

School of Public Health

**Time Pressure and the Wellbeing of Parents with Young
Children in Australia**

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To the best of my knowledge and belief this thesis contains no material previously published by any other person except where due acknowledgement has been made. This thesis contains no material which has been accepted for the award of any other degree or diploma in any university.

ABSTRACT

Parental time pressure, in terms of actual workload and subjective reports, is high and likely to increase in the future, with ongoing implications for personal wellbeing. The combination of parenting young children and maternal employment, in particular, gives rise to greater time pressure in families. Although characterised by increasing diversity, two of the most time pressured family types, dual-earner and lone parent families are central features in the Australian demographic landscape. In view of predominant social and cultural trends, the ‘problem’ of time pressure is deep-rooted and set to grow. While the need to address ‘work-family balance’ is prominent in political and social life, the relationship between time pressure and wellbeing has not been well quantified and we know little about how that relationship works in families. At the heart of the time pressure problem, is a potential threat to the healthy development of children. This thesis, then, is broadly concerned with the nature of time pressure and its relationship with parental wellbeing when they are caring for young children.

The central aim of the thesis is to determine whether time pressure has a significant impact on the self-reported wellbeing of parents with young children. There are four main research questions. Time pressure is defined as being both objective (‘parental time use’) and subjective in nature (‘parental perceptions about their time’). The questions are: (1) What is the relationship between parental time use and parental perceptions about their time? (2) How do parental time use and parental perceptions about their time relate to their self-reported wellbeing? (3) Are the effects of parental time use and parental perceptions about their time on self-reported wellbeing modified by other perceived stressors and psychological coping resources? (4) What are the predictors of self-perceived time pressure? Because of their broad scope, each of these questions is given further focus by the stating of specific sub-components.

The study draws from several selected theoretical perspectives and models around the influence of time on individual health and wellbeing. Because the experience of time pressure has multiple interacting levels of influence from the individual through to family, work, and community settings and more widely from the social, political and cultural environment, the thesis is underpinned by ecological theory. To allow

for the meaningful and practical measurement of time pressure within different contexts, the Family and Community Resource Framework was adopted. The Framework views time as a resource that can be utilized and traded by families with other resources of human, financial, psychological and social capital to enable family functioning and individual wellbeing. Then, to make sense of the pathways of influence, subjective time pressure was conceptualized as a psychosocial factor within an epidemiological model of the social determinants of health. These theoretical perspectives in combination are woven throughout the thesis as both a guide and a means of interpreting results.

In addressing the broad research gaps around time pressure and parental wellbeing, the study took a population perspective and a quantitative methodological approach. A sub sample of parents with young children (at least one resident child aged less than six) was drawn from Wave Two of the Household Income and Labor Dynamics of Australia (HILDA) Study, conducted in 2002. Acknowledging the key role of gender and employment status in the experience of time pressure, all analysis was undertaken separately for employed mothers (n=451), non-employed mothers (n=512) and employed fathers (n=686). At another level that recognizes the influence of family structure and joint employment arrangements, analysis was undertaken for parents in 'dual-earner families' (n=346), 'traditional families' (n=321) and 'lone mother families' (n=145). This approach addressed the specific deficiency of quantitative studies of time pressure (objective and subjective) among families at the population level.

The concepts of "parental wellbeing", "parental time use", and "parental perceptions about their time" were all operationalized by a set of self-reported measures. Parental wellbeing was captured by the mental health, vitality and general health subscales of the MOS-Short-Form 36 allowing for variation in positive health states. Parental time use (objective time pressure) was measured by their self-reported estimates of average weekly hours in paid work, household work (sum of indoor and outdoor activities, and chores) and of their time spent with children. Furthermore, these three estimates were summed to provide two measures of total workload. Parental time perceptions (subjective time pressure) were quantified by questions about their paid work hour preferences and satisfaction, perceived fairness in their share of

housework and childcare, satisfaction with their amount of free time, and primarily by their self-perceived time pressure. The study also drew on indicators of job quality, financial wellbeing, parenting stress and perceived social support to examine the modifying role of other psychological resources on the relationship between time pressure and wellbeing. The bulk of analyses utilized multivariate linear regression techniques to examine the simultaneous effects of time use and parental perceptions about their time on mental health, general health and vitality, with adjustment for family characteristics and indicators of human and financial capital.

Primarily, the thesis concludes that time pressure has a significant negative impact on the wellbeing of many Australian parents with young children, in particular, when they are employed. ‘Self-perceived time pressure’ proves to be a complex issue as high levels were associated with large amounts of paid work and household work; with perceptions of unfairness in household work and childcare; with low free time satisfaction; with higher levels of job and parenting stress, and lower levels of perceived social support. The thesis provides conclusive evidence that a high level of self-perceived time pressure lowers the mental health, vitality and general health of all parents. For employed parents, low levels of satisfaction with their paid work hours, and for all parents, low levels of satisfaction with their free time hours had an additional detrimental effect on their mental health and vitality. In contrast, there was little evidence overall that parental distribution of time to specific activities, or that a greater total workload independently contributed to lower wellbeing. Unpredictably, employed mothers had better wellbeing when they spent a relatively large amount of time with their children. Furthermore, a high level of self-perceived time pressure exerted a detrimental effect on the wellbeing of some employed parents even after adjustment for other reported stressors around work and family life. Additionally, there was evidence that among the most highly time pressured mothers a higher level of perceived social support did little to buffer the impact of time pressure on aspects of their wellbeing. Integral to the findings is the evidence that family employment arrangements and structure alter the meaning of time pressure and its relationship to parental wellbeing.

These conclusions raise the question of how to avoid time-pressured circumstances in Australian families, and how to support and resource parents who are already

feeling chronically pressed for time. The very nature of time pressure implies multiple levels and points of intervention at the policy, community, workplace, family and individual level. Avoiding time pressure in families requires continued policy directions aimed at creating flexibility and choice in how parents divide their time between work and family with safeguards against excessive hours in paid work. Furthermore, the findings prompt the need for an expanded policy to one that includes leisure or time for oneself and the facilitation of parental time with children. From a preventive perspective, specific and early intervention at a family level from pre-conception through to antenatal and early parenting programs will help to facilitate a gender equitable approach to the division of labour. Among employed parents, correlations between self-perceived time pressure and their perceived stress and complexity of paid work suggest a greater role for workplaces in preventing and identifying psychosocial stress among employees. Inherently more difficult is identifying and supporting parents who are already feeling the strain. The prevalence of perceived time pressures and the strong negative association with parental wellbeing suggests the need for a public health response. The urgency for action lays in the potential damage to the relationship between the parent and developing child. Fundamentally, all strategies should be aimed at giving parents back a sense of control over their time.

The thesis lays a foundation for ongoing research examining the effects of paid and unpaid work patterns, free time and perceived time pressures on parental, child and family wellbeing over time.

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ABBREVIATIONS

ABS	Australian Bureau of Statistics
ANOVA	Analysis of Variance
GLM	General Linear Modeling
HILDA	Household, Income and Labor Dynamics in Australia
HROEC	Human Rights and Equal Opportunity Commission
LSAC	Longitudinal Study of Australian Children
MOS-SF36	Medical Outcomes Study – Short Form 36
OECD	Organisation for Economic Co-operation and Development
PQ	Personal Questionnaire
SCQ	Self-Complete Questionnaire
SPSS	Statistical Package for the Social Sciences
TAFE	Technical and Further Education
TICHR	Telethon Institute for Child Health Research
TUS	Time Use Survey
WHO	World Health Organisation

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1. LITERATURE REVIEW

1.1 Introduction

This section introduces the thesis. It provides a brief description of the thesis problem; defines the central term “time pressure” (objective and subjective); outlines the research aim and questions; provides a conceptual model linking the research questions with the specific measures, and finally, provides a road map through each of the chapters.

1.1.1 The problem of time pressure for parents and families

Lack of time and the pace of modern life is a common theme in popular and academic press. Over past decades, international and population studies of time use have shown a trend of increasing levels of subjectively high time pressure (Robinson & Godbey, 1997, p. 231), more so among women (Bittman, 2004; Mattingly & Sayer, 2006), and among employed parents with young children (Zuzanek, 1998). Although more difficult to gauge, similar broad trends are apparent in Australia (Australian Bureau of Statistics, 2006a; Bittman, 2004). And yet, time is a constant so how can it actually be lacking? From a life-stage perspective, parents with young children are especially prone to feeling time pressured. Compared to other adults, parents have the least free time, spend less time sleeping and in personal care activities and are the most likely to report being often rushed or pressed for time (Australian Bureau of Statistics, 2006a). In one regard, this is not surprising. Parents have always had extra time demands in caring for children, especially when the children are very young, so why should we be concerned for their wellbeing now?

The difference between parents now and those of previous generations lies within the context and speed of underlying social and cultural change around work, gender roles and family composition. Most significantly, many more mothers with young children are in paid work signifying the rise of dual-earner families. The trend of increased workforce participation by mothers is likely to continue as participation by women with young children is relatively low in Australia compared to other OECD countries (OECD, 2007). While there are many economic, social and individual benefits to the participation of mothers in paid employment, the concern for families is care of

children and the home. The transition to parenthood with the birth of a first child is a considerable period of adjustment for mothers and fathers (Glade, 2005). Having both parents in paid work has important implications for the resourcing of families and the individual wellbeing of parents. From a social policy perspective, it is vitally important to make it easy for both mothers and fathers to participate in paid work and to spend time with their children (HREOC, 2007; OECD, 2007). Without adequate resourcing of families to manage their paid and unpaid workload, it is likely that subjective reports of high time pressure will continue to grow.

The subjective feeling of high time pressure is associated with subjectively high levels of personal stress (Szollos, 2009; Zuzanek, 2004). The experience of stress in families, the wellbeing of parents and the healthy development of children are all connected. Parental wellbeing, especially the mental health and wellbeing of mothers has repeatedly been linked to various developmental and health outcomes for children, especially when children are young. The effect of parental wellbeing on children may be mediated through genetic factors, or through the social environment such as parenting practices or modelling of behaviours. The greatest disruptions to mother-child interactions tend to co-occur with the presence of other stressors in the family such as financial poverty, problems in the marital relationship or substance abuse (Shonkoff & Phillips, 2000). It is not known how time pressure fits into the parent-child relationship. Time pressure, as a stressor in the family, has the potential to disrupt family functioning and lead to poor and inconsistent parenting with consequences for child development. What if this persists over time? The potential impact of continued exposure to stress, and role modelling of time pressured behaviour for young and older children in these families is, I believe, of great concern.

1.1.2 Defining “time pressure”

Time pressure is the overarching term used in the thesis and so it is important in this early stage to provide a working definition.

Within the thesis, time pressure is defined as an actual or perceived scarcity of time to undertake the activities of the day, and thereby incorporates both objective and subjective components.

Objective time pressure. The objective component of time pressure is conceptualised as a high total workload (in paid and unpaid work) and little free time. Specifically, objective time pressure is based on a set of measures derived from parental self-reports of their weekly time allocation to paid work, household work and time spent with their own children, as well as computed individual total workloads (see section 2.4 for full details of measures). The umbrella term adopted for these objective measures is ‘parental time use’.

Subjective time pressure. The subjective component of time pressure is generally conceptualised as the feeling or perception that there is not enough time to complete the activities of the day. In this thesis, the primary measure of subjective time pressure is based on the single question “How often do you feel rushed or pressed for time?” with the response of *almost always* or *often* taken to mean a high level of subjective time pressure. To avoid confusion, this primary measure is specifically referred to from here on as ‘self-perceived time pressure’.

The thesis also adopts additional measures that can be considered as proxy indicators of subjective time pressure because they provide information about how parents perceive their time use in particular activities. These subjective measures gauge parental preferences and satisfaction with paid work hours, satisfaction with their quantity of free time, and perceived fairness in the division of household labour and childcare. Parents who would prefer to work fewer hours in paid work, or who are dissatisfied with their paid work hours or their amount of free time, or perceive the division of unpaid labour in their household to be unfair are conceptualised as being subjectively more time pressured.

The umbrella term adopted for these subjective measures, including self-perceived time pressure is ‘parental perceptions about their time’ (See section 2.5 for full details of the source and derivation of all subjective measures).

The conceptualisation proposed here is similar to that proposed by Szollos who suggests that in the presence of a plethora of multidisciplinary terms that time pressure, or more specifically “chronic time pressure” be used as an overarching conceptual term that encompasses all other terms related to the overlapping

experiences of “time shortage” and “being rushed” (Szollos, 2009, p. 338-339). However, when referring to “time shortage”, Szollos refers to a cognitive appraisal of time shortage and so expressing dissatisfaction with paid work and free time, for example, may also fall into the time shortage distinction, while the feeling of being rushed is distinguished as being more of a subjective emotional experience.

Time pressure *is* a difficult concept to tie down but one of the main aims of the thesis is to identify which objective and subjective components of time pressure are important for the wellbeing of parents.

Through better time use studies that examine both objective and subjective dimensions of time allocation, it is possible to learn what is being sacrificed amongst these time-crunched families and how our social institutions can change to accommodate them (Schneider & Waite, 2005, p. 78).

1.1.3 Research aim and questions

The aim of this thesis is to determine whether time pressure has a significant impact on the self-reported wellbeing of parents with young children.

Because time pressure has been defined as having both objective and subjective components, the research questions are posed in terms of parental time use (the objective component) and parental perceptions about their time (the subjective component). The questions addressed by the thesis are as follows:

1. What is the relationship between parental time use and parental perceptions about their time?
2. How do parental time use and parental perceptions about their time relate to their self-reported wellbeing?
3. Are the effects of parental time use and parental perceptions about their time on self-reported parental wellbeing modified by other perceived stressors and psychological coping resources?
4. What are the predictors of self-perceived time pressure?

These research questions are broad. The Chapter summary brings together specific knowledge and important gaps that lead to the stating of the research questions (see section 1.10). In particular, each question contains several sub-components that provide greater focus to the thesis.

1.1.4 Conceptual model of the thesis

Figure 1 shows the four research questions and how they are to be addressed using the specific measures from the research dataset. The methodological approach and the derivation of variables are described in the next chapter. The model, with highlighted portions, will be used as a reminder at the beginning of each chapter of results (Figures 5, 6, 7 & 12).

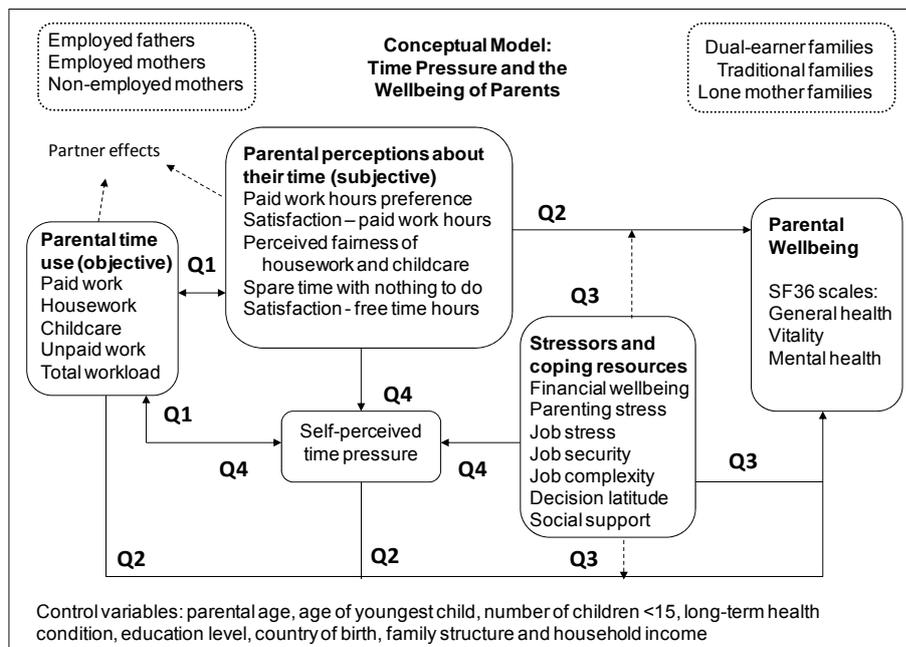


Figure 1: Conceptual model of the thesis

1.1.5 The plan of this thesis

This thesis begins with a review of relevant literature. The literature review is necessarily broad in scope as the topic is informed from across a number of disciplines and areas of research. Because of the scope, not all areas represent an exhaustive review of literature. The focus of the literature and the gaps of interest

that guide the research are in the relationship between time pressure and parental wellbeing at the population level. Although there is a close conceptual relationship of self-perceived time pressure and work-to-family strain, there is only reference to this literature when considered appropriate. It is this specific focus that limits the scope of the review and prevents it from becoming unwieldy.

With this in mind, the literature review seeks to:

1. Position time pressure within the context of relevant frameworks and theory.
2. Detail the social and cultural trends related to the growing sense of time pressure among parents.
3. Document the time use patterns of parents with young children.
4. Describe how parents perceive their time use considering various indicators of perception, preferences and satisfaction with their time allocations.
5. Review the evidence on the relationship between parental time use, time perceptions and wellbeing.

Wherever possible the focus will be upon on evidence available for parents with young children (aged 0-5) rather than parents with children of any age or wider populations. However, for many aspects of the review, the information is not available for the specific focal population. There are certain contextual or structural features in the relationship between time pressure and well being that introduce some added complexity to the presentation. Because the story of time pressure differs between mothers and fathers, they are discussed separately. The family context of parents is also considered e.g. lone mothers versus couple mothers, fathers in dual-earner families versus fathers in traditional families.

Following this introductory section, section 1.2 outlines the ‘relevant frameworks and theory’ for the study as these pertain to time pressure. Section 1.3 then discusses the social and cultural drivers of time pressure. The next five sections (1.4 to 1.8) turn in more detail to the evidence surrounding the links between time pressure (objective and subjective) and parental wellbeing with a view to identifying gaps in knowledge and framing the research questions. Sections 1.4 to 1.7 are specifically

organised around categories of time allocation by parents i.e. paid work (1.4), household work (1.5), time with children (1.6), and free time (1.7). Within each of these categories there are four components: the distribution of time by mothers and fathers; parental perceptions about their time use; the relationship between time use and wellbeing; the relationship between perceptions and wellbeing. Section 1.8 is specifically about self-perceived time pressure. Section 1.9 then reviews the evidence surrounding the impact of other resources (human, financial, social and psychological capital) on the relationship between time pressure and parental wellbeing. Finally, the Chapter summary (section 1.10) draws together the evidence from across categories of time allocation and all sections of the review, to justify and state the four research questions and their specific sub-components.

The remainder of the thesis then comprises six more chapters. Chapter 2 details the methods used to address the research questions. The next four chapters are then based on each of the research questions. Chapter 3 describes the relationship between parental time use and their perceptions of time. Chapter 4 looks at the relationship between time pressure and the wellbeing of parents. Chapter 5 considers the role of other family stressors and psychological coping resources and Chapter 6 focuses on the predictors of self-perceived time pressure. Finally, Chapter 7 provides a summary of the main findings, policy recommendations, study limitations and recommendations for further research.

1.2 Time Pressure and Parental Wellbeing: Relevant Frameworks and Theory

Because time use is a function of living in multiple interacting contexts (social and physical environments) over time, the story of time pressure and its relationship to the wellbeing of parents and children begins with a discussion of ecological theory (1.2.1). However, ecological theory does not provide guidance in terms of what specific features of the social environment are important to measure. One way of specifying measures is to conceptualise a set of *developmental resources* that are available to parents (and others) within ecological contexts that may facilitate or constrain their own wellbeing and the wellbeing of their children. This framework of measures is the purpose of the ‘Family and Community Resource Framework’ and within that framework ‘time’ is discussed as a family resource (1.2.2).

The next theoretical consideration for the study is exactly how time pressure might impact upon the wellbeing of parents. What are the conceivable pathways? It is therefore important to discuss an epidemiological model of the social determinants of health and provide an overview of the stress process (1.2.3). Although relevant to the study of time pressure and wellbeing it is beyond the scope of this thesis to consider the theories and evidence around multiple roles and wellbeing. Furthermore, it is argued that in light of a dramatic fifty years of social change, these theories have become obsolete. Gender is increasingly less likely to determine the saliency of roles (Barnett & Hyde, 2001). This section concludes with a short summary and leads into the next section on social and cultural trends that may be driving the increasing sense of time pressure among parents.

1.2.1 Ecological theory as a guide to understanding time pressure

Time use experts recognise that growing reports of time pressure in modern developed countries are much more than a problem of individual time management. Time pressure has social antecedents and sources, which may be outside of the immediate control of the individual (Bittman, 2004; Garhammer, 1998; Jacobs & Gerson, 2001; Zuzanek, 2004). Ecological theory is well suited to the study of time pressure because the sources are multiple and span spheres of influence from the level of the individual to sources beyond the individual and their immediate control

(See Figure 1). These other levels entail micro, meso, and macro level sources in contexts that span from the individual to the family, school, work setting, community, regional and national levels. At each contextual level represented in Figure 2, there are potential facilitators and constraints on the time of parents with young children.

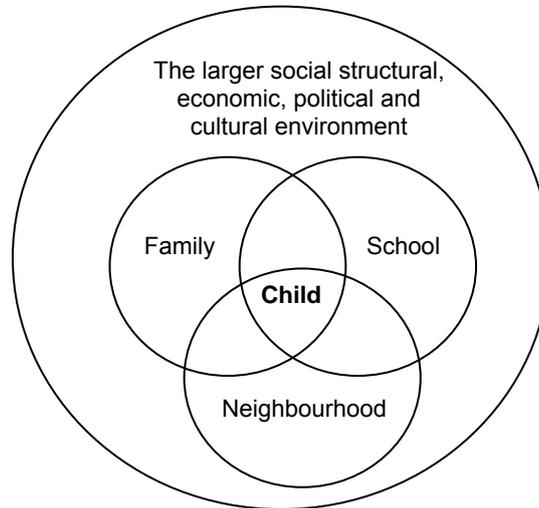


Figure 2. Socio-ecological contexts shaping children's development (Bronfenbrenner, 1979)

Ecological theory positions individuals within these multiple environments. This represents a paradigm shift away from individual risk factor epidemiology to “thinking outside the black box” and recognition of “multilevel causation” (Susser & Susser, 1996a, 1996b). An ecological perspective has guided behavioural science and the study of child development for many decades. Urie Bronfenbrenner, a renowned developmental psychologist, used ecological theory to develop a working model of human development over the life course that incorporates characteristics of the person, the social context, developmental processes and time. This is the person-process-context-time (PPCT) model and it highlights the inherent complexity of human development. Bronfenbrenner also identified three different environmental systems that serve as a source of external influence on the family. *Mesosystem models* are those that describe the interacting influence of various settings on human development e.g. the work-family interface. *Exosystem models* refer to systems external to the developing person e.g. the effect of one parents work environment on other family members. *Chronosystem models* examine the effect of environmental changes over time (Bronfenbrenner, 1979, 1986). With these different

environmental systems in mind, the ecological perspective has been proposed as the basis for identifying key leverage points for health intervention in adults (Grzywacz & Fuqua, 2000). Identifying critical points of time pressure (objective and subjective) in the environment for parents has important implications for social, economic and health policy. It is argued that countering the stressful effects of work-family conflict (Drach-Zahavy & Somech, 2008) and time pressures (Zuzanek, 2004) will require both organisational and individual change.

1.2.2 Time as a resource for parents

While an ecological theory specifies levels of influence and differing developmental contexts, what is to be measured is a function of the specific research interest. Given the ecological influences on parental time pressure, and a specific interest in relationships between time pressure and the wellbeing of adults, how then are specific measures to be identified for studies that link time pressure, levels of influence, and contexts to these outcomes of interest? The ‘Family and Community Resource Framework’ provides a meaningful and practical way to measure developmentally relevant features of the social environment (Zubrick, Williams, Silburn, & Vimpani, 2000).

The Framework is meaningful because it places time as a resource, alongside other resources in the family. The Framework acknowledges that time is not a mutually exclusive type of resource and what parents do with their time is both a function of, and influence on other resources in the family. Parental decisions about time allocations occur alongside decisions about other family resources all within the context of broader macro-level constraints.

The Framework is practical because it points to domains of measurement. It is based upon five categories or domains of resources for the family: time, income, human capital, social capital and psychological capital. In theory, these resources can be high or low across domains and either of these conditions can accumulate over time representing a “stock of capital”. Families that are low in resources across domains find it especially difficult to cope with adverse outcomes for children (Brooks-Gunn, 1995). The Framework has been adopted in Australia as a means of developing indicators of social and family functioning relevant to outcomes for children and

families (Zubrick et al., 2000). Using the Framework to assess the wellbeing of parents will allow interpretation that is policy relevant and comparable to Australian studies of child wellbeing (in particular, the Longitudinal Study of Australian Children). *See Figure 3*. Parental wellbeing is one mechanism by which time pressure has an effect on outcomes for children so what is a resource for parental wellbeing is also a resource for child wellbeing.

Within the context of the Resource Framework, time as a resource is about the “time that caregivers have available for themselves and other family members” (Zubrick et al., 2000, p. 21). One of the primary indicators within in this domain is the hours that parents spend in paid work because of the limits it places on time for parent-child interactions (Zubrick et al., 2000). This is a component of objective time pressure. The concept and value of time as a resource originated from economic theory around families. Within families, individuals are assumed to make rational trade-offs between time spent in paid work and time with the family on the basis of the value of their own time in the marketplace, as measured principally by their wage. This has implications for health and childrearing as families decide how much of their time is needed to produce children (happy, healthy and well educated) and their own health. Economic theory holds that traditional roles in the household prevail due to “specialisation”. That is, within couple households one member of the couple earns in the marketplace while the other specialises in the home (Becker, 1993, pp. 30-53).

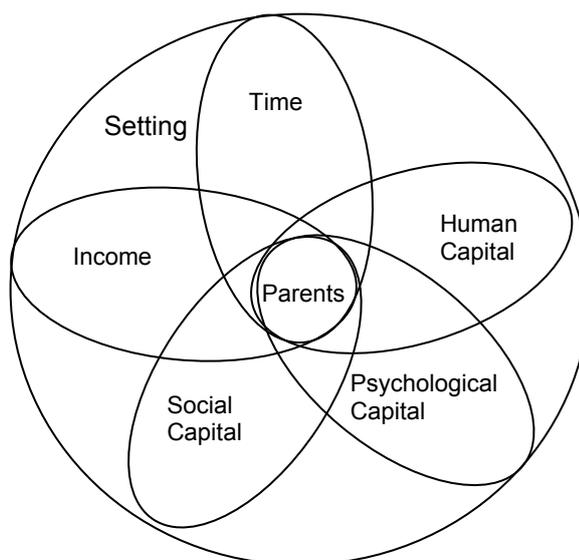


Figure 3. Resources shaping the health and wellbeing of parents (adapted from Williams et al, 2003)

But the importance of time as a resource for wellbeing lies not only in its quantity but also in its quality. Within the Framework, quality can be thought of “as a function of the human capital and psychological capital available to the child within the time available for any parent-child interaction” (Zubrick et al., 2000, p. 23). It is also likely that a minimum quantity of time is necessary to ensure quality of time in parent-child interactions. In other words, at some point the quantity of parental time available for self and family becomes so diminished that quality cannot be achieved. It is these aspects of quality of time that have been less well quantified (Zubrick et al., 2000). A complementary metaphor proposed by Thompson & Bunderson is one of “time as a container for meaning” allowing for a look at the nature and significance of activities as a better way of understanding the work-family interface. The metaphor draws on theories around self-identity (Thompson & Bunderson, 2001). From an empirical point-of-view, it is appropriate to consider questions about parental perception of time use, or the *subjective* experience of time, such as preferences for paid work hours, self-perceived time pressure and free time satisfaction.

1.2.3 Time pressure, stress and social pathways to health

Having acknowledged an ecological perspective and conceptualised the presence of a time as a resource, it is important to consider in more detail the process by which time pressure, as a feature of the social environment can “get under the skin” (Taylor, Repetti, & Seeman, 1997) of parents. In other words, how exactly can the experience of time pressure be internalised in a way that is a threat to the health and wellbeing of parents? Once again, it is important to recognise from the prior discussion that time pressure is an objective and subjective concept with influences that are sourced from the macro social environment through to resources that are internal to the individual parent. There are also many other features of the social environment that parents can react to along the way. These pathways are the subject matter of social epidemiology, a field that looks to examine how and why there is a social gradient in the health of populations. A ‘Social Determinants of Health’ model conceptually illustrates these pathways.

Brunner & Marmot (2006) conceptualise the process by which social structure can influence wellbeing, mortality and morbidity through material, psychosocial and

behavioural pathways, which in turn operate through physiological change (See Figure 4). Psychosocial pathways refer to the interaction of psychological characteristics with the social environment, likened to the balance of psychological resources with other resources in the Resource Framework. All pathways – material, behavioural and psychosocial are important (Marmot & Wilkinson, 2006) but it is the psychosocial pathways that are central to this thesis about time pressure and the wellbeing of parents.

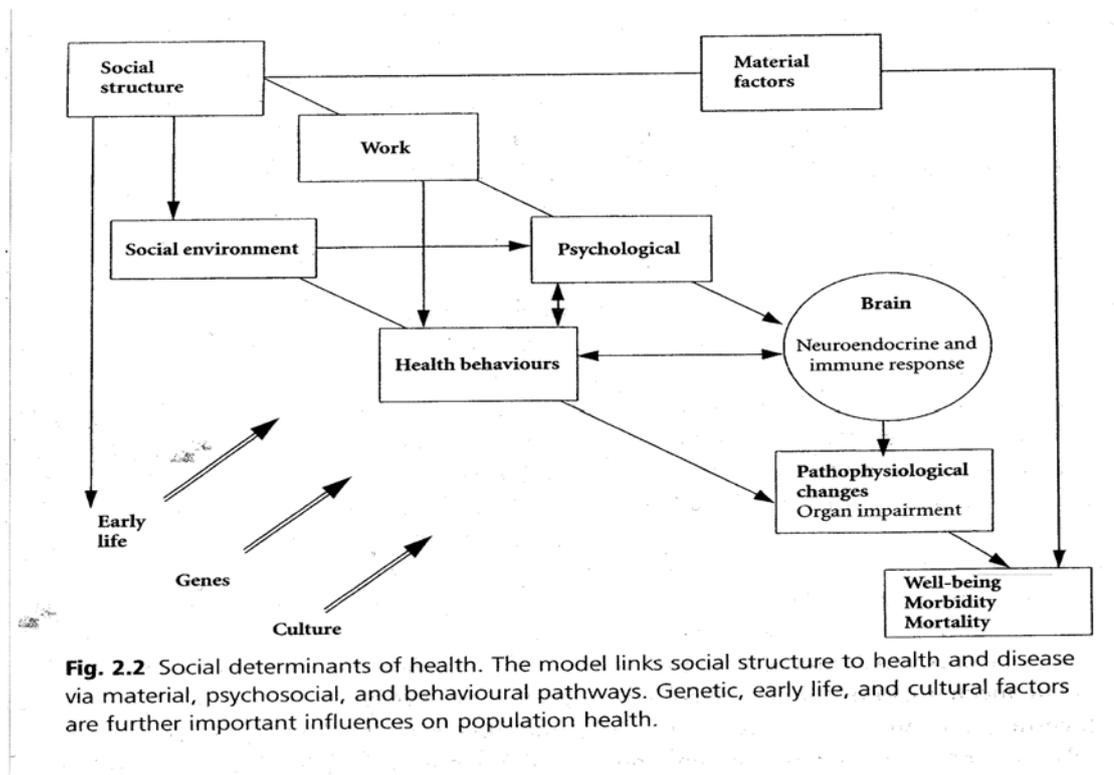


Figure 4. Social Determinants of Health (Brunner & Marmot, 2006, p. 9)

The psychosocial pathways take prominence in this thesis for several reasons. First, while parents may experience objective time pressure in the form of very long working hours in employment or in the home, there must exist a set of psychobiological mechanisms by which the experience of these long working hours are reflected in self-reports of wellbeing. One mechanism is the greater capacity to purchase material goods for the family via increased income. Another mechanism is the adaption of poorer health behaviours due to a lack of time that leads to reliance on pre-prepared meals and inactive lifestyles. These two mechanisms are noted but the main mechanism of interest lies in the “psychological” box, the domain of

perception, stress and coping. It is within this box that ‘self-perceived time pressure’, as the primary subjective indicator of time pressure can be conceptualised. Most recently it has been argued that the internal psychobiological experience of chronic time pressure needs to take its place as a psychological field of enquiry (Szollos, 2009). Therefore, self-perceived time pressure is discussed as a component integral to the stress process with ongoing consequences for wellbeing.

Self-perceived time pressure is often used as an indicator of stress and wellbeing in its own right. Subjective time pressure has many related concepts that span the psychosocial domain from stressor to stress: time crunch, busyness, work to family strain, spillover, a lack of perceived control, burnout, and time stress. It does not mean that those who are exposed to the pressure of time as a stressor are stressed. This requires some explanation. Stress is a complex process. First there is the ‘stressor’ or environmental stimuli, which include stressful life events, chronic stressors and daily hassles. Self-perceived time pressure is conceivably an expression of chronic stress and daily hassles or the interaction of both. Second there is the actual biological response to those stimuli, stress, indicated by biological markers such as cortisol. The human body’s physiologic response to stress is designed to protect and restore the body through the autonomic nervous system, the hypothalamic-pituitary-adrenal (HPA) axis and the cardiovascular, metabolic and immune systems. The condition of ‘allostatis’ is maintained when the system is working well. However, when the system suffers from the wear and tear of overuse, the condition of ‘allostatic load’ can occur when the physiologic stress response becomes impaired. Exposure to frequent stress or the failure to adapt to chronic stress, such as ongoing self-perceived time pressures, can have long-term health consequences (Brunner & Marmot, 2006; Kristenson, Erikson, Sluiter, Starke, & Ursin, 2004; McEwen, 1998). The third component is the presence of factors (or ‘resources’), which can alter the degree to which stressors are internalised as stress.

So what can stop a stressor such as the experience of time pressure from getting under the skin in terms of triggering a physiologic response to stress, or making the response less severe? The impact of a perceived stressor on health is less severe when the biological response is mediated (dampened or heightened) by coping mechanisms. These mechanisms include conscious and unconscious adaptational

processes, the presence of social relationships/support, and psychological coping resources such as self-esteem, a sense of coherence, optimism, and a sense of perceived control over life events, also referred to more broadly as self-efficacy (Thoits, 1995). All these coping factors represent well-established and validated indicators of positive mental health (Friedli, 2009; Zubrick & Koress-Masfety, 2005). Although greater psychological resources should, in theory, help people cope or adjust to increasing demands on time, these questions are yet to be addressed in psychological research. There is a need to understand the psychological dimensions of time pressure, the processes by which individuals adjust, or fail to adapt to increasing demands on their time, and the psychological characteristics of those who cope versus those who don't (Szollos, 2009). Szollos also suggests that in connecting the fields of time pressure and wellbeing, both conceptually and empirically, that a sense of "time affluence" in itself could be considered an indicator of positive mental health (p. 336).

1.2.5 Summary of relevant frameworks and theory

Time pressure is more than an issue of poor time management. Rather, time pressure has multiple levels of influence from the individual to the family, school, work and community settings through to the social, economic, cultural and political environment in Australia. Time pressure is also a function of overlapping spheres of influence, such as that between family and work. Because of the nature of time pressure, the underlying theoretical basis of the thesis is ecological theory. Ecological theory considers characteristics of the person, developmental processes, and the social context over time.

While ecological theory provides a focus on the multiple contexts and sources of influence on time pressure, there is still a need to identify measures of time pressure that are meaningful. This is the role of the Family and Community Resource Framework. The Framework identifies 'time' as one in a set of five resources available to parents for their personal wellbeing and the wellbeing of their families. Because of its finite nature, time can be viewed as scarce resource or a container which parents fill with activities during their day. The experience of time pressure can be described as not having enough time during the course of a 24-hour day to

complete necessary activities but it is also an issue of quality, or how that time is spent.

An epidemiological model of the social determinants of health provides a means to explain pathways from the experience of time pressure in the social environment through to health and wellbeing outcomes. According to the model, there are material, behavioural and psychosocial pathways linking the social environment to wellbeing, morbidity and mortality. Within this thesis, the psychosocial pathways take prominence because it is here that ‘self-perceived time pressure’, as the main subjective indicator of time pressure can be conceptualised.

Having laid down a theoretical foundation for the study, it is now important to provide an overview of the social and cultural trends that have taken place in recent decades. Section 3 looks at trends that are linked to a growing sense of time pressure in the population and among parents particularly.

1.3 Why the Growing Self-Reports of Time Pressure?

This section briefly examines some of the social trends around family and work that are relevant to the study of time pressure and the wellbeing of parents.

1.3.1 Trends in self-perceived time pressure, total workloads and free time

The past forty years have seen an increase in reported levels of subjective time pressure in the adult population and especially so among women from the mid 1970’s. This has been observed in the United States (Mattingly & Sayer, 2006; Robinson & Godbey, 1997, p. 231) and Australia (Bittman, 2004; Bittman & Rice, 2002). To the best of knowledge there are no published reports of trends in self-perceived time pressure by life-stage group or specifically among parents of young children in Australia, although more recent time diary data does indicate a substantial increase between 1997 and 2006 (Australian Bureau of Statistics, 1997, 2006a). This increasing trend is important to verify with proper statistical methods. Certainly, Canadian research indicates that the increase in self-perceived time pressure has been greater among parents than non-parents, especially when they are employed

(Zuzanek & Smale, 1994 and 1997), as later cited by the author (Zuzanek, 1998; Zuzanek, 2000).

The reason for increased subjective time pressure is an important question that has not been answered historically by looking at trends in *average* total workloads and free time in the population. On the whole, population engagement in total productive activity (average weekly hours of work paid and unpaid work) declined in the US between the mid-1960s and mid-1970s, remaining stable to the mid 1980s (Robinson & Godbey, 1997, p. 108). Depending on the data source, the average working week of employed Americans has decreased (Robinson & Godbey, 1997, p. 95) or remained stable in past decades (Jacobs & Gerson, 1998). Relative stability of total workloads between 1987 and 1997 has also been observed among Australian prime-aged working couples, including those with young children (Bittman, 2004). Furthermore, there is an aggregate trend of increasing free time for working age men and women in the US, Australia and 17 other countries from the 1960s to the 1990s (Bittman, 1998; Robinson & Godbey, 1997, p. 126, pp. 131-133). However, since the 1970s the increase in free time is more evident among working age men than women in Australia (Bittman & Rice, 2002) while in the US free time is reported to have declined, and more sharply among women (Sayer, 2005). Importantly though, trends for the average worker ignore the changes within demographic groups such as the growth of dual-earner and lone parent families. Ultimately, it is the growth of particular subgroups that are overworked such as the dual-earner household that is fuelling the growing sense of time pressure in the population (Bittman, 2004; Bittman & Rice, 2002; Jacobs & Gerson, 1998, 2001).

1.3.2 The participation of women in paid work

One of the major factors attributed to the reported time pressure of families has been the increasing movement of mothers into paid work, especially part-time employment (Australian Bureau of Statistics, 2006c). Many factors have driven this trend including a change in social attitudes, higher education rates of women, a decline and delay in fertility, an earlier return to work after the birth of a child and financial necessity (Australian Bureau of Statistics, 2006b). The trend is also evident in a desire to work among non-employed mothers and in the stated preferences of young Australian women (Australian Bureau of Statistics, 2008; Qu & Western,

2005). Workforce participation of women with young children is relatively low in Australia compared to other OECD countries, indicating greater barriers to employment for Australian women but also allowing for considerable growth in future decades (OECD, 2007). As the increase of mothers in the workforce has been largely in couple families where the father is already employed, the dual-income parent family is becoming the norm. Because the employment rates of fathers do not vary with the age and number of children in the household (Australian Bureau of Statistics, 2006b), these dual-earner families have a greater total workload and both parents are faced with balancing work and family commitments.

1.3.3 Diversification and intensification of paid work

In Australia there is a shift away from the 'standard working week' i.e. traditional 9am-5pm jobs (Tseng & Wooden, 2005). One of the most significant and consistent workforce trends is an increase in the proportion of workers engaged in part-time (<35 hours per week) and casual work with no leave entitlements (Australian Bureau of Statistics, 2005a). Although part-time and casual jobs allow for greater flexibility to manage work and family commitments, there are disadvantages in the shape of job instability, lack of entitlements, fluctuations in income and limited opportunities for career advancement. Conversely, those engaged in full-time employment are working longer hours, more than 50 hours per week. Long working hours are more common among the self-employed and those in managerial and professional occupations, although this varies by industry. Working long hours may be a personal choice, financial necessity or associated with workplace pressures such as a corporate culture or job insecurity (Australian Bureau of Statistics, 2003c). International comparisons between OECD countries show Australia to have one of the highest rates of part-time employment *and* of long working hours (OECD, 2007).

As working arrangements diversify there is an increase in hours worked at night or on the weekend (unsociable hours) and in work conducted from home (Bittman & Rice, 2002). Technological advances have made it easy for workers to telecommute between the workplace and home. In 2007, 63% of parents in dual-earner couples had at least one parent usually working some hours from home (Australian Bureau of Statistics, 2009). While a small minority of Australians work on weekends (approximately one in seven Australians of working age work on a Sunday) this has

a significant impact on family leisure time, time with children and in the company of friends (Bittman, 2005). Other workplace pressures include the 24-hour global economy and a workplace culture that expects employees to be accessible at all times. As with longer working hours, flexibility and availability may be a personal preference and beneficial for work and family life but may also be of concern as the boundaries between time at work and time with family become blurred.

Long hours in paid work, unpaid overtime and technological advances all contribute to a greater intensification of the work experience but the nature of work across industrialized nations has also changed. More and more jobs are characterised by mental and emotional demands and fewer by physical demands. For employees this means that the experience of work has intensified with a faster pace, tight scheduling, greater demands and fewer breaks (Marmot, Siegrist, & Theorell, 2006). In Australia, long hours in paid work and work intensification have also arisen out of reduced staffing levels making it very difficult for employees to meet the targets and demands of their job (Australian Council of Trade Unions, 2003). Therefore, many Australians are not only working longer hours but they are working harder both of which contribute to greater time pressures and stress.

1.3.4 Changing patterns in family formation

The social environment in Australia is marked by changing patterns in family formation, in particular, the increase of lone mother families. This trend is a consequence of a rise in divorce rates and in a rise in the proportion of births outside of marriage. Of all Australian families with children aged 17 and under in 2003, 71% were intact couples, 7% were step or blended, 19% were lone mothers and 3% were lone father families (Australian Bureau of Statistics, 2003b). These changing patterns in family formation mean that both parents and children are increasingly more likely to experience family changes and less likely to be part of an original couple family. Lone mothers are especially prone to the double pressures of financial and time pressure and further stress if recently separated or divorced.

Another relevant trend in family formation over past decades is the decreasing fertility rate, a decline that has slowed in recent years (1.76 per 100,000 women in 2003). Declining fertility rates are driven by delayed childbirth, a preference for

smaller families and increasing proportions of women who remain childless. Since 2000, the peak fertility group in Australia has been 30-34 year old women. Factors behind the declining fertility rate are also associated with increasing rates of higher education, employment, financial reasons, lifestyle choices, health and relationship factors (Australian Bureau of Statistics, 2005b). As young men and women increasingly spend more time in education both marriage and childbirth are delayed to the early thirties. This means that parents are more career oriented on the one hand, and in the midst of creating financial security on the other hand. The later adults defer family formation, the greater likelihood that the more time-intensive early childhood years will be condensed into a shorter timeframe with either smaller families or a closer gap between successive children. If parents are also more inclined to work because they are more educated and career oriented, or due to financial reasons this means that time pressures may be exacerbated in this period of life.

1.3.5 A slow road to the equal division of paid and unpaid work between men and women

While the increased participation of women in paid work has led to changes in the time parents spend in household work and childcare, a traditional division of labor is still predominant (Bianchi & Raley, 2005; Sayer, 2005; Sayer, Bianchi, & Robinson, 2004). In general, mothers have reduced their participation in housework at a greater rate than fathers have increased their participation, with no apparent increase among fathers since the mid eighties (Baxter, 2002; Bianchi & Raley, 2005). The decline in household work among women, and especially mothers, is responsive to greater hours in paid work but is also due to their reallocation of time from housework to childcare (Bianchi, 2000). Amid fears that across families increasing maternal employment has reduced time with children, the most conservative conclusion is that maternal childcare time has been preserved and married fathers have increased their time with children (Bianchi, 2000; Sayer et al., 2004). Among fathers, increases in time spent with children are most dramatic within the context of dual-earner families (Bittman, 2004; Zuzanek, 2000). So while there is a slow convergence of time use between men and women, most of this trend can be attributed to the work patterns of mothers.

1.3.6 An inconsistent government and workplace response

Australian parents have a range of options at their disposal to manage their work and family commitments but support is inconsistent. Until recently, Australia was still relatively backward in its provision of paid paternity and maternity leave, which is employer dependent, varies by industry and is more available in the public sector (Australian Bureau of Statistics, 2003a). Beyond the first 12 months of a child's life, many parents, mostly mothers, opt for flexible work arrangements to balance work and family. These arrangements include flexible working hours, permanent part-time work and working at home (Australian Bureau of Statistics, 2003a). As with the provision of paid paternity and maternity leave, the availability of flexible work arrangements is employer dependent. Many workers in Australia lack family-friendly provisions in their workplace because they are on contract or casually employed (Russell & Bowman, 2000). Another way of supporting paid work is through formal and informal childcare and the use of childcare is highly dependent on availability and cost. Parents' needs are not being met by formal care facilities, not just for daytime care but also school holidays, after school, emergency care (when child is sick) and occasional care (Russell & Bowman, 2000). Many Australian families feel inadequately supported and that they are not "striking the balance" (HREOC, 2005). These inconsistent and inadequate supports are both contributing to and exacerbating the perceived time pressures in these families.

1.3.7 Busyness, status and the time pressure illusion

An alternative or additional explanation for a growing sense of time pressure may be a cultural one. Sociologists claim that busyness has become a modern day way of life in industrialised society and a symbol of social and economic success. Being seen to be busy has become a status symbol. Whereas in the nineteenth century, being leisurely was associated with higher social status it is proposed that being busy and over-scheduled in working life and in leisure has become the marker of success or "badge of honour". The key linking factor between busyness and success in an affluent society is through the consumption of goods and services (Gershuny, 2005). Mattingly sums up Gershuny "Today, the lifestyle of high-status individuals has transmogrified into conspicuous busyness revealed through multiple time commitments to work and family and a jam-packed leisure agenda. In contrast, the obvious idleness of individuals with too much free time, such as the unemployed,

signifies their low status” (Mattingly & Sayer, 2006, p. 207). This notion is reflected in qualitative work. For example, a common theme expressed by parents in focus groups conducted by the Australian Work-life Tensions Study (WLTS) was that the experience of time pressure is compounded by consumption pressure (Bryson, Warner-Smith, Brown, & Fray, 2007).

The emergence of ‘intensive mothering’ and ‘involved fathering’ as the new norms of parenting whereby parents are expected to actively devote time and resources towards their child’s development is consistent with a cultural explanation (Arendell, 2000; Marsiglio, Amato, Day, & Lamb, 2000). These changing values and expectations around parenting have also created a new obligation around the organization and structuring of family leisure time. It is argued that family leisure is no longer simply about fun but is seen to have a function in the development of children. Parents are increasingly managing their children’s free time (Shaw, 2008). Such ideals about childrearing may both arise from and contribute to the broader cultural pressure to be busy, perpetuating a type of busyness that reflects perceived success in parenting.

If the cultural environment is the only cause of people feeling time poor, time pressure is perhaps an illusion: “In that sense, much of the time pressure that people feel is discretionary and of their own making” (Goodin, Rice, Bittman, & Saunders, 2005, p. 43). The ‘time pressure illusion’ is described as the difference between actual free time available and the time that is left over after people complete the theoretical absolute necessities of life in terms of paid and unpaid work, personal care and sleep (discretionary time). As an example, the greatest time pressure illusion is observed for those with little free time but a large amount of discretionary time. Or in other words, they are working much harder than needed to meet the necessities of life. Using the 1992 Australian Time Use Survey, it was shown that amongst 25-54 year olds this illusion was least amongst lone parents and greatest amongst childless dual-earner couples. It is difficult to argue that the time pressure experienced by any parent is not actually real; the question for some is whether it is actually necessary.

To “rush” is a bit more sinister than one might expect. In a culture that is particularly rushed, this may be hard to discern because it takes a good deal of unrushed reflection to recognise what rushing means. (Robinson & Godbey, 1997, p. 35)

1.3.8 Summary of social trends contributing to time pressure

This section has reviewed six social and cultural reasons behind the growing sense of time pressure in the population, and among parents. These underlying reasons point to the presence of real constraints on time for some families and to why parents may perceive to be time pressured.

Reports of self-perceived time pressure in the population are growing, especially among women. This is evident in US and Canadian trends and from Australian surveys. Canadian data shows that the increases in self-perceived time pressures are greater among parents than non-parents. The proportion of Australian parents reporting time pressure in the past decade has risen. From a population perspective, average trends in total workloads and free time do not account for the increased reports of time pressure. It is proposed that the population increase is more likely to be due to demographic shifts such as the growth of dual-earner and lone parent families, who have always felt more time pressured and are increasingly so.

The most significant trend influencing population reports of self-perceived time pressure is the increase of women in paid work. This trend is driven by many factors including a change in social attitudes, higher education rates of women and financial necessity. In past decades, the participation by men in the workforce has actually decreased slightly but the decrease is not responsive to or due to the rapid increase in workforce participation among women. Mothers’ participation in the workforce has largely occurred in families where the father is already employed fuelling the rise of dual-earner families, a trend that is set to continue.

With more mothers in paid work, there is more pressure on the time for household work and childcare. Mostly it is the mothers who are making the adjustments to manage this time by reducing time in housework and preserving time they spend with their children. Fathers have made little change in their allocation of time in

housework but have increased the time they spend with their children. But on the whole, there is still an unequal division of labour in the home with mothers performing more than an equal share of household work and childcare, regardless of their hours in paid work. This unequal division of labour may be a cause of perceived time pressure for mothers and fathers in dual-earner families.

With the rise of lone mother families, who are increasing their participation in part-time work, there is an increasing sub-population of parents who are juggling paid work, household work and childcare alone.

Apart from demographic changes, changes in the nature and distribution of paid working hours may also be contributing to the rising sense of time pressure. In particular, the rise in long working hours serves to increasingly limit time available for families and this is especially an issue among fathers. There is also a diversification of working hours in the form of part-time and casual work. While this represents greater flexibility, it usually means reduced job security and entitlements. Diversification of work hours also means that more workers are engaged in work at night, on weekends and at home increasing the likelihood that paid work hours interfere with family time. In addition, the experience of work has intensified with jobs more likely to be characterised by a faster pace and greater psychological demands.

The experience of time pressure may arise from a culture where ‘being seen to be busy’ is an indicator of social status. Australian parents are living within the context of a cultural norm or expectation of a life full of activity and consumption for themselves and their children. The extent to which parents are busier than they need to be to meet the necessities of life, as opposed to cultural expectations of busyness, is referred to as the ‘time pressure illusion’.

Having examined some of the drivers of objective and subjective time pressure among parents with young children, we now turn to review the evidence in regards to the effect of time use and perceptions of time on the wellbeing of parents. This includes an overview of how parents use time and perceive their time in the Australian context.

1.4 Time in Paid Work and Parental Wellbeing

Time spent in paid work is a key component of parental workload and as such, their objective time pressure. How parents feel about their paid work hours, expressed as a preference for fewer hours or a high level of dissatisfaction can be viewed as a high level of subjective time pressure. This section reviews patterns of parental time spent in paid work hours; the preferences and dissatisfaction that parents report in regard to their paid work hours and how these patterns and preferences, with an emphasis on excessive paid work hours, impact on parental wellbeing.

1.4.1 Fathers' extended hours and mothers in part-time work

Extended hours of paid work (45 hours or more per week) are common among Australian fathers with young children. Among employed fathers in the Longitudinal Study of Australian Children (LSAC) sample in both cohorts, just over half worked 45 hours or longer per week while over 20% of fathers worked 55 hours or more per week. On average these fathers worked 46 hours per week (Baxter, Gray, Alexander, Strazdins, & Bittman, 2007a). On the whole, fathers do little to reduce their paid work hours with the presence of young children in the household (Baxter et al., 2007a). Working overtime is commonplace. In 2003, half of all fathers with dependent children <12 years of age reported working regular overtime (Australian Bureau of Statistics, 2003d). Fathers' long hours of paid work are generally considered one of the primary indicators of objective time pressure in families.

In contrast, the paid work hours of mothers with young children are mainly characterised by varying hours of part-time work. Hours in paid work increase with the age of the youngest child. In June 2004, 45% of mothers in families whose youngest child was under five were employed, 31% of mothers were part-time and 14% were full-time (Australian Bureau of Statistics, 2006c). Among employed mothers, rates of part-time employment are greatest when the youngest child is under the age of two (Baxter et al., 2007a). In Australia, the average paid work hours of mothers in couple and single families are very similar (Baxter et al., 2007a; Drago & Tseng, 2003). For the majority of employed mothers, paid work hours are short and prone to adjustment. Total hours of paid work alone are not likely to be a major

cause of objective time pressure among mothers; it is paid work in combination with unpaid work that is the concern.

Within couple families, there is a diversity of paid work hour arrangements between mothers and fathers. In 2004, the paid work hours of mothers with infants in the LSAC cohort did not vary with the paid work hours of the father within the couple (although mothers worked longer when fathers were not employed). When the youngest was aged 4-5 there was a tendency for mothers' hours to decrease with increasing work hours of fathers (Baxter et al., 2007a). So within couples, the paid work hours of mothers is not largely influenced by the paid work hours of her partner and only when the children are reaching pre-school age.

1.4.2 Most parents prefer paid work in moderation

Well over a third of parents are not happy with their paid work hours, especially those in full-time employment. In 2003, 38% of full-time fathers and 40% of full-time mothers with primary school children in Australia would have preferred to work fewer hours, if they could choose and taking into account how that could affect their income (Australian Bureau of Statistics, 2006c). Preference to work fewer hours is higher when the children are younger. In 2003, half of full-time mothers with children 0-4 had a preference to work fewer hours. But between 1996 and 2003, there was also an increase in the preference of mothers with young children wanting more work, especially for those with short part time hours (1-15 hours per week) (Qu & Western, 2005). Family context is important. Employed lone mothers are more likely to prefer more hours than employed mothers in couples, especially when they are working short part-time hours (Baxter et al., 2007a; Drago & Tseng, 2003; Qu & Western, 2005). Parents are most satisfied with moderate paid work hours. From the LSAC sample, mothers working 16-24 hours and fathers working 35-44 hours were the least likely to want to change those hours (Baxter et al., 2007a).

1.4.3 Long hours in paid work have a mixed impact on parental wellbeing

With the rise in the average number of hours worked in full-time jobs there is concern about the effect of long hours on personal and family wellbeing. However, findings from literature reviews examining the effects of hours of paid work on the

wellbeing of workers are mixed. Long hours in paid work can have both negative and positive effects. Negative effects include stress, fatigue, sleep-loss, burnout, work-to-family conflict, poor health habits, relationship and long-term health problems. Mixed results are in part a function of different research methodologies, the likelihood of a non-linear relationship and the wide range of wellbeing outcomes studied. These authors concur that further research is required on the potential moderating and mediating factors in the relationship between working hours and wellbeing including age of the employee, the type of job, job complexity, choice in the decision to work long hours, and distinctions between normal long hours, shiftwork and overtime (Barnett, 1998; Pocock, 2001; Sparks, Cooper, Fried, & Shirom, 1997). Often jobs with the longest working hours are those with the greater complexity. In her review, Pocock concludes the weight of evidence is towards the negative consequences of long working hours. “This effect is especially pronounced where jobs are demanding and pressure and extended hours exist in combination – as the literature suggests they frequently do” (Pocock, 2001, p. 3).

Research among Australian fathers (dependent children < 15) in 2001 also revealed a limited independent effect of long work hours on their wellbeing, dependent on the measure. In particular, working more than 48 hours per week was associated with significantly lower vitality (tiredness) and a greater interference of work with family life. However, fathers’ paid work hours was not related to ten other indicators of their wellbeing: overall satisfaction with job, partner report of relationship satisfaction, life satisfaction, parenting stress, general health (SF-36), mental health (SF-36) and the positive effect of work on family and on self (Gray, Qu, Stanton, & Weston, 2004). While long hours in paid work hours seem to have limited independent effect on personal and family wellbeing, considering fathers with children of any age underestimates the demands of younger children and the associated domestic workload.

With that in mind, it is likely that the health and wellbeing effects of long hours in paid work are intensified when children are young. In 2004, among parents with infants and pre-school children from the LSAC sample, moderate paid work hours was associated with higher personal and family wellbeing on a raft of measures. In particular, employed mothers working under 25 hours per week had better self-rated

health, fewer life difficulties, less problems coping, lower psychological distress, fewer arguments with their partner, higher relationship quality, more work-to-family gain, lower work-family strain and lower time pressure compared to mothers working 35 hours or more per week. On all of these measures apart from partner arguments and relationship quality, fathers had the most favourable outcomes at 35-44 hours per week and least favourable at 55 hours or more per week (Baxter et al., 2007a). The difference between these findings and those of Gray et al, suggests that the younger the age of children in the household, the more likely it is that long hours of paid work *per se* will have an impact on the wellbeing of fathers. In reference to the broader reviews, moderating factors in the paid work hours-wellbeing relationship, such as job conditions, are likely to be more critical at this stage of life.

1.4.4 Being satisfied with work hours matters for positive wellbeing

Satisfaction with paid work hours is strongly positively associated with positive wellbeing. In the Australian study of working fathers, satisfaction with their hours of work was positively related with eleven of the wellbeing measures. Furthermore, of fathers who were highly satisfied with their working hours, those who worked on average 60 or more hours a week reported higher wellbeing than fathers working a standard (35-40 hours) week (Gray et al., 2004). In a study of Australian working women (45-50) from the Women's Health Australia (WHA) Project, physical and mental functioning (as measured by the SF-36) was better among women who were happy with their hours of work compared to women who would either like more or less hours of work, regardless of their paid work hours. The lowest mental functioning scores were observed for women who wanted fewer hours (Warner-Smith & Mishra, 2002). From the LSAC study, employed mothers and fathers had higher levels of psychological distress when they preferred fewer or more hours compared to those who were preferred the same hours. Fathers who preferred fewer or more hours also reported lower self-rated health (Baxter et al., 2007a). The paid work hour preferences of parents are a strong indication of time pressures.

1.4.5 Summary of evidence - paid work hours and parental wellbeing

On the whole, fathers tend to work long hours in paid work while the paid work hours of mothers varies with the age and number of children, with most mothers working short part-time hours. Broadly there is a preference for moderate hours, 15-

24 hours per week among mothers and 35-44 hours per week among fathers. Parental preferences for less work hours generally increase with their hours of paid work. Working long hours in paid work is not necessarily bad for the health and wellbeing of parents but it depends on a variety of factors including their family circumstances, and the nature and quality of their job. It is likely that within the context of families with young children, the negative impact of increasing hours of paid work on parental wellbeing is exacerbated. Being satisfied with paid work hours is positively associated with a raft of wellbeing indicators including higher levels of general life satisfaction, relationship quality and physical and mental functioning. Across domains of time use, most is known about paid work.

1.5 Time in Household Work and Parental Wellbeing

Having found that parents with young children prefer moderate hours (full-time for fathers and part-time for mothers) and that these hours are generally associated with higher levels of wellbeing, we now turn our attention to the time that parents spend in household work. As with parental time in paid work, evidence is reviewed around objective time pressure in the form of relatively long hours of household work, and around subjective time pressure as measured by reports of perceived inequity in household work, and stated preferences for time with children.

