The impact of employment precarity on early labour market careers and family formation in the Netherlands

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Introduction

In the early 1980s, the Netherlands was confronted with a huge economic recession and unemployment rates rose to double digits, for the first time since the Second World War. Employment particularly dropped due to decreased hiring rather than through increased firing. The high costs of dismissing workers had a detrimental impact on the total demand for labour and led to unequal job opportunities among various groups in the labour market. Especially school-leavers (but also women re-entering after child rearing) had severe difficulties in finding a job. As a result, youth unemployment reached its peak in the Netherlands in 1984 at 25 percent (Salverda 1992). In particular, the tight dismissal restrictions were felt to be a handicap for employers and, as a consequence, the Dutch system of employment protection came under sharp attack (Jacobs 1997). The discussions on the deregulation of the dismissal legislation between employers, unions and the government resulted in the so-called Wassenaar Agreement of 1982, aimed at making the Dutch labour market more flexible in order to induce job growth (Visser and Hemerijck 1997). In practice, this meant the use of flexible or non-standard work arrangements by employers: fixed-term contracts, on-call employment and jobs mediated by temporary work agencies (Heerma van Voss 2000). In addition, part-time employment was introduced on a large scale. This facilitated women with (young) children to combine labour market participation with family responsibilities (Visser 2002). Both measures, combined with the willingness of unions to accept moderate wage increases, promoted the recovery of the Dutch economy, known under the heading of the 'Dutch Employment Miracle' or 'Polder Model'. It refers to the co-operation between employers, unions and the government to serve their mutual interest (that is, job growth) by accepting compromises. But the high unemployment level of the early 1980s was not the only motive to deregulate the Dutch labour market. Also the universal demand shift from low to high skilled labour in current knowledge societies and the pressure of global market competition are driving forces behind the deregulation of labour law and the accompanied labour market flexibilisation in the Netherlands (Heerma van Voss 2000: 144-145).

As a result of these processes, the Dutch labour market has drastically changed since the early 1980s. The standard of life-time employment, consisting of full-time work on the basis of a stable and long term employment contract, has eroded and a variety of forms of flexible labour emerged to serve the different needs of employers (and workers) (Kalleberg 2000). In particular, jobs mediated by temporary work agencies became very popular. In the course of the 1990s, these jobs became more numerous than fixed-term contracts (OECD 2002). Employers used temporary work agencies to avoid the strict dismissal laws. For workers, it was often the best way not only to find a job, but also to get a permanent job. If a worker hired through a temporary work agency performed well, the company to which this worker was dispatched often offered a regular, permanent employment contract after some time. In other words, temporary work agency employment became a form of job recruitment, where companies used the time in which workers were dispatched to them as a probation period.

Despite of that, the legal position of flexible workers is uncertain. This uncertainty has both an economic and a temporal aspect (Mills and Blossfeld 2005). The economic aspect of the uncertainty refers to the lack of (sufficient) income from labour. The temporal aspect relates to the temporal nature of the jobs. It is assumed that young people who enter the labour market for the first time in particular are exposed to this uncertainty. School-leavers without any work experience (known as 'outsiders') have to compete for the few available jobs with those who have already gained a position in the labour market (known as 'insiders') (De Vreyer et al. 2000). Often, school-leavers are unemployed for a while after leaving initial education, and even those who do find a job immediately, frequently start in a flexible and insecure labour market position. The transition from school to work can, therefore, be characterized as a turbulent and uncertain period for young people (Kerckhoff 2000).

The uncertainty inherently linked to flexible employment forms the heart of this paper. It focuses on the consequences of this uncertainty on transitions in two life domains: the labour market and demographic career. First, we address the role of employment precarity on early labour market careers. Although it is well documented that the transition from school to work is relatively smooth in the Netherlands, mainly thanks to the occupation-specific orientation of the educational system (de Graaf and Ultee 1998; van der Velden and Wolbers 2003), far less is known about the subsequent career outcomes (in terms of wages or career mobility) of labour market entrants who start in precarious positions (Steijn et al. 2006; de Vries and Wolbers 2007; Wolbers 2008). A main concern is whether employment precarity in early work-life constitutes an entrapment outside of, or a stepping-stone into, a stable position in the labour market. In the latter

case, the consequences of employment precariousness are only temporary and, therefore, less problematic.

Second, we investigate the demographic consequences of employment precarity. It is supposed that employment precarity in early work-life has negative effects on family formation (Golsch 2003; Mills and Blossfeld 2005). The underlying argument is that labour market positions characterized by a high degree of uncertainty prevent young people from entering into long-term commitments, especially marriage and parenthood (Oppenheimer 1988). For the Netherlands, there is very limited research available on this topic (Liefbroer 2005). However, the issue is of particular interest for the Dutch case, given the very high average age of mothers at first birth. Labour market flexibilisation may also be relevant in this respect. On the one hand, employment precarity may lead to further postponement or even rejection of partnership and parenthood. On the other hand, the ample availability of part-time jobs in the Netherlands facilitates individuals to combine work and care tasks, which may stimulate couples to raise a family.

To answer these research questions, two Dutch retrospective life-history surveys with full information on the employment career and fertility and marital history of individuals are used. From this pooled dataset, individuals have been selected who left education since 1970. The analytic sample consists of maximally 2615 individuals.

The Dutch institutional setting

Labour market (de)regulation

In the first decades after the Second World War, employment protection legislation was very strict in the Netherlands. The economic harm that the war had caused and the subsequent rebuilding of Dutch society functioned as a 'catalyst' for the development of dismissal law (van der Heijden et al. 1995). In particular, the introduction of the Extraordinary Decree on Labour Relations (in Dutch: *Buitengewoon Besluit Arbeidsverhoudingen* [BBA]) immediately after the liberation in 1945, which prohibits any dismissal without an administrative permit of the regional director of the Public Employment Office (in Dutch: *Arbeidsbureau*, later *Centrum voor Werk en Inkomen*), is important to mention here.[1] In addition, the Dutch Civil Code of 1907, which contained the rules regarding various terms of the employment contract, was amended in 1954 to make its provisions on dismissals less liberal (Jacobs 1997). Among other things, the minimum statutory notice period was prolonged and judicial control of unfair dismissal, such as terminating

an employment contract during the first two years of illness of an employee, was introduced. Moreover, clauses became operative to protect vulnerable groups in the labour market. In 1967, the notice period for older employees was extended to give them more time to find another job. And in 1976, it became prohibited for employers to fire women on the grounds of a marriage, a pregnancy or a confinement.

