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First time parents' paid work patterns in Amsterdam: father's part-time work, family's immigrant background and mother's work for pay when the infant is very young

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**First Time Parents' Paid Work Patterns in Amsterdam:  
Father's Part-Time Work, Family's Immigrant  
Background and Mother's Work for Pay  
When the Infant Is Very Young**

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June 2007

# **First Time Parents' Paid Work Patterns in Amsterdam: Father's Part-Time Work, Family's Immigrant Background and Mother's Work for Pay When the Infant Is Very Young**

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## ABSTRACT

### **First Time Parents' Paid Work Patterns in Amsterdam: Father's Part-Time Work, Family's Immigrant Background and Mother's Work for Pay When the Infant Is Very Young**

We analyze first time parents' work patterns. Little empirical work exists on the influence of the partner's (change of) employment status. There is no study known to us that investigates the effects of the family's immigrant background. This study explores both issues in addition to the effects of human capital, the mother's partner not sharing the household, the women's breastfeeding intentions and practices. We use panel data of 2003-2004 on families in Amsterdam at early pregnancy and at the time the infant is 3-5 months (when the Dutch family has to "choose" its paid parental work arrangement). Fathers do change their working hours after the birth of the first child. Only the father's reduction of working for pay, to 25-32 hours per week after the birth of the first child, makes it more likely that the mother starts work when the infant is 3-5 months old. Furthermore, being a female, first generation immigrant has an independent – negative – effect, beyond human capital and other family characteristics, on the decision to work when pregnant and when the infant is 3-5 months old. Similarly, a partner born abroad has an independent, negative effect on the Dutch born – with Dutch born parents – mother's timing of her return to work. Dutch social policies seem to some extent successful in obtaining the sharing of parental unpaid infant care. Yet, they created by stressing own responsibility only an opportunity and potential benefits for children and parents for those families who can (and dare to) afford.

JEL Classification: J13, J15, J16, J18, J24, J21

Keywords: part time work, parenthood, gender, the Netherlands, immigrant background, ethnicity

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## 1. Introduction

One of the most important changes in the past few decades influencing the way in which early childhood is experienced in European countries is the dramatic increase of mothers with young children who are also active in the paid labour force. The Dutch case is exemplary of this change. Dutch women's labour force participation increased from internationally the lowest rate for married women at 7.3% in 1960, to 32.8% in 1987, and to 58.7% in 2005. The latter was above the average participation rate in the European Union (15 countries) (Statistics Netherlands 2006). In addition, the proportion of employed mothers with children below the age of six more than doubled in less than a decade: from 26% in 1988 to 57% in 1996 (OSA 1997).<sup>1</sup> In 2003, 90% of women in the Netherlands remained in the labour force after giving birth to their first child, although they worked fewer hours (Statistics Netherlands 2006). Children who are born in the Netherlands nowadays, therefore, generally have a mother working in the labour market, who has to organise her time around the triple needs of care, income and professional demands. This substantial change from the situation still prevalent in the mid-eighties, is somewhat counter-balanced by changes in fathers' behaviour following the birth of a child. While in most European countries fathers increase their labour force participation when they have a child (see e.g. Plantenga and Siegel 2004), an increasing proportion of Dutch fathers on the contrary reduces it. 10% of first time fathers reduced their working hours when their child was born in 1997, 13% did so in 2003 (Statistics Netherlands 2006).<sup>2</sup>

Are these two trends homogeneous across all social groups? Dutch society in recent years has been experiencing, due to immigration, new forms of social and cultural differentiation in addition to the traditional ones. The proportion of children with an immigrant background has increased, and in 2004, more than half of the children born in Amsterdam had at least one parent or grand parent born abroad (O+S 2004).

The purpose of this study is to improve our understanding of how parents of first born children in the Netherlands take their decisions with regard to the combination of paid work and care. We hypothesise that these decisions are shaped on the one hand by human capital resources (education, language skills, autochthonous vs. immigrant background and so forth), culturally defined gender scripts and household structure and organisation (dual parent or one parent, presence or not of other adults), on the other hand by Dutch parental leave policies<sup>3</sup>. A number of existing studies have indicated that parental leave policies and the availability of part-time work are means for mothers to balance their paid work and family responsibilities (for a literature review see Del Boca and Wetzels 2007). Little empirical work has however been conducted on the influence of the partner's employment status. Furthermore, there is no study known to us that investigates the effect of immigrant background on parental work patterns when children are born in a European country's setting.

This paper explores these issues in the Dutch context. Firstly, we assess parental paid work arrangements by different kinds of backgrounds with regard to the autochthonous/immigrant divide. With regard to the immigrant status, we distinguished between the mother, her partner, and her parents.

Unfortunately, our data do not provide information on the country of origin of the partner's parents. Secondly, we further flesh out, beyond the standard human capital explanations, what we would consider the influence of the family (the partner's employment status, the family's immigrant background, and the importance of mother's mother opinion on breastfeeding) on women's employment and hours of paid work. In doing so, we shed light on the determinants of the mother's decision to care for her child herself or to share it with somebody else/a child care service. This decision, in fact, affects that concerning whether or not both, or the only, parent(s) will try to combine paid work and child care.

In our analysis, we focus on first infants born in the Netherlands in 2004. Therefore, all first infants' parents are making their employment and care decisions in the context of the Dutch welfare state, which has moved beyond the male breadwinner model still prevalent in the mid-eighties as far as expectations concerning women's labour market participation are concerned, but without providing enough child care services. We make use of unique and recent data from two surveys on public health, which were conducted at two distinct points in a child's and mother's life: around 16 weeks of pregnancy and when the infant was between 3-5 months old. The surveys were held in the public health project: "Amsterdam Born Children and their Development", which was carried out by the Amsterdam Medical Centre and the Amsterdam Municipal Health Service in 2003 and 2004, with financial support from the Dutch Scientific Council.<sup>4</sup>

This paper is structured as follows. Section two presents the Dutch setting. Our hypotheses, which are informed by the findings of recent studies, are developed in section three. Section four discusses the data and methodology used. Our estimation results are presented and discussed in section five and our conclusion in section six.

## **2. The Dutch Context**

Several researchers have emphasized that institutions influence the context in which labour market decisions are made (for a review, see Del Boca and Wetzels 2007). In the Dutch context, the labour market is characterised by many male, and not only female, part-time workers. Since the developments in combining paid work and care for young infants are quite recent, we provide here an overview of their background.

In the Netherlands, in 1924, a female civil servant's wedding day was also the day she would lose her job. Only in 1973 did Dutch women gain the same protection that, for example, Swedish women secured in 1939 and Italian ones in the early fifties, namely legislation that made it unlawful for employers to dismiss a woman because of pregnancy, childbirth or marriage. Since then, "the emergence (*and persistence and growth*) of the working wife in Holland" (Hartog and Theeuwes 1985) has been spectacular in terms of participation rates. Yet, although having the same legal and social policy settings, several specific groups of women, especially mothers, in the Netherlands have significantly lower labour supply rates. Among these, there are women who were born in another country, or whose parents were born abroad. Family reunion, traditionally the main factor of ethnic minority<sup>5</sup> increase in the Netherlands accounted for 22% of all non-Dutch immigrants in 2001. It is however a decreasing phenomenon, whereas immigration due to family formation accounted for 15%

of immigration, and is increasing (Hartog and Zorlu 2004).<sup>6</sup> Zorlu (2002, chapter 9) shows that - in Amsterdam in 1999 - the negative effect of having children on labour force participation was larger for Turkish and Moroccan families than for other immigrant groups. The gender gap in labour force participation is the smallest for Caribbean, followed by South European and Dutch women. For Turkish and Moroccan women, the gender gap in participation probabilities is respectively 0.497 and 0.302. Furthermore, the participation rates of second-generation immigrants do not differ from those of the first-generation, as indicated by the marginal effects of the variable 'born in the Netherlands' across the sub-samples.<sup>7</sup>

In spite of the increase in labour force participation, the volume of full-time regular jobs in 1996 was the same as in 1970—about 3.7 million people. And the steady job growth in the early 1990s consisted entirely of part-time jobs. In 1996, 1.8 million people had part-time jobs and 0.7 million people had flexible jobs (Hartog 1998).<sup>8</sup> Several factors can explain this (Visser 2002, Gustafsson, Kenjoh and Wetzels 2003). In the tight labour market of the 1990s, fear of labour shortages encouraged employers who were otherwise reluctant to accept part-time workers. Furthermore, public policies during the 1990s aimed at enabling men to take parental leave and work part-time in order to share care and paid work more equally, and thus keep both parents in the labour market when children are young.

The right to shorten or lengthen paid work hours was accepted in the Netherlands before everywhere else; and the country has gone much farther<sup>9</sup> than demanding that employers should “give consideration” to employees who wish to transfer between full-time and part-time work, as the 1997 European Directive on Part-time Work status states<sup>10</sup>. The employer should, in principle, agree to the request and is obliged to indicate any reason for disagreement. There is also a structural demand for part-timers in higher job levels in the Netherlands, which is larger than in other European countries. Furthermore, employers consider part-time workers as committed as full-time workers. With 39% of employed people in part-time jobs, the Netherlands is indeed far ahead of other European countries. It is also number one as regards the percentage of women working for pay less than 35 hours per week (67.6%). In addition, part-time work in the Netherlands is much less limited to a particular group of women than in the UK, Germany and Sweden (Gustafsson, Kenjoh and Wetzels 2003). Nevertheless, in 1996, the greatest difference in the proportion of women working for pay less than 32 hours per week was found between childless women (37%) and mothers (86%) (Wetzels 2001). In 2005, only in 6% of two parents households with a woman in the age 25-49 and small children both parents work for pay full-time. In similar households without children, the percentage of both partners working fulltime is 38% (SCP 2006). Zorlu (2002, chapter 8) found that in 1997 working for pay part-time compared to full-time and flexible jobs was more common among men and women in eight ethnic minority groups than in the ethnic majority.<sup>11</sup> More recent data, however, offer a different picture: in all main immigrant groups, if mothers with dependent children (age below 18) are employed, they are more often (19-32%) employed full time than the “fully Dutch” (11%) (Statistics Netherlands 2005). These most recent figures also show that working between 20-34 hours (long part time) is the popular choice of hours in all major immigrant groups, and varies between 35% and 48% compared to full Dutch (45%), and working between 1 and 20 hours per week is most frequently chosen by the fully Dutch (44%). These data are similar to those found for other countries. For instance, Yerkes and Visser (2005) found that in

the UK women from ethnic minority groups work more full-time than the ethnic majority. Tatsaert (2004) found the same in Belgium. There are, however, no statistics available on the choice of working hours for parents with an immigrant background before they have the first child and when the infant is very young.

A forerunner with regard to part time and flexible work arrangements for both women and men, the Netherlands lag behind with regard to other kinds of conciliating policies. The Dutch pregnancy leave and maternity leave period is the agreed minimum of the EC directive in 1996. As of 2005, pregnancy leave is 16 weeks (100% paid). It starts 6-4 weeks prior to the expected delivery and ends when the child is about 3 months old. Each parent is entitled to an additional parental leave of 13 weeks. This leave may be taken part time and therefore it may be extended to about six months. However, in most cases the parental leave (different from the maternity leave) is unpaid.<sup>12</sup>

The Dutch conciliation policies as regards combining paid work and unpaid child care started to develop in 1990. Especially since 1995, the Dutch ideal is parental sharing,<sup>13</sup> meaning that both men and women should share the available paid and unpaid work equally. The so-called Combination model pleads for a shift from the practice of the one-and-a-half model which developed during the 1980s and early 1990s, to the twice-three-quarter model, based on a 32 hours paid work week. Parental sharing implies two things: part-time rather than full-time employment is the norm; and while women should not reduce all their caring activities, men should be more involved in caring.<sup>14</sup> Underlying this idea is that parents remain attached to the labour market for a substantial number of hours, and that they “temporarily” - when children are young - reduce their work hours in order to care for their child one day per week. Ideally, therefore, children should not be in professional childcare for more than three days a week.