1.5.1 Mothers do more household work than fathers

Mothers spend more time per week on household work than fathers. In 1997, among Australian families with the youngest child aged 0-4 years old, it was predicted that mothers (coupled and lone) averaged around 4.3 hours per day and partnered fathers averaged around 2 hours per day in household work (housework, shopping and maintenance), or about 30 and 14 hours per week respectively. Notably, in households with a pre-school child, lone mothers do an almost identical amount of household work to mothers in couples (Craig, 2005). These figures do not take account of employment status or paid work hours, which constrain the amount of time that mothers and fathers spend on household work. Among full-time employed parents with children up to the age of 15 in 2006, mothers still averaged almost twice as much time in household work than fathers (Australian Bureau of Statistics, 2006a). In general, the gender role attitudes of men have been shown to influence the

amount of housework they undertake. Men with a liberal gender role attitude tend to perform more housework than those with a more conservative attitude (Baxter, Hewitt, & Western, 2005).

1.5.2 Inequity in household work is accepted as fair

So far we see that mothers are spending more time doing the housework than fathers but these hours are constrained by the amount of time mothers spend in paid employment. In this section, how parents feel about their time spent in household work is now examined. The main way in which perceptions about housework have been examined are via studies about fairness in the domestic division of labour.

Reviewing international evidence on perceptions of fairness in household labour from the 1990s, Scott Coltrane found broadly, although women still perform about two-thirds of household labour, only about one third rate the division as unfair. The summed evidence shows a weak association between the actual division of household labour and perceived fairness within couples. Among other things, ratings of fairness were related to employment hours, education and gender ideology although research findings on the nature of these relationships are mixed. For example, women's perceptions of unfairness tend to increase with their hours of paid work whereas men's perceptions of unfairness have been shown to both increase *and* decrease with their hours of paid work. Some studies have show that a higher education level of both spouses is associated with the perception of greater unfairness as is a more egalitarian gender attitude. Perceptions of fairness, especially among women, also relate to the symbolic nature of housework ("representing love, caring or appreciation") whereby a smaller contribution and positive intent can be seen as sufficient. However, Coltrane concludes that the biggest predictor of a wife's perceived fairness in the division of labour is the proportion of housework contributed by her husband. It is especially his contribution to routine tasks such as cooking, cleaning and washing that seem to count towards fairness the most (Coltrane, 2000).

The acceptance of an unequal division of household labour as being fair and the importance of the male's contribution to perceptions has also been observed among Australian families in the past decade. In 2001, among Australian couples, men who

reported doing their fair share of housework averaged 14 hours less than their partner per week in estimated housework hours, while women who reported doing their fair share of housework averaged 11 hours more per week compared to her male partner (de Vaus, 2004). In another analysis of Australian married couples using HILDA data, the growing perception of unfairness in housework was weakly correlated with their own hours in household work (stronger among men) but wives' perceptions of unfairness also grew with the weekly household hours contributed by husbands (Craig & Sawrikar, 2007). Among Australian parents of young children from the LSAC study, the perception of fairness in domestic work among mothers was mostly unrelated to her own paid work hours but the sense of unfairness grew with her partners paid work hours (Baxter et al., 2007a).

Furthermore, there is a large gap between attitudes towards the equal division of household labour among men and women and what is actually occurring within Australia households. In 2002, 91% of mothers and 86% of fathers indicated a high level of agreement with the (somewhat leading) statement 'If both partners work, they should share equally in the housework and care of the children' (Fisher, 2002). In the same year, dual-earner couples with "egalitarian hours" in which hours of work, housework and care for the children are shared equally represented one fifth of Australian dual-earner couples (Drago & Tseng, 2003). Social attitude indicators suggest that for most Australians, all things would be equal if they could perhaps underlining the importance of structural barriers that prevent mothers and fathers from equally sharing the load. The general acceptance of an unequal division as 'fair' indicates the adaption to a situation that is outside the control of individual parents, although at the end of the day most probably contributes to a greater sense of time pressure.

1.5.3 Doing more household work is a bit depressing

This section now looks at the relationship between time spent in household work and wellbeing, that is, actual or reported time use rather than the division of household work in a couple. There are only a few studies that address this question, and to the best of knowledge, none with specific respect to the wellbeing of parents with pre-school children and none within the Australian context.

Evidence suggests a significant but small detriment to adult self-reported health and depression of increasing hours of household work. In one of the few studies to use time diary data, increasing hours of housework had a negative effect on the self-reported health of adults (Bird & Fremont, 1991). US studies have detected a significant linear effect of increasing hours of household work on depressive symptomology (CES-D scale) among partnered men and women (Glass & Fujimoto, 1994), and among mothers and fathers of children under the age of 18 (Cunningham & Knoester, 2007). In both these studies, each increasing hour of weekly household work was associated with a 0.02 increase on the depression scale, a very small effect. In contrast, Bird found no direct independent association between estimated hours spent on total household tasks and depression among US adults but did find an increase when using a squared term for household labour. This was interpreted as housework hours having little effect at lower household hours but becoming increasingly detrimental at high levels, i.e. an effect size of 0.10 at 50 hours or more per week (Bird, 1999). A further study among mothers or fathers with teenage children found no significant linear relationship between time in household chores and depression (Voydanoff & Donnelly, 1999). It is quite logical that as with paid work hours, it is especially long hours of household work that begin to impact on wellbeing.

It is perhaps more informative to concentrate on the effect of household hours on wellbeing within more time-pressured households, especially dual-earner families. In a US sample of employed adults (not necessarily in couples) working 30 hours or more per week, 10 hours or more per week in household work compared to fewer hours was associated with greater depression among women but not men (Roxburgh, 2004). In a Canadian sample of parents with school-aged children (aged 5-14), increasing hours of household work held a low but significant negative correlation with wellbeing and a positive correlation with stress and time pressures among mothers only (Hilbrecht, 2009). Overall this equates to minimal evidence but is likely that the effect of actual household hours on wellbeing is compounded in families where time for household work is constrained by the paid work hours of both partners.

1.5.4 Perceived unfairness in household work lowers wellbeing

Having seen that increasing household hours may impact on wellbeing depending on the circumstances, evidence of the relationship between a real or perceived inequity in the division of household labour and the wellbeing of parents is now reviewed.

A number of studies have found that an actual unequal division of domestic labour (i.e. women performing more than men) increases depression, mostly among women. In particular, it is the relatively larger amounts of routine and repetitive housework performed by women compared to men in couples that is most likely to lead to their depression. The more equal sharing of housework between partners leads to a greater sense of fairness, greater marital satisfaction and less chance of women, and sometimes men, being depressed (Coltrane, 2000). In working class couples it has been shown that as women increasingly bear the load of traditional female-type tasks (e.g. washing, cleaning and cooking) both partners report greater disagreements in the couple. Other studies have suggested that men's participation in 'emotional work' within the family mediates the relationship between actual division of labour on the one hand and marital satisfaction or psychological wellbeing on the other hand (Shelton & John, 1996).

Regardless of the actual division of labour, a perception of unfairness in the division of household tasks has been repeatedly linked to higher depression, greater marital conflict, lower marital satisfaction and divorce mainly among women. Perceived unfairness has not been linked to depression or other wellbeing outcomes among men but some studies have shown that the marital satisfaction of men is highest when they do what they consider to be their 'fair share'. Other studies have found that marital conflict is avoided among spouses whose perceptions of fairness are comparable (i.e a tendency to agree about what is happening in the household) and among those who hold a more traditional gender ideology (Coltrane, 2000). The 'transition to parenthood' with the birth of a first child, in particular, is marked by intrapersonal challenges, a decline in marital dissatisfaction and changes in the division of labour (Glade, Bean, & Vira, 2005). Further studies are now reporting that wives are more likely to divorce when they perceive to be doing more than a fair share of routine housework tasks, than if their share was fair. This was found in a

study of Australian married couples (Craig & Sawrikar, 2007) and dual-earner married couples in the US (Frisco & Williams, 2003).

1.5.5 Summary of evidence - household work and parental wellbeing

With young children in the household, the load of household work is high and mothers are carrying the majority of this load, with relatively few families hiring help. To some extent, this inequity is considered to be fair among men and women. The perception of fairness is tied to multiple factors. For example, parents with a higher level of education or with an 'egalitarian' gender ideology are more likely to report the division of household labour as unfair. Among coupled mothers in particular, her sense of fairness increases with the contribution of her partner to the housework, especially to routine tasks such as cooking, cleaning and washing. Studies that have linked household hours with wellbeing show a small negative effect of increasing hours on various indicators including depression but it is likely that the effect is especially notable at the higher end of hours worked and is sensitive to the context of families. As a subjective indicator of time pressure in couple families, the perception of inequity in household work has been repeatedly linked to poor marital and wellbeing outcomes.

1.6 Time with Children and Parental Wellbeing

Having looked at the distribution of and perceptions about time in paid work and household work, this section turns to parental childcare. Naturally, the time that parents spend with their children and the association between parental childcare and personal wellbeing is heavily dependent on time spent in paid work.

The time that parents spend with their children represents different levels of care and a large range of activities. These activities have been categorised into four broad groupings: (1) Interactive care e.g. teaching, telling stories, playing games, talking and discipline (2) Physical and emotional care e.g. feeding, bathing, cuddling, dressing (3) Travel and communication e.g. travel to school and other activities, waiting for a bus, discussion with others about children (4) Passive childcare e.g. supervision of play or monitoring sleeping infants while doing housework. The importance of these activities for children varies by the child's age and represents

different demands on the time of parents. For example, passive care can often be performed as a secondary activity to housework while direct care demands the full attention of parents (Bittman, Craig, & Folbre, 2004).

1.6.1 The impact of employment and the gendered nature of time with children

Although trends show that fathers are spending more time with children, on average, mothers spend 2-3 times more hours per week with children than fathers in primary activity, or combined primary and secondary activity (Australian Bureau of Statistics, 2006a). Most of the secondary care time was in minding children (91% for mothers and 95% for fathers). Furthermore, parental time spent in the care of children is qualitatively different between mothers and fathers. Based on 1997 Australian time diary data from partnered mothers and fathers (aged 25-54) with a child aged under 12, Craig demonstrated that the physical care of children accounted for over half of the mothers primary child care activity but about a third for fathers. Conversely, the average proportional time spent in the primary interactive care of children (including play) was almost double that among fathers compared to mothers (40% and 22% respectively). Furthermore, mothers were more likely to be undertaking another task at the same time as their primary interactive care (i.e. “multitasking”) and fathers only had sole responsibility for their children less than 10% of the time (Craig, 2006). So not only do mothers spend greater time caring for children but also they are more responsible for the overall care of children, their physical care in particular, and undertake more tasks at once.

While employment reduces the time that mothers spend with children, the reduction is not dramatic or proportional to their hours in paid work. In 1997, full-time employed mothers spent on average 10 hours per week less time in primary childcare activity than non-employed mothers, while part-time and full-time mothers had similar hours (Craig, Bittman, Brown, & Thompson, 2008). Using a broad indicator of parental involvement with children (making no distinction between primary and secondary activities) within the LSAC data, it was shown that on a typical weekday non-employed mothers averaged four hours more per day than full-time employed mothers (Baxter et al., 2007a). Regardless of how childcare is measured, employed mothers are retaining time with children and evidence suggests that non-parental care

tends to substitute the less direct forms of maternal care rather than more important developmental activities (Bittman et al., 2004). Considering family structure, there is no difference in time spent with children between couple and lone mothers once adjusting for employment status, (Craig, 2005). However, there is a difference in the nature of the childcare. Mothers in couples spend more time in direct care activities with children while lone mothers spend more time in supervisory activities. This is presumably due to the presence of a partner to assist with housework (Craig et al., 2008). The result is a greater deepening or intensification of unpaid work activities (household work and childcare) among lone mothers.

One way that mothers retain time with children is in the re-distribution of childcare hours. The time that employed parents of pre-schoolers spend with children is mostly affected on weekdays with parental hours at work having little impact on time with children on weekends (Baxter, Gray, & Hayes, 2007b). It is evident that full-time employed mothers with pre-school children are trying to compensate on weekdays by spending more time in childcare activities early in the morning (6.30-8.00am) and late evenings (8.30-9.30pm), compared to non-employed mothers. In doing so, employed mothers are squeezing their time for work and childcare by sacrificing time for themselves in 'recuperative activities'. Employed mothers caught up on some personal care, sleep and household work on the weekend but had no extra childfree leisure time than during the week (Craig, 2007). Ironically, such rescheduling may also be eroding the sleep time of children resulting in overtired children and employed mothers during the week.

1.6.2 Employed parents still prefer more time with their children

Despite the growing body of work describing how parents spend time with children and the impact of employment, there is little research within the Australian context on how they feel about time with their children.

From the little evidence available, Australian parents would prefer to spend more time with their children. In an Australian survey of 1000 fathers conducted in 1999, 68% said that they did not spend enough time with their children but saw significant barriers associated with the workplace such as the expectation of longer working hours and inflexibility (Russell & Bowman, 2000). In a small qualitative study of

parents and their children (aged 8 and over) from 47 Melbourne families, just under one third of all parents, and about two-thirds of parents working full-time said they would like more time with their children. Parents expressed a desire for both direct and focused time with their children as well as unstructured time. About half of all children wished for more time with their parents but the preferences of parents and children for more time did not automatically concur (Lewis, Tudball, & Hand, 2001). In another qualitative study of 93 Australian students in Year 6 and Year 11, a consistent message was the children's preference for parental time over money generated by long hours in paid work (Pocock & Clarke, 2004).

International studies confirm a large majority of parents would like more time with their children, especially employed parents, and fathers more than mothers. In a 1997 US sample of employed coupled parents with children up to the age of 18, Nomuguchi found that 64% of mothers and 71% of fathers reported feeling not enough time with their children (Nomaguchi, Milkie, & Bianchi, 2005). During 1999-2000, about 40% of all US parents (children under the age of 18) reported 'too little' time with all their children, but these proportions were higher in regards to time with their youngest child; higher for fathers compared to mothers (about a half of fathers and a third of mothers); higher for single parents, and increased with paid work hours (Milkie, Mattingly, Nomaguchi, Bianchi, & Robinson, 2004). Yet another study of employed married parents (children under the age of 18) in Ohio 1999 found that less than a quarter of respondents were happy with the time (amount or quality) they spent with their children i.e. they would not change anything. Specifically, 46% of fathers and 34% of mothers mentioned that they would like more time with their children. Other things they would change in regards to time were to reduce role interference or spend their time with children at a slower pace and to improve the quality of time (Roxburgh, 1996).

Values and attitudes towards parenting and gender roles guide the amount of time spent with children. As De Vaus notes from the Russell survey of fathers, while 96% believed that mothers and fathers had equal responsibility in bringing up children it did not mean that their parenting roles were the same. Two-thirds of fathers thought that mothers were better nurturers and saw that their biggest roles were as breadwinner, and in teaching socialization and discipline (de Vaus, 2004). As we

have seen, perceived equity does not necessarily mean equal time. Gender based values about specific dimensions of involvement with children has implications for time allocation and feelings of too little time with children, especially in the early years. If parents are not doing the specific things that they value or consider essential to their parental role, this is likely to contribute to feeling not enough time with children.

1.6.3 The wellbeing effects of time with children depend on the activity

Examining patterns of parental time with children has shown that although employment has an impact, mothers in particular, are reallocating time from personal care, sleep and household work to retain time with children. Still, the evidence would suggest that generally, both mothers and fathers would prefer more time. This section now turns to the relationship between parental time with their children and its association with parental wellbeing.

As with the previous section on household work, the relationship between hours spent caring for own children and the wellbeing of parents has not been well studied at a population level. There are both positive and negative aspects to caring for children with the potential to increase or decrease personal wellbeing depending on the type of care (e.g. direct care, play, supervision) and other resources available to parents. Historical time diary data from the United States shows that playing with children is rated highly as an enjoyable activity, while childcare is not (Robinson & Godbey, 1997, p. 242). The association between parental childcare and parental wellbeing must be considered in light of evidence that long hours in paid work, feeling busy, stressed and tired will have a direct impact on the quantity and quality of time that parents spend with their children (Pocock, 2001).

The limited evidence suggests that the younger the children, the greater the likelihood of lowered parental wellbeing due to more time in physical and emotional care. Among parents in general, frequency of time in parent-child activities (leisure activities away from homes, working on a project or playing together at home, having private talks or helping with reading or homework) reduced depression (Cunningham & Knoester, 2007) but had no effect on depression among married parents of children aged 10-17 (Voydanoff & Donnelly, 1999). In contrast, greater

amounts of time spent in the physical and emotional care of primary school children as measured by time diary data (primary activity only) were correlated with a decline in perceptions of wellbeing (index of wellbeing), higher time pressure (time crunch index) and greater stress among mothers and fathers. The correlations were stronger among fathers. In contrast, there was no significant relationship between time spent in the interactive care of children and any of the three measures (Hilbrecht, 2009). Finally, among US mothers of children aged under 3 years old in 2000 (N=1747), mothers who reported 'too much time' with children were 3.5 times more likely to have poor mental health (score < 65 on the 5-item Mental Health Inventory) compared to those who reported 'the right amount'. Mothers who reported 'too little time' with children were also more likely to have poor mental health but this was not significant in multivariate analysis (Mistry, Stevens, Sareen, De Vogli, & Halfon, 2007).

1.6.4 Perceived unfairness in share of childcare creates distress

Fewer studies have looked specifically at the division of childcare, as distinct from household labour. As with the wellbeing effects of time with children, it may be that the division of specific aspects of childrearing has a greater influence on wellbeing than time spent with children. Milkie et al interviewed a sample of 234 married parents with children under the age of 18 (about half had children under the age of 6). This study calculated a number of gap indicators of the discrepancy between the actual and ideal division of childrearing across six parenting domains (discipline, emotional support, play, monitoring, caregiving and financial support). Not all discrepancies predicted wellbeing in the expected way. Among mothers only, self-reported stress was higher when they said fathers had less than the ideal amount of involvement in play and discipline, but stress was significantly lower when they thought fathers had less than ideal involvement in emotional support (Milkie, Bianchi, Mattingly, & Robinson, 2002). In contrast, an Australian study of parents with young children found that an increasing likelihood that the respondent did all the emotional work was associated with an increase in psychological distress (CES-D scale), an association that was explained by indicators of marital love and conflict (Strazdins & Broom, 2004). In this study, neither relative contribution to paid work, housework or childcare was independently related to psychological distress of parents. The increased distress of parents with a greater load of emotional work in

the Strazdins study may be due to the younger age of children who require more intense emotional support.

1.6.5 Summary of evidence - time with children and parental wellbeing

The actual time that parents spend with their young children has been well documented. As with hours in household work, mothers spend more time with children than fathers and even in the presence of equal paid work hours, perform more than an equal share. Employed mothers are finding ways to preserve time with their children. There is a relative reduction in the hours that mothers spend with children of about half an hour for every hour in paid work. Still, a large proportion of parents, especially employed parents, would prefer to spend more time with their children. Australian fathers cite significant barriers in the workplace such as long working hours and inflexibility. Evidence suggests that on the one hand, greater time spent in the physical and emotional care of young children may reduce wellbeing but on the other, feeling to have too little time with children can lead to distress. There is no evidence that time spent interacting and playing with children is associated with parental wellbeing.

1.7 Free Time and Parental Wellbeing

In budgetary terms, free time is the time that is left over after the work (contracted and committed) of the day has been done, including care of children. It is potentially the time that parents can rest, unwind or take part in childfree leisure activities.

Traditionally, the weekend, and Sunday in particular, is predominantly about leisure time, but as paid work hours become increasingly non-standard and household work spills over from the week, leisure time is challenged.

So far, in respect to the links between time spent in “work” activities and parental wellbeing when there are young children in the home, there is evidence of higher wellbeing with reasonable hours of paid work and in couple families, when the division of housework is perceived as fair. The relationship between hours in household work or time with children and parental wellbeing is difficult to gauge. Broadly, there is an emergent theme of higher wellbeing when time is distributed consistent with preferences. This section now reviews what is known about the

allocation and quality of parental free time, preferences for free time and the relationship between free time allocation and parental wellbeing.

1.7.1 The reduced quantity and “quality” of parental free time

The greatest reduction in adult free time is when there are young children in the household, especially among mothers. Of all selected living situations, Australian parents with dependent children average the least free time per day. By family structure, coupled mothers average less free time than lone mothers (Australian Bureau of Statistics, 1997). Women absorb more of the leisure reduction associated with parenthood than men in the household (Bittman, 2004). Unpublished Australian research shows that regardless of what day of the week it is, mothers have less total daily free time than daily time in unpaid work while for fathers, the reverse is true (Bloomfield, 2003b). Logically, young children impact on the free time availability of adults and this observation, along with a greater impact on women’s free time is evident in US studies (Mattingly & Bianchi, 2003; Sayer, 2005).

Children also change the nature of parental free time, as there is a qualitative shift from adult leisure time towards family leisure time. Time diary data from the 1992 Australian TUS allowed for the examination of ‘adult leisure’ (i.e. no secondary activity recorded or a combination of primary and secondary leisure without the presence of children) in the population. On the whole, parents of children up to the age of 10 spent proportionally more of their leisure time with children. While childless adults (aged 20-59 in 1992) averaged 42 hours per week for men and 39 hours per week for women of adult leisure time, amongst parents with infants (< 2 years), fathers and mothers averaged about 7.5 hours and just over 2.5 hours per week of adult leisure time, respectively. However, gender differences in the quality of adult leisure time were not significant when the youngest child was two years and over (Bittman & Wajcman, 2004). In a similar analysis among employed American adults, Mattingly & Bianchi found that the presence of a child under the age of six significantly reduced the adult leisure time of women by one hour per day but had no significant effect among men (Mattingly & Bianchi, 2003). Therefore, mothers of young children have a different quality of leisure time to fathers because this time is more likely to be undertaken concurrently with or interrupted by household work activities or in caring for children. Importantly, many parents may perceive leisure

time with their children as highly enjoyable, and fathers in particular, may equate time with children as “family time” rather than work (Daly, 1996).

Mothers’ leisure time may also be of a reduced quality compared to fathers due to greater fragmentation of this leisure time. Fragmentation refers to the experience of leisure time that is broken up into a greater number of episodes and/or of shorter duration. Even when the amount of leisure time is similar, it is proposed that those who experience shorter episodes are less likely to receive the same wellbeing benefits as those with more sustained periods of time in leisure (Bittman & Wajcman, 2004). Bittman et al found that in 1992, Australian women had more fragmented leisure time than Australian men. Young Australian women (18-23), through focus group consultation, spoke of their leisure time as being fragmented; finding time for leisure was stressful but at the same time, lack of free time contributed to their poorer health. Additionally, they referred to the negative experience of having too much spare time (Cartwright & Warner-Smith, 2003). Others, too, have found a greater impact of young children on the fragmentation of women’s leisure time compared to men, in coupled Dutch families (Peters and Raaijmakers, 1998) and among employed American adults (Mattingly & Bianchi, 2003).

Employment is a key restrictive factor and full-time employed mothers are at the greatest risk of restricted and reduced quality leisure time. Logically, employment hours limit the free time of mothers and fathers but among mothers in particular, the restrictive effect of paid work is exacerbated by their greater contribution of household work and childcare (Bittman & Wajcman, 2004). Being a married full-time employed mother of a pre-schooler, aged 45-54 represents the extreme of time poverty, as indicated by their limited quantity of free time (Bittman, 1998). Lyn Craig estimated that full-time employed Australian mothers with at least one pre-schooler in the house averaged almost zero childfree recreation time in 1997. Even the use of non-parental childcare did nothing to add childfree recreation time to a working mother’s day (Craig, 2005).

1.7.2 Parents would prefer more free time

There is scant evidence in the Australian literature that documents parental perceptions about their amount of free time, although the relatively little free time that parents have compared to childfree adults implies that both parents would prefer more. As an aspect of Australians' life satisfaction, the feeling of being dissatisfied with their amount of free time is as prevalent and persistent as feeling dissatisfied with their financial situation (Headey, Warren, & Harding, 2006).

The US and Canadian experience suggests that a large proportion of parents are not satisfied with the time that they have for themselves. In a US sample of employed couple parents with children up to the age of 18, 79% of mothers and 61% of fathers reported that they did not have enough time for themselves. The reporting of a time deficit for self was significantly associated with parents own and partner's hours of paid work (Nomaguchi et al., 2005). In married and partnered people in the Canadian population aged 20-44, there was a dramatic difference in the proportion of women who say that they would like to spend more time alone when becoming a parent. It triples from 22% to 61% when comparing women with no children to those with a child aged under five, and is significantly higher than the proportion for fathers at 33% with a child aged under five (Zukewich, 1998). Although self-reported preferences for free time are a direct function of paid work hours, stated preferences will also be influenced by how parents like to spend their free time.

1.7.3 Increasing free time may improve parental wellbeing but is it enough?

As with any work activity, the health and wellbeing rewards of free time depend very much on how that time is spent as well as the amount of free time available. Furthermore, the degree to which the experience of free time will benefit parental wellbeing is interdependent with the experience of work. Once again, there is little population research examining the direct relationship between parental free time or leisure time and their wellbeing within the context of young families. In this section, broader knowledge in the field is reviewed.

In general, participation in physical and non-physical forms of leisure has positive benefits for physical and mental health. Regular participation in physical activity is a

protective factor against chronic disease while a sedentary lifestyle increases the risk of morbidity and mortality. Participation in physical and non-physical leisure activities is associated with a reduction in depression and anxiety, and increased psychological wellbeing and life satisfaction. The mental health benefits of both forms of leisure also include improved self-esteem and positive moods, and the facilitation of social interaction (Iso-Ahola & Mannell, 2004). But how much time is enough time? From a health promotion perspective, a minimum of 30 minutes of moderate-level physical activity each day is sufficient, and even this can be taken in smaller chunks for the same health benefit (Australian Government, Department of Health and Ageing, 2005). Although for some parents with young children, 30 minutes of free time may be difficult, it is the circumstances under which that free time is taken that will likely determine whether it is beneficial for health or not.

Parents who are stretched for time may take a more reactive approach to their own health and participation in leisure. Being “reactive” to health means not actively taking part in health promoting behaviours and only doing so when health is challenged. People who have a reactive approach to their health are less likely to perceive that their health is within their control. In contrast, those who are “proactive” believe that health is within their control and are more likely to engage in active lifestyles and health promotion behaviours. They are also more likely to be enthusiastic and enjoy their leisure activities. One reason that people become reactive is in response to a busy and stressful lifestyle dominated by work. In the context of this lifestyle, leisure becomes trivialised and even associated with guilt. At the end of the day if people are too mentally and physically tired to actively participate in leisure, then free time becomes a form of recuperation (Iso-Ahola & Mannell, 2004). So for parents, if their leisure time is reactive to feeling stressed and/or is constrained, it is unlikely to have the average health benefits. Under these circumstances, passive leisure such as watching TV may be more beneficial than active leisure.

While there is a vast literature on the health benefits of leisure, there is very little specific population research assessing the distribution of time to leisure activities and the wellbeing of parents. In a Canadian sample of parents with school aged children (5-14), a greater amount of leisure time as measured by time diary data was

correlated with enhanced perceptions of wellbeing (index of wellbeing), lower time pressure (time crunch index) and lower stress among mothers and a reduction in time pressure and stress among fathers. However, the correlations were stronger among mothers than fathers and the activity most linked with each of the measures was watching TV or DVDs, not physical activity (Hilbrecht, 2009). In another study of US dual-earner parents of children under the age of 18, increasing hours in free time activities was not associated with any change on the wellbeing indicators (Nomaguchi et al., 2005). This limited evidence suggests that, at least for parents with school-aged children, increasing amounts of leisure time improve wellbeing, and this need not be time in physical activity.

Likewise, there is little empirical research addressing the relationship between parental perceptions about the availability of free time and parental wellbeing. In the study by Nomaguchi and colleagues of parents in general, the perception of insufficient time for oneself was associated with a significant but small increase in psychological distress, lower life satisfaction (fathers only) and family satisfaction (Nomaguchi et al., 2005). This association may be strengthened among parents with young children. Lack of free time also impacts on couple relationships. Generally, Australians rate “lack of time” spent with their partner as one of the biggest negative influences on their relationship (Relationships Australia, 2006).

1.7.4 Summary of evidence - free time and parental wellbeing

Parents have relatively little free time when their children are young, especially mothers to the point of almost non-existence when they are employed full-time. Free time activities tend to be combined with other activities such as caring for children. If the US and Canadian experience is representative, both mothers and fathers would prefer more time alone but especially mothers. The impact of free time on parental wellbeing depends very much on how the time is spent. Active leisure is linked to positive effects on wellbeing. Time spent on passive leisure such as watching TV or playing video games may also have a positive impact but not if it leads to total inactivity. For some parents, the category of free time may be one where conceptually, the resource is never enough. That is, the condition of a minimum amount of free time to ensure quality of free time is never met. Under that light, the

fragments of free time that are gathered up over the week are unlikely to have any impact on wellbeing.

1.8 Self-Perceived Time Pressure and Parental Wellbeing

So far in reviewing the relationship between parental time pressures and parental wellbeing, the discussion has been organised around major categories of time allocation to paid work, household work, childcare and free time. It is important to remember that within these categories, the discussion has covered both time use and parental perceptions about the time they spend in that particular activity i.e. both objective and subjective components of time pressure. However, these subjective components, expressed, for example, as dissatisfaction with paid work hours are indirect measures of subjectively high time pressure. They refer to time spent in a specific activity.

In the introduction to the thesis, self-perceived time pressure was defined as the primary measure of subjective time pressure (see section 1.1.2) and this general reporting of being busy is the focus of this section. The ABS and LSAC studies both phrase this question as, “How often do you feel rushed or pressed for time?” In studies describing self-perceived time pressure, a high level of time pressure is commonly equated with reports of being *always* or *often* rushed or pressed for time.

1.8.1 Prevalence of self-perceived time pressure and its relationship to parental time use

At the population level, certain sociodemographic factors consistently predict variation in self-perceived time pressure. Australian and international studies show that being a woman, a parent with dependent children (especially young children), being employed, having a high level of education, and greater income/affluence are factors consistently associated with being frequently rushed or pressed for time (Australian Bureau of Statistics, 2006a; Gunthorpe & Lyons, 2004; Hamermesh & Lee, 2005; OECD, 2007; Robinson & Godbey, 1997, p. 231; Zukewich, 1998). One study has shown that within the context of full-time work, a higher level of education was only associated with greater time pressure among women, not men (Roxburgh, 2002). Conversely, a higher level of personal income served to reduce the time

pressure of Dutch female workers only (van der Lippe, 2007). There is also variation in subjective time pressure by human capital resources within the parent population. Among mothers and fathers with young children in the LSAC sample, being Australian-born, and having higher educational attainment were associated with higher time pressure. Mothers with a higher income, but not fathers, were more likely to report being rushed (Baxter et al., 2007a).

Self-perceived time pressure within couple and lone parent families. Compared to mothers in couples, lone mothers are more likely to feel the extremes of time pressure. From the aggregated cohorts in the LSAC data, 45% of couple mothers, 40% of lone mothers and 43% of all fathers with young children were often or always rushed for time (Baxter et al., 2007a). In a previous report comparing mothers with the youngest child aged 0-4, lone mothers were more likely than married mothers to ‘always’ feel rushed or pressed for time (34% compared to 20%). Although lone mothers have a lower total workload it is thought that domestic responsibilities are more intense without the help of a partner (Bittman, 2004). In a comparison of lone and couple mothers with children aged under 12 from the 1997 TUS, Craig found no significant difference in the perceived time pressure of couple and lone mothers once allowing for employment status and other individual and family characteristics (Craig et al., 2008). However, in each of the three mentioned studies, lone mothers were also more likely to fall in the ‘never’ rushed for time category than couple mothers suggesting a greater dichotomy of perceived time pressure in this group.

Perceived time pressure is not independent between partners in couples. An international study of time pressure found a significant correlation of partner’s reported time stress in each of the four countries studied (Hamermesh & Lee, 2005). This finding suggests that other factors relating to family process and acting simultaneously on both partners should be considered.

Employment, paid work hours and self-perceived time pressure. Employment status is a key factor associated with self-perceived time pressure, with parents in full-time employment the most pressured. Once again, this is illustrated with aggregated cohorts in the LSAC data. Among couple mothers, 38% of non-employed, 50% of

those in part-time work and 62% of those in full-time work were 'often or always' rushed for time. Among single mothers these figures were 34% of non-employed, 47% of part-time employed and 78% of full-time employed. Among all fathers, 23% of non-employed, 34% of part-time employed and 45% of full-time employed were frequently rushed for time. Once again, regardless of employment status, mothers are more time pressured but the relatively high pressure of full-time lone mothers is notable, although full-time employed lone mothers are few (Baxter et al., 2007a). Despite the differences by employment status, it is important to note that over a third of mothers and one-fifth of fathers not in paid employment report a high level of time pressure. Clearly there are other non-work sources of subjective time pressure.

Although Hamermesh and Lee found a correlation of perceived time pressure within couples, there was little spillover of one partner's individual and time use characteristics (hours in paid work, housework and childcare) on the other partner's perceived time pressure (Hamermesh & Lee, 2005). A crossover effect of partner's work hours on own time pressure was evident in the LSAC sample. Mothers in couples had significantly lower time pressure when the father was either not employed or when he worked short full-time hours (35-44 hours per week). Fathers in couples had significantly higher time pressure when mothers worked either 1-15 or 25-34 hours per week (Baxter et al., 2007a).

Household work hours, childcare hours and self-perceived time pressure. Much less is known about the impact of household or childcare hours on self-perceived time pressure. In population studies of time stress (adults with and without children), there is evidence of a very small increase in self-perceived time pressure or 'time-crunch' with increasing hours of housework, mainly among women (Beaujot & Anderson, 2007; Hamermesh & Lee, 2005; Roxburgh, 2002; van der Lippe, 2007). One study found that increasing hours of childcare increased the likelihood that men were time pressured but had no effect on the perceived time pressure among women (Hamermesh & Lee, 2005). Among employed women but not men it was shown that the amount of housework undertaken by their spouse reduced their own time pressure (Roxburgh, 2002). In contrast, among Dutch male employees from a non-random sample of 30 firms, a greater amount of domestic work performed by partners was associated with a higher level of perceived time pressure (van der

Lippe, 2007). In each of these studies, results are difficult to untangle from the general effect of the presence and number of children in the home.

As with paid work hours, the effect of unpaid labour on self-perceived time pressure is likely to be intensified among parents with young children. Among Australian employed parents with at least one dependent child, increasing hours in household work and childcare (physical and emotional care, playing or talking with children, teaching, helping, reprimanding) was significantly associated with an increase in self-perceived time pressure, even controlling for a significant rise in time pressure associated with hours in paid work and decreasing time in recreation and leisure (Bloomfield, 2003a). While this study blended all types of childcare, other evidence suggests that type of childcare performed may influence the degree to which parents are time pressured. In a Canadian sample of parents with school-aged children increased hours in the physical and emotional care of children was associated with an increase in time pressure (time crunch index), especially among mothers. In the same sample, an increase in time spent in domestic activities increased time pressure among mothers only (Hilbrecht, 2009). This remains an understudied area.

Free time hours and self-perceived time pressure. At the population level, increasing amounts of free time correlate with a reduction in the subjective sense of time pressure. Among Canadian employees, there was a direct negative correlation between daily free time (i.e. residual to total workload) and perceived “time crunch” on a composite index and the proportion reporting to be rushed (Zuzanek, 2004). The same reduction in perceived time pressure (by various measures) with greater amounts of daily free time has been observed in the Netherlands, with statistical adjustment for variation in perceived time pressure due to paid work hours (Peters & Raaijmakers, 1998) and among German full-time workers with adjustment for both paid and unpaid work hours (Garhammer, 1998). Unpublished analysis of time diary data among Australian adults (Bloomfield, 2003a) has evidenced the same. So broadly, regardless of the time adults spend working, greater free time reduces perceived time pressure.

However, the relationship between free time and self-perceived time pressure may differ for mothers and fathers. In a sample of US employed adults, a greater quantity

of free time, *more* daily episodes of free time, and a greater length in the longest episode of free time (with the latter two both indicators of fragmentation) were all associated with lower self-perceived time pressure among men, but not women. While men and women experienced less time pressure with more free time overall, the reduction in time pressure was not significant among women once adjusted for sociodemographic and social role variables (Mattingly & Bianchi, 2003). The finding of gendered differences in the relationship between free time and self-perceived time pressure was further supported by later research. This research showed that, in 1998, women's daily hours of free time had no significant association with feeling rushed, while each hour of free time reduced the odds of men feeling rushed by 8%, with adjustment for paid and household work (Mattingly & Sayer, 2006). As discussed by the authors, these results point to the differential impact of free time on the self-perceived time pressure of men and women due to a different quality of free time (other than fragmentation) associated with marital and parenting roles.

Furthermore, unpublished Australian research indicates that extra free time during the week, rather than the weekend, is critical for the reduction of perceived time pressure. In 1997, Australian employed married parents with greater time in recreation and leisure during the weekday were significantly less time pressured, while there was no such association on the weekend. Greater recreation and leisure time had a stronger effect on reducing the perceived time pressure of mothers. In contrast, day of the week differences in time spent in domestic work, childcare and social and community interaction did not account for differences in self-perceived time pressure. The results indicate the greater effect of domestic work and childcare in restricting the free time and increasing the sense of being rushed among employed parents, especially mothers, during the week (Bloomfield, 2003a).

1.8.2 Self-perceived time pressure as a measure of stress and wellbeing

The previous section discussed the prevalence and determinants of self-perceived time pressure. The purpose of this section is to now look at evidence on the relationship between self-perceived time pressure and other indicators of stress and wellbeing.

Self-perceived time pressure is associated with stress and life satisfaction. Robinson & Godbey reported a parallel growth in subjective time pressure and perceived stress of Americans, noting the similarity in the sociodemographic correlates of both (pp. 229-240). In the 1998 Canadian Social Survey, there was a strong correlation between subjective time pressure (based on a composite index from 1-100) and self-reported psychological stress ($r = .49$) in the employed population, indicating the similarity of these concepts in self-reported data. Additionally, increasing levels of subjective time pressure correlated with lower levels of job satisfaction ($r = -.20$), life satisfaction ($r = -.28$), satisfaction with work-family balance ($r = -.38$), satisfaction with the use of non-working time ($r = -.37$), self-assessed health ($r = -.13$), satisfaction with health ($r = -.20$) and more sleep problems ($r = .19$). Furthermore, subjective time pressure and stress had a similar negative correlation with self-assessed health, satisfaction with health and sleeping problems (Zuzanek, 2004). An association between the increasing perception of time pressure and short sleep duration (< seven hours per night) has also been observed using Australian data, but only among women, not men, independent of time allocation across work and leisure activities (Bloomfield, 2004). Despite the similarities, subjective time pressure and perceived stress *are not* one and the same.

Self-perceived time pressure has also been linked with mental health and depression. Using data from the 1996 baseline survey of the Women's Health Australia longitudinal study, Brown et al (2001) found that both physical and mental functioning (as measured by the SF-36) was lower in women who frequently felt rushed, significantly lower for mental functioning. Furthermore, the lowest scores were observed for women who were frequently rushed *and* expressed a desire for more leisure time (measured as active and passive). In a US sample of employed adults working 30 hours or more per week, an increase in time pressure (using a tempo-based scale) was significantly associated with an increase in depression (CES-D scale) among men and women. Overall, time pressure explained about 13% of variance in depression among men and women. Moreover, Roxburgh observed that higher rates of depression among women disappeared when time pressure was included in the multivariate model (Roxburgh, 2004).

Feeling time pressured has specifically been associated with job conditions and the experience of stress at work. Employed fathers in the LSAC sample with flexible hours, greater job security and job autonomy were significantly less rushed (Baxter et al. 2008). From the Finnish survey of the working population, Lehto found that feeling time pressured was associated with “fatigue, sleeping difficulties, tension and the feeling of not being able to cope” (p. 502) as well as physical symptoms such as neck and shoulder pain. Responses from informal interviews conducted in the design stages of the survey, established that a commonly perceived consequence of time pressure was stress and illness. Time pressure factors at the individual level included the inability to take breaks or rest periods, self-perceived risk of burnout as a result of work, quickening pace of work compared to past years, lack of time and tight time schedules, reducing job satisfaction, working overtime and receiving no compensation (Lehto, 1998). Likewise, in her qualitative investigation of “tiredness” within two manual professions, engineering and teaching, Karen Widerberg found that being overly tired was associated with the hectic tempo of their work, emotional irritation and difficulty relaxing at home. Widerberg argues that in those professions where “it is normal to have too much to do”, it is also likely that being tired and worn out it is accepted as normal (Widerberg, 2006, p. 115).

Time pressure may also be operating on the health of parents via unhealthy behaviours. Australian experts rank ‘busyness’ as one of the key social trends contributing to obesity in the country over the past 50 years. In a report based on a consensus of expert opinion (n=50), 26% ranked ‘increasing busy-ness and lack of time’ as the most important trend contributing to physical activity patterns (second only to ‘escalating car reliance’), and 21% ranked the same factor as the most important trend leading to food consumption patterns. Experts provided a range of ideas as to how this trend had manifested. “Some participants thought that lack of time was a perception while others noted the pressure on people to do more with their time, related to a need to achieve success, to comply with work demands, and to be a good parent by setting aside time for children’s activities” (p. 567). Time is increasingly valued. Driving is a better use of time than using public transport or walking, people don’t consider exercise a priority use of their time, people are tired at the end of the day, prefer sedentary activity and are more likely to use pre-prepared foods or takeaway (Banwell, Hinde, Dixon, & Sibthorpe, 2005).

1.8.3 Summary of evidence - self-perceived time pressure and parental wellbeing

Self-perceived time pressure is highly prevalent among parents with young children, especially mothers and those in full-time employment. More generally, it is also greater among those with higher levels of education and in more affluent households. While lone mothers are generally less time pressured, when they are in full-time work they are considerably more time pressured than coupled mothers in the same situation. Increasing hours in paid work have been conclusively linked to feeling more pressed for time, but there is inconclusive evidence around increasing hours in unpaid work. Self-perceived time pressure correlates with other well-established indicators of stress and coping such as work-family strain, job demands and perceived control. Feeling time pressured and a lack of time is associated with reduced participation in physical activity, poor eating habits and is partly to blame for growing rates of obesity. Higher time pressure is directly linked to lower mental and physical functioning, burnout, reduced life satisfaction and lower happiness. In qualitative work, it is associated with fatigue, sleeping difficulty, tension and physical pain.

1.9 The Impact of Other Parental Resources in the Relationship Between Time Pressure and Wellbeing

The preceding sections have generally evidenced more consistent associations between parental wellbeing and subjective reports of time pressure than with the distribution of parental time to major activities. If we conceptually relate this to a social determinants model of health, this is not surprising because subjective reports are more proximal in nature to measures of stress and wellbeing than parental time allocation (section 1.2.3). However, time is just one resource that families have at their disposal and it may be that the presence or absence of other family resources has an impact on the relationship between time pressure and wellbeing. The relationship of subjective time pressure with parental wellbeing may be due to or exacerbated by the presence of other chronic stressors. Or it could be that the relationship is not so strong for parents that are well resourced in other ways, such as having a high level of education, family income or social support (i.e. a moderating effect). This section turns to the evidence around these effects with attention to each

of the other four resource categories detailed in the Family and Community Resource Framework (Zubrick et al 2000). It is beyond the scope of this thesis to undertake a comprehensive review of each of these resources.

1.9.1 The impact of human capital and income resources on the relationship between time pressure and parental wellbeing

Authors in the field often cite the paradoxical nature of the relationship between time pressure, stress, health and wellbeing. That is, the most time-poor parents are often better resourced with higher levels of education, with better employment and finances, and in other ways that support health and wellbeing. Generally, more subjectively time pressured adults have a higher socioeconomic status (Hamermesh & Lee, 2005; Robinson & Godbey, 1997, p. 231; Zuzanek, 2004). Therefore, a higher level of human capital and income is thought to be protective of parental wellbeing under conditions of high time pressure. However, despite the large general body of literature surrounding human and financial capital, very little empirical research has modelled these resources as “buffers” against the wellbeing effects of time pressure.

Human capital. In the context of the Resource Framework, “human capital” refers to the parent (or caregivers) “knowledge, skills and experience about how the world works” (Zubrick et al., 2000, p. 25). The most commonly measured aspects of human capital are parents’ level of education, training and employment status. However, the concept of human capital also incorporates culturally acquired knowledge, beliefs, attitudes, values and traditions in general, and in respect to parenting and family life. Human capital resources may be used to enhance the wellbeing of children and parents in the family. The general knowledge around the link between major indicators of human capital and adult wellbeing is now summarised.

Education is broadly considered as one of the most important social investments for health. At least 60% of all Australian parents with young children have completed education beyond high school with just over a quarter obtaining some level of university education. Less than 15% of parents had left school after Year 10 (Zubrick et al, 2000). As an indicator of socioeconomic status, rising education levels have a consistent gradient with varying measures of health status, morbidity and mortality.

More education and training provides greater employment opportunity, wider choice of occupation and access to greater income. More highly educated people are more likely to adopt healthy behaviours, are more likely to act on health advice and to seek health services. In addition, better educated people have a higher sense of perceived control, more coping skills, higher self-esteem and are less likely to display hostility and a sense of hopelessness, all indicators of positive mental health (Mirowsky & Ross, 2003). So while more highly educated parents, especially tertiary educated mothers (Baxter et al, 2007) are more likely to report greater time pressures, they are also better equipped with potential resources for coping. It may be the smaller proportion of parents who leave school early and are highly time pressured who are the most at risk for poor health.

Being employed is broadly associated with more positive health relative to being unemployed, as reflected in measures of general health status, physical and mental health morbidity and mortality (Marmot et al 2006). A small proportion of Australian couple families with young children have neither parent in paid employment (5.9% when youngest is an infant; 4.5% when the youngest is aged 4-5) but this does not account for the substantial unemployment rates among lone mothers (Baxter et al 2007). As already reported, employment rates of mothers rise with the age of the youngest child (section 1.4.1). As a resource for health, employment can be a double-edged sword for parents. The potential health benefits of employment are not just through income but also via improved social networks, ongoing education and professional development, as well as a package of psychological resources. The potential threats to health include exposure to job-related stress, insecurity of tenure, excessive demands and low control. Jobs of low quality that expose employees to a number of psychosocial stressors can be as bad for health as unemployment (Broom, D'Souza, Strazdins et al., 2006; Marmot et al., 2006). Therefore, time pressure is potentially a product of negative employment conditions *or* potentially ameliorated by the presence of greater social networks and positive psychological resources. To put this in context, we must not forget that employed mothers consistently report to be more time pressured than those who are not.

Income. The resource category of “income” broadly refers to the balance of material resources available in the family including family income and its sources, assets,

debt, receipt of welfare, home ownership and financial strain. Income has long been considered a key indicator of how well families are managing and greater income resources improve the wellbeing and life chances of children (Zubrick et al 2000).

Income is an essential resource for families. As an indicator of socio-economic status, an increase in income is associated with an increase in health and wellbeing, or the 'gradient effect'. There are two types of mechanisms that are commonly described in the relationship between income and health. Families living below a pre-defined poverty line (a controversial topic in itself) may have inadequate income to meet a basic standard of living, so the negative impact on wellbeing arises from the lack of 'absolute income'. For other families, wellbeing may suffer due to a feeling of having less money compared to others ('relative income'). This latter process reflects a more subtle behavioural or psychosocial process of 'relative social comparison' (Marmot & Wilkinson, 2006). In rich countries like Australia, health and wellbeing is likely to be more closely related to relative income than absolute income. Accordingly, those with a higher income, while being more highly time pressured, also have greater capacity to purchase timesaving services and products in the home, and compare themselves favourably to those with less income. Therefore, among those with greater income, the relationship between time pressure and parental wellbeing may be weaker.

Only one study was found modelling the potential buffering effect of education and income resources on the relationship between time pressure and wellbeing. Roxburgh showed that higher levels of income moderated the impact of perceived time pressure on depression among employed (30 hours + per week) men and women in North America. Specifically, depression was highest among those with both low income and high time pressure. In contrast, education did not moderate the effect of time pressure on depression (Roxburgh, 2004). The sample was limited in its generalisability to parents with young children as only half had young children at home, and all were in paid work.

1.9.2 The impact of psychological capital and social capital on the relationship between time pressure and wellbeing

There are two other types of resources that may influence the relationship between time pressure and wellbeing – “psychological capital” and “social capital”.

Psychological capital. As a family resource, psychological capital refers to the mental health and wellbeing of parents, the levels of stress and conflict in the family, and levels of family cohesion and perceived support. Low levels of psychological capital in the family on most of these indicators have been linked to lower levels of child wellbeing (Zubrick et al., 2000). Despite the vast amount of literature documenting the negative effects of acute and chronic stress on adult health and wellbeing (Brunner & Marmot, 2006; Kristenson et al., 2004; McEwen, 1998) and the specific relationships between subjective time pressure, self-reported stress and the health and wellbeing of adults (Brown & Brown, 1999; Roxburgh, 2006; Zuzanek, 2004), very little research has tested the role of psychological capital in the relationship between time pressure and wellbeing. As outlined in section 1.2.3, psychological resources may serve to dampen (or indeed heighten) the effects of perceived time pressure on parental wellbeing.

On the one hand, little is known about the relationship between time pressure and family-related strain (financial, marital or parenting stress). It could be that subjective time pressure represents the expression, or sum, of accumulated stressors across work and family life or indicate role overload. “Role overload means feeling rushed and time crunched, feeling physically and emotionally exhausted and drained, and not having enough time for oneself” (Duxbury, Lyons, Higgins et al., 2008, p. 125). We know that the experience of time pressure has multiple sources of influence that stem back to the macro level social, political and cultural environment, with a critical influence on parental time allocation. Thus, it is possible that time pressure presents a unique and additional burden on parental wellbeing.

On the other hand, the presence of high levels of positive mental health and perceived social support (indicating high levels of psychological capital) may reduce the detrimental effect of time pressure on parental wellbeing (moderating effect).

One of the most powerful indicators of positive mental health is the sense of perceived control or mastery (Friedli, 2009; Zubrick & Koress-Masfety, 2005). Specifically in the workplace, a high level of control or decision latitude coupled with low demands is associated with high levels of health and wellbeing (Siegrist, 2004). Although considerably less well researched, using data from the Whitehall II study of British civil servants others have reported that a sense of low control *at home* predicted depression among men and women (Griffin, Fuhrer, Stansfeld, & Marmot, 2002), and the incidence of CHD among women but not men (Chandola, Kuper, Singh-Manoux, Bartley, & Marmot, 2004). In the study by Griffin et al, both low control at home *and* low decision latitude at work independently predicted the depression of men and women. Chandola and colleagues also demonstrated that a lower level of self-rated mental health (SF-36 mental component score) was a significant predictor of low control at home for men and women. So while positive mental health and the general sense of control are interrelated characteristics of the individual, the exposure to low control in different environments may have unique effects on wellbeing.

There is limited empirical evidence on the relationship between perceived control and perceived time pressure, although qualitative studies around work-life tension among parents (Bryson et al., 2007) and employee tiredness (Widerberg, 2006) both emphasize a discourse of feeling rushed, stressed and lacking control. Importantly, as stated by Bryson et al, participants in both studies generally accepted that “the hectic pace of life is an individual issue” (p. 1148). As such, their time-pressured circumstances were something that individuals saw as their own responsibility to manage or bring under control. Similarly, Southerton summated from interviews of 20 suburban household in the UK, that the daily experience of “harriedness” reflected attempts by respondents to tightly schedule activities within specific timeframes and contexts (“hotspots”) in order to manage their time (Southerton, 2003). Yet, at the population level in Canada, there was only a weak negative correlation between perceived time pressure and indicators of mastery and decision latitude, suggesting a minor reduction in the perception of time pressure with an increase in control (Zuzanek, 2004). Employed fathers in the LSAC sample with greater job autonomy were also significantly less rushed (Baxter et al., 2007a). In contrast, a study of Dutch employees, indicated that a greater level of autonomy (as

reported by employers at a “function group level”) was associated with an increase in time pressure as reported by male and female employees after adjustment for other individual, home and workplace characteristics (van der Lippe, 2007). Therefore, while there is a conceptually strong argument, there is no specific evidence that a greater sense of perceived control, mastery or decision latitude is protective against the negative wellbeing effects of time pressure.

Another strong indicator of positive mental health and a potential psychological coping resource for parents faced with high levels of time pressure is social support. There is ample evidence linking social support with better wellbeing. Social support is important for health through actual provision or when perceived as available and adequate by the individual. It is often considered in terms of three types.

‘Instrumental support’ refers to the provision of material or tangible support in the form of money, labour or other in-kind support. ‘Informational support’ is about the provision of advice or information for coping with present difficulties. ‘Emotional support’ relates to love and caring, understanding, empathy and reassurance usually provided through an intimate relationship (Cohen, 2004). In the LSAC sample, primary carers reporting not enough support from family and friends (about one quarter) were 2.5 times more likely to have clinically significant levels of psychological distress than those who did not (Zubrick, Smith, Nicholson, Sanson, & Jackiewicz, 2008). Social support has been shown to operate as a buffer against stress by providing coping strategies or helping to evaluate or re-evaluate the stressful experience in a less threatening way. This in turn, is thought to dampen the physiological and behavioural response. It is the perception of social support (‘belief that support is at hand’) rather than the actual receipt of support that is considered to have the most powerful stress buffering effect on psychological wellbeing (Cohen, 2004; Uchino, Cacioppo, & Kiecolt-Glaser, 1996).

Broadly then, the general literature around stress and coping suggests that social support will ‘buffer’ against the effect of high levels of time pressure on the wellbeing of parents, but specific evidence is mixed. The type and source of social support may be important in its buffering effect. Among employed adults in North America, perceived partner support *did not* moderate the effect of time pressure on depression while perceived support from co-workers only moderated the effect of

time pressure on depression among men. So time pressured men with a high level of co-worker support were significantly less depressed than those with a low level of co-worker support (Roxburgh, 2004). However, among full-time workers, the same author found no significant relationship between self-perceived time pressure and perceived support from a partner, from co-workers or a supervisor (Roxburgh, 2002). In all, there is a paucity of research in this area.

Social capital. As a resource for family functioning and child wellbeing, there is still much to learn about social capital (Zubrick et al., 2000). It is also an area under development within the field of social epidemiology (Kawachi & Berkman, 2000). Social capital refers to the social characteristics of communities and societies, and as such, is external to the individual and not about physical infrastructure. Although the definition and measurement of social capital is still debated, it broadly refers to the interaction of people and organizations in the community working for the common good. Levels of trust, reciprocity, and group membership within a community typically indicate social capital. In population studies, high levels of social capital predict better health and positive wellbeing. For example, studies such as those conducted by Ichiro Kawachi, showed that a low level of community trust predicted poor self-rated health independent of individual risk factors; while adults in communities with an aggregate higher level of group membership had lower age-adjusted all-cause mortality (Kawachi & Berkman, 2000, pp 181-184).

So how might the resource of social capital modify the relationship between time pressure and parental wellbeing? The interrelationships between time pressure, parental wellbeing and social capital may well be an extension of the paradox referred to earlier in relation to human capital. That is, the most time poor (i.e. typically parents with greater levels of human capital and income) are more likely to reside in, participate in, and help mould communities with high levels of social capital. Brehm and Rahn showed educational attainment to be “one of the strongest individual predictors of group participation, as well as trust” (as cited in Kawachi & Berkman, 2000, p. 181). However, not all time-poor and income-rich parents will live in a community characterised by high social capital. It is therefore quite plausible that higher levels of social capital are protective of health and wellbeing, or have a stress-buffering effect against high levels of time pressure. For example, a

greater density of social networks and more group membership together with high levels of trust and reciprocity may facilitate more opportunities for childminding, reinforce the norms of dual-earner families, facilitate the provision of better health information channels and services, and at a local political level lead to policies and programs that meet the needs of working families. Conversely, time-pressured parents living in a neighbourhood characterised by low levels of trust, high levels of crime and violence, inadequate childcare resources and low group membership (i.e. low social capital), may experience the exacerbation of their time pressure and other personal stressors by neighbourhood stress. In all, the impact of social capital on the relationship between time pressure and wellbeing is the most conceptually difficult.

1.9.3 Summary of evidence – the impact of other resources on the relationship between time pressure and wellbeing

There is little specific epidemiological evidence about the modifying effects of human capital, income, psychological capital, and social capital on the relationship between time pressure and wellbeing. Conceptually, the relationships are difficult to tease out because parents who are most likely to report high levels of subjective time pressure also tend to be better resourced in other ways that promote good health. Generally, two possible types of mechanisms have been considered. First, time pressure represents the sum of, or exacerbation of other parental stressors thereby leading to lower wellbeing. Second, in the presence of high levels of human capital, income, psychological or social capital, the impact of time pressure on parental wellbeing may be weakened. Of course, this is a simplified conceptualisation in the face of a dynamic interplay of family resources and multiple causal pathways to health.

The limited available evidence suggests that both income and social support have a moderating effect on the relationship between subjective time pressure and wellbeing. In particular, those with low income and high time pressure, or low levels of social support and high time pressure are the most likely to feel the wellbeing effects. However, the perception of social support may only be beneficial under certain circumstances, such as when received by colleagues in the workplace. Moreover, greater levels of perceived control or decision latitude at work may have a role in reducing the sense of time pressure but it is not known if this reduces the

impact on wellbeing. Even so, the reported findings come from general samples of employed adults and cannot be generalised to parents with young children.

That concludes the background to the thesis, in terms of relevant frameworks and theory, reasons for a growing sense of time pressure in the population and specific evidence about the relationship between time pressure (objective and subjective) and the wellbeing of parents with young children. The following section now brings this chapter to a conclusion by drawing together a summary of evidence, and bringing to light what it is we still need to know about the relationship between time pressure and parental wellbeing.

1.10 Chapter Summary: What Do We Now Need to Know About Time Pressure and its Relationship with Parental Wellbeing?

Dramatic changes in the social and economic environment over past decades have given rise to increasing reports of subjective time pressure. These changes are marked by women's participation in the workforce and the growth of dual-earner families; relatively small increases in the housework participation of men; the diversification and intensification of paid work; the rise of lone parent families and delayed fertility, and cultural change that embraces being busy. On average, parents with young children have particularly high workloads and are more subjectively time pressured than other adults. Governments and workplaces are slowly responding to the changing needs of families but at present, these needs are not being adequately met. Consultation with the Australian public shows that many families are finding it difficult to manage their work and family responsibilities due to a lack of time (HREOC, 2005, 2007). It is argued that parents and children in young families, especially those families where the mother is employed, are especially vulnerable to the potential impact of time pressure on their wellbeing.

So broadly, what do we already know? Through findings from Australian time use diary data (Australian Bureau of Statistics, 2006a; Baxter, 2002; Baxter et al., 2007a; Bittman & Wajcman, 2004; Craig, 2006; Craig & Bittman, 2005; Craig et al., 2008; de Vaus, 2004) more is known about how parents allocate and divide their time in families than how they perceive their time use. In the Australian context, more is

known about the relationship between parental wellbeing and their hours spent in paid work than any other activity (Baxter et al., 2007a; Gray et al., 2004; Pocock, 2001). International reviews (Coltrane, 2000; Shelton & John, 1996) and more recent Australian studies (Craig & Sawrikar, 2007; Strazdins & Broom, 2004) link perceptions of inequity with poorer marital and psychological outcomes.