The economic crises in the late 1970s, followed by the increased unemployment rates in the Netherlands in the early 1980s and its high consumption of social security benefits, changed the political thinking on employment protection legislation. In particular, the high costs of dismissing employees were considered as a hindrance to combat the high unemployment level. As a result, the deregulation of labour law was officially declared as government policy in the Netherlands in 1982, when the first cabinet under Prime Minister Lubbers took office (Heerma van Voss 2000). The 'no-nonense' actions of this cabinet were aimed at reducing the national budget deficit. To lower government expanses, for instance, important cuts in social security benefit schemes were implemented. More important with respect to the deregulation of labour law was the so-called Wassenaar Agreement of 1982. This agreement is considered the basis for initiatives to make the Dutch labour market more flexible and regarded as one of the pillars of the 'Dutch employment miracle' or 'Polder model' (Visser and Hemerijck 1997).

First of all, redundancy procedures were relaxed. In particular, the dismissals control through the permit system organized by the public employment offices was more and more circumvented by a civil law procedure where a judge is asked to terminate an employment contract (Jacobs 1997: 51). More in general, the role of the state in employment services weakened and in 1990, the public employment offices became independent of the government. Although unemployed individuals still have to register their unemployment with a public employment office to receive eligibility for benefits, not many of them are provided with a new job there.

Second, conditions for using flexible labour contracts were liberalized and employers tried to adapt the deployment of labour to (temporary) production changes of their companies by means of fixed-term contracts, temporary work agency employment and on-call employment. In particular, jobs mediated by temporary work agencies became very popular. Employers used temporary work agencies to avoid the strict system of dismissals control (Heerma van Voss 2000). Originally, there were quite some restrictions on temporary work agency employment, but with the expansion of this type of work these have been reduced gradually and are nowadays almost fully abolished. In the meantime, nation-wide collective agreements exist for workers hired through temporary work agencies and they even can have a permanent contract with the

temporary work agency, that detaches them to various companies, for instance in the ICT industry.

In the late 1990s, finally, legal rules and collective agreements between unions and employers' organizations were introduced to reconcile and balance both flexibility and security in the Dutch labour market. This strategy, known under the heading of 'flexicurity' (Wilthagen 1998), consists of increasing labour market deregulation accompanied by more employment security, especially for the weakest groups on the labour market. For example: temporary work agency employment has become less tied to conditions (that is, the obligation for temporary work agencies to be in possession of a permit has been withdrawn and the maximum term for this type of employment has been abolished), while more protection is offered for individual workers who are hired through job agencies (their contracts are now considered a regular employment contract).

Education-labour market linkage

The Dutch educational system is regarded as highly stratified (both vertically and horizontally) and highly standardized (Müller and Shavit 1998). Vertical stratification appears relatively early in the school career. At the start of secondary education (at age 12), pupils are divided into three major tracks that differ in both length and level. This allocation is based on a national school performance test and the advice of the teacher from primary education. None of these tracks is considered to be proper final levels of education. Therefore, a large majority of the degree takers pursue further, that is upper secondary vocational or tertiary education. The high horizontal stratification of the Dutch educational system is a result of the fact that students can choose between some hundreds of study programmes within upper secondary vocational and tertiary education. Most educational institutions offer a broad range of study programmes, and there is no relationship between school quality and the set of study programmes offered (van der Velden and Wolbers 2007). Due to the high level of standardization in the Dutch educational system (mainly through national agreed curricula and certification procedures), the content of these programmes is quite similar among different schools.

Given the high horizontal stratification, vocational education has a clear, occupation-specific character in the Netherlands, despite the fact that the provision of vocational skills is primarily school-based (Müller and Wolbers 2003). Many study programmes in vocational education prepare for one or a few occupations that are not accessible without the proper qualifications and certificates. The training is very standardized and the acquired skills have high

levels of consistency across firms or even industries. Moreover, these skills are transferable across employers and are recognized as such (Eyraud et al. 1990). Therefore, the association between education and labour market outcomes is strong in the Netherlands and, subsequently, the transition from school to work is rather smooth.

Welfare regime

According to most typologies of welfare regimes, the Netherlands belongs to the 'conservative' regime type (Blossfeld 2002). The conservative welfare regime is strongly transfer-oriented. This means that social security benefit schemes are primarily designed to protect individuals with no (or a marginal) labour market position from serious declines in their standard of living. Primary examples in the Netherlands are the unemployment scheme *WW*, the disability scheme *WAO* and the early retirement programme *VUT*. Especially the latter two have been used thoroughly in the 1980s as a social safety net for (older) workers who were forced to leave their jobs during the economic recession in that period. For young people in the 1980s, there was the *JOB* scheme. It offered subsidies to both public and private sector employers for creating jobs to young, long-term unemployed people. This scheme was continued by the Youth Work Guarantee (*JWG*) scheme in 1991, which put more emphasis on training activities for the purpose of improving the labour market prospects, in addition to the provision of a minimum wage job. Nevertheless, the effects on employment were limited: the outflow to regular jobs was minimal. For that reason, this kind of subsidized labour for unemployed youth was integrated in 1998 with the more general *WIW* scheme – available for all long-term unemployed. In general, social security benefit schemes in the Netherlands used to be financially attractive for individuals without work, but after some serious budget cuts to reduce government expanses, the schemes became less generous in the early 1990s. Nevertheless, social security benefits in the Netherlands are from an international, comparative perspective still rather generous.

In addition to protect people without work, the conservative welfare regime is committed to the traditional division of labour within the family (Mills and Blossfeld 2005). Men specialize in labour market activities, making them the main breadwinner, whereas women give priority to family care activities, making them financially dependent upon their husbands. As a result, welfare state provisions such as child care facilities were until recently little developed in the Netherlands and fiscal arrangements favoured one-earner over dual-earner families. The increased prevalence of (married) women in the labour force has certainly undermined the traditional division of labour. In the Netherlands, the male breadwinner model has shifted to an

one-and-half family model in the last two decades, in particular due to the huge rise of part time employment among women (Visser 2002). Despite of that, women still are secondary wage earners and they participate in the labour market only when family responsibilities allow them to do so.

Hypotheses

Employment precarity and early labour market careers

With respect to the effect of employment precarity on early labour market careers, two contrasting hypotheses can be distinguished: the entrapment versus stepping-stone hypothesis (Scherer 2004). The former emphasises the long-lasting negative effects of a bad labour market start for the later working career. Shifts between (spells of) unemployment and temporary jobs underline the vulnerable character of the employment trajectories of those who started in precarious employment. The latter hypothesis stresses the temporary character of the first job, that is considered to be highly volatile and of a transitory character. Job mobility is used as a means to correct for initial misallocations.

