.833** (0.213)	2.635** (0.195)
W2 Vol.*Debt			0.039 (0.035)	0.016 (0.033)	0.035 (0.036)	0.034 (0.036)
W2 Vol.*Ideal Worker			-0.038 (0.360)	-0.368 (0.379)	0.227 (0.363)	-0.154 (0.364)
W2 Vol.*Female			0.782 (0.409)	0.943* (0.414)	0.471 (0.403)	1.332** (0.369)
W2 Con.*Debt			-0.020 (0.018)	-0.005 (0.012)	0.014 (0.026)	0.003 (0.023)
W2 Con.*Ideal Worker			0.078 (0.371)	-0.339 (0.311)	0.246 (0.367)	-0.325 (0.307)
W2 Con.*Female			0.168 (0.415)	-0.044 (0.312)	1.141** (0.359)	0.713* (0.317)
Promotion	0.562** (0.165)	0.726** (0.147)	0.450* (0.194)	0.364 (0.187)	0.209 (0.195)	0.355* (0.179)
Flexibility	0.057 (0.114)	-0.009 (0.113)	-0.134 (0.152)	-0.064 (0.138)	-0.009 (0.140)	-0.027 (0.146)
Cost of job loss	-0.005** (0.002)	-0.003 (0.002)	-0.000 (0.003)	-0.003 (0.002)	0.000 (0.002)	-0.002 (0.002)
Union member	0.057 (0.114)	0.101 (0.112)	0.062 (0.172)	-0.072 (0.138)	-0.040 (0.139)	-0.187 (0.135)
Public sector	-0.542** (0.148)	-0.466** (0.129)	-0.138 (0.197)	-0.394* (0.162)	-0.170 (0.168)	-0.173 (0.161)
Casual	-1.190** (0.207)	-1.771** (0.299)	-0.068 (0.252)	-0.393 (0.260)	-0.165 (0.239)	-0.011 (0.290)
Self-employed	0.717** (0.140)	0.832** (0.151)	0.694** (0.206)	0.224 (0.183)	0.414* (0.191)	0.369* (0.187)
Moonlighting	1.096** (0.148)	0.550** (0.161)	-0.195 (0.198)	-0.270 (0.213)	-0.122 (0.201)	-0.479* (0.213)
Married	0.192 (0.128)	0.465** (0.130)	0.661** (0.196)	0.326* (0.157)	-0.069 (0.154)	-0.046 (0.151)
Parent	-0.188 (0.108)	-0.257* (0.109)	-0.359* (0.166)	-0.059 (0.140)	0.058 (0.141)	0.142 (0.139)
Post-school diploma	0.056 (0.258)	0.011 (0.225)	0.201 (0.342)	-0.082 (0.380)	0.096 (0.318)	0.412 (0.338)
Trade certificate	0.053 (0.217)	-0.198 (0.193)	0.361 (0.292)	-0.341 (0.342)	0.308 (0.277)	0.466 (0.317)
Completed Year 12	-0.275 (0.242)	-0.355 (0.223)	0.076 (0.313)	-0.227 (0.360)	-0.080 (0.305)	0.258 (0.355)
Year 11 or below	0.125 (0.218)	-0.521* (0.203)	0.204 (0.290)	-0.729* (0.353)	0.026 (0.283)	0.320 (0.327)

**Table 5 (cont'd).**

Variables (Wave 2)	Wave 2		Wave 3		Wave 4	
	Volunteers	Conscripts	Volunteers	Conscripts	Volunteers	Conscripts
Household income	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)	0.000 (0.000)	0.000 (0.000)
Age	0.072** (0.025)	0.203** (0.030)	0.071 (0.038)	0.143** (0.038)	0.025 (0.034)	0.082* (0.040)
Age-squared	-0.001** (0.000)	-0.002** (0.000)	-0.001* (0.000)	-0.002** (0.000)	-0.000 (0.000)	-0.001* (0.000)
Chi-squared	751.08**		1513.58**		1136.07**	
Cragg-Uhler pseudo R <sup>2</sup>	0.2439		0.4545		0.3837	
N	6742		5639		5085	

*Notes:* Omitted category from each multinomial logit is 'Short Hours'.