Another well-informed area revolves specifically around self-perceived time pressure. Parental reports of self-perceived time pressure vary between mothers and fathers in different employment and family circumstances when the children are young, and how a high level of perceived time pressure relates to hours in paid work and other characteristics of the job (Baxter et al., 2007a). International (Lehto, 1998; Roxburgh, 2004; Zuzanek, 2004) and Australian (Brown, Brown, & Powers, 2001) studies demonstrate higher levels of stress and lower levels of wellbeing among adults who frequently feel rushed or pressed for time.

However, there is still much to learn about the nature of time pressure and how it affects the physical and mental wellbeing of Australian parents. Compared to the accumulated knowledge about time spent in paid work, much less is known about how parental time spent doing household time spent with with children, and free time, relates to parental reports of subjective time pressure. Furthermore, little is known about how parental time allocation outside of paid employment impacts on the wellbeing of Australian parents. Additionally, we are unsure as to how parental perceptions about the division of housework and childcare, and about their free time relate to their self-reported wellbeing. Modifying effects of other stressors and wider social supports on the relationship between time pressure and wellbeing remains unclear. And how do these associations play out in families of different structure and employment arrangements? Specifically, there has not been such a detailed population study of time pressure (objective and subjective) in relationship to the mental and physical wellbeing of parents with young children in this country.

So then, what do we need to know now? In this final section justification for the four research questions and each of the sub components that comprise the focus of this thesis is presented and summarised.

1.10.1 What is the relationship between parental time use and parental perceptions about their time (RQ 1)?

The nature of parental time pressure can be better understood by mapping out relationships between parental time use and parental perceptions about their time (i.e. the relationship between objective and subjective components of time pressure). Fundamentally, this will tell us whether the subjective feeling of time pressure, by various measures, correlates with parental time spent across activities, and not just in paid work. Furthermore, does subjective time pressure arise from a greater total workload or from time spent in specific activities? This detailed approach will help to identify where the greater discrepancies and points of tension are between actual and preferred time allocations. Discrepancies between parental time allocation and their preferred time allocation are generally indicated by subjective measures of time pressure. Moreover, as this discrepancy widens, the wellbeing of parents is most likely to be affected.

Many employed parents, especially mothers in full-time employment (35 hours or more per week) and fathers working extended hours (more than 45 hours per week) would prefer to work fewer hours. Some mothers who work short hours (<15 hours per week) would prefer more. On average though, mothers are happiest when they work between 16-24 hours per week and fathers are happiest at 35-44 hours per week (Baxter et al., 2007a).

On average, couples accept that the greater contribution by women to household work than men in these families is fair (Coltrane, 2000; de Vaus, 2004). However, Australian couples believe that housework and the care of children should be shared equally *if both parents are in paid employment* (Fisher, 2002). For Australian women in couple families, the perception of unfairness in housework grows with the increasing paid work hours (Baxter et al., 2007a) and declining household hours (Craig & Sawrikar, 2007) of their partners. When there are young children in the home, time spent in household work competes for time with children. International (Milkie et al., 2004; Nomaguchi et al., 2005; Roxburgh, 2006) and Australian (Lewis et al., 2001; Russell & Bowman, 2000) studies show quite convincingly that employed parents would prefer to spend more time with their children. The more hours that parents work in their paid job, the more likely they are to want more time

with their children. So what do we still need to know here? In respect to ‘unpaid labour’, the distinction between household work and time with children, although empirically difficult to measure, is an important one, and less is known about the relationship between time spent with children and perceptions of unfairness, than about household work. And how do these relationships between time use and perceived unfairness vary for mothers and fathers in different family and employment circumstances? Additionally, it is possible that because some degree of inequity between mothers and fathers is considered fair, a perception of unfairness is particularly strong when the total workload is high, rather than the division of work per se.

Parents with young children, especially mothers, are known to have little childfree recreation (Bittman & Wajcman, 2004; Mattingly & Bianchi, 2003) but little is known about how parents feel about this. Knowing how parents subjectively feel about their free time is important because this is likely to be where the largest discrepancy between actual and preferred time allocation lays. Although conceptually difficult to untangle from ‘family time’ (Daly, 1996, 2001), and subject to discretionary choice, free time is generally considered to be time spent away from work. Consequently, parental dissatisfaction with their quantity and quality of free time may be a strong and important indicator of subjective time pressure, *additional* to feeling rushed or pressed for time. Investigating patterns of time use that lead to parental dissatisfaction with their free time will further extend the map of relationships between objective and subjective components of time pressure beyond the experience of paid work.

Parental reports of self-perceived time pressure are high and increase with employment hours, but over a third of non-employed mothers also feel the pressure of time (Baxter et al., 2007a). Why is that? The relationship between hours in household work and time with children and self-perceived time pressure is not certain, although invariably tied to employment hours. Broadly, self-perceived time pressure rises with total (paid and unpaid) workloads (Zuzanek, 2004). The available evidence in general populations (Beaujot & Anderson, 2007; Hamermesh & Lee, 2005; Roxburgh, 2002), and among parents in particular (Hilbrecht, 2009) suggest a small increase in self-perceived time pressure with the rising housework hours of

women. There is even less information about how time spent with children, and the contribution of partners in couple families, relates to parental reports of being busy.

In investigating these relationships, the first research question seeks to establish the relationship between parental time use and parental perceptions about their time by:

- a) Describing average weekly estimates of parental time use in specific activities (paid work, household work and childcare) and average total workloads, as measured by survey questions. It is important to verify these estimates against time diary data.
- b) Describing parental perceptions about their time in specific activities and their self-perceived time pressure.
- c) Describing the relationship between average weekly times spent in specific activities and in total workloads of parents (and of their partners in couple families) with parental perceptions about the division of housework and childcare, with parental reports of satisfaction with their free time, and with parental reports of self-perceived time pressure.

1.10.2 How do parental time use and parental perceptions about their time relate to their self-reported wellbeing (RQ2)?

A central concern of this thesis is whether time pressure has an impact on the wellbeing of parents. Being objectively time pressured i.e. working long hours (in paid and unpaid work) or having little free time, or feeling subjectively time pressured (i.e. dissatisfaction with time allocations to certain activities or generally reporting to feel time pressured) conceptually lowers wellbeing. There is still much to learn about the effect of various objective and subjective indicators of time pressure, alone and in combination, on parental wellbeing.

Relatively long hours spent in paid work, household work, or in the direct care of very young children lowers parental wellbeing, possibly through the restriction of meaningful personal leisure or family time. Evidence suggests that employed parents with young families (Baxter et al., 2007a), more so than fathers with dependent children of any age (Gray et al., 2004) or workers in general (Barnett, 1998; Pocock,

2001; Sparks et al., 1997) suffer the wellbeing impact of relatively long hours in paid work (i.e. more than 25 hours per week among mothers and more than 45 hours per week among fathers). Based on limited research, it can be said that increasing housework hours may contribute to adult depression (Bird, 1999; Cunningham & Knoester, 2007; Glass & Fujimoto, 1994) with the strongest impact at very high levels i.e. beyond 50 hours per week (Bird, 1999) and perhaps, more apparent among full-time working women (Roxburgh, 2004). Among parents, more time spent with children in direct physical and emotional care activities is likely to contribute to stress and lower general wellbeing or mental health (Hilbrecht, 2009; Mistry et al., 2007) while there is no evidence that time spent playing or interacting with children (of any age) has any negative impact on parental wellbeing (Cunningham & Knoester, 2007; Hilbrecht, 2009; Voydanoff & Donnelly, 1999). Generally more free time is positive for adult health both in its active and passive forms, but if restricted and represents 'recuperative time' may not be sufficient for a beneficial effect (Iso-Ahola & Mannell, 2004).

On the whole, studies examining the relationship between parental hours in household work, childcare, or free time on the one hand, and parental wellbeing on the other hand, are few. This is vitally important information because employment hours only represent a portion of the total workload of parents, and it may be that participation in these non-market activities or the total workload in itself that has the greatest impact on wellbeing.

Subjective time pressure is associated with greater levels of stress and lower life satisfaction in general (Zuzanek, 2004), with job-related stress and complexity (Lehto, 1998; Widerberg, 2006), with reduced physical and mental health (Brown et al., 2001; Roxburgh, 2006) and shorter sleep duration among women (Bloomfield, 2004). But although a negative association between self-perceived time pressure and the mental health, vitality and general health of parents is expected, we don't know about the strength of these relationships within this more highly time pressured population. A large negative association will tell us whether the perception of being frequently rushed is a substantially important health concern.

Those who are subjectively more time pressured on several other measures also report lower levels of wellbeing. Australian parents who are satisfied with their paid work hours report more positive health on a range of measures including higher life satisfaction, general health, mental health and vitality and lower parenting stress and work-to family strain (Baxter et al., 2007a; Gray et al., 2004). International reviews show that women, and sometimes men, who perceive unfairness in their household work, also report higher levels of marital conflict and depression (Coltrane, 2000; Frisco & Williams, 2003; Glade et al., 2005). Australian research shows that highly time pressured women who are *also* dissatisfied with their leisure time have markedly lower mental and physical health, and so dissatisfaction with leisure shows an additional impact on health (Brown et al., 2001). Overall, there is little research studying the effect of parental perceptions about time with children, or inequity of this care in couple families, or perceptions about free time with parental wellbeing. This is a vastly understudied area.

In examining the relationship between time pressure and parental wellbeing, the second research question has three important sub-components:

- a) Examining the impact of parental time spent in paid work, household work, childcare, and of total combined workloads on their self-reported wellbeing.
- b) Determining the strength of the relationship between ‘self-perceived time pressure’ and self-reported parental wellbeing?
- c) Examining the impact of parental perceptions about time spent in specific activities (paid work, household work, childcare and free time) on self-reported parental wellbeing.

1.10.3 Are the effects of parental time use and parental perceptions about their time on self-reported parental wellbeing modified by other perceived stressors and psychological coping resources (RQ 3)?

Time is just one resource in the context of many other resources (categorised as income, human capital, psychological capital and social capital) available to parents and families to enable personal and family wellbeing (Zubrick et al., 2000). A dynamic mix of these resources affects parental wellbeing over time. Within the

thesis, subjective time pressure has been conceptualised as a chronic stressor within a social determinants model of health (1.2.3) and therefore the interest is in resources available to parents that protect them against the health-damaging effects of this kind of stress. Furthermore, the thesis sub-samples are based on indicators of human and financial capital i.e. employed and non-employed parents, and coupled versus lone parent families. Therefore, for conceptual reasons, and to limit the scope of this thesis, focus is given to the role of psychological capital in the form of stressors and psychological coping resources.

It is possible that subjective time pressure is a proxy for the balance of stressors and coping in the lives of parents. However, there is good reason to believe that time pressure is a unique stressor and presents an additional burden to individual and family wellbeing over and above the stress experienced in different contexts and roles (such as job, financial and marital strain). Feeling rushed is conceptually similar to the concept of 'role overload' and is therefore something that is bigger than the sum of its parts (Duxbury et al., 2008). Further, if the reality and perception of time pressure is driven by a culture of increasing busyness, then it represents an external and macro level influence on parental wellbeing. This being the case, then cultural pressure to work harder than necessary (Goodin et al., 2005) or to devote increasing time and effort to child development (Arendell, 2000; Marsiglio et al., 2000) including the micro-organization of free time (Shaw, 2008) is creating extra demands on the energy and wellbeing of parents.

So what is already known about the interrelationships between subjective time pressure, stress and the physical and mental wellbeing of parents? Subjective time pressure is associated with greater levels of stress and lower wellbeing. We also know from a vast body of literature that the experience of acute and chronic stress reduces wellbeing, potentially with long-term consequences for health (Brunner & Marmot, 2006; Kristenson et al., 2004; McEwen, 1998). While exposure to stress is likely to occur within specific settings, the bodily internalisation of stress crosses environmental boundaries. It is anticipated then, that subjective time pressure will also be associated with the experience of stress at home (financial, marital, parenting) although there is actually very little population research documenting these associations. It remains to be seen how much of the relationship between time

pressure and the wellbeing of parents is about the accumulation of stressors at work and in the home? Is there a residual effect and does this vary between mothers and fathers, and in different employment and family circumstances?

Another important component of this question is the degree to which psychological coping resources minimise the impact of time pressure on parental wellbeing. Very few studies have addressed this question although there is ample literature around the 'stress buffering' effects of positive psychological and social resources, such as social support and perceived control (Thoits, 1995). It is the perception, or belief that support is available that has the most powerful effect of reducing the impact of stress on psychological wellbeing (Cohen, 2004; Uchino et al., 1996). With this general knowledge in mind, a finding of no significant relationship between the perception of time pressure and perceived support from partners or work colleagues among full-time workers (Roxburgh, 2002) is perhaps concerning. Furthermore, relatively small negative correlations between indicators of mastery and decision latitude at work with perceived time pressure, suggest that a greater sense of control may only marginally reduce subjective time pressure (Zuzanek, 2004). There are no studies that have tested the effect of perceived control on reducing the negative impact on wellbeing caused by time pressures. The importance of knowing about coping resources is partly contingent on whether time pressure (objective or subjective) is a unique stressor in its own right, therefore requiring focused attention from those who provide support services to families. The degree to which perceived social support and perceived control 'buffer' the impact of time pressure on wellbeing remains unknown, and may well differ between mothers and fathers and according to how much time is spent in paid work.

In seeking to determine whether the relationship between time pressure and parental wellbeing is largely about the experience of other life stressors and the perceived availability of coping resources, the third research question has two sub-components:

- a) Determining whether other life stressors at home and work modify the relationship between time pressure and self-reported parental wellbeing.

- b) Determining whether the psychological coping resources of social support and perceived control (as indicated by decision latitude) “moderate” the relationship between time pressure and self-reported parental wellbeing?

It should be noted that ‘moderation’ is a term that references a particular approach to statistical analysis as described in the methods chapter (section 2.7.3).

1.10.4 What are the predictors of self-perceived time pressure (RQ4)?

This final question moves beyond the simple examination of parental time use influences on self-perceived time pressure, as in RQ1, to a more detailed focus on a full set of sociodemographic, time use and psychosocial effects. Previous Australian studies have taken a multivariate approach to examining multiple predictors of time pressure in the population (Gunthorpe & Lyons, 2004) and in particular, among parents with young children in different employment and family circumstances (Baxter et al., 2007a) but neither had the benefit of data on the quantity and quality of time spent outside of paid work., including information about free time. Because this study population and its subgroups are already partly defined by broad indicators of time pressure (i.e. parents, gender and employment, status), there is a need to drill further to find out how this time pressure manifests within families.

From a sociodemographic perspective, Australians with a higher level of education and greater household income are more likely to report subjectively high time pressure (Australian Bureau of Statistics, 2006a; Gunthorpe & Lyons, 2004; Hamermesh & Lee, 2005; Robinson & Godbey, 1997, p. 231). This general picture may differ when focusing in on parents and indeed, among Australian parents with young children, mothers with a higher income but not fathers, are more likely to feel rushed (Baxter et al., 2007a). It is important to know whether, even in the context of high demands on time from caring and additional housework for all parents whether higher levels of education and income are still associated with greater pressures. Furthermore, mechanisms by which sociodemographic and family characteristics lead to greater reports of time pressure can be examined. For example, are mothers more subjectively time pressured than fathers because of their perceived levels of unfairness in household work or care of children or because of dissatisfaction with their quantity of free time? What other psychosocial mechanisms help to explain the

pathway between these structural factors and the perception of time pressure in different family types?

As already outlined in respect to the first research question (section 1.10.1), the relationship between increasing hours of paid work and growing time pressure has been clearly demonstrated but much less is known about the impact of increasing hours of household work and childcare on the self-perceived time pressure of parents. However, it is important to acknowledge that hours spent in unpaid work are constrained by the paid work hours of employed parents and any relationship between unpaid work and feeling rushed may be due to differences in paid work hours. What we need to know then, is whether there is an independent effect of time stress due to time spent in household work and childcare.

Additionally, while the structuring of paid work activities and aspects of job quality have been linked with high subjective time pressure (section 1.10.3), there is a considerable gap in terms of the impact of perceptions around the division of labour and aspects of quality around housework and the care of children. Much of the research focus has been on exposure to stress in the workplace rather than exposure to stress in the home environment. As with knowing about the independent effect on time pressure of time allocations at home, it is also important to know whether subjectively felt time pressure is associated with the quality of unpaid work. This may also help explain why over a third of non-employed mothers report to be frequently rushed.

Generally, less free time correlates with greater perceived time pressure (Garhammer, 1998; Peters & Raaijmakers, 1998; Zuzanek, 2004) but there are gender differences, and it is possible that the free time of women is insufficient or lacks the quality required to reduce their sense of time pressure (Mattingly & Bianchi, 2003). The free time of mothers may be most critical in reducing time pressure on weekdays (Bloomfield, 2003a). Differences in the quality of free time between men and women (Bittman & Wajcman, 2004) are evidenced by time diary data. Gender inequality in the experience of free time is an integral component of paid and unpaid work and may be the critical reason why women, and especially employed mothers are more subjectively time pressured than men. It is therefore

important to know whether the differential experience of free time between mothers and fathers affects their reporting of self-perceived time pressure independently of the hours they spend in paid and unpaid work, and of their perceptions of fairness in the division of housework and childcare.

In providing focus to the fourth research question, there are four sub-components:

- a) Examining the sociodemographic differences in self-perceived time pressure among parents with young children, and what happens to these differences when adjusting for the influence of stressors and support and perceptions about free time.
- b) Determining the influence of time spent in household work and time spent with children on the self-perceived time pressure of parents.
- c) Determining the impact of perceived stressors at work and home, including perceptions of fairness in household work, parenting stress, and of perceived levels of social support on the self-perceived time pressure of parents.
- d) Determining the impact of perceived free time availability and satisfaction on self-perceived time pressure.

These four research questions and their sub-components progressively drive the analytical content of Chapters 3-6. Before moving on to results, it is important to review the sample, the time use, time perception and wellbeing measures and analytical techniques used throughout the thesis in Chapter 2.

2. METHODS AND SAMPLE OVERVIEW

This chapter details the study population (2.1), its sociodemographic characteristics (2.2) measures of parental wellbeing (2.3), measures of parental time use (2.4), measures of parental perceptions about their time (2.5), measures of stress and coping (2.6) and the approach to statistical analyses (2.7). Contained within the overview is a discussion of relevant measurement issues. The overall approach to the study is a quantitative one using data from Wave 2 of the Household Income and Labour Dynamics of Australia (HILDA) Study, collected in 2002. HILDA was chosen because it contains data for all adults in a household (enabling couple analysis) and critically, contains both measures of time use and self-reported wellbeing.

2.1 The Study Population

In this first section, there is an overview of the study population. The data source (HILDA) is described (2.1.1) along with the two methods of data collection, personal interview and self-complete questionnaire (2.1.2). Then the procedure for selecting the study sample of parents with young children from HILDA is explained (2.1.3). As with all population studies, there is the potential for bias in response rates, and attrition rates over time, which can influence the degree to which the sample represents Australian households. Section 2.1.4 describes differential response and attrition rates to the HILDA survey by sociodemographic characteristics, and the minimum threat to generalisability of results.

2.1.1 Data Source – HILDA

The ‘Household, Income and Labour Dynamics Study of Australia’ (HILDA) is a large annual probability survey of all private Australian household dwellings, which commenced in 2001. The Melbourne Institute of Applied Economic and Social Research conduct the survey. The households that formed the original panel were selected using a multi-staged approach. (1) A sample of 488 areas was selected from across Australia. (2) Within each of these areas, a sample of 22-34 dwellings was selected depending on expected response and occupancy rates. (3) Within each dwelling, up to three households were selected to be part of the study. The total household response rate (of all in-scope households) was 66%. The original panel

consisted of 19,914 people. A household was determined according to the Australian Bureau of Statistics (ABS) definition as “a group of people who usually reside and eat together”. Household information and individual information for all aged 15 and older is collected each year (Watson & Wooden, 2002).

2.1.2 Methods of Data Collection

Data are collected from respondents using a combination of face-to-face interview and self-complete questionnaires. The personal interview is conducted in the homes of respondents with the exception of a small proportion who are interviewed over the phone (3.4% in Wave 2). All persons completing the personal questionnaire (PQ) by interview are left a self-complete questionnaire (SCQ). A date is arranged for the interviewer to return and collect the SCQ and failing that, it is returned by mail.

The PQ collects very detailed information about family background, education and employment history, current employment status and employment details (including occupation, working hours, job satisfaction, and details of job searching if unemployed), individual income and allowances, and family formation.

The SCQ contains questions about general health and wellbeing (SF-36), lifestyle, stressors, social support, time use i.e. the number of estimated hours spent in certain activities each week, satisfaction with relationships, financial position (or strain), characteristics of the workplace, parenting and work-family balance. The instruction is for each questionnaire to be completed individually without conferring with other family members. Date of completion for the SCQ is not recorded so it is not possible to identify the time lag between personal interview and completion of the SCQ. This has resulted in some discrepancy in responses to questions that are repeated within each instrument, such as employment status and hours in paid work.

2.1.3 Selection of the study population from HILDA

This thesis uses a subpopulation drawn from Wave 2 of the HILDA data. The fieldwork for Wave 2 was undertaken between 21 August 2002 and 19 March 2003, with only 2.3% of fieldwork undertaken past December of 2002 (Goode & Watson, 2006). The thesis sample was not selected from the Wave 1 data as Wave 2 included

better specification of the set of questions about time use, questions that are central to this thesis.

The thesis subpopulation comprises parents in a household with at least one resident child aged between zero and five at June 30, 2002 (that is, up to but not including six year olds). A resident child is one that lives in the household at least half of the time. These children are either biological, adoptive or step children. It is noted that as the fieldwork commenced after this date, some children may have been aged six at the time of the household interview but these children were included. In 90% of households in the selected sample, the youngest child in the household was aged less than five.

There were exclusions to the sample and manual corrections for internal consistency. Exclusions to the sample were households with more than one family (multifamily households) and families composed of grandparents with young children and no parents (n=9). Some manual corrections were made within the dataset to ensure that families with resident children labelled as 'couples with children' all had a mother and a father identified. This included eight couples living in a defacto relationship of which the male had an unidentified relationship to the child. For the purpose of analysis, these males were recoded to stepfathers. This resulted in 1084 mothers and 937 fathers living in 1110 households. Within these households there were 4459 people, including children and other related and non-related people.

To be included in the final thesis sample, parents also had to have completed (or partially completed) an SCQ from which most of the questions for the analyses were drawn. Non-responders were identified by non-response codes in the HILDA manual (-10 for a non-responding person & -8 for no record of SCQ returned). The response rate to the SCQ among all mothers was 89% and among all fathers was 80%. By survey standards, response rates over 80% are high. The final thesis sample was 963 mothers and 752 fathers, 1715 parents.

Of the 1100 households, 921 were couple families and 163 were lone mother families and 11 were lone father families. Of the couple families, 667 families (72%) had complete SCQ data for both mothers and fathers. For analytical purposes,

these couple families have been further classified into 346 ‘dual-earner families’ (those with an employed father and an employed mother of any working hours) and 321 ‘traditional families’ (those with an employed father and a non-employed mother i.e. classified as unemployed or not in the labour force). Two other couple types were excluded from the analysis i.e. 44 couples with both parents out of the paid workforce, and 15 couples with a mother in paid employment and a father not in paid work. Of the lone mother families, 145 (89%) responded to the SCQ, 47 employed and 96 non-employed.

2.1.4 Response and Attrition Bias

Two main types of bias can influence the degree to which the HILDA sample and the thesis sample represent Australian households. Response bias is present at the time of selection into the HILDA sample and attrition bias is related to responding in subsequent waves. Because the thesis sample has been chosen from Wave 2, both sources of bias may be present. Bias means that the likelihood of response is non-random and related to certain characteristics of households or individuals. Bias affects the generalisability of the sample findings as the sample estimates systematically deviate from those of the intended study population. It mainly becomes a problem for research studies when these characteristics are related to the predictor and outcome variables.

There is evidence of attrition bias in the total HILDA sample. The attrition rate for the total HILDA sample was highest from Wave 1 to Wave 2 at 13.2% (*Household, Income and Labour Dynamics in Australia (HILDA) Survey. Annual Report 2006*). In particular, there was consistently high attrition amongst younger persons (up to the age of 24), those who were single or living in a defacto relationship, with relatively low education, with one child in the household, the unemployed, those in a low-skilled occupation, with lower levels of personal income, living in a flat, unit or apartment, those of Aboriginal or Torres Strait Islander descent or born in a non-English speaking country and people living in Sydney or Melbourne. In addition, those reporting a low level of life satisfaction in Wave 1 were less likely to respond in Wave 2.

Within the study sample, only a few of the factors examined showed response rates to the SCQ that varied significantly by sociodemographic factors (See Table A1 in Appendices). Both mothers and fathers who were born in a non-English speaking country were less likely to respond to the SCQ, as were lone fathers, less well educated mothers and mothers who were employed full-time or were unemployed.

Overall both response and attrition bias are likely to effect the generalisability of the findings. The thesis sample is more likely to represent parents with young children who were aged 25 to 45, of non-Indigenous and English-speaking origin, having completed high school or greater, were in an original couple, married, employed and with a middle to high income. It follows that the thesis sample was less representative of those with lower health and wellbeing in the population such as lone mothers, the lower educated and those with a low income. This sample of parents may, on average, have had a higher level of wellbeing than all parents with young children in the population. See section 2.7.5 for a discussion of decisions around weighting data to correct for potential bias.

2.2 Measures of Sociodemographic Characteristics and Description of the Study Population

With an understanding of how the study sample has been selected and how the HILDA data was obtained, this section now describes the derivation of sociodemographic variables. Because of the influence of gender and employment status on the time pressure and wellbeing of parents, four sub-groups further define the study population: employed mothers, employed fathers, non-employed mothers and non-employed fathers. Initially then, this section describes the derivation of employment status and then other measures of important sociodemographic characteristics (family composition, parental age, country of birth, parental education and household income). The distribution of these other sociodemographic characteristics is described by the gender and employment status of parents (see Table 1).

2.2.1 Employment Status

Employment is a key factor in the time use and distribution of time perceptions among parents. Employment status was determined by a filter question contained within the SCQ asking if respondents were currently in paid employment. The decision to use this question was because most of the questions being used in the analysis were contained within the SCQ. Deriving employment status in this way corresponded closely with the ABS standard classification obtained by participant responses to the PQ. Agreement between the PQ and SCQ measures for the entire sample of 1715 parents was high with Kappa = .913[.893, 933], $p < .001$. In the cases that had ‘refused’ or ‘not stated’, employment status from the PQ was used to recode the variable. The result was 686 fathers in paid employment, 66 fathers not in paid employment, 451 mothers in paid employment, and 512 mothers not in paid employment.

An overview of individual and family characteristics by employment status of mothers and fathers is shown in Table 1 and used in discussion in the following sections. There were no missing data on any of these variables.

2.2.2 Family composition

Family composition refers to the family structure, number of children and age of the youngest child in the household. All of this information has been derived from information in the HILDA Household Form, collected at the same time as the personal interview. Each of these three factors holds a relationship both with the time allocation and pressures of parents and potentially to their wellbeing.

HILDA uses information on household composition and relationships between members to derive a family structure variable using standard ABS definitions for relationships and families. The majority of families did not have other non-related people in the household. From the variable of ‘family type’ it was possible to identify couple and lone parent families but not to identify between original couple and step or blended families. In order to identify stepfamilies, it was necessary to search the sample for children identified as a stepchild to any of the adults in the family. From there it was possible to create a three category variable of family type: (a) original couple family, (b) step family, and (c) lone parent family. This variable was used in

all multivariate analysis on the mental health, vitality and general health of parents but was collapsed into a dichotomous variable of couple and lone parents for the last analytical chapter on predictors of self-perceived time pressure.

Table 1
Sociodemographic Characteristics of Parents by Gender and Employment Status

Variable	Mothers				Fathers			
	Employed (n=451)		Non- employed (n=512)		Employed (n=682)		Non- employed (n=66)	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Family structure								
Original couple	360	79.8	361	70.5	602	87.8	44	66.7
Step or blended couple	42	9.3	55	10.7	78	11.4	17	25.8
Lone parent	49	10.9	96	18.8	6	0.9	5	7.6
Age of youngest child								
Aged < 1	80	17.7	168	32.8	184	26.8	18	27.3
Aged 1-2	155	34.4	177	34.6	237	34.5	24	36.4
Aged 3-4	148	32.8	127	24.8	196	28.6	12	18.2
Aged 5	68	15.1	40	7.8	69	10.1	12	18.2
Number of children <15								
One	138	30.6	145	28.3	198	28.9	14	21.2
Two	192	42.6	216	42.2	296	43.1	26	39.4
Three or more	121	26.8	151	29.5	192	28.0	26	39.4
Parental age								
15-24	14	3.1	58	11.3	18	2.6	6	9.1
25-29	78	17.3	107	20.9	77	11.2	4	6.1
30-34	156	34.6	161	31.4	200	29.2	14	21.2
35-39	146	32.4	119	23.2	189	27.6	21	31.8
40+	57	12.6	67	13.1	202	29.4	21	31.8
Country of birth								
Australia	358	79.4	412	80.5	544	79.3	44	66.7
Mainly English speaking	44	9.8	34	6.6	72	10.5	7	10.6
Non-English speaking	49	10.9	66	12.9	70	10.2	15	22.7
Education level								
Tertiary	149	33.0	83	16.2	186	27.1	9	13.6
TAFE or trade	105	23.3	123	24.0	290	42.3	21	31.8
Completed high	90	20.0	97	18.9	71	10.3	4	6.1
Incomplete high	107	23.7	209	40.8	139	20.3	32	48.5
Employment status								
Full-time	115	25.5	-	-	625	91.1	-	-
Part-time	319	70.7	-	-	56	8.2	-	-
Unemployed	-	-	36	7.0	-	-	15	22.7
Not in the labour force	-	-	441	86.1	-	-	42	63.6
Household income								
Under \$20,000	9	2.0	52	10.2	12	1.7	4	6.1
\$20,000 to \$39,999	95	21.1	166	32.4	126	18.4	43	65.2
\$40,000 to \$59,999	149	33.0	168	32.8	255	37.2	16	24.2
\$60,000 to \$79,999	121	26.8	73	14.3	177	25.8	1	1.5
\$80,000 and over	77	17.1	53	10.4	116	16.9	2	3.0

The time pressure of parents due to the demands of childcare, mostly of mothers, is dictated by the age of the youngest child in the household and to a lesser extent, the number of children in the household. Four categories for ‘age of the youngest child’ were created: (a) aged under one (b) aged one to two (c) aged three to four, and (d) aged five. Number of children resident in the household was grouped as either: (a) one (b) two, or (c) three or more. These two variables were used as statistical controls consistently throughout all multivariate modelling.

Family composition varies by the employment status of parents. Non-employed mothers were more likely to be lone parents and to have a child aged under the age of one in the household compared to employed mothers. There were only a handful of lone father families, and non-employed fathers were more likely to be part of a step or blended couple. See Table 1.

2.2.3 Parental age

The age of parents is an important factor to control for in an analysis of time pressure and wellbeing. Parental age was used as a continuous variable in all multivariate analyses. There were not many young mothers or fathers (<25) in the sample. The mean age of mothers was 33 and the average age of fathers was 36. Non-employed mothers tended to be younger than employed mothers (32% compared to 20% were aged under 30) while non-employed fathers tended to be older than employed fathers (63% compared to 56% were aged 35 or over). See Table 1 for the categorical distribution of parental age.

2.2.4 Country of birth

Previous research has shown that Australian born-parents are more likely to report higher levels of time pressure than those born outside Australia. Within HILDA ‘country of birth’ is a derived variable from the PQ based on the Standard Australian Classification of Countries (SACC). The variable has three categories: (a) Australian born, (b) mainly English speaking, and (c) Non-English speaking country. From Table 1 it can be seen, that with the exception of non-employed fathers, about 80% of parents were Australian born.

2.2.5 Education level

Within HILDA, the education question is contained in the PQ and is based on the Australian Standard Classification of Education (ASCED) for qualifications post school. For the purposes of analysis, 'highest education level achieved', as derived in the HILDA data set was collapsed from the 10-category ASCED variable into four commonly used categories in epidemiological research: (a) tertiary (Bachelor degree or higher), (b) TAFE or Trade Certificate (Diploma, Advanced Diploma, Certificate 1, 11, 111 or 1V), (c) completed high school at Year 12, and (d) incomplete high school i.e. did not complete Year 12.

In this sample, employed mothers were twice as likely as non-employed mothers to have a tertiary education (33% compared to 16%), as were employed fathers (27% compared to 11%). Fathers were more likely than mothers to have a TAFE or Trade Certificate.

2.2.6 Household income

Household annual net income is a derived variable in HILDA combining data from all individuals in the household. This includes imputation of missing data using Little & Su methodology (Goode & Watson, 2006). Net income was used because it reflects the resource that is actually available to the family. For all parents, the range of annual net household income was between \$5,957 and \$468,151, with a mean income of \$57,482. When used in the analysis as a control factor, household annual net income was recoded to \$10,000 increments but used as a continuous variable. Recoding in this way allowed for a more meaningful interpretation of results than that obtained from single dollar increments of the original continuous variable.

About 80% of parents in the sample lived in a family with a household income between \$20,000 and \$80,000. Employed parents were more likely to have a household net income of over \$80,000 while non-employed parents were more likely to have an income below \$20,000 per year. See Table 1.

2.3 Measures of Parental Wellbeing

The measures of parental wellbeing used in this study were obtained from the Medical Outcomes Study (MOS) 36-Item Short Form Health Survey (SF-36). The SF-36 is a self-reported measure of functioning and wellbeing designed for use in clinical practice, evaluations and population surveys. The instrument can be self-administered or used in a telephone or face-to-face interview. The SF-36 consists of 36 items related to eight different (non condition-specific) health domains: physical functioning, role limitation due to physical or emotional problems, bodily pain, general health perceptions, vitality, social functioning, and general mental health (Ware & Sherbourne, 1992). Published reliability scores for all scales mostly exceed 0.80 (McHorney, Ware, Lu, & Sherbourne, 1994; Ware, 2007). The study utilised the scales as provided in the HILDA data, scored according to the SF-36 Health Survey: Manual and Interpretation Guide.

For this study, the three subscales of mental health, general health and vitality were selected. The items that contribute to these subscales are shown in Table 2. Each is scored from 0-100, where 100 represents the highest level of wellbeing. These three scales have some desirable properties. They all have 20 or more levels, have wide score ranges, few ceiling effects (i.e. very few people score a maximum of 100) and provide the least skewed distributions. The scales also produce the widest range of health states from negative through to positive wellbeing. They are unstandardised scores. The disadvantage of not standardising scores across the SF-36 subscales is the lack of comparability of subgroup differences in means and variance across scales. Population norms also show average scores in the vitality subscale to be markedly lower than all other seven scales (Ware, 2007). However, as the main goal was to describe differences in mental health, general health and vitality across parent groups, the lack of comparability of the relative effect of time pressure on parental wellbeing across wellbeing outcomes was not a concern.

Table 2
Items That Make Up the Mental Health, Vitality and General Health Subscales of the Medical Outcomes Study - Short-Form 36 (SF-36)

Subscale	Scale Items
Mental health (6 items)	<p>How much of the time during the past 4 weeks:</p> <p>Have you been a nervous person?</p> <p>Have you felt so down in the dumps that nothing could cheer you up?</p> <p>Have you felt calm and peaceful?</p> <p>Have you felt down?</p> <p>Have you been a happy person?</p> <p>(1) <i>All of the time</i> – (6) <i>None of the time</i></p>
Vitality (4 items)	<p>How much of the time during the past 4 weeks:</p> <p>Did you feel full of life?</p> <p>Did you have a lot of energy?</p> <p>Did you feel worn out?</p> <p>Did you feel tired?</p> <p>(1) <i>All of the time</i> – (6) <i>None of the time</i></p>
General health (5 items)	<p>In general, how would you say your health is: (Excellent, Very good, Good, Fair, Poor)</p> <p>How true or false is each of the following statements for you?</p> <p>I seem to get sick a little easier than other people</p> <p>I am as healthy as anybody I know</p> <p>I expect my health to get worse</p> <p>My health is excellent</p> <p>(1) <i>Definitely true</i> – (5) <i>Definitely false</i></p>

Of the eight subscales, the mental health scale has been the most widely validated beyond the Medical Outcomes Study. The mental health subscale (MHI-5) contains four major dimensions of mental health – anxiety, depression, loss of behavioural/emotional control and psychological wellbeing. The five items correlate highly ($r = .95$) with the original 38-item MHI (Ware & Sherbourne, 1992). The scale performs well in distinguishing the presence of psychiatric conditions (McHorney, Ware, & Raczek, 1993). However, in this relatively healthy population of parents it is likely that variation in scores generally reflect a reduction in positive mental wellbeing.

Compared to the mental health subscale, the general health and vitality subscales are more reflective of both physical and mental components of health. The general health subscale is designed to measure general health perceptions including current health, health outlook and resistance to illness. The five-item scale correlates highly ($r = .96$) with the 22-item General Health Rating Index. The vitality scale measures general levels of energy and fatigue (Ware & Sherbourne, 1992). These two subscales were chosen for their ability to measure a reduction in general subjective wellbeing, and vitality in particular was conceptualised as being most responsive to the effects of feeling pressed for time.

2.4 Measures of Parental Time Use (Objective)

The objective component of time pressure refers broadly to an excess of work and little free time (section 1.1.2). Parents may feel objectively time pressured due to an excess of work in a particular activity, such as paid work or household work or more so, due to their total workload. In this study, objective time pressure was captured by a set of measures around parental time use. This section provides an overview of methodological issues with the use of survey questions for the measurement of time use, and outlines the derivation of parental time use variables.

Specifically, the five objective measures of time pressure were average weekly hours of:

- Paid work (excluding travel);
- household work (housework, outdoor chores and household errands);
- parental time with children;
- total unpaid work (household work and time with children combined); and
- total work (paid and unpaid work hours combined).

Within HILDA, time use is estimated by survey questions, also referred to as *stylised questions* or summary measures. Survey questions require respondents to provide an aggregated or summary estimate of how much time they would usually spend on certain activities in a reference period, often in the past week. In HILDA, the question asked is “How often would you spend on the following activities in a typical week?” The set of nine activities are “paid employment”, “travel to and from

paid employment”, “household errands”, “housework”, “outdoor tasks”, “care of children”, “looking after other people’s children”, “volunteer or charity work”, and “caring for a disabled spouse or adult relative”. The principal purpose of these questions in the HILDA survey is to quantify the extent of economic activity (including unpaid labour) and so respondents are not asked about amount of time spent sleeping, eating and in leisure activities. Respondents are asked to not count any activity twice and to record a total that cannot exceed 168 hour, and typically should not exceed 120 hours in a week.

2.4.1 Strengths and limitations of survey questions for measuring time use

Within this study, it is important to acknowledge methodological issues associated with using survey questions to estimate time use. Studies that have compared estimates of time use from survey questions with estimates from time diaries consistently report differential results. It is the general consensus that compared to diary methods, survey questions tend to overestimate time spent in paid work, household work and childcare (Baxter & Bittman, 1995; Bonke, 2005; Budig & Folbre, 2004; Juster & Stafford, 1991; Marini & Shelton, 1993; Robinson & Godbey, 1997, p. 88, p. 100). As illustrated by analyses of the “gap” or “difference” between survey estimates and time diary estimates, the greater the time spent in (full-time) paid work or equivalent time in household work, the greater the size of the “overestimation”. Small amounts of work tend to be underestimated by survey questions (Bonke, 2005; Robinson & Godbey, 1997, pp. 85-94). Reasons for the differential results between the two methods and the tendency for overestimation by survey questions include: Problems of activity definition, problems around recall over a long period, a tendency to produce socially desirable responses and respondent motivation (Baxter & Bittman, 1995). These reasons are discussed below with reference to strengths and weaknesses of the HILDA survey questions.

One source of the different results between diary based estimates and survey question based estimates is that of definitional differences. For example, there is often uncertainty about what is meant about a group of activities such as ‘housework’. It is an easier cognitive task to consider categories of housework or groupings of tasks that are more specific in definition (Baxter & Bittman, 1995;

Coltrane, 2000). Time diaries minimize this problem because respondents record activities more or less as they happen rather than focus on any particular activity. Activities are categorized later on. The problem of definition is partially overcome within the HILDA dataset by the inclusion of a list of tasks as an example of what is comprised within each of the nine activities. For example, the item wording is “housework, such as preparing meals, washing dishes, cleaning house, washing clothes, ironing and sewing”. This helps to ease the cognitive task.

Another source of the different results relates to several problems around the recall of activities. One problem is the difficulty of apportioning time to activities under conditions of multi-tasking making it difficult for the respondent to decide which of several activities is the primary activity being undertaken at any one time. The decision will in part be driven by value-based judgements. As the population for this study is parents who are renowned for their multitasking (especially mothers), it is expected that the problem of recall due to multitasking will be a common cause of overestimation of time use. When estimating time spent caring for their children, parents will typically reflect on primary and secondary activities as well as time spent just thinking about their children (Budig & Folbre, 2004). Other related reasons for poor recall include the overlapping or similarity of activities with better accuracy for activities that are unusual or stand out. For ordinary daily tasks that are not obviously scheduled or routine, respondents tend to recall a day when the activity did stand out and treat that as average, resulting in the overestimation of the amount of time devoted to the activity (Juster & Stafford, 1991). In short, the magnitude of overestimation in household work is greatest for everyday or frequent activities (Marini & Shelton, 1993). As this study is focused on activities such as household work and childcare, which are often undertaken simultaneously, the time use estimates will be prone to overestimation, especially among mothers.

A third source of the different results between diary based estimates and survey question based estimates is the social desirability of responses (Baxter & Bittman, 1995). In interview situations, there is a tendency to report time use according to social role acceptability. This is related to age, gender and educational status. For example, young and highly educated men may tend to overestimate their contribution to housework (Press & Townsley, 1998). Among married parents in the US, mothers

and fathers tended to estimate a similar amount of time spent by mothers in housework, while fathers on average, estimated themselves to spend 5 hours more per week in housework than that reported by their partners (Lee & Waite, 2005). In couple families, men tend to proportionally overestimate their contribution to the main household tasks more than women (Schulz & Grunow, 2006). The issue of social desirability is partially overcome within HILDA as the time use questions were contained within the SCQ and left with individual respondents in households to complete and return. Respondents are also given the instruction to complete the questionnaire without conferring with other family members. Under these conditions, it is still possible that some bargaining occurred or that parents tended to estimate what they thought was an appropriate contribution but overall the issue of social desirability has been addressed as best as possible.

The appropriateness of survey questions for the collection of time use data depends on the research aim. Survey questions are not optimal for the precise calculation of time use. However, it is argued that both time diary and survey question techniques provide relatively similar patterns of variation between subgroups such as men and women (Baxter & Bittman, 1995). Research findings will be interpreted with reference to the limitations highlighted above. It is fully acknowledged that time use, as measured here, is a subjective estimate of how parents think they spend their time and in fact, is entirely appropriate for the research aim.

2.4.2 Paid work hours

The estimate of average weekly hours in paid work used in this thesis was taken from the time use estimate within the SCQ, as described. It reflects the amount of time spent in paid work in a typical week. The responses were comparable with the employment hours recorded from the PQ that are classified according to ABS standards ($r = .94$). Understandably estimates of paid work hours did vary slightly between sources. Generally, parents were more likely to report shorter hours in the SCQ compared to the PQ, and this may be because the ABS definition is more inclusive and refers to work performed in all jobs including paid and unpaid overtime.

The paid work hour variable was categorised differently for mothers and fathers to reflect the longer hours worked by fathers and predominantly part-time nature of mothers' work. The categories chosen reflected those used in a recent report by the Australian Institute of Family Studies (AIFS) on mothers and fathers with young children (Baxter et al., 2007a). For fathers the categories were: (a) up to 34 hours per week, (b) 35-44 hours per week, (c) 45-54 hours per week, and (d) 55 hours or more per week. For mothers the categories were: (a) Up to 15 hours per week, (b) 16-24 hours per week, (c) 25-34 hours per week, and (d) 35 hours or more per week. Based on the reviewed evidence, it is conceived that weekly hours beyond 25 hours per week for mothers and beyond 45 hours per week for fathers represent a high level of objective time pressure.

2.4.3 Household hours

The variable 'household hours' was an aggregate measure of responses to the three time use items on household errands, housework and outdoor tasks (Table 3). For this study, using just the 'housework' category was considered an underestimation of total household-related workload.

The variable household hours was used in two forms. In Chapter 3, where the analysis compares mean household hours between subgroups, the variable was used in its continuous form. In doing so, it is recognised that some of the extreme values were not realistic i.e. they exceeded 120 hours per week. In the remaining Chapters estimates were categorised into quartiles. This was done separately for employed mothers, non-employed mothers and employed fathers due to the quite different distributions, as illustrated with the 25th, 50th and 75th percentiles in Table 3. Categorising the data this way accounted for large outliers and allowed for the testing of a non-linear relationship between household hours and the wellbeing of parents.

2.4.4 Childcare hours

The measurement by survey methods of the hours parents spend providing childcare is contentious. The experience from Australian time diary data is that about two-thirds of all childcare activity is recorded as a secondary activity – that is, respondents are engaged in *other* activities concurrently with that of providing care to children. Using 'primary activity' as the basis for estimating the amount of time

devoted to providing childcare vastly underestimates time spent with children (Budig & Folbre, 2004; Ironmonger, 2004) Within survey questions, where the recording of secondary activity is not an option, parents must also cognitively assess whether the childcare time is primary to what is often a concurrent task of housework or leisure. Due to the item wording (as in Table 3), it is anticipated that parental responses to time with children in the HILDA survey is more likely to reflect interactive, physical and emotional care than passive supervision.

Table 3
Description of Parents' Estimated Weekly Hours in Housework, Household Errands, Outdoor Tasks and Parental Care of Children

"How often would you spend in the following activities in a typical week?"						
	Household errands ^a	Housework ^b	Outdoor tasks ^c	Household hours	Childcare ^d	
Employed mothers						
<i>n</i>	446	444	442	438	443	
<i>Min</i>	0	1	0	1	0	
<i>Max</i>	20	88	24	101	98	
<i>M</i>	4.5	20.6	3.1	28.2	29.7	
<i>SD</i>	3.4	13.2	3.8	15.8	21.2	
<i>25th percentile</i>	-	-	-	16.5	14.0	
<i>50th percentile (Mdn)</i>	-	-	-	25.0	24.0	
<i>75th percentile</i>	-	-	-	37.0	40.0	
Non-employed mothers						
<i>n</i>	493	499	497	487	496	
<i>Min</i>	0	0	0	0	0	
<i>Max</i>	46	126	60	135	128	
<i>M</i>	6.3	29.6	4.3	39.6	37.3	
<i>SD</i>	5.7	18.5	6.0	21.6	27.1	
<i>25th percentile</i>	-	-	-	24.0	14.0	
<i>50th percentile (Mdn)</i>	-	-	-	36.0	30.0	
<i>75th percentile</i>	-	-	-	51.0	52.0	
Employed fathers						
<i>n</i>	674	677	679	672	677	
<i>Min</i>	0	0	0	0	0	
<i>Max</i>	20	50	40	75	100	
<i>M</i>	2.7	5.9	5.4	13.9	14.6	
<i>SD</i>	2.9	6.2	5.4	10.4	12.0	
<i>25th percentile</i>	-	-	-	6.5	7.0	
<i>50th percentile (Mdn)</i>	-	-	-	11.0	10.0	
<i>75th percentile</i>	-	-	-	18.0	20.0	

^a"Household errands such as shopping, banking, paying bills, and keeping financial records (do not include driving children to school and other activities)"

^b"Housework, such as preparing meals, washing dishes, cleaning house, washing clothes, ironing and sewing"

^c"Outdoor tasks, including home maintenance (repairs, improvements, painting etc.), car maintenance or repairs and gardening"

^d"Playing with your children, helping them with personal care, teaching, coaching or actively supervising them, or getting them to childcare, school and other activities"

The variable ‘childcare hours’ was based on the single item about parental time with their own children. As with household hours, it was summarised into quartiles specific to the distribution for employed mothers, non-employed mothers and employed fathers. The fourth quartile represents approximately the top 25% of the distribution of time with children. Whether or not this represents a high level of objective time pressure is difficult to say, as more time with children may also represent fewer constraints on time due to paid work and household work.

2.4.5 Total unpaid work and total workload

Finally, it was important to compute an estimation of total workload, as opposed to time spent in specific activities. Simply put, a large workload, regardless of whether that is in paid or unpaid work is likely to correspond with higher time pressure. Because respondents have been specifically asked to “check” that their average weekly hours in specific activities are realistic, it was considered reasonable to construct summary variables. There were two summary variables: (a) ‘total unpaid work’ was the sum of hours in household work and childcare, and (b) ‘total workload’ was the sum of hours in paid work (including time spent travelling to work), household work and childcare. In constructing these two variables, further outliers were created (e.g. total workloads greater than 120 hours per week). However, the continuous measures were left as the outlier values had little impact on the subgroup means (Chapter 3). As with the activity-specific variables, these two summary variables were categorised by quartiles specific to the parent group.

2.5 Measures of Parental Perceptions About Their Time (Subjective)

This thesis addresses both objective and subjective components of time pressure. As defined in section 1.1.2, the subjective component refers to how parents perceive their time or how they view, interpret or feel about their time use. Conceptually, there is a vast array of measures concerned with how parents perceive their time, and this analysis is constrained by the availability of data within the HILDA dataset. Variables were chosen for their relationship with specific time allocation to paid and unpaid work and in reference to free time. ‘Self-perceived time pressure’ was the primary subjective indicator of how parents feel about their time use.

Specifically, the primary and secondary subjective measures of time pressure were:

- Self-perceived time pressure (primary measure);
- paid work hours preference;
- satisfaction with paid work hours;
- perceived fairness in share of the housework;
- perceived fairness in share of childcare;
- satisfaction with amount of free time; and
- spare time with nothing to do.

2.5.1 Self-perceived time pressure (primary subjective measure)

In this study, ‘self-perceived time pressure’ was used as an independent variable, or predictor of wellbeing (RQ 2 & 3) and a dependent variable (RQ 4), so a proxy indicator of wellbeing in itself. The time pressure question is taken from the Lifestyle section of the SCQ. The question was first used in Australia in the ABS 1999 Survey of Living Standards pilot and has become a standard in survey research. It is the same as used in the Australian Time Use Surveys 1992 and 1997, and is used in other Australian longitudinal studies. In HILDA, the question asked is “How often do you feel rushed or pressed for time?” There are five response categories from *almost always* through to *never*. Due to small numbers, the categories of *rarely* and *never* were combined. From previous research, a high level of subjective time pressure is usually indicated by the combined categories of feeling *almost always* or *often* rushed or pressed for time, although some have conceived the chronically time pressured as those who are *always* or *almost always* rushed or pressed for time (Gunthorpe & Lyons, 2004; Szollos, 2009).

2.5.2 Preferences and satisfaction with paid work hours

The two subjective measures about time spent in paid work were taken from the PQ. The first question is about work hours preferences: “If you could choose the number of hours you work each week, and taking into account how that would affect your income, would you prefer to work”: (a) *Fewer hours than you do now* (b) *About the same hours as you do now*, or (c) *more hours than you do now*. The variable was used in its original form. A preference for *fewer* hours of paid work was taken to indicate higher levels of subjective time pressure.

The second indicator of subjective time pressure in relation to paid work was ‘satisfaction with paid work hours’. The single item is contained within a set of questions about work satisfaction in the PQ. The question is worded “Please pick a number between 0 and 10 to indicate how satisfied or dissatisfied you are with the following aspects of your job” (prompt is for main job). The item name is “the hours you work”. On the response scale, the 0 is labelled *totally dissatisfied* and the 10 is labelled *totally satisfied*. This variable was highly negatively skewed and so was categorised into three groups: (a) *low* satisfaction based on a score of 0-3, (b) *medium* satisfaction based on a score of 4-6, and (c) *high* satisfaction based on a score of 7-10. Higher levels of subjective time pressure were indicated mainly by a *low* satisfaction with paid work hours, although due to the high skew of the continuous variable, a *medium* satisfaction may also indicate higher levels of time pressure. In part, the categorisation was set to be consistent with that for ‘satisfaction with amount of free time’ (section 2.5.4).

2.5.3 Perceived fairness of housework and looking after children

Subjectively, parents may also be dissatisfied with the amount of time they spend in unpaid labour and as indicated by the review of literature, prefer to spend less time in household work and more time with children. These specific questions are not available in the HILDA survey but from the SCQ, it is possible to obtain a rating of perceived fairness about the share of housework and childcare that parents undertake. Both questions are taken from the ‘Negotiating the Lifecourse Study’. Specifically, the questions are “Do you think you do your fair share around the house?” and “Do you think you do your fair share of looking after children?” In the original form of both questions, there are five response categories from *I do much more than my fair share* through to *I do much less than my fair share*. A high level of subjective time pressure was indicated by the reported perception of performing *much more than a fair share* of either task.

Although these two questions have been previously dealt with as an ordinal scale (Baxter et al., 2007a), the decision here was to create categorical variables, reflective of the different distribution between mothers and fathers. About 2% of mothers reported to do *less than my fair share* of housework and 1% reported less than their fair share of childcare. Therefore for mothers, the last three categories of the original

variable were reduced to the category of *fair share or less*. In contrast, the majority of fathers reported a fair share with a roughly equal numbers reporting more or less. Therefore, among fathers, the three categories became doing *more than a fair share*, a *fair share*, and *less than a fair share*. Although these questions imply that there is someone else to share the workload, all parents (including lone parents) responded. Treated this way, responses were taken to have a more qualitative meaning than an ordinal item that assumes, from a measurement perspective, equal distance between points.

2.5.4 Perceptions about free time

Generally it is known that parents have little free time and while the HILDA survey does not collect information about hours in free time, there is a subjective indicator of free time satisfaction. ‘Satisfaction with amount of free time’ is a single item taken from a list of 8 items measuring satisfaction with different aspects of life in general. The format is based on the question used in the German Socioeconomic Panel (GSOEP). Specifically, the question asks “I want you to pick a number between 0 and 10 that indicates your level of satisfaction with each....” The item is “the amount of free time that you have?” where 0 = *totally dissatisfied* and 10 = *totally satisfied*. The variable was categorised in the same way as ‘satisfaction with paid work hours’: (a) *low* satisfaction (score 0-3), (b) *medium* satisfaction (score 4-6), and (c) *high* satisfaction (score 7-10). A *low* satisfaction with amount of free time was conceptualised as a subjective indicator of high time pressure.

There is a second question that indicates parental perceptions about their free time and is concerned with the amount of uncommitted time that respondents have. The question, frequency of ‘spare time with nothing to do’, is sourced from the ABS 1999 Survey of Living Standards Pilot and contained within the SCQ in HILDA. Specifically, it is worded “How often do you feel you have spare time that you don’t know what to do with?” The original question has five response categories from *almost always* through to *never*. Due to very small numbers, the first two categories were collapsed into *almost always or often*. The reported perception of *never* having uncommitted spare time indicates a subjectively high level of time pressure, although it could also reflect quite an objective assessment.

2.6 Measures of Stress and Psychological Coping

In addressing the third research question, focussed on the effects of other life stressors at home and work and psychological coping resources, the thesis drew on a set of available measures contained within the HILDA dataset. Factors were chosen that potentially related to both time pressure and the wellbeing of parents. Section 2.6.1 outlines the derivation of perceived stressor measures, that is, perceived financial wellbeing, parenting stress, job stress, security and complexity, as well as the potential coping resource of decision latitude at work. Section 2.6.2 outlines the measure of perceived social support. A distributional summary of each of these continuous variables is displayed in Table 4 with further scale psychometrics provided in Table A3.

Table 4

Description of Self-Reported Stressors and Personal Coping Resources Among Parents by Gender and Employment Status

Variable	Employed mothers			Non-employed mothers			Employed fathers		
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>
Financial wellbeing ^a	447	3.24	0.72	509	3.43	0.82	681	3.25	0.73
Parenting stress	438	15.1	5.02	492	15.5	5.27	671	13.8	4.61
Social support	443	51.2	8.44	495	48.8	9.54	673	48.9	8.56
Job quality									
Job stress	443	8.0	3.76	-	-	-	674	9.3	3.62
Job security	443	16.1	3.94	-	-	-	673	15.5	3.93
Job complexity	443	12.8	4.49	-	-	-	675	14.7	3.86
Decision latitude	445	13.0	4.77	-	-	-	676	13.6	4.73

^aIncreasing scores indicate a decline in perceived prosperity (1) = *prosperous* (6) = *very poor*

2.6.1 Measures of perceived stressors at home and work

This section includes an overview of measures about perceived stress at home (financial wellbeing, parenting stress) and job quality, including the stressors (job stress, job complexity, job security) and the potential coping resource of decision latitude.

Financial wellbeing is related to but is not synonymous with household income. The question as used in HILDA was tested originally within the 2000 ‘International Social Science Survey, Australia (Isssa)’. It is a 6-point ordinal scale ranging from *prosperous* through to *very poor*. About half of all parents reported that “given current needs and financial responsibilities” their financial position was *reasonably comfortable*; over a third were *just getting along* (36%); 12% were *prosperous* or *very comfortable* and 4% were *poor* or *very poor*. ANOVA was performed and showed that non-employed mothers reported a lower level of financial wellbeing than employed mothers or fathers, $F(1498.85, 2) = 10.58, p < 0.001$.

Another potential stressor within the family is the degree to which parenting feels difficult. The parenting stress scale is sourced from the Panel Study of Income Dynamics (PSID) Child Development Supplement, 1997. Within HILDA, the question is contained within the SCQ. It is a summary scale score based on four items rated on a 7-point likert scale where 1 = *strongly disagree* and 7 = *strongly agree*. See Table A3. The four items state: (a) “Being a parent is harder than I thought it would be”, (b) “I often feel tired, worn out, or exhausted from meeting the needs of my children”, (c) “I feel trapped by my responsibilities as a parent”, and (d) “I find that taking care of my child/children in much more work than pleasure”. Within the sample, reliability of the scale was high ($\alpha = .73$). The mean scores on the items indicate that the strongest components on the scale were (a) and (b), ($M = 4.47, 4.63, 2.81, \text{ and } 2.77$ respectively for all parents). On average, employed fathers showed a significantly lower level of parenting stress than either employed mothers or non-employed mothers, $F(1424.56, 2) = 18.33, p < 0.001$.

For employed parents, the workplace can be a source of considerable stress and rewards. Within HILDA, questions about job quality are contained in the SCQ and are from a variety of sources including the 2000 International Social Science Survey, Australia (Isssa). The questions are conceptually based on a 12-item set with 4 component subscales each with 3 items: job stress, job security, complexity, and decision latitude. Responses are based on a 7-point likert scale where 1 = *strongly disagree* and 7 = *strongly agree*. See Table A3. Principal component analysis confirmed four sub-scales. Reliability was acceptable for job stress ($\alpha = .65$), job security ($\alpha = .64$) and job complexity ($\alpha = .64$) and good for decision latitude ($\alpha =$

.81). Across the four subscales, scores range from 3-21, with higher scores indicating a higher degree of stress, complexity, security and decision latitude (with greater latitude indicating a positive position).

On average, employed fathers reported greater job stress, $t(1115) = -5.74, p < .001$; job complexity, $t(844.19) = -7.42, p < .001$, and decision latitude, $t(1119) = -1.96, p = .050$ than employed mothers while employed mothers reported significantly higher job security, $t(1114) = 2.74, p = .006$.