Various theories predict detrimental effects of employment precarity. These theories differ, however, about the mechanisms by which precarious employment damages future career prospects. According to segmentation theory, the labour market cannot be regarded as a single entity, but should be subdivided into a segment with 'good' jobs and a segment with 'bad' jobs (see for instance Piore 1975). In the primary segment of the labour market, we find mostly employees with well-paid, permanent jobs and (firm-internal) promotion opportunities. These employees make up the core of permanent workers of a firm, who carry out the key activities. To gain access to the primary segment, one needs occupation-specific knowledge and skills. In the secondary segment of the labour market, employers mainly make use of so-called flex workers to compensate for fluctuations in the work to be done. These workers can be hired through temporary work agencies or can be called up (on-call employment). The investment made by employers in these workers is usually minimal. The work generally consists of support and/or temporal activities that require little training. As soon as the productivity of the firm declines, temporary workers become superfluous and will be laid-off first. This means that precarious jobs are more likely to be found in the secondary than primary segment. Since there is hardly any mobility between the two segments, labour market entrants who start in the secondary segment

are more likely to be entrapped in their insecure position and therefore have disadvantaged career prospects.

Signalling theory (Spence 1973) stresses the importance of certain signals that help to solve the problem of imperfect information about potential workers faced by employers. At the time of labour market entry, employers have no other information about the actual skills and true ability of individuals than their educational qualifications and, therefore, they use these as a screening device. When the working career progresses, however, employers can also use an individual's labour market biography – perhaps indicating more closely than credentials the true ability of workers – as a selection criterion. Besides education, the individual's previous employment record serves as a signal of his or her potential productivity. Employers may be inclined to think that there must be something wrong with persons who experienced employment precarity in the beginning of their career (regarding their ability, skills, motivation, and so on), causing them to be in a marginal labour market position in the future. This view is supported by the so-called stigma effect of unemployment (Bratberg and Nilsen 2000), referring to the stigma that unemployed workers carry with them when unemployment has been too long. This stigmatisation also impacts upon the unemployed themselves. The negative signals they receive from (potential) employers probably negatively affect their self-confidence: unemployed persons may lose faith in finding a decent job in the future (Sprengers 1992).

Human capital theory (Becker 1964) claims that employment precarity negatively exerts on the accumulation of human capital. Labour market experience is considered as a way of accumulating human capital during the working career. It indicates the level of training required to adequately perform on the work floor. Employers aim to keep the training costs of workers as low as possible and, hence, individuals with experience are more attractive than those without, as the former have more (occupation-specific) knowledge and skills. Periods of precarious employment clearly undermine the accumulation of human capital. When unemployed or temporary employed, individuals lose the opportunity to maintain and update their skills. Being in unemployment for a long time can even destroy existing skills (leading to a loss of productive skills), since they may rapidly become obsolete in current knowledge societies (de Grip and van Loo 2002).

In contrast to the predictions of these labour market theories, it is possible that the detrimental effects of employment precarity in early work-life disappear during the working career of individuals. The temporary character of precarious employment is emphasised in the theory of internal labour markets (Doeringer and Piore 1971). In (firm) internal labour markets, which are part of the primary segment of the labour market, young workers start in so-called

entrance jobs (‘ports of entry’). The career patterns or profiles depend here to a large extent on the on-the-job training required. The initial educational background is often only used as a ‘screening device’ to judge the young workers’ trainability (Arrow 1973), while the enhancement of productive skills takes place by means of specific enterprise-related training. Only after labour market entrants have completed this training and shown that they can apply the acquired skills successfully at the work floor, will employers change their unstable entrance jobs into more secure ones. In other words, the temporary entrance jobs can be considered here as an extended probation period (Wang and Weiss 1998).

Although inconclusive, previous research indicates that (in the long run) flexible employment at labour market entry does not harm future occupational positions, despite being accompanied by higher instability (that is, more unemployment spells) in the beginning of the working career (McGinnity et al. 2005; Scherer 2004). This conclusion holds for the countries of West Germany, Great Britain and Italy. Gardecki and Neumark (1998) found for the US as well that adult labour market outcomes, measured at the age-interval from the late 20s to mid 30s, are largely unrelated to early labour market experiences, especially for men. The only long-term effect that may be observed is that young workers who experience unemployment in their early career accumulate less work experience and tenure, and therefore, earn less in the future (Ellwood 1982).

Along the same lines, Steijn et al. (2006) investigated the long-term effects of a bad labour market entry in the Netherlands. These authors observed that individuals who started their career as unemployed or as working in a non-standard job are more likely to become unemployed later. At the same time, however, they found that workers who started their career in a non-standard job are more often upward mobile. More recently, Wolbers (2008) found similar results for the Netherlands with respect to unemployment: school-leavers with a temporary contract are more likely to become unemployed than those who are employed on a permanent basis. Furthermore, he detected that the likelihood of being employed in a temporary job coincides with a much higher likelihood of being overeducated in that job. This result suggests that employers use overeducation as a compensation for the loss of productive skills that temporary employment often leads to. Finally, it is found for the Netherlands that school-leavers who have a non-standard contract earn less in their jobs than those with regular work arrangements (de Vries and Wolbers 2005). This wage gap can be largely attributed to the level of education attained by school-leavers and the segment of the labor market (primary versus secondary) that they have entered.

Employment precarity and family formation

The labour market entry of young people often concurrently takes place with the process of family formation. In general, the transition from youth to adulthood consists of different stages, in which young people participate (and also take responsibility) to increasing degrees in various, related domains of life (Buchmann 1989). Moreover, decisions about different events in the transition from youth to adulthood are made in close relationship with each other. For that reason, the prolonged entry process and increased problems of getting established in the labour market due to labour market flexibilisation may generate uncertainty about young people's ability and willingness to make a stable commitment to adult family roles (Oppenheimer 1988; see also Wolbers 2007). The underlying argument of this so-called theory of marriage timing is that labour market positions characterized by a high degree of economic and temporal uncertainty prevent young people from making long term binding family and fertility decisions (Mills and Blossfeld 2005). The lack of a secure economic basis (that is, the absence of guaranteed income from a stable job) creates uncertainty when it comes to the responsibilities relating to family formation. This leads to the prediction that employment precarity in early-work life results in a tendency among young people to postpone or even reject family formation, especially marriage and parenthood. However, for conservative welfare regimes such as the Netherlands, this general hypothesis needs further characterization in two areas.

First, only moderate effects of employment precarity on marriage and parenthood are expected for the Netherlands. Given their strong safety net of social security benefits, conservative welfare regimes offer young people (financial) independence, which enables them – irrespective of their degree of employment precariousness – to marry and enter parenthood.

Second, in conservative welfare regimes such as the Netherlands, where the male breadwinner model is still predominant, the negative effect of employment precarity on marriage and parenthood should in particular be observed among men. Their responsibilities as the main provider of family income make it important for males to establish themselves in a secure labour market position (Liefbroer and Corijn 1999). For (low educated) women in conservative welfare regimes, employment precarity in early work-life may even have opposite consequences. Here family formation is a strategy for females with marginal career prospects to reduce uncertainty and to give meaning and structure to their life (Friedman et al. 1994). Moreover, the ample availability of part-time jobs in the Netherlands gives them an additional incentive to opt for (early) marriage and motherhood.