This model assumes that all households with children include two parents, that both parents work for pay a substantial number of hours before the first child is born, and that when they have a child they partly substitute paid work with unpaid work, therefore renouncing to a portion of their labour market earnings. The whole idea is presented in terms of change in labour market hours. However, parents who do not participate in paid work, or who work very few hours before the first child is born, or who do not earn a high enough income to be able to “temporarily” renounce a portion of earnings, or who are the sole parent or the sole breadwinner, are not helped by this idea of parental sharing.<sup>15</sup>

Furthermore, men are more easily persuaded to substitute a paid working day with an unpaid working day, if they start on an equal basis with their partner, if they know it is temporarily and if their peer group is behaving similarly. Attracting men to care is however considered primarily as an issue of socialisation and conscious raising (Kremer 2005). In the Netherlands in contrast to other countries, no additional measures were made to financially attract or force fathers to care, as in the Nordic parental leave schemes. Instead, ideological persuasion (using mass media and debate) and giving the opportunity to care (opportunity to work part-time, opportunity to take parental leave) seems to be the policy method.

Pleas for the ideal of parental sharing have not only been promoted as the alternative for full-time motherhood, they are also the opposite of full-time professional care. A strong consensus exists that young children should be taken care of by parents themselves: there remains a strong culture of self



care (Plantenga 1996, RMO 2006: 37).<sup>16</sup> Professional childcare facilities are increasingly available, but they are used on a part-time basis. Furthermore, this ideal of parental sharing is built on solidarity within couples in the Netherlands.<sup>17</sup> Conversely, vertical solidarity, dependency of adult children on their parents and vice versa, has been rejected. The ideal of intergenerational care was eradicated from social policy as early as the 1960s (Kremer 2005). This has important consequences for childcare: grandparents are not supposed to be involved in caring for their grandchildren. Although some grandparents care for grandchildren one day a week (Portegijs et al 2004, Remery et al 2000), the grandparents are not expected to care for grandchildren in order for mothers to work for pay. Only 12% of parents say they prefer care by the family (Remery et al 2000).

The parental sharing of childcare is expected to start after the pregnancy leave period ends and the child is between 10-12 weeks old - non-parental institutional childcare is available for young infants from 10 weeks onwards- till the child is 4 years old when Dutch primary school starts.<sup>18</sup> But it is relatively expensive in the international context (Wetzels 2005). In 2005, 22% of the parents used formal institutional care as the most important non-parental type of childcare when the child is below one year (Statistics Netherlands 2006)<sup>19</sup>: a percentage higher than that found in Italy or Germany, but well below that of France and in any case smaller than that of working mothers of young children.<sup>20</sup> International agreements on maternal health and infant's health have recommended exclusive breastfeeding up to 6 months (Yngve, Kylberg and Sjoström 2001). Dutch leave regulations, however, do not easily accommodate the possibility to fulfil this standard. A period of exclusive breastfeeding longer than 3 months might not be easy to reconcile with even part time paid work, although employers are obliged to offer facilities for breastfeeding (Avishai Bentovim 2002, Burgmeijer and Rijneveld 2001, Grjibovski, Yngve, Bygren and Sjoström 2005). Studies on the UK found that returning to work is the most common reason for ceasing breastfeeding between the ages of four to six months, whereas physical reasons were more common at earlier stages (for a review of studies in the UK see O'Brien 2005, for a comparison of Ireland, Sweden, and the USA see Galtry 2003).

Very little evidence exists on how recent parents with an immigrant background actually act on the sharing parenting ideal. Firstly, almost every study analysing immigrant people in the Netherlands use data on the main ethnic minority groups (originating in Morocco, Turkey, Surinam and the Antillean Islands)<sup>21</sup>. However, immigrants from these groups do not represent all immigrants in the Netherlands nowadays. In Amsterdam, for example, 60% of foreign born women do not originate in these ethnic minority groups. 67% of all immigrant fathers with a Dutch born wife whose parents are also Dutch born, do not originate in the ethnic minority groups defined by Dutch policy makers, and 25% of second generation women do not originate in these categories (own calculations on ABCD data, in line with statistics of O&S 2004). This means that we know extremely little about the paid hours of work before the first child is born for a very large proportion of parents who do not originate in the Netherlands. And even less is known on how parents actually cope with parental sharing. O'Brien (2006) mentions that this is also true in the UK and elsewhere.

Secondly, the available cross section data on the labour supply of the ethnic groups defined by Dutch policy makers show that in 1998 Moroccan and Turkish female immigrants have much lower participation rates while having children younger than 4 years, as compared to women with the same

immigrant background, but who live still at their parental home, and also lower compared to women who live with a partner but have no children yet (Hooghiemstra and Merens 2003: Table 3.6-3.8). Since the data are cross sectional and we do not know how fast the behaviour of these particular groups change, we do not know whether the women still living with their parents or in childless couples will give up paid work when they give birth to children. On the other hand, the data show that Moroccan and Turkish immigrant women who participate in the labour market do so more in full-time jobs than the ethnic majority (Hooghiemstra and Merens 2006, RMO 2005), although the proportion working for pay full-time in these groups is decreasing (RMO 2005).<sup>22</sup> In addition, a study using data in 1994<sup>23</sup> found that the proportion of women contributing between 50-100% to household earnings was higher in ethnic minority groups than for the fully Dutch (Ministry of Social Affairs and Employment 1997).

### 3. Hypotheses

Our aim is to further flesh out, beyond the standard human capital explanations, the influence of the family (including an immigrant background, the partner's labour force attachment and the importance of the woman's mother's opinion) on the decisions of women regarding labour supply and hours of paid work at two points in a family's life in the Dutch context: around 16 weeks of pregnancy and when the first infant is between 3-5 months old. We regard the situation at early pregnancy as one in which the woman has decided to work for pay without having childcare tasks.

Numerous studies have analysed female labour supply in the institutional context of Europe (see for a recent overview Del Boca and Wetzels 2007) and of the Netherlands (see for a review Wetzels and Tijdens 2002). Most studies have found support for the expectations of traditional, human capital theory. According to these, women with higher investments in human capital are more likely to participate in the labour market (Mincer 1974). At the same time, the higher the income of the mother's partner, the less likely she is to be in paid work. Most studies, however, consider decisions concerning participation to the labour market as if they were individual decisions, and not – in the case of couples – as decisions negotiated within the couple (see also the discussion in Blossfeld and Drobnič 2001). In our analysis, instead, we will consider also the impact of the partner's (the child's father's) employment situation on the mother's decision whether to work for pay when having a child. We will also consider whether the impact is different when the father lives with the mother or instead lives elsewhere. 12% of all first time pregnant women in Amsterdam did not live with their partner in 2004.

We analyse the probability that a mother will choose gainful employment and a certain category of work hours, controlled for her education by her partner's and family's characteristics. Specifically in the Dutch context, as described above, we expect parents who are employed to opt for equal role sharing of paid work (to maintain labour force attachment and reap the fruits of human capital investments) and of care for the first born after the period of maternity leave. Since the ideal of shared parenting is based on 32 hours per week, we wish to understand women's choices for different categories of paid work putting also emphasis on different categories of "long part-time". Moreover, previous studies define part time as including 20-34 paid work hours per week. This hours range

includes both the long part-time Dutch social policies aim at, but also jobs with less than 24 hours which in the literature are taken to indicate a weak labour market attachment. Therefore, we distinguish between less than 24 hours of paid work per week on the one hand, and different categories of long part-time work on the other hand. Part-time jobs may still be perceived to have detrimental career effects in the long run (Russo and Hassink 2005). This, especially around the birth of the first child, may become an issue as regards which category of hours the parents will choose.<sup>24</sup> Our first hypothesis, therefore reads:

*H1 – The choice of working hours among parents who choose a two parents earning arrangement, is likely to be in line with social policies that encourage both parents to work for pay long part-time hours (four days a week) after pregnancy leave.*

Next, we aim to analyze the effects of immigrant backgrounds on the pregnant woman's and recent mother's decision to work for pay. Although previous work found that some immigrant mothers are less likely to participate, even if they are second-generation immigrants, very little research has taken the immigrant background of the partner into account. Some of the effects of an immigrant background on female labour supply will be related to standard human capital investments such as women's education level and the partner's labour force attachment and position, which may differ between immigrants and the "fully Dutch". It is also often mentioned in the literature that immigrants who have problems with the language in the host country are less likely to participate in the labour market. We propose to capture the effects of immigrant backgrounds in addition to the effects of investments in human capital and in language skills, in order to assess the effects of "being born abroad", and more specifically of having a non-Dutch cultural heritage. Our interest is to explore the effects of the gender and generation of immigration on the decision of a first infant's mother whether participate in paid work, whether to work part-time after her leave, and therefore whether to care full time for the child herself or to share this care with somebody else – a family member, a paid person, an institutional service.<sup>25</sup> The immigrant background of the infant's parents is defined in contrast to a "full" Dutch background, which means that the parents of the infant, and the mother's parents, are born in the Netherlands. On the basis of existing literature on immigrant women's labour market participation, our second hypothesis reads:

*H2 – The non-Dutch cultural background of the family affects women's decisions to work for pay; if the decision for paid work is made, women with this background choose short part time more often than the "full Dutch ones", and in contrast to the "long part time" policy ideal.*

If the mother's partner is born abroad we expect these effects to be similar or even reinforced, since the choosing of a non-Dutch born partner is seen as an investment in non-Dutch cultural background. If the mother's parents are born abroad but the mother is Dutch born we expect weaker effects of non-Dutch culture than if she herself is born abroad.