2.6.2 Perceived social support

Perceived availability of social support whether from a partner, family, friends, neighbours or work colleagues is potentially an important buffer or moderator of the relationship between time pressure and parental wellbeing. Within HILDA, the social support scale is based on 10 items. See Table A3. Principal component analysis revealed two sub-scales reflecting ‘loneliness’ and ‘friendship’ but single scale reliability was also strong and thus the single social support scale was retained ($\alpha = .80$ for all parents). The perceived level of social support increases with the scale score. On average, employed mothers perceived significantly higher levels of social support from other people than either employed fathers or non-employed mothers, $F(1475.35, 2) = 11.37, p < 0.001$.

When testing interactions in Chapter 5 (i.e. a moderating effect of social support on the time pressure-wellbeing relationship), the social support scale was divided into quartiles for each parent group, where the first quartile indicates a low level of perceived support, and the fourth quartile indicates a high level of perceived support relative to mothers and fathers with the same employment status (for example, see graph in section 5.3).

2.7 Statistical Analysis

So far we have looked at how the study sample was selected and how the variables for the analysis were derived. In general, the analytical approach for each question is described within the introduction of each chapter of results (i.e. Chapters 3-6). This final section of the Chapter however looks at the treatment of missing data, provides

an overview of analytical techniques, provides justification for the use of unweighted data, and briefly considers the adjustment of standard errors to account for the complex sampling methodology. All analyses were undertaken using SPSS v.11.

Given the centrality of gender and employment status in assessing time pressure, all analyses outlined below were undertaken by three primary subgroups: (a) employed fathers, (b) employed mothers, and (c) non-employed mothers. The number of non-employed fathers was small and so only descriptive information is provided. To test for the contextual effect of family employment status and structure, the analysis was then undertaken by three different family types: (a) ‘dual-earner family’, both parents employed, (b) ‘traditional family’, with an employed father and a non-employed mother, and (c) ‘lone mother family’, employed or not.

2.7.1 Treatment of Missing Data

There was a limited amount of missing data in the study. As shown in Table A2, the proportion of missing data on any one variable did not exceed 5% for any of the three parent subgroups. There were no missing data on any of the sociodemographic variables.

A small proportion of parents did not provide estimates of time spent in household work (3% of employed mothers; 5% of non-employed mothers and 2% of employed fathers) and childcare (2% of employed mothers, 3% of non-employed mothers and 1% of employed fathers). It is likely that this data was not missing at random (NMAR) and that the length of time spent in household work or childcare (either excessive or perhaps perceived to be too little) contributed to the missing response. However, the missing data may also be predicted by other data included in the analysis, which would have the effect of reducing the bias associated with the modelling of NMAR data (Bennett, 2001). To determine whether dropping cases via listwise deletion made a difference to the multivariate analysis, the models reported in Chapter Four were also run with dummy categories for missing data. As there was no difference to the results, or in substantial interpretation, the cases were excluded.

The other main source of missing data was on the parenting stress question (4 items) and on the question about perceived fairness in the share of childcare. Both these

questions were filtered within the SCQ by the question “Do you have parenting responsibilities for any children aged 17 and under?” Despite the confirmed presence of children in the home, some respondents said *no* or the answer was not given and therefore skipped these two questions. Because, in most cases the data for the parenting scale was missing for all items, values could not be imputed. These cases were also excluded by listwise deletion.

2.7.2 Univariate and bivariate analysis techniques

A combination of techniques was used to assess univariate and bivariate relationships dependent on the data and the research question. These techniques included analysis of variance (ANOVA), chi-square statistics and correlation measures.

- ANOVA was used to test for differences in mean values of continuous variables for three or more subgroups. Where the assumption of equal variance was not met, the Browne-Forsythe robust test for equality of means was used. When the ANOVA or Browne-Forsythe test was significant at $p < .05$, appropriate posthoc tests (Tukey B or Tamhanes for unequal variance) were used to determine which levels were significantly different from each other. Specifically, ANOVA was used to test for differences in the mean estimated weekly hours on each of the time use measures by different levels of the time perception measures (RQ 1); for the relationship between the categorical time use and time perception measures and the three parental wellbeing subscales (RQ 2); for the relationship between the categorical time use and time perception measures and the stressor and support scales (RQ 3).
- The Pearson chi-square statistic was used to test for a significant association between categorical time perception measures, and between reports of the same measure by family context (RQ 1).
- Correlation statistics were used to test for a relationship between continuous measures. Specifically, associations between each of the stressor and support scales were tested for a relationship with parental wellbeing using Pearson correlations (RQ 3).

2.7.3 Multivariate analysis techniques

OLS multiple linear regression techniques were used to assess the predictive relationship between time pressure and parental wellbeing. The purpose of this modelling was to examine the simultaneous effects of time use and parental perceptions about their time on their mental health, general health and vitality, with adjustment for family characteristics and indicators of human and financial capital (RQ 2) and with further adjustment for other stressors and psychological coping resources (RQ 3). However, in addressing the third research question, it was also necessary to use accepted procedures to test for the influence of “moderation” effects by third variables (Baron & Kenny, 1986).

The moderator variable “affects the direction and/or strength of the relation between an independent or predictor variable and a dependent or criterion variable” (Baron & Kenny, 1986, p. 1174). Moderation occurs if there is a significant interaction between the independent and the moderating variables. In this case, Baron and Kenny state that it is desirable that the moderating variable *is not* correlated with the independent and dependent variables. Further, a causal pathway from the independent variable to the moderator is not assumed. Although social support and decision latitude were likely to be correlated with parental time pressure and wellbeing, these factors were not considered to be the generative mechanism through which time pressure acts on parental wellbeing, and were more suited to testing for a moderation effect. This was consistent with prior analyses (Roxburgh, 2004).

Standard diagnostic tests for multiple linear regression were performed on all multivariate models to identify multicollinearity, the influence of outliers and influential data, non-normally distributed errors (heteroskedasticity), and linearity. Mostly the data conformed to these assumptions. Any highly influential cases (high leverage) were excluded from the analysis. This was rare.

Multivariate logistic regression techniques were used to test for the simultaneous effects of time use, time perceptions and other stressors on the likelihood of reporting high self-perceived time pressure (RQ 4). ‘Self-perceived time pressure’ was dichotomised into ‘high’ (*almost always* or *often* rushed or pressed for time) and ‘low’ time pressure (*sometimes, rarely* or *never* rushed or pressed for time).

Each of the multiple linear and logistic regression models included a standard set of potential confounders of the relationship between time pressure and parental wellbeing (parental age, age of the youngest child, number of children under the age of 15, self-reported long term health condition, highest level of education, family structure and net household income). Although not all of these variables had a statistically significant relationship with wellbeing across the parental sub-groups, for consistency, all variables were included.

2.7.4 Justifying the decision for unweighted data and not adjusting for the complex sampling design

There are two further analytical issues to address when modelling survey data that has been collected by a complex sampling design. Both these issues affect the degree to which the analyses and subsequent interpretation of results can be generalised to the Australian population of parents with young children: bias due to differential response associated with the sampling design, and biased estimates of variance due to the clustering of respondents in areas and households.

First, as identified in section 2.1.4, the HILDA sample and the thesis sub-sample were likely to be affected by response and attrition bias associated with the selection of the original panel, and by longitudinal non-response (i.e. from Wave 1 to Wave 2). What this means is that the HILDA sample may not be representative of Australian households, and the thesis sub-sample, in particular, may not be representative of Australian parents with young children. The HILDA dataset is provided to users with a selection of weights to adjust the Wave 2 data for both the unequal probability of being selected in Wave 1 and for differential non-response rates at both waves. The central question of concern for this study was whether to apply these sample weights in regression modelling (Feinberg, 1989; Kalton, 1989).

The question of whether sample design features need to be accounted for when fitting models to data from complex survey designs is less clear-cut. A sample design is said to be informative for a particular model if the model fit to the sample data differs from the model that would be obtained if the full population data were available (Pfeffermann, Skinner, Holmans, Goldstein, & Rasbash, 1998). For any given model the sample design will be informative if the dependent variable is

related to the sample selection and participation probabilities after adjusting for all independent variables fitted in the model. There is no clear hard and fast rule as to whether a sample design will be informative or not. It is possible that in two different models fitted to data from the same sample survey, the sample design could be informative for one model and not for the other.

In theory, for the sample findings to be generalizable to the population of interest, the models should adjust for each potential source of selection probability, arising at every stage of data collection. However, the calculation of survey weights is a complex process, involves subjective choices about weighting factors, and can only approximate the inverse probability of selection and participation. In the case of the HILDA survey the original sample selection was designed to give each household an equal chance of selection in the survey. The weights that have been developed principally account for differential rates of non-response and attrition. Factors associated with participation in HILDA and incorporated into the sample weighting (e.g. parental age, education level, income and family structure), have been included in the models fit in this thesis. Without applying design weights, it is possible that the regression analyses will not account for differential probabilities associated with selection of households and people. Therefore the model may not hold true in the population of interest. However, it is unlikely that there would be any residual association with sample selection probabilities after accounting for known factors associated with non-response patterns in the models. In the first instance, sociodemographic and interview factors in combination have been demonstrated to contribute to a small proportion of variability (~10%) in attrition bias between Waves 1 and 2 for the HILDA sample (Watson & Wooden, 2004). Then, the multivariate analyses in this study included a standard set of independent variables (potential confounders) that were associated with differential response.

Second, because the HILDA sample is based on a multi-staged clustered design (section 2.1.1), the assumption of independence of observations obtained from simple random samples cannot be met. It is likely that households within a census district (CD), and persons within households shared similar characteristics. As a result, estimates of variance, standard errors and confidence intervals may underestimate the true level of uncertainty. Consequently, without adjustment for the

sampling design, any analysis based on the assumption of simple random sampling may be unreliable (Hayes, 2008). In this study, the impact of the clustered design on the variance estimates was thought to be possibly influenced by the clustering of households with young children within CDs, but negligible at the household level because mothers and fathers were analysed separately. The question, then, to consider was whether there would be an additional impact of the selection probability at the stage of sampling CDs, after inclusion of independent variables.

To test for sampling informativeness, a selection of models from this research were fitted both accounting for the sample design and ignoring the sample design, and the results of the two models were compared. Specifically, all variable description and the linear regression models from Chapters 4 and 5 were repeated in the SPSS Complex Samples module. This analysis used the Wave 2 cross-sectional respondent weight; stratum and cluster variables supplied within the HILDA Wave 2 data set, and assumed sampling with replacement. As a note, the pre-calculated weights are based on response to the PQ and thus, a small degree of accuracy was lost because the weights do not take into account response to the SCQ, which may have exhibited a slightly different response pattern. However the existing weights were considered to be adequate for the study subsample (N. Watson, personal communication, April 9, 2008). In comparing adjusted and unadjusted results, there was almost no difference in estimated means, variance or the statistical significance of regression parameters. This supports the idea that after including variables known to be associated with non-response and sample attrition in the models, the dependent variables had little residual association with sample selection probabilities. It is thus very likely that the sample design can be considered as non-informative for the models fitted in this thesis. Although the descriptive analyses for Chapter 3 and logistic regression analyses in Chapter 6 were not undertaken in SPSS Complex Samples, based on the comparisons that were made with the other models it was considered unlikely that the sample design would be informative for any of the models fitted in this thesis. Therefore, as the adjusted results and subsequent interpretation and conclusions about the findings were no different, unweighted results without adjustment for the sampling design have been provided throughout the thesis.

This Chapter has provided a detailed description of the study sample; the sources and derivation of the time pressure, wellbeing and stressor and coping variables; an overview of statistical analysis techniques, and a consideration of important methodological issues. We now turn to the first Chapter of results addressing the first research question.

3. PARENTAL TIME USE AND THEIR PERCEPTIONS ABOUT TIME: RELATIONSHIPS BETWEEN OBJECTIVE AND SUBJECTIVE MEASURES OF TIME PRESSURE

This Chapter presents results addressing the first research question, focussing on the nature of parental time pressure: ‘*What is the relationship between parental time use and parental perceptions about their time?*’ (See Figure 5)

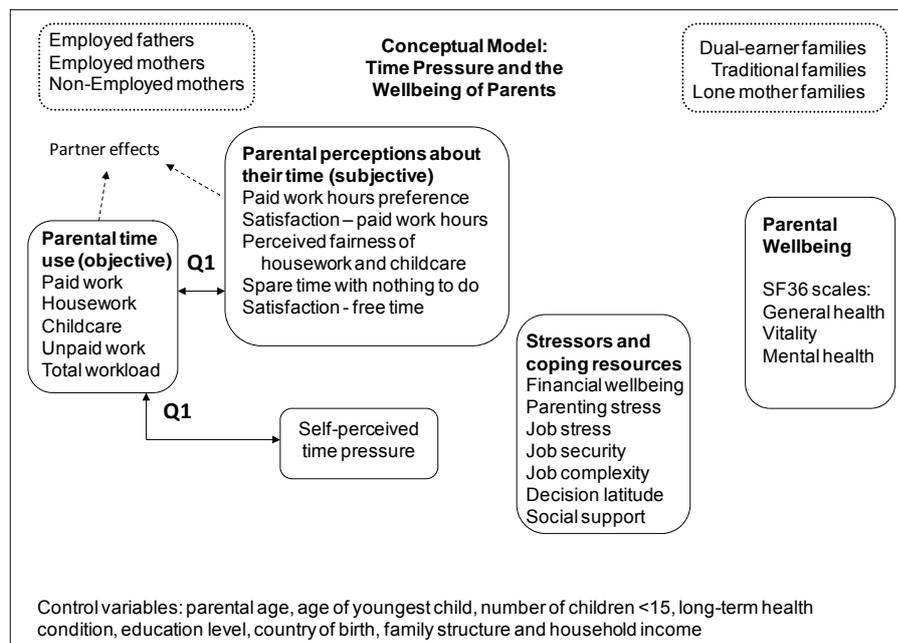


Figure 5. Conceptual model of the thesis – RQ1

There were three sub-components to this question (see section 1.10.1) that lead to six sections within the Chapter. The first section describes the time use of parents based on their own weekly estimates and computed total workloads. Although the information is not new, it was important to verify these survey estimates against time diary data (3.1). The second section describes parental perceptions about their time in specific activities, and their general self-perceived time pressure (3.2). The third section looks at the relationship between perceived unfairness in the division of unpaid labour and time use across activities and total workloads (3.3). In a similar way, the fourth section focuses on parental satisfaction with their free time (3.4) and the fifth on self-perceived time pressure (3.5). Within each section, analysis is undertaken for mothers and fathers by their employment status and the time use of partners is assessed within the context of couple families.

3.1 How Parents Use Their Time (Based on Survey Estimates)

As the first step, this section describes parental time use as obtained from survey estimates for mothers and fathers by their employment status (3.1.1), and then by their family context (3.1.2).

3.1.1 Variation in parental time use by gender and employment status

Table 5 displays average weekly parental hours in paid work, household work, childcare, and their total unpaid (household work and childcare) and total workload (paid and unpaid hours).

Table 5
Description of Parental Time Use by Gender and Employment Status

Variable	Employed mothers	Non-employed mothers	Employed fathers	Non-employed fathers
Paid work hours				
<i>M</i>	23.0	-	45.6	-
95% CI	(21.7-24.3)	-	(44.5-46.6)	-
<i>Med</i>	20.0	-	45.0	-
<i>n</i>	445	-	678	-
Household hours				
<i>M</i>	28.2	39.6	13.9	24.6
95% CI	(26.7-29.7)	(37.7-41.5)	(13.1-14.7)	(19.4-29.9)
<i>Med</i>	25.0	36.0	11.0	19.0
<i>n</i>	438	487	672	64
Childcare hours				
<i>M</i>	29.7	37.3	14.6	20.7
95% CI	(27.7-31.7)	(34.9-39.6)	(13.7-15.5)	(15.1-26.3)
<i>Med</i>	24.0	30.0	10.0	14.0
<i>n</i>	443	496	677	64
Total unpaid work				
<i>M</i>	57.7	76.7	28.6	45.3
95% CI	(55.1-60.2)	(73.6-79.8)	(27.2-29.9)	(36.4-54.2)
<i>Med</i>	55	76	25	39
<i>n</i>	437	482	669	64
Total workload^a				
<i>M</i>	82.9	76.7	78.4	45.3
95% CI	(80.5-85.3)	(73.6-79.8)	(76.8-80.0)	(36.4-54.2)
<i>Med</i>	81.0	76.0	76.0	39
<i>n</i>	434	482	661	64

Note. *n* is the total number of valid cases ^aTotal workload includes travel time associated with work

Paid work hours varied between fathers and mothers. Categorically, more than half of employed mothers (56%) worked less than 25 hours per week. More than half of employed fathers were working over 44 hours per week while more than 20% worked 55 hours or more per week. In general, fathers were more likely than mothers to be objectively time pressured due to weekly hours in paid work.

Mothers employed or not, spent more time in household work and childcare than fathers. This difference was especially notable among employed parents where, on average, employed mothers reported double the weekly household and childcare hours of employed fathers. Employed parents averaged about ten hours less per week in household work and six to seven hours less per week in childcare activities than non-employed parents. All mothers (i.e. combining the employed and non-employed groups) averaged 34 hours per week in household work and childcare while all fathers (combined employed and non-employed) averaged 15 hours per week in each activity. On the whole, the time use of mothers was more evenly distributed between paid and unpaid work than fathers and so time pressure may arise from time spent in either domain, or from the effect of combining both.

Non-employed mothers had the biggest total unpaid workload. Non-employed mothers averaged nine hours more per week in their total unpaid workload than employed mothers and 48 hours more per week than employed fathers. Notably, the average weekly workload of non-employed mothers was almost as much as that of employed fathers, so objective time constraints from their work were similar.

Employed mothers had the greatest total objective workload about five hours more than employed fathers. Overall, these estimates showed that parents were working long hours every day i.e. on average 11 hours and 45 minutes among employed mothers and around 11 hours per day for employed fathers and non-employed mothers. Although not specifically measured, this leaves little residual time for personal care and leisure, although time with children may not always be considered as work.

3.1.2 Variation in parental time use by family context

Throughout the thesis, family context is considered to be an important modifying factor in the relationship between time pressure and wellbeing, and it is likely that parental time use varies within different family contexts. In this section, statistical differences in average weekly hours spent in specific activities and in the total workloads of parents by differing family contexts are described. (See Table A3 in Appendices).

Fathers in dual-earner couples spent significantly more time in unpaid work than did fathers without an employed partner. Compared to employed fathers in traditional families, employed fathers in dual-earner couples spent on average 2.3 hours more weekly hours in household work, $t(651) = 2.89, p = .004$, and 2.1 hours more per week with children, $t(638.75) = 2.34, p = .020$. This had an impact on their total workload. While average hours in paid work were similar within both family types, on the whole, fathers in dual-earner families had a total workload that was more than four hours per week greater than fathers in traditional families, $t(640) = 2.66, p < .008$. Therefore, being in the context of a dual-earner family increased the objective time pressure of fathers.

For employed mothers, the context of being in a dual-earner family compared to being a lone parent was also associated with a significantly higher unpaid workload. Compared to employed lone mothers, mothers in dual-earner families spent, on average, five hours more per week on household work, $t(436) = 2.33, p = .020$, and 10 hours more per week caring for their children, $t(67.85) = 3.87, p < .001$. That is, employed mothers in couples spent about 30 hours per week in childcare compared to the 20 hours of employed lone mothers. There was no significant difference by family context in mothers' average weekly hours of paid work. The total workload of mothers in dual-earner families was, on average, 15 hours more per week than employed lone mothers, $t(432) = 3.93, p < .001$.

In contrast, the family context of non-employed mothers made no difference to the time they spent in household work, time with children or to their total unpaid workload. There was no statistically significant difference in either of the estimates.

3.2 How Parents Subjectively Perceive Their Use of Time

Within the thesis, several indicators of subjective time pressure were proposed, and broadly termed ‘parental perceptions about their time’. The primary measure of subjective time pressure is ‘self-perceived time pressure’ while secondary measures indicate parental perceptions about time in broad categories of activity. Before describing relationships between parental time use and their perceptions about time, it was important to see how these perceptions varied between mothers and fathers by their employment status (3.2.1) and within family context (3.2.2).

3.2.1 Variation in time perception by gender and employment status

Fathers were more likely than mothers to indicate high subjective time pressure due to their hours of paid work (see Table 6). Fathers were more likely than mothers to prefer *fewer* hours of paid work (37% compared to 20%) whereas employed mothers were just as likely to prefer *more* hours (18%). Satisfaction with working hours was mostly high for employed parents but mothers were slightly more satisfied. Being dissatisfied with paid work hours may mean preferring *more* hours or *fewer* hours.

A large proportion of mothers felt subjectively time pressured due to perceived unfairness to themselves in their share of household work and childcare. This was in stark contrast to the perceived fairness reported by fathers. Around 40% of employed mothers and 50% of non-employed mothers reported doing *much more* than a fair share of housework and childcare. The majority of fathers reported doing a *fair* share but due to the constraints of paid work hours, it may be that those who reported *less* than a fair share were the most subjectively pressed for time (26%).

Many parents were not satisfied with the amount of free time that they have and a large majority of parents reported *rarely* or *never* having spare time with nothing to do (uncommitted time). Parental reports of satisfaction with their free time and their amount of uncommitted time varied between both mothers and fathers and also by their employment status. Employed and non-employed mothers reported similar satisfaction with their amount of free time, with around a third in each group reporting a *low* level of satisfaction. This compared to about a quarter of employed

fathers and one fifth of non-employed fathers. Employed mothers were the most likely (almost 90%) to report that they *rarely* or *never* had spare time with nothing to do while non-employed fathers were the least likely (56%).

Table 6
Description of Parental Perceptions About Their Time by Gender and Employment Status

Variable	Employed mothers (n=451)		Non-employed mothers (n=512)		Employed fathers (n=686)		Non-employed fathers (n=66)	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Satisfaction - paid work hours								
Low	24	5.3	-	-	60	8.7	-	-
Medium	106	23.5	-	-	196	28.6	-	-
High	304	67.4	-	-	425	62.0	-	-
Paid work hours preference								
Fewer	90	20.0	-	-	251	36.6	-	-
About the same	262	58.1	-	-	356	51.9	-	-
More	80	17.7	-	-	74	10.8	-	-
Perceived share of housework								
Much more than fair	179	39.7	240	46.9	41	6.0	13	19.7
A bit more than fair	121	26.8	123	24.0	78	11.4	3	4.5
Fair	133	29.5	136	26.6	376	54.8	36	54.5
A bit less than fair	14	3.1	7	1.4	148	21.6	7	10.6
Much less than fair	0	0.0	1	0.2	35	5.1	7	10.6
Perceived share of childcare								
Much more than fair	178	39.5	258	50.4	19	2.8	11	16.7
A bit more than fair	125	27.7	125	24.4	49	7.1	5	7.6
Fair	130	28.8	111	21.7	421	61.4	33	50.0
A bit less than fair	5	1.1	1	0.2	150	21.9	7	10.6
Much less than fair	0	0.0	0	0.0	28	4.1	4	6.1
Spare time with nothing to do								
Almost always	0	0.0	4	0.8	1	0.1	2	3.0
Often	9	2.0	22	4.3	7	1.0	10	15.2
Sometimes	42	9.3	90	17.6	120	17.5	17	25.8
Rarely	218	48.3	235	45.9	357	52.0	22	33.3
Never	181	40.1	157	30.7	197	28.7	15	22.7
Satisfaction - free time hours								
Low	158	35.0	172	33.6	176	25.7	13	19.7
Medium	150	33.3	169	33.0	264	38.5	16	24.2
High	143	31.7	171	33.4	246	35.9	37	56.1
Self-perceived time pressure								
Almost always	108	23.9	78	15.2	88	12.8	8	12.1
Often	193	42.8	174	34.0	269	39.2	18	27.3
Sometimes	127	28.2	210	41.0	277	40.4	28	42.4
Rarely	21	4.7	40	7.8	45	6.6	7	10.6
Never	1	0.2	7	1.4	6	0.9	4	6.1

Note. Totals may not add up to 100% due to missing values

Parental reports of self-perceived time pressure also varied by their gender and employment status (Table 6). Mothers were more highly time pressured than fathers, and employed parents were more highly time pressured than non-employed parents. The proportion of parents that were *almost always* or *often* rushed or pressed for time was 68% of employed mothers, 48% of non-employed mothers, 52% of employed fathers and 39% of non-employed fathers. Overall, 57% of all mothers and 51% of all fathers were highly time pressured. On the whole, a considerable proportion of parents reported a high sense of time pressure, and this was not dependent on employment alone.

3.2.2 Variation in time perception by family context

Having seen that mothers were more likely than fathers to perceive unfairness in their share of household work, to be dissatisfied with their free time and to report greater self-perceived time pressure, and that employed mothers were subjectively more time pressured than non-employed mothers, it was important to see if parental perceptions about time were modified by family context. See Table A4 in Appendices. Significant results are discussed.

Employed fathers in traditional families were more likely than fathers in dual-earner families to report that their contribution to household work and childcare was unfair to their partner. One third of fathers in traditional families compared to 22% of fathers in dual-earner families reported to do either *a bit less* or *much less* than their fair share of housework $\chi^2(2, n = 659) = 10.37, p = .006$. Likewise, 30% of fathers in traditional families and 25% in dual-earner families reported *less* than a fair share of childcare $\chi^2(2, n = 651) = 7.17, p = .028$. In contrast, employed fathers' reports of paid work hour preferences and satisfaction, free time satisfaction, amount of uncommitted spare time and self-perceived time pressure did not vary significantly by their family context.

Comparing employed mothers by their family context, it is difficult to conclude whether mothers in couples or lone parent families were more subjectively time pressured (Table A4). The proportion of employed lone mothers reporting *much more than a fair share* of housework was around twice that of mothers in dual-earner families. In addition, employed lone mothers were more likely to *almost always*,

often or *sometimes* have spare time that they didn't know what to do with (20% compared to 10%). However, there was no statistically significant difference in their satisfaction with paid work hours and free time or their self-perceived time pressure. The difficulty in reaching a conclusion about differences is in part due to the relatively small numbers of employed lone mothers (n=48).

In a similar way, non-employed lone mothers were much more likely than mothers in traditional families to perceive a greater share of housework and childcare and to frequently have uncommitted spare time (Table A4). Thirty-one percent of non-employed lone mothers compared to 21% of coupled mothers reported to *almost always, often* or *sometimes* have spare time with nothing to do $\chi^2(3, n = 508) = 16.63, p = .001$. Because lone mothers are likely to have limited expectations about sharing the housework and childcare with others, it is possible that reporting *much more* than a fair share of either activity is less likely to indicate subjective time pressure than among mothers in couples.

3.3 Parental Perceptions of Unfairness in Their Time Use

The preceding section confirms that, on the whole, employed parents prefer moderate hours of paid work and as such, it is likely that parents working their preferred hours are also more satisfied with the division of labour at home. When fathers in couple families work long hours in paid work, mothers in these families are also more likely to perceive unfairness in their share. This next section describes the relationship between perceived unfairness in housework and childcare and parental time use. Performing *much more* than a fair share is considered to be an indicator of high time pressure among mothers while *more* or *less* than a fair share is indicative among fathers. In this section, time use across activities and total workload is considered, as is the impact of partner time use on perceived unfairness within the context of couple families.

As a note on the presentation of results, a general rule has been applied. Throughout this section and sections 3.4 and 3.5, there are multiple results reported from testing by ANOVA. In some cases, homogeneity of variance was violated and therefore the Brown-Forsythe F-ratio was reported. Rather than make this statement with each

reported F statistic (as would be conventional), the use of the Brown-Forsythe F-ratio is indicated where the within-group degrees of freedom (df2) is reported to 2 decimal points. This makes for an easier presentation.

3.3.1 How parental perceptions of unfairness in household work and childcare relate to their weekly allocation of time

Regardless of employment status, mothers' perception of unfairness to themselves in the division of unpaid work was associated with their weekly hours of household work. In contrast to the experience of mothers, perceived unfairness in unpaid work among employed fathers was related to their time use across activities as well as their total workload (Table 7).

Among employed and non-employed mothers, there was only a statistically significant relationship between their perceived unfairness in household work and the hours they spent each week in household work, $F(2,431) = 7.34, p = .001$ and $F(2,480) = 8.00, p < .001$ respectively. An employed mother's perception of unfairness in childcare was also only related to her weekly hours in household work, $F(2,425) = 4.08, p = .017$. A mother's perception of unfairness in either activity was unrelated to her paid work hours, childcare hours, total unpaid work hours or her total workload. Logically, non-employed mothers had a higher ceiling in terms of the average amount of household hours that were associated with the perception of performing much more than a fair share.

Among all employed fathers, reporting *less* than a fair share of housework was associated with longer hours in paid work, $F(2,668) = 8.29, p < .001$, but less time in household work, $F(2,334.64) = 29.52, p < .001$, and a lower total unpaid workload, $F(2,659) = 16.16, p < .001$. An employed father's perception of fairness in childcare was significantly associated with his paid work hours, $F(2,658) = 8.90, p < .001$, household work hours, $F(2,156.69) = 18.07, p < .001$, childcare hours, $F(2,155.91) = 8.98, p < .001$, total unpaid work, $F(2,143.65) = 20.14, p < .001$, and total workload, $F(2,195.86) = 3.42, p = .035$.

Employed fathers who reported a *less* than fair contribution to housework or childcare spent, on average, 49 hours per week in paid work, significantly more

hours than fathers who reported a *fair* share or *more*. Reporting *less* than a fair share of either activity was also associated with around 10 hours per week in household work and 12 hours per week in childcare. However, fathers may also have felt time pressured if they perceive unfairness to themselves in the division of unpaid work, and if this was the case then averaging 18-20 hours of household work was too much. Finally, employed fathers who reported *more* than a fair share of childcare (remembering this represents just 10% of fathers) averaged 8 hours per week more in their total combined workload compared to those who reported *much less* than a fair share of childcare (26% of fathers).

Table 7
Parental Perceptions of Unfairness in Housework and Childcare by Their Time Use by Gender and Employment Status (ANOVA)

Variable	Average Estimated Weekly Hours				
	Paid work	Household work	Childcare	Total unpaid	Total workload ^a
	<i>M</i>	<i>M</i>	<i>M</i>	<i>M</i>	<i>M</i>
Perceived share of housework					
Employed mothers					
Much more than fair	22.2	31.2^a	27.2	58.5	83.1
A bit more than fair	22.1	27.4^{ab}	32.2	59.2	83.2
Fair or less	24.8	24.5^b	30.5	54.7	81.6
Non-employed mothers					
Much more than fair	-	43.7^a	35.5	79.4	79.4
A bit more than fair	-	36.8^b	35.3	71.2	71.2
Fair or less	-	35.3^b	41.0	76.3	76.3
Employed fathers					
More than fair	42.3^a	17.8^a	14.6	32.5^a	77.8
Fair	45.2^a	15.0^b	15.3	30.4^a	79.8
Less than fair	48.7^b	9.2^c	13.0	22.4^b	76.1
Perceived share of childcare					
Employed mothers					
Much more than fair	22.3	29.8^a	29.2	59.1	83.6
A bit more than fair	22.3	29.3^a	30.9	59.8	84.3
Fair or less	24.1	24.9^b	29.6	54.2	80.6
Non-employed mothers					
Much more than fair	-	41.4	36.0	77.5	77.5
A bit more than fair	-	39.1	39.2	77.7	77.7
Fair or less	-	37.4	38.5	75.6	75.7
Employed fathers					
More than fair	42.0^a	19.7^a	19.1^a	39.3^a	84.8^a
Fair	44.7^a	14.5^b	15.1^a	29.6^b	78.3^{ab}
Less than fair	49.1^b	10.6^c	11.6^b	22.2^c	76.6^b

Note. A matching alphabetical superscript indicates that the two levels of perceived share are not significantly different by posthoc tests (Tukey B or Tamhanes for unequal variance) at $p < .05$. Results of posthoc tests are only shown where the main effect (F-test) is significant.

^aTotal workload includes travel time associated with work

3.3.2 How parental perceptions of unfairness relates to parental and partner time use *within* couple families

So far we have seen that perceptions of unfairness among mothers (employed or not) were only associated with their weekly household hours, while for fathers both paid and unpaid work activities had an impact on how they perceived the equity of their share at home. In this section, we first examine whether the family context of parents makes a difference to these associations and in couple families, whether a partner's relatively long hours of work lead to greater reports of perceived unfairness.

Parental perceptions of unfairness and time use in couple families. There was very little difference between mothers in couples and lone parent families in the relationship between their perceptions of unfairness and their time use (see Table A5). Mostly, a mother's perception of unfairness was related to her time spent in household work.

Among employed fathers, family context *did* modify the relationship between their perception of unfairness and the hours they spent each week in paid work (Table A5). Specifically, there was only a significant relationship between perceived unfairness in housework and paid work hours among fathers in dual-earner families, $F(2,339) = 7.87, p < .001$, not among fathers in traditional families, $F(2,307) = 1.61, p = .202$. Likewise, a father's perceived fairness in childcare was only associated with their paid work hours when they were in a dual-earner family, $F(2,156.46) = 5.43, p = .005$. When fathers lived in a dual-earner family, there was an average eight hour weekly gap in paid work between those who reported *more* than a fair share and those who reported *less* than a fair share of childcare. So, although more than half of employed fathers perceived themselves to perform a *fair* share of both activities, it was only when their partner was also employed that their feeling of what is fair or unfair related to their own hours of paid work.

Parental perceptions of fairness and partner's time use in couple families. Within couple families, feeling a subjectively high level of time pressure may also be related to the time use of partners. Partner analysis was undertaken for dual-earner families and traditional families. As the relationship between perceptions of unfairness and

partner time use was mostly only significant among parents within dual-earner families, only these results are shown (Table 8).

Table 8
Parental Perceptions of Unfairness in Housework and Childcare by Their Partner's Time Use: Dual-Earner Families (ANOVA)

Perceived unfairness	Partner's average weekly hours				Total workload ^a
	Paid work	Household work	Childcare	Total unpaid	
Perceived share of housework					
Employed mothers					
Much more than fair	48.4^a	13.0	15.0	28.1	81.0
A bit more than fair	43.6^b	15.7	14.6	30.6	78.4
Fair or less	44.4^b	16.1	16.4	32.6	81.0
Employed fathers					
More than fair	25.3	27.3	27.7	55.0	82.0
Fair	22.5	28.5	32.9	61.0	85.9
Less than fair	21.5	33.0	29.3	62.3	86.0
Perceived share of childcare					
Employed mothers					
Much more than fair	47.5^a	14.7	14.8^{ab}	29.8^{ab}	82.1
A bit more than fair	46.8^a	14.1	12.9^a	27.1^a	78.3
Fair or less	43.2^b	15.7	18.4^b	34.0^b	81.0
Employed fathers					
More than fair	27.8^a	26.5	24.2^a	50.7	81.5
Fair	22.6^b	28.7	32.8^b	61.1	86.0
Less than fair	20.5^b	31.5	29.3^{ab}	60.8	83.0

Note. A matching alphabetical superscript indicates that the two levels of perceived share are not significantly different by posthoc tests (Tukey B or Tamhanes for unequal variance) at $p < .05$. Results of posthoc tests are only shown where the main effect (F-test) is significant.

^aTotal workload includes travel time associated with work.

Within dual-earner families, a mother's perception of unfairness was linked with her partners paid work hours and the time he spent with the children. Specifically, when mothers reported doing *much more* than a fair share of housework or childcare, their partner's paid work hours were on average significantly higher at 48 hours per week than when mothers report a *fair* share of either task, $F(2,339) = 4.38, p = .013$ and $F(2,331) = 3.30, p = .038$, respectively. When mothers reported *much more* than a fair share of housework, their partners averaged 13 hrs per week of household work (although posthoc tests were not significant at $p < .05$). The relationship between a mothers' perception of fairness in childcare and her partner's contribution to childcare was significant, $F(2,283.17) = 5.22, p = .006$. It was among mothers who

reported *a bit more* than a fair share of childcare, that partner hours of childcare were significantly lower at 13 hours per week, than if she reported a *fair* share of childcare. The same finding is reflected in fathers' total weekly hours in unpaid work, $F(2,325) = 4.08, p = .018$.

The perception of unfairness in childcare among employed fathers in dual-earner families was also associated with the time that his partner spent in paid work and caring for their children. When fathers in dual-earner families perceived to do *more* than their fair share of childcare, their partners weekly hours in paid work were significantly higher, $F(2,334) = 3.92, p = .021$, and childcare hours were lower, $F(2,200.88) = 3.83, p = .023$, than if he had reported a *fair* share of childcare. So among employed fathers, subjectively high time pressure in the form of perceived unfairness was sensitive to partners' longer hours in paid work hours and shorter weekly hours in care of children.

3.4 Parental Satisfaction With Their Free Time Hours and Time Use

As discovered in an earlier section (3.2.1) that one third of mothers (employed or not) and a quarter of employed fathers were highly dissatisfied with their amount of free time. In this section, the relationship between weekly time spent in activities and the total workload of parents with their reports of satisfaction with their amount of free time is described. In particular, attention is given to the average weekly hours in paid work, household work, childcare and total workload of parents who have a *low* satisfaction with their amount of free time, as an indicator of subjective time pressure. We then examine whether these relationships vary within different contexts, and examine the impact of partners time use.

3.4.1 How parental satisfaction with their amount of free time relates to their weekly allocation of time

The free time satisfaction of employed mothers was directly related to their paid work hours and total workloads but not specifically to the hours they spent each week in household work or caring for their children (Table 9). Compared to those who were highly satisfied, mothers who scored a *low* (or *medium*) satisfaction with their amount of free time averaged significantly more paid work hours at 25 hours

per week, $F(2,429.68) = 10.70, p < .001$ and a greater total workload at 87 hours per week, $F(2,431) = 4.32, p = .014$. So while unpaid labour is a component of an employed mothers' total workload, their perception of whether their quantity of free time is satisfactory appears to be more heavily weighted by their hours in paid work.

By comparison, the free time satisfaction of non-employed mothers was reflective of their weekly hours in household work, $F(2,469.39) = 3.39, p = .035$. Non-employed mothers who reported *low* satisfaction with their amount of free time averaged 43 hours of household work per week, although the between group differences were not significant by posthoc tests.

Table 9
Parental Satisfaction With Amount of Free Time by Their Time Use (ANOVA)

Satisfaction - free time hours	Average estimated weekly hours				
	Paid work	Household work	Childcare	Total unpaid	Total workload ^a
Employed mothers					
Low	25.1^a	30.2	29.0	59.1	86.7^a
Medium	25.0^a	27.2	28.8	56.1	83.4^{ab}
High	18.6^b	26.9	31.2	57.8	78.0^b
Non-employed mothers					
Low	-	43.2^a	35.7	78.9	78.9
Medium	-	37.7^a	39.1	76.3	76.3
High	-	37.9^a	37.0	75.0	75.0
Employed fathers					
Low	50.6^a	14.0	12.6^a	26.8	82.2^a
Medium	47.2^b	13.2	15.3^a	28.5	80.5^a
High	40.3^c	14.6	15.2^a	29.9	73.6^b

Note. A matching alphabetical superscript indicates that the two levels of satisfaction are not significantly different by posthoc tests (Tukey B or Tamhanes for unequal variance) at $p < .05$. Results of posthoc tests are only shown where the main effect (F-test) is significant.

^aTotal workload includes travel time associated with work

Employed fathers were more satisfied with their quantity of free time when they worked short hours in full-time work, had a relatively low total workload and when they spent more time with their children. Fathers who had a *low* level of satisfaction with their amount of free time averaged more than 50 hours per week in paid work, $F(2,520.76) = 31.78, p < .001$, and had an average total workload of 82 hours per

week, $F(2,540.86) = 10.36, p < .001$, significantly more than fathers who had a *high* level of satisfaction with their amount of free time. Furthermore, employed fathers who had a *low* level of satisfaction with their quantity of free time also averaged less time with their own children, around 13 hours per week compared to those who were more satisfied, $F(2,674) = 3.09, p = .046$. As there was a ten-hour gap in paid work hours between fathers that had a *low* and *high* free time satisfaction (i.e. 50 compared to 40 hours per week), subjective time pressure, as indicated by low free time satisfaction was largely about their long hours in paid work.

3.4.2 How parental satisfaction with their amount of free time relates to parental and partner time use *within* couple families

Family context did not have a significant influence on parental reports of satisfaction with their quantity of free time (section 3.2.2). So then, does family context modify the relationship between parental time allocations and total workloads on the one hand, and their reports of free time satisfaction on the other? And does the time distribution of partners in these families relate to parental satisfaction with their quantity of free time? Differences are highlighted.

Parental reports of satisfaction with amount of free time and time use in couple families. It was only among employed mothers where the relationship between free time satisfaction and time use was modified by family context (see Table A6 in Appendices). Among all employed mothers, their satisfaction with their amount of free time was significantly related to their total workload (as in Table 9), while the relationship was not statistically significant among mothers in the dual-earner context, $F(2,332) = 1.97, p = .141$. The implication is that employed lone mothers were more likely to feel satisfaction with their free time as their total workload reduced, more so than employed mothers in a couple.

For employed fathers, being in a dual-earner versus a traditional family modified the relationship between their time use and their reported satisfaction with hours of free time (Table A6). Among fathers in traditional families, reporting a *low* level of satisfaction with amount of free time was associated with significantly less time spent with children (about 11 hours per week), and a lower unpaid workload (22 hours pw) than if their free time satisfaction was *high*, $F(2,309.14) = 4.61, p = .011$

and $F(2,305) = 6.91, p = .001$ respectively. Neither of these relationships was significant among fathers in dual-earner families. Notably though, the total workload of fathers in dual-earner families was 10 hours more per week than fathers in traditional families, when reporting their free time satisfaction to be *low* (88 hours pw compared to 78 hours pw). So while dual-earner fathers seemed to tolerate a greater workload before feeling dissatisfied with their free time, fathers in traditional families were more likely to equate their free time to time with children.

Parental reports of satisfaction with amount of free time and partner time use in couple families. Parental dissatisfaction with their quantity of free time was mostly unrelated to their partner's time use. The main exception was observed for employed fathers in dual-earner couples.

Within dual-earner families, employed fathers became more dissatisfied with their amount of free time with the greater household hours performed by their partners (table not shown). Among fathers whose satisfaction with amount of free time was *low*, the average household hours of mothers in the family was 33 hours per week, significantly more than the average 26 hours per week if fathers were highly satisfied, $F(2,237.50) = 4.66, p = .010$. This association may be partly due to the correlation of satisfaction with free time between partners within couples, although the strength of association was modest ($r = .22$ in dual-earner families). Generally, the result could be interpreted as a feeling of constraint on the free time of employed fathers when their employed partners perform greater hours of household work. The same is not true in couple families where mothers are not employed (traditional families).

3.5 Self-Perceived Time Pressure and Parental Time Use

As already confirmed, the perception of being *often* or *always* rushed or pressed for time in this population of parents is highly prevalent, and no more so than among employed mothers (3.2.1). However, reports of self-perceived time pressure did not vary significantly for mothers and fathers by their family context (3.2.2). In this final section the impact of paid *and* unpaid work hours on parental reports of self-perceived time pressure is examined. Once again, differences are examined for

parents in different family contexts and in respect to the time use of partners within couple families.

3.5.1 How the self-perceived time pressure of parents relates to their weekly allocation of time

Among all employed mothers, subjectively high time pressure was related to their weekly hours in paid and household work (Table 10). Mothers who were *almost always* rushed or pressed for time averaged 26 hours per week in paid work and 31 hours per week in household work, respectively $F(3,440) = 3.10, p = .027$ and $F(3,120.74) = 3.09, p = .030$. Although not statistically significant, there was a step up in the average total workload of employed mothers to around 85 hours per week among those who were *almost always* or *often* rushed or pressed for time. Notably, the self-perceived time pressure of employed mothers was not significantly related to time spent with their own children.

Among all non-employed mothers, a high level of self-perceived time pressure was only associated with their weekly hours of household work (Table 10). The biggest comparative difference was between the average 45 hours per week of non-employed mothers who were *almost always* rushed or pressed for time and 36 hours per week of mothers reported to *sometimes* be time pressured, $F(3,227.01) = 5.06, p = .002$. The self-perceived time pressure of non-employed mothers was not significantly related to their weekly hours with children or their total unpaid workload. As with non-employed mothers who reported *much more* than a fair share of housework and a *low* satisfaction with free time, being *almost always* rushed or pressed for time was apparent once household work became more than a standard full-time job.

Among all employed fathers, there was no statistically significant relationship between self-perceived time pressure and their weekly hours in any activity or total workload. However, a non-significant trend was observed whereby the average weekly paid hours of employed fathers reduced with a decline in their self-perceived time pressure. Employed fathers who reported to *almost always* be pressed for time averaged 49 hours per week in paid work.

Table 10
Parental Self-Perceived Time Pressure by Their Time Use (ANOVA)

Self-perceived time pressure	Average estimated weekly hours				
	Paid work	Household work	Childcare	Total unpaid	Total workload ^a
Employed mothers					
Almost always	26.1 ^a	30.7 ^a	27.4	57.6	85.9
Often	22.7 ^a	29.3 ^a	30.4	59.6	84.4
Sometimes	20.6 ^a	24.9 ^a	31.7	56.4	79.6
Rarely or never	24.6 ^a	24.8 ^a	22.6	48.6	73.9
Non-employed mothers					
Almost always	-	45.2 ^{ab}	37.0	81.5	81.5
Often	-	42.7 ^{ac}	35.4	78.0	78.0
Sometimes	-	35.9 ^d	38.8	74.5	74.5
Rarely or never	-	36.3 ^{bcd}	38.3	75.2	75.2
Employed fathers					
Almost always	48.8	15.1	12.6	27.7	79.9
Often	46.0	13.9	15.4	29.3	79.9
Sometimes	44.7	13.1	14.1	27.3	76.1
Rarely or never	42.8	16.0	16.4	32.8	80.7

Note. A matching alphabetical superscript indicates that the two levels of satisfaction are not significantly different by posthoc tests (Tukey B or Tamhanes for unequal variance) at $p < .05$. Results of posthoc tests are only shown where the main effect (F-test) is significant.

^aTotal workload includes travel time associated with work

3.5.2 How the self-perceived time pressure of parents relates to parental and partner time use *within* couple families

The self-perceived time pressure of parents was to some extent shared between couples (both partners reported to be *almost always* or *often* rushed or pressed for time in 40% of dual-earner families and 28% of traditional families). These differences were mostly due to the employment of mothers, and actually, fathers reported a similar level of time pressure in both family types (section 3.2.2).

Parental reports of self-perceived time pressure and time use in couple families.

The family context of mothers and fathers made little observable difference to the relationship between self-perceived time pressure and the average weekly allocation of parental hours to specific activities (Table A7). There was one exception. Within the context of dual-earner families, there was not a statistically significant relationship between the self-perceived time pressure of employed mothers and the weekly hours they spent in household work, $F(3,57.40) = 2.17, p = .101$. However, this relationship was significant when considering all employed mothers (Table 10).

The implication of this result is that employed lone mothers were more likely to experience a rise in time pressure with their greater hours of household work than employed mothers in couples.

Parental reports of self-perceived time pressure and partner time use in couple families. On the whole, the self-perceived time pressure reported by parents in couple families was unrelated to their partner's time use. The main exception was among employed mothers in dual-earner couples. In no case within couples, did the total unpaid work or total workload of their partner have a significant relationship with parents' self-perceived time pressure (table not shown).

Employed mothers in dual-earner couples were more likely to feel a high level of self-perceived time pressure when her partner worked long hours in paid work and spent less time with children. Specifically, among employed mothers who reported to be *almost always* rushed or pressed for time, the average weekly paid hours of their partner was 48 hours per week, significantly more than if they were *sometimes* pressed for time, $F(3,341) = 2.96, p = .032$, while time with children was on average significantly less at 13 hours per week $F(3,339) = 2.76, p = .042$. Once again, it should be remembered that the experience of time pressure was shared within couples but it is the paid work hours of employed fathers that appears to have the most influence.

3.6 Chapter Three Discussion

So having now addressed each component of the first question, what then is the nature of the relationship between parental time use and parental perceptions about their time? Initially, we see that parental estimates of their weekly time spent in activities compare favourably with Australian time diary estimates, as do reports of self-perceived time pressure and perceived unfairness in household work.

Importantly, this Chapter documents a substantial proportion of mothers (one third) and employed fathers (one quarter) who were very dissatisfied with their quantity of free time. The results have generally shown that higher levels of subjective perceptions of time pressure, by several measures, reflect relatively long hours in paid work and household work, more so than their total workloads. Furthermore, subjective time pressure was unrelated to the time parents spent with their own

children. Gender and employment status are core factors in the distribution of time use and time perceptions of parents, and also determined which domains of time use (i.e. paid work, unpaid work or free time) were more important sources of subjective time pressure.

Parental time allocated to broad categories of activity in this sample of parents with young children was similar to that found in other Australian reports. Estimates of weekly hours in paid work hours, paid work hour preferences and perceived fairness of housework and childcare are comparable with that reported elsewhere (Australian Bureau of Statistics, 2006a; Baxter et al., 2007a). As anticipated, the mean estimates of weekly hours spent in household work and childcare are greater than those reported in comparable time diary data but the overestimation is not large. In this study, the mean weekly hours of household work among mothers (employed or not) was 34 hours per week and among all fathers was 15 hours per week. This compares with estimates of 30 and 14 hours per week using time diary data for mothers and fathers with the youngest child aged 0-4 years old in 1997 (Craig, 2005). Likewise, estimates of time spent with children in this study were about four hours more per week for mothers and fathers compared to those reported in time diary data by Australian parents with the youngest child aged 0-4 in 2006 (Australian Bureau of Statistics, 2006a). Despite the tendency to overestimate, the data confirmed known patterns by gender, that is, an unequal division of household work and childcare, and the similarities tell us that the sample was broadly representative in regards to the time use of parents with young children.

Parental reports of self-perceived time pressure here were also broadly comparable with other reports. The proportion of mothers and fathers who reported to *almost always* or *often* be rushed or pressed for time was similar to that reported by Australian parents with the youngest aged 0-4 in the 1997 Time Use Survey (Bittman, 2004) but the prevalence was higher than among parents in the combined LSAC cohorts (Baxter et al., 2007a). The difference may be due to the greater proportion of mothers in the LSAC sample with younger children who average fewer hours in paid work.

The information presented here about parental satisfaction with their quantity of free time is new within the Australian context. As expected, satisfaction was low, especially among mothers. About a third of mothers, regardless of employment status, reported a *low* level of satisfaction with their amount of free time compared to a quarter of employed fathers and one fifth of non-employed fathers. The mean values on the 11-point scale were lower than those reported in the population: 5.0 among all mothers and 5.4 among employed fathers, compared to 6.7 in the general population (Headey et al., 2006). In this study, the categorization of *low* satisfaction was conservative. When grouping these parents with those who were categorized as having a *medium* satisfaction (scored 4-6), at least two-thirds of parents could be considered as ‘dissatisfied’, excluding non-employed fathers. This is supported by results in a US sample where 79% of mothers and 61% of fathers reported to not have enough time for themselves (Nomaguchi et al., 2005). Having some free time is an important buffer to the objective pressures of a high workload, and possibly to the effect of self-perceived time pressure on wellbeing, but just how much free time is a sufficient amount remains unknown. The results suggest that just sometimes having uncommitted spare time dramatically reduces the sense of time pressure among parents.

Among employed fathers, subjectively high time pressure was found to be mainly due to long hours in paid work. All indicators of subjectively high time pressure were linked to time in paid work and tell us that employed fathers would feel less time pressured working shorter full-time hours. Here it is found that the average weekly hours in paid work of fathers who reported doing *less than a fair share* of housework and childcare, who had *low* free time satisfaction, and who were *almost always* rushed or pressed for time (non-significant trend) was between 49 and 51 hours per week. These results are supported by prior analysis of the LSAC sample of young Australian families showing that over half of all employed fathers working 45 hours or more per week in paid work would prefer fewer hours (Baxter et al., 2007). The relationship between increasing paid work hours of fathers and the growing sense of unfairness to their partner in household work and childcare is also consistent with findings in the LSAC sample (Baxter et al., 2007a). Long hours in paid work limit time with children. The results further show that employed fathers who perceive to perform *less than a fair share* of childcare and who report a *low* level of satisfaction

with their amount of free time spend significantly less time with their children, on average about 12 hours per week. In other words, more time with children is associated with lower subjective time pressure among employed fathers. These findings are consistent with time diary analyses showing that, compared to mothers, the childcare time of fathers includes proportionally more time interacting with children (Craig, 2006), and with the results of a qualitative investigation reporting that fathers are more likely to perceive that their free time involves time with children, or is synonymous with ‘family time’ (Daly, 1996).

Employed mothers felt time pressured due to their time in paid work *and* household work. Prior research has shown that employed mothers mostly prefer moderate hours of part time work at 16-24 hours per week (Baxter et al., 2007a). In this study, the average weekly hours in paid work of mothers who reported a *low* level of free time satisfaction and who were *almost always* rushed or pressed for time were between 25 and 26 hours per week. However, perceived unfairness to themselves in housework or childcare was unrelated to the hours that mothers spent in paid work, a finding supported by results from the overview of LSAC parents (Baxter et al., 2007a). Adding to prior analyses, this study demonstrates a significant association between employed mothers’ perceptions of unfairness and self-perceived time pressure with their weekly hours of household work. Specifically, employed mothers who reported to do *much more* than a fair share of housework or childcare and those who were *almost always* or *often* rushed or pressed for time averaged 30 hours per week in household work. In contrast, employed mothers did not feel time pressured by spending more time caring for their own children. This finding is limited by the non-specific nature of childcare estimated by the HILDA survey data. In a sample of Canadian parents with school-aged children, the hours that parents spent in the direct care of childcare as measured by time diary data was associated with an increase in their self-perceived time pressure (Hilbrecht, 2009). The relative lack of an association between subjective measures of time pressure and the total workloads of employed mothers suggests that their main source of time pressure is due to time spent in specific activities, namely paid work and household work.

A high level of subjective time pressure among non-employed mothers reinforces the notion that household work is as much ‘work’ as paid work. Non-employed mothers

who reported to do *much more* than a fair share of housework, who reported a *low* level of satisfaction with their amount of free time, and who are *almost always* or *often* rushed or pressed for time averaged between 43 and 45 hours per week in household work. As with employed mothers, feeling time pressured was not associated with more time caring for their own children. On the whole, when household work represented more than a full-time job, non-employed mothers felt more pressed for time.

It was mainly within the context of a dual-earner family, that parents felt subjectively more time pressured in response to the time use of their partners. In families where mothers reported to *almost always* be rushed or pressed for time, the paid work hours of fathers exceeded 50 hours per week and he spent less time with his children. This study also found a significant association between perceptions of unfairness and partner's time use within dual-earner couple families. When mothers in these families reported *much more than a fair share* of housework, fathers' paid work hours averaged 48 hours per week and his hours in household work were also significantly lower at 13 hours per week. Roxburgh also found that the time pressure of employed women was reduced by their partner's increasing contribution of housework (Roxburgh, 2002). Other research has shown that women's perception of fairness is more strongly linked to their male partner's participation in traditionally female tasks (Coltrane, 2000). Although this was not tested, this may well be the case in this data. Here a non-statistical trend of the father reporting greater unfairness to his partner with her increasing hours of housework is also seen. Research among couples in general within the HILDA sample has shown no significant relationship between the male's perceptions of unfairness and his partner's time in housework (Craig & Sawrikar, 2007). Here it was observed that fathers had a greater satisfaction with their amount of free time when their partners spent fewer hours per week in household work. As an explanation, it is possible that the free time of fathers in dual-earner families is restricted by his partner's household hours or that they tend to spend free time together with or without children. Clearly the world of work conditions the perception of what is fair and not fair in the apportionment of work within the household domain and among its partners.

Overall, these results provide further evidence that reducing the long full-time working hours of fathers would go a long way towards reducing subjective time pressures among mothers and fathers by allowing for a greater contribution to household work and for fathers to spend more time with children. Results also show that housework is as much “work” as paid work for mothers. Whether or not care of children represents work for parents is debateable, and time spent caring for children was less significant to subjective perceptions of time pressure than either paid work or housework. There is also an indication that family dynamic or shared stressors may be more important than total workload. In Chapter 5, the role of other stressors and supports for self-perceived time pressure such as parenting stress and perceived social support are examined in multivariate models. Now we examine the effects of time use and perceptions among parents on their general health, mental health and vitality.

4. TIME PRESSURE AND PARENTAL WELLBEING

What are the effects of time pressure on the general health, mental health and vitality of parents with young families? This Chapter addresses the second research question, ‘How do parental time use and parental perceptions about their time relate to their self-reported wellbeing?’ (See Figure 6) There are three important sub-components to the question (see section 1.10.2). Specifically, do variations in time use in the form of commitment to specific activities in paid and unpaid work or total workloads (representing objective time pressure) have an independent impact on the wellbeing of parents? What is the strength of association between self-perceived time pressure and parental wellbeing? And what is the relationship of other subjective indicators of time pressure (perceptions about paid work hours, fairness of housework and childcare, and perceptions about free time) to reported parental wellbeing?

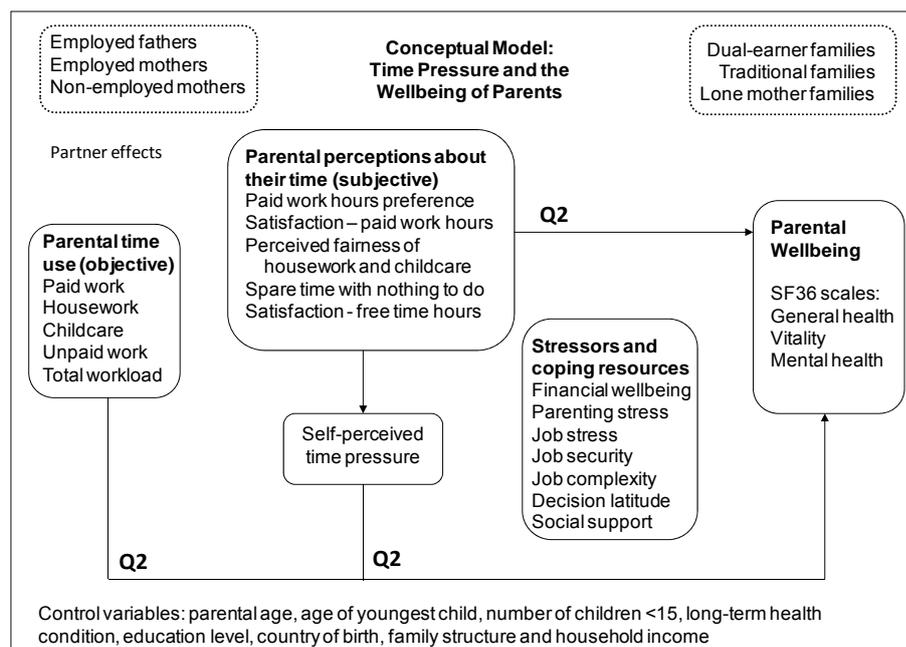


Figure 6. Conceptual model of the thesis – Q2

In addressing this second research question and its sub-components, this Chapter is organised into five main sections. The Chapter reports results from multivariate linear regression. Section one describes parental wellbeing and variation between mothers and fathers, by their employment status (4.1). Section two provides an overview of model strength and the degree to which the time use (objective time

pressure) and time perception (subjective time pressure) variables contribute to an explanation of variation in mental health, vitality and general health (4.2). Section three presents the multivariate models for employed mothers, non-employed mothers and employed fathers respectively (4.3). The univariate results are presented in Table A8 in the Appendices. Where differences between univariate and multivariate results are significant, these are discussed. This type of modelling allows us to see which of the time use and time perception variables retain a significant relationship with wellbeing when considering all indicators of time pressure together, controlled for family characteristics and indicators of human and financial capital. Section four then examines parents within their family context (4.4), looking at whether the significance and strength of relationships between time pressure and wellbeing varies for fathers according to whether they are in a dual-earner or traditional family, and for mothers according to whether they are in a couple or lone parent family (examined separately for employed and non-employed mothers). Results are discussed in section five (4.5).