Empirical research on the demographic consequences of employment precarity in early work-life in the Netherlands is very limited. Only Liefbroer (2005) studied this topic in detail. He found that in the Netherlands young adults in precarious labour market positions are more likely to postpone family formation than those in secure positions. In particular, young people in unemployment, temporary jobs, part-time jobs or jobs outside the service class delay marriage and parenthood. Unemployed or part-time women, in contrast, became sooner mother than those in regular (that is, full-time and permanent) employment. As suggested above, a likely explanation for this finding is that in conservative welfare regimes women in precarious employment reduce uncertainty by opting for motherhood. Furthermore, this finding suggests that part-time employment for women in the Netherlands cannot be considered as marginal labour. Rather, it is an adequate copying mechanism for them to combine their labour market career with bringing up children.

Data and measures

We make use of data from two retrospective life-history surveys conducted in the Netherlands: Households in the Netherlands 1995 (Weesie et al. 1995) and Family Survey Dutch Population 2000 (de Graaf et al. 2000). Both surveys are based on random, nationally representative samples from the Dutch population and concern face-to-face interviews with respondents at home. The original number of respondents interviewed in the surveys was 3354 and 1561, respectively. The surveys contain retrospective information on work histories, although with some difference in detail. For all jobs held by a respondent, the beginning and ending dates were reported, as well as information on the content of the job. The work histories were organised by employer spells. Within each employer spell then, information was gathered on the jobs held – for the survey Households in the Netherlands 1995, this was limited to the first and last job. The original data were transformed into person-month files. From the combined data file, we selected individuals who left education since 1970. After this selection and after removing those respondents whose data were lacking for one or more of the variables used, information on maximally 2615 respondents remained. In the multivariate analysis, men and women are analysed separately.

Four dependent variables with regard to early labour market careers of individuals are distinguished. Type of first employment refers to the distinction between temporary employment (that is, fixed-term contracts, temporary work agency employment and on-call employment), temporary employment with the perspective of permanent employment, and permanent employment. Entry into first secure employment concerns the conditional likelihood of entering

permanent employment (ex- and including temporary employment with the perspective of permanent employment). Exit from temporary employment regards the transition from temporary employment into exit from the labour force, permanent employment, repeated temporary employment, self-employment, other versus no employment change. These exits are confined to age 45 at most. The employment situation at age 35 refers to the likelihood of being employed (in whatever kind of employment) versus not being employed at age 35 and the likelihood of being in temporary employment versus in permanent employment at that age.

With regard to the demographic career of individuals, three dependent variables are analysed. The population at risk consists of all men and women born after 1950, from 15 to 45 years of age. Entry into first union refers to the transition from no union to cohabitation, marriage versus no-union. Birth of first child concerns the conditional likelihood of becoming parent for the first time. The family situation at age 35 considers the likelihood of living in a couple (married or co-habiting) versus not living in a couple at age 35 and the likelihood of being parent versus not being parent at that age.

The main independent variables refer to measures of employment precarity. Employment precarity is measured by various indicators. First of all, it is defined by means of duration dependence: the duration of unemployment and the duration of temporary employment (with months as the time unit) since leaving education. Unemployment spells of three months or less are not considered as unemployment. Temporary employment refers to fixed-term contracts, temporary work agency employment and on-call employment. A probation period is treated as permanent employment. Second, type of (first) employment is used a measure of employment precarity. The distinguished categories are: unemployment, temporary employment, temporary employment with the perspective of permanent employment, other versus permanent employment.

In addition to these measures of employment precarity, standard background characteristics are used as covariates. The variable months since leaving education refers to the period since leaving initial education. The timing of exit from initial education is based on the month and the year in which the highest level of education has been attained.

The highest level of education is measured according to the CASMIN classification (Braun and Müller 1997). We distinguish between six educational categories: elementary education (1ab), basic vocational education (1c), intermediate vocational education (2a), intermediate general education (2bc), lower tertiary education (3a), and higher tertiary education (3b).

The occupational class of both the father and the respondent is based on the EGP class scheme (Erikson et al. 1979) with six categories: upper service (class I), lower service (class II), routine non-manual employees (class IIIab), small proprietors, self-employed, farmers (class IVabc), skilled workers, supervisors of manual workers (class V-VI), and unskilled workers (VIIab).

The stage in the life-course of individuals is measured by combining information on marital and child status in four mutually exclusive response categories and coded with cumulative contrasts. The categories are: single (that is, living alone, unmarried or divorced), married (or cohabiting) without children, married (or cohabiting) with any child under age six and married (or cohabiting) with all children over age six. For the analysis of the family situation at age 35 a somewhat different variable is used. Marital status consists here of the following categories: cohabiting, married, divorced, remarried versus single. For entry into parenthood, only the categories cohabiting and married (versus single) are considered.

The impact of institutional settings such as labour market regulation when entering the labour market is determined on the basis of a cohort effect. The cohort effect is assessed by using the year of leaving education. The following categories are used: 1970-1974, 1975-1979, 1980-1984, 1985-1989, 1990-1994 and 1995-1999. In order to capture business cycle effects, that may be interwoven with the impact of institutional factors, the registered unemployment rate in the year of leaving education is controlled for. The unemployment rates are based on figures from Statistics Netherlands (CBS 2007).

Survey effects are taken into account by including the year of survey in the models. This variable corrects for differences in the design of the two retrospective life-history surveys analysed.

For the analysis regarding entry into first union and entry into parenthood a few additional variables are included. First, age and its squared term are added to the models. Second, the working hours of individuals (full-time versus part-time) are considered (only with regard to entry into parenthood). Third, some relevant partner characteristics are included. In addition to a dummy variable indicating whether the respondent has a partner or not, type of employment of the partner, working hours of the partner, education of the partner and occupational class of the partner are included. These partner characteristics are measured in the same way as for the primary respondents.

Results

Early labour market careers

In Table 1, type of first employment is analysed. The parameter estimates first of all show that higher tertiary educated (that is, university graduates) are most likely to be employed on a temporary basis. This finding holds for both men and women. It may be related to the less strong orientation towards occupation-specific skills acquisition at universities than in upper secondary and lower tertiary vocational education. Moreover, quite some university graduates start in a traineeship (for instance in a governmental job) or as a PhD student. Their contract is by definition fixed-term. In addition, the year of leaving education matters. Young men and women, who left education in the 1990s, are most likely to be working in a temporary job, especially in the period 1995-1999. This finding reflects the increased labour market flexibilisation that has taken place since then that (particularly) has hit labour market entrants. Moreover, the aggregate unemployment rate in the year of leaving education has a positive effect on the likelihood of being employed in a temporary job, but only for women. Finally, it is found that men, who left education a long time ago, are more likely to be employed in a temporary job than those who just left school.