\*  $p < .05$ ; \*\*  $p < .01$  (two-tailed test).

indeed appears as a trap for many long hours employees. As expected, due to collinearity between the ideal worker variable and many of the controls, the ideal worker coefficients less often attract significance, with the lone direct effect of significance being for entry into long hours conscript status by Wave 4. For women, we also expected to find weaker results given that women less often hold good jobs. The coefficients are indeed absolutely smaller, but retain significance, and the pattern of women being least likely to exhibit or enter into long hours volunteer status remains. However, the pattern of interactions changes here. As before, women who were conscripts in Wave 2 were more likely to both become volunteers and to persist as conscripts by Wave 4, but women who were long hours volunteers in Wave 2 are now significantly more likely to become long hours conscripts in either Wave 3 or Wave 4, fitting the Hypothesis 3 conjecture that women who begin as long hours volunteers tend to become conscripts over time.

Considering the control variables, promotion in Wave 2 is positively related to initial membership in both long hours categories, but is only positively related to entry into volunteer status in Wave 3 and with entry into conscript status by Wave 4. These results do not fit the model of Landers, Rebitzer and Taylor (1996), since selection effects require that work hours preferences be stable over time. A different interpretation is that promotions tend to motivate individuals to volunteer for long hours for a period of time, with the effect eventually wearing off and leaving the relevant individuals as long hours conscripts. The flexibility coefficients are uniformly insignificant, while the cost of job loss attracts only one

significant coefficient; a low cost of job loss is associated with long hours volunteer status. This result does not fit the arguments of Bowles (1985) and Schor (1991). However, it does conform to the ideal worker explanation for voluntary long hours, since believers in the norm have some non-economic motivation for working long hours, as Blair-Loy (2003) suggests.

No significant associations were found with union membership, suggesting that unions in Australia have not been either actively hindering or encouraging long hours of work. Public sector employees, on the other hand, are significantly less likely to either initially be or enter into long hours conscript status, consistent with the possibility that the public sector provides employees with greater job security and hence bargaining power with respect to work hours. Casual employees are also much less likely to be working long hours, be it as either volunteers or conscripts, consistent with the group being largely comprised of part-time employees. The self-employed turn out to be more likely to initially serve as both volunteers and conscripts, and more likely to enter into both volunteer and conscript status (though the coefficient on entry into conscript status is only significant in the Wave 4 results). These effects suggest the existence of both selection effects – the self-employed tend to be ambitious and desiring of long hours – and of income insecurity effects – the self-employed tend to work long hours as conscripts due to the uncertainty of future income. As expected, moonlighting is more closely connected with long hours volunteer status and, by Wave 4, with exit from conscript status, presumably because it is easier to control hours by quitting one of the multiple jobs. However, moonlighting has a positive association with initial long hours conscript status, suggesting that preferred hours arrangements may not always be available even to multiple job holders (e.g., if quitting even one job would result in too few hours).

Turning next to family and demographic characteristics, marriage is related to initial conscript status and to entry into both volunteer and conscript status by Wave 3 (but not by Wave 4). Parenting, on the other hand, is negatively related to initial conscript status and to exit from long hours volunteer status to short hours by Wave 3. Given that most long hours employees are men (see Table 6 below), these results imply that marriage tends to drive or lure men into long hours, as expected, but that men as parents tend to avoid long hours as defined here. The net effect of marriage and parenting is, nonetheless, positive, since the marriage coefficients are consistently and absolutely larger than the parenting coefficients.



Education appears to be relatively unimportant, though workers who have not completed high school (Year 11 or below) tend not to be long hours conscripts, and tend to exit conscript status by Wave 3. This finding fits the ideal worker norm, since employees with low education should not be subject to the norm and attendant long hours, but the finding also fits traditional labour market theories as well. Household income, in contrast, is unrelated to either long hours category, contrary to predictions from traditional economic models of labour market behavior. Finally, both the age and the age-squared coefficients are associated with membership in both long hours categories. As expected, long hours rise then fall with age, with a maximum probability of long hours at age 41 for volunteers and at age 43 for conscripts. The results also confirm a prediction of Jacobs and Gerson (2004); long hours are often involuntary around mid-career, as reflected in the significant coefficients on the age quadratic for entry into long hours conscript status in both the dynamic Wave 3 and Wave 4 analyses.