Choosing between categories of working time and of patterns of combining, as well as sharing paid work and unpaid care may not only be affected by human capital and having an immigrant

background but also by the influence of the grandmother on the woman's choice for paid work when pregnant and when the infant is very young. Very little is known on whether family members and, more specifically, the own mother's opinion affects the mother's choice to work for pay during pregnancy and when the infant is very young.<sup>26</sup> There is only some information on the general opinion towards employed motherhood.<sup>27</sup> And there is a literature on breastfeeding practice and the effects of regular contact with grandparents and advice from grandmothers (Susin, Giugliani and Kummer 2005). As described above, especially in the Dutch setting, the older generation (grandparents) is not (expected to be) involved in the decision making on conciliation of paid work and unpaid care for children, and there are also no substantial financial transfers to adult children once they have completed their schooling. In general in the Netherlands, women are expected to make their decisions individually or jointly with their partner, without great influence of their parents. Previous studies have found that some immigrant groups, such as Moroccan and Turkish, have different expectations and standards as regards raising their children. For instance, they seem to stress more obedience, compared to full-Dutch parents whose goal is mainly to foster independence in their children. We may, therefore, expect that the opinion of the mother may be more important for immigrant than non immigrant women. Whether the woman has an immigrant background or not, however, if the opinion of the mother as regards breastfeeding is very important to the woman, it is likely, as is found in sociological literature on immigrant families (but there is no quantitative evidence available), that the mother has an important say in the daughter's choices with regard to paid work when with a small child (e.g. Ewen 1985, Orsi 1985, Vermeulen 1999). We, therefore, include in the analysis the perceived importance of the grandmother's opinion on breastfeeding, both when the woman is pregnant and when the child is three months old. We interpret it as an indicator of the degree of the new mother's autonomy (in relation to the older generation) in decision-making concerning participation to paid work. We see it as comparatively low if the perceived importance of the opinion of the mother's mother is high. We aim to analyse the effect of the mother's opinion on the woman's choices of employed motherhood controlled for woman's education, partner's labour supply, immigrant backgrounds, partner not living in, and breastfeeding plans. Hypothesis three addresses this issue:

*H3 – Mothers for whom their mother's opinion is very important as regards breastfeeding are expected to participate in the labour market to a lesser extent.*

We regard a plan to breastfeed as an indicator of the time the mother plans to be at home, caring full-time for the child. Since the pregnancy leave ends about 12 weeks after delivery, if the mother plans to continue breastfeeding, it will require more effort once she starts working for pay again. Therefore, we control women's labour market decisions for their intentions and breastfeeding behaviour. We expect that a pregnant woman who plans to breastfeed for a period of three months or less will be more likely to participate in paid work and return to paid work earlier after the end of pregnancy leave and most probably for a more substantial number of hours per week, compared to a pregnant woman with a plan to breastfeed for longer. Similarly, we expect that women who do not engage in breastfeeding when the infant is between 3-5 months old, or who breastfeed for a shorter period, will be more likely to participate in paid work and for longer hours.

## 4. Methodology and Data

We empirically analyze the mother's labour force and employment decision when she is pregnant with the first child and when the infant is 3-5 months old. In this section, we first present our data source, then we describe the empirical model, and finally we show descriptive statistics of labour market involvement by immigrant backgrounds.

### 4.1 Data and variables

Data were obtained from two surveys carried out within the longitudinal study called: "Amsterdam Born Children and their Development". The first sample (the ABCD pregnancy sample) comprised all pregnant women who consulted a primary care taker, or a midwife, or any health care institution. These women received a questionnaire in their own language, and if they needed assistance in filling it in, a free call could be made in their native language. In March 2004, 8,105 women who had started their pregnancies in 2003 returned a valid and complete questionnaire. The response rate was 67.8%.

Pregnant women who gave permission to follow-up the health status of the child received a second questionnaire 3 months after birth. This covered lifestyles, emotional problems and the health of the baby. In December 2004, 5,217 women returned the infant questionnaire, having filled it out when the child was 3-5 months old. After the exclusion of women who did not respond to one or more relevant questions, had a multiple pregnancy or used illegal drugs, our final sample consisted of 5,008 women (the ABCD-infants sample). Compared to the pregnancy sample, women of the follow-up sample were older, more educated, of lower parity<sup>28</sup> and more often of Dutch origin (Van der Wal et al 2006).

In our pregnancy-sample, we include women who are 34 weeks pregnant or less. The 34 weeks limit relates to the pregnancy leave in the Netherlands, which according to law has to start between 6 and 4 weeks before expected delivery. Thus, all selected women are in a stage of pregnancy in which they are regarded as potential labour force. We include only women pregnant with their first child,<sup>29</sup> since employment patterns change by birth parity in most European countries (Del Boca and Pasqua 2005, Gustafsson, Wetzels, Vlasblom, Dex 1996, Gustafsson, Kenjoh and Wetzels 2003). This leaves our pregnancy sample with 4,527 observations. In addition, we include only first born in our infants' sample, which leaves us with 2,902 observations. Table 1 shows the characteristics of the two samples.

[insert Table 1 here]

#### *Dependent variables*

At 16 weeks pregnancy, the proportion of first time mothers employed is 78%, which is in line with other research on national samples (Gustafsson et al 1996). At this stage of pregnancy, 32% of mothers-to-be work for pay full-time, 35% work for pay long part-time, 11% work for pay short part-time, 5% stopped working for pay because of pregnancy, and 17% are not working for pay and have not worked for pay during pregnancy. At the time the first infant is (on average) 13 weeks<sup>30</sup>, the proportion of mothers who have started to work for pay is 42%, 19% work for pay less and 23% more

than 24 hours per week, another 43% has the intention to start paid work soon is 43%, whereas 15% of the mothers have no intention to work for pay.

### *Independent variables*

Our control variables (the standard human capital variables, partner living-in, language skills) do not need further explanations. However, we will describe below the variables less common in labour market research.

To test our hypothesis 1, we define, as Table 1 shows, several categories of working hours and changes of working hours. At pregnancy, the proportion of partners of the mothers-to be in paid work is 81%. 70% of all partners work for pay full-time, 5% work for pay between 32-35 hours per week and 6% work for pay in shorter part-time jobs. When the child is 3-5 months, the proportion of mothers' partners/of fathers not in paid work is 9%, and 7% of the fathers started to work for pay after the first infant was born. Around half of all fathers (54%) do not change working hours, but a quarter of the fathers increases them, especially working for pay more than 40 hours per week (18%). One of every five fathers, instead, decreases working hours, especially to 25-32 hours per week (8%) after the first birth. Thus, fathers' changes in working time in both directions are substantial.

Only 47% of the children's sample is "fully Dutch" according to our definition: infant's mother is born in the Netherlands, mother's partner is born in the Netherlands and mother's parents are born in the Netherlands. This confirms the increasing ethnic and cultural heterogeneity of Dutch society. The remaining children are distributed as follows in the six categories we have developed in order to test our second hypothesis: 1) in 4% both the maternal grandparents are born abroad; 2) in 5% of cases one the maternal grandparents is born abroad; 3) in 8% of cases the mother's partner (the father) is born abroad; 4) in 5% of cases both the mother's partner and her parents are born abroad; 5) in 9% of cases both the mother and her parents are born abroad; 6) in 22% of cases both the mother and her partner are born abroad. See Table 2 for more details on the definition and the number of observations in our sample. The total proportion of first infants with at least one parent or one of the mother's parents born abroad (55%) corresponds with other statistics on Amsterdam (O&S 2004).

To test our hypothesis 3 we include a variable whether the opinion of their mother as regards breastfeeding is very important to the mother. One fifth of mothers indicate that this is so at pregnancy. We include mother's breastfeeding plans and behaviour as control variables. Almost nine out of 10 women plan to breastfeed; two out of ten plan to breastfeed for less than or equal to three months, and 26% plan to breastfeed between 4 and 6 months. When the child is between 3-5 months old (on average 13 weeks), 84% of the women have breastfed, and on average they have been breastfeeding for 11 weeks.

## ***4.2 Modelling the Parent's Employment Decision***

We use multivariate analyses to model and estimate the effects of individual, family and institutional characteristics on our dependent variable: the mother's decision to participate in paid work and her categories of working hours. We estimate her decision twice: at the time of early pregnancy with the

first infant and at the time the infant, according to Dutch law, is no longer considered dependent on the mother 24 hours a day (10-12 weeks).

At (on average 16 weeks of) pregnancy, our dependent variable distinguishes between six possible employment states, namely domestic work only (non-participation during pregnancy up till now), non-participation at 16 weeks pregnancy but worked before the survey during pregnancy, three categories of part-time, and full-time work. Although the multinomial logit specification is often used for this type of a polychotomous dependent variable, this specification suffers from the need to assume the independence of irrelevant alternatives (IIA). This assumption results from the maintained assumption that the disturbances associated with the utility derived from each option are independent and homoscedastic. One way to relax the IIA assumption is to group the original alternatives into subgroups and allow the variances to differ across the groups while maintaining the IIA assumption within the groups. This defines the nested logit model (Greene, 2000, and the Appendix A.1 of this Paper). Suppose that we subdivide the employment decision<sup>31</sup> (our dependent variable) into a three-level choice problem as depicted in Figure 1. The first level consists of the decision of whether or not to engage in any kind of market work. The second level distinguishes between working for pay less than 24 hours per week or more than 24 hours per week for those who select to be active on the labour market, leaving the other branches unchanged. The third level distinguishes between working for pay less than 32 hours (a four day working week that may be chosen if partners share care and paid work equally, and care for the child 1 day a week each, while using childcare by other persons three days per week), working for pay between 32 and 36 hours per week, and working for pay more than 36 hours per week.

[Insert Figure 1]

The nested logit model can be estimated by the full information maximum likelihood estimation, where the log-likelihood function is given by:

$$\ln L = \sum_{g=1}^G \ln P_g (ijk)$$

where  $g$  indexes individuals in the sample.

We apply a similar nested logit model for the mother's employment decisions when the first infant is between 3-5 months old. Figure 2 presents the levels of decision-making. We include, in the decisions made after first birth, the intention to work for pay soon and having started to work for pay.

[Insert Figure 2 here]

Our explanatory variables aim to test the hypotheses in Section 3: partner's labour supply and change in working hours, immigrant background, and the importance of the grandmother's opinion to the mother. Our control variables are women's education level, partner living-in, language skills, breastfeeding plans and breastfeeding behaviour.

### ***4.3 Heterogeneous patterns of parental paid work arrangements and immigration***

In this subsection, we describe the parental arrangement of first-born children in Amsterdam by their non immigrant/immigrant backgrounds as described in Table 1. The proportion of children born to a single mother, with no partner either cohabiting or living elsewhere is relatively low in the whole sample, 2.6%.<sup>32</sup> Surprisingly, the proportion children born to a mother who has a partner, but her partner is not living-in the same household (on average 12.3%) is as high as 29.5% if both the infant's parents are born in the Netherlands, but the mother's parents are born abroad. The proportion decreases to 22% if the mother's partner is also born abroad. If the child's mother is born abroad, but the father is born in the Netherlands, the percentage of partners not living-in the household is lower than the average, at 8%.

A partner who is not sharing the household may not be able to fully share the responsibility for care, particularly if he lives abroad. But he may provide an income for the infant. On average, 4.9% of children grow up in a household where the father is acknowledged by the mother as her partner, but he does not live with them and does not provide an income. In addition, 0.3% of children are born to mothers without a partner. Therefore, there is altogether about 5.2% of children who are born in a household where the father is both physically absent and not providing. But the percentage of children whose father does not provide any income is higher in dual parent households. 10.3% of first infants grow up in a household where the father is sharing the household but not providing an income, and 4.7% are born in a household with both parents present but neither has income from work.

Almost 15% of first infants born to couples born in the Netherlands, but whose maternal grandparents are born abroad, have a father neither sharing the household nor providing an income. 11% of the latter have none of the parents working for pay. The figures are lower for infants whose mother's partner and mother's parents are born abroad, and for infants whose parents are born abroad. Around 20% fathers of first infants' who are born abroad and live with the mother and the child do not work for pay.

Around 12% of first infants whose parents share a household and whose father and maternal grandparents are born abroad do not have any parental earnings. A similar proportion is found for first infants whose parents are both born abroad. Having parents with an immigrant background, therefore, clearly affects both the chances to have the father living in the same household and the financial conditions of the household, marking quite different material conditions for children since early infancy.