Most of these effects do not show up when temporary contracts with the perspective of a permanent one are considered. Instead, the occupational class of the father has an effect on the likelihood of entering temporary employment with the perspective of permanent employment. For male school-leavers of whom their father was working in the lower service class or in the classes of skilled, semi-skilled or unskilled workers, the likelihood of entering a temporary job with the perspective of a permanent one is higher than for those with a father in the higher service class. For female school-leavers, we find that those, whose father worked as a routine-non-manual employee, are less likely to be employed in a temporary contract with the perspective of a permanent one than those with a father with an occupation in the higher service class.

[Table 1]

In Table 2, entry into first secure employment is considered. Secure employment is defined here as permanent employment and, in a second step, as permanent employment including those, who are in temporary job, but with the perspective of a permanent one. The results show that both measures of duration dependence have a clear, although probably not surprising, negative effect

on the conditional likelihood of entering first secure employment. The longer the duration of unemployment and/or temporary employment is, the lower the probability for school-leavers to be employed in a permanent position. In addition, tertiary educated are found to be less often in permanent employment than lower educated. Once again, this finding may be related to the weaker emphasis on occupation-specific skills acquisition in tertiary education in comparison to upper secondary vocational education. Furthermore, school-leavers, of whom their father was working as an unskilled worker, are less likely to be working in permanent job than those with a father, who was employed in the upper service class. Finally, cohort effects are observed. Besides the fact that members of most other cohorts than the 1970-1974 cohort are less likely to enter permanent employment, the unemployment level in the year of leaving education has a negative effect on the likelihood of being employed in a permanent job. The higher the unemployment rate in the year of leaving education is, the lower the conditional probability of entering permanent employment.

Similar results as presented above are found when school-leavers, who have a temporary job, but with the perspective of a permanent one, are included into the category of workers with first secure employment. The only exception is the educational effect. For men, we now find that school-leavers in all educational categories are less likely to enter first secure employment than those with primary education only. For women, we now observe that school-leavers, who are qualified at the level of basic vocational education or intermediate vocational education, are more likely to be working in a secure labour market position those with primary education at most.

[Table 2]

The exit from temporary employment is presented in Table 3. The estimates referring to the transition from temporary employment to self-employment and other are not presented, as these destinations are not our prime interest. For both men and women, it is found that the duration of temporary employment has a negative effect on exit from temporary employment to any (presented) destination. This finding suggests that individuals, who already are in a temporary job for a long time, are less likely to change employment than those, who hold a temporary position only for a short duration. This finding clearly supports the entrapment hypothesis. Another interesting result is that women with a vocational qualification or tertiary education are less likely to leave the labour force after an episode of temporary employment than primary educated women. Furthermore, it is shown that men, of whom their father was an unskilled worker, are more likely to enter into a carousel of repeated temporary employment than men with a father in

the upper service class. However, men, who themselves are working as an unskilled worker, are less likely to experience repeated temporary employment than those, who are employed in the upper service class. The same holds for men, who work as a skilled worker or as a supervisor of manual workers, or who are employed in the lower service class. Married men are less likely to leave the labour force after a period of temporary employment than men without a partner. This effect is even stronger for men with children (of any age). More surprising is the finding that married men without (or a young, that is, under age 6) child are less likely to turn their temporary job into a permanent one. The same holds for married women with a child under age 6, but at the same time, these women are less likely to enter a repeated temporary employment spell. Finally, the year of leaving education matters. Especially the positive coefficients indicating that repeated temporary employment spells are more common in the 1990s than before are worthwhile to mention. These estimates indicate that young workers, who once entered temporary employment, are likely to continue working in temporary employment, even after a job change, thereby supporting again the entrapment hypothesis.

[Table 3]

Table 4 displays the employment situation at age 35. At this age, both the likelihood of being employed and the likelihood of being temporary employed are considered. Due to small number of cases, we analyse men and women together for the latter labour market characteristic. The results reveal clear duration dependence. The duration of unemployment has a negative effect on the likelihood of being employed at age 35, but a positive effect on the likelihood of being temporary employed at that age. With respect to the duration of temporary employment, similar results are found. With the exception of the employment chance of women, where a negative effect of the duration of temporary employment is observed. So, generally spoken, a precarious working-profile in the early career leads to an unfavourable employment situation at age 35. This conclusion is confirmed when looking at the effect of type of first employment, at least when temporary employment at age 35 is considered. Individuals, who start their working career in temporary employment, are more likely to be employed in a temporary job at age 35. However, when the duration of temporary employment is included as well (see M3), the effect of temporary employment in the first job is reversed due to severe multicollinearity. In addition, it is shown that married men with a young child (under age 6) are much more likely to be employed than other men. For women, we find a similar effect, but then for women with older children. Both results support the prevalence of the traditional breadwinner model in the Netherlands: the

pressure for fathers to work is particularly strong in a family situation with young children, whereas mothers are only employed when family responsibilities allow them to do so (that is, in the case of older children, who do not need to be cared for constantly). Last but not least, interesting cohort effects are found. For men, the likelihood of being employed at age 35 is smaller for cohorts that left education since the mid-1970s, when the macro-economic situation started to deteriorate in the Netherlands. This finding is observed more directly as well: the higher the aggregate unemployment rate is in the year of leaving education, the lower the employment chance at age 35. Finally, a positive cohort effect is found with regard to temporary employment at age 35: recent cohorts are more often temporary employed at that age than older cohorts. This finding refers to the increased labour market flexibilisation in the Netherlands.

[Table 4]

Family formation

Table 5 provides estimates from the analysis with regard to entry into first union. We start with M1. For men, the results indicate that being unemployed or being temporary employed prevents them from entering marriage, whereas there is no such effect observed with regard to cohabitation. This finding suggests that, as predicted by the theory of marriage timing, demographic transitions where commitment and responsibilities are greater (in the case of a marriage) the likelihood of experiencing such a transition is smaller for those in precarious employment than transitions where commitment and responsibilities are less (in the case of a cohabitation). For women, in contrast, we do find a positive effect of being unemployed on the likelihood to marry. Unemployed women are more likely to get married than permanent employed women. Family formation seems to function here as a strategy for women in precarious employment to reduce uncertainty by marrying (a working man) in order to give meaning and structure to their life. In addition, M1 reveals that tertiary educated women are less likely to enter into a first union. The negative effects seem to be a bit larger in the case of marriage than cohabitation (although the difference is effect size is not statistically tested). In general, higher educated young women prefer to make a working career first before entering a cohabitation or marriage. Furthermore, the age effects indicate that the likelihood of entering a marriage or cohabitation first increases with age, reaching its peak in the late 20s, and then decreases. There is also a clear trend from marriage towards cohabitation visible. The dummy variables for the year of leaving education show that cohabitation as a first union, has won in popularity over time at

the cost of marriage. However, in many cases cohabitation can be considered as a probation period and is transformed into marriage later on, for instance, when a first child is coming. Finally, a macro level effect of employment precarity is found. Women who left education in times of high aggregate unemployment are less likely to marry than those, who left in times of low unemployment.