We next tested the robustness of our results by re-running the regression analyses using 45 and, separately, 60 hours as the long hours cut-off. The results, not shown, yield similar patterns for the relative distribution of volunteers and conscripts, and for movement outside of and across the two groups. The pattern of regression results was also mainly similar, with the following exceptions. For the 45 hours cut-off, the debt coefficient for volunteers and conscripts was identical in the static base model for Wave 2, although the closer relationship to conscript status reappears in both the extended model Wave 2 results and in both the base and extended model for Wave 4. The pattern of ideal worker results remains basically unchanged, as do the direct effects for women, although the Wave 3 and Wave 4 gender interaction terms mainly lose significance. However, the original Wave 4 pattern of adaptation among conscripts being more common than rejection among volunteers is reversed for the 45 hours cut-offs, as the rejection effect becomes relatively larger.

For the 60 hour cut-off, the debt coefficients in the static Wave 2 model are also similar, though again with larger conscript coefficients for the Wave 4 base model and across all three extended models. The ideal worker results again remain very similar, as do most of the direct gender effects, except in both the base and extended Wave 4 results where the female coefficient for exit from conscript status is absolutely larger than that for exit from volunteer status. The interaction terms also show significant movement of women volunteers to

conscript status and of persistence among women conscripts. In general, these tests provide further support for the hypotheses presented here.

We then considered individuals who were employed in Wave 2 but exited employment by Wave 3 or by Wave 4. These individuals were excluded from the regression analyses, and may shed light particularly on movement out of long hours conscript status. The characteristics of the entire samples used in the dynamic Wave 3 and Wave 4 regressions, along with those for respondents who exited employment, are provided in Table 6. The general pattern of exit suggests long hours conscripts were no more likely to exit employment than long hours volunteers. Indeed, short hours respondents were over twice as likely to exit employment.<sup>7</sup> Considering characteristics, the debt/income ratio for those who exit long hours is low (around half the size found in the overall long hours samples), suggesting yet again that debt serves to trap respondents in long hours positions (Hypothesis 1). The ideal worker pattern is less clear, although we find women uniformly more likely to exit long hours compared to men (Hypothesis 3). Regardless of these patterns, note that the number of individuals who exit long hours is small, so the results might not generalize to a larger sample.

A final specification test involved replicating the static Wave 2 regressions reported in Tables 4 and 5 after excluding just under 1200 individuals who stopped responding to the HILDA survey by Wave 4. If the results become stronger, we would have grounds for believing that attrition bias is at work in the dynamic regressions for Waves 3 and 4 reported in those same tables. Results for the smaller sample (not shown) yield virtually identical patterns and significance, except that in the extended model, the cost-of-job-loss coefficient for volunteers loses significance, as does the Year 11 education coefficient for conscripts, suggesting that, if anything, attrition bias may be leading to an understatement of significance in the dynamic results.

**Table 6.** Movement Out of Employment by Hours Situation in Wave 2

Characteristics W2	Wave 2 to Wave 3 Panel		Wave 2 to Wave 4 Panel	
	Employed W2	Not Employed W3	Employed W2	Not Employed W4
Volunteers, W2	831	29	751	35
Debt (\$) (mean)	121,813.8	55,234.5	121,432.3	53,782.7
Debt/Income ratio (mean)	2.39	0.69	2.22	0.69
Ideal worker (%)	16.8	29.0	17.8	17.9
Female (%)	16.2	34.4	14.9	23.2
Conscripts, W2	761	25	705	34
Debt (\$) (mean)	146,174.1	74,068.6	146,878.0	127,547.6
Debt/Income ratio (mean)	2.83	0.98	2.89	1.61
Ideal worker (%)	25.8	27.2	25.1	7.5
Female (%)	25.9	27.2	25.9	48.4
Short Hours, W2	5,534	494	5,029	559
Debt (\$) (mean)	93,614.8	84,106.3	94,013.5	92,315.0
Debt/Income ratio (mean)	1.80	1.72	1.72	1.76
Ideal worker (%)	14.0	9.9	13.8	7.8
Female (%)	51.1	59.5	51.2	58.9
Total (N)	7126		6485	