[Insert Table 2 here]

Since we are interested in the effects of the partner's labour market behaviour and its effect on the mother's labour market behaviour we exclude, in the further analysis, single mothers with no partner. Table 3 shows descriptive results by immigrant background of the mother's employment and her partner's employment during pregnancy with the first child. At pregnancy (on average 16 weeks), women's participation rates are high, also for women with an immigrant background, although the percentages of the latter are lower. Only one immigrant background shows a relatively low



participation (44%): the mothers-to be in couples where both partners are born abroad.<sup>33</sup> Also the distribution of the categories of working hours differs somewhat depending on the autochthonous/immigrant background, although part-time jobs are widely chosen options, and already before the first child is born women from all backgrounds hold part-time jobs.

The lower panel of Table 3 provides information on fathers. Again, the most pronounced difference between immigrant backgrounds concerns the partner's participation status than the working hours: 21% of first generation partners of second generation mothers with first generation parents are out of work.

[Insert Table 3 here]

Table 4 shows descriptive results for the households at the time the child is between 3-5 months. The proportions of women who are not in paid work yet, but have the intention to start working for pay soon, vary between immigrant backgrounds from 32.7% (migrant parents) to 54.8% (migrant mother with Dutch born partner), with Dutch first infants' mothers fairly in the middle with 43.7%. Since the proportions of those not in paid work and having no intention to start paid work differ, like during the state of pregnancy, between immigrant groups, we have quite striking differences between immigrant backgrounds and the number of hours they actually work for pay when the infant is 3-5 months old. The most important difference is between women who are born in the Netherlands and immigrant women: women born in the Netherlands work for pay more hours whether their partner (or parents) is (are) born abroad or not. The lower panel shows the participation rates and working hours of the mother's partner when the first infant is 3-5 months old, and reveals that the proportions of working hours' categories changed substantially, both: working for pay more than 40 hours per week and working for pay less than 32 hours increased in all immigrant backgrounds.

[Insert Table 4 here]

## **5. Results and Discussion**

This section analyses the mother's participation decision when she is pregnant (on average 16 weeks) and when the infant is between 3-5 months (on average 13 weeks) old.

### ***5.1 At pregnancy with a 1<sup>st</sup> child***

As presented in Table 5, we estimate the probability of employment and working hours for parents with a nested logit model. The base category used in the first level of the nested logit model is "not employed", in the second level: short part-time employment, in the third level: working for pay between 24-32 hours per week. The interpretation of the coefficient estimates is therefore based on how the relevant variable affects log odds of being employed or having stopped working for pay during pregnancy versus having never been active during pregnancy in the first level; being a short part-time worker (less than 24 hours per week) versus a worker with longer working hours (more than 24 hours

per week) in the second level, conditional on having been active in the first level; and being a full time worker (working for pay more than 36 hours per week) or being employed between 32 and 36 hours in the third level, conditional on having been working for pay longer than short part-time hours (more than 24 hours per week) in the second level.

[Insert Table 5]

Table 5 shows the estimations of the full model including the mother's education level, Dutch language fluency, partner characteristics (at home or not, employment type), immigrant background, importance of the opinion of the mother's mother and breastfeeding plans.<sup>34</sup> Our control variables show the following results. A high education level is significantly positive on being active in paid work (first level in Figure 1). This is in line with numerous empirical results on the effect of investment in education and labour supply. There are no effects of education on the decision to quit paid work because of pregnancy. If the decision in favour of paid work is made, there is no effect of education on the decision to work for pay more than 24 hours per week versus less than 24 hours per week (second level in Figure 1). This finding may be explained by the large availability of part-time work at all levels in the Netherlands (Gustafsson et al 2003). If the decision to work for pay more than 24 hours per week is made, low educated women are less likely to work for pay more than 32 hours per week (third level in Figure 1). This confirms expectations from human capital theory.

When the partner is not employed (as compared with the base category: a partner in part-time work), the impact is negative both on the likelihood of the employment of mother and on the likelihood of her quitting employment, which indicates that the woman was less likely to be in employment at all during her pregnancy. However, there is no significant effect of a partner not being in paid work on the pregnant woman's decision regarding hours of paid work if she is in paid work. We do not find support, therefore, for the expectation that from an income perspective the woman is likely to provide the income if her partner is not providing for it. If the woman's partner works full-time, this has a significant negative effect on the mother's working for pay during pregnancy, that is, she is more likely not to be active during pregnancy. This finding suggests that, at this point in the individual and household life, the male breadwinner model may appear appealing. However, if the mother-to-be chooses to work for pay, then a full-time working partner has a positive effect on her working for pay more than 24 hours per week; and if she chooses to work for pay more than 24 hours per week, a full-time working partner has a positive effect on working for pay full-time. Thus, four distinct groups of couple's organization emerge during first pregnancy with regard to participation to work: non worker couples (5.7%), male breadwinner couples (17.2%), female breadwinner couples (11.6%), and dual breadwinner couples (55.2%).<sup>35</sup> Of course, these four types, and particularly the first, cannot be interpreted simply as the outcome of choices, or values, but also of constrains.

We find support for our first hypothesis. If the mother's partner is, already at first pregnancy, working for pay between 32-35 hours per week, the mother is more likely to work for pay more than 24 hours per week. However, if she works more than 24 hours per week, a partner working for pay between 32-35 hours has a negative effect on her working for pay more than 32 hours per week. These parents-to-

be have, already before the first birth, organized their life to work for pay less than full-time but still a substantial number of hours, but the woman is working for pay, on average, fewer hours than her partner (couples who are sharing but not fully equal).

Some specific effects of immigrant backgrounds remain in the full model presented in Table 5. As expected, women who have difficulties with the Dutch language are less likely to be engaged in paid work. If we account for the problems related to Dutch language fluency,<sup>36</sup> pregnant women born abroad (with a Dutch born partner and with a foreign-born partner) are less likely to participate in the labour market at the time of first pregnancy, and if they do participate to the labour market, they are less likely to work for pay more than 24 hours per week in line with hypothesis 2. The likelihood of quitting a job because of pregnancy versus never having been active during pregnancy is negatively affected by the mother's parents being born abroad, that is, these women were not active at all during the pregnancy.

In line with our third hypothesis, the importance of the maternal grandmother's opinion has a negative effect on the mother's decision to participate in paid work at pregnancy: on being active vs. not active up until 16 weeks pregnancy, and on quitting between getting pregnant and 16 weeks pregnancy vs. not active up until 16 weeks pregnancy (if the opinion is important to the woman she is more likely not to have participated in paid work at all during her pregnancy up until 16 weeks). There is no effect of the importance of the grandmother's opinion on the woman's paid working hours if the woman participates in the labour market. This result remained unaffected if we excluded breastfeeding plans from the model.

Mothers-to-be who have chosen to be in paid work during pregnancy and have planned 1-3 months of breastfeeding are more likely to work for pay longer hours, more likely to work for pay more than 24 hours; but also, having chosen to work for pay more than 24 hours per week, the shortest breastfeeding plans have a positive effect on full-time work as compared to working for pay between 24 and 32 hours per week. This leads us to suspect that combining paid work and breastfeeding is not seen as a desired prospective option.

In an extension of the model in Table 5 (not presented here) we included information on whether the father originated in the Middle East and North Africa region (excluding Morocco) and whether the father originated in Morocco. We separated Morocco since, 1) within MENA, Morocco, stands out as an exception that conform to the feminisation trend observed in the developing world (Mogdahem 1998), 2) and immigrants from Moroccan have a longer history with the Netherlands than immigrants from other regions, and 3) we have sufficient observations for the country in our data set. The aim was to explore whether regions in which the feminisation of the labour force has less permeated in the developing world (Horton 1999) and whether Morocco, would lead mothers matched with a father from this region to behave differently on the labour market while pregnant and having a very young infant compared to other mothers with the same immigrant background but with a partner originating in another region. The number of fathers originating from the MENA region was only 122 and almost all of these fathers were part of immigrant couples. The number of fathers from Morocco was 307, of which 63 with Dutch born women, and 214 in immigrant couples. We found that a father from the MENA region and from Morocco makes the mother more likely not to have participated

during pregnancy, and for Moroccan fathers, the mother was also less likely to participate in full-time work if she participated in paid work, whereas the significant negative effect of couples born abroad on participation was reduced, and second generation women with a partner from other regions were significantly more likely to participate in jobs with 32-35 hours and in full-time jobs, if they participated at all in the labour market. Other results remained unchanged.

## ***5.2 When the child is 3-5 months old***

Table 6 shows the estimation results of the full model<sup>37</sup> at the time the infant is 3-5 months old. In the first level of the nested logit model, the base category used is not employed. In level two it is having the intention to start paid work soon. In level three, the base category is working for pay less than, or 24 hours per week. The interpretation of the coefficient estimates is therefore based on how the relevant variable affects log odds of being employed or having the intention to start paid work soon versus no intention to work for pay in the first level, being back at paid work versus having the intention to start paid work soon in the second level, conditional on having chosen to be(come) active in the first level, and working for pay more than 24 hours per week versus less than 24 hours per week in the third level, conditional on having been work for pay in the second level.

[Insert Table 6]

First, we discuss the control variables. As Table 6 shows, the age of the infant (between 3 and 5 months) has a significant negative effect on having the intention to work for pay, but a positive effect on the infant's mother being in paid work, if she has the intention to be an employed mother. It has no effect on working for pay more hours if she is already at work.

We find that human capital has its expected effect on participation when the infant is between 3-5 months. The highest education level of the child's mother has a significant positive effect on having the intention to work for pay as opposed to not having the intention to work for pay. However, if the women have the intention to work for pay, then the mother's highest education level has no effect on actually working for pay as opposed to having the intention to start paid work soon. This could mean that there is no difference between medium and high level educated mothers regarding the negotiation of parental leave (after the maternity leave, which ends 10-12 weeks after the birth of the child) with their employer.<sup>38</sup> For those who have started to work for pay when the child is between 3-5 months, a higher education level has a positive effect on working for pay more than 24 hours per week versus working for pay less than 24 hours per week. The low education level has only a significant negative effect on the participation decision (first level in Figure 2).

The analysis in Table 6 aims to detect the effects of the partner's working hours adjustments after the first birth compared to before, as in hypothesis 1. Somewhat unexpectedly, we find a significant positive effect of the partner's working hours on the mother's decision in favour of paid work (first level in Figure 2) only for partners who increased their paid work hours and work more than 40 hours per week. This leads us to expect that this particular group of parents is highly work oriented. However,

the mother is more likely to have started paid work versus having the intention to start soon (second level in Figure 2) if her partner works between 25-32 hours per week, having reduced his work hours after the first birth. This decision, which is in accordance with the aims of Dutch public policies from the 1990s on parents' equal role sharing, appears therefore efficacious in supporting an early return of the mother to her job, offering evidence for our first hypothesis. We find no effects of (the changes of) the partner's working hours on the mother's choice to be in paid work more than 24 hours per week versus less than 24 hours per week, if she has decided to start working for pay. This latter choice to work for pay more than 24 hours per week is significantly positively affected by her partner's not being in paid work, and significantly negatively affected by her partner not sharing the household.

Apparently, therefore, parents are more likely to be both in paid work when the child is very small either when they are both strongly work oriented or when they have an overall shared balance between paid work and family work.

If we account for having difficulties with the Dutch language, we find some support for our hypothesis 2: three immigrant backgrounds (mother's partner is born abroad, the mother is born abroad, and both child's parents are born abroad) affect negatively the decisions of mothers who have the intention to be employed and to be active in paid work when the infant is 3-5 months old (third level in Figure 2).