Not all variables examined in the previous Chapter and in univariate analysis (see Table A8) are carried through to the multivariate analysis. Because of the interrelationships between subjective indicators of time pressure within categories of activity (paid work, unpaid work and free time), only one indicator variable per category was used in the analysis i.e. satisfaction with paid work hours, perceived fairness in share of housework for employed fathers, perceived fairness in share of childcare for employed mothers, and satisfaction with amount of free time. Although univariate relationships between measures of parental time use and their wellbeing were mostly non-significant, each of these variables was included in the analysis. This allows for the possibility that time use holds an independent association with wellbeing once allowing for variations in wellbeing due to subjective levels of time pressure. To ease presentation, full regression models and their estimates are not shown in the body of the Chapter. Instead, results are selected to highlight significant findings.

4.1 Variation in Parental Wellbeing Between Mothers and Fathers and by Their Employment Status

Before examining the influence of time pressure on parental wellbeing, it was important to identify important overall differences in wellbeing between mothers and fathers as well as differences associated with employment. Table 11 displays the mean mental health, general health and vitality scores of mothers and fathers by their employment status.

Being employed was associated with higher levels on all three measures of wellbeing among fathers while being employed was only associated with better mental health among mothers. Thus, employed mothers had significantly higher mental health than non-employed mothers, $t(955.4) = 2.24, p = .025$, but were no different in their general health or vitality. Employed fathers had significantly better mental health, $t(71.0) = 4.51, p < .001$, general health, $t(68.3) = 3.77; p < .001$, and vitality, $t(70.5) = 2.79, p < .001$ than non-employed fathers. Non-employed fathers were the most likely to record a pre-existing health condition (39%) compared to 10% of non-employed mothers and employed fathers and 6% of employed mothers (not shown in table). This indicates that fathers were more likely to be out of the workforce for reasons of poor health than mothers.

There were also differences in wellbeing by gender. Comparing mothers and fathers, employed fathers had significantly higher vitality $t(905.2) = 4.75, p = .001$ and mental health, $t(905.2) = 3.29, p < .001$, but significantly lower general health, $t(1124) = -2.11, p = 0.035$ than employed mothers. Non-employed fathers had significantly lower general health, $t(71.9) = -3.87, p < .001$, and mental health, $t(571) = -2.8, p = .005$ than non-employed mothers but similar levels of vitality.

Among lone mothers, none of the mean differences between employed and non-employed mothers were significantly different. However, when considering all lone mothers and all mothers in couples (figures not shown), lone mothers had significantly lower mental health $t(184.88) = 3.99, p < .001$, general health, $t(183.73) = 3.33, p = .001$, and vitality than mothers in couples, $t(956) = 2.26, p = .024$.

Table 11

Description of the Mental Health, Vitality and General Health of Parents by Gender and Employment Status

SF-36 scale	Mothers							
	Employed				Non-employed			
	<i>M</i>	<i>SD</i>	95% CI	% <i>ceiling</i>	<i>M</i>	<i>SD</i>	95% CI	% <i>ceiling</i>
Mental health	74.0	15.6	[72.6, 75.5]	0.9	71.6	17.0	[70.0, 73.0]	1.2
Vitality	57.5	19.6	[55.7, 59.3]	0.4	55.9	20.6	[54.1, 57.7]	0.2
General health	75.1	17.9	[73.4, 76.7]	7.5	73.3	19.3	[71.6, 75.0]	6.5

	Fathers							
	Employed				Non-employed			
	<i>M</i>	<i>SD</i>	95% CI	% <i>ceiling</i>	<i>M</i>	<i>SD</i>	95% CI	% <i>ceiling</i>
Mental health	76.8	14.4	[75.8, 77.9]	3.0	64.7	21.3	[59.4, 70.0]	1.6
Vitality	62.6	17.4	[61.3, 63.9]	0.9	54.0	26.5	[47.4, 60.6]	1.6
General health	72.8	17.4	[71.5, 74.1]	4.9	60.1	26.3	[53.6, 66.7]	1.6

Note. The "ceiling" is a perfect score of 100 (i.e. the highest level of positive wellbeing)

Broadly then, being employed was associated with a wellbeing advantage among parents while wellbeing differences between mothers and fathers varied depending on the wellbeing measure. Employed fathers had significantly better mental health and vitality than either employed mothers or non-employed mothers but significantly lower general health. On the other hand, being a lone mother was associated with lower wellbeing on all measures compared to mothers in couples.

4.2 The Contribution of Parental Time Use and Parental Perceptions About Their Time to Variation in Wellbeing

The purpose of this section is to describe the overall impact of parental time use and their time perceptions on their self-reported wellbeing. Table 12 shows the amount of variance explained in the mental health, vitality and general health of parents by three stages of modelling. These stages illustrate the change in variance when adding time use variables (Step 2), and then time perception variables (Step 3) to the base

model comprised of control factors only. Furthermore, explanation of variance can be compared across wellbeing measures and by gender and the employment status of parents. It should be noted that having found little relationship between time use and wellbeing in the bivariate relationships, an improvement in adjusted R^2 was not expected at Step 2.

Table 12

Explanation and Change of Variance in Parental Wellbeing for Three Steps of Multivariate Linear Regression by Gender and Employment Status

Predictors	Employed mothers			Non-employed mothers			Employed fathers		
	Mental health	Vitality	General health	Mental health	Vitality	General health	Mental health	Vitality	General health
Step 1 - Base ^a									
ΔR^2	.046	.031	.120***	.080***	.062**	.134***	.038*	.037*	.106***
Step 2 - Time Use ^b									
ΔR^2	.037	.033	.048**	.016	.021	.025*	.011	.028*	.015
Step 3 -Time Perception ^c									
ΔR^2	.099***	.197***	.061***	.091***	.127***	.034*	.135***	.158***	.042***
Total R^2	.182	.260	.230	.187	.210	.194	.185	.223	.163
Total Adjusted R^2	.116	.201	.168	.141	.165	.147	.146	.186	.123
n	408	408	405	464	466	461	656	658	654

^aBase model variables are parental age, age of youngest child, number of children < 15, self-reported long-term health condition, education level, family structure and household income

^bTime use variables added to the model are average weekly hours in paid work, household work and childcare

^cTime perception variables added to model are satisfaction with paid work hours, perceived share of childcare or housework, satisfaction with amount of free time and self-perceived time pressure

* $p < .05$. ** $p < .01$. *** $p < .001$. Bolded values are significant at $p < .05$.

First in comparing the base models it is found that for all parents, their general health was better explained by family characteristics, human and financial capital than was their mental health and vitality (Table 12). The most influential of these factors was the self-reported presence of a long-term health condition, which was associated with significantly lower general health, mental health and vitality among all parents.

As anticipated, subjective indicators of time pressure were more closely related to wellbeing than objective indicators. Time use (estimated weekly hours in paid work, household work and childcare) did little to explain variance in the mental health, vitality and general health of parents over and above family characteristics and indicators of human and financial capital (Step 2). In contrast, perceptions about

time explained a significant portion of variance in wellbeing for all parents, with the highest adjusted R^2 observed for vitality (Step 3). The time perceptions of employed mothers better explained variations in their vitality and general health compared to non-employed mothers and employed fathers, as evidenced by a higher adjusted R^2 for both outcomes.

Time use, in the form of total parental workloads, also did little to explain variation in parental wellbeing. That is, in testing alternative models based on parental workloads, whereby at Step 2, the three variables about time use (paid work, household work and childcare) were replaced by (a) total unpaid workload, and then (b) total workload, there was no significant change in explanation of variance ($p < .05$) of the mental health, vitality and general health of parents from the base model.

4.3 Time Pressure and its Effect on Parental Wellbeing

The next three sections detail findings about the associations between parental time use and parental perceptions about time on the one hand, and the self-reported wellbeing of parents on the other hand. Because the analysis uses regression modelling, certain conventions are used for the presentation of results. In the supporting tables, both unstandardised (B) and standardised (β) coefficients are displayed. Discussion of results is based on the standardised coefficients. The standardised coefficients represent the change in the outcome variable for a change of one standard deviation in the predictor variable. Reference categories for each variable were chosen to reflect the most favourable condition for wellbeing (e.g. *high* satisfaction with amount of free time) or the largest category (e.g. *sometimes* rushed or pressed for time).

4.3.1 Time pressure and its effect on the wellbeing of employed mothers

About half of all mothers with young children up to the age of six were in paid employment, with about one quarter of these working full-time hours. On the whole, employment was shown to be beneficial for the mental health of employed mothers but not for their vitality or general health (section 4.1). Employed mothers had the highest total (paid and unpaid) workloads (section 3.1.1); more than two-thirds were

highly time pressured; 40% perceived to perform *much more* than their fair share of housework and childcare, and a third were highly dissatisfied with their amount of free time (section 3.2.1). So we now turn our attention to the relationship between time pressure and the mental health, vitality and general health of all employed mothers (Table 13).

Time use and employed mothers' wellbeing. In respect to time use, the wellbeing of all employed mothers was most consistently related to the time they spent caring for their own children. Employed mothers had significantly *lower* mental health when their time with children was in the first ($\beta = -.21, p = .001$), second ($\beta = -.15, p = .016$) or third quartile ($\beta = -.23, p < .001$) compared to the fourth quartile (40 hours or more per week). There was a similar pattern of relationships for general health and vitality. This finding is consistent with univariate results (see Table A8). In contrast, the wellbeing of employed mothers was unrelated to their weekly hours in household work, while hours of paid work had a small effect i.e. the general health of employed mothers was significantly higher ($\beta = .13, p = .031$) when mothers worked 0-15 hours compared to 16-24 hours per week. Due to the cross-sectional nature of the data, it could be that higher levels of wellbeing allow employed mothers to spend more time with children. However, these results must be viewed in the context of no significant improvement in explanation of variance in the mental health of employed mothers by the addition of time use variables (Table 12).

In alternative multivariate models, there was limited association between the total unpaid workload and the total workload of employed mothers (as measured in quartiles) and their mental health, vitality and general health. There were some significant parameters indicating that employed mothers whose total unpaid workload was in the second quartile (36-55 hrs pw) compared to the fourth quartile (76+ hrs pw), and among employed mothers whose total workload was in the second quartile (66-81 hrs pw) compared to the fourth quartile (102+ hrs pw) had significantly *lower* mental and general health. This was consistent with bivariate results for the total unpaid workloads but not for employed mothers' total workload (Table A8). Again, these results must be viewed in the context of no significant improvement in the overall explanation of variance in the mental health and general health of employed mothers by their total workload.

Table 13

Adjusted Linear Regression Results of Weekly Time Use and Perceptions About Time on Measures of Parental Wellbeing Among all Employed Mothers^a

Predictor	Employed mothers wellbeing								
	Mental health			Vitality			General health		
	B	SE B	β	B	SE B	β	B	SE B	β
Paid work hours									
1 to 15 hrs	0.09	1.96	.00	0.79	2.29	.02	4.71	2.18	.13*
16 to 24 hrs	ref			ref			ref		
25 to 34 hrs	1.55	2.48	.04	2.24	2.90	.04	2.67	2.75	.06
35 hrs +	2.33	2.41	.06	3.61	2.82	.08	3.06	2.66	.07
Household hours ^b									
1st quartile	-0.22	2.49	-.01	-1.33	2.91	-.03	1.38	2.75	.03
2nd quartile	0.40	2.27	.01	0.86	0.86	.02	0.88	2.53	.02
3rd quartile	-0.23	2.07	-.01	-0.93	2.42	-.02	-0.10	2.29	.00
4th quartile	ref			ref			ref		
Childcare hours ^c									
1st quartile	-7.68	2.39	-.21***	-5.96	2.79	-.13*	-7.89	2.65	-.19**
2nd quartile	-5.46	2.26	-.15*	-3.14	2.65	-.07	-5.23	2.50	-.13*
3rd quartile	-8.23	2.17	-.23***	-8.50	2.54	-.20***	-8.11	2.41	-.20***
4th quartile	ref			ref			ref		
Satisfaction - paid work hours									
Low	-12.45	3.52	-.18***	-11.46	4.11	-.13**	-2.17	3.88	-.03
Medium	-3.63	1.82	-.10*	-4.79	2.13	-.11*	-5.20	2.02	-.13**
High	ref			ref			ref		
Perceived share of childcare									
Much more than fair	-1.47	1.93	-.05	-2.71	2.26	-.07	-4.27	2.13	-.12*
A bit more than fair	0.96	1.97	.03	-0.20	2.30	-.01	1.16	2.18	.03
Fair or less	ref			ref			ref		
Satisfaction - free time hours									
Low	0.83	2.14	.03	-5.92	2.51	-.15*	1.11	2.38	.03
Medium	0.12	1.99	.00	-2.82	2.33	-.07	0.94	2.21	.03
High	ref			ref			ref		
Self-perceived time pressure									
Almost always	-9.65	2.28	-.26***	-16.19	2.67	-.36***	-6.10	2.52	-.15*
Often	-6.40	1.94	-.20***	-9.13	2.27	-.24***	-5.87	2.15	-.16**
Sometimes	ref			ref			ref		
Rarely or never	3.79	3.98	.05	5.99	4.65	.06	4.90	4.39	.06
Intercept	78.65	6.91		69.17	8.08		76.90	7.69	
Adjusted R^2			.116			.201			.168
n			408			408			405

^a Adjusted for parental age, age of youngest child, number of children < 15, long-term health condition, education level, family structure and household income.

^b First quartile represents the least amount of weekly time (<16.5 hrs pw) and fourth quartile the most amount of weekly time (37 hrs + pw) in household work among employed mothers.

^c First quartile represents the least amount of weekly time (<14 hrs pw) and fourth quartile the most amount of weekly time (40 hrs+ pw) spent with own children among employed mothers.

* $p < .05$. ** $p < .01$. *** $p < .001$ (two-tailed tests). Bolded values are significant at $p < .05$.

Strength of the relationship between self-perceived time pressure and wellbeing.

Employed mothers who reported high levels of self-perceived time pressure had significantly lower mental health, vitality and general health. Being *almost always* rushed for time was associated with a significant drop in the mental health ($\beta = -.26, p < .001$), vitality ($\beta = -.36, p < .001$) and the general health ($\beta = -.15, p = .016$) of employed mothers compared to those who reported to *sometimes* be rushed or pressed for time. Being *often* rushed or pressed for time was also associated with significantly lower mental health ($\beta = -.20, p = .001$), vitality ($\beta = -.23, p < .001$), and general health ($\beta = -.16, p = .007$). From the previous chapter, it is known that 24% of employed mothers were *almost always* and 43% were *often* rushed or pressed for time so the detrimental effect on wellbeing is relevant for two-thirds of all employed mothers.

The impact of employed mothers' perceptions about time spent in paid work, childcare and free time.

Employed mothers had significantly lower wellbeing when dissatisfied with their paid work hours. Employed mothers who reported a *low* level of satisfaction with their hours of paid work (score 0-3) had significantly lower mental health ($\beta = -.18, p < .001$) and vitality ($\beta = -.13, p = .006$) compared to mothers who were highly satisfied (score 7-10). It should be noted that the number of employed mothers reporting *low* satisfaction was relatively small (5%) and so it is a strong effect for a small group of mothers. However, a *medium* satisfaction with paid work hours (24% of employed mothers) was also associated with a significant drop in their vitality ($\beta = -.11, p = .025$) and general health ($\beta = -.13, p = .011$). From Chapter Three, it is known that dissatisfaction with paid work hours can reflect a mother's preference for *fewer* or *more* hours. At a univariate level (see Table A8), employed mothers who preferred *fewer* hours in paid work had significantly lower vitality than those who would prefer *about the same*.

In contrast to the univariate results (Table A8), there was little association between the wellbeing of employed mothers and their perceived fairness in their share of childcare, with one exception. Employed mothers who reported *much more* than a fair share of childcare had significantly lower general health ($\beta = -.12, p = .046$) than mothers who reported a *fair share* of childcare. Univariate results showed that employed mothers who reported *much more* than a fair share of childcare also had

significantly lower mental health, and vitality than those who reported a *fair* share. The loss of a significant relationship between perceived share of childcare and wellbeing is likely to be due to the relationship between reports of perceived unfairness and perceived time pressure.

Modelling with other subjective indicators of time pressure also weakened the relationship between free time satisfaction and the wellbeing of employed mothers. Employed mothers had significantly lower vitality ($\beta = -.15, p = .019$) when reporting a *low* level of satisfaction with their amount of free time. This was consistent with the univariate results (Table A8). However, within the multivariate analyses, reporting a *low* satisfaction with their quantity of free time did not significantly relate to the mental health or general health of employed mothers, where there was a univariate relationship.

Summing up. The wellbeing of all employed mothers was mostly predicted by their weekly hours with children, their satisfaction with paid work hours and their self-perceived time pressure. Among employed mothers, wellbeing was reduced when spending less time with children than the fourth quartile (top 25%) of care; when *almost always* or *often* rushed or pressed for time; when satisfaction with paid work hours was *low* (mental health and vitality); when reporting to perform *much more* than a fair share of childcare (general health only), and when satisfaction with amount of free time was *low* (vitality only). Compared to the univariate results, some effects were not significant in the multivariate modelling and this is likely due to the strong relationship between self-perceived time pressure and wellbeing among employed mothers.

4.3.2 Time pressure and its effect on the wellbeing of non-employed mothers

For families with young children, about half of all couple families and two-thirds of lone parent families have a mother who is not in paid employment. We have previously seen that non-employed mothers report the largest unpaid workload (3.1.1) and about half report a high level of self-perceived time pressure (3.2.1). In this section, as in the previous, the predictive relationship between time devoted to weekly hours in unpaid work, perceived fairness in the share of this work,

satisfaction with free time, and time pressure is assessed with respect to mothers' mental health, vitality and general health. Table 14 displays the regression parameters of the mental health, vitality and general health models for all non-employed mothers.

Table 14

Adjusted Linear Regression Results of Weekly Time Use and Perceptions About Time on Measures of Parental Wellbeing Among all Non-Employed Mothers^a

Predictor	Non-employed mothers wellbeing								
	Mental health			Vitality			General health		
	B	SE B	β	B	SE B	β	B	SE B	β
Household hours ^b									
1st quartile	0.17	2.26	.00	2.68	2.68	.05	1.03	2.52	.02
2nd quartile	-0.78	2.12	-.02	0.77	2.52	.02	2.06	2.37	.05
3rd quartile	2.70	2.14	.07	3.92	2.55	.08	2.86	2.40	.06
4th quartile	ref			ref			ref		
Childcare hours ^c									
1st quartile	-3.17	2.37	-.08	-2.76	2.81	-.06	-7.61	2.66	-.17**
2nd quartile	-3.57	2.17	-.09	-4.09	2.58	-.09	-5.42	2.44	-.12*
3rd quartile	-1.29	2.14	-.03	-1.79	2.55	-.04	-1.71	2.40	-.04
4th quartile	ref			ref			ref		
Perceived share of childcare									
Much more than fair	-2.99	1.96	-.09	-1.04	2.33	-.03	3.53	2.21	.09
A bit more than fair	-2.29	2.17	-.06	1.63	2.57	.04	2.87	2.44	.07
Fair or less	ref			ref			ref		
Satisfaction - free time hours									
Low	-5.73	2.01	-.16**	-12.17	2.37	-.28***	-3.01	2.23	-.07
Medium	-2.72	1.88	-.08	-2.88	2.23	-.07	-0.72	2.11	-.02
High	ref			ref			ref		
Self-perceived time pressure									
Almost always	-6.49	2.42	-.14**	-6.26	2.88	-.11*	-8.18	2.71	-.15**
Often	-3.67	1.76	-.10*	-6.39	2.10	-.15**	-1.95	1.98	-.05
Sometimes	ref			ref			ref		
Rarely or Never	8.45	2.94	.13**	6.44	3.40	.09	1.64	3.23	.02
Intercept	65.22	5.88		44.20	6.99		69.21	6.59	
Adjusted R^2			.14			.17			.15
n			464			466			461

^aAdjusted for parental age, age of youngest child, number of children < 15, long-term health condition, education level, family structure and household income.

^bFirst quartile represents the least amount of weekly time (<24 hrs pw) and fourth quartile the most amount of weekly time (51 hrs + pw) in household work among non-employed mothers.

^cFirst quartile represents the least amount of weekly time (<14 hrs pw) and fourth quartile the most amount of weekly time (52 hrs+ pw) spent with own children among non-employed mothers.

* $p < .05$. ** $p < .01$. *** $p < .001$ (two-tailed tests). Bolded values are significant at $p < .05$.

Time spent in specific activities and non-employed mothers' wellbeing. There was relatively little effect of time use, in the form of household and childcare hours, on the wellbeing of non-employed mothers. The only significant result was the lower general health of non-employed mothers in the first ($\beta = -.17, p = .004$) and second ($\beta = -.12, p = .027$) quartiles of childcare hours compared to the fourth quartile (52 or more hours per week). That is, mothers in the top 25% of childcare hours had significantly better general health.

In alternative multivariate models, there was no significant association between the total unpaid workload of non-employed mothers (as measured in quartiles) and their mental health, vitality and general health. This was consistent with bivariate results (Table A8).

Strength of the relationship between self-perceived time pressure and wellbeing.

Non-employed mothers had better mental health, vitality and general health when they reported lower self-perceived time pressure. Non-employed mothers who reported to *almost always* be rushed or pressed for time had significantly lower mental health ($\beta = -.14, p = .008$), vitality ($\beta = -.11, p = .030$) and general health ($\beta = -.15, p = .003$) compared to those who *sometimes* felt time pressured. Being *often* rushed or pressed for time was also associated with a marked drop in their mental health ($\beta = -.10, p = .038$) and vitality ($\beta = -.15, p = .002$), while reporting to *rarely or never* be this time pressured was associated with better mental health ($\beta = -.13, p = .004$) among non-employed mothers.

The impact of non-employed mothers' perceptions about time spent in childcare and free time.

The wellbeing of non-employed mothers was unrelated to their perceptions of unfairness in childcare. Although not modelled, univariate results showed that the vitality of non-employed mothers was significantly lower when they perceived unfairness in their share of housework (see Table A8 in Appendices).

Dissatisfaction with quantity of free time was a secondary indicator of time pressure and as such, was associated with the lower wellbeing of non-employed mothers. Non-employed mothers who reported a *low* level of satisfaction with their amount of free time had significantly lower vitality ($\beta = -.28, p < .001$) and mental health ($\beta =$

- .16, $p = .004$). In contrast to univariate results (Table A8), a *low* satisfaction with free time hours was not significantly associated with the reduced general health of non-employed mothers in multivariate modelling. It is possible that, as with paid work hours, reporting a *low* satisfaction with amount of free time indicates a preference for *more* or *less* free time.

Summing up. Levels of free time satisfaction and self-perceived time pressure independently predicted the wellbeing of non-employed mothers; while only their general health was related to the time they spent with their children. Among non-employed mothers, wellbeing was reduced when *almost always* or *often* rushed or pressed for time; when satisfaction with amount of free time was *low* (mental health and vitality only), and when childcare hours were in the bottom 50% of time with children (general health). This was consistent with univariate results but the process of multivariate modelling broadly showed that free time satisfaction was as important for the wellbeing of non-employed mothers as a low level of time pressure.

4.3.3 Time pressure and its effect on the wellbeing of employed fathers

Over 90% of all fathers with young children are in paid employment, averaging 46 hours per week although many work more, indicating a high level of objective time pressure. Results have shown that employed fathers spend half as much time in household work and childcare as employed mothers (3.1.1). Just over half of employed fathers reported a *high* level of time pressure; about a quarter reported to do *less* than their fair share of housework and childcare, and a quarter were highly dissatisfied with their amount of free time (3.2.1). Employment proved to be a distinct advantage to their mental health, vitality and general health (4.1). In this section the multivariate relationship between time pressure and the mental health, vitality and general health of all employed fathers is examined (Table 15). Each of the sub-components of the research question is addressed.

Table 15
Adjusted Linear Regression Results of Average Weekly Time Use and Perceptions About Time on Measures of Parental Wellbeing Among Employed Fathers^a

Predictor	Employed fathers wellbeing								
	Mental health			Vitality			General health		
	B	SEB	β	B	SEB	β	B	SEB	β
Paid work hours									
1 to 34 hrs	-1.15	1.94	-.02	-3.59	2.30	-.06	-1.11	2.43	-.02
35 to 44 hrs	ref			ref			ref		
45 to 54 hrs	1.03	1.34	.03	0.16	1.58	.00	2.05	1.65	.05
55 hrs+	2.90	1.54	.08	-1.72	1.85	-.04	2.16	1.93	.05
Household hours ^b									
1st Quartile	-1.32	1.61	-.04	0.09	1.93	.00	-2.79	2.02	-.07
2nd quartile	-1.14	1.53	-.03	-1.82	-1.82	-.04	-0.17	1.92	.00
3rd quartile	-1.03	1.47	-.03	1.47	1.47	.04	0.79	1.85	.02
4th quartile	ref			ref			ref		
Childcare hours ^c									
1st Quartile	-2.00	1.67	-.06	0.50	2.00	.01	-1.90	2.09	-.05
2nd quartile	-1.14	1.69	-.03	-1.05	2.02	-.03	-0.82	2.12	-.02
3rd quartile	-2.83	1.56	-.09	-1.50	-1.50	-.04	-2.84	-2.84	-.08
4th quartile	ref			ref			ref		
Satisfaction—paid work hours									
Low	-5.85	2.06	-.12**	-5.35	2.48	-.09*	-4.56	2.59	-.07
Medium	-1.01	1.27	-.03	0.82	1.52	.02	-1.43	1.59	-.04
High	ref			ref			ref		
Perceived share of housework									
More than fair share	-1.67	1.48	-.04	-1.08	1.77	-.02	0.28	1.86	.01
Fair share	ref			ref			ref		
Less than fair share	-2.33	1.30	-.07	-4.02	-4.02	-.10**	-1.43	1.63	-.04
Satisfaction - free time hours									
Low	-3.49	1.54	-.11	-8.34	1.85	-.21	-3.05	1.93	-.08
Medium	-1.77	-1.77	-.06	-3.47	1.52	-.10	-1.53	1.59	0.04
High	ref								
Self-perceived time pressure									
Almost always	-8.47	1.78	-.20***	-13.26	2.13	-.25***	-7.21	2.23	-.14***
Often	-5.40	1.20	-.19***	-3.25	1.44	-.09*	-2.20	1.50	-.06
Sometimes	ref			ref			ref		
Rarely or Never	6.48	2.14	.12	5.01	2.55	.07	2.54	2.68	.04
Intercept	89.72	3.92		73.30	4.70		87.48	4.93	
Adjusted R ²			.146			.186			.123
n			656			658			654

^aAdjusted for parental age, age of youngest child, number of children < 15, long-term health condition, of education level, family structure and household income.

^bFirst quartile represents the least amount of weekly time (<6.5 hrs pw) and fourth quartile the most amount of weekly time (18 hrs + pw) in household work among employed fathers.

^cFirst quartile represents the least amount of weekly time (<7 hrs pw) and fourth quartile the most amount of weekly time (20 hrs+ pw) spent with own children among employed fathers.

* $p < .05$. ** $p < .01$. *** $p < .001$ (two-tailed tests). Bolded values are significant at $p < .05$.

Time use and employed fathers' wellbeing. The time use of employed fathers was unrelated to their wellbeing, independent of their subjective time perceptions and other controlled factors. This is consistent with the finding of no significant change in the amount of variance explained by the time use variables as a whole (see Table 12). The lack of a significant relationship between paid work hours and the vitality of employed fathers contrasts with univariate results showing that the mean level of vitality of employed fathers was highest for those working 35-44 hours per week and lowest at 55 hours or more per week of paid work. This is likely to be accounted for by the impact of low free time satisfaction and high time pressure on fathers' vitality.

In alternative multivariate models, there was very little association between the total unpaid workload and the total workload of employed fathers (as measured in quartiles) and their mental health, vitality and general health. There were two significant parameters suggesting that employed fathers whose total workloads were relatively low had lower mental health and general health than employed fathers whose total workloads were in the highest quartile (90.5 hours or more per week). This was inconsistent with bivariate results where there was no significant relationship between both measures and the wellbeing of employed fathers (Table A8). Furthermore, these results must be viewed in the context of no significant improvement in the overall explanation of variance in the mental health and general health of employed fathers by the total workload variable.

Strength of the relationship between self-perceived time pressure and wellbeing.

Lower mental health, vitality and general health were predicted by high time pressure among all employed fathers. Employed fathers who reported to be *almost always* rushed or pressed for time (13% of fathers) had significantly lower mental health ($\beta = -.20, p < .001$), vitality ($\beta = -.25, p < .001$) and general health ($\beta = -.14, p = .001$). Employed fathers who were *often* rushed or pressed for time (39% of fathers) also had significantly lower mental health ($\beta = -.19, p < .001$) and vitality ($\beta = -.09, p = .024$).

The impact of employed fathers' perceptions about time spent in paid work, childcare and free time.

The mental health, vitality and general health of all employed fathers were related to their satisfaction with paid work hours. Employed

fathers who reported a *low* level of satisfaction with their hours of paid work (score 0-3) had significantly lower mental health ($\beta = -.12, p = .005$) and vitality ($\beta = -.09, p < .001$) compared to those who were highly satisfied. As with employed mothers, the number of employed fathers reporting *low* satisfaction was relatively small (9%) and so it was a notable effect for a small group of fathers. Although not modelled, univariate analysis showed that employed fathers who would prefer *fewer* hours in paid work had significantly lower vitality than those who would prefer *about the same hours* (see Table A8 in Appendices).

Employed fathers' perception of unfairness in their share of housework was associated with their vitality, consistent with univariate effects, while the relationship with their mental health was not statistically significant. Specifically, fathers who reported to do *less* than a fair share of housework (27% of employed fathers) had significantly lower vitality ($\beta = -.10, p = .031$). Due to the cross-sectional nature of the data, it is just as likely that relatively low levels of energy led to their reduced contribution to housework.

The mental health and vitality of all employed fathers, but not their general health, was related to their satisfaction with amount of free time. Employed fathers who reported a *low* level of satisfaction with their amount of free time (25% of fathers) had significantly lower mental health ($\beta = -.11, p = .024$) and vitality ($\beta = -.21, p < .001$). Employed fathers who scored a *medium* satisfaction with amount of free time (39% of fathers) also had significantly lower vitality ($\beta = -.10, p = .023$) than fathers who were highly satisfied. Lowered vitality due to dissatisfaction with amount of free time therefore affected two thirds of employed fathers.

Summing up. Employed fathers' satisfaction with paid work hours and their amount of free time, their perception of fairness in housework, and their self-perceived time pressure predicted their wellbeing. Employed fathers had reduced levels of wellbeing when they were *almost always* or *often* rushed or pressed for time; when their satisfaction with paid work hours was low (mental health and vitality); when they performed *less* than a fair share of housework (vitality only), and when their satisfaction with the amount of free time they have was low (mental health and

vitality). In contrast to employed mothers though, for employed fathers, there was not an independent effect of time use in any activity on their wellbeing.

4.4 Relationships Between Time Pressure and Wellbeing in Differing Family Contexts

So far we have seen subtle differences in the relationship between time pressure and wellbeing by gender and employment status but a consistent effect of self-perceived time pressure on the mental health, vitality and general health of all parents. In this section, variations in the relationship between time pressure and wellbeing are assessed with respect to family context. The sub-samples in this section are now families where both partners in a couple have responded to a self-complete questionnaire (i.e. 346 ‘dual-earner families’, and 321 ‘traditional families’), and lone mothers (47 employed and 96 non-employed).

As reported in section 4.2, time use, in the form of total parental workloads, also did little to explain variation in parental wellbeing when considering parents within their family context. There was one exception, as reported in section 4.4.2.

Models for mothers and fathers in these families are now compared in respect to differences in the size and significance of the standardised coefficients.

4.4.1 Comparing the relationship between time pressure and wellbeing for fathers in dual-earner and traditional couple families

This section addresses the important question of whether the context of being in a dual-earner or traditional family makes a difference to the nature or strength of association between time pressure and the wellbeing of employed fathers.

Differences are indicated by change in statistical significance or in the size of parameters. There were several observed differences suggesting that context matters for fathers and these are discussed.

It was only in the context of dual-earner families that the wellbeing of employed fathers was associated with *low* paid work hour satisfaction (Table 16). The first difference, then, was the lack of a significant relationship between paid work hours satisfaction and the wellbeing of employed fathers in traditional couple families,

while the relationship remained significant among fathers in dual-earner families. Employed fathers in dual-earner families who reported a *low* level of satisfaction with paid work hours had significantly lower mental health ($\beta = -.17, p = .003$), vitality ($\beta = -.16, p < .001$) and general health ($\beta = -.15, p = .013$) compared to those who were highly satisfied. The lack of significance among fathers in traditional families is a strong indication that the paid work hour satisfaction of fathers is related to the employment status or hours of his partner.

Table 16
Adjusted Linear Regression Results of Perceptions About Time on Measures of Parental Wellbeing: Comparison of Fathers in Dual-Earner (DE) and Traditional (Tr) Families^a

Predictor	Employed Fathers					
	Mental health		Vitality		General health	
	DE	Tr	DE	Tr	DE	Tr
	β	β	β	β	β	β
Satisfaction—paid work hours						
Low	-.17**	-.05	-.16**	-.02	-.15**	-.02
Medium	-.39	-.01	-.03	.05	-.10	-.01
High	ref					
Perceived share of housework						
More than fair share	-.02	-.09	-.02	-.03	.05	-.05
Fair share	ref					
Less than fair share	-.08	-.10	-.09*	-.09	.01	-.09
Satisfaction - free time hours						
Low	-.09	-.10	-.22**	-.17**	-.05	-.05
Medium	-.09	-.03	-.12**	-.06	-.02	-.02
High	ref					
Self-perceived time pressure						
Almost always	-.14**	-.28***	-.17**	-.33***	-.08	-.22**
Often	-.20***	-.16**	-.02	-.16**	-.01	-.11*
Sometimes	ref					
Rarely or never	.19***	-.01	.16**	.00	.15	-.07
Adjusted R^2	.19	.09	.23	.13	.13	.12
n	333	307	333	307	331	305

^aAdjusted for parental age, age of youngest child, number of children < 15, long-term health condition, education level, family structure and household income.

* $p < .05$. ** $p < .01$. *** $p < .001$ (two-tailed tests). Bolded values are significant at $p < .05$.

High self-perceived time pressure had a greater impact on the wellbeing of fathers in the context of traditional families than it did for fathers in dual-earner families. The second difference, then, was a stronger effect of self-perceived time pressure on the mental health, vitality and general health of fathers in traditional families compared

to fathers in dual-earner families. Reporting to be *almost always* rushed or pressed for time was associated with double the reduction in mental health ($\beta = -.28$ compared to $\beta = -.14$) and vitality ($\beta = -.33$ compared to $\beta = -.17$) among fathers in traditional families compared to fathers in dual earner families. Reporting this high level of time pressure was also associated with a reduction in the general health ($\beta = -.22, p = .001$) of fathers in traditional families but not the general health of fathers in dual-earner families.

Compared to the mental health model for all employed fathers, where reporting to do less than a fair share of housework was associated with reduced mental health, there was only a statistically significant difference in the relationship between perceived fairness in share of housework and fathers' mental health among fathers in dual-earner families. It should be noted here that the sub-sample size in the traditional couple model was smaller and consequently had less power.

4.4.2 Comparing the relationship between time pressure and wellbeing for mothers in couple and lone parent families

Does living in a couple families or as a lone parent make a difference to the significance or strength of association between time pressure and wellbeing for mothers? The question is examined for employed and non-employed mothers (Table A9). Because the numbers of lone parents were too small to run multivariate analyses, the strength of association between time pressure and wellbeing is observed for change when removing lone mothers from the analysis among all employed and all non-employed mothers (as reported in Tables 13 and 14).

Employed mothers in dual earner and lone parent families. The relationship between time pressure and wellbeing among employed mothers in a dual-earner family was similar to that found for all employed mothers. There was no observable change in the relationship when removing employed lone mothers from the analysis. The results suggest that employed lone mothers and employed mothers in dual-earner families were generally similar in respect to how time pressure was associated with their wellbeing.

In alternative multivariate models, there was an association found between the total workload (as measured in quartiles) of employed mothers in dual-earner families and their general health. Specifically, employed mothers in the second quartile (66-81 hrs pw) had significantly lower general health than those in the highest quartile (102+ hrs pw). The alternative model based on total workload (as representing ‘time use’ at Step 2) *did* significantly improve the explanation of variance in the general health of employed mothers in dual-earner families, $R^2 = .124$, $\Delta R^2 = .024$, $F(3,295) = 2.78$, $p = .041$. This result in respect to total workloads is likely to reflect the influence of employed mothers’ time in childcare, which showed a similar pattern of results.

Non-employed mothers in traditional and lone parent families. Among non-employed mothers there was only one observable change in the relationship between time pressure and wellbeing when removing non-employed lone mothers from the analysis and just including non-employed mothers in traditional families.

The observable change was a weaker effect of self-perceived time pressure on the mental health of non-employed mothers in traditional couples compared to the relationship for all non-employed mothers. Specifically, there was no significant relationship between reporting to be *almost always* rushed and pressed for time and their mental health ($\beta = -.09$, $p = .137$) compared to a significant reduction when considering all non-employed mothers ($\beta = -.14$, $p = .008$). As a means of comparison, if we refer back to Table A8, the mean mental health score for all non-employed mothers who report to *almost always* be rushed or pressed for time was 64.5, 10 points higher than for non-employed lone mothers who reported the same (not shown). Together, these results suggest that very high time pressure has a greater effect on the mental health of non-employed lone mothers than it does for non-employed mothers in traditional families.

4.5 Chapter Four Discussion

This Chapter has examined the mental health, vitality and general health of parents with young children in relation to their objective and subjective time pressures. Specifically, the second research question was ‘How do parental time use and parental perceptions about their time relate to their self-reported wellbeing?’ Overall, there was convincing evidence that increasing levels of subjective time pressure, by different measures, were associated with a reduction in the wellbeing of parents, employed and non-employed. There was a particularly strong negative effect of high levels of self-perceived time pressure on their mental health, vitality and general health. There was limited evidence of an independent association between reported time use (objective time pressure) and wellbeing, mostly found in relation to the reported childcare hours of employed mothers. Of the three wellbeing measures, vitality was most responsive to different levels of time perception. The results also serve as a reminder that insufficient activity or having too much spare time on our hands can be detrimental to wellbeing.

Mental health, vitality and general health was consistently lower among parents who reported that they were *almost always* or *often* rushed or pressed for time, regardless of their employment status. This finding is consistent with the conceptualisation of self-perceived time pressure as a stressor and is supported by a variety of population studies showing that an increased sense of time pressure is associated with lower wellbeing on a variety of health and wellbeing measures, including depression (Brown et al., 2001; Lehto, 1998; Roxburgh, 2004; Zuzanek, 2004). There are many conceivable mechanisms through which self-perceived time pressure may influence wellbeing including a lowered sense of perceived control either at work or home (Bryson et al., 2007; Chandola et al., 2004; Griffin et al., 2002), in particular due to a fragmentation of free time activity (Bittman & Wajcman, 2004; Cartwright & Warner-Smith, 2003; Peters & Raaijmakers, 1998); via inactivity and unhealthy eating (Banwell et al., 2005); through relationship problems (Relationships Australia, 2006) or lack of sleep, especially among women (Bloomfield, 2004). Overall, the relative strength of association between self-perceived time pressure and wellbeing is an important confirmatory finding given the rising sense of time pressure in the population and greater prevalence among parents with young children. Subjective

time pressure should be considered as an important measure by any researchers interested in parental and family wellbeing.

The significant relationship between self-perceived time pressure and the wellbeing of non-employed mothers suggests that the wellbeing impacts of time pressure are not purely due to the experience of combining paid and unpaid work. Further consideration of the family context of non-employed mothers led us to the suggestion that high time pressure was more detrimental to the mental health of non-employed lone mothers than it was to non-employed mothers in couples. This could be due to the exacerbation of other stressors that are more common in lone parent families, such as financial strain, and the lack of partner support in parenting and household work. As lone mothers represent more than one fifth of all families with children in Australia, it is worth examining time pressure effects on the wellbeing of non-employed and employed mothers in larger population samples.

The mental health, vitality and general health of all parents declined as they became increasingly dissatisfied with their quantity of free time. Associations with other indicators of subjective time pressure affected this relationship as seen in the previous chapter. When controlling for these factors in multivariate modelling, *low* satisfaction with amount of free time was independently associated with a significant reduction in vitality among all parents, and in the mental health of employed fathers and non-employed mothers. Because parents with young children tend to have little free time, it is likely that free time takes on a passive form and one that is reactive to work or reactive to feeling tired and stressed after a day of paid or unpaid work. This type of free time is not always positively experienced and lacks the wellbeing benefits of leisure time that is proactive, enjoyable and associated with some degree of autonomy (Iso-Ahola & Mannell, 2004). This may particularly be true for employed mothers. The lack of an independent association between free time satisfaction and the mental health of employed mothers may be due to the particularly strong relationship between free time and self-perceived time pressure in this group. Among non-employed mothers, it is likely that free time satisfaction has a different nuance by being as much a marker of the quality rather than quantity of free time, an idea that is supported by findings in Chapter Three showing non-employed mothers are more likely to report having ‘spare time with nothing to do’. While

parents may choose to do a multitude of things with their free time, the perception that they have enough free time in the first place is an important motivator and one that plays upon feelings of personal wellbeing.

Parental wellbeing, especially of employed parents, was better when they perceived to perform a fair share of household work and childcare. Previous reviews have linked the perception of unfairness in the division of household tasks to depression, especially among women (Coltrane, 2000) and specifically among parents across the transition to parenthood (Glade et al., 2005). However, neither of these studies linked perceptions of fairness with the wellbeing of fathers, as this study does. In fact, the relationship between perceptions of fairness and wellbeing only remained significant in multivariate models among employed fathers. It is possible that the psychosocial pathways to wellbeing differ for employed mothers and fathers. Among employed mothers, perceived unfairness in apportionment of time in household work and childcare may lead directly to an increased sense of self-perceived time pressure that lowers wellbeing. This study and others (Baxter et al., 2007a) have shown that employed mothers' perceptions of fairness were not associated with their paid work hours but with the household hours of their partners. Among employed fathers, self-perceived time pressure is more driven by hours spent at work (or perhaps the quality of work), and this may also flow over into the home leading fathers to do, feel and report that they are doing less than their fair share of housework. Although not ascertained in this study, it is possible that the relationship between the perception of inequity and wellbeing is particularly due to lack of father involvement in more traditionally female housework tasks or emotional work or via marital dissatisfaction and arguments (Coltrane, 2000; Glade et al., 2005; Strazdins & Broom, 2004).

The results confirmed that the wellbeing (mental health, vitality and general health) of employed parents was markedly lower when parents were highly dissatisfied with paid work hours. This is supported by other Australian studies of parents (Baxter et al., 2007a; Gray et al., 2004). It should be noted that in this study, a relatively small proportion of employed parents scored a *low* satisfaction with their paid work hours (5% of mothers and 8% of fathers) and it is mostly within the *low* satisfaction category where the biggest effects on wellbeing were noted. A new finding here is the difference when considering fathers within their family context. Specifically,

there was only a significant relationship between paid work hours satisfaction and wellbeing among fathers in dual-earner families, not those in traditional families. This finding suggests that paid work hours satisfaction is due to household pressures or constraints arising from the employment status or paid work hours of mothers. It is notable that employed mothers in dual-earner families also had significantly lower mental and general health when their partner reported *low* satisfaction with their paid work hours. The next chapter will allow us to see whether the presence of other stressors and perceived social support within these dual-earner families explains the wellbeing effects of work hour dissatisfaction.

Moving the discussion away from subjective perceptions to objective time use, it was an unexpected finding that the mental health, vitality and general health of employed mothers was *better* among employed mothers who spent the most time with their children (top 25%). This finding was not observed for non-employed mothers and employed fathers. There are some possible explanations for this. The first is that being in better health is associated with the greater likelihood of employment *and* enables employed mothers to spend more time with their children, (i.e. reverse causation). Second, the unexpected effect could be simply explained by the proportion of employed mothers who were employed part time hours and therefore were able to spend more time with their children. However, if this were the case, then controlling for time in paid work would diminish or eliminate this effect and this is not in fact what happened. A third explanation is that employed mothers who spent more time with their children received greater support from their partner with the housework, thereby allowing mothers to spend more time with children. Social support enhances wellbeing (Cohen, 2004). Fourth, it could be that mothers need a sufficient amount of time with their children to perceive that they are fulfilling their nurturing role. In a US study of dual-earner parents, a self-reported time deficit with children was associated with a reduction in life satisfaction, but not psychological distress, among mothers (Nomaguchi et al., 2005). Among Canadian parents with school-aged children increasing time in the physical and emotional care of children had a negative effect on mothers' wellbeing but there was no effect of time spent in interactive care. Mothers were not studied separately by their employment status (Hilbrecht, 2009). Causality cannot be determined but is an important question

especially if mother-child time concurrently promotes positive wellbeing among employed mothers and their children.

Apart from the result of childcare hours among employed mothers, parental wellbeing was mostly unrelated to their time use, including average weekly hours spent in paid work, household work, total unpaid work and total workload. In univariate analysis, the vitality of fathers was lowest at 55 hours or more per week, a finding consistent with a previous analysis of fathers with children using HILDA data (Gray et al., 2004), but this did not hold true in multivariate analysis. Other reviews on the effect on paid working hours on personal wellbeing also report mixed findings (Barnett, 1998; Pocock, 2001; Sparks et al., 1997). With respect to household hours, studies among parents have found mixed results of no significant relationship between hours in household tasks and depression (Voydanoff & Donnelly, 1999) or a small negative correlation with depression (Cunningham & Knoester, 2007) and stress among mothers only (Hilbrecht, 2009). As a trend over time, time spent on housework by women is reducing indicating a lack of priority or the trading of housework time for time with children.

Of the three measured aspects of wellbeing (mental health, vitality and general health), subjective indicators of time pressure have the greatest association with vitality. In this Chapter it is found that mothers (employed and non-employed) had significantly lower vitality than employed fathers. Vitality as measured by the SF-36 subscale reflects the degree to which parents feel full of life, have lots of energy, or feel tired and worn out, or a general feeling of being unwell that is consistent with the WHO definition of health that spans the range of negative through to positive wellbeing. The feeling of lacking energy and being worn out is a feeling of that has been talked about in qualitative studies about the meaning of time, demands on time and time pressures (Bryson et al., 2007; Cartwright & Warner-Smith, 2003; Lehto, 1998; Widerberg, 2006). Feeling unwell for a short period of time is not a great risk for long-term health but ongoing low vitality may be symptomatic of physiological changes that lead to more serious health conditions. Vitality is not often looked at but is an important measure of wellbeing and correlate of time pressure in this population.

An unexpected finding was that parents, especially non-employed mothers, who frequently had “spare time that (they did) not know what to do with”, had lowered wellbeing. There are at least three plausible explanations for this negative association. The first is that a health condition or disability may restrict the range of activities and so these parents may be more likely to have such spare time — another example of ‘reverse causation’. The second relates to the modern culture of ‘busyness’ whereby being busy is associated with prestige, honor and upward mobility (Gershuny, 2005). Having spare time may cause parents to feel that they are not acting consistently with an emerging social norm of being busy. The third is the idea that leisure time should be meaningful, purposeful and goal-oriented to avoid boredom and loneliness. Some non-employed mothers could feel bored, lonely or trapped in their responsibilities at home. Furthermore, those in a low-income family may have less capacity to purchase what they consider to be meaningful leisure time. Boredom and loneliness both have implications for wellbeing. Among Australian adults, frequently reporting ‘spare time with nothing to do’ was directly associated with sedentary activity (Bloomfield, 2004). In qualitative study of time as a resource for young Australian women, narratives emerged about having both too much time and not enough time (Cartwright & Warner-Smith, 2003). Overall, this unexpected finding prompts a reminder that both extremes of being too busy *and* not busy enough are important for wellbeing.

In conclusion, this Chapter has found a strong association between indicators of subjective time pressure and the mental health, vitality and general health of parents. In particular, reporting to be *almost always* or *often* rushed or pressed for time is associated with the lowered wellbeing of more than half of all parents with young children. Although it is only one contributing factor to the complex social epidemiology of parental health, it is an important factor to add to the list of chronic stressors within families. In the next Chapter, we turn to see how time use and time perceptions of parents relate to other psychological stressors and coping resources in the family. Does the effect of time pressure on wellbeing disappear once considering indicators of job quality and parenting difficulty? Does perceived social support and decision latitude at work moderate the effect of self-perceived time pressure on wellbeing? It is these questions that we turn to now.

5. THE ROLE OF OTHER STRESSORS AND PSYCHOLOGICAL COPING RESOURCES IN THE RELATIONSHIP BETWEEN TIME PRESSURE AND PARENTAL WELLBEING

This Chapter addresses the third research question, ‘*Are the effects of parental time use and parental perceptions about their time on self-reported parental wellbeing modified by other perceived stressors and psychological coping resources?*’ (See Figure 7). There are two sub-questions that drive the analytical content of this Chapter (see section 1.10.3).

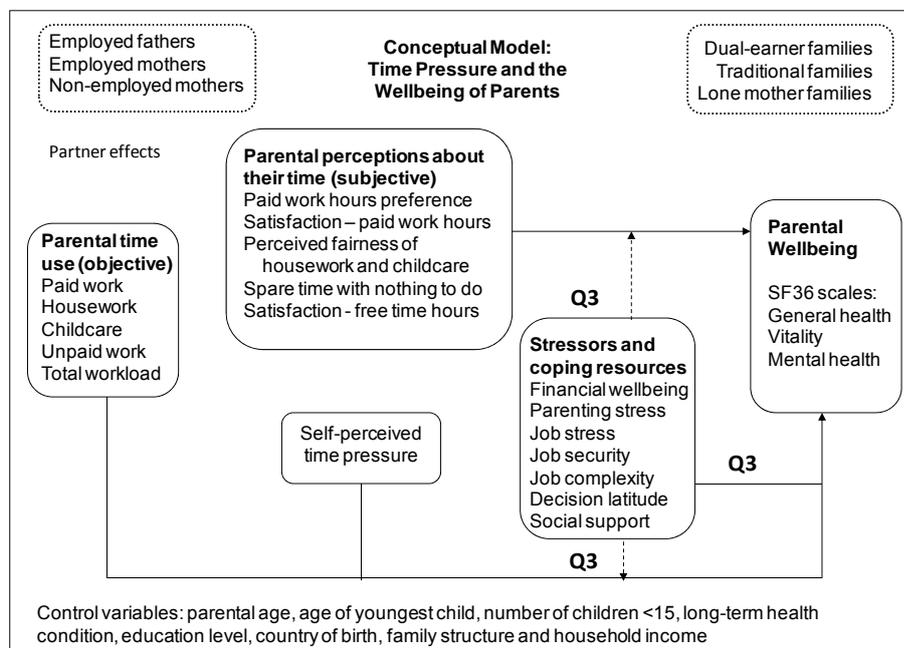


Figure 7. Conceptual model of the thesis – Q3

The first sub-component is concerned with the extent to which high levels of subjective time pressure uniquely account for variation in wellbeing. As already described in Chapter Three, the perception of time pressure co-exists with other stressors in family life including a perceived lack of free time and perceived unfairness in the division of family labour. However, there are also many other potential stressors in work, family and community life. These stressors are interrelated and spillover from one setting to another and between family members.

How much of reported perceived time pressure is actually about these *other* stressors? Does the relationship between time pressure and wellbeing disappear or weaken once these other stressors are accounted for? Note, because of the very limited association between parental time use (as measured by total unpaid and total workload variables) and parental wellbeing, alternative models were not tested in this Chapter.

The second sub-component is based on the potential for effect modification of the relationship between time pressure and wellbeing by the presence of positive coping resources. Despite the presence of time pressure or multiple stressors, many parents will cope well and not experience these stressors in the form of lowered wellbeing. The perception of social support is thought to be one way in which the effect of stress on wellbeing is modified. Another way is via a strong sense of perceived control as indicated here by a high degree of decision latitude in the workplace. Therefore, does the perception of high levels of social support and decision latitude at work ‘buffer’ the effect of high time pressure on parental wellbeing? In examining this theme ‘moderation effects’ are being tested (see section 2.7.3).

In addressing these two sub-components, the Chapter has been organised into five main sections similar to those of previous Chapters. The first section reports the results of testing for a simple relationship between the stressor and coping variables with mental health, vitality and general health (5.1). The second section examines whether these stressors, perceived social support and decision latitude are related to either parental time use or time perceptions. In particular, are the subjective indicators of high time pressure related to higher levels of stress or lower levels of social support and decision latitude (5.2)? The third section then introduces the stress and coping variables into the multivariate models (5.3). The modelling process allows us to a) see if any of the effects of time pressures on parental wellbeing, as identified in the previous chapter, change by the introduction of these other variables and b) see if there is a buffering effect by the perception of social support and decision latitude in the workplace by testing for an interaction between self-perceived time pressure and these two variables i.e. a ‘moderation effect’. The fourth section follows the same procedure among parents within their family context (5.4) and the fifth section discusses results (5.5).

5.1 Relationships Between Self-Reported Stressors, Psychological Coping Resources and Parental Wellbeing

This section presents the bivariate associations between the self-reported stressors and coping resources, and the mental health, vitality and general health of parents. In the absence of a statistically significant relationship between measures of stress and support and wellbeing outcomes, it is unlikely that these variables will have an effect on the relationship between time pressure and wellbeing (Table 17).

Table 17
Correlations Between Measures of Parental Wellbeing and Self-Reported Stressors and Psychological Coping Resources by Gender and Employment Status

Variable	Employed mothers (n=451)			Non-employed mothers (n=512)			Employed fathers (n=686)		
	MH	VIT	GH	MH	VIT	GH	MH	VIT	GH
Financial wellbeing ^a	-.24	-.19	-.27	-.22	-.20	-.24	-.19	-.15	-.23
Parenting stress	.27	-.35	-.15	-.40	-.38	-.29	-.30	-.29	-.23
Social support	.41	.29	.26	.54	.40	.40	.44	.31	.30
Job Quality									
Job stress	-.32	-.28	-.29	-	-	-	-.31	-.29	-.22
Job security	.32	.24	.18	-	-	-	.17	.11	.17
Job complexity	-.06	-.02	-.00	-	-	-	-.00	-.05	.02
Decision latitude	-.08	.06	.07	-	-	-	.09	.02	.05

Note. The sub-sample number (n) for each individual result will vary slightly due to missing data. Bolded numbers indicate the correlation is significant at $p < .01$ (two-tailed). MH = Mental Health; VT = Vitality; GH = General Health.

^aAn increasing score on the 6-point ordinal scale of financial wellbeing indicates a decline in prosperity

Table 17 shows clear and statistically significant relationships between reports of stress and support on the one hand and self-reported physical and mental well being on the other. These relationships were observable across all gender and employment conditions. The mental health, vitality and general health of all parents declined as their sense of financial wellbeing lowered and as their perception of parenting stress rose, while parental wellbeing improved with an increase in their perception of social support. The mental health, vitality and general health of all employed parents declined with an increase in their reported job stress but improved as they reported

greater job security. Perceived decision latitude at work was only weakly correlated with the mental health of employed fathers, while the wellbeing of employed mothers and fathers was unrelated to their reported job complexity. This pattern of unadjusted bivariate relationships suggested that the relationship between time pressure and wellbeing among all parents was associated with their financial wellbeing and parenting stress, and for employed parents with their perceptions of job stress and security. However, adjusting for other factors may alter the significance and strength of these relationships and so it was still important to consider them in a fully adjusted model.

5.2 Relationships Between Time Pressure and Self-Reported Stressors and Psychological Coping Resources

Table 18 shows which of the reported stressors and coping resources varied significantly by different levels of parental time use and perceptions about time. Because of the number of comparisons, the full ANOVA tables are included in the appendices (Tables A11 to A13). As noted in Chapter Three, a general rule has been applied for the reporting of ANOVA results and the use of the Brown-Forsythe F-ratio is indicated where the within-group degrees of freedom (df2) is reported to 2 decimal points. Furthermore, Tables A11 to A13 also indicate which test was reported in the case of a significant result. This makes for an easier presentation.

All of the time use variables were tested as quartiles (where the first quartile is the least amount of time). Some notable patterns in the relationship between time pressure and stress and coping are discussed here.

Parental reports of their parenting stress and perceived social support both varied significantly with changing levels in their perceptions of fairness in housework and childcare, satisfaction with amount of free time and their perceived time pressure. Among all parents, their mean level of parenting stress was lowest and their perceived social support was highest when they reported a *fair* share of childcare; when their satisfaction with their amount of free time was *high*, and when they were *sometimes*, *rarely* or *never* rushed or pressed for time. The average level of parenting stress among employed and non-employed mothers was also lowest when their

household hours were relatively low (in the first quartile), $F(3,422) = 4.31, p = .005$ and $F(3,468) = 3.40, p = .018$ respectively. In addition, employed mothers reported significantly higher levels of social support when they were able to devote higher levels of their time to the care of their children (top quartile), $F(3,432) = 2.56, p = .054$. These associations highlight a consistent relationship between parenting stress, social support and subjective indicators of time pressure among all parents.

Table 18
Significance of Bivariate Associations of Parental Time Use and Perceptions About Time with Stressors and Psychological Coping Resources by Gender and Employment Status

Variable	Parenting stress	Social support	Job stress	Job security	Job complexity	Decision latitude
Time Use						
Paid work hours	ns	ns	EM, EF	ns	EM, EF	EF
Household hours	EM, NEM	ns	EM	ns	EM	ns
Childcare hours	ns	EM	EM	EM	EF	EM
Total unpaid workload	ns	EM, NEM	EM	ns	ns	ns
Total workload	ns	ns	ns	ns	ns	ns
Time Perceptions						
Paid work hours preference	EF	ns	EM, EF	EM, EF	EM, EF	EF
Satisfaction - paid work hours	EM	EM	EM, EF	EM	ns	ns
Perceived share of housework	EM, NEM, EF	NEM, EF	ns	ns	ns	ns
Perceived share of childcare	EM, NEM, EF	EM, NEM, EF	ns	ns	ns	EM
Satisfaction - free time hours	EM, NEM, EF	EM, NEM, EF	EM, EF	ns	EM, EF	ns
Self perceived time pressure	EM, NEM, EF	EM, NEM, EF	EM, EF	ns	EM, EF	EM

Note. EM = Employed Mother; NEM = Non-employed mother; EF = Employed Father. 'Time use' refers to parents' average estimated weekly time spent in each activity and the calculated total unpaid and total workloads in categorical form i.e. quartiles specific to EMs, NEMs and EFs. Table entries indicate a significant ANOVA at $p < .05$ while non-significance (where applicable) is indicated by the symbol 'ns'. Where the assumption of homogeneity of variance has been violated, significance is indicated using a Brown-Forsythe test for equality of means.