*Note:* Figures for the ‘Wave 2 to Wave 3 panel’ derived from a balanced panel of respondents from waves 2 and 3 of the HILDA Survey while figures for the ‘Wave 2 to Wave 4 panel’ derived from a balanced panel of respondents from waves 2 to 4. In both cases analyses were restricted to persons who were employed and reported hours worked and preferred hours in wave 2, and an appropriate longitudinal population weight applied.

## 6. Discussion

The evidence presented here strongly suggests that long hours volunteers and conscripts are distinct groups, and that the application of work hours mismatch to an analysis of long hours is useful. Predictors of appearance within or entry into the two groups were indeed divergent. As hypothesized, respondents with high levels of debt were somewhat more likely to appear as long hours volunteers, but were consistently related to long hours conscript status, both in terms of the initial state and for later entry into that state. Further, these respondents only rarely exited employment. Overall, the results mainly fit Schor’s description of the work-and-spend cycle generating a long hours trap from which many individuals wish to escape.

The evidence was also largely consistent with the ideal worker norm. Relevant individuals were more likely to appear as both long hours volunteers and conscripts.

Nonetheless, evidence for the internalization of the norm was limited to the initial appearance of ideal workers as volunteers, and the subsidiary finding that long hours volunteers often believe it would be easy to find similar employment elsewhere. Highly educated respondents holding managerial or professional positions appeared more often as initial conscripts relative to volunteers and typically entered long hours status as conscripts as well.

Results for gender were more in line with expectations. Women were less likely than men to initially hold or enter into long hours jobs, and were particularly unlikely to hold or enter long hours volunteer positions. They were also likely to move from volunteer to conscript status over time, and to remain as conscripts if they began in that state, although some evidence of adaptation to long hours over time was uncovered as well. An unequal division of labour in the home in tandem with an arguably discriminatory skewing of rewards toward long hours employees can explain these findings. However, Hakim's argument that women simply prefer fewer hours than men (or come to prefer fewer hours) could also explain these results. Further research is clearly needed to tease out which explanation is more relevant.

Although many of the subsidiary results fit predictions, perhaps the most important were that promotion systems do not appear as devices to identify and select long hours volunteers, since many individuals receiving promotion eventually become long hours conscripts. Further, we found evidence that self-employment is not uniformly a route for employees to achieve their preferred hours, since many of the self-employed work long hours involuntarily, presumably as insurance against future income fluctuations. Finally, as Jacobs and Gerson (2004) suggested, the evidence presented here suggests that the tendency for work hours to peak at mid-career is largely driven by employer demands, and not by employee preferences.

As mentioned earlier, it might be worthwhile to reduce the prevalence of long work hours in order to free up more time for family, community and leisure. The evidence presented here suggests that a significant fraction of long hours employees agree to the extent that they prefer shorter hours. The three theories considered here, however, carry distinct implications for how such reductions might be achieved. The consumerism hypothesis suggests that efforts to educate individuals and families regarding the value of scaling back on spending would be worthwhile. Given the close relationship we uncover between debt and long hours conscript status, relevant education, such as that provided and suggested by Schor

(1999), could help to stave off the work-and-spend cycle and prevent the emergence of situations that ultimately cause regret.

It is less obvious how one might tackle the ideal worker norm. Restrictions on total work hours, as found in the European Union, would almost certainly reduce the prevalence of long hours conscripts among ideal workers, but would also inhibit long hours volunteers from working their preferred hours. The findings presented here, however, suggest the ideal worker norm is not internalized to the extent we expected; the norm may often be enforced on individuals who do not believe in it, and perhaps even by individuals who prefer shorter hours. Efforts to resist long hours among highly educated managers and professionals, such as those identified by Colbeck and Drago (2005), might therefore be met positively in many cases, as Lee and Kossek (2004) found for a sample of reduced-hours managers and professionals. More generally, the influence of the ideal worker norm might already be waning. The fact that our recent evidence connects the norm largely to long hours conscript status, in tandem with Wooden's (2003) finding of a reversal in the upward trend in the incidence of long hours among Australian managers and professionals since the mid-1990s, suggest a decline is occurring.