The number of weeks of breastfeeding has a significant negative effect on choosing to start paid work versus having the intention to start soon, but not on working for pay more than 24 hours versus less than 24 hours, if the woman has already started to work. This seems to indicate that, as expected, a longer duration of breastfeeding is not compatible with starting to be active in paid work early.

## **6. Conclusion**

This paper has described parental paid work arrangements of a diverse group of first time parents in the Dutch context, with a specific focus on parents having some immigrant background. The results indicate that in 2004 a substantial proportion of infant children has some kind of combination of dual working parents or a lone working parent. This proportion, however, as well as the specific combination, at least when the child is very young and the maternity leave has just expired, varies greatly on the basis both of the mother's education and of the characteristics and intensity of the parents' immigrant background. 78% of first time mothers were in paid work during pregnancy. When the child was between 3-5 months (on average 13 weeks) old, half of the mothers who were born in the Netherlands and had Dutch born parents were back at work, and 8% were even back in full-time work, and nearly one in five worked 3 or 4 days per week. This proportion was lower for mothers with some kind of immigrant background: when the child was 3-5 years old, one third of mothers with a partner and parents born abroad were back in paid work. If the mother herself was born abroad the proportion declined to 20%. These findings suggest that a substantial quota of – Dutch and non Dutch - mothers consider the period of maternity leave too short (for the well-being of their child). They, therefore, lengthen it even if in most cases it is not paid. While the behaviour of mothers at least in part point to

the limitations of Dutch policy with regard to leaves, the behaviour of fathers offer more positive indications. The proportion of partners in part-time work after the birth of the first child in Amsterdam is quite substantial and unique in Europe, which makes a higher proportion of first born in Amsterdam who have a father earning on a part-time basis than there has ever been (for both “full-Dutch” and in most immigrant categories). The results of the nested logit model indicate that there is support for the first hypothesis that employed parents will combine paid work and childcare by working for pay long part-time in the Netherlands. Surprisingly<sup>39</sup>, we also found that some parents arrange long part-time work already at pregnancy. Furthermore, only the partner’s reduction of working for pay, to 25-32 hours per week after the birth of the first child, makes it more likely that the mother starts work when the infant is 3-5 months old.

There is also some support for the second hypothesis, which examined the impact of a family background in non-Dutch culture, which, we hypothesized, would lead to a weaker labour market attachment of recent first time mothers. Controlled for human capital, partner living-in, partner’s labour supply, language skills, importance of the mother’s own opinion, breastfeeding intentions and behaviour, in the Dutch context, the mother’s choice for employment at the time of early pregnancy with the first child and when the infant is between 3-5 months is negatively influenced by the woman being born abroad (both with a Dutch born partner and with one born abroad). Furthermore, the choice to work for pay for more than 24 hours per week is negatively associated with the women born abroad. Controlling for all characteristics, we do not find a negative effect on labour supply and the hours of paid work for second generation immigrants, whether their partner is Dutch or foreign born. This means that our household data provide evidence that partner’s characteristics do affect immigrant women’s decisions as regards participation in the labour market, and therefore improve our understanding of young immigrant mothers’ labour market decisions compared to previous research based on the aggregate 1997 data on individual women in the 18-64 age group analysed by Zorlu (2002). Our data also suggest that second generation women behave differently from immigrant women in the UK and Belgium: countries which have high proportions of part-time work, but still much lower than the Netherlands, and which, especially the UK, have segregated labour markets for part-time and full-time jobs. In addition, when the first infant is 3-5 months old, a partner born abroad affects negatively Dutch born mothers with Dutch born parents who have the intention to be employed when the infant is 3-5 months old.

Our nested logit models capture many control variables. Specifications of our model, leaving out the grandmother’s opinion and the partner’s labour supply, showed more statistically significant categories of immigrant background, especially second generation women with a Dutch born partner (the effect disappeared after including opinion of the grandmother) and with a foreign born partner (the effect disappeared by including partner characteristics). Our study, therefore, indicates that most of the expected effects of immigrant backgrounds on the mother’s decision to work for pay are determined by human capital, the partner’s labour supply, the grandmother’s opinion, and breastfeeding intentions and behaviour. However, being a female, first generation immigrant has an independent – negative - effect, beyond human capital and other family characteristics, on the decision to work when pregnant and when the infant is 3-5 months old. Similarly, a partner born abroad has an independent, negative effect

on the Dutch born -with Dutch born parents- mother's timing of her return to work. The differential findings for "full Dutch" parents and those with an immigrant background, therefore, do offer some ground for the hypothesis that different cultural and gender models may be at play. Yet, this may not be the full explanation, since having an immigration background may cause difficulties of its own in entering and remaining in the labour market due to their language and other skills. In this perspective, the fact that dual unemployed households, as well as households where the father is not providing and/or is also absent, are more easily found among parents with an immigrant background offers matter for concern for the well being of children, as well as of their parents.

Our testing of hypothesis 3 was supported by our estimates. If the opinion of her own mother is important for the woman, she is less likely to participate in the labour market when pregnant, but there is no effect on her choice of working hours.

Additional research could provide insights into what benefits or risks children may encounter when both parents choose to work for pay full or part-time. Most importantly, while in this paper we described and analysed the child's context by emphasizing the choices of the parents regarding paid work and the number of hours involved, we would need to understand the effects of these decisions on the outcomes of children via the choice of childcare. Based on the results of our study, however, it is safe to say that since highly educated mothers in the Netherlands are more likely to participate in paid work, not only their children will enter life without the strains of financial uncertainty. They will also have access to the best quality child care, even if it is relatively expensive (Wetzels 2005, RMO 2006: 35). In contrast, since we find an independent, negative effect of being a female first generation immigrant (with a Dutch and with a non-Dutch partner) on mothers' labour supply and the number of hours she works for pay before the first child is born and when the infant is very young, and fathers' labour supply and hours of work for first generation immigrant women is also far lower, this would mean that their children not only will be more exposed to the experience of financial uncertainty. They will also have less access to high quality non-parental child care. And there are far less opportunities for these children, while they are very young infants, to experience parental sharing of paid work and child care based on father's reduction of paid work hours. Further analysis is needed to assess the implications of these findings on the outcomes of children. Data collection when the infant is older will hopefully give opportunities to fill this gap.

Our data have certain limitations. They do not provide information on whether parental leave has been taken and for how long and they do not provide information on the use of non-parental childcare. Furthermore, our results apply to Amsterdam, where, as in other major cities (Borjas 2006), the proportion of immigrants is higher than in the rest of the country (Hartog and Zorlu 2004). A comparison with other cities might show whether or not our results are affected by the labour market of the country's capital.

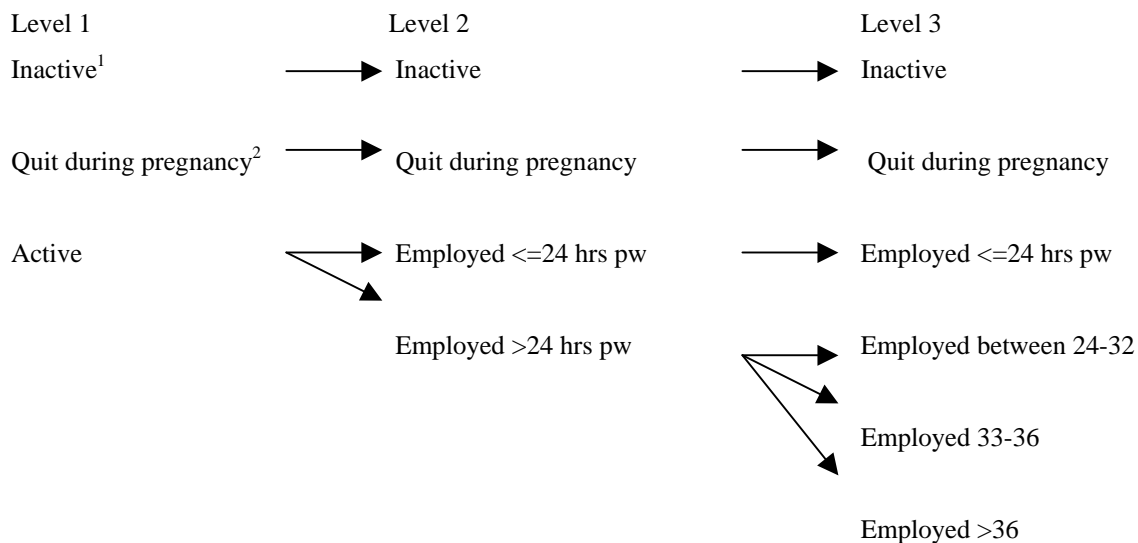
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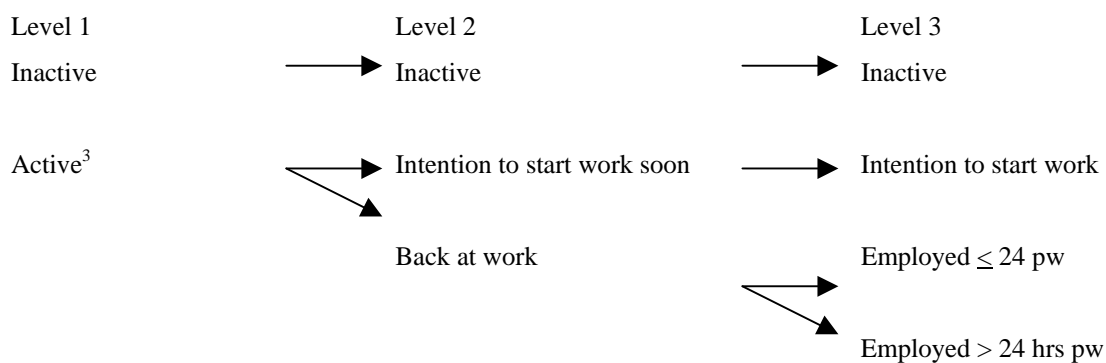


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*Figure 1: Women pregnant with the first child: choice of labour force attachment*



*Figure 2: Mothers of first infant: choice of labour force attachment*



<sup>1</sup> Inactive in this figure means not working for pay up until 16 weeks pregnancy.