Stresses related to employment add another dimension to the variability in measures of time pressure. Mean levels of job stress varied by employed parents' perceptions about their paid work hours, satisfaction with amount of free time, and their self-perceived time pressure. Employed mothers and fathers who would prefer *fewer* hours of paid work reported significantly higher job stress on average compared to those who preferred *about the same* or *more* hours, $F(2,421) = 21.83, p < .001$ and $F(2,667) = 15.30, p < .001$ respectively. Reported levels of job stress declined as employed mothers' and fathers' satisfaction with their paid work hours grew, $F(2,423) = 14.68, p < .001$ and $F(2,667) = 31.41, p < .001$ respectively and when free

time grew, $F(2,417.98) = 24.62, p < .001$ and $F(2,671) = 17.56, p < .001$ respectively. Job stress also grew with increasing time pressure and was highest amongst employed mothers and fathers who were *almost always* rushed or pressed for time, $F(3,247.05) = 9.02, p < .001$ and $F(3,669) = 18.33, p < .001$ respectively. Reported job stress was more highly correlated with the time use of employed mothers than the time use of employed fathers. In particular, mean levels of job stress among employed mothers rose with their paid work hours, $F(3,355.42) = 23.94, p < .001$, and were significantly lower when their household and childcare hours were in the top 25% of time compared to the bottom 25% of time in household work and with children, $F(3,427) = 5.12, p = .002$ and $F(3,418.61) = 4.96, p = .002$ respectively.

Job complexity, while rising with the paid work hours of parents, was also a factor related to the subjective time pressure of employed parents. Mean levels of job complexity were significantly higher among employed mothers and fathers when they preferred to work *fewer hours* compared to when they preferred *about the same* hours of paid work or *more*, $F(2,422) = 14.63, p < .001$ and $F(2,668) = 15.75, p < .001$ respectively. Among employed mothers, mean levels of job complexity were also significantly higher when satisfaction with their amount of free time was *low* compared to *high*, $F(2,440) = 8.91, p < .001$, with a similar trend among employed fathers. Levels of job complexity rose concurrently with an increase in employed fathers' perceived time pressure, with the highest average job complexity among fathers who were *almost always* rushed or pressed for time, $F(3,671) = 16.10, p < .001$. In contrast, there was not a significant relationship between the self-perceived time pressure and job complexity of employed mothers.

5.3 The Modifying Effects of Self-Reported Stressors and Psychological Coping Resources on the Relationship Between Time Pressure and Wellbeing

So far in this Chapter we have seen that greater levels of financial wellbeing, social support, and job security, and lower levels of parenting stress and job stress were associated with improved parental wellbeing. However, there was a differential pattern of relationships between measures of time pressure and measures of stress and coping. Notable is the consistently higher parenting stress and lower social support of all parents who perceived unfairness in their unpaid work, who were dissatisfied with their free time, or reported a high degree of time pressure. With those basic relationships identified this section now tests for modifying effects in multivariate models for employed mothers (5.3.1), non-employed mothers (5.3.2) and employed fathers (5.3.3). This entails four stages of modelling.

Model 1: The first stage repeats the base model from the previous chapter. Note that some of the model parameters vary slightly as some cases were lost in analysis due to missing data on stressor and coping variables.

Model 2: The second stage introduces the stressor variables, regardless of whether a statistically significant relationship with wellbeing was identified in Table 18. A reduction in the second stage regression parameters is interpreted as the relationship between time pressure and wellbeing being modified by these other stressors (financial wellbeing, parenting stress, job stress, security and complexity). To aid interpretation of the relative influence of the stressor and support variables within the regression model, these coefficients are also displayed in standardised form (β). The standardised coefficient represents the change in standard deviation of the outcome variable for a change of one standard deviation of the predictor variables.

Model 3: The third stage then introduces the two variables that have been conceptualised as coping resources, perceived social support and decision latitude in the workplace. This third stage of modelling is presented to see, if initially, the presence of these variables further reduces the effect of time pressure on wellbeing, or of any of the other stressor variables on wellbeing.

Model 4: In the fourth stage of modelling, interactions between self-perceived time pressure and social support, and self-perceived time pressure and decision latitude are tested. In testing these interactions, both the social support and decision latitude variables were grouped into quartiles based on the distribution specific to the parent group. Significant interaction effects are illustrated by a graph of estimated marginal means. A significant interaction effect is discussed in reference to a potential moderating effect of these two coping resources on the time pressure-wellbeing relationship. Full model parameters for stage four are not illustrated in the table.

5.3.1 How self-reported stressors and psychological coping resources modify the relationship between time pressure and wellbeing among employed mothers.

In the previous Chapter we found that the wellbeing of employed mothers was lower when their satisfaction with paid work hours was *low* and self-perceived time pressure was high *but* significantly better when they spent a relatively large amount of time with their own children (4.3.1). So did different levels of reported stress and coping resources modify these effects?

Table 19 shows the multivariate models for all employed mothers. The wellbeing of employed mothers was significantly lowered if reporting to be *poor* or *just getting along*, with increasing parenting stress (vitality only) and job stress (except vitality), but improved with the rising perception of job security (except general health) and social support. Specific effects are discussed.

Table 19
Adjusted Hierarchical Linear Regression of Time Pressure, Stressors and Psychological Coping Resources on the Wellbeing of Employed Mothers^a

Predictor	Mental health			Vitality			General health		
	M1	M2	M3	M1	M2	M3	M1	M2	M3
	β	β							
Satisfaction - paid work hrs									
Low	-.19***	-.11*	-.11*	-.13	-.08	-.08	-.03	.01	.01
Medium	-.12*	-.06	-.05	-.10	-.06	-.06	-.12*	-.08	-.08
High	ref								
Childcare hours ^b									
1st quartile	-.21**	-.15*	-.14*	-.13*	-.08	-.08	-.21***	-.17**	-.17**
2nd quartile	-.15*	-.12*	-.12*	-.08	-.06	-.06	-.14*	-.12*	-.12*
3rd quartile	-.23***	-.18**	-.17**	-.18**	-.15*	-.14*	-.19**	-.15*	-.15*
4th quartile	ref								
Satisfaction - free time hrs									
Low	.04	.11	.11	-.16*	-.10	-.10	-.03	-.09	.09
Medium	.02	.07	.06	-.07	-.03	-.03	.00	.04	.04
High	ref								
Self-perceived time pressure									
Almost always	-.28***	-.22***	-.22***	-.36***	-.29***	-.29***	-.15*	-.11	-.12
Often	-.24***	-.21***	-.19	-.24***	-.21***	-.21***	-.17**	-.14*	-.13*
Sometimes	ref								
Rarely or Never	.04	.03	.01	.06	.05	.04	.05	.04	.03
Financial wellbeing									
Just getting along/poor		-.19***	-.19***		-.09*	-.10*		-.12*	-.12*
Comfortable/prosperous		ref							
Parenting stress		-.14**	-.07		-.19***	-.16**		-.08	-.04
Job stress		-.19***	-.17**		-.07	-.06		-.19***	-.18**
Job security		.16***	.10		.12*	.10*		.05	.02
Job complexity		.06	.07		.00	.00		-.01	-.01
Decision latitude			-.06			-.03			-.03
Social support			.29			.12*			.15**
R^2	.19	.32	.38***	.26	.32	.33	.23	.28	.30
ΔR^2		.12	.06		.06	.01		.05	.02
Adjusted R^2	.12	.25	.32	.20	.26	.26	.16	.21	.22
n			391			391			388

Note. M1 = Model 1, M2 = Model 2 and M3 = Model 3. Bolded value for ΔR^2 indicates the F test for change was significant at $p < .05$.

^aAdjusted for parental age, age of youngest child, number of children < 15, long-term health condition, education level, family structure, household income, household hours, paid work hours, perceived share of childcare.

^bFirst quartile represents the least amount of weekly time (<14 hrs pw) and fourth quartile the most amount of weekly time (40 hrs+ pw) spent with own children among employed mothers.

* $p < .05$. ** $p < .01$. *** $p < .001$ (two-tailed tests). Bolded values are significant at $p < .05$.

The effect of other reported stressors on the relationship between time pressure and the wellbeing of employed mothers. Among employed mothers, the relationship between time pressure and wellbeing was associated with their perceptions of financial wellbeing, parenting stress, job stress and job security (Table 19). For each of the wellbeing models, it can be seen that the introduction of stressors in Model 2 reduced the effect of subjective time pressure on the wellbeing of employed mothers. In particular, this was seen in the reduction of the coefficients for *low* satisfaction with hours of paid work (e.g. $\beta = -.19$ to $\beta = -.11$ for mental health), and being *almost always* rushed or pressed for time ($\beta = -.28$ to $\beta = -.22$ for mental health), ($\beta = -.36$ to $\beta = -.29$ for vitality), ($\beta = -.15$ reduced to non-significance for general health). This suggests that at least some of the effect of subjective time pressure on the wellbeing of employed mothers was due to their financial and parenting stress, job stress and job security.

The introduction of social support in Model 3 then had a negligible effect on the size of otherwise significant parameters in any of the mental health, vitality and general health models. However, most notably, there was an independent significant negative effect of being *almost always* rushed or pressed for time on the mental health ($\beta = -.22$) and vitality ($\beta = -.29$) of employed mothers, and a significant negative effect of being *often* time pressured on the mental health ($\beta = -.19$), vitality ($\beta = -.21$) and general health ($\beta = -.13$) of employed mothers in a fully controlled model.

Moderation of time pressure on the wellbeing of employed mothers by coping resources. The effect of self-perceived time pressure on the mental health and vitality of employed mothers was moderated, however, by the perception of social support. That is, there was a significant interaction between self-perceived time pressure and social support in the mental health and vitality models (Figures 8 and 9). The interaction for mental health indicates that while increasing social support (up to the third quartile) improved the mental health of mothers who were *sometimes* or *often* time pressured, increasing social support had less of an effect on those who reported to be *almost always* time pressured (about a quarter of all employed mothers) and a mixed effect on those who were *rarely or never* time pressured (about 5%). The interaction for vitality is not quite so easy to interpret but does suggest that increasing social support was less likely to improve the vitality of employed mothers

who were *almost always* time pressured compared to those who were *often* or *sometimes* pressed for time. For the interactive mental health model (Model 4), the total adjusted $R^2 = .336$, and the interactive vitality model, total adjusted $R^2 = .292$.

In contrast, their decision latitude at work did not moderate the effect of self-perceived time pressure on the mental health of employed mothers. In fact, there was no significant main effect of decision latitude on the wellbeing of mothers, and so an interaction effect was unlikely.

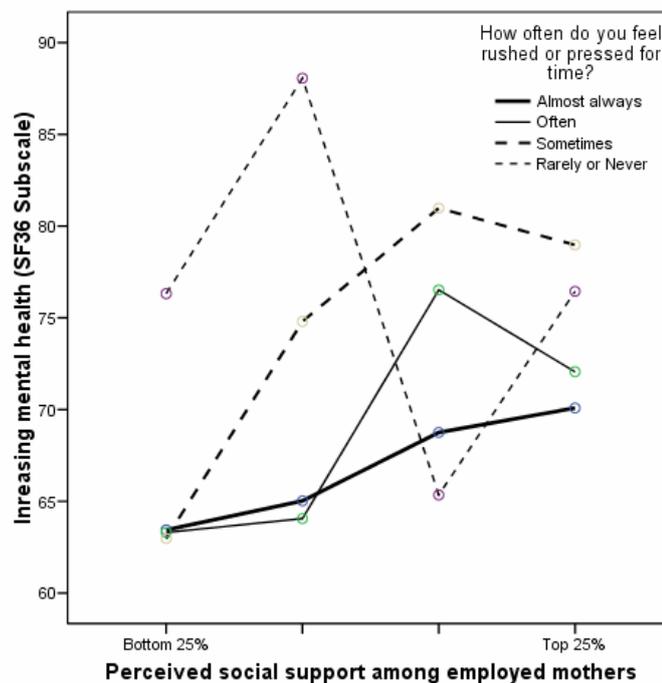


Figure 8: Estimated marginal means of the mental health of employed mothers for self-perceived time pressure by quartiles of perceived social support ($p = .03$)

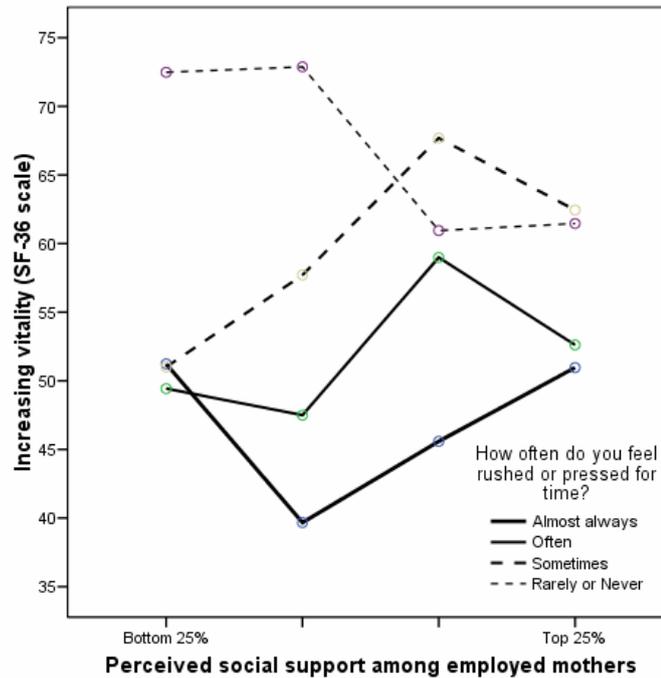


Figure 9. Estimated marginal means of the vitality of employed mothers for self-perceived time pressure by quartiles of perceived social support ($p = .05$)

Summing up. Among employed mothers, the relationship between subjective time pressure (as indicated by *low* satisfaction with paid work hours, being *almost always* or *often* rushed or pressed for time) and their wellbeing was associated with their self-reported stressors and psychological coping resources. In particular, certain aspects of employed mothers' wellbeing was lowered when they reported to be financially *poor* or *just getting along*, and with increasing parenting and job stress. Conversely, their wellbeing improved with rising levels of job security and social support. Importantly, even with model adjustment for these significant effects, the wellbeing of mothers was significantly lower when reporting to be *almost always* (except their general health) or *often* rushed or pressed for time. Furthermore, there were two significant moderating effects indicating that increasing levels of social support did not improve the mental health and vitality of employed mothers when they were *almost always* rushed or pressed for time, to the same degree as when they reported to be *sometimes* or *often* pressed for time.

5.3.2 How self-reported stressors and psychological coping resources modify the relationship between time pressure and wellbeing among non-employed mothers

In the previous Chapter it was seen that high levels of self-perceived time pressure and low levels of free time satisfaction were associated with the reduced wellbeing of non-employed mothers (4.3.2). In this Chapter, we examine whether differing levels of financial wellbeing, parenting stress and perceived social support modified these effects.

Table 20 shows the multivariate models for all non-employed mothers. The wellbeing of non-employed mothers was significantly lowered with increasing parenting stress but improved with the rising perception of social support. Specific effects are discussed.

The effect of other reported stressors on the relationship between time pressure and the wellbeing of non-employed mothers. The effect of subjective time pressure on the wellbeing of non-employed mothers *was* strongly associated with her perception of parenting stress (Table 20). Inclusion of financial and parenting stress variables in Model 2 eliminated the statistically significant relationship between the mental health of non-employed mothers for those reporting *low* satisfaction with their amount of free time ($\beta = -.17$ down to $\beta = -.08$) and those feeling *almost always* rushed or pressed for time ($\beta = -.14$ down to $\beta = -.08$) as observed in Model 1. Further examination shows that this effect was more likely to be due to the strong association between self-perceived time pressure and parenting stress, rather than perceived financial wellbeing. Additionally, the effect of being *almost always* rushed or pressed for time on vitality became non-significant ($\beta = -.11$ down to $\beta = -.06$) and the effect of *low* satisfaction with amount of free time was reduced ($\beta = -.27$ down to $\beta = -.19$). Likewise, the impact of high time pressure on general health was also reduced but remained statistically significant.

Moderation of time pressure on the wellbeing of non-employed mothers by coping resources. While increasing social support improved the mental health, vitality and general health of non-employed mothers, it did not further modify the effect of self-perceived time pressure on wellbeing (Model 3).

Table 20

Adjusted Hierarchical Linear Regression of Time Pressure, Stressors and Psychological Coping Resources on the Wellbeing of Non-Employed Mothers^a

Predictor	Mental Health			Vitality			General Health		
	M1	M2	M3	M1	M2	M3	M1	M2	M3
	β	β	β	β	β	β	β	β	β
Childcare hours ^b									
1st quartile	-.08	-.05	-.03	-.06	-.04	-.03	-.18**	-.16**	-.15**
2nd quartile	-.11*	-.09	-.07	-.10	-.08	-.07	-.15**	-.12*	-.11*
3rd quartile	-.05	-.05	-.04	-.05	-.05	-.04	-.05	-.05	-.04
4th quartile	ref								
Perceived share of childcare									
Much more than fair	-.07	.01	.04	-.02	.05	.07	.10	.17**	.18***
A bit more than fair	-.07	.00	.02	.02	.09	.10	.06	.11*	.13*
Fair or less	ref								
Satisfaction - free time hours									
Low	-.17**	-.08	-.06	-.27***	-.19***	-.18***	-.09	-.01	.00
Medium	-.07	-.03	-.00	-.06	-.03	-.01	-.02	.01	.03
High	ref								
Self-perceived time pressure									
Almost always	-.14**	-.08	-.08	-.11*	-.06	-.06	-.16**	-.11*	-.11*
Often	-.10*	-.06	-.03	-.15**	-.12*	-.10*	-.05	-.02	.00
Sometimes	ref								
Rarely or Never	.08	.02	.04	.07	.03	.04	.02	-.02	-.01
Financial wellbeing									
Just getting along/poor		-.06	.01		-.05	-.01		-.09	-.05
Comfortable/prosperous		ref							
Parenting stress		-.37***	-.22***		-.32***	-.22***		-.28***	-.19***
Social support			.41***			.26***			.25***
R^2	.17	.27	.40	.20	.28	.33	.21	.28	.33
ΔR^2		.11	.12		.08	.05		.07	.05
Adjusted R^2	.12	.23	.36	.16	.24	.29	.16	.23	.28
n			450			450			445

Note. M1 = Model 1, M2 = Model 2 and M3 = Model 3. Bolded values for ΔR^2 indicates the F test for change was significant at $p < .05$

^aAdjusted for parental age, age of youngest child, number of children < 15, long-term health condition, education level, family structure, household income and household hours.

^bFirst quartile represents the least amount of weekly time (<14 hrs pw) and fourth quartile the most amount of weekly time (52 hrs+ pw) spent with own children among non-employed mothers.

* $p < .05$. ** $p < .01$. *** $p < .001$ (two-tailed tests). Bolded values are significant at $p < .05$.

There was, however, a significant interaction between self-perceived time pressure and social support in the general health model (Figure 10). The interaction indicates that increasing levels of social support did not improve the general health of non-employed mothers who reported to be *almost always* time pressured to the same

extent as it improved the general health of those who were less time pressed for time. That is, not until social support reached a high level (the top 25%). For the interactive general health model (Model 4), the total adjusted $R^2 = .299$.

Summing up. Among non-employed mothers, the relationship between subjective time pressure (as indicated by a *low* level of satisfaction with their quantity of free time, and being *almost always* or *often* rushed or pressed for time) and their wellbeing was related to other self-reported stressors and coping. Non-employed mothers' wellbeing was lowered with increasing levels of parenting stress and lower levels of perceived social support. With model adjustment for these significant effects, there was no longer a statistically significant relationship between the mental health of non-employed mothers and their self-perceived time pressure and free time satisfaction. The association between self-perceived time pressure and their vitality and general health was also reduced while there remained a strong negative association between the vitality of non-employed mothers and their levels of free time satisfaction. As with employed mothers, there was a significant moderating effect indicating that an increasing level of social support was not so beneficial for the mental health of non-employed mothers when they were *almost always* rushed or pressed for time.

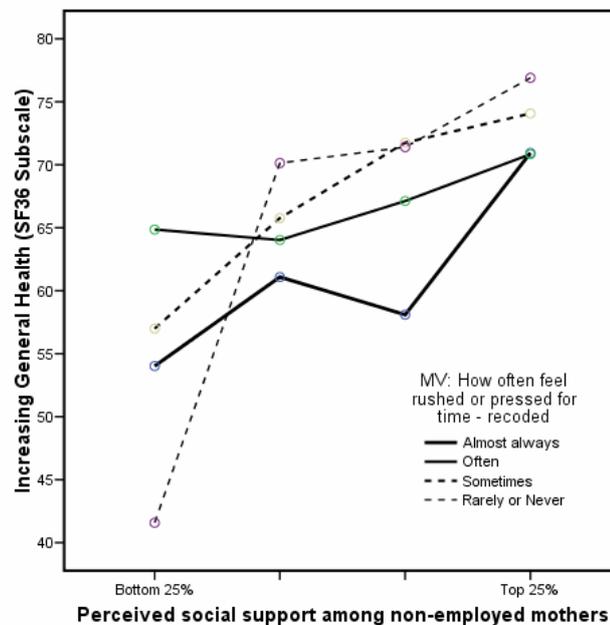


Figure 10: Estimated marginal means of the general health of non-employed mothers for self-perceived time pressure by quartiles of perceived social support ($p = .03$).

5.3.3 How self-reported stressors and psychological coping resources modify the relationship between time pressure and wellbeing among employed fathers

In the previous Chapter it was found that high levels of self-perceived time pressure and low levels of satisfaction with paid work hours and free time were associated with the reduced wellbeing of employed fathers. There was no independent effect of time allocations on their wellbeing (4.3.3). In this Chapter, we examine whether differing levels of financial wellbeing, parenting stress, job stress, job security, job complexity, decision latitude, and perceived social support modified these effects.

Table 21 shows the multivariate models for all employed fathers. The wellbeing of fathers was significantly lowered if reporting to be *poor* or *just getting along* (except vitality), with increasing parenting stress and job stress but improved with the rising perception of job security (except vitality) and perceived social support. Specific effects are discussed.

The effect of other reported stressors on the relationship between time pressure and the wellbeing of employed fathers. The effect of subjective time pressure in the form of being *almost always* or *often* rushed or pressed for time on the mental health, vitality and general health of employed fathers was associated with the reporting of other stressors (Model 2). This is indicated by a reduction in the size of the standardised coefficients ($\beta = -.18$ to $\beta = -.13$ for mental health); ($\beta = -.24$ to $\beta = -.19$ for vitality); ($\beta = -.13$ to $\beta = -.09$ for general health) among those who were *almost always* pressed for time.

The detrimental effect of *low* satisfaction with paid work hours on the mental health of employed fathers was largely unchanged by including stressor variables (Model 2). So although job stress and satisfaction with paid work hours are related, there are other reasons as to why a *low* satisfaction with paid work hours is associated with the lower mental health of employed fathers. As recalled from the previous chapter, the relationship between paid work hours satisfaction and wellbeing was only significant among fathers in dual-earner families.

Table 21
Adjusted Hierarchical Linear Regression of Time Pressure, Stressors and Psychological Coping Resources on the Wellbeing of Employed Fathers^a

Predictor	Mental health			Vitality			General health		
	M1	M2	M3	M1	M2	M3	M1	M2	M3
	β								
Satisfaction - paid work hrs									
Low	-.12**	-.09*	-.09*	-.08*	-.05	-.05	-.07	-.04	-.05
Medium	-.03	-.00	-.01	.02	.05	.04	-.04	-.01	-.02
High	ref								
Perceived share of housework									
More than fair	-.04	-.02	.01	-.02	-.01	.01	.02	.04	.06
Fair	ref								
Less than fair	-.06	-.04	-.04	-.10*	-.09*	-.08*	-.04	-.02	-.02
Satisfaction - free time hrs									
Low	-.11*	-.06	.01	-.20***	-.15***	-.12**	-.06	-.02	.02
Medium	-.06	-.02	-.00	-.09*	-.04	-.03	-.04	.00	.01
High	ref								
Self-perceived time pressure									
Almost always	-.18***	-.13**	-.13***	-.24***	-.19***	-.19***	-.13**	-.09*	-.09*
Often	-.19***	-.14***	-.14***	-.09*	-.05	-.05	-.06	-.01	-.01
Sometimes	ref								
Rarely or never	.12**	.11**	.09*	.07	.06	.05	.05	.04	.03
Financial wellbeing									
Just getting along/poor		-.08*	-.07*		-.04	-.03		-.11**	-.11**
Comfortable/prosperous		ref							
Parenting stress		-.24***	-.17***		-.25***	-.22***		-.20***	-.16***
Job stress		-.14***	-.09*		-.15***	-.13**		-.11**	-.08*
Job security		.09*	.05		.04	.02		.09*	.08*
Job complexity		.05	.01		.08*	.06		.04	.02
Decision latitude			.01			-.01			-.02
Social support			.32***			.16***			.19***
R^2	.19	.29	.37	.22	.31	.33	.16	.25	.28
ΔR^2		.10	.08		.09	.02		.08	.03
Adjusted R^2	.15	.25	.33	.18	.27	.29	.12	.20	.23
n			617			620			617

Note. M1 = Model 1, M2 = Model 2 and M3 = Model 3. Bolded values for ΔR^2 indicates the F test for change was significant at $p < .05$

^aAdjusted for parental age, age of youngest child, number of children < 15, long-term health condition, education level, family structure, household income, household hours, paid work hours, perceived share of housework.

* $p < .05$. ** $p < .01$. *** $p < .001$ (two-tailed tests). Bolded values are significant at $p < .05$.

Work and family stressors influenced the relationship between the free time satisfaction and self-reported wellbeing of employed fathers. In particular, the negative relationship between having a *low* satisfaction with their amount of free time and the mental health of employed fathers became insignificant ($\beta = -.11$ to $\beta = -.06$) while the relationship with vitality was reduced ($\beta = -.20$ to $\beta = -.15$). This indicated that the lowering of mental health due to *low* free time satisfaction was attributed to other work and family stressors while the relationship with vitality was mostly independent of these factors. Likewise, performing *less than a fair* share of housework was also independently associated with the lower vitality of employed fathers ($\beta = -.09$).

Social support, while having a positive effect on the mental health, vitality and general health of employed fathers, did not alter the relationship between subjective time pressure and wellbeing. Specifically, the coefficients for *low* satisfaction with paid work hours and free time, performing less than a fair share of housework and reporting to be *almost always* or *often* being time pressured did not change when considering variation in perceived social support (Model 3). Importantly, as with employed mothers, these results for Model 3 show that a chronic level of self-perceived time pressure was associated with the mental health ($\beta = -.13$), vitality ($\beta = -.19$) and general health ($\beta = -.09$) of employed fathers independent of other reported stressors.

Moderation of time pressure on the wellbeing of employed fathers by coping resources. There was no significant interaction ($p < .05$) between self-perceived time pressure and social support or decision latitude in any of the multivariate models for all employed fathers. That is, there was no evidence that increasing levels of decision latitude reduced the strength of the wellbeing effect between high levels of self-perceived time pressure and their mental health, vitality and general health.

Summing up. Among employed fathers, the relationship between time pressure (as indicated by *low* satisfaction with paid work hours and free time hours and being *almost always* or *often* rushed or pressed for time) and their wellbeing was partly due to the interrelationships between time pressure and self-reported stressors and coping. In particular, the wellbeing of employed fathers was lowered when they

reported to be financially *poor* or *just getting along* (except vitality), and with increasing parenting and job stress. Conversely, their wellbeing improved with rising levels of job security (except vitality) and social support. After model adjustment for these significant effects, the wellbeing of employed fathers was significantly lower when reporting to be *almost always* or *often* (mental health only) rushed or pressed for time. Additionally their vitality was significantly lower when reporting a *low* level of free time satisfaction. In contrast to mothers, there was no significant moderating effect of social support on the relationship between time pressure and wellbeing among employed fathers.

5.4 The Modifying Effects of Self-Reported Stressors and Psychological Coping Resources Differing Family Contexts

In the previous section it was found that the relationship between subjective time pressure and parental wellbeing was modified by the inclusion of a range of measures such as parenting stress, job stress and social support. These effects varied by the employment circumstances of parents. We now ask how these effects alter as family context changes. The effect of stressors and coping resources on the relationship between time pressure and wellbeing is now examined separately for fathers within dual-earner and traditional families and among mothers in couple and lone parent families.

5.4.1 Comparing the modifying effects of self-reported stressors and psychological coping resources among fathers in dual-earner and traditional couple families

Previously, it was found that family context had a modifying effect on the relationship between time pressure and the wellbeing of employed fathers. Notably, *low* satisfaction with paid work hours was only associated with the lower wellbeing of fathers in dual-earner families while fathers in traditional families felt a greater effect of their self-perceived time pressure (4.4.1). So we now examine the associations between time pressure and wellbeing among employed fathers for differences in the modifying effect of stressors and coping resources according to their family context. Remember that there was no significant difference in average levels of these stressors and supports between fathers in different family contexts,

with one exception, the higher decision latitude of fathers in dual-earner families (2.6.1).

Table 22
Adjusted Linear Regression of Time Pressure, Stressors and Psychological Coping Resources on Parental Wellbeing: Employed Fathers in Dual-Earner and Traditional Families^a

Predictor	Employed Fathers					
	MH		VIT		GH	
	DE	TR	DE	TR	DE	TR
Satisfaction - paid work hours						
Low	-.10	-.06	-.06	-.02	-.10	-.02
Medium	.04	-.03	-.07	-.03	-.05	-.01
High	ref					
Perceived share of housework						
More than fair	.03	-.01	.02	.01	.14**	-.02
Fair	ref					
Less than fair	-.09	-.06	-.12*	-.07	.02	-.08
Satisfaction - free time hours						
Low	-.02	.06	-.18**	-.03	.01	.07
Medium	-.05	.04	-.07	.02	.00	.03
High	ref					
Self-perceived time pressure						
Almost always	-.07	-.22***	-.10	-.29***	.02	-.20**
Often	-.15**	-.13*	.04	-.14*	.09	-.08
Sometimes	ref					
Rarely or never	.11*	.00	.13*	-.02	.10	-.06
Financial prosperity						
Just getting along/poor	-.10*	.00	-.06	.01	-.11*	-.09
Comfortable/prosperous	ref					
Parenting stress	-.13*	-.21***	-.22***	-.23***	-.08	-.22***
Job stress	-.15*	-.05	-.27***	-.00	-.17**	-.01
Job security	.03	-.08	-.04	.06	.09	.10
Job complexity	.05	.00	.16**	.01	-.00	.04
Decision latitude	.03	.01	.03	-.04	-.03	-.03
Social support	.30***	.32***	.11*	.21***	.26***	.13*
Adjusted R^2	.37	.26	.38	.23	.28	.21
n	316	289	316	289	314	288

Note. MH = Mental Health; VT = Vitality; GH = General Health. DE = Dual-Earner Family; Tr = Traditional Family.

^aAdjusted for parental age, age of youngest child, number of children < 15, long-term health condition, education level, family structure, household income, household hours, paid work hours, perceived share of childcare.

* $p < .05$. ** $p < .01$. *** $p < .001$ (two-tailed tests). Bolded values are significant at $p < .05$.

Some of the relationships between subjective time pressures and the stressors and coping resources of fathers, as shown in Table 18, were only significant among fathers in the dual-earner context (not shown). Specifically, a rise in the mean level of parenting stress was only associated with subjective time pressure, as indicated by growing dissatisfaction with their amount of free time, $F(2,338) = 5.02, p = .007$ and their increasing self-perceived time pressure, $F(3,151.79) = 5.77, p = .001$ among fathers in dual-earner families. It was only for fathers in this context that a decline in the mean level of perceived social support was associated with an increase in self-perceived time pressure, $F(3,338) = 5.30, p = .001$. On the other hand, lower mean levels of social support when reporting to perform *more* than a fair share of housework was only observed among fathers in traditional families, $F(3,307) = 5.87, p = .001$. Broadly these differences suggest that subjective time pressures and family stressors are compounded when both parents are in paid work.

The relative significance and strength of parameters along with the degree to which these stressors modified the relationship between subjective time pressure and wellbeing are compared between fathers in dual-earner and traditional families (Table 22). This is comparable to Model 3 in Table 21 for all employed fathers.

First, this comparison showed a key difference between fathers in the importance of work versus family based stressors. Parenting stress had a stronger negative relationship with the mental health ($\beta = -.21$) and general health ($\beta = -.23$) of fathers in traditional families, once controlling for other related factors. In fact, there was no statistically significant relationship between parenting stress and the general health of fathers in dual-earner families. On the other hand, while there was a decline in mental health, vitality and general health with the increasing job stress of fathers in dual-earner families ($\beta = -.17, -.27$ and $-.17$ respectively) there was no statistically significant multivariate relationship between job stress and the wellbeing of fathers in traditional families. This is consistent with the observation of stronger correlations between the job stress and wellbeing of fathers in dual-earner families observed in Table A14.

Second, while among all employed fathers, there was a significant independent effect of self-perceived time pressure on aspects of their wellbeing; this effect differed by

their family context. Specifically, being *almost always* rushed or pressed for time was only significantly related to lower mental health ($\beta = -.29$), vitality ($\beta = -.22$) and general health ($\beta = -.20$) among fathers in traditional families following adjustment for stressors and coping resources. That is, this highest level of subjective time pressure was unrelated to lower wellbeing among fathers in dual-earner families once allowing for lower wellbeing due to their increasing levels of parenting and job stress. For fathers in both family contexts, there was still a significant lowering of mental health among those who were *often* rushed or pressed for time. On the whole, the effect of high self-perceived time pressure on wellbeing was more likely to be tied to work and family stressors among fathers in dual-earner families.

Third, there was evidence that stressors and/or coping resources influenced the association between free time satisfaction and the vitality of fathers in traditional families only. Following adjustment for stressors and coping resources, the negative impact on vitality of *low* satisfaction with amount of free time remained a significant issue among dual-earner fathers ($\beta = -.18$) but not for fathers in traditional families ($\beta = -.03$). Referring back to Table 22, *low* satisfaction with amount of free time was associated with a drop in the vitality of all employed fathers ($\beta = -.12$). The results in this section suggest that the impact of free time satisfaction on the vitality of fathers in traditional families was mostly due to his levels of perceived parenting stress and social support.

With respect to examining moderating effects, among employed fathers in either family context, this may have been limited by a lack of power to detect what was an interaction among all employed fathers. However, in contrast to the findings among all employed fathers, there was a significant interactive effect between self-perceived time pressure and decision latitude on the mental health of employed fathers in the dual-earner context only.

Among fathers in dual-earner families, different levels of decision latitude at work moderated the impact of self-perceived time pressure on their mental health, although the interaction is not easy to interpret (Figure 11). The most notable point was the relatively small difference in the mental health of employed fathers in dual-earner families, according to different levels of self-perceived time pressure, when

their decision latitude at work was high (i.e. in the top 25% for all employed fathers). Although not a pre-requisite to a moderating effect, within this model, the main effect of decision latitude on the mental health of employed fathers was non-significant, although the bivariate association was significant (as in Table A14). The graph shows that with the exception of fathers who were *often* time pressured, the general trend was for mental health to decline with increasing decision latitude, with an improvement at the highest level (top 25%). This suggests that decision latitude was not a resource for coping with time pressure among employed fathers, perhaps only at the highest level. It must be remembered that these effects were observed after adjusting for perceived stress at work and home. For the interactive mental health model (Model 4), the total adjusted $R^2 = .400$.

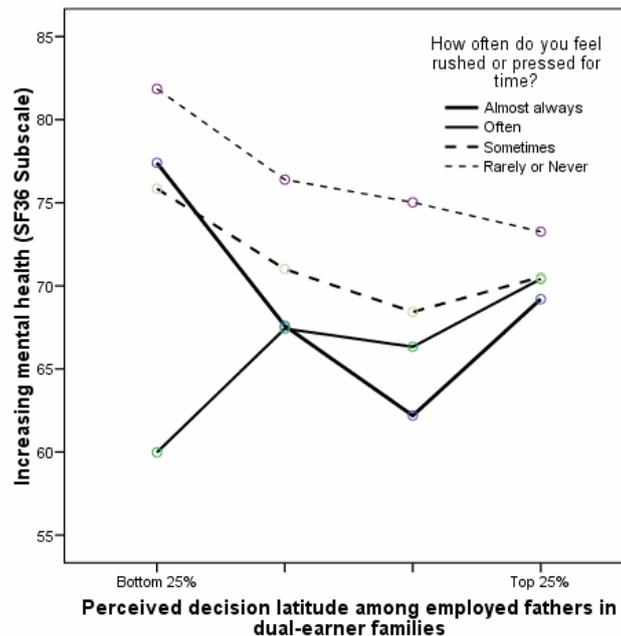


Figure 11. Estimated marginal means of the mental health of employed fathers in dual-earner families for self-perceived time pressure by quartiles of decision latitude ($p = .012$)

Summing up. Initially, differences in bivariate associations between time pressure and self-reported stressors suggested that subjective time pressures and other stressors are compounded for fathers in dual-earner families. Furthermore, the adjusted models showed that job stress only impacted on the wellbeing of fathers in dual-earner families while parenting stress had a stronger negative relationship with the mental health and general health of fathers in traditional families. There was a

difference in the modifying effects by these significant factors. Specifically, in fully adjusted models, being *almost always* rushed or pressed for time was significantly related to lower mental health, vitality and general health among fathers in traditional families but not to the wellbeing of fathers in dual-earner families. In contrast, while the negative impact on vitality remained a significant issue among dual-earner fathers, the effect was largely dampened by the significant effects of parenting stress and social support among fathers in traditional families. Finally there was a significant interaction between self-perceived time pressure and decision latitude among fathers in dual-earner families only, suggesting that decision latitude was not an effective resource for coping with their time pressure except at the highest level.

5.4.2 Comparing the modifying effects of self-reported stressors and psychological coping resources among mothers in couple and lone parent families

It is reasonable to expect that the impact of stressors and coping resources on the relationship between time pressure and wellbeing among mothers in couple and lone parent families may exhibit different patterns of modification. However, the numbers of employed and non-employed lone mothers meant that a meaningful comparison of modifying effects was not possible. Therefore, the models were compared for differential effects of stressors between mothers in their different family contexts. Once again, this required removing lone mothers from the multivariate analysis (Table A16) and comparing results with those for all employed mothers (Table 19) and all non-employed mothers (Table 20).

Mostly, the bivariate relationships between subjective time pressures and other stressors and perceived social support, as reported in Table 18 were only significant among employed and non-employed mothers in the context of couple families. The lack of significant differences among lone mothers may be due in part to the small sample. At least in regard to mothers' perceptions of fairness in their share of housework and childcare, the lack of a significant relationship with other stressors is logical due to the absence of a co-residing partner and the fact that most lone mothers report *much more* than a fair share of both. The one exception is the significant relationship between the parenting stress of non-employed lone mothers and their satisfaction with amount of free time, $F(2,431) = 4.32, p = .014$ and with their self

perceived time pressure, $F(2,431) = 4.32, p = .014$ suggesting that these relationships were particularly strong in this context.

A comparison of multivariate models among all employed mothers and employed mothers in dual-earner families (lone mothers removed) indicates that certain stressors were more important for the wellbeing of employed lone mothers than for employed mothers in couples (Table 19 and Table A16). Specifically, among employed mothers in dual-earner families, there was no statistically significant relationship between job security and the mental health and vitality of mothers in dual-earner families. Additionally, the effect of increasing parenting stress on vitality was reduced when removing lone mothers ($\beta = -.16$ to $\beta = -.12$). Taken together with the stronger correlations observed in Table A15, these results imply that increasing parenting stress, and a lowered sense of job security had a greater impact on the wellbeing of employed mothers when parenting alone.

A comparison of multivariate models among all non-employed mothers and non-employed mothers in traditional families (lone mothers removed) mainly indicated that increased parenting stress and free time satisfaction was more important for the wellbeing of non-employed mothers in couples than non-employed lone mothers (Table 20 and Table 24). That is, there was a greater association between increasing parenting stress and the mental health vitality and general health of non-employed mothers in traditional families compared to all non-employed mothers. This was consistent with stronger correlations between parental stress and the wellbeing of non-employed mothers in couples observed in Table A15. And it was only among mothers in traditional couples that a *low* satisfaction with amount of free time was associated with their lower mental health ($\beta = -.13$).

None of the interactions of self-perceived time pressure with social support were statistically significant among couple mothers (employed or non-employed). In the case of the interactive effect of self-perceived time pressure and social support on the mental health of employed mothers, the lack of a significant effect when removing lone mothers and the new graph (see Figure A1 in Appendices) suggests that the lack of a protective effect of increasing social support on mental health among those who were *almost always* time pressured was especially notable among employed lone

mothers. However, lack of significance may also indicate loss of statistical power to detect a significant effect.

Summing up. When comparing employed mothers in dual-earner and lone parent families, the results implied that increasing parenting stress and a lowered sense of job security have a greater impact on the wellbeing of employed mothers when parenting alone. When comparing non-employed mothers in coupled and lone parent families, results indicated that increased parenting stress and free time satisfaction was more important for the wellbeing of non-employed mothers in couples. However, without formal statistical tests of differences, the comparison of effect sizes between mothers in couple and lone parent families is at best tentative.

5.5 Chapter Five Discussion

In addressing the third research question (‘Are the effects of parental time use and parental perceptions about their time on self-reported parental wellbeing modified by other perceived stressors and psychological coping resources?’), this Chapter has shown a mix of modifying effects on the relationship between time pressure and wellbeing by indicators of stress and social support. These relationships differ depending on parental gender and employment status. Despite the influence of financial, parenting and job stress, a high level of self-perceived time pressure was uniquely associated with the lowered wellbeing of most employed parents. In contrast, the relationship between time pressure and the wellbeing of non-employed mothers was largely due to their experience of parenting stress. There is only limited evidence that perceived social support and decision latitude are effective coping resources in the presence of high levels of reported subjective time pressure. Finally, a different interplay of stressors on the wellbeing of employed parents dependent on their family context was observed.

Self-perceived time pressure had a direct association with the wellbeing of employed parents independent of significant stressors at work and in the family. This varied by the family context of employed fathers. While the negative effect sizes on wellbeing of being *almost always* or *often* time pressured were reduced when adjusting for financial wellbeing, parenting and job stress, and job security, high self-perceived time pressure significantly reduced wellbeing among employed mothers, and

employed fathers in traditional families. The results indicate that time pressure is more than the sum of accumulated stressors around work and family life. Conceptually, self-perceived time pressure is similar to perceived work-to-family strain. From an ecological perspective, both concepts of time pressure and work-to-family strain operate at the level of *mesosystem*, that is, the interface or spillover between different contexts such as work and family. But potentially, self-perceived time pressure is a broader reflection of the interface between multiple contexts and activities as well as within-context demands. Using 1997 Time Use Survey Data, deVaus (2004) showed that although work - family balance was a key source of time stress (cited by about 52% of females and males), there were other sources including pressure from work or study (23% of females, 39% of males), demands of family (31% female, 14% male) and too much to do or too many demands (29% female, 25% male). As a factor independent of the stress experienced within work and family roles, the expression of time pressure by employed parents, especially mothers, may also reflect a feeling of failure to perform well against norms and expectations in most salient roles because there is too little time (Barnett & Hyde, 2001). Broadly, it is this perception of 'too much to do in too little time' that characterises self-perceived time pressure as something unique to other stressors, and the feeling of work-family strain, as experienced by employed parents.

In contrast, the relationship between self-perceived time pressure and the mental health and vitality of non-employed mothers was not significant once adjusting for levels of perceived parenting stress. So does this mean that non-employed mothers are not bothered by having 'too much to do in too little time'? Not necessarily, but the results indicate that the main source of time stress among non-employed mothers, originates from the demands of the family more than from across multiple context demands. However, as shown in the previous chapter, high time pressure did not have a significant effect on the mental health of mothers in traditional couples and so it was deduced that the effect was stronger among non-employed lone mothers. It follows that among non-employed mothers, parenting stress may explain the relationship between subjective time pressure and mental health among lone mothers only. Identity theory may offer some explanation here. For lone mothers without employment, parenting is likely to be their single most salient role, the role from which they draw their self-identity. Therefore, perceiving to perform badly in the

parenting role increases stress (also perceived as greater time pressure), reduces the psychological rewards and impacts on their mental health.

Further modifying effects by parenting stress on the relationship between low free time satisfaction and parental wellbeing (mental health or vitality) were apparent. The influence of parenting stress differed by outcome and the gender, employment status and family context of parents. Among employed mothers, a drop in vitality due to *low* satisfaction with their amount of free time was no longer evident when considering parenting stress. In contrast, among non-employed mothers and employed fathers, parenting stress mostly influenced the relationship between free time satisfaction and their mental health. Specifically, when adjusting for parenting stress (and job stress among fathers) *low* satisfaction with amount of free time remained significantly associated with their vitality but not their mental health. However, this effect was further moderated by the family context of fathers. Now with full adjustment, *low* free time satisfaction only had an independent effect on the vitality of fathers in dual-earner families. In other words, among fathers in traditional families, lower mental health and vitality associated with low free time satisfaction was explained by their experience of parenting stress. As previously discussed, satisfaction with amount of free time may have a different feel or intensity for employed parents. Perhaps employed mothers are more likely than non-employed mothers to perceive that their free time involves caring for children as a secondary activity, so the wellbeing effect is more likely to be due to the degree to which parenting is stressful. Whereas employed fathers have a different experience of free time depending on whether their partner is also in paid employment, perhaps due to strain around competing work hours. Overall, the results highlight the interrelationship between low free time satisfaction, parenting stress and the mental health and vitality of parents.

As a potential coping mechanism, the perception of social support did little to buffer the effect of a high level of self-perceived time pressure on aspects of mothers' wellbeing. When considering the interaction of self-perceived time pressure and levels of social support, there was only a significant effect on the mental health and vitality of employed mothers and the general health of non-employed mothers. Overall, the interactions suggest that while increasing levels of social support

improved the wellbeing of mothers who were *often* or *sometimes* rushed or pressed for time, there was less effect or an inconsistent effect among mothers who were *almost always* time pressured. It must be remembered that this was the effect observed once allowing for variation in parental wellbeing due to other stressors, and that the introduction of social support into the models *did* reduce the effect of these other stressors (especially job stress and parenting stress) on wellbeing. Not so for self-perceived time pressure. As a means of explanation, it may be that among employed mothers who are chronically time pressured, the perception of support is not enough and that under these circumstances, instrumental support, or the ability to purchase the time of others is more valuable. It may also be the case that the most time pressured parents either don't have enough time, or don't perceive to have enough time to access support even if it is available. From an ecological perspective, the differential effect of perceived social support on wellbeing by varying levels of time pressure is likely to reflect the interaction of personality and social circumstances with the worst outcomes for individuals who tend not to seek support who are also in the most time pressured circumstances.

The lack of an observed buffering effect of social support may also be diluted by the sub-group analysis and the generalised nature of the social support measure. Most parents in the study were coupled and marriage itself is a resource that protects against the paid work, financial and emotional demands of caring for children (Cunningham & Knoester, 2007). In addition, the social support measure did not discriminate between social support from a partner, family, friends, co-workers or professional support. The benefits of support are likely to arise from those environments where parents spend the most time and have had the chance to develop networks (Barnett & Hyde, 2001). In a random sample of employed adults in North America, perceived partner support *did not* moderate the effect of time pressure on depression while perceived support from co-workers only moderated the impact of time pressure on depression among men. That is, men with high time pressure and low co-worker support were significantly more depressed than men with high time pressure and high co-worker support (Roxburgh, 2004). Perhaps if men are more time pressured due to work circumstances than women, co-worker support is more beneficial. If being time pressured is a unique stressor reflecting the interface between multiple contexts, rather than being linked to a particular source, it does beg

the question of exactly where to go for support or what other individual coping resources will be effective.

Another potentially powerful individual coping resource for managing time pressure is a sense of personal control, but as indicated broadly here by ‘decision latitude’ in the workplace, there was little effect. In the first instance, there was only a weak positive correlation between increasing decision latitude and the mental health of fathers within the dual-earner context, but no relationship between decision latitude and the wellbeing of employed mothers or fathers in the traditional context. However, among fathers in the dual-earner context, there was an interactive effect whereby a high level of decision latitude altered the wellbeing effect of self-perceived time pressure on their mental health. Notably, at the highest level of decision latitude (‘high’ being based on a distributional property i.e. the top 25% of scores on the scale), there was very little difference in the mental health of fathers with high versus low self-perceived time pressure. But with the exception of those fathers who were *often* time pressured, mental health tended to be higher when decision latitude was at its lowest (i.e. less freedom to decide) and this is difficult to explain in light of general knowledge surrounding perceived control.

Reflecting on work from Gleik and Erikson, Szollos summates that greater freedom to make decisions actually requires a higher degree of scheduling and although scheduling is an indicator of coping, the tighter the schedule the more prone it is to disruption (Szollos, 2009). In Dale Southerton’s qualitative investigation into “harriedness”, the tight scheduling of activities within “hot spots” during work or committed time was purported to generate a sense of harriedness and anxiety (Southerton, 2003). It is feasible that employed fathers with the demands of a young family are actually less strained in the context of paid jobs with low decision latitude, and this may reflect occupational differences. On the whole, ‘decision latitude’ is a weak proxy indicator of coping, and there is a need for the examination of the role of other positive mental health resources and adaption processes in managing the feeling of being rushed (Szollos, 2009). Researchers who have studied the problem of time pressure from the perspective of leisure research and work-family conflict have argued that individual coping strategies including lifestyle modification are insufficient to reduce the impact of time pressure on wellbeing with a need for

strategies that integrate both individual and organisational change (Drach-Zahavy & Somech, 2008; Zuzanek, 2004).

As an additional finding, family context altered the interrelationship of stressors and wellbeing among employed fathers. On the one hand, increasing job stress only had a significant negative association with the wellbeing of fathers when they had a partner in paid employment (i.e. dual-earner families), once adjusting for other stressors. As an explanation, it may be that fathers within different family contexts varied significantly on unadjusted characteristics of their job such as occupation, self-employment, or the working of shifts or irregular hours such that the reporting of job stress reflects a different underlying experience. It is also feasible that dual-earner fathers feel more stressed in their jobs due to the added 'work' of negotiating hours with their partner, and as such, their family-to-work spillover (or the degree to which they are thinking about family concerns at work) was greater. On the other hand, parenting stress was more strongly associated with the mental health, vitality and general health of fathers in traditional families. For fathers without a partner in paid employment, the experience of parenting stress was independent of their self-perceived time pressure and did not alter time pressure effects on their wellbeing.

In the same vein, the context of being in a couple or lone parent family modified the association between stressors and wellbeing among employed mothers. Increasing job stress and parenting stress, and reduced job security looked to have a greater association with the wellbeing of employed mothers in lone mother families compared to mothers in dual-earner families. This is possibly due to the absence of a partner for emotional and financial support. The interaction results also imply that, compared to mothers in dual-earner families, the mental health of employed lone mothers who were highly time pressured was no better even with high levels of perceived social support. However, the numbers of employed numbers here were very small and the results have been deduced. This would certainly need testing in larger samples of lone mothers. Overall, the results point to an exacerbation of wellbeing effects by work and family stressors among employed lone mothers.

So having found that time pressure reduces the mental health, vitality and general health of employed parents over and above the presence of other stressors in work

and family life, we now turn to the last Chapter which makes self-perceived time pressure the outcome of interest. In light of the knowledge accumulated over the last three Chapters, what is the relative effect on self-perceived time pressure of parental time use, parental perceptions about their time and stressors in work and family life?

6. PREDICTING SELF-PERCEIVED TIME PRESSURE

This Chapter addresses the fourth research question in which ‘self-perceived time pressure’, as the primary indicator of subjective time pressure now becomes the outcome of interest, ‘*What are the predictors of ‘self-perceived time pressure’?*’ (Figure 12) In doing so, the analytical approach moves from the simple description of parental time use influences on self-perceived time pressure, as in Chapter Three, to a multivariate approach considering combined sociodemographic, time use and psychosocial predictors. In these models, the outcome is a dichotomy of ‘high’ time pressure (these parents report being *almost always* or *often* rushed or pressed for time) and ‘low’ time pressure (these parents report being *sometimes*, *rarely* or *never* rushed or pressed for time). To guide the analysis and discussion of results in response to this broad question, there are four sub-components (see section 1.10.4).

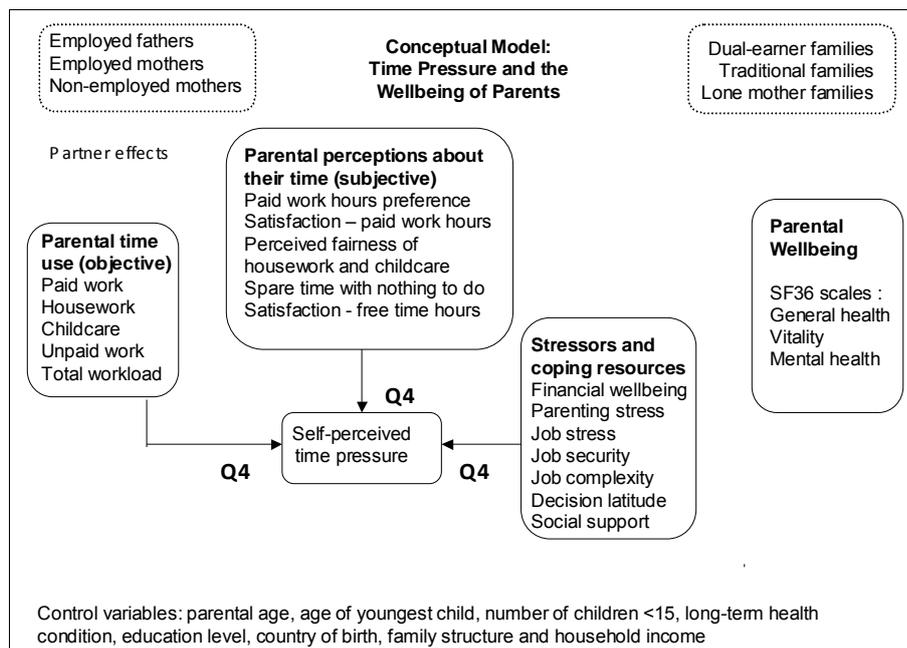


Figure 12. Conceptual model of the thesis – Q4

Analyses thus far demonstrate strong relationships between self-perceived time pressure and hours of household work among mothers (3.5) and with levels of parenting stress and perceived social support (5.2). The main purpose of this Chapter is to determine whether these characteristics of time available outside of work exert

an independent effect on self-perceived time pressure among parents differentiated by both their employment status and their family context. Reported results are based on multiple logistic regression models. This is important analysis because it will serve to quantify the overall impact of unpaid work on self-perceived time pressure and demonstrate that subjectively felt time pressure is not just the consequence of paid work.

The logistic regression models were run in three stages. The first stage accounts for the influence of the sociodemographic factors together with time use in the form of average weekly household and childcare hours (M1). The second stage estimates the influence of the ‘psychosocial variables’, including perceptions of unfairness in the division of housework, and levels of stress and social support (M2). The third stage models the influence of differing levels of uncommitted spare time and parental satisfaction with their quantity of free time (M3).

This method of analysis allowed us to see i) what happens to sociodemographic and time use differences in self-perceived time pressure when adjusting for the influence of stressors and support, and then free time availability and satisfaction ii) to judge the impact on self-perceived time pressure of perceived stressors and support separately from free time availability and satisfaction. The latter is considered important because conceptually, parental perceptions about free time are most closely related to, or ‘proximal’ to self-perceived time pressure.

The four main sections that follow, present results for all parents, all mothers and fathers (6.1); for parents by their employment status (6.2); for employed fathers by their family context (6.3), and employed and non-employed mothers by their family context (6.4).

6.1 What Predicts the Self-Perceived Time Pressure of all Parents, Mothers and Fathers?

This section commences the analysis with a broad look at the determinants of self-perceived time pressure among all parents and then among all mothers and fathers (Table 23). In order to reduce the scope of the presentation, not all results in the Table are discussed. Initially the role of sociodemographic factors in distinguishing

the high time pressure of parents is considered (M1). In addition, we observe whether these sociodemographic differences in self-perceived time pressure are accounted for when adjusting for the influence of different levels of stress, support and free time satisfaction in M2 and M3 (6.1.1) The discussion then concentrates on the independent contribution to self-perceived time pressure of parental time use, stressors and support, and free time availability and satisfaction (6.1.2).

6.1.1 Sociodemographic influences on self-perceived time pressure among all parents, mothers and fathers

The analysis commences with an assessment of the contribution of socio-demographic characteristics to the prediction of self-perceived time pressure (Table 23 – M1). The results show that being a mother, $OR = 1.73$, 95% CIs [1.25,2.39], $p = .001$; having a tertiary education, $OR = 1.46$, 95% CIs [1.07,1.99], $p = .017$; being in full-time employment, and having three or more children, $OR = 1.41$, 95% CIs [1.05, 1.88], $p = .022$ was associated with significantly greater odds of *high* time pressure. There was an important difference though between mothers and fathers. Among all mothers, the likelihood of reporting *high* time pressure was greater when they were tertiary educated while this association was not statistically significant among all fathers.

Differential perceptions about the quantity of free time helped to explain the greater self-perceived time pressure of mothers compared to fathers and of tertiary educated mothers in particular. First, in Model 3 (Table 23), the odds of *high* time pressure for mothers compared to fathers were greater but not statistically significant, $OR = 1.25$, 95% CIs [0.86,1.82], $p = .253$. Second, greater self-perceived time pressure associated with a tertiary education among mothers was not statistically significant once allowing for the effects of psychosocial stressors (M2) and perceptions about their quantity of free time (M3). The biggest drop in the OR was once allowing for the differential perceptions of mothers about their quantity of free time. These findings serve to highlight the importance of free time for mothers in reducing their sense of subjective time pressure, especially so among tertiary educated mothers.

Table 23
Logistic Regression Predicting High Time Pressure (Almost Always or Often Rushed or Pressed for Time) Among all Parents, Mothers and Fathers

Predictor	All parents			All mothers			All fathers		
	M1	M2	M3	M1	M2	M3	M1	M2	M3
	OR								
Sociodemographics									
Mother	1.73	1.65	1.25						
Education level									
Tertiary	1.46	1.43	1.27	1.54	1.44	1.17	1.34	1.31	1.34
TAFE or trade	1.07	1.06	1.05	1.06	1.01	0.84	1.08	1.09	1.29
Year 12 completion	0.92	0.94	0.92	0.98	0.95	0.84	0.86	0.87	1.00
Year 11 completion	ref								
Employment status									
Full-time	ref								
Part-time	0.85	0.81	1.09	0.66	0.56	0.73	1.05	0.97	1.44
NIL or unemployed	0.41	0.34	0.48	0.32	0.23	0.33	0.52	0.49	0.59
Lone parent	0.91	0.80	0.83	0.82	0.67	0.68	1.40	1.68	1.89
Number of children < 15									
One	ref								
Two	1.29	1.22	1.04	1.41	1.30	1.02	1.17	1.12	1.03
Three	1.41	1.26	1.06	1.45	1.23	0.89	1.32	1.23	1.15
Age of youngest child									
Age 0-2	ref								
Age 3-4	1.02	1.01	1.17	1.09	1.16	1.44	0.92	0.92	1.01
Age 5	1.43	1.35	1.61	1.50	1.47	1.94	1.39	1.30	1.44
Household income	1.02	1.03	1.01	1.00	1.01	1.00	1.06	1.06	1.04
Time Use									
Household hours	1.02	1.01	1.01	1.02	1.01	1.01	1.01	1.01	1.02
Childcare hours	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Psychosocial									
Perceived share of h/work									
Much more than fair		1.50	1.30		1.75	1.49		0.64	0.59
A bit more than fair		1.23	1.15		1.18	1.12		1.42	1.21
Fair		ref							
A bit less than fair		1.21	1.20		0.61	0.65		1.34	1.34
Much less than fair		3.54	2.94					3.64	3.09
Parenting stress		1.08	1.07		1.11	1.10		1.05	1.04
Social support		0.98	0.98		0.98	0.98		0.97	0.98
Free Time									
Satisfaction - free time hours									
Low			3.31			3.50			3.08
Medium			1.61			1.56			1.61
High			ref						
Spare time									
Almost always or often			0.30			0.15			0.85
Sometimes			0.20			0.16			0.23
Rarely			0.51			0.41			0.65
Never			ref						
Pseudo R^2 (Nagelkerke)	.08	.16	.28	.11	.22	.35	.04	.11	.22
n			1556			861			694

Note. M1 = Model 1, M2 = Model 2 and M3 = Model 3. OR = Odds Ratio. Models also include parental age, country of birth and long-term health condition all of which were not statistically significant effects

Bolded figures indicate significance at $p < .05$

6.1.2 The contribution of parental time use, stressors, psychological coping resources and free time perceptions to self-perceived time pressure

This section now examines whether parental time use, differing levels of stress and support, and of uncommitted spare time and free time satisfaction exerted an independent effect on the self-perceived time pressure of all parents, all mothers and all fathers.