Various partner characteristics are added in M2. In general, the inclusion of these characteristics does not influence the effects as found in M1. Most important, the effects of employment precarity are unchanged and remain significant after statistically controlling for the partner characteristics: unemployed or temporary employed men are less likely to marry than permanent employed men, whereas unemployed women are more likely to marry than permanent employed women. The partner characteristics themselves are only partly significant. First, men with a high educated (that is, tertiary or intermediate vocational educated) female partner are less likely to marry than men with a low educated female partner. Second, women with a male partner who is a small proprietor, farmer or other independent worker are more likely to enter marriage.

[Table 5]

Table 6 models the likelihood of entering parenthood. Like Table 5, two models have been estimated: one model without (M1) and one with partner characteristics (M2). First and foremost, it is shown in M1 that unemployed women are more likely to become mother than permanent employed women. Once again, this demographic transition may act as a strategy for women in precarious employment to reduce uncertainty in order to give meaning and structure to their life. Women in temporary employment, in contrast, are less likely to give birth to a first child. This finding supports the hypothesis that precarious employment leads to a postponement of entry into parenthood. For men, it is found in M1 that lower tertiary educated and those in lower service class occupations or working as routine non-manual employees are less likely to become father than primary educated and those in higher service class occupations, respectively. For women, a strong effect of working hours is found: full-time working women are less likely to enter motherhood than part-time working women. However, the causal order may also be the reverse: mothers are less likely to be employed on a full-time basis than women without children. The age effects reveal that the likelihood of becoming parent first increases and after a certain age decreases. The age at which the birth of a first child is most likely is at age 32.6 for men and age 29.8 for women. Unsurprisingly, married people are most likely to become parent, followed by those who are cohabiting. Finally, women who left education in the period between 1975 and

1989 are more likely to give birth to a first child than women who left education in the beginning of the 1970s.

For men, the partner effects found in M2 mainly mirror the effects that where found for women in M1. For instance, it is observed that men with an unemployed female partner are less likely to become parent than men with a permanent employed female partner. In M1, this effect was found for unemployed women as compared to permanent employed women. The same holds for the finding that men with a full-time working female partner are less likely to become parent. This effect was in M1 presented as the negative effect of working hours for women on their likelihood of entering parenthood. A final partner effect for men refers to the finding that men with a female partner who works as a small proprietor, farmer or other self-employed worker are less likely to become father than those with a female partner who is employed in an upper service class occupation. For women, there is only one significant partner effect found: women of whom their male partner belongs to the category of other regarding the type of employment are more likely to become mother than women of whom their male partner is permanent employed. The category of other particularly refers to men in self-employment.

[Table 6]

In Table 7, the family situation at age 35 is analysed in terms of being married (or cohabiting) or not and being parent or not at that age. With respect to the likelihood of being married at age 35, only two significant effects are found. First, men with a father who worked as a routine non-manual employee are more likely to be married than men whose father was employed in an upper service class occupation. Second, women with a basic vocational education are more likely to be married than women with primary education at most. With respect to the likelihood of being parent at age 35, it is found that women, who experienced a long duration of unemployment since they left education, are more likely to be mother of one child or more than women who experienced short unemployment duration. Furthermore, women of whom their father had a lower service class occupation are more likely to be parent than women with a father who occupied a upper service class position. More important to mention is the finding that men who started in temporary employment (whether or not with the perspective of permanent employment) are less often father at age 35 than men of whom their type of first employment referred to a permanent position. This finding once again supports the theory of marriage timing. Finally, it is found that married or remarried men and women are more likely to be parent at age 35 than single persons.

[Table 7]

Conclusion

In this paper, the uncertainty inherently linked to employment precarity in early work-life was addressed. The focus was on the consequences of this uncertainty on transitions in two life domains: the labour market and demographic career. First, the role of employment precarity on early labour market careers was investigated. Main concern was whether employment precarity in early work-life constitutes an entrapment outside of, or a stepping-stone into, a stable position in the labour market. The empirical analysis demonstrated strong duration dependence of employment precarity:

– The duration of unemployment and the duration of temporary employment have a negative effect on entry into first secure employment;
– The duration of temporary employment has a negative effect on exit from temporary employment into permanent employment;
– The duration of unemployment and the duration of temporary employment have a negative effect on being employed at age 35, but a positive effect on being temporary employed at that age;
– Temporary employment at labour market entry has a positive effect on being temporary employed at age 35.

These findings clearly support the entrapment hypothesis: employment precarity has detrimental consequences for early labour market careers. Young workers who experience employment precarity in early work-life are disadvantaged in terms of later career outcomes compared to young workers in stable employment. However, the mechanism by which precarious employment damages future career prospects is less clear. Various theoretical explanations have been suggested, but a direct statistical test of the predictive validity of these theories has not been performed in this paper. Future research should shed more light on this issue.

Second, the demographic consequences of employment precarity were determined. It was hypothesized that employment precarity in early work-life has negative effects on family formation: labour market positions characterized by a high degree of uncertainty prevent young people from entering into long-term commitments, especially marriage and parenthood. For men, the empirical results confirm this prediction deduced from the theory of marriage timing:

– Unemployment and temporary employment have a negative effect on entry into marriage;

– Temporary employment (with or without the perspective of permanent employment) at labour market entry has a negative effect on being father at age 35.

For women, we actually found opposite effects:

– Unemployment has a positive effect on entry into marriage and on entry into motherhood.

– The duration of unemployment has a positive effect on being mother at age 35.

These findings for women, however, are not so surprising, given the male breadwinner model that is still predominant in the Netherlands. It is likely that in conservative welfare regimes women in precarious employment reduce uncertainty and give meaning and structure to their life by opting for marriage and motherhood. Moreover, the ample availability of part-time jobs in the Netherlands gives them an additional incentive to opt for motherhood: it was found that part-time working women are more likely to give birth to a first child than full-time employed ones. Although part-time employment cannot be considered as precarious employment in the Dutch context (given its often voluntary character), it is an adequate copying mechanism for women to combine their labour market career with bringing up children.

Note

1. Actually, the requirement of a dismissal permit was already introduced by the German occupier to prevent general labour market instability during wartime and to secure the deployment of manpower for the war economy.