<sup>2</sup> Quit work in this figure means quit paid work during first 16 weeks of pregnancy because of pregnancy

<sup>3</sup> Active in this figure means intention to be active

**Table 1. Samples' Characteristics. Means and Standard Deviation**

1 <sup>st</sup> infant's mother's characteristics	Pregnancy sample		Infants sample	
	Mean	Std. Dev.	Mean	Std. Dev.
<b>Dependent variables (%)</b>				
Before*: Participation in paid work	0.78		0.85	
Before*: Stops paid work because of pregnancy	0.05		0.04	
Before*: In paid work ≤24 hrs pw	0.11		0.11	
Before*: In paid work >24 hrs pw	0.67		0.74	
Before*: In paid work >24&<36 hrs pw	0.35		0.40	
Before*: In paid work full-time ≥ 36 hours per week	0.32		0.34	
After*: Not in paid work/no intention to start paid work			0.15	
After*: Intention to start work soon			0.43	
After*: In paid work ≤24 hrs pw			0.19	
After*: In paid work >24 hrs pw			0.23	
<b>Independent variables</b>				
<i>Personal characteristics: (%)</i>				
Age (years)	29.64	5.278	30.43	4.832
Low education♣	0.13		0.08	
Medium education♣	0.33		0.30	
High education♣	0.53		0.62	
<i>Household characteristics (%):</i>				
Does not live with partner	0.15		0.12	
Has partner but does not live with him	0.12		0.10	
Single	0.03		0.02	
Weeks pregnant (weeks)	16.33	3.966		
Age infant-(weeks)			13.22	1.97
<i>Family's Immigrant characteristics (%):</i>				
Difficulty speaking Dutch^	0.10		0.06	
Born NL; P-born NL; her parents Dutch born±	0.45		0.54	
Immigrant: her parents	0.04		0.03	
Immigrant: one of her parents	0.05		0.06	
Immigrant: partner	0.08		0.09	
Immigrant: partner + parents	0.05		0.03	
Immigrant: she + her parents	0.09		0.08	
Immigrant: she and partner	0.22		0.14	
<i>Labour market characteristics (%):</i>				
Partner in paid work > 35 hours per week	0.70		0.74	
Partner in paid work 32-35 hours per week	0.05		0.06	
Partner in paid work 1-32 hours per week	0.06		0.06	
Partner not in paid work	0.15		0.09	
After*: P-start to work			0.07	
After*: P-in paid work 1-8 (no change of hours)			0.03	
After*: P-in paid work 9-16 (no change of hours)			0.03	
After*: P-in paid work 17-24 (no change of hours)			0.04	
After*: P-in paid work 25-32 (no change of hours)			0.04	
After*: P-in paid work 33-40 (no change of hours)			0.34	
After*: P-in paid work 41+ (no change of hours)			0.06	

After*: P in paid work more hrs		0.25	
After*: P in paid work less hrs		0.21	
After*: P-in paid work 17-24 (less hours)		0.02	
After*: P-in paid work 25-32 (less hours)		0.08	
After*: P-in paid work 33-40 (less hours)		0.02	
After*: P-in paid work 25-32 (more hours)		0.02	
After*: P-in paid work 33-40 (more hours)		0.03	
After*: P-in paid work 41+ (more hours)		0.18	
<i>Variables related to breastfeeding (%):</i>			
Has plan to breastfeed	0.89	0.90	
Plan for breastfeeding is 1-3 months	0.30	0.31	
Plan for breastfeeding is 4-6 months	0.26	0.29	
Opinion of the mother's mother is important #	0.21	0.15	
Actual breastfeed <sup>△</sup>		0.84	
Number of weeks breastfeeding (weeks)		10.89	5.45
N	4492	2902	

Data: ABCD 2003/2004 Pregnancy sample and Infants sample.

Key:

\*Before: at the time of pregnancy; After: at the time the infant is between 3-5 months old.

P: Mother's partner.

♣: a low level of education includes all education up to high school; a medium level of education (the base category in our analysis) includes high school plus two years, and a high-level education includes higher vocational training and a completed university level.

# Importance of grandmother's opinion is 1 if the answer to the question: how important to you is your mother's opinion on the choice between breastfeeding and industrial milk? Is: "A. Very important"; zero otherwise.

^ Difficulty with language is 1 if the answer to the following question "Do you have a rudimentary knowledge of Dutch, which enables you to communicate? Is:" A. No, I do not speak Dutch; B. yes, but with a lot of difficulty", zero otherwise.

± We do not show the categories: Immigrant: mother's partner + one of mother's parents (1%) and mother born abroad with parents born in the Netherlands (1%), and even smaller categories.

△: Actual breastfeeding is 1 if mother has started breastfeeding successfully, and 0 is not started breastfeeding or was not successful in breastfeeding.

Table 2: Family's immigrant backgrounds, single motherhood (no partner), partner living-in, and work status at pregnancy of the first child

Definition of family's immigrant backgrounds

First infants' immigrant background	Born in NL=1 Not born in NI=0				% of Total	N
	M	P	GM	GF		
Parents and mother's parents Dutch born	1	1	1	1	45.32	2,055
Immigrant: mother's parents	1	1	0	0	3.63	163
Immigrant: one of the mother's parents	1	1	0	1	2.32	228
	1	1	1	0	2.62	
Immigrant: mother's partner	1	0	1	1	8.03	367
Immigrant: mother's partner + mother's parents	1	0	0	0	4.68	214
Immigrant: mother + mother's parents	0	1	0	0	8.85	396
Immigrant: both parents	0	0	0	0	22.02	995
Total						4,527

First infants' immigrant background	Single mother %	Partner not living-in home %	Single mother not in paid work %	Partner not living-in partner no paid work %	Partner not living-in parents not in paid work %	Mother is sole earner and partner not living-in %	Partner living-in partner no work %	Partner living-in parents not in paid work	Mother is sole earner and partner living-in %
Parents and mother's parents Dutch born	0.1	7.4	0.1	1.1	0.3	0.8	4.2	0.4	3.8
Immigrant: mother's parents	2.5	29.5	1.3	14.7	11.0	3.7	10.4	7.4	3.0
Immigrant: one of the mother's parents	-	10.5	0	2.2	0.9	1.3	3.5	1.3	2.2
Immigrant: mother's partner		16.9	X	5.5	0.6	4.9	19.5	3.6	15.9
Immigrant: mother's partner +M's parents		21.8	X	10.9	6.6	4.3	21.9	11.9	10.0
Immigrant: mother + mother's parents	0.8	8.8	0.5	3.5	1.3	2.2	8.8	5.3	3.5
Immigrant: both parents		17.2	X	10.8	7.1	3.7	19.5	12.4	7.1
Total	0.3	12.4	1.4	4.9	2.7	2.2	10.3	4.7	5.6

ABCD 2003/2004 pregnancy sample. We exclude 1.15% observations on mother's partner and one of mother's parents born abroad, 1.28% of the mother born abroad but her parents Dutch born, and all other immigrant backgrounds since they have below 1% of observations.

Key:

M: First infant's mother; P: mother's partner; GM: mother's mother; GF: mother's father. X= single mothers have in many cases not provided information on the father of the child, therefore we can not provide the statistics.

Table 3 Parent's Hours supplied to the market at 16 weeks pregnancy (first child) by immigrant backgrounds

First infants' immigrant background			% first infants' mothers not working for pay	% working for pay <=24 hours	% working for pay 25-32	% working for pay 33-36	% working for pay >36
Parents and mother's parents Dutch born	2,055	100%	5.41	10.44	25.41	19.81	38.93
Immigrant: mother's parents	163	100%	21.62	12.51	15.32	17.21	33.34
Immigrant: one of the mother's parents	228	100%	9.85	13.57	23.65	19.70	33.23
Immigrant: mother's partner	367	100%	10.41	10.78	26.39	17.47	34.95
Immigrant: mother's partner + mother's parents	214	100%	26.17	7.56	16.11	20.13	29.86
Immigrant: mother + mother's parents	396	100%	28.89	11.12	14.44	13.61	31.94
Immigrant: both parents	995	100%	55.45	8.84	8.05	7.27	20.39
Total							
			% mothers' partners not working for pay		% working for pay <=32 hours	% working for pay 33-36	% working for pay >36
Parents and mother's parents Dutch born	2,055	100%	3.95		11.32	13.47	71.28
Immigrant: mother's parents	163	100%	12.5		12.52	12.50	62.49
Immigrant: one of the mother's parents	228	100%	4.04		13.13	13.13	69.7
Immigrant: mother's partner	367	100%	17.05		13.25	9.09	60.61
Immigrant: mother's partner + mother's parents	214	100%	21.28		10.64	6.38	61.88
Immigrant: mother + mother's parents	396	100%	9.38		9.98	14.37	66.27
Immigrant: both parents	995	100%	20.64		10.38	9.97	59.01
Total	4,527						

ABCD pregnancy sample 2003/2004. See note Table 2. Excluding single mothers.

Table 4 Parents' Hours supplied to the market when the first infant is between 3-5 months by immigrant background

The immigrant background of first infants			% mothers not working for pay	% not yet, intention to start soon	% working for pay 1-16	% working for pay 17-24	% working for pay 25-32	% working for pay 33-40	% >40
Parents and mother's parents Dutch born	56.09	100%	6.73	43.74	7.42	14.83	18.50	7.55	1.22
Immigrant: mother's parents	2.77	100%	18.18	39.40	ns	ns	ns	ns	Ns
Immigrant: one of the mother's parents	5.94	100%	7.84	41.18	9.81	15.03	15.69	9.80	0.99
Immigrant: mother's partner	8.11	100%	12.32	48.77	6.9	10.34	15.27	5.42	0.99
Immigrant: mother's partner + mother's parents	2.92	100%	27.40	38.36	ns	ns	ns	ns	Ns
Immigrant: mother + mother's parents	8.25	100%	22.58	54.84	6.45	5.07	5.07	5.07	0.92
Immigrant: both parents	13.22	100%	46.48	32.72	5.5	3.36	3.98	7.03	0.92
Total	2,776*								
			% mothers' partners not working for pay		% working for pay 1-16	% working for pay 17-24	% working for pay 25-32	% working for pay 33-40	% >40
Parents and mother's parents Dutch born	56.09	100%	4.01		2.17	3.60	16.85	45.45	27.92
Immigrant: mother's parents	2.77	100%	9.23		ns	ns	ns	ns	ns
Immigrant: one of the mother's parents	5.94	100%	7.19		2.26	4.58	15.69	39.87	29.41
Immigrant: mother's partner	8.11	100%	15.75		8.4	2.46	13.30	38.42	21.67
Immigrant: mother's partner + mother's parents	2.92	100%	17.81		10.95	5.48	2.74	45.21	17.81
Immigrant: mother + mother's parents	8.25	100%	9.68		7.38	1.38	13.36	40.09	28.11
Immigrant: both parents	13.22	100%	14.98		23.56	3.36	4.89	35.17	18.04
Total	2,776								

ABCD infants sample 2003/2004. Excluding single mothers. \* See note Table 2. Ns: not shown too few observations.