The influence of parental time use on self-perceived time pressure. With an initial focus on the independent contribution of parental time use, it is seen that self-perceived time pressure grows along with increasing hours of household work but not the time that parents spent with their children (Table 23 – M3). For the purposes of comparison between mothers and fathers in this table, time use was entered as a continuous variable. Specifically, for every one-hour increase in weekly household hours, there was a 1.5% increase in the proportion of all parents reporting *high* time pressure among all parents, a similar effect among mothers and fathers. Recall from Chapter Two (Table 3) that the range of household hours was large and varied considerably between mothers and fathers (0 up to a maximum of 135 hours per week for mothers and 75 hours per week for fathers).

The impact of stressors and coping resources on self-perceived time pressure. Results show that the odds of parents reporting *high* time pressure increased with greater levels of perceived unfairness in their share of housework, independent of the effects of their self-reported parenting stress, social support and perceptions about their amount of free time (Table 23 – M3). In particular, mothers who reported doing *much more* than a fair share of housework had 1.5 times the odds of high time pressure, 95% CI [1.00,2.23], $p = .049$, compared to those who reported a *fair* share. On the other hand, fathers who reported *much less* than a fair share of housework were three times more likely to be highly time pressured than those who reported a *fair* share, $OR = 3.09$, 95% CI [1.38,6.93], $p = .006$. By modeling perceived unfairness together with actual household hours, as in Model 3, this demonstrates that the feeling of unfairness around housework was associated with a greater sense of time pressure regardless of the time that parents spent on such activities.

Furthermore, the perception of unfairness operated on the feeling of being rushed independent of how parents felt about their quantity of free time.

The degree to which their parenting feels stressful also exerted an independent effect on parents' sense of time pressure (Table 23 – M3). The effect was stronger among mothers. For every one-point increase on the parenting stress scale (range 4-28), there was a 10% increase in the proportion of mothers compared to a 4% increase in the proportion of fathers reporting *high* time pressure, $OR = 1.10$, 95% CIs [1.06,1.14], $p < .001$ and $OR = 1.04$ [1.00,2.23], $p = .049$ respectively. So before separating employed and non-employed parents in the analysis, mothers had more than double the odds of high time pressure due to perceived parenting stress, compared to fathers.

As a protective effect, the perception of social support from others reduced the sense of time pressure among all parents (Table 23 – M3). Every one-point increase on the social support scale (range 17-63) reduced the odds of *high* time pressure in a similar way (by 2%) among mothers and fathers, $OR = 0.98$, 95% CIs [0.96,1.00], $p = .032$ and $OR = 0.98$ [0.96,1.00], $p = .021$ respectively. The reduction in self-perceived time pressure was due to the perception of available support, and as the models have been adjusted for the presence of a partner, this may have reflected perceived support from a partner or others in general.

The impact of free time availability and satisfaction on self-perceived time pressure. There was a strong relationship between parental perceptions about their free time and self-perceived time pressure (Table 23 – M3). Specifically, parents who had a *low* satisfaction with their amount of free time (scale score 0-3) were well over three times more likely to report *high* time pressure compared to those who were highly satisfied with their free time, $OR = 3.31$, 95% CIs [2.43,4.51], $p < .001$. This relationship was stronger among mothers than fathers. In addition, compared to *never* having spare time with nothing to do, *sometimes* having such spare time reduced the odds of high self-perceived time pressure by 80% while even *rarely* having such uncommitted time reduced the odds ratio by half, $OR = 0.20$, 95% CIs [0.14,0.29], $p < .001$ and $OR = 0.51$, 95% CIs [0.39,0.67], $p < .001$ respectively. The effect of having some uncommitted spare time or being highly satisfied with amount

of free time was slightly more beneficial in terms of reducing the self-perceived time pressure of mothers.

Summing up. For all parents, self-perceived time pressure was more likely to be *high* when they perceived their share of household work to be unfair and when satisfaction with their quantity of free time was *low*. Furthermore, the likelihood of reporting *high* time pressure grew with increasing levels of parenting stress but declined with increasing levels of social support.

6.2 What Predicts the Self-Perceived Time Pressure of Parents With Differing Employment Status?

We have seen that time spent in household work, perceptions of unfairness in housework, parenting stress and perceptions about free time all contributed significantly to the self-perceived time pressure of parents, while social support served to reduce the pressure. This section now examines the way in which these effects are modified by the employment status of parents, mothers in particular, and further models the effect of paid work hours and indicators of job quality (Table 24).

6.2.1 Variation in sociodemographic influences on the self-perceived time pressure of parents by their employment status

Employment status modified the effect of sociodemographic characteristics on the self-perceived time pressure of parents. Most of the sociodemographic variables that were previously related to self-perceived time pressure among all parents were only significant when parents were employed (Table 24 – M1).

Notably, tertiary educated mothers and fathers only felt more rushed than parents who did not complete high school when they were employed, although this association just fell out of statistical significance among mothers, $OR = 1.91$, 95% CIs [0.96,3.82], $p = .066$ and $OR = 1.71$ 95% CIs [1.02,2.89], $p = .043$ respectively. Furthermore, having more than one child more than doubled the odds of *high* time pressure among employed mothers but not among mothers without employment or employed fathers.

Table 24
Logistic Regression Predicting High Time Pressure (Almost Always or Often Rushed or Pressed for Time) by Gender and Employment Status

Predictor	Employed mothers			Employed fathers			Non-employed mothers		
	M1	M2	M3	M1	M2	M3	M1	M2	M3
	OR	OR	OR	OR	OR	OR	OR	OR	OR
Sociodemographics									
Education level									
Tertiary	1.91	1.22	1.00	1.71	1.19	1.14	1.24	1.27	0.96
TAFE or trade	0.89	0.65	0.52	1.33	1.18	1.31	1.37	1.37	1.11
Year 12 completion	1.03	0.97	0.79	1.12	0.99	1.15	0.97	0.99	0.85
Year 11 completion (ref)	ref								
Country of Birth									
Australia	ref								
English speaking country	0.76	0.69	0.52	1.58	1.55	1.40	0.91	0.75	0.67
NESB country	0.75	0.82	0.87	1.19	1.44	1.58	0.89	0.79	0.76
Lone parent	0.86	0.70	0.84	4.60	4.88	6.97	0.70	0.66	0.63
Number of children <15									
One	ref								
Two	2.13	2.06	1.42	1.24	1.18	1.12	1.05	0.93	0.80
Three	2.58	2.33	1.44	1.23	1.25	1.20	1.11	0.91	0.64
Age of youngest child									
Age 0-2	ref								
Age 3-4	0.91	0.94	1.23	0.94	0.89	0.95	1.14	1.29	1.52
Age 5	1.30	1.12	1.50	1.37	1.31	1.44	1.82	2.18	3.59
Time Use									
Paid work hours									
1 to15 hrs/Under 35 hrs	0.76	1.13	1.09	1.62	1.65	1.85	-	-	-
16 to 24 hrs/35 to 44 hrs	ref								
25 to 34 hrs/45 to 54 hrs	1.08	1.37	1.03	1.65	1.31	1.06	-	-	-
35 + hrs/55 + hrs	2.22	2.31	1.99	2.39	1.68	1.27	-	-	-
Household hours									
1st quartile	ref								
2nd quartile	2.08	1.74	1.84	1.25	1.33	1.29	1.57	1.40	1.67
3rd quartile	1.37	1.13	1.09	1.03	1.12	1.12	1.69	1.56	1.72
4th quartile	2.23	2.06	2.04	1.36	1.46	1.43	2.54	2.10	2.04
Psychosocial									
Perceived share of h/work									
Much more than fair		2.17	2.36		0.80	0.76		1.44	1.03
A bit more than fair		1.36	1.34		1.49	1.23		1.10	1.07
Fair		ref							
A bit less than fair		0.57	0.82		1.28	1.36		0.73	0.57
Much less than fair					2.78	2.69			
Parenting stress		1.10	1.06		1.05	1.05		1.12	1.12
Social support		0.99	0.98		0.98	0.99		0.99	0.98
Job stress		1.15	1.13		1.09	1.08		-	-
Job security		0.99	0.98		0.97	0.95		-	-
Job complexity		1.03	1.01		1.09	1.09		-	-
Decision latitude		1.04	1.06		1.03	1.03		-	-

Continued on the following page

Table 24 continued

Predictor	Employed mothers			Employed fathers			Non-employed mothers		
	M1	M2	M3	M1	M2	M3	M1	M2	M3
	OR	OR	OR	OR	OR	OR	OR	OR	OR
Free Time									
Satisfaction - free time hours									
Low			5.53			2.91			2.71
Medium			1.43			1.34			1.70
High			ref						
Spare time									
Almost always or often			0.21			0.84			0.16
Sometimes			0.16			0.21			0.12
Rarely			0.32			0.64			0.39
Never			ref						
<i>Pseudo R</i> ²	.15	.29	.43	.08	.22	.30	.06	.18	.31
<i>n</i>			387			617			448

Note. M1 = Model 1, M2 = Model 2 and M3 = Model 3. OR = Odds Ratio. Models also include parental age, long-term health condition, household income, childcare hours and paid work hours preference, all of which were not statistically significant effects.

Bolded figures indicate significance at $p < .05$

In contrast, the age of the youngest child was only significantly related to self-perceived time pressure among non-employed mothers. Specifically, when their youngest child was aged five compared to two or under, non-employed mothers had more than double the odds of high time pressure, $OR = 3.59$, 95% CIs [1.34,9.58], $p = .011$ (reaching statistical significance in M3).

6.2.2 Variation in the contribution of parental time use, stressors, psychological coping resources and free time perceptions to the self-perceived time pressure of parents by their employment status

This section now examines whether parental time use, differing levels of stress and coping resources, and of uncommitted spare time and free time satisfaction exert an independent effect on the self-perceived time pressure of employed mothers and fathers and of non-employed mothers.

The influence of parental time use on their self-perceived time pressure. Turning first to parental time use, there was an independent effect of household hours on the self-perceived time pressure of non-employed mothers with a strong trend towards the same among employed mothers (Table 24 – M3). Among non-employed mothers,

the effect of working long hours in household work (where the fourth quartile represents 51 hours of more per week) was associated with double the odds of reporting *high* time pressure compared to mothers in the first quartile (averaging 24 hours per week or less), $OR = 2.04$, 95% CIs [1.05,3.96], $p = .035$. Among employed mothers, the odds of high time pressure among those in the fourth quartile of household work (representing 37 hours of more per week) was also double that of those in the first quartile, although the association became non-significant with adjustment for employed mothers' perceptions about unfairness in household work and their self-reported parenting and job stress. The relationship between weekly hours in household work and the self-perceived time pressure of employed fathers was not statistically significant.

Still on time use and with respect to the paid work hours of employed parents, there was no significant independent effect of relatively long hours in paid work on the self-perceived time pressure of mothers or fathers after adjusting for different levels of stress and support, and perceptions about free time (Table 24 – M3). Before adjustment for these factors (M1), the odds of *high* time pressure was more than doubled among employed fathers who averaged 55 hours or more per week compared to those who worked a 'standard week' (35-44 hours per week), and among employed mothers who worked 35 hours or more per week compared to those who worked moderate part-time hours (16-24 hours per week). This does not discount the effect of relatively long hours in paid work on perceived time pressure but implies that this occurs due to the impact on stress levels and the amount of free time parents have at their disposal.

The impact of stressors and coping resources on self-perceived time pressure.

Shifting attention to parental perceptions of fairness in housework and how this relates to their self-perceived time pressure, the employment status of mothers was found to be a modifying factor. Among employed mothers, perceiving to perform *much more* than a fair share of housework was associated with double the odds of reporting high time pressure compared to mothers who perceived their share to be *fair*, $OR = 2.36$, 95% CIs [1.20,4.65], $p = .013$. That is, the association between perceived unfairness in housework and self-perceived time pressure existed among employed mothers, independent of all other measured factors. Such an independent

effect was not present among non-employed mothers. The results for all employed fathers just fell out of statistical significance compared to that reported in the previous section for all fathers i.e. just over 2.5 times the risk of higher time pressure when reporting *much less* than a fair share of housework, $OR = 2.67$, 95% CIs [1.00,7.17], $p = .051$. Therefore, the world of paid work conditions whether perceptions of unfairness in household work relate to the feeling of being rushed.

Both perceived parenting stress and certain aspects of job quality were independently associated with reports of *high* time pressure among parents, differentiated by gender and employment status (Table 24 - M3). The employment status of mothers modified the relationship between parenting stress and self-perceived time pressure. For every one-point increase in parenting stress (range 4-28), there was a 6% increase among employed mothers, a 5% increase among employed fathers and a 12% increase among non-employed mothers in the proportion reporting *high* time pressure. Gender modified the relationship between job stress and the self-perceived time pressure of employed parents. For every one-point increase on the job stress scale (range 3-20), there was a 13% increase among employed mothers and 8% increase among employed fathers in the proportion reporting *high* time pressure. Furthermore, among employed fathers only, there was a 9% increase in the proportion reporting *high* time pressure with each one-point increase on the job complexity scale. Broadly then, stress at work and at home contributed to the feeling of being rushed among parents.

The impact of free time perceptions on self-perceived time pressure. Finally, the contribution of parental dissatisfaction with their quantity of free time to their perceived time pressure was also modified by employment status and gender. Employed mothers who had a *low* level of satisfaction with their amount of free time were more than five times more likely to report *high* time pressure compared to those with *high* free time satisfaction, $OR = 5.53$, 95% CIs [2.42,12.62], $p < .001$. This was around double the size of the effect among employed fathers, $OR = 2.91$, 95% CIs [1.70,4.96], $p < .001$ and non-employed mothers, $OR = 2.71$, 95% CIs [1.51,4.83], $p < .001$. It is notable that among employed and non-employed mothers, just *rarely* having spare time with nothing to do compared to *never* having this uncommitted spare time reduced the odds of reporting *high* time pressure by about two-thirds.

Summing up. In summary of this section, it is seen that the employment status of mothers modified the independent relationships of perceived unfairness in housework, parenting stress and perceptions about free time with *high* time pressure. While the effect on time pressure of performing relatively large amounts of household work was similar among all mothers, it was only employed mothers that felt significantly more time pressured by a sense of unfairness to themselves in their share of household work. In addition, employed mothers were markedly more time pressured than non-employed mothers due to their *low* free time satisfaction. On the other hand, an increasing level of parenting stress was more strongly associated with time pressure among non-employed mothers than employed mothers.

6.3 Comparing the Predictors of Self-Perceived Time Pressure Among Fathers in Dual Earner and Traditional Families

Previous chapters have led to discussion about differences in the configuration of time pressure among fathers dependent on their partner's employment status. It is therefore important to follow that line of enquiry through to this final Chapter and see if the predictive relationships observed in the previous section are modified by the family context of fathers (Table 25). As with the first two sections, this section is broken into two parts to consider sociodemographic influences (6.3.1) and the independent contribution of time use, stressors and supports, and free time perceptions on the self-perceived time pressure of fathers (6.3.2) but now comparing fathers in dual-earner and traditional families.

6.3.1 Variation in sociodemographic influences on the self-perceived time pressure of employed fathers by their family context

Family context modified the association between sociodemographic factors and the self-perceived time pressure of employed fathers (Table 25 – M1). Parental country of birth was only significant within the traditional family context. Compared to Australian-born fathers, overseas born fathers from an English-speaking background had 2.6 times the odds of reporting *high* time pressure, when living in a traditional family, 95% CIs [1.12,6.08], $p = .026$. Additionally, the effect of having a tertiary education looked to be mainly influential among fathers in the traditional family context, although not quite statistically significant, OR = 2.13, 95% CIs [0.96,4.71],

$p = .062$. On the other hand, variation in annual household income emerged as being related to the self-perceived time pressure of fathers in dual-earner families only, although just out of statistical significance, OR = 1.10, 95% CIs [1.00,1.22], $p = .056$. If this is a true effect, perhaps in a larger sample, then with each \$10,000 increment in annual household income, there is an average 10% increase in the proportion of dual-earner fathers reporting *high* time pressure. These differences illustrate, in part, how individual and family characteristics shape the self-perceived time pressure of employed fathers as a function of their partner's employment status.

6.3.2 Variation in the contribution of parental time use, stressors, psychological coping resources and free time perceptions to the self-perceived time pressure of employed by their family context

This section now examines whether parental time use, differing levels of stress and coping resources, and of uncommitted spare time and free time satisfaction exert an independent effect on the self-perceived time pressure of employed fathers within their family context. Results are discussed where there are differences in these effects for fathers in dual-earner and traditional families.

The influence of parental time use on self-perceived time pressure. The family context of employed fathers modified the relationship between their weekly allocation of time to paid work and household work and subjective time pressure. Specifically, different time use patterns only exerted an independent influence on the self-perceived time pressure of fathers when their partners were not in paid work (M3 – Table 25).

Table 25
Logistic Regression Predicting High Time Pressure (Almost Always or Often Rushed or Pressed for Time: Comparing Fathers in Dual-Earner and Traditional Families

Predictor	Dual-earner			Traditional		
	M1	M2	M3	M1	M2	M3
	OR	OR	OR	OR	OR	OR
Sociodemographics						
Education level						
Tertiary	1.32	0.69	0.84	2.13	1.75	1.23
TAFE or trade	1.17	1.05	1.31	1.41	1.31	1.29
Year 12 completion	0.87	0.84	1.08	1.92	1.52	1.80
Year 11 completion	ref					
Country of birth						
Australia	ref					
English speaking country	1.03	1.03	0.80	2.61	2.75	2.99
NESB country	1.15	1.30	1.28	1.14	1.38	1.60
Number of children <15						
One	ref					
Two	1.46	1.04	0.92	1.30	1.32	1.28
Three	1.84	1.63	1.28	0.85	0.98	1.21
Age of youngest child						
Age 0-2	ref					
Age 3-4	0.79	0.75	0.79	1.09	0.91	1.00
Age 5	1.12	0.99	1.17	2.47	2.75	2.93
Household income	1.10	1.13	1.12	0.96	0.94	0.96
Time Use						
Paid work hours						
Under 35 hrs	1.75	2.01	2.52	1.76	1.94	2.39
35 to 44 hrs	ref					
45 to 54 hrs	1.21	0.66	0.56	2.40	2.12	2.08
55 + hrs	2.00	0.99	0.79	3.18	2.65	1.98
Household hours ^a						
1st quartile	ref					
2nd quartile	1.05	1.10	0.88	1.48	1.60	2.06
3rd quartile	0.88	1.01	0.84	1.44	1.64	2.32
4th quartile	1.35	1.55	1.18	1.62	1.87	2.63
Psychosocial						
Perceived share of h/work						
Much more than fair		0.46	0.43		1.07	1.30
A bit more than fair		0.58	0.48		3.12	2.61
Fair		ref				
A bit less than fair		1.60	1.57		1.23	1.39
Much less than fair		1.12	1.19		4.69	4.44
Parenting stress		1.07	1.07		1.04	1.04
Social support		0.96	0.97		1.01	1.02
Job stress		1.13	1.11		1.09	1.09
Job security		0.99	0.98		0.96	0.94
Job complexity		1.17	1.16		1.07	1.09
Decision latitude		1.04	1.04		1.01	1.00

Continued on the following page

Table 25 continued

Predictor	Dual-earner			Traditional		
	M1	M2	M3	M1	M2	M3
	OR	OR	OR	OR	OR	OR
Free Time						
Satisfaction - free time hrs						
Low			3.81			3.63
Medium			1.46			1.51
High			ref			
Spare time						
Almost always or often			0.68			2.69
Sometimes			0.48			0.10
Rarely			0.81			0.47
Never			ref			
Pseudo R^2	.10	.32	.37	.13	.25	.37
n			314			288

Note. M1 = Model 1, M2 = Model 2 and M3 = Model 3. OR = Odds Ratio. Models also include parental age, long-term health condition, childcare hours and paid work hours preference all of which were not statistically significant effects

^aFirst quartile represents the least amount of weekly time (<6.5 hrs pw) and fourth quartile the most amount of weekly time (18 hrs + pw) in household work among employed fathers.

Bolded figures indicate significance at $p < .05$

Generally, among fathers in traditional families who averaged more than 45 hours per week of paid work, the odds of *high* time pressure were double that of fathers working ‘standard’ hours (35-44 hours per week). However, the association between paid work hours and the time pressure of fathers in traditional families became statistically non-significant with adjustment for their perceptions about free time (M3). Although dual-earner fathers working 55 hours or more per week had double the odds of *high* time pressure compared to dual-earner fathers working a standard week, before adjustment (M1), this association disappeared once adjusting for time pressure differences associated with varying levels of stress and support (M2). So while the effects of paid work hours on the perceived time pressure of fathers were mediated by self-reports of stressors and support and perceptions about free time, the impact of absolute work hours was greater among fathers in traditional families. Furthermore, a weekly amount of household work that was in the fourth quartile (18 hours or more per week) was associated with more than a twofold risk of *high* time pressure for fathers in traditional families, $OR = 2.63$, 95% CIs [1.05,6.61], $p = .039$. This relationship between average weekly hours in household work and self-perceived time pressure only reached statistical significance in Model 3 i.e. after adjustment for free time perceptions. By comparison, there was not a significant

independent relationship at any stage between the allocation of time to household work and the subjective time pressure of fathers in dual-earner families.

The impact of stressors and coping resources on self-perceived time pressure. In contrast, work and family stressors and the perception of social support had a stronger independent effect on the self-perceived time pressure of employed fathers in dual-earner families. For every one-point increase in parenting stress there was a 7% increase, and for every one-point increase in job stress there was an 11% increase in the proportion of dual-earner fathers who reported *high* time pressure, while there was no statistically significant effect among fathers in traditional families (M3). And for every one-point increase in job complexity, there was a 16% increase and a 9% increase in the proportion reporting *high* time pressure among fathers in dual-earner and traditional families, respectively (M3). In addition, as perceived social support increased, there was a reduction in the proportion of dual-earner fathers feeling of being time rushed but not fathers in traditional families. The relative strength of time pressure effects around other stressors indicated that fathers in dual-earner families were particularly pressured due to the quality of their ‘work’ experience, as opposed to the actual time that they spent in paid and unpaid work.

Summing up. The pattern of results in this section confirms the emerging picture from previous chapters, that a feeling of *high* time pressure is configured differently for fathers depending on whether their partner is employed or not. Among fathers in traditional families, being highly time pressured was significantly associated with longer hours in paid work and household work, and increasing job complexity. Among fathers in dual-earner families, being highly time pressured was associated with increasing parenting stress, job stress and job complexity but reduced with increasing levels of social support.

6.4 Comparing the Predictors of Self-Perceived Time Pressure Among Mothers in Couple and Lone Parent Families

In this final section, we consider whether the context of being in a couple or lone parent family modifies the relationship between time use, different levels of stress and coping resources, free time and the time pressure of employed and non-

employed mothers. As for the analyses in previous chapters, lone mothers are removed from the ‘all employed’ and ‘all non-employed’ mother subgroups to get a feel for differences between couple and lone mothers (Table A17). Differences can be observed by comparing results for mothers in dual-earner and traditional families in Table 28 with results for all employed and all non-employed mothers in Table A17. As for fathers, the discussion is based on differences between mothers within context, rather than providing a complete overview of results.

6.4.1 Variation in sociodemographic influences on the self-perceived time pressure of mothers by their family context

Sociodemographic factors were differentially related to self-perceived time pressure according to whether mothers were in a couple or a lone parent family (Table A17).

Employed mothers – dual-earner family v lone parent context. With respect to employed mothers, family context modified the effect of age of the youngest child on self-perceived time pressure. The odds of *high* time pressure when there were three or more children in the home compared to mothers with one child were notably higher among mothers in the dual-earner context, $OR = 3.83$, 95% CIs [1.62,9.07], $p = .002$ (compared to $OR = 2.58$ for all employed mothers).

Non-employed mothers- traditional family v lone parent context. With respect to non-employed mothers, it was only within the context of a couple where education and the age of the youngest child were linked to their self-perceived time pressure.

6.4.2 Variation in the contribution of parental time use, stressors, psychological coping resources and free time perceptions to the self-perceived time pressure of mothers by their family context

Employed mothers – dual-earner family v lone parent context. With a focus on parental time use, the comparison of models for employed mothers suggests that lone mothers in full-time employment or with long hours in household work were more time pressured than employed mothers with a partner. This was not a straightforward comparison in the absence of a statistically significant relationship between time spent in paid work or household work and the time pressure of employed mothers, once adjusting for perceptions about free time. In this case, it is

more informative to compare models at the first stage (Table 24 and A17 - M1). Here it is seen that there was not a significant relationship between paid work hours and self-perceived time pressure among mothers in dual-earner families, while among all mothers, those in full time employment had more than double the odds of reporting *high* time pressure. Furthermore, there was not a statistically significant effect on time pressure when working long hours in household work (i.e. the top 25%), when removing employed lone mothers from the analysis. This suggests that more time spent working (but not time with children) had a particularly strong effect on raising the time pressure levels of employed lone mothers. These results need to be interpreted with caution due to the small numbers of employed lone mothers.

In contrast, feeling rushed due to perceived unfairness in household work, *low* satisfaction with amount of free time and levels of perceived social support exerted a stronger independent effect among employed mothers in the dual-earner context. Dual-earner mothers had more than three times the odds of *high* time pressure when they reported *much more* than a fair share of housework compared to a *fair share*, $OR = 3.20$, 95% CIs [1.39,7.38], $p = .006$. In addition, mothers in dual-earner families who had a *low* satisfaction with their quantity of free time had six times the odds of high time pressure compared to mothers with a *high* free time satisfaction, $OR = 6.44$, 95% CIs [2.40,17.30], $p < .001$. These odds were greater than those reported for all mothers (see Table 24). The associations between parenting stress, job stress and feeling highly time pressured do not appear to be modified by the family context of employed mothers. Taken together these results imply that compared to lone mothers, dual-earner mothers were more time pressured due to issues around division of labour and free time.

Non-employed mothers- traditional family v lone parent context. The comparison of models for non-employed mothers shows that family context altered the time pressure effects of household work, perceptions about free time and differing levels of social support (compare Table A17 with Table 24 - M3). Larger amounts of household work did not significantly increase the odds of *high* time pressure among mothers in the traditional family context. This was in contrast to that found for all non-employed mothers. Additionally, having a *low* satisfaction with amount of free time was associated with 2.2 times the odds of *high* time pressure among mothers in

the traditional context, OR = 2.24, CIs [1.03,4.90], $p = .042$, lower than for all non-employed mothers. Whereas, the odds of reporting *high* time pressure reduced by 4% for every one-point increase on the social support scale for mothers in traditional families, an effect that was not significant for all non-employed mothers. Overall, the implication is that compared to mothers in traditional families (i.e. in couples), non-employed lone mothers were more time pressured due to their time in household work and *low* free time satisfaction and lack the protection offered by social support.

Summing up. It is evident that lone mothers (employed or not) were more time pressured due to their time allocations and greater levels of perceived social support did not reduce the feeling of being rushed. Increasing levels of parenting stress had a similar effect on time pressure, regardless of family context. Free time satisfaction was more important for mothers in couples when they were employed but less important for mothers in couples when they were not employed.

6.5 Chapter Six Discussion

What are the predictors of self-perceived time pressure? In this Chapter the fourth research question and its four sub-components for all parents, for parents by their employment status, and then in different family contexts was addressed. Generally, feeling rushed was as much about time at home as it was about time in paid work. Longer hours in either paid work or household work increased the self-perceived time pressure of employed mothers and that of employed fathers, although conditional on family context. Independent of time spent in household work, being rushed was associated with a perception of unfairness in housework, either too much among employed mothers or too little among employed fathers. Furthermore, the likelihood of high time pressure grew with an increasing sense of parenting stress for all parents and was significantly higher when parents had a *low* level of satisfaction with their quantity of free time. As a protective resource, the perception of social support reduced self-perceived time pressure among mothers in couples and fathers in dual-earner families. Overall, the family context of parents modified the extent to which the quantity versus quality of time was important for parental time pressure. Additionally, variation in the experience of time at home and in free time helped to explain the greater prevalence of high time pressure among mothers and tertiary educated parents.

Self-perceived time pressure was, in part, attributable to the time that parents spent in household work but mostly for mothers. At the broadest level, the odds of high parental time pressure grew with increasing weekly hours of household work among mothers and fathers. The lack of a gender difference deviates from the findings of other research among Australian couples (with and without children), where there was a weak but significant effect of each increasing hour of housework on the self-perceived time pressure of women but not men (Hamermesh & Lee, 2005).

Distinguishing parents by employment status and categorising the data, gender differences in time pressure effects of household work become apparent whereby the effect was not significant among all employed fathers. Likewise, international studies in the prime-age working population find mainly a significant relationship between household hours and the perceived 'time-crunch' (Beaujot & Anderson, 2007), time pressure (Roxburgh, 2004) or time stress (Macdonald et al, 2005) of women. Among Canadian parents with school-age children, increasing hours of domestic activity increased the perceived 'time-crunch' of mothers only (Hilbrecht, 2009). The independent effect of weekly hours in household work on self-perceived time pressure among mothers can be partly explained by the simple fact that, on average, they spend considerably more time in household activities than fathers.

However, the family context of employed mothers and fathers was seen to modify the time pressure effect of weekly hours of household work. First, the results imply a particularly strong effect among employed lone mothers (although numbers are small). As a means of explanation, employed lone mothers are more likely to be doing household work and childcare concurrently and this greater intensity of work or "time deepening" may give rise to feeling more time pressured (Bittman, 2004; Robinson & Godbey, 1997, p. 38-42). In addition, lone parents tend to have the least discretionary choice or control over their commitment of hours to unpaid work (Goodin et al., 2005). Second, there was only a significant relationship between household work and self-perceived time pressure among fathers in the traditional family context, once adjusting for perceptions about their free time. This 'unmasking' effect points to reasons for higher time pressure other than restraints on their free time. Perhaps fathers in traditional families are less tolerant or adaptive to a greater total workload than fathers in dual-earner families. Fathers in traditional families are also more likely to have traditional attitudes towards the division of

labour and do less housework than men with more “liberal” attitudes (Baxter et al., 2005). This being the case, these fathers may feel more time pressured by greater hours of household work because they don’t expect to contribute as much as fathers in dual-earner families. Taken together, these contextual differences suggest that parents in dual-earner families are less time pressured by the actual quantity of household work than parents in other family contexts.

Regardless of the time they spent in household work, employed parents who perceived their share of housework to be unfair were significantly more time pressured than those who thought the division was fair. This effect was most prominent among employed mothers in the dual-earner context, where reporting *much more* than a fair share of housework (40% of employed mothers) was associated with around a three-fold increase in the odds of high time pressure. Although fathers in the traditional family context reporting *much less* than a fair share of housework were substantially more time pressured this only related to a small minority (6% of fathers). Broadly, the unequal division of paid and unpaid labour between men and women and across households is considered to be one of the major sources of a growing sense of time pressure in the population (Bittman, 2004; HREOC, 2005; Jacobs & Gerson, 2001). However within households, the connection between perceived unfairness and self-perceived time pressure is not straightforward. In present society, ‘fairness’ does not simply equate to an equal division of household labour and both perceptions of time pressure and fairness within couples have multiple antecedents including the employment hours, education level and gender ideology of both partners (Baxter et al., 2007a; Coltrane, 2000; de Vaus, 2004). Furthermore, the connection is likely to have roots in an underlying negative emotional experience including frustration and lack of control over the division of household labour. Such an explanation is consistent with those seeking to describe the emotional experience of “being rushed” (Szollos, 2009).

Although non-employed mothers were more likely than employed mothers to report a high level of unfairness, they were not significantly time pressured by this perception and overall may view the overall balance of work (paid and unpaid) to be fair. On average, Australian mothers in traditional families work similar hours to fathers in the family while mothers in dual-earner families have a greater total

workload than their partners (Craig et al., 2008). It is possible then, that employed mothers become more highly time pressured when they perceive their total workload to be unfair. It is important to verify these findings, especially the differences between parents within their family context, in larger samples of parents with young children.

Parenting stress is an indicator of the quality of time parents spend in their parenting role and for all parents, increasing levels of parenting stress corresponded with subjectively high time pressure. There is little comparable research with which to compare this result, except for the general findings from the ABS Time Use Survey where 'demands of the family' is an often-quoted reason for feeling time pressured (de Vaus, 2004). The effect was stronger among mothers who were not in paid employment but was unaltered by their family context. By comparison, family context did modify the association among fathers, and there was only a statistically significant relationship between parenting stress and high time pressure among fathers in dual-earner families. It is notable that for employed mothers only, the relationship between parenting stress and their self-perceived time pressure was partly due to their perceptions about free time. This indicates a closer link between parenting stress and the free time experience of employed mothers. The link between parenting stress and the time pressure of non-employed mothers was particularly informative. It shows that the sense of time pressure is associated with the quality of an unpaid work role, in this case, the degree to which parenting is perceived as difficult, demanding and tiring. This creates a link between self-perceived time pressure and stress that is not dependent on employment although likely influenced by employment hours of fathers.

A greater level of perceived social support potentially reduced the feeling of being busy but here mixed results by family context were found. Among all parents, increasing levels of perceived support lowered the odds of perceived time pressure. But as discussed in the previous chapter, it is a general measure of social support from others and may have a different meaning for parents by their employment status and family context. Here we find that there was only a significant reduction in perceived time pressure with increasing levels of perceived support among mothers in traditional couples. The trend was present but not statistically significant ($p < .05$)

among mothers in dual-earner families. This is logical as lone mothers are more likely to refer to support outside of the home whereas mothers in couple are more likely to be thinking of their partner's support. There was a further modifying effect by the family context of fathers. Perceived social support only reduced the self-perceived time pressure of fathers in dual-earner families. Although research has shown that higher levels of co-worker support reduced the time pressure of men (Roxburgh, 2006), the differences between fathers in different family contexts, suggest that fathers may also be reflecting on support from their partner. Due to the greater difficulties in managing paid and unpaid work hours when both parents are employed, fathers in dual-earner families may be more in-tune to partner support.

High self-perceived time pressure and dissatisfaction with amount of free time tended to go hand-in-hand but especially for mothers in dual-earner families. Reporting a *low* level of satisfaction with their amount of free time tripled the odds of high time pressure among all parents, regardless of employment status. However, for employed mothers in the dual-earner context, *low* free time satisfaction was associated with a six-fold risk of high time pressure. In the Canadian working population, there was a positive linear relationship between daily amounts of free time (i.e. residual to total workload) and reduction in perceived time pressure (Zuzanek, 2004). But this may mask differences between men and women. Because this sample represents a life-stage group with the least amount of actual free time, especially in respect to employed mothers, it is likely that the linear relationship between free time and self-perceived time pressure is distorted. Satisfaction with amount of free time among employed mothers may be just as much about quality than quantity of time. Quality free time may be indicated by many things including child-free leisure time (Bittman & Wajcman, 2004), time that is not spent in recovery from a long day at work, is enjoyable, and involves some degree of discretionary control over activities (Iso-Ahola & Mannell, 2004), and free time that comes in a sufficient block, rather than being fragmented across the week (Bittman & Wajcman, 2004; Peters & Raaijmakers, 1998). These findings support gender differences in the experience of free time and its relationship with self-perceived time pressure as found in the US population (Mattingly & Sayer, 2006), but further highlight the importance of free time for lowering the perceived time pressure of employed mothers.

Furthermore, free time satisfaction helped to explain the greater time self-perceived time pressure of mothers. Compared to fathers, mothers were 1.7 times more likely to report high time pressure. This compares well with other Australian population findings showing that females were 1.9 times more likely than men to be almost always or often rushed or pressed for time (Gunthorpe & Lyons, 2004). The higher time pressure of all mothers in this sample was not explained by differences in weekly household hours, perceived unfairness in housework, levels of parenting stress and social support. However, gender differences in self-perceived time pressure were no longer statistically significant once adjustment was made for parental satisfaction with their amount of free time. Therefore, this analysis suggests that the critical factor distinguishing levels of self-perceived time pressure among mothers and fathers is the quantity (and perhaps quality) of their free time.

Finally, the results here offer explanation for the greater self-perceived time pressure of tertiary educated parents, especially those in paid employment. Specifically, the greater likelihood of feeling rushed among employed fathers with a tertiary education compared to those with an incomplete high school education was not statistically significant once adjusting for perceived unfairness in housework, and reports of increasing parenting and job stress. The same trend was evident among employed mothers. As a means of explanation, tertiary educated parents are more likely to have egalitarian values and to perceive unfairness in the division of household work (Coltrane, 2000). Education then, is a vehicle for the development of values and expectations about housework, parenting and free time, values and expectations that can be violated, and lead to a greater sense of time pressure.

Having looked closely at the factors that predict a high level of self-perceived time pressure among parents using a multivariate modelling process, we can see that a sense of time pressure is complex and influenced by individual and family characteristics and by the contexts of work and family. For traditional families, the distribution of hours is more critical, while for dual-earner families, the quality of how that time is spent may be more important. This distinction, together with other broader observations across the Chapters; a consideration of study limitations, and implications for further research are the subject of the final chapter.

7. OVERVIEW OF FINDINGS AND STUDY IMPLICATIONS

Parents with young children are one of the most time-pressured groups in our society. The issue of work-family balance and time pressure among families with onward implications for their wellbeing has been well acknowledged at a national level (HREOC, 2007). However, one of the primary gaps being addressed by the thesis is the lack of population level studies assessing the nature of time pressure (objective and subjective) and its relationship with the physical and mental wellbeing of Australian parents. Much is made of “balancing” work and family, and yet, surprisingly little is known about how this actually works in families faced with the task of raising children.

The overarching aim of this thesis has been to determine whether time pressure, as distinct from merely a “count” of the total hours parents commit to paid and unpaid work, is associated with the wellbeing of parents with young children. Essential acknowledgement is given to the differential experience of time pressure between mothers and fathers, between employed and non-employed mothers and different family types. The topic of time pressure is vast and so the research questions have been framed broadly in a way that encompasses a set of knowledge gaps in respect to the focal population. Further focus has been given to the research questions by the identification of sub-components to be addressed (section 1.10).

Because each of the analytical chapters has concluded with a detailed discussion of results placing the findings within the context of current research, it is not the intention of this chapter to repeat those discussions. Rather, this chapter will outline the main findings (Section 7.1), synthesise the broader implications of those findings for parents, families, for those who guide policy around work and family life, and for public health (Section 7.2) and conclude with a summary of methodological limitations (Section 7.3) and recommendations for future research (Section 7.4).

7.1 Overview of Findings

At the outset, this thesis has addressed a general deficiency in specific quantitative studies of time pressure in families with young children at the population level. So much of the contemporary discourse is consumed by the challenges that parents of young children face in managing life, and balancing work and family commitments. In addition to addressing the relative dearth of studies in time pressure dynamics in young families, there were particular aspects of the relationship between time pressure and wellbeing relationship about which little was known. The work here provides some of these answers.

Four research questions have guided the plan of this thesis (i.e. Chapters Three to Six). The principal gaps in knowledge and main findings in respect to each of the research questions are summarised below.

RQ1: What is the relationship between parental time use and parental perceptions about their time?

As a precursor to understanding the relationship between time pressure and parental wellbeing, it was first necessary to understand more about the nature of time pressure, and in particular, examine the relationship between parental time use on one hand and parental perceptions about their time on the other (i.e. associations between objective and subjective components of time pressure). Subjective time pressure was thought to broadly represent the discrepancy between actual and preferred time allocations, and the wider the discrepancy, the more likely a negative impact on parental wellbeing.

Throughout the thesis, ‘parental perceptions about their time’ was defined as the umbrella term over measures representing subjective components of time pressure. There was a primary measure representing feelings about being rushed in general, ‘self-perceived time pressure’, and several secondary measures representing parental perceptions about time spent in specific activities of paid work, household work, childcare and free time. Time use was based on parental estimates of their weekly hours spent in paid work, in household work and their reports of the time they spend with their children, as well as aggregate measures of total workload (section 1.1.2).

So prior to the work in this thesis, we knew most about subjective time pressures in respect to the weekly hours that parents spend in *paid* work. Notably, although many fathers spend long hours in paid work, many would prefer to work less and spend more time with their children, while mothers in these families feel to be doing more than their fair share of household work. Less was known about the relationship between perceptions of unfairness and time spent with children or total workloads, about parental satisfaction with their free time and its relationship with parental time use, and the influence of unpaid work time on parental reports of self-perceived time pressure.

In addressing the first research question it is broadly concluded that:

1. On average, parental reports of weekly time spent in broad categories of activity by survey measures corresponded well with more accurate estimates of primary activity obtained from Australian time diary data. The largest discrepancy with time diary data occurred with parental estimates of time spent with children, which were about four hours more per week, in this sample.
2. Parental reports of perception about their time indicated a higher level of subjective time pressure in this sample than of comparable samples, in the form of high self-perceived time pressure and a greater perception of unfairness in household work.
 - Of particular note, and new information here, is the one third of mothers (employed or not) and one quarter of employed fathers who were very dissatisfied with their quantity of free time.
3. Subjective measures of time pressure were associated with parental time devoted to specific activities, more so than their total workload. Parental perceptions about subjective time pressure were significantly associated with the weekly hours that they reported to spend in paid work and household work, but not the time that parents spent with their own children.

- As hours of housework grow, so did perceived inequity in the sharing of household work. This was true for all parents.
- When mothers are employed, their perception of what is “fair” in the sharing of the housework was less generous – their threshold of “fairness” reduced and it was driven by their employment status per se, but not the actual hours they spent in paid work.
- Fathers, in contrast, reported inequity in their contribution to a fair share of housework *and* childcare when their employed work hours exceeded full time. Or in other words, fathers working long hours in paid work felt that they should be contributing more to the household work and care of children. However, contextually, this was only true for fathers in dual-earner families.
- Mothers in dual-earner families, too, reported greater inequity in the distribution of household work *and* childcare with her partner’s long hours at work. When fathers paid work hours exceeded full time, employed mothers in these families felt that they were contributing much more time to household work and care of their children than they considered being fair.
- Surprisingly, although many mothers reported to be contributing a lot more time to childcare than they considered being fair, this perception was *not* related to their reported time spent with children or in other specific activities during the week.
- Logically, the free time of parents was impinged upon by their work. Employed parents with long hours in paid work or a large combined workload were consequentially, not happy with their quantity of free time. They don’t have enough of it. Mothers who were not employed become particularly dissatisfied with the lack of personal free time when their household hours start to exceed the equivalent of a full-time job.
- Fathers in traditional families, but not dual-earner families, grew more satisfied with their free time hours as they spent more time with their own children. This suggests that the free time of employed fathers is more integrated with family time when their partners are not employed.
- On the other hand, dual-earner fathers grow more dissatisfied with their free time hours as their partner did more housework. This may mean that the household hours of employed mothers acts as a constraint on the free time of their partners, as well as their own.

- Parental reports of a *high* level of time pressure were a direct function of where they work. For fathers, time pressure was mainly driven from the time they spent in paid work, while for non-employed mothers, their time pressure grew along with mounting household work and for employed mothers it was about both.

RQ2: 'How do parental time use and parental perceptions about their time relate to their self-reported wellbeing?'

Next, the relationship between time pressure and the mental health, vitality and general health of parents was examined. In particular, we were looking for variation in wellbeing due to parental time use in specific activities and in their total workloads; the extent of the negative impact on parental wellbeing due to high levels of self-perceived time pressure, and the additional wellbeing impact of parental perceptions about time spent in specific activities.

At the outset, it was evident that parental wellbeing suffered with relatively long hours in paid work, household work, or in the direct care of very young children and this was thought to be due to the restriction of meaningful personal leisure or family time. Generally though, few studies had focused on parental hours in household work, childcare or free time in relationship to the wellbeing of parents when the children are young. Self-reports of subjectively high time pressure (i.e. always or often feeling rushed) were known to be associated with self-reported stress and lower levels of physical and mental wellbeing but was less known, and addressed here, was the relative strength of that relationship. Further, while satisfaction with paid work hours was associated with a range of positive health measures, and perceived fairness in household work with marital satisfaction and lower depression, relatively little was known about the effect of parental perceptions about time with children or about satisfaction with free time. Altogether, there was still much to learn about the combined effect of objective and subjective time pressure on parental wellbeing.

In addressing the second research question, it is concluded that:

4. On the whole, the mental health, vitality and general health of parents was unrelated to their reports of weekly time use when measured as either time spent

in specific activities or as a total combined workload. The notable exception to this observation is in respect to the weekly hours that mothers spent with their children.

- Long hours of paid work (55 hrs+ pw) lowered the vitality of employed fathers. However, this effect lost significance when adjusted for perceptions about time pressure. In other words, long hours and lower vitality were only associated where fathers also reported high levels of subjective time pressure. Short part-time hours (<16 hrs pw) were conducive to the general health of employed mothers.
 - Time spent in household work (including housework, outdoor tasks & errands) had no direct impact on parental wellbeing.
 - Employed mothers had significantly *higher* mental health, vitality and general health when they spent a relatively large amount of time with their children (>40 hours per week). The same effect was true in respect to the general health of non-employed mothers.
 - Parental wellbeing was mostly unrelated to their total unpaid workload, and their total (paid and unpaid) workload.
5. Parental wellbeing was significantly lower among all those who reported a high level of ‘self-perceived time pressure’. In particular, feeling *almost always* time pressured (“chronic” time pressure) was one of the strongest predictors of lower mental health, vitality and general health. There were important contextual differences in the way this association was expressed.
- Overall, high levels of reported time pressure had the strongest negative effect on the vitality of employed parents.
 - Chronic time pressure had a greater impact on the mental health, vitality and general health of fathers in traditional families compared to fathers in dual-earner families.
 - Chronic time pressure was not associated with the mental health of non-employed mothers in traditional families, implying the effect was stronger among lone mothers who were not in paid work.

6. Parental wellbeing also varied with parental perceptions about their paid work hours, free time and perceived unfairness in their share of unpaid labour. Many of these relationships were not significant after adjustment for the strong association between 'self-perceived time pressure' and wellbeing.
- Employed parents who were very unhappy with their paid work hours had markedly lower mental health and vitality. Notably, for fathers, this was only true when they were in a dual-earner family.
 - Being satisfied with the amount of free time available was a clear marker of better parental wellbeing, regardless of employment status. On the whole, parents who were very unhappy with the amount of free time they had also had significantly lower vitality and mental health.
 - Generally, parental wellbeing was lower when they perceived unfairness in their share of housework and childcare. The wellbeing of mothers was mostly affected when they felt to be doing too much and for fathers, it was about not doing enough.

RQ3: Are the effects of parental time use and parental perceptions about their time on self-reported parental wellbeing modified by other perceived stressors and psychological coping resources?

Within this thesis, time pressure has been conceptualised as a major stressor for parents. It is not known whether perceived time pressure is an expression of other accumulated stressors and supports in work and family life. If so, then the relationship between time pressure and wellbeing could be attributed to the wellbeing effect of stress or a lack of support. However, there was good reason to believe that time pressure presents an additional burden of stress in family life. There is little research informing this area although subjective time pressure was known to correlate with other indicators of general stress, job stress and work-family strain.

Consistent with a model of stress and coping, the next consideration was what psychological coping resources may help to protect parental wellbeing from the stressful effects of being pressed for time. From the general body of literature on stress, there was strong evidence that higher levels of social support and perceived

control would help parents to cope. In the thesis, this was tested with a measure of perceived social support and a proxy indicator of control, decision latitude at work. Findings showed that:

7. For some parents, chronic time pressure exerted a detrimental effect on their wellbeing, which was *independent* of other measured stressors and social support. This finding varied by the employment status and family context of parents.
 - Among all parents, feeling time pressured was consistently related to higher levels of parenting stress and lower levels of social support. The same was true in respect to the job stress and job complexity of employed parents.
 - Despite significant variation in wellbeing due to a combination of other stressors and perceived support, the mental health, vitality and general health of employed mothers was significantly lower when they were also chronically pressed for time. Time pressure adds an additional burden.
 - Likewise, employed fathers in traditional families had significantly lower mental health, vitality and general health when they were chronically time pressured, despite significant variation in their wellbeing due to parenting stress and social support. Notably however, job stress did not directly relate to the wellbeing of traditional fathers.
 - In contrast, the chronic time pressure of fathers in dual-earner families did not directly affect their wellbeing. Instead they reported lower levels of wellbeing associated with increasing levels of parenting stress, job stress and perceived social support.
 - For non-employed mothers also, chronic time pressure did not directly affect their mental health and vitality. Rather, lower levels of mental health and vitality correlated with increasing levels of parenting stress and reducing levels of perceived social support.
8. Although social support is an extremely valuable resource in supporting higher parental wellbeing, perceived social support may not be so protective under conditions of chronic time pressure.

- The mental health and vitality of employed mothers improved little with increasing levels of perceived social support when they were chronically pressed for time.
 - Likewise, the general health of non-employed mothers did not necessarily benefit from higher levels of social support when they were most pressed for time.
9. Finally, there was no association between parental wellbeing and decision latitude in the workplace nor was there any evidence that greater latitude in decision-making actually lowered subjective time pressure.

RQ4: What are the predictors of self-perceived time pressure?

Self-perceived time pressure is a proxy indicator of wellbeing. Prior research on Australian families with young children has examined the influence of sociodemographic and family characteristics, employment circumstances, paid work hours and job quality on self-perceived time pressure. The relationship between increasing hours of paid work and growing perceived time pressure has been demonstrated repeatedly. However, much less was known about the independent effect on time pressure of hours in household work and childcare, of perceived stressors at work and home, including perceptions about the division of unpaid labour, and of parental perceptions about their free time. Further, did these factors help to explain some of the sociodemographic differences in self-perceived time pressure among parents? In addressing this question, the measure of ‘self-perceived time pressure’ is the outcome of interest.

In addressing the fourth research question, it is concluded that:

10. On the whole, the perceived time pressure of parents was significantly influenced by factors indicating the quantity and quality of time *at home*.
- Mothers were more time pressured by relatively long hours in household work. The results show that this is especially true among employed lone mothers.

- Employed fathers were only more time pressured by household work when their partner did not work (i.e. the traditional family), and only after adjusting for their perceptions about free time. Therefore, there are reasons as to why fathers in traditional families are more time pressured by their household work, other than the impact on their free time.
- Regardless of time spent in household work, employed mothers who had a strong sense of unfairness in the division of this work, or who felt that they were doing too much, also felt significantly more pressed for time. This effect was particularly strong among dual-earner mothers.
- In contrast, the time pressure of non-employed mothers was not affected by their perceived unfairness in the distribution of work at home.
- Parental reports of high time pressure grew with increasing levels of self-reported parenting stress. This relationship was stronger for non-employed mothers and fathers in dual-earner families.
- Not surprisingly, a high level of dissatisfaction with hours of free time was the strongest predictor of parental reports of time pressure. This effect was most dramatic among dual-earner mothers.
- Increasing levels of social support significantly reduced the time pressure of mothers in traditional families and of fathers in dual-earner families, although there was evidence of a similar effect among mothers in dual-earner families.
- A higher level of free time satisfaction helped to explain why mothers are more highly time pressured than fathers.
- Further, perceptions of unfairness in housework, and increasing levels of job stress and parenting stress helped to explain why employed parents with a tertiary education were more time pressured than employed parents with an incomplete education. This was true for all employed mothers and employed fathers in traditional families.

Having outlined the main findings pertinent to each research question, the next section discusses the implications of these findings for Australian policy and practice.

7.2 Implications for Policy and Practice in Australia

While there is major policies focus on the alleviation of work-life tensions via family-friendly policies in Australia, there is relatively little policy attention on the stress and health impacts of being constantly pressed for time. The thesis provides supportive evidence for those who seek to push the time pressure problem into the public health domain (Brown, 2004; Bryson et al., 2007; Widerberg, 2006).

From an ecological perspective, the results imply multiple levels and points of intervention to address time pressures at the source and for assisting parents who are already feeling the effects in the form of higher stress and lowered mental health, vitality and general health. This is no small task. Addressing the “problem” of time pressure at the population level requires cultural, social, organisational and individual change. The challenge for policy makers and practitioners is to identify the “key leverage points” where intervention in this vastly complex issue of time pressure will make a real difference to the daily lives of parents (Grzywacz & Fuqua, 2000). From a health promotion and prevention perspective, this means finding points where parents as a subgroup typically intersect with social and health services. For example, over the transition to parenthood, parents are universally in contact with health care professionals via their antenatal and postnatal care. This is an ideal leverage point for positive intervention (Glade, 2005). As children grow, parents are a less easily captured population but could be targeted via workplaces, childcare centres and other early childhood services and leisure-based centres, and later on by schools.

The finding in this thesis that excessive hours of paid work by fathers contributes to the subjective time pressures of both parents in the family provides support for policy directions aimed at flexibility and limiting long hours in paid work. It is not the direct impact of long hours in paid work on the wellbeing of fathers that is the central concern. Rather, the concern is when excessive paid work hours manifest within families in the form of perceived time pressures, dissatisfaction with free time and reported inequities in sharing of housework and childcare. When this occurs parental wellbeing suffers.

However, international comparisons show that long working hours (>45 hrs pw) are more prevalent among Australian male workers than most comparable OECD countries (OECD, 2007). So while a large portion of Australian fathers working excessive hours would prefer to work less hours, current workplace conditions in Australia suggest that at present this is not easy. Following extensive consultations with the Australian community, the HREOC recommend, “the Australian Government establish a national working hours framework which promotes flexibility and encourages workplaces to limit long hours working”. This includes addressing unpredictable hours and the right of employees to negotiate their working time (HREOC, 2007). The case for ‘reasonable working hours’ has long been on the agenda of the Australian Council of Trade Unions (ACTU) and most recently has been encapsulated in provisions of the Commonwealth’s Fair Work Act 2009. Under these provisions, 38 hours per week is considered reasonable for a full-time employee. Furthermore, all employees with a pre-school child now have the right to request flexible working arrangements. The key consideration is that we provide *all* families with flexibility and choice so that mothers and fathers within families feeling strained can alter their hours accordingly. The challenge is to encourage parents, especially fathers, to take up their rights.

Furthermore, the thesis has identified that the wellbeing of employed parents is interrelated with their perceived time pressures and job-related stress. This finding has support from other empirical studies on time pressure (Lehto, 1998; Zuzanek, 2004) and conceptually from those who link time pressure with role overload and work-family spillover (Duxbury et al., 2008). So what role do our workplaces have in identifying and assisting time pressured or stressed parents? The incidence of employee stress is rapidly rising and has negative consequences for employers in the form of absenteeism, high staff turnover and poor performance culminating in financial loss (OECD, 2007). However, identifying and managing employee stress is a highly contentious issue. At present, Australian Occupational Health and Safety (OHS) Legislation does not provide any specific requirements for employers in dealing with work-related stress. Although stress falls under employer’s general ‘duty of care’, the identification, assessment and minimisation or elimination of psychosocial risks is not commonplace and plagued with issues in measurement and threats to employers by workers compensation claims (ACCI, 2002). It is most

promising that the protection of employers from psychosocial hazards at work including “those resulting from stress, fatigue and poor rostering” was identified at the Australian Council of Trade Unions (ACTU) Congress in 2009 as one of the priority issues to campaign for over the next three years (Australian Council of Trade Unions, 2009).

As the perception of stress and time pressure arises from, and spills over between multiple contexts it is almost impossible to point the finger of blame at any single workplace or organization. And nor should we be trying to do so. Arguably, workplaces, unions and communities all have a partnering role in identifying and providing resources for time pressured and stressed employees, regardless of the source of stress and independent of a system driven by blame.

Evidence of a dynamic interplay within families between subjectively felt time pressures, parenting stress and perceived levels of social support provides strong support for early intervention at the family level. Most Australian men and women believe strongly that if both partners work they should share equally in the care of children and the home (Fisher, 2002). This study indicates that parents in dual-earner families *are* striving for equity and are feeling very pressed for time, unsupported and stressed in their parenting when this does not occur. This quantitative evidence is supported by qualitative research among Australian parents identifying “preparedness for parenthood” and “clarity of roles and expectations” as key factors contributing to parental wellbeing (Department of Family and Community Services, 2003, pp. 48-54). The findings here support the HREOC recommendations for the promotion and discussion of a gender equitable approach to the division of labour in high schools, pre-conceptually, in antenatal and early parenting programs (HREOC, 2007).

Furthermore, there is a need for early prevention and targeting services at parents and families who are already feeling the strain. ‘Relationships Australia’ has identified ‘lack of time’ as one of the most significant issues affecting marital relationships and family functioning in Australia (Relationships Australia, 2006). However, in accessing counseling services, parents first need to self-identify their time pressure and division of labour issues as a ‘problem’ for themselves and their children. At

present, this is unlikely unless the situation has become critical. Creating awareness about these issues and available parenting supports can be better facilitated by targeting parents through multiple media channels, parenting networks and community organizations (Department of Family and Community Services, 2003).

The findings draw out a clear distinction between subjective time pressure and wellbeing outcomes associated with time spent in household work versus time spent with children, supporting policy that facilitates the parent-child relationship. Time spent with children does not result in greater subjective time pressure for any parent, and employed mothers who spend more time with children also have higher self-reported wellbeing. On the other hand, household work does contribute to the subjective time pressure of mothers, especially employed lone mothers. Previous analyses of time diary data shows that non-parental care does not directly substitute the time that working mothers spend with their children (Craig et al., 2008) but it does redistribute that time to early mornings and late evenings during the week, at the expense of free time and sleep (Craig, 2007). Parents may also be using formal childcare time to undertake household chores. While ensuring affordable and accessible childcare services is an essential strategy for enabling parental participation in the workforce, there is no matching subsidisation of home care services such as cleaning. And while outsourcing is a matter of choice, parents are expressing the desire to spend more time with their children, not in housework. Valuing care in our society should mean supporting non-parental care but also enabling parents to provide that care themselves. So why not reduce the burden of housework?

The consistent finding of lower wellbeing associated with subjective time pressure prompts the need for new policy directions in public health. While family-friendly provisions are an essential policy concern, the problem of time pressure and its wellbeing effects are already present in our society and achieving the desired social conditions may take decades. “For both men and women the imbalance of paid work and family/carer responsibilities has a direct impact on their life outcomes, including their social and economic status, participation in public life, health and emotional wellbeing” (HREOC, 2007). Fundamentally, this requires acknowledgement that perceived time pressures and stress associated with work-life balance is a public

concern that extends the need for action beyond the private management of “personal stress” (Bryson et al., 2007). Such a public health response also requires acknowledgement of the importance of positive mental health in the community. Relatively low levels of subjective health status and positive mental health predict future morbidity (Friedli, 2009; Idler, 1997). In addressing the problem, we need to allow for different levels of support from general awareness raising, advice and information through to specific counselling and health services.