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Table 1. Type of first employment: temporary employment, temporary employment with the perspective of permanent employment versus permanent employment (multinomial logit analysis)

	Men		Women	
	Temporary	Temporary perspective permanent	Temporary	Temporary perspective permanent
Time since leaving education	0.01*	0.00	0.01	0.01*
Education (Elementary education=ref.)				
Basic vocational education	0.15	-0.25	-0.40	-0.27
Intermediate vocational education	0.33	0.47	-0.38	-0.21
Intermediate general education	0.61	0.53	-0.42	0.14
Lower tertiary	0.61	0.47	0.22	0.50
Higher tertiary	1.14**	0.29	1.10*	0.60
Occupational class father (Upper service=ref.)				
Lower service	-0.03	0.53*	-0.40	-0.36
Routine non-manual employees	-0.32	0.43	-0.11	-0.54*
Small proprietors, self-employed, farmers	-0.22	0.40	-0.16	0.02
Skilled workers, supervisors of manual workers	-0.03	0.54*	-0.22	-0.42
Unskilled workers	0.14	0.70**	-0.15	0.07
Year of leaving education (1970-1974=ref.)				
1975-1979	-0.04	-0.18	-0.07	-0.18
1980-1984	0.33	-0.01	0.32	0.30
1985-1989	0.54	0.22	0.36	0.39
1990-1994	0.94**	0.30	1.36**	0.71*
1995-1999	1.18*	0.78	2.27**	0.58
Unemployment rate in year of leaving education	0.06	0.03	0.09*	-0.01
Year of survey (1995=ref.)				
2000	-0.23	-0.43*	-0.64**	-1.10**
Constant	-1.88**	-1.60**	-1.30*	-0.32
Model Chi-square	114**		201**	
Df	36		36	
N	1294		1321	

* p<0.05, ** p<0.01

Table 2. Entry into first secure employment: permanent employment and permanent employment plus temporary employment with the perspective of permanent employment (discrete-time event history analysis)

	Men		Women	
	Permanent	Permanent plus temporary perspective permanent	Permanent	Permanent plus temporary perspective permanent
Duration of unemployment	-0.01**	-0.01**	-0.01**	-0.02**
Duration of temporary employment	-0.01**	-0.02**	-0.02**	-0.03**
Education (Elementary education=ref.)				
Basic vocational education	0.16	-0.32*	0.08	0.45**
Intermediate vocational education	-0.23	-0.31*	0.05	0.49**
Intermediate general education	-0.33	-0.61**	-0.07	0.28
Lower tertiary	-0.40**	-0.33*	-0.67**	0.13
Higher tertiary	-0.50**	-0.51**	-0.46*	-0.13
Occupational class father (Upper service=ref.)				
Lower service	-0.06	0.20*	-0.00	0.04
Routine non-manual employees	0.04	0.20	0.15	0.23*
Small proprietors, self-employed, farmers	-0.20	-0.25*	-0.22	-0.13
Skilled workers, supervisors of manual workers	-0.10	0.26**	-0.02	0.17
Unskilled workers	-0.27*	0.15	-0.23*	0.20*
Year of leaving education (1970-1974=ref.)				
1975-1979	0.50**	0.54**	0.19	0.29**
1980-1984	0.63**	0.49**	0.26*	0.86**
1985-1989	0.62**	0.62**	0.42**	0.78**
1990-1994	0.72**	0.64**	0.24	0.56**
1995-1999	0.87**	1.08**	0.25	0.43*
Unemployment rate in year of leaving education	-0.12**	-0.09**	-0.13**	-0.14**
Year of survey (1995=ref.)				
2000	0.03	-0.07	0.34**	-0.16*
Constant	-3.66**	-2.72**	-3.48**	-2.91**
Model Chi-square	258**	497**	430**	823**
Df	19	19	19	19
N	102262	51835	99147	50424

* p<0.05, ** p<0.01

Table 3. Exit from temporary employment: from temporary employment into exit from the labour force, permanent employment, repeated temporary employment, self-employment[a], other[a] versus no employment change (discrete-time competing risk event history analysis)

	Men			Women		
	Exit from labour force	Permanent	Repeated temporary	Exit from labour force	Permanent	Repeated temporary
Duration of unemployment	0.00	-0.00	0.00	-0.00	-0.01	-0.00
Duration of temporary employment	-0.01**	-0.01**	-0.01**	-0.01**	-0.02**	-0.01*
Education (Elementary education=ref.)						
Basic vocational education	0.48	-0.52	-0.26	-1.20**	-0.56	1.71
Intermediate vocational education	0.19	-0.34	-0.28	-1.23**	-0.50	1.45
Intermediate general education	0.73	-0.23	-0.37	-0.93	-0.32	1.31
Lower tertiary	0.69	-0.21	-0.26	-0.97*	-0.64	1.62
Higher tertiary	0.19	-0.29	-0.23	-1.25**	-1.28*	1.26
Occupational class father (Upper service=ref.)						
Lower service	-0.12	0.20	0.13	0.16	-0.45	0.25
Routine non-manual employees	0.17	0.22	-0.14	-0.34	-0.15	0.20
Small proprietors, self-employed, farmers	0.39	0.46	0.42	-0.52	0.05	0.29
Skilled workers, supervisors of manual workers	0.05	0.31	0.08	0.08	-0.29	-0.34
Unskilled workers	-0.06	0.10	0.57*	-0.32	0.12	0.33
Occupational class (Upper service=ref.)						
Lower service	-0.11	-0.13	-0.65*	0.37	-0.65	-0.37
Routine non-manual employees	-0.26	-0.20	-0.38	0.55	-0.46	-0.02
Small proprietors, self-employed, farmers	0.31	-0.10	-1.26	1.55	[b]	-0.49
Skilled workers, supervisors of manual workers	-0.50	-0.10	-0.65*	0.54	-1.02	0.21
Unskilled workers	0.05	-0.13	-0.69*	0.83	-0.68	-0.18
Stage in life-course[c] (Single=ref.)						
Married, no children	-0.42*	-0.32*	-0.06	0.30	0.09	-0.06
Married, youngest child under age 6	-0.96*	-0.01	-0.06	0.24	-1.10**	-0.72*
Married, youngest child over age 6	0.04	0.59	0.51	-0.46	0.95	0.10
Year of leaving education (1970-1974=ref.)						
1975-1979	0.54	0.52*	0.15	0.57*	0.14	0.08
1980-1984	0.32	0.68**	0.36	-0.18	0.14	-0.05
1985-1989	0.53	0.47	0.32	0.17	0.10	0.20
1990-1994	-0.22	0.30	0.83**	-0.00	-0.15	0.81*
1995-1999	0.76	0.94*	0.32	-0.34	0.71	1.10**
Unemployment rate in year of leaving education	-0.02	-0.05	-0.02	0.04	-0.04	0.01
Year of survey (1995=ref.)						
2000	-0.92**	-0.35*	-0.02	-0.56**	-0.43*	0.21
Constant	-4.01**	-3.13**	-3.35**	-3.54**	-1.96**	-5.69**
Model Chi-square	379**			383**		
Df	135			135		
N	14857			15612		

* p<0.05, ** p<0.01

[a] estimates not shown

[b] coefficient is not reliable due to small number of cases and is therefore not reported

[c] cumulative effects

Table 4. Employment situation at age 35: a) employed versus not employed and b) temporary versus permanent employed (logistic regression analysis)