Table 5. Parameter estimates from a Three-Level Nested Logit Model of Labour Force Participation. Women 16 weeks pregnant with first infant. Netherlands

	1 <sup>st</sup> level	1 <sup>st</sup> level	2 <sup>nd</sup> level	3 <sup>rd</sup> level	3 <sup>rd</sup> level
	Active vs. not active up until 16 weeks pregnancy	Quit before 16 wks preg. vs. not active up until 16 wks pregnancy	Employed >24 hrs pw. vs. employed <=24 hrs pw	Employed 32-35 hrs pw vs. employed 24-32 hrs pw	Employed >35 hrs pw vs. employed 24-32 hrs pw
	Coeff. [se]	Coeff. [se]	Coeff. [se]	Coeff. [se]	Coeff. [se]
Partner, but not at home	-0.32 [0.30]	-0.45 [0.22]*	0.06 [0.18]	-0.33 [0.18]	-0.19 [0.15]
Low education	-0.10 [0.33]	0.06 [0.19]	-0.02 [0.22]	-0.64 [0.25]**	-0.39 [0.19]*
High education	0.49 [0.24]*	-0.03 [0.19]	0.07 [0.13]	-0.03 [0.11]	-0.05 [0.10]
I*: Her parents	-0.89 [0.48]	-0.88 [0.40]*	-0.57 [0.32]	0.21 [0.32]	0.39 [0.27]
I*: One of her parents	-0.41 [0.46]	-0.96 [0.52]	-0.18 [0.24]	-0.03 [0.21]	-0.08 [0.19]
I*: Her partner	-0.48 [0.43]	-0.02 [0.36]	0.12 [0.21]	-0.13 [0.18]	-0.14 [0.16]
I*: Partner + parents	-0.61 [0.49]	0.43 [0.31]	-0.38 [0.31]	0.49 [0.28]	0.35 [0.25]
I*: She + her parents	-0.72 [0.35]*	-0.53 [0.27]	-0.47 [0.22]*	0.03 [0.21]	0.33 [0.17]
I*: She and her partner	-0.87 [0.31]**	-0.37 [0.22]	-0.46 [0.20]*	-0.08 [0.20]	0.29 [0.16]
Difficulty speaking Dutch	-2.26 [0.50]**	-0.81 [0.21]**	-1.47 [0.61]*	1.36 [0.60]*	2.22 [0.53]**
Partner not in paid work	-1.37 [0.39]**	-0.45 [0.23]*	0.41 [0.23]	-0.22 [0.21]	0.24 [0.18]
Partner works 32-35 pw.	-0.82 [0.51]	-0.55 [0.42]	0.91 [0.23]**	-0.73 [0.22]**	-0.87 [0.21]**
Partner works full time	-1.58 [0.42]**	-0.45 [0.17]*	0.86 [0.17]**	-0.14 [0.11]	0.41 [0.10]**
Opinion of grandmother	-0.63 [0.27]*	-0.42 [0.17]*	-0.01 [0.17]	-0.03 [0.16]	-0.08 [0.14]
Breastfeedplan:0-3mnths	-1.13 [0.46]*	0.41 [0.25]	0.79 [0.20]**	0.22 [0.13]	0.56 [0.11]**
Breastfeedplan:4-6mnths	0.14 [0.26]	0.35 [0.20]	0.10 [0.14]	0.07 [0.12]	0.13 [0.10]
(Incl. Value parameters)	0.82 [0.16]**				
	2.22 [0.28]**				
Log likelihood	-6221.20				
Number of Observations	25518				
Number of groups	4253				
LR chi2 (82)	2798.30				
Prob > chi2	0.0000				
LR test of homoskedasticity (iv=1):chi2 (2)=63.29					

Data: ABCD 2003/4 Pregnancy sample. Excluding single mothers. See Table 1 for description of variables. Base categories: medium level education, "full-Dutch": infants' mother, her partner and her parents Dutch born, mother's partner working for pay less than 32 hours per week; intention to breastfeed for longer than 6 months; no plan for duration of breastfeeding yet, no plan for breastfeeding yet.



*I\**: Immigrant background of the first infant's mother, her partner and her parents. Works: in paid work.  
Standard errors in brackets. \* Significant at 5%; \*\* significant at 1%.

Table 6 Parameter estimates from a Three-Level Nested Logit Model of Labour Force Participation. Mothers when first infant is 3-5 months old. The Netherlands

	1 <sup>st</sup> level (Intention to) Work for pay vs. no intention to work for pay	2 <sup>nd</sup> level At work vs. intention to start work soon	3 <sup>rd</sup> level working for pay >24 hrs pw vs. <24 hrs pw
	Coeff. [se]	Coeff. [se]	Coeff. [se]
Age 1 <sup>st</sup> infant	-0.20 [0.06]**	0.13 [0.02]**	0.03 [0.03]
Partner, but not at home	-0.02 [0.33]	0.08 [0.18]	-0.53 [0.24]*
Low education	-1.05 [0.38]**	0.36 [0.22]	0.08 [0.32]
High education	0.67 [0.18]**	0.02 [0.15]	0.62 [0.14]**
I*: Her parents	-0.92 [0.50]	-0.14 [0.27]	-0.22 [0.38]
I*: One of her parents	-0.23 [0.40]	-0.02 [0.18]	-0.29 [0.24]
I*: Her partner	0.04 [0.31]	-0.41 [0.16]*	-0.27 [0.24]
I*: Partner + parents	-0.63 [0.46]	-0.32 [0.29]	0.24 [0.44]
I*: She + her parents	0.36 [0.32]	-1.03 [0.18]**	-0.34 [0.30]
I*: She and her partner	-0.32 [0.29]	-0.53 [0.18]**	0.06 [0.28]
Difficulty speaking Dutch	-0.95 [0.36]**	-0.50 [0.49]	1.35 [0.82]
Partner no job after first birth	-0.15 [0.39]	0.31 [0.35]	0.84 [0.30]**
Partner works >40 hrs pw. (no change)	0.06 [0.44]	0.16 [0.27]	0.09 [0.30]
Partner works 33-40 hrs pw. (no change)	0.50 [0.33]	0.11 [0.21]	0.04 [0.19]
Partner works 25-32 hrs pw. (no change)	1.05 [0.62]	0.08 [0.25]	-0.44 [0.34]
Partner works 17-24 hrs pw. (no change)	0.18 [0.80]	0.39 [0.40]	0.06 [0.51]
Partner works >40 hrs pw. (more hours)	0.61 [0.31]*	-0.20 [0.24]	0.18 [0.22]
Partner works 33-40 hrs pw. (more hrs)	0.61 [0.48]	-0.21 [0.29]	-0.33 [0.41]
Partner works 25-32 hrs (more hours)	0.76 [0.63]	-0.24 [0.35]	-0.33 [0.52]
Partner works 33-40 hrs (less hours)	-0.36 [0.63]	0.38 [0.33]	-0.04 [0.43]
Partner works 25-32 hrs (less hours)	-0.24 [0.70]	1.04 [0.24]**	-0.05 [0.24]
Partner works 17-24 hrs (less hours)	-0.79 [1.07]	0.47 [0.47]	-0.62 [0.59]
Opinion of the grandmother	-0.42 [0.24]	0.09 [0.16]	0.31 [0.23]
Breastfeed [yes=1, No=0]	-0.24 [0.50]	0.19 [0.24]	-0.04 [0.34]
Number of weeks breastfeeding	0.04 [0.03]	-0.04 [0.02]*	-0.03 [0.02]

(Incl. Value parameters)

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	-0.25
	[0.29]
	2.91
	[0.57]**
Log likelihood	-3154.634
Number of obs.	10,720
Number of groups	2,680
LR chi2 (77)	1121.07
Prob > chi2	0.00
LR test of homoskedasticity (iv=1): chi2 (2)=	24.89

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*Data ABCD infants sample 2004. Excluding single mothers. See Table 1 for description of variables. Base categories: medium level education, "full-Dutch": infants' mother Dutch born, and her partner and her parents Dutch born, mother's partner working for pay less than 17 hours per week.*

*Standard errors in brackets \* significant at 5%; \*\* significant at 1%.*

*Key: I\* Immigrant background of the first infant's family: the mother, her partner and her parents.*

*Works: in paid work.*

## Appendix A.1: Nested Logit model

Under the nested logit model, the IIA assumption is maintained within the alternatives of each decision, but can be relaxed across decisions.

Suppose that each alternative at the second level is associated with a level of utility given by:

$$U_{ijk} = \beta'X_{ijk} + \alpha'Y_{ij} + \gamma'Z_i + \varepsilon_{ijk} + \varepsilon_{ij} + \varepsilon_i \quad (1)$$

where  $Z_i, Y_{ij}$ , and  $X_{ijk}$  are vectors of explanatory variables specific to the first, second and third level choices, respectively and  $\varepsilon_i, \varepsilon_{ij}, \varepsilon_{ijk}$  are independent and identically distributed error terms with Weibull distribution<sup>4</sup>. The probability that an individual will choose alternative  $ijk$  in the third stage is given by:

$$P(ijk) = P(k|ij)P(j|i)P(i) \quad (2)$$

where the conditional probability  $P(k|ij)$  will depend only on the parameter vector  $\beta'$ .

$$P(k|ij) = \frac{e^{\beta'X_{ijk}}}{\sum_{n=1}^{N_{ij}} e^{\beta'X_{ijn}}} \quad (3)$$

We define the inclusive value for the second level options  $j$  as:

$$I_{ij} = \ln \sum_{n=1}^{N_{ij}} e^{\beta'X_{ijn}}$$

so that the second level conditional probabilities  $P(j|i)$  are given by:

$$P(j|i) = \frac{e^{\alpha'Y_{ij} + \tau_{ij}I_{ij}}}{\sum_{m=1}^{M_i} e^{\alpha'Y_{im} + \tau_{im}I_{im}}} \quad (4)$$

Similarly we define the inclusive value for the first level options  $i$  as follows:

$$J_i = \ln \sum_{m=1}^{M_i} e^{\alpha'Y_{im} + \tau_{im}I_{im}}$$

yielding the following unconditional first level probability  $P(i)$ :

$$P(i) = \frac{e^{\gamma'Z_i + \delta_i J_i}}{\sum_{l=1}^L e^{\gamma'Z_l + \delta_l J_l}} \quad (5)$$

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<sup>4</sup> In our case, all the explanatory variables refer to the individual's or first infant's mother's household's characteristics rather than to the alternatives she selects so that the same explanatory variables show up at all three stages. Since each potential alternative is specified as a separate observation in the nested logit model, it was necessary to re-specify all the explanatory variables as interactions between the original explanatory variables and the relevant alternatives at each level, thus leading to different vectors of explanatory variables at each level.

By substituting equations (3), (4) and (5) into equation (2), we obtain an expression of how the probability of each level-3 alternative depends on the explanatory variables and the model parameters.

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<sup>1</sup> The increase already appeared before the change in social policies to allow mothers to have a career in 1990. The Childcare Stimulation Act of 1990 is the first government action, which explicitly caters to the needs of the working mother rather than assigning priority to educational considerations for children.

<sup>2</sup> RMO (2006: 31: Table 3.3. based on Statistics Netherlands Labour Surveys 2000-2002) reports that there is no difference according to education level for the fathers reducing working hours.

<sup>3</sup> In this paper I focus on the pregnancy leave, which in international comparison can be seen as part of parental leave. Pregnancy leave in the Netherlands ends 10-12 weeks after the birth of the child. Dutch parental leave may start after that if the parent has negotiated this leave with the employer. In most cases it is unpaid and it is maximum 13 weeks fulltime.

<sup>4</sup> I would like to thank dr. M. van der Wal and prof. dr. G. Bonsel, coordinators of the ABCD-survey, to have given me permission to use the data for scientific research.

<sup>5</sup> The term ethnic minority is used in Dutch policy not to indicate the number of people from a non Dutch ethnic origin, but also to indicate those whose socio-economic position is weak.

<sup>6</sup> This could imply that more adults than children migrate since the definitions of family reunification and family formation seem to consider different age groups. The increase in family formation mainly concerns women above 18, who marry an immigrant man who lives in the Netherlands. Family reunion mostly concerns family members such as wives and children who migrate to the Netherlands because they have a family history with the immigrant living in the Netherlands.

<sup>7</sup> Zorlu (2002) controls in his labour supply model for age, age squared, education, gender, first infant's parents with children, 1st infant's parents without children and years since immigration.

<sup>13</sup> Since the mid 1980s, unions in the Netherlands have been raising demands for part-time work and equalizing the employment conditions between full-time workers and part-time workers. Earlier, the women's movement had demanded shorter work days, but realizing that travel time would not be reduced, interest in part-time work has grown. Skilled women increasingly wanted to combine part-time work with family responsibilities. In addition, with a situation of high unemployment, women's incomes were needed by the family. Furthermore, employers began to recognize the benefits of part-time work in optimizing personnel strategies, for example, in the banking sector. Employers recognized that women's increasing skills made the costs of replacing these employees higher.