Regarding the discriminatory effects of long hours with regard to women, movement towards a more equitable distribution of child care and housework in recent decades (Lee 2005) might help if men are scaling back on long hours as a result. Nonetheless, Drago, Tseng and Wooden (2005) find evidence that equality of work hours among heterosexual couples is concentrated among long hours individuals, implying that changes inside of families will be insufficient to reduce any discriminatory effects of long hours. More promising options probably lie in efforts by men to counter the ideal worker norm and long hours (Colbeck and Drago 2005) or in initiatives to extend legislative protections against long hours (Jacobs and Gerson 2004).

The larger question this research addresses is how do labour markets actually function? Clearly, as Reynolds and Aletraris (2006) conclude, the market does not merely serve as a device to match employee and employer hours preferences, or is at best a sluggish and uncertain mechanism for achieving that end. Here we also learned that the processes that *create* and *sustain* long hours matches and mismatches are in large measure predictable, and often linked to consumerism, the ideal worker norm, and gender. However, in looking over the general pattern of our findings, the analysis was less successful at predicting *movement*

across long hours volunteer and conscript states (i.e., see the numerous insignificant interaction terms). To better understand these transitions, further related research should probably focus on the opportunities and constraints employers provide to employees, as well as the psychological characteristics of employees themselves. Regardless of the specific direction chosen for future research, however, the work here suggests the most promising approaches will exhibit only a limited appeal to traditional theories of labour market behavior.

## Endnotes

<sup>1</sup> There is, however, a separate literature in the organizational psychology field on the subject of “workaholics”, who are conceptually similar to the group we term long hours volunteers. This literature, however, is mainly concerned with the working behaviour of managers and, as a result, the few empirical studies that have been published (e.g., Peiperl and Jones 2001) employ very small and selective samples.

<sup>2</sup> Tests to distinguish the discrimination and preferences hypotheses could involve checking whether there are sound business reasons for preventing managers and professionals from working reduced hours. Bourke (2004) presents Australian legal evidence suggesting the business rationale is typically weak, consistent with the discrimination approach. Alternatively, we might test whether men desiring reduced hours for reasons other than caregiving (e.g., for partial disability or to participate in semi-professional sports leagues) are allowed to work reduced hours while mothers of young children are not.

<sup>3</sup> The denominator for this calculation excludes not only the self-employed but also owner-managers. Note also that in Australia casual employment is more commonly defined on the basis of lack of entitlement to either paid annual leave or paid sick leave. Using this alternative definition sees the casual employee share rise to almost 28 per cent. For more discussion of the definition and measurement of casual employment in Australia, see Wooden and Warren (2004).

<sup>4</sup> The question is identical to one included in the U.S. Survey of Economic Expectations and used by Manski and Straub (2000) to construct measures of job insecurity.

<sup>5</sup> Given the ideal worker variable includes many individuals with a bachelor’s degree, the omitted category can be viewed as the 6.4 percent of employees holding a bachelor’s degree but employed in non-managerial and non-professional occupations.

<sup>6</sup> We also considered the role of job switching in alleviating long hours conscript status, as suggested by Reynolds and Aletraris (2006). In results not shown here, it turned out that the percentages of long hours volunteers and conscripts who eventually switched employers and achieved short hours were virtually identical. Both figures were 5.8 percent for Wave 2 to

Wave 3 transitions, with the volunteer figure at 6.2 percent and the conscript figure at 6.8 percent for Wave 2 to Wave 4. We therefore ignore job switching in the analysis below.

<sup>7</sup> Combining long hours volunteers and conscripts, 3.4 percent of long hours employees exited between Waves 2 and 3, and 4.7 percent did so between Waves 2 and 4. For respondents initially employed for short hours, 8.9 percent exited by Wave 3 and 11.1 percent by Wave 4.



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