The thesis has shown that free time satisfaction is a critical component of perceived time pressures and parental wellbeing, thereby promoting the need to expand the current policy around work-family integration to one that incorporates work, family *and* leisure. Too little attention has been given to leisure time in the work-family debate (Bloomfield, 2003a; Brown, 2004; Mattingly & Bianchi, 2003). Results show that lack of free time is most acutely felt among employed mothers in dual-earner families. Furthermore, the greater prevalence of self-perceived time pressure among mothers compared to fathers is largely explained by a differential experience of their quantity of free time. At the onset, it was known that there was a gender imbalance in the experience of quality leisure time between mothers and fathers (Bittman & Wajcman, 2004). Perhaps one of the risks inherent in making it easier for mothers to work is that they will work harder, total household hours of work will stay the same and the free time deficit will still be present. Limiting paid work hours may not necessarily reduce the contribution of fathers to household work or increase leisure time for mothers (Bloomfield, 2003a). At the family level, access to and expectations for free time, whether that is alone, or with family, is an important component of the negotiations between couples around paid work hours and the division of unpaid labour. Care needs to be taken, that policies around creating equal opportunities for work and parenting also facilitate equal opportunities for leisure and social participation for mothers and fathers.

In sum, the main findings provide further evidence to support many of the recommendations from the HREOC review aimed at preventing the problems that Australians face in balancing their work and family responsibilities. It is an issue for mothers and fathers and all family types. It requires targeted action at a government, workplace, community, family and individual level but it's also about culture change

(HREOC, 2007). The findings further prompt the need to take a public health perspective and develop strategies to support and target parents who are already feeling acutely time pressured and stressed. How to effectively counter the negative effect of time pressure on wellbeing is in itself an important question for future research (Szollos, 2009; Zuzanek, 2004). The urgency for action lays in the potential damage to the relationship between the parent and developing child. Fundamentally, all strategies should be aimed at giving parents back a sense of control over their time.

7.3 Methodological Limitations

The work here is not without its limitations. These include limitations associated with the measurement of parental time use by survey methods, potential bias due to missing data and inability to establish causal effects. In this section specific limitations and their potential threat to validity are addressed.

As outlined in Chapter Two (section 2.4.1), survey respondents tend to overestimate the time that they spend in work (paid and unpaid) activities and there are socio-demographic biases in this overestimation. The potential confounding of the relationship between time use and time pressure, and between time use and wellbeing by such biases cannot be overcome in multivariate models when measures of time use are modelled as independent variables (Baxter & Bittman, 1995). So it must be considered how this might compromise the findings.

- The positive relationship between increasing hours in paid work or household work and measures of subjective time pressure may be exaggerated. This is possible because the same socio-demographic factors that are associated with greater time pressure and perceived unfairness in unpaid work (e.g. women, more highly educated, longer hours in paid work) also drive the tendency to overestimate long working hours. However, prior research using time diary data has demonstrated a strong relationship with hours in paid work and feeling time pressured. This indicates that the effect of bias in the association due to overestimation is likely to be minimal.

- Overestimation of hours in paid work and household activities may also be responsible for the lack of a relationship between time use and parental wellbeing. Comparisons between time diary data and survey estimates of paid work hours show that the gap or discrepancy between survey estimates and ‘actual’ hours of work grows with increasing hours. In short, the longer the hours worked, especially beyond 35 hours per week, the larger the overestimation (Bonke, 2005; Robinson & Godbey, 1997, p. 88). How might this affect the results? It is logical that the impact of longer hours working on wellbeing would only be apparent if parents had actually worked those hours. This is partly addressed in the analysis by using categorical data and this accounts for large outliers but it does not distinguish between parents who have worked long hours and those parents who have overestimated those hours. Furthermore, a high level of stress or time pressure may lead to greater inaccuracy in reporting of time use.

The second limitation relates to the inability of survey data to distinguish between primary and secondary activity, which in turn, impacts on parental estimates of their weekly time with children. It is known from analysis of time diary data that parents allocate a large portion of time with children, particularly ‘passive’ childcare, to activity that is secondary to household work (Budig & Folbre, 2004). It is likely then, that time with children, as estimated by survey data in this thesis, relates to time spent in more direct and interactional forms of childcare, including time spent playing with children. However, parents may also be partially reflecting on indirect supervision and time when they perceive themselves to be available or on-call for children (Budig & Folbre, 2004). These difficulties in estimation help to explain why average weekly estimates of time with children in this sample are around four hours more than estimates for primary activity obtained from time diary data in a comparable population (Australian Bureau of Statistics, 2006a). On the other hand, recording only primary activity serves to underestimate the total demands on parental time in caring for their own children. This underestimation of total demands may explain why longer hours with children do not predict lowered wellbeing (especially non-employed mothers), and in fact, predict higher wellbeing among employed mothers.

The third limitation of using survey estimates of time use is a complete lack of information about the duration and frequency of episodes of time in specific activities. It is known from time-diary research that women's time is more fragmented i.e. episodic and shorter in frequency and this has been offered as one explanation for a greater subjective sense of time pressure among women compared to men (Bittman & Wajcman, 2004). Time in activity that is more fragmented is also more difficult to recall accurately than time that occurs in greater chunks. This study is therefore limited by its use of summary measures of time use that mask information about transitions between activities that may subsequently give rise to higher time pressure.

Apart from the limitations associated with time use estimates, there is the potential for bias due to missing data. On the whole, there is very little missing data, less than 5% on any single variable (see Table A2). The main sources of missing data are from questions about weekly activities in household work (composite of housework, outdoor tasks and household errands), and on the parenting stress scale. Although these are composite measures, responses were either missing on all items or none at all so it was not possible to impute values. In respect to weekly hours in household work, the highest proportion of missing cases was among non-employed mothers. To test the impact of leaving out these cases, the multivariate analysis for Chapter Four was undertaken with a dummy variable for missing data. This resulted in no significant difference in findings and so the missing cases were left out. In respect to the measure of parenting stress, this was filtered within the self-complete questionnaire by the question "Do you have parenting responsibilities for any children aged 17 and over?" Despite the presence of children in the home, some respondents skipped this question. These respondents were more likely to be 'fathers' who were not the biological parent and who were in a defacto relationship with the mother. It was therefore not a major issue that these cases were dropped.

The thesis has been characterised by analysis of sub-groups within the population of parents with young children, by gender, employment status and family type. Additionally there were three outcomes. This has resulted in multiple comparisons and in some analyses, a relatively small sample size. This raises some issues. First, the more comparisons that are made, the more prone results are to Type 1 error, that

is, finding a significant difference when there is not one. One way to adjust for this would be to use a Bonferonni correction (Shaffer, 1995). However, most of the key results were significant at high level ($p < .001$) and were observed across wellbeing outcomes. This suggests that the predictive relationships were quite stable. Furthermore, when testing the analyses in SPSS complex samples to adjust for sampling design, a Bonferonni correction was applied and there was no difference in findings. The second issue relates to a loss of statistical power to detect a difference in smaller sub-groups. In this case, results are more prone to a Type II error, or not finding a difference when there is one. This is evident, for example, in relatively large odds ratio values in Chapter Six that fail to reach statistical significance. Greater caution must be exercised when interpreting results from the smaller subgroup analysis such as comparisons between fathers in their family context and for the implied differences between mothers in couple and lone parent families.

Due to the scope of the research and the multidimensional nature of time pressure in families, the observed relationships between time pressure and wellbeing may be due to other unadjusted factors. For example, the analysis has not controlled for different employment arrangements or work patterns at an individual or couple level, which may affect the relationship between time pressure and wellbeing. Self-employment, shift work, irregular hours, weekend work and flexibility of hours may all be important. Furthermore, there may be factors outside of paid work that are confounding the relationship. This includes the presence of children with a medical condition, difficult temperament or behavioural issues. Parents, especially mothers, may also be caring for an elderly parent. Due to the sample size and the risks inherent with over fitting multivariate models with too many factors, only the main sociodemographic variables were considered as statistical controls.

All of the conclusions in the thesis have been based on the analysis of cross-sectional data and it is therefore not possible to establish causality. We can only establish associations between measures of time pressure and wellbeing. It is therefore possible that 'reverse causation' is in play and that the lower mental health, vitality and general health of parents leads to reports of higher time pressure. The presence of ongoing health conditions and lowered wellbeing has an impact on the way that parents allocate time. It could be also that in couples, one partner is working harder

in paid and/or unpaid work due to the poor health of their partner. This may lead the partner who is compensating with longer hours to report higher levels of time pressure, perceptions of unfairness, greater parenting stress and lower social support. The thesis has effectively identified a cluster of related subjective variables including self-perceived time pressure, various stressors and wellbeing. Although a set of pathways can be hypothesised, with cross-sectional data it is impossible to delineate these effects. There is a clear need to examine the impact of time allocations and self-perceived time pressures over time.

7.4 Future Research Directions

This thesis has contributed to the field of research around the nature and wellbeing effects of time pressure, with particular reference to a more highly time pressured subgroup in the population, parents with young children. It has sought to shift emphasis from an approach of pure time allocation, to one that begins to examine the psychosocial nature of time pressure. As a line of enquiry, there is still much research that can and should be done to further our understanding of the wellbeing effects of time pressure on parents, and children in these families. With the major findings, policy and practice implications and methodological limitations of the current study in mind, this section outlines a series of recommendations for future research.

The first recommendation is to repeat the analysis using time-diary estimates of parental time use with attention to both primary and secondary activities. Although time diary data also has some methodological challenges, it is widely considered to be more accurate than estimates from survey data. This would ideally be achieved by attaching additional wellbeing indicators to the next instalment of the Australian Time Use Survey. Presently, the TUS includes an indicator of general self-rated health (poor through to excellent), which is similar to the general health measure in this study. However, it is recommended that an indicator of psychological distress also be incorporated.

Specifically, using time-diary data would allow us to:

- Assess with more accuracy the relationship between parental perceptions about their time (especially self-perceived time pressure) and their average weekly allocation of time across a range of activities. Time diary data will allow for the additional assessment of time spent in leisure, personal care and time spent sleeping as well as for a more accurate calculation of total workloads.
- Conclude with more certainty that weekly hours in household work, total unpaid workloads and total workloads do not significantly contribute to the wellbeing of parents.
- Confirm that employed mothers experience a higher level of wellbeing when they spend more time with their children, and differentiate between different types of activities (interactive care, physical and emotional care, travel and communication, and passive childcare) using primary and secondary fields.
- Examine the relationship between wellbeing and time spent in leisure activities, active and passive, and distinguish between the wellbeing effects of free time spent alone and free/leisure time spent with childcare as a secondary activity.
- As data is collected from all adults in the household, it would also be possible to examine crossover effects of partner time use on wellbeing, especially within the context of dual-earner families.

The second recommendation is to examine the health and wellbeing effects of prolonged self-perceived time pressure. The results here present a cross-sectional view of the relationship between measures of self-reported time pressure and self-reported wellbeing. But we still do not know what happens to parental wellbeing when they feel chronically time pressured over a period of many years. Is the effect compounded over time? Longitudinal research will be able to answer this question and distinguish a pathway of effects between exposure to the time pressure ‘stressor’ and subsequent wellbeing. This avenue of research is possible within the HILDA dataset that now has seven waves of data collected between 2001 and 2008.

Preliminary analysis for this subpopulation of parents over a four year period shows that 42% of employed mothers, 28% of employed fathers and 28% of non-employed mothers were *almost always* or *often* rushed or pressed for time every year (using employment status at Wave 2). The pathways between time pressure and parental

wellbeing need to be understood within different family contexts and by the employment arrangements and work patterns of parents.

The third recommendation is to focus the time pressure lens on the experience of lone mothers, especially those in paid employment. Consistent with the international experience, lone mothers in this study had significantly lower wellbeing on all measures compared to mothers in couples. Studies that seek to explain the wellbeing difference between lone and couple mothers by other stressors including financial strain, number of life events and stigma still fail to completely account for differences (Hope, Power, & Rodgers, 1999). It is proposed that the impact of time pressure (i.e. too much pressure on the one hand and not enough to do on the other) is another factor worth examining, in particular, when other resources are low. As with dual earner families, lone mothers are a growing sub-group in the population and are increasingly more likely to be in paid employment. There is a need for to target research on the high time pressured experience of lone mothers for whom the wellbeing effects may be intensified.

The fourth recommendation is to further study psychosocial mechanisms for coping with high time pressure. The thesis only touched on this issue and was limited by the available measures in the HILDA survey, perceived social support from others, and decision latitude at work. There is considerable scope to examine different elements of social support (instrumental, informational and emotional) and sources of support (workplaces, partners, friends and family, professional) to see which are most effective in lowering the subjective time pressure of parents (Cohen, 2004). It is also important to examine the potential 'buffering' effects of other psychological resources such as a general sense of perceived control or specific domains of self-efficacy such as parenting efficacy. Such investigations can be undertaken as a quantitative analysis but it is difficult to locate a dataset that contains all the right measures. An alternative approach may be to undertake a form of action research within a family intervention setting or a clinical study within a psychological setting. Further research in this vein will allow for a better understanding of the psychological characteristics of parents who maintain a high level of physical and mental functioning under conditions of chronic time pressure, compared to those who don't.

The fifth recommendation is to examine the impact of having time pressured parents on developmental outcomes for children. The thesis has demonstrated an association between self-perceived time pressure and parenting stress (Chapter Five). The results here indicate that self-perceived time pressure may have a direct impact on the wellbeing of some employed parents. This gives rise to many questions in regards to the wellbeing of children in these families. Essentially, what is the impact of time pressure on the parent-child relationship? Are children affected via poor parenting practices, parental wellbeing or is there a direct effect on children of being hurried? Intermediate to this question, is the need to examine how the feeling of chronic time pressure impacts on parenting practices. Being constantly busy and fatigued may result in a parenting style that is more hostile, lower in warmth or inconsistent. These questions are complex and difficult to disentangle as higher education and labour force participation of primary carers (mostly mothers) has differential effects on parental warmth and hostility dependent on the age of children (Zubrick et al., 2008). Studies that utilise biological markers of stress together with self-reports of perceived time pressure, ideally from both parents and children would also serve to further our understanding of the emotional transmission between parents and children.

The sixth recommendation is to examine the time pressure experience of Australian teenagers. Research among Canadian teenagers shows that not only are teenagers more pressed for time than they used to be but there is also evidence that the experience of time pressure has become gendered at an early age (Hilbrecht, Zuzanek, & Mannell, 2008; Zuzanek, 2000). Within the Australian context, it is possible to examine teenagers using both HILDA and the Australian Time Use Surveys, as both collect data from all those aged 15 and over in the household. The benefit of the HILDA dataset is in the ability to take a longitudinal approach and follow 15-year olds through to their young adult lives. This would allow us to see if their family experience as a teenager (e.g. growing up in different family contexts or among parents who are chronically time pressured versus not) has led them to feel more subjectively time pressured as adults. Furthermore, how does this 'exposure' impact on their physical, psychological, emotional and social wellbeing as they grow up?

7.5 Conclusion

The study of time pressure, excessive workloads and the feeling of being rushed with its onward impact on the wellbeing of parents can be considered as a small part within a complex system of effects. Estimating the independent contributions of parental time distributions and of subjective impressions about time allocations on their wellbeing is particularly challenging owing to multiple causal relationships arising from the ecology of individuals, living in families and their wider communities. Furthermore, it is evident from the reviewed literature and the findings of the thesis that self-reports of time pressure and various measures of stress are highly correlated in population surveys. This adds to the complexity of teasing out independent relationships. However, difficulties in conceptualising, measuring and interpreting the nature of time pressure and its wellbeing effects should not be a deterrent. Such a field of study will benefit from a collaborative multidisciplinary approach both in integrating knowledge and in the design of new studies that cross boundaries of work and family life.

Stepping back into the daily lives of parents, it shouldn't be forgotten that Australian families are characterised by diversity and that many parents will adapt well to changing circumstances. Some degree of stress and being busy is normal for everyone. Although this stage of life is markedly time pressured, parents are also generally well, and employment alone is associated with better health. The weight of evidence in the thesis suggests that absolute hours of work matter much less for wellbeing than the self-determination and quality of that time, whether that is in paid work, time with children or time alone. The diversity of families and individuals means that everyone has different needs, and as a society we should be responsive to those diverse needs, and *listen* to parents when they report to be stressed for time. In the daily lives of parents, it is about choice, control and intrinsic enjoyment of our time, regardless of what activity that may be – this is what makes us well.

Finally, perhaps the ultimate challenge is for us to our fundamental values around time and money. What do we value most? Even in the most equitable conditions and with the most family-friendly provisions, will fathers, and increasingly mothers, reduce the propensity to work for more money?

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APPENDICES

Table A1
Response Rates for Mothers and Fathers by Socio-Demographic Characteristics

Parental Characteristics at Wave 2	Response rate to SCQ	
	Fathers (n= 752)	Mothers (n = 963)
Long-term health condition		
No	87.1	90.3
Yes	90.2	89.9
Family structure		
Original couple	87.7	90.6
Step or blended couple	88.8	89.0
Lone parent	68.8	89.5
Parental age		
15-24	85.7	88.9
25-29	81.8	89.8
30-34	87.0	89.3
35-39	88.2	92.0
40+	89.6	90.5
Age of youngest child		
Age 0 to 2	88.9	91.2
Age 3 to 4	84.6	88.7
Age 5	87.1	89.3
Number of children <15		
One	89.1	91.0
Two	85.4	89.5
Three or more	89.0	90.7
Education level		
Year 11 or below	91.5	89.3
Year 12	85.9	91.2
TAFE or Trade	86.2	88.4
Tertiary	86.4	93.2
Country of birth		
Australia	88.8	91.8
Overseas -mainly English speaking	89.8	88.6
Overseas - other	77.3	82.7
Marital status		
Married	89.0	91.4
Defacto	81.5	86.8
Single/separated/divorced	73.7	88.3
Employment Status		
Employed FT	87.7	84.5
Employed PT	93.4	93.0
Unemployed	76.0	85.7
Not in the labour force	82.7	90.3
Total	860	1067

Note. SCQ = Self-complete questionnaire. Totals exclude participants who did not respond to the personal interview. Bolded values indicate significance of within-group differences using a chi-square test at $p < .05$

Table A2
Description of Missing Cases for Study Variables

Variable	Employed mothers (n=451)		Non-employed mothers (n=512)		Employed fathers (n=686)	
	n	%	n	%	n	%
Time use						
Paid work hours	6	1.3	-	-	8	1.2
Household hours	13	2.9	25	4.9	14	2.0
Childcare hours	8	1.8	16	3.1	9	1.3
Time perceptions						
Satisfaction - paid work hours	17	3.8	-	-	5	0.7
Paid work hours preference	19	4.2	-	-	5	0.7
Perceived share of housework	4	0.9	5	1.0	8	1.2
Perceived share of childcare	13	2.9	17	3.3	19	2.8
Spare time with nothing to do	1	0.2	4	0.8	4	0.6
Satisfaction - free time hours	0	0.0	0	0.0	0	0.0
Self-perceived time pressure	1	0.2	3	0.6	1	0.1
Stressors and coping						
Financial wellbeing	4	0.9	3	0.6	5	0.7
Parenting stress ^a	13	2.9	20	3.9	15	2.2
Social support	8	1.8	17	3.3	13	1.9
Job stress	8	1.8	-	-	12	1.7
Job security	8	1.8	-	-	13	1.9
Decision latitude	6	1.3	-	-	10	1.5
Job complexity	8	1.8	-	-	11	1.6
Wellbeing						
Mental health	0	0.0	5	1.0	3	0.4
Vitality	0	0.0	5	1.0	3	0.4
General health	4	0.9	11	2.1	7	1.0

Note. Missing cases includes responses indicated as 'refused or not stated'/'implausible value'.

^aincludes 'not asked' because they responded 'no' to question filter 'Do you have parenting responsibilities for any children aged 17 years or less?'

Table A3
Psychometric properties of the parenting stress, social support, and job quality scales

Scale items	M	SD	r	Scale M (SD)
All items: "Strongly disagree" = 1; "Strongly agree" = 7				
Parenting stress (n = 1661, $\alpha = .73$)				14.69 (5.00)
Being a parent is harder than I thought it would be	4.47	1.76	.52	
I often feel tired, worn out, or exhausted from meeting the needs of my children	4.63	1.66	.53	
I feel trapped by my responsibilities as a parent	2.81	1.71	.51	
I find that taking care of my child/children is much more work than pleasure	2.77	1.59	.51	
Social support (n = 1687, $\alpha = .80$)				53.74 (9.83)
People don't come to visit me as often as I would like*	5.20	1.79	.45	
I often need help from other people but can't get it*	6.34	1.10	.35	
I seem to have a lot of friends	4.45	1.67	.44	
I don't have anyone I can confide in*	5.63	1.47	.44	
I have no one to lean on in times of trouble*	5.51	1.50	.65	
There is someone who can always cheer me up when I'm down	4.44	1.79	.40	
I often feel very lonely*	5.43	1.65	.46	
I enjoy the time I spend with people who are important to me	5.60	1.78	.57	
When something's on my mind, just talking with the people I know can make me feel better	5.74	1.75	.54	
When I need someone to help me out, I can usually find someone	5.41	1.71	.52	
Job quality (12 items) – questions about current main job				
Job stress subscale (n = 1118, $\alpha = .65$)				14.04 (3.75)
My job is more stressful than I had ever imagined	3.08	1.63	.56	
I fear that the amount of stress in my job will make me physically ill	2.35	1.52	.56	
I get paid fairly for the things I do in my job*	3.38	1.74	.28	
Job security subscale (n = 1118, $\alpha = .64$)				15.72 (3.96)
I have a secure future in my job	4.93	1.70	.57	
The company I work for will still be in business 5 years from now	5.80	1.56	.40	
I worry about the future of my job*	4.99	1.91	.40	
Job complexity subscale (n = 1118, $\alpha = .64$)				17.88 (4.23)
My job is complex and difficult	4.04	1.88	.56	
My job often requires me to learn new skills	4.58	1.78	.62	
I <u>use</u> many of my skills and abilities in my current job	5.34	1.57	.48	
Decision latitude subscale (n = 1121, $\alpha = .81$)				13.36 (4.75)
I have a lot of freedom to decide <u>how</u> I do my own work	4.92	1.72	.73	
I have a lot of say about what happens on my job	4.61	1.81	.66	
I have a lot of freedom to decide <u>when</u> I do my work	3.84	2.05	.59	

Note. r = item-total correlation. *these items are reverse scored

Table A4
Description of Parental Time Use by Family Context

Variable	Dual-earner families		Traditional families		Lone mother families	
	Employed fathers	Employed mothers	Employed fathers	Non-employed mothers	Employed mothers	Non-employed mothers
Paid work hours						
<i>M</i>	49.9	25.2	50.4	-	25.2	-
<i>95% CI</i>	[48.4,51.4]	[23.5,26.8]	[48.7,52.1]	-	[20.9,29.5]	-
<i>Min</i>	0	0	0	-	4	-
<i>Max</i>	129	84	114	-	65	-
<i>25th percentile</i>	42.5	14.8	42.5	-	14.0	-
<i>Mdn</i>	48.0	22.5	50.0	-	22.0	-
<i>75th percentile</i>	57.1	34.8	58.0	-	35.0	-
<i>n</i>	342	341	312	-	47	-
Household hours						
<i>M</i>	14.8	29.2	12.6	39.9	23.2	39.0
<i>95% CI</i>	[13.8,15.9]	[27.5,30.9]	[11.4,13.7]	[37.6,42.1]	[19.1,27.3]	[34.3,43.8]
<i>Min</i>	0	5	0	1	1	2
<i>Max</i>	62	101	58	122	57	135
<i>25th percentile</i>	7.0	17.0	6.0	25.0	12.6	22.0
<i>Mdn</i>	12.0	26.0	10.0	37.0	21.0	38.0
<i>75th percentile</i>	20.0	38.0	16.0	50.5	30.0	53.5
<i>n</i>	341	337	312	309	48	89
Childcare hours						
<i>M</i>	15.4	30.9	13.3	40.1	20.6	33.6
<i>95% CI</i>	[14.0,16.8]	[28.6,33.2]	[12.2,14.4]	[37.1,43.2]	[15.8,25.4]	[28.0,39.3]
<i>Min</i>	0	0	0	0	0	0
<i>Max</i>	100	98	80	128	72	128
<i>25th percentile</i>	7.0	14.0	6.0	15.0	10.0	11.0
<i>Mdn</i>	12.0	25.0	10.0	35.0	17.5	30.0
<i>75th percentile</i>	20.0	44.5	20.0	60.0	27.3	48.5
<i>n</i>	343	341	315	316	48	93
Total workload^a						
<i>M</i>	80.3	84.8	76.0	79.8	69.4	72.8
<i>95% CI</i>	[78.1,82.6]	[82.1,87.5]	[73.8,78.3]	[76.2,83.5]	[62.7,76.0]	[64.8,80.8]
<i>Min</i>	20	11	10	2	22	3
<i>Max</i>	162	154	155	173	115	212
<i>25th percentile</i>	67.0	68.0	63.8	55.3	59.0	44.5
<i>Mdn</i>	78.0	82.7	75.0	80.5	68.0	75.0
<i>75th percentile</i>	93.0	104.3	88.0	104.0	82.0	92.5
<i>n</i>	334	335	308	308	47	89

^aTotal workload includes travel time associated with work

Table A5
Description of Parental Perceptions About Their Time by Family Context

Variable	Dual-earner families		Traditional families		Lone mother families	
	Employed fathers	Employed mothers	Employed fathers	Non-employed mothers	Employed mothers	Non-employed mothers
Satisfaction - paid work hours						
Low	8.7	4.9	9.3	-	4.1	-
Medium	27.2	22.8	28.7	-	28.6	-
High	63.3	67.9	61.7	-	65.3	-
Paid work hours preference						
Fewer	34.7	20.5	38.9	-	10.2	-
About the same	54.9	57.8	48.3	-	63.3	-
More	9.5	17.1	12.5	-	22.4	-
Perceived share of housework						
Much more than fair	37.0	6.4	40.8	5.6	59.2	70.8
A bit more than fair	28.9	12.7	26.5	9.3	12.2	9.4
Fair	30.1	58.1	30.2	50.8	24.5	17.7
A bit less than fair	3.2	17.1	1.6	27.1	2.0	1.0
Much less than fair	0.0	4.9	0.0	5.6	0.0	0.0
Perceived share of childcare						
Much more than fair	32.4	4.6	45.5	0.6	79.6	76.0
A bit more than fair	32.9	7.8	28.7	5.9	6.1	8.3
Fair	30.3	61.6	23.7	61.1	14.3	10.4
A bit less than fair	1.2	21.4	0.0	23.7	0.0	0.0
Much less than fair	0.0	3.2	0.0	5.3	0.0	0.0
Spare time with nothing to do						
Almost always	0.0	0.0	0.3	0.3	0.0	0.0
Often	2.0	1.2	2.5	0.9	4.1	12.5
Sometimes	9.0	16.5	16.8	17.4	16.3	18.8
Rarely	46.8	55.8	46.7	49.8	57.1	47.9
Never	41.9	26.3	32.4	30.5	22.4	20.8
Satisfaction - free time hours						
Low	36.4	25.1	29.9	25.9	32.7	34.4
Medium	31.2	36.4	33.0	40.8	26.5	31.3
High	32.4	38.4	37.1	33.3	40.8	34.4
Self-perceived time pressure						
Almost always	24.3	11.8	15.0	13.7	22.4	20.8
Often	44.5	39.9	31.8	38.0	34.7	27.1
Sometimes	27.7	40.5	44.5	40.8	34.7	40.6
Rarely	3.5	7.2	6.9	5.9	6.1	9.4
Never	0.0	0.3	1.2	1.6	0.0	1.0

Note. Totals may not add up to 100% due to missing values

Table A6
Parental Perceptions of Unfairness in Housework and Childcare by Their Time Use Within Dual-Earner and Traditional Families (ANOVA)

Variable	Average estimated weekly hours				
	Paid work	Household work	Childcare	Total unpaid	Total workload ^a
Dual-earner families					
Perceived share of h/work					
Employed mothers					
Much more than fair	22.5	32.2^a	27.7	59.9	84.9
A bit more than fair	21.7	28.1^{ab}	33.8	61.4	84.9
Fair or less	23.8	26.0^b	32.0	57.9	83.9
Employed fathers					
More than fair	41.2^a	18.3^a	16.9	35.4^a	79.7
Fair	45.5^b	15.4^a	15.9	31.5^a	81.1
Less than fair	50.1^c	10.2^b	12.8	23.2^b	78.8
Perceived share of c/care					
Employed mothers					
Much more than fair	21.8	32.7^a	32.3	65.0^a	88.8
A bit more than fair	22.3	28.6^{ab}	30.8	58.9^{ab}	83.5
Fair or less	23.7	26.2^b	30.3	56.3^b	82.5
Employed fathers					
More than fair	41.3^a	20.4^a	17.3^a	38.1^a	82.3
Fair	45.0^{ab}	15.3^b	16.6^a	32.0^a	81.0
Less than fair	49.6^b	11.0^c	11.2^b	22.3^b	77.3
Traditional families					
Perceived share of h/work					
Non-employed mothers					
Much more than fair	-	45.2^a	37.5	83.0	-
A bit more than fair	-	37.0^b	39.8	76.0	-
Fair or less	-	35.4^b	43.1	78.2	-
Employed fathers					
More than fair	43.8	17.2^a	11.4	28.6^a	75.6
Fair	45.0	14.0^a	13.8	27.9^a	77.4
Less than fair	47.7	8.4^b	13.1	21.6^b	74.2
Perceived share of c/care					
Non-employed mothers					
Much more than fair	-	41.8	39.1	81.5	-
A bit more than fair	-	39.1	41.9	80.2	-
Fair or less	-	37.5	39.5	76.2	-
Employed fathers					
More than fair	43.7	17.4^{ab}	19.8^a	37.7	86.7^a
Fair	44.7	13.2^b	13.3^b	26.5	75.2^b
Less than fair	48.6	10.2^a	11.9^b	22.1	76.0^b

Note. A matching alphabetical superscript indicates that the two levels of perceived share are not significantly different by posthoc tests (Tukey B or Tamhanes for unequal variance) at $p < .05$. Results of posthoc tests are only shown where the main effect (F-test) is significant.

^aTotal workload includes travel time associated with work

Table A7

Parental Satisfaction With Amount of Free Time by Their Time Use Within Dual-Earner and Traditional Couple Families (ANOVA)

Satisfaction - free time hours	Average estimated weekly hours				
	Paid work	Household work	Childcare	Total unpaid	Total workload ^a
	Dual-earner families				
Employed mothers					
Low	25.2^a	30.8	29.2	59.7	87.3
Medium	24.5^a	28.3	30.6	59.0	85.7
High	18.3^b	28.1	33.2	60.9	80.9
Employed fathers					
Low	52.1^a	16.4	14.2	30.8	88.1^a
Medium	46.6^b	13.8	16.0	29.8	80.8^b
High	40.6^c	14.8	15.6	30.6	74.8^b
	Traditional families				
Non-employed mothers					
Low	-	45.7	38.3	83.7	-
Medium	-	36.2	43.2	78.9	-
High	-	38.6	38.8	77.6	-
Employed fathers					
Low	49.3^a	11.3	10.6^a	22.0^a	76.0^{ab}
Medium	48.1^a	12.2	14.7^b	26.9^b	80.3^a
High	40.1^b	13.9	13.6^b	27.6^b	70.7^b

Note. A matching alphabetical superscript indicates that the two levels of satisfaction are not significantly different by posthoc tests (Tukey B or Tamhanes for unequal variance) at $p < .05$. Results of posthoc tests are only shown where the main effect (F-test) is significant.

^aTotal workload includes travel time associated with work

Table A8

Parental Self-Perceived Time Pressure by Their Time Use Within Dual-Earner and Traditional Couple Families (ANOVA)

Self-perceived time pressure	Average estimated weekly hours				
	Paid work	Household work	Childcare	Total unpaid	Total workload ^a
Dual-earner families					
Employed mothers					
Almost always	26.4	31.9	28.6	59.8	88.3
Often	22.2	30.0	31.4	61.5	85.6
Sometimes	20.3	25.7	32.4	57.7	80.8
Rarely or never	24.1	26.9	28.6	55.5	81.8
Employed fathers					
Almost always	50.6	16.2	13.9	30.0	85.0
Often	45.4	15.0	15.8	30.9	80.2
Sometimes	44.6	14.2	15.4	29.7	78.6
Rarely or never	45.3	14.1	15.7	31.3	81.9
Traditional families					
Non-employed mothers					
Almost always	-	46.5^{ac}	39.1	84.5	-
Often	-	42.6^{abc}	38.7	81.7	-
Sometimes	-	36.3^{bc}	41.2	77.3	-
Rarely or never	-	36.9^{abc}	41.5	78.4	-
Employed fathers					
Almost always	48.1	12.8	10.8	23.6	74.1
Often	46.9	12.3	14.0	26.3	78.7
Sometimes	44.9	12.0	12.8	24.9	73.8
Rarely or never	39.7	16.9	16.7	33.7	78.7

Note. A matching alphabetical superscript indicates that the two levels of satisfaction are not significantly different by posthoc tests (Tukey B or Tamhanes for unequal variance) at $p < .05$. Results of posthoc tests are only shown where the main effect (F-test) is significant.

^aTotal workload includes travel time associated with work

Table A9

Bivariate Relationships Between Parental Wellbeing and Parental Time Use and Perceptions About Their Time by Gender and Employment Status

Variable	Employed mothers			Non employed Mothers			Employed fathers			
	MH	VIT	GH	MH	VIT	GH	MH	VIT	GH	
Time use										
Paid work hours										
1 to 34 hrs [F]	1 to 15 hrs [M]	75.0	56.7	78.2	-	-	-	73.7	60.3	69.0
35 to 44 hrs [F]	16 to 24 hrs [M]	73.6	57.0	72.6	-	-	-	77.9	65.2	73.1
45 to 54 hrs [F]	25 to 34 hrs [M]	74.1	58.7	75.4	-	-	-	76.8	62.8	73.6
55 hrs + [F]	35 hrs + [M]	72.4	55.1	72.9	-	-	-	76.7	59.4	72.9
Household hours										
1st quartile		74.2	58.0	76.7	70.9	57.1	71.5	76.1	62.1	70.8
2nd quartile		73.6	57.9	73.4	70.6	54.9	74.9	77.1	61.0	73.1
3rd quartile		74.1	57.0	74.7	74.2	58.7	75.7	77.3	64.8	74.3
4th quartile		73.3	55.6	74.8	70.7	53.9	71.6	77.1	62.7	72.6
Childcare hours										
1st quartile		72.2	56.0	72.9	70.1	57.0	70.9	75.8	62.7	71.0
2nd quartile		73.1	58.0	74.4	68.8	53.1	70.6	77.1	62.5	73.9
3rd quartile		71.2	53.0	72.0	72.9	56.2	76.0	76.4	62.3	72.2
4th quartile		79.0	62.0	80.6	73.8	57.4	76.8	79.3	64.0	75.2
Total unpaid workload										
1st quartile		72.8	56.6	74.8	68.2	56.1	71.5	75.6	62.1	70.7
2nd quartile		70.9	55.1	72.2	73.0	56.2	72.0	77.3	62.5	72.5
3rd quartile		74.0	58.0	74.1	73.2	57.4	76.8	77.5	63.5	73.8
4th quartile		77.4	58.8	78.6	71.6	54.8	74.2	77.3	62.7	73.7
Total workload										
1st quartile		73.6	58.5	76.7	68.2	56.1	71.5	75.1	63.8	71.7
2nd quartile		71.3	55.0	71.4	73.0	56.2	72.0	77.2	63.4	70.7
3rd quartile		74.4	57.6	75.0	73.2	57.4	76.8	77.4	61.7	74.2
4th quartile		76.3	58.0	77.2	71.6	54.8	74.2	77.8	61.8	73.9
Time perceptions										
Paid work hours preference										
Fewer		72.4	51.5	74.7	-	-	-	75.9	60.2	72.2
About the same		75.2	59.7	76.4	-	-	-	78.0	64.5	73.5
More		70.8	55.9	71.0	-	-	-	74.9	62.7	71.6
Satisfaction - paid work hours										
Low		61.5	44.0	72.9	-	-	-	70.7	53.4	69.1
Medium		71.4	53.3	71.2	-	-	-	76.0	61.8	71.7
High		75.5	59.5	76.4	-	-	-	78.2	64.4	73.9
Perceived share of housework										
More than fair [F]										
Much more than fair [M]		72.0	55.8	72.7	69.7	53.7	72.8	75.0	60.8	72.3
Fair [F]										
A bit more than fair[M]		74.1	55.0	77.3	72.6	57.1	75.3	78.6	65.0	73.7
Less than fair[F]										
Fair or less [M]		76.0	61.1	75.8	73.3	59.0	72.7	74.1	58.7	71.0
Perceived share of childcare										
More than fair [F]										
Much more than fair [M]		71.4	53.6	71.6	70.0	53.9	73.3	73.6	58.4	72.4
Fair [F]										
A bit more than fair[M]		75.7	58.2	77.7	72.1	58.4	75.7	77.6	64.2	73.1
Less than fair[F]										
Fair or less [M]		75.2	60.9	76.8	74.7	57.0	70.8	76.1	60.3	71.8

Continued on the following page

Table A9 continued

Variable	Employed mothers			Non employed Mothers			Employed fathers		
	MH	VIT	GH	MH	VIT	GH	MH	VIT	GH
Spare time with nothing to do									
Almost always or often	52.9	49.4	75.9	56.3	47.5	57.8	61.5	50.6	67.0
Sometimes	73.0	63.3	69.9	70.6	60.4	71.2	76.4	63.3	71.3
Rarely	74.5	60.5	75.1	73.2	57.1	74.4	77.8	64.2	73.6
Never	74.3	52.6	76.2	72.2	53.3	75.4	76.2	60.0	72.7
Satisfaction - free time hours									
Low	71.2	49.2	73.5	66.6	46.9	69.4	72.8	59.9	69.7
Medium	74.0	58.7	74.5	72.0	58.4	75.1	76.9	63.2	72.8
High	76.5	64.8	77.4	75.8	62.5	75.4	79.8	67.7	75.1
Self-perceived time pressure									
Almost always	68.6	46.7	71.5	64.5	47.0	64.6	70.2	49.0	65.8
Often	72.8	55.7	73.4	69.5	52.0	73.2	74.1	61.3	72.1
Sometimes	78.5	65.8	79.2	74.2	60.4	75.6	80.2	66.7	74.7
Rarely or never	81.6	75.0	82.2	78.8	66.1	77.4	84.7	71.5	77.9

Note. MH = Mental Health, VT = Vitality, GH = General Health. [F] = category for fathers; [M] = category for mothers. Bolded values indicate that within-group differences are significantly by ANOVA tests (or Brown-Forsythe tests for unequal variance) at $p < .05$.

Table A10

Adjusted Linear Regression Results of Time Use and Perceptions About Time on Measures of Parental Wellbeing: Mothers in Dual-earner (DE) and Traditional (Tr) families^a

Predictor	Mothers					
	Mental health		Vitality		General health	
	DE	Tr	DE	Tr	DE	Tr
	β	β	β	β	β	β
Satisfaction - paid work hours						
Low	-.20***	-	-.15**	-	.00	-
Medium	-.10*	-	-.10*	-	-.11**	-
High	ref					
Childcare hours ^b						
1 st quartile	-.21**	-.02	-.12*	-.04	-.17**	-.18**
2 nd quartile	-.18**	-.03	-.12*	-.02	-.19**	-.09
3 rd quartile	-.29***	-.05	-.20**	-.01	-.23***	-.05
4 th quartile	ref					
Satisfaction - free time hours						
Low	.06	-.26***	-.17*	-.31**	-.01	-.08
Medium	-.02	-.10	-.09	-.05	.02	.02
High	ref					
Self-perceived time pressure						
Almost always	-.27***	-.09	-.37***	-.11*	-.15**	-.15**
Often	-.23***	-.17**	-.24***	-.20***	-.18**	-.06
Sometimes	ref					
Rarely or never	.00	.08	.03	.12	.02	.02
Adjusted R^2	.10	.15	.19	.19	.14	.09
n	314	301	314	301	311	298

^aAdjusted for parental age, age of youngest child, number of children < 15, long-term health condition, education level, family structure and household income.

^bFirst quartile represents the least amount of weekly time (<14 hrs pw for both) and fourth quartile, the most amount of weekly time (40 hrs+ pw; 52 hrs + pw) spent with own children among employed mothers and non-employed mothers respectively

* $p < .05$. ** $p < .01$. *** $p < .001$ (two-tailed tests)

Table A11
Intercorrelations Between Stressors and Self-Reported Stressors and Coping Resources by Gender and Employment Status

Variable	1	2	3	4	5	6	7
	Employed mothers						
1. Financial wellbeing ^a	-	.08	-.14	.13	-.11	-.14	-.20
2. Parenting stress	.16	-	-.27	.10	-.18	.02	-.04
3. Social support	-.15	-.30	-	-.27	.29	-.00	.15
4. Job stress	.12	.18	-.26	-	-.24	.27	-.15
5. Job security	-.16	-.05	.20	-.21	-	.11	.10
6. Job complexity	-.14	.12	.05	.19	.13	-	.19
7. Decision latitude	-.14	-.05	.08	-.03	.21	.27	-
	Employed fathers						
1. Financial wellbeing ^a	-						
2. Parenting stress	0.11	-					
3. Social support	-0.27	-0.36	-				
	Non-employed mothers						

Note. Intercorrelations for employed mothers are presented above the diagonal and intercorrelations for employed fathers are presented below the diagonal in the top part of the table, while intercorrelations for non-employed mothers are presented in the bottom half of the table. The sample number (n) for each individual result will vary slightly due to missing data. Bolded numbers indicate the correlation is significant at $p < .01$ (two-tailed).

^aAn increasing score on the 6-point ordinal scale of financial wellbeing indicates a decline in prosperity

Table A12

Bivariate Associations of Parental Time Use and Perceptions About Time With Stressors and Psychological Coping Resources Among all Employed Mothers

Variable	Parenting stress	Social support	Job stress	Job security	Job complexity	Decision latitude
Paid work hours						
1 to 15 hrs	15.3	51.9	6.4***	16.3	11.4***	13.5
16 to 24 hrs	15.7	51.9	7.8	16.1	13.0	12.4
25 to 34 hrs	15.0	51.0	8.7	15.7	13.0	12.9
35 hrs+	14.4	49.8	10.2	16.3	14.4	13.1
Paid work hours preference						
Fewer	15.0	49.7	10.3***	16.0***	14.6***	13.0
About the same	14.8	51.8	7.5	16.6	12.8	13.4
More	15.9	50.8	7.6	14.8	11.0	12.0
Satisfaction - paid work hours						
Low	17.3*	46.6**	10.7***	14.1***	13.0	12.2
Medium	15.5	50.3	9.2	15.4	13.1	12.3
High	14.7	51.8	7.5	16.6	12.7	13.3
Household hours ^a						
1st quartile	13.6***	51.1	9.0***	16.4	13.6*	13.0
2nd quartile	15.9	52.1	8.4	16.0	13.2	12.9
3rd quartile	15.5	50.2	7.9	16.1	12.1	12.9
4th quartile	15.5	51.4	7.1	15.9	12.4	13.4
Childcare hours ^b						
1st quartile	15.6	49.7*	8.7**	15.4*	12.5	11.9*
2nd quartile	14.8	51.2	8.2	16.3	12.9	13.7
3rd quartile	15.6	50.9	8.4	15.9	13.2	13.1
4th quartile	14.4	52.9	6.9	16.9	12.8	13.6
Perceived share of h/work						
Much more than fair	15.8**	50.5	8.2	16.1	12.7	12.6
A bit more than fair	15.6	51.2	8.0	15.9	12.9	13.1
Fair or less	14.0	52.2	7.9	16.3	12.6	13.3
Perceived share of childcare						
Much more than fair	16.2***	50.1*	8.2	15.7	12.3	12.3*
A bit more than fair	14.7	51.5	8.3	16.4	13.3	13.5
Fair or less	14.0	52.8	7.5	16.4	13.0	13.4
Satisfaction - free time hours						
Low	16.6***	49.6***	9.4***	15.7	13.8*	12.9
Medium	15.3	51.4	8.0	16.3	12.9	12.6
High	13.3	52.9	6.5	16.4	11.6	13.6
Self-perceived time pressure						
Almost always	17.1***	49.7**	9.1***	15.3	13.6	12.8**
Often	15.5	50.9	8.3	16.3	13.1	13.5
Sometimes	13.4	52.3	7.0	16.5	11.9	12.6
Rarely or never	11.6	55.3	6.1	16.7	11.1	12.8

^aFirst quartile represents the least amount of weekly time (<16.5 hrs pw) and fourth quartile the most amount of weekly time (37 hrs+ pw) spent in household work among employed mothers.

^bFirst quartile represents the least amount of weekly time (<14 hrs pw) and fourth quartile the most amount of weekly time (40 hrs+ pw) spent with own children among employed mothers.

* $p < .05$, ** $p < .01$, *** $p < .001$ using ANOVA. * $p < .05$, ** $p < .01$, *** $p < .001$ using the Browne-Forsythe robust test of equality of means

Table A13
Bivariate Associations of Parental Time Use and Perceptions About Time With Stressors and Psychological Coping Resources Among all Non-Employed Mothers

Variable	Parenting stress	Social support
Household hours ^a		
1st quartile	14.7*	48.7
2nd quartile	15.5	49.0
3rd quartile	15.0	49.2
4th quartile	16.7	48.5
Childcare hours ^b		
1st quartile	16.1	48.3
2nd quartile	16.0	47.5
3rd quartile	14.8	49.6
4th quartile	15.0	50.1
Perceived share of housework		
Much more than fair	16.6***	47.3***
A bit more than fair	15.2	49.3
Fair or less	14.0	50.9
Perceived share of childcare		
Much more than fair	16.3***	47.7**
A bit more than fair	15.8	49.0
Fair or less	13.4	51.1
Satisfaction - free time hours		
Low	17.8***	47.0***
Medium	15.3	48.1
High	13.3	51.3
Self-perceived time pressure		
Almost always	18.7***	47.1**
Often	16.4	47.4
Sometimes	14.3	50.5
Rarely or never	11.9	50.5

^aFirst quartile represents the least amount of weekly time (<24 hrs pw) and fourth quartile the most amount of weekly time (51 hrs+ pw) spent in household work among non-employed mothers.

^bFirst quartile represents the least amount of weekly time (<14 hrs pw) and fourth quartile the most amount of weekly time (52hrs+ pw) spent with own children among non-employed mothers.

* $p < .05$, ** $p < .01$, *** $p < .001$ using ANOVA. + $p < .05$, ++ $p < .01$, +++ $p < .001$ using the Browne-Forsythe robust test of equality of means

Table A14

Bivariate Associations of Parental Time Use and Perceptions About Time With Stressors and Psychological Coping Resources Among all Employed Fathers

Variable	Parenting stress	Social support	Job stress	Job security	Job complexity	Decision latitude
Paid work hours						
1 to 34 hrs	14.0	47.1	8.2***	14.3	13.6***	13.3***
35 to 44 hrs	14.2	49.1	8.8	15.5	13.9	12.4
45 to 54 hrs	13.4	48.8	9.7	15.6	15.5	14.2
55 hrs+	13.7	49.3	10.2	15.7	15.4	14.8
Paid work hrs preference						
Fewer	14.1*	49.4	10.3*	15.5**	15.6***	14.1**
About the same	13.4	48.8	8.9	15.7	14.5	13.6
More	14.9	47.7	8.2	14.2	12.9	11.9
Satisfaction - paid work hrs						
Low	14.1	47.1	11.8***	14.9	15.7	12.7
Medium	14.0	48.7	10.2	15.3	14.8	13.4
High	13.7	49.3	8.6	15.7	14.6	13.8
Household hours ^a						
1st quartile	13.5	49.3	9.4	15.8	14.7	13.5
2nd quartile	13.4	49.3	9.6	15.7	14.9	13.7
3rd quartile	13.7	48.8	9.2	15.6	15.0	14.0
4th quartile	14.4	48.2	9.2	14.9	14.4	13.1
Childcare hours ^b						
1st quartile	14.2	48.0	9.9	15.2	14.3*	13.1
2nd quartile	13.5	49.5	9.0	15.5	15.3	13.8
3rd quartile	13.5	49.4	9.1	15.6	14.4	13.8
4th quartile	14.1	48.8	9.2	15.6	15.2	13.8
Perceived share of h/work						
Much more than fair	14.8*	46.1***	9.3***	15.1	15.0*	14.1
A bit more than fair	13.5	49.7	8.9	15.4	14.4	13.3
Fair or less	13.9	49.0	10.2	15.8	15.3	14.0
Perceived share of ch/care						
Much more than fair	15.1***	46.1*	9.4*	15.1	14.5	13.6
A bit more than fair	13.2	49.3	9.1	15.4	14.5	13.5
Fair or less	14.8	49.0	9.9	15.8	15.3	13.9
Satisfaction - free time hrs						
Low	14.5***	45.7***	10.5***	15.0	15.1*	13.5
Medium	14.3	49.4	9.4	15.7	15.0	13.7
High	12.9	50.7	8.4	15.6	14.2	13.6
Self-perceived time pressure						
Almost always	15.1***	47.1***	11.2***	15.1	16.5***	14.1
Often	14.3	47.9	9.9	15.3	15.3	14.0
Sometimes	13.2	49.9	8.5	15.9	14.0	13.2
Rarely or never	12.8	52.1	7.8	15.0	12.8	13.3

^aFirst quartile represents the least amount of weekly time (<6.5 hrs pw) and fourth quartile the most amount of weekly time (18 hrs+ pw) spent in household work among employed mothers.

^bFirst quartile represents the least amount of weekly time (<7hrs pw) and fourth quartile the most amount of weekly time (20 hrs+ pw) spent with own children among employed mothers.

* $p < .05$, ** $p < .01$, *** $p < .001$ using ANOVA. * $p < .05$, ** $p < .01$, *** $p < .001$ using the Browne-Forsythe robust test of equality of means

Table A15
Correlations Between Measures of Parental Wellbeing and Self-Reported Stressors and Coping Resources Among Fathers in Dual-Earner and Traditional Families

Variable	Dual-earner (n=346)			Traditional (n=321)		
	MH	VIT	GH	MH	VIT	GH
Financial wellbeing ^a	-.21	-.19	-.23	-.17	-.10	-.22
Parenting stress	-.28	-.31	-.20	-.31	-.28	-.27
Social support	.44	.31	.37	.45	.33	.25
Job quality						
Job stress	-.36	-.40	-.30	-.25	-.20	-.15
Job security	.20	.14	.21	.13	.07	.12
Job complexity	-.01	-.04	-.04	-.01	-.08	.06
Decision latitude	.14	.06	.07	.01	-.03	.00

Note. The sub-sample number (n) for each individual result will vary slightly due to missing data. Bolded numbers indicate the correlation is significant at $p < .05$ (two-tailed). MH = Mental Health; VT = Vitality; GH = General Health.

^aAn increasing score on the 6-point ordinal scale of financial wellbeing indicates a decline in prosperity

Table A16

Correlations Between Measures of Parental Wellbeing and Self-Reported Stressors and Coping Resources Among Mothers in Couple and Lone Parent Families

Variable	MH	VIT	GH	MH	VIT	GH
	Employed mothers					
	Couple (n=346)			Lone (n=49)		
Financial wellbeing ^a	-.23	-.22	-.26	-.21	-.17	-.06
Parenting stress	-.23	-.29	-.09	-.30	-.45	-.33
Social support	.41	.25	.25	.44	.39	.31
Job quality						
Job stress	-.30	-.25	-.27	-.33	-.49	-.46
Job security	.26	.17	.15	.45	.55	.39
Job complexity	.04	-.04	-.00	.01	-.02	.18
Decision latitude	.05	.03	.06	.09	.18	-.08
	Non-employed mothers					
	Couple (n=321)			Lone (n=98)		
Financial wellbeing ^a	-.20	-.24	-.23	-.10	.02	.00
Parenting stress	-.47	-.49	-.36	-.38	-.28	-.23
Social support	.53	.41	.35	.55	.37	.48

Note. The sub-sample number (n) for each individual result will vary slightly due to missing data. Bolded numbers indicate the correlation is significant at $p < .05$ (two-tailed). MH = Mental Health; VT = Vitality; GH = General Health.

^aAn increasing score on the 6-point ordinal scale of financial wellbeing indicates a decline in prosperity

Table A17

Adjusted Linear Regression of Time Pressure, Stressors and Psychological Coping Resources on Parental Wellbeing: Mothers in Dual-Earner and Traditional Families^a

Predictor	Mothers in couples					
	MH		VT		GH	
	DE	TR	DE	TR	DE	TR
Satisfaction - paid work hours						
Low	-.15**	-	-.11*	-	.02	-
Medium	-.05	-	-.06	-	-.07	-
High	ref					
Childcare hours ^b						
1st quartile	-.11	.03	-.07	.01	-.13	-.15*
2nd quartile	-.16*	.03	-.11	.03	-.19**	-.06
3rd quartile	-.21***	-.03	-.15*	-.01	-.17*	-.04
4th quartile	ref					
Perceived share of childcare						
Much more than fair	.02	.04	.01	.12	-.05	.24***
A bit more than fair	.08	.03	-.00	.09	.10	.17*
Fair or less	ref					
Satisfaction - free time hours						
Low	.10	-.13*	-.16*	-.19**	.02	.01
Medium	.03	-.01	-.06	.02	.02	.09
High	ref					
Self-perceived time pressure						
Almost always	-.24***	-.01	-.31***	-.05	-.13	-.11
Often	-.21**	-.05	-.22**	-.12*	-.15*	.01
Sometimes	ref					
Rarely or never	-.01	.01	.03	.04	.01	-.06
Financial prosperity						
Just getting along/poor	-.25***	.01	-.13*	-.04	-.17**	-.06
Comfortable/prosperous	ref					
Parenting stress	-.04	-.30***	-.12*	-.36***	.01	-.29***
Job stress	-.17**	-	-.04	-	-.17*	-
Job security	.06	-	.07	-	.03	-
Job complexity	.06	-	-.04	-	-.00	-
Decision latitude	-.06	-	-.03	-	-.06	-
Social support	.33***	.38***	.11*	.21***	.18**	.23***
Adjusted R^2	.31	.39	.23	.35	.20	.26
n	300	295	300	295	297	292

Note. MH = Mental Health; VT = Vitality; GH = General Health. DE = Dual-Earner Family; Tr = Traditional Family.

^aAdjusted for parental age, age of youngest child, number of children under the age of 15, long-term health condition, education level, family structure, household income, household hours, paid work hours, perceived share of childcare.

^bFirst quartile represents the least amount of weekly time (<14 hrs pw for both) and fourth quartile, the most amount of weekly time (40 hrs+ pw; 52 hrs + pw) spent with own children among employed mothers and non-employed mothers respectively.

Table A18

Logistic Regression Predicting High Time Pressure (Almost Always or Often Rushed or Pressed for Time: Mothers in Dual-Earner and Traditional Families)

Predictor	Dual Earner			Traditional		
	M1 OR	M2 OR	M3 OR	M1 OR	M2 OR	M3 OR
Sociodemographics						
Parental age	1.06	1.04	1.04	1.02	1.01	1.01
Education level						
Tertiary	2.12	1.39	1.26	0.89	0.78	0.55
TAFE or Trade	0.88	0.66	0.59	1.37	1.43	1.27
Year 12 completion	1.15	1.12	0.84	0.53	0.47	0.40
Year 11 completion	ref					
Number of children <15						
One	ref					
Two	1.89	1.85	1.16	1.20	1.19	1.03
Three	3.83	4.14	2.70	1.11	1.06	0.77
Age of youngest child						
Age 0-2	ref					
Age 3-4	1.05	1.22	1.56	1.71	2.02	2.13
Age 5	2.28	1.98	2.70	1.08	1.37	2.33
Time Use						
Paid work hours						
1 to 15 hrs	0.55	1.56	1.53	-	-	-
16 to 24 hrs	ref					
25 to 34 hrs	0.94	1.82	1.24	-	-	-
35 + hrs	1.36	1.62	1.39	-	-	-
Household hours ^a						
1st quartile	ref					
2nd quartile	1.82	1.65	1.85	1.52	1.38	1.70
3rd quartile	1.11	0.94	0.97	1.69	1.42	1.63
4th quartile	1.50	1.47	1.52	2.78	2.11	1.55
Psychosocial						
Perceived share of housework						
Much more than fair		2.80	3.20		1.58	1.31
A bit more than fair		1.51	1.70		1.08	1.03
Fair		ref				
A bit less than fair		0.49	0.94		0.33	0.30
Much less than fair						
Parenting stress		1.10	1.07		1.12	1.12
Social support		0.97	0.95		0.97	0.96
Job stress		1.15	1.13		-	-
Job security		1.01	0.98		-	-
Job complexity		1.00	0.98		-	-
Decision latitude		1.02	1.04		-	-

Continued on following page

Table A18 continued

Predictor	Dual Earner			Traditional		
	M1	M2	M3	M1	M2	M3
	OR	OR	OR	OR	OR	OR
Free Time						
Satisfaction- free time hours						
Low			6.44			2.25
Medium			1.65			1.81
High			ref			
Spare time with nothing to do						
Almost always or often			0.21			0.13
Sometimes			0.11			0.08
Rarely			0.45			0.26
Never			ref			
Pseudo R^2	.18	.33	.46	.10	.25	.40
n			296			294

Note. M1 = Model 1, M2 = Model 2 and M3 = Model 3. OR = Odds Ratio. Models also include country of birth, long-term health condition, household income, childcare hours and paid work hours preference (employed mothers only), all of which were not statistically significant effects

^aFirst quartile represents the least amount of weekly time (<16.5 hrs; <24 hrs) and fourth quartile the most among of weekly time (37 hrs+; 52 hrs+) in household work among employed and non-employed mothers respectively

Bolded figures indicate significance at $p < .05$

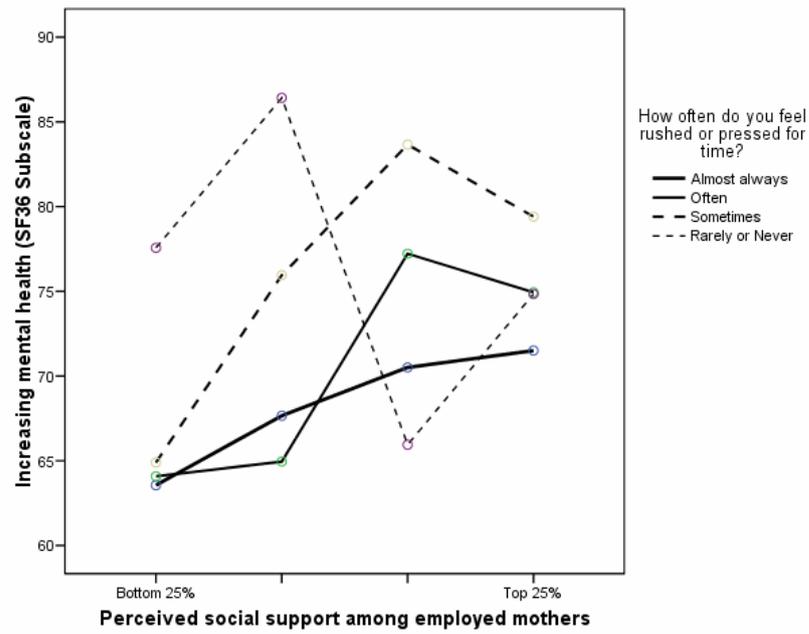


Figure A1: Estimated marginal means of the mental health of employed mothers in dual-earner families for self-perceived time pressure by quartiles of perceived social support ($p = .200$)