<sup>9</sup> The Act on Adjustment of Working Hours (Wet Aanpassing Arbeidsduur), which went into effect in the Netherlands on July 1, 2000, gives those employed by firms with more than 10 employees the right to shorten or increase work hours on request if they have been employed for at least one year, and have not asked for a change in working hours within the past two years. Within four months prior to changing work hours, the employee should indicate the date that the new working hours take effect, the number of working hours, and the preferred distribution of working hours during the week. The hourly wage remains the same.

<sup>10</sup> The 1997 European Union Directive on Part-time Work states: "Member states and social partners should identify and review obstacles which may limit the opportunities for part-time work" (EU 1998). Furthermore, "employers should give consideration to requests by workers to transfer from full-time to part-time work and the reverse when such work becomes available."

<sup>11</sup> Zorlu (2002), using Statistics Netherlands data in 1997 on the 18-64 age bracket, shows that 63 percent of Moroccan employed women work part time, 56% of Turkish women work part time, compared to 63% of Dutch women. The rate of working part-time is much more similar for Dutch and Turkish employed men: respectively 15%, of Dutch and 19% of Moroccan employed men were in part-time work.

<sup>12</sup> In the Netherlands, leave indemnification is to be negotiated with the employer. For example, in the public sector, parental leave beneficiaries receive 75% of their wages. However, in the private sector, only few collective agreements (6% in 2000) include payment of the parental leave (replacement rate up to 30%). Only 40% of entitled mothers actually make use of their right to take parental leave. The percentage for the entitled fathers is much lower, 9% (Del Boca and Wetzels 2007).

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<sup>13</sup> This ideal has been summarized and underlined in one of the most crucial policy papers of the 1990s, 'Unpaid care equally shared' (Commissie Toekomstscenario 1995). The Social Democratic minister of employment asked a Commission to develop scenarios on the future of paid work and unpaid care

<sup>14</sup> Sharing the care has received much attention in the Dutch debate. The first emancipation policy paper already stated that not only women should have choices, men too should be able to choose more freely (preferably care more). Rather unique for 1992, the central objective of emancipation policy was that men and women should not only be economically independent, but also 'care independent' (Kremer 2005).

<sup>15</sup> RMO (2005) reviews some recent statistics on the income of households as regards ethnic background in the Netherlands. Data on 2002 show that 25% of Surinamese couples with children and half of all Turkish couples with children are concerned about their financial situation, and several statistics show that indeed the income level of e.g. Turkish and Moroccan families in the Netherlands is lower than that of fully Dutch families. Furthermore, household income of Turkish and Moroccan families is 30% below the household income of two parent Dutch households. Data collected by Statistics Netherlands 2004 report that households with young children of Turkish and Moroccan have a 20% lower household income than fully Dutch. Moreover, in 2001, 25% of all non-western immigrant couples with young children lived below or at the social minimum income, compared to 4% of "fully Dutch" (Statistics Netherlands 2004).

<sup>16</sup> The ideal of professional care is neither widespread nor robust. Social pedagogues and day care workers have not had a strong impact in the Netherlands either. The Netherlands takes a middle position as regards the staffing of state-subsidized services, with 4:1 staff ratios for the very young (0-1) and 6:1 for ages 1-4. Dutch day care workers are normally trained, but only for three years on a middle level (OECD 2001).

<sup>17</sup> Although the ideal of parental sharing has put fathers who provide unpaid care on the agenda, lone parenthood is very often left out of the discussion. Furthermore, non-working parents, or parents with very limited paid working hours, and or very insecure labor market position, like some immigrant groups on the Dutch labour market, will probably not be reached by this ideology, since it does not apply to their situation at all. The consequences for these parents and their children are rarely discussed.

<sup>18</sup> Dutch primary schools consist of 8 grades covering the age groups of 4 to 12 year old children. Most Dutch children start school at 4, but compulsory schooling begins when children turn 5. Children are allowed to enrol in primary school the first school day after their 4<sup>th</sup> birthday, while enrolment is compulsory from the first school day of the month after the child reaches the age of 5 onwards. About 98% of the children start primary school before their 5<sup>th</sup> birthday. The program consists of 24 hours per week during 41 weeks per year. The staff are certified primary school teachers. The curriculum consists of structured learning activities, and typically children will have started to read and write by the age of six. Thus, differently from Sweden where children start elementary school at 7, and Germany where they start at 6, Dutch children start their schooling earlier.

<sup>19</sup> Those parents who use formal child care also use it part-time. 40% use formal child care for less than 12 hours per week, 25% use it between 12-19 hours per week; 32% use between 20 and 27 hours per week; using formal child care for more than 28 hours per week is negligible.

<sup>20</sup> In Sweden, almost no child under 1 year of age is in childcare since parents are entitled to a year leave, fully paid.

<sup>21</sup> The main ethnic minority groups in the Dutch and especially in the Amsterdam labour market are: 1) former "guest workers' families", mostly from Morocco and Turkey, whose men were recruited for unskilled jobs in the 1960s; 2) after the decolonisation of Suriname in 1975, a large portion of Surinamese immigrants have chosen to settle in the Netherlands and especially in its capital.

<sup>22</sup> Hooghiemstra and Merens (1999) mention that working full-time is negatively associated with having children, but that this association is less strong for ethnic minority groups. Unfortunately, they do not give further details or analysis.

<sup>23</sup> Unfortunately, this particular statistic is not available in a more recent year.

<sup>24</sup> Quite a number of studies have focused on the actual hours that parents work for pay, and the preferred hours working for pay in the Netherlands. Caution is however required in such analysis, since the analyses of actual behavior confronted with wishes using panel data have found that the changes in labour market behavior do not match with the wishes. Two results are worth mentioning that compare wishes among women with different characteristics: 1) Baaijens (2006) found that highly educated

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women with children in the household indicate to a lesser extent that they wish to reduce working hours than highly women with no children in the household. 2) There is an important distinction between salaried workers and hourly wage workers. Hourly wage workers are more likely to prefer an increase in working hours, whereas this is not the case for salaried workers (Yerkes 2006).

<sup>25</sup> We are aware that different countries of origin might share different gender models and particularly different ideas concerning women's participation to the labour market outside the household. Yet, it was not possible to disaggregate the data for the 832 specific countries of the mother's origin that are present in our sample. The most important countries of mothers' origin are the Netherlands (66.9%), European (EU-15) (6.1%), Morocco (5.4%), Surinam (4.0%), Turkey (2.8%), Ghana (1.7%), and Antillean Islands (1.2%), USA/Canada/Australia (1.3%), Middle-East (1.2%), and Latin America (1.2%).

<sup>26</sup> Most of the literature analyses how certain attitudes of daughters are affected by mothers' attitudes and mother's behaviour. Here we are in search for how the attitude of the mother has an effect on daughters' behaviour (via daughters' attitudes).

<sup>27</sup> Data concerning 2002, presented in Hooghiemstra and Merens (2006), show that 27% of the population older than 16 thinks that a woman should not work for pay at all when there is a child in the household of age 4 or younger. Furthermore, more than half of the Dutch female and male population have no understanding for mothers of under 4 year olds who work for pay full-time, whereas for fathers the figure is around 20%. Unfortunately, there are no statistics or explanatory research on the general opinion and the grandparents' opinion as regards employment for pregnant women and for mothers of very young infants (younger than 4 months or younger than one year).

<sup>28</sup> More first born children than second or higher order children.

<sup>29</sup> The data provide information on previous births but not on the employment status and the partner's immigrant background for previous births.

<sup>30</sup> Only 2.04% of the infants are 11 weeks at the time of survey. 34.32% are 12 weeks, 41.15% are 13 weeks, 10.98% are 14 weeks, 4.35% are 15 weeks, 2.57% are 16 weeks and the remaining 4.6% are between 17-22 weeks.

<sup>31</sup> Our data lack information on unemployment and whether the parents are still in education. Teenage pregnancy rates are however very low in the Netherlands. And since the average age at pregnancy of the first child is over 29 years. We also checked whether the years of education and age give reason to think that the parents are in education, and we concluded that they are not. We use the words "choice" and "decision" here, since we assume the woman can decide on employment type herself. Therefore, we assume no restrictions on the demand side of the labour market.

<sup>32</sup> We cannot distinguish clearly between different immigrant groups for single women, since only half of single women have indicated the father's country of birth.

<sup>33</sup> This proportion is less than half (28%) for immigrant women with a Dutch born partner. However, the proportions are 26% for second-generation immigrant women with a first generation partner, and 22% for second-generation couples, compared to 5% for first infants' families with Dutch parents.

<sup>34</sup> We performed the analysis for all women in the pregnancy sample and only for women in the pregnancy sample who also participated in the "infants' sample. The results hardly differ. In addition, we have estimated other specifications of the model in Table 5 (available upon request from the author). First, we estimated the model explaining the three levels of labour market engagement by mother's education levels only and partner not present. In addition to the effects of these variables in Table 5, mother's low education and partner not at home were negatively significant in the decision to work, mother's high and low education level were negative on quitting work, and mother's high education level and having a partner but not cohabiting were negative on working more than 32 hours per week, whereas mothers' high education was positive on working full-time. If the model was extended with the immigrant background of the couple, in addition to the results for these variables in Table 5, also women with a foreign born partner and foreign born parents were less likely to participate. Women with parents born abroad (and with a foreign born partner) were less likely to work for pay more than 24 hours vs. less than 24 hours, and the latter categories were also less likely to work full time if they were in paid work for more than 24 hours per week. If we extended the model with the importance of the opinion of the grandmother to the mother, the negative effect on participation in paid work of women with foreign born partner and parents disappeared. All other effects of immigrant background on mother's participation decision disappeared by including partner's labor supply, except for those mentioned in Table 5.

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<sup>35</sup> The data do not provide information on wages or income. The categories of breadwinner households are based on hours of paid work: male breadwinner is defined as the father working and the mother not working (10.0%) and father working more hours for pay than the mother (7.2%); female breadwinner is defined as the mother working for pay and the father not (8.1%) and mothers working more hours for pay than fathers (3.5%); dual breadwinner (total of 55.2%) are defined as parents working for pay both full-time (25.6%), both long part-time (2.8%), the mother working for pay full-time with a father in a long-part-time job (0.9%), and a mother working for pay long-part-time with a father in full-time paid work (25.9%). There is a small category of 1.5% where parents both work for pay short part-time.

<sup>36</sup> The language skills may also give an indication of time since immigration, a variable that is lacking in our data.

<sup>37</sup> The model in Table 6 has been estimated explaining the employment decisions by education only, by education and partner's employment, by adding immigrant backgrounds, by adding difficulties speaking Dutch, by adding mother's opinion. These estimations are available upon request.

<sup>38</sup> For example, they are more likely, because of educational matching on the marriage market to have a partner who provides for the income if the negotiated leave is unpaid or the paid leave does not pay enough.

<sup>39</sup> This is surprising from a rational perspective. At 16 weeks pregnancy of the first child, there are no caring tasks yet for the child, and therefore, it seems irrational to have reduced paid working hours. However, firstly, there is a quota of childless couples where not both partners work full-time, thus the choice of working long part time hours may be a life style choice irrespective of the presence of a child. Secondly, couples may start bargaining with each other and with their employers the type of working hours before the child is actually born, in order to be settled in the routine when the child arrives.