	Employed		Temporary employed		
	Men	Women	Men plus women		
			M1	M2	M3
Duration of unemployment	-0.07**	-0.04**	0.02**	0.01**	0.02**
Duration of temporary employment	-0.03**	0.03*	0.06**		0.07**
Education (Elementary education=ref.)					
Basic vocational education	1.22	-0.81	0.83	0.82	1.08
Intermediate vocational education	1.44	-0.34	-0.79	0.14	-0.62
Intermediate general education	1.41	-0.87	-0.14	0.05	0.02
Lower tertiary	1.68	-0.34	-1.52	-0.94	-1.22
Higher tertiary	3.04	2.34	-1.99	-0.38	-1.85
Occupational class father (Upper service=ref.)					
Lower service	0.59	0.39	-0.50	0.93	-0.69
Routine non-manual employees	2.47	1.02	0.53	1.24	0.24
Small proprietors, self-employed, farmers	2.72	1.24	0.95	0.86	0.71
Skilled workers, supervisors of manual workers	1.83	0.48	-0.36	0.25	-0.38
Unskilled workers	1.29	0.41	0.35	0.82	0.19
Occupational class of first employment (Upper service=ref.)					
Lower service	1.04	0.60	1.85	2.39	1.66
Routine non-manual employees	-0.67	0.55	1.25	1.42	1.07
Small proprietors, self-employed, farmers	[a]	-1.78	[a]	[a]	[a]
Skilled workers, supervisors of manual workers	0.79	0.08	-0.28	1.28	-0.83
Unskilled workers	-0.32	-0.29	0.94	1.95	0.58
Type of first employment (Permanent=ref.)					
Temporary	0.71	-0.32		2.13**	-1.78*
Temporary perspective permanent	-0.00	0.12		0.21	-0.18
Stage in life-course[b] (Single=ref.)					
Married, no children	0.43	0.35	0.29	-1.45	0.91
Married, youngest child under age 6	3.68**	-0.86	0.84	1.53*	0.78
Married, youngest child over age 6	-4.95**	2.38**	-1.34	-1.01	-1.74*
Year of leaving education (1970-1974=ref.)					
1975-1979	-2.82**	0.08	0.32	-0.41	0.49
1980-1984	-3.83**	0.33	2.09**	0.87	2.42**
1985-1989	-5.31**	0.17	3.29**	1.07	3.96**
1990-1994	[a]	-2.23	6.66**	4.24**	7.04**
1995-1999	[a]	[a]	[a]	[a]	[a]
Unemployment rate in year of leaving education	-0.80**	-0.12	-0.02	-0.06	0.08
Year of survey (1995=ref.)					
2000	0.22	-0.52	-1.20	0.31	-1.35*
Sex (Men=ref.)					
Women			1.13	0.78	0.86
Constant	9.75**	2.96	-7.52*	-6.45**	-8.47**
Model Chi-square	122**	226**	180**	81**	185**
Df	26	28	26	27	28
N	442	373	654	654	654

* p<0.05, ** p<0.01

[a] coefficient is not estimated due to lack of cases

[b] cumulative effects

Table 5. Entry into first union: cohabitation, marriage versus no union (discrete-time competing risk event history analysis)

	Men		Women	
	Cohabi-tation	Marriage	Cohabi-tation	Marriage
	M1	M1	M1	M1
Type of employment (Permanent=ref.)				
Unemployment	-0.29	-0.70**	-0.08	0.43**
Temporary	-0.03	-0.79**	-0.17	-0.09
Temporary perspective permanent	-0.03	-0.02	-0.02	0.05
Other	-0.04	-0.23	-0.05	0.37
Education (Elementary education=ref.)				
Basic vocational education	-0.32	-0.02	0.04	0.05
Intermediate vocational education	-0.36	0.10	-0.18	-0.29
Intermediate general education	-0.56**	-0.55	-0.31	-0.26
Lower tertiary	-0.31	0.25	-0.53*	-0.62*
Higher tertiary	-0.43	0.07	-0.77**	-1.08**
Occupational class (Upper service=ref.)				
Lower service	-0.01	-0.00	-0.44*	-0.02
Routine non-manual employees	0.13	0.16	-0.30	-0.18
Small proprietors, self-employed, farmers	-0.34	0.64*	0.33	-0.25
Skilled workers, supervisors of manual workers	0.10	0.12	-0.55	-0.53
Unskilled workers	0.03	0.01	-0.44	0.01
Age	1.07**	1.59**	0.70**	1.82**
Age/10 squared	-1.81**	-2.93**	-1.21**	-3.72**
Year of leaving education (1970-1974=ref.)				
1975-1979	0.35*	-0.30*	0.44**	0.02
1980-1984	0.42**	-0.69**	0.84**	-0.25
1985-1989	0.63**	-0.96**	0.99**	-0.51**
1990-1994	0.60**	-0.60**	1.46**	-0.66**
1995-1999	1.14**	-1.77**	1.82**	-0.90
Unemployment rate in year of leaving education	-0.00	-0.01	0.01	-0.04*
Year of survey (1995=ref.)				
2000	-0.40**	0.40**	-0.24*	0.46**
Constant	-19.75**	-25.87**	-14.30**	-26.00**
Model Chi-square	590**		455**	
Df	46		46	
N	84226		68015	

* p<0.05, ** p<0.01

Table 5. (continued)

	Men		Women	
	Cohabi-tation M2	Marriage M2	Cohabi-tation M2	Marriage M2
Type of employment (Permanent=ref.)				
Unemployment	-0.07	-0.51*	0.08	0.64**
Temporary	0.10	-0.59*	-0.14	-0.11
Temporary perspective permanent	-0.04	0.01	-0.00	0.06
Other	0.09	0.07	-0.18	0.34
Education (Elementary education=ref.)				
Basic vocational education	-0.12	0.14	-0.10	-0.17
Intermediate vocational education	-0.18	0.27	-0.30	-0.44
Intermediate general education	-0.28	-0.47	-0.27	-0.28
Lower tertiary	-0.08	0.51	-0.58*	-0.74**
Higher tertiary	-0.35	0.60	-0.96**	-1.22**
Occupational class (Upper service=ref.)				
Lower service	-0.06	0.11	-0.37	0.17
Routine non-manual employees	0.09	0.31	-0.22	-0.02
Small proprietors, self-employed, farmers	-0.28	0.63*	0.58	0.23
Skilled workers, supervisors of manual workers	0.12	0.22	-0.45	-0.43
Unskilled workers	0.09	0.11	-0.36	0.20
Age	0.80**	1.24**	0.64**	1.60**
Age/10 squared	-1.28**	-2.24**	-1.04**	-3.25**
Year of leaving education (1970-1974=ref.)				
1975-1979	0.32*	-0.26	0.37*	-0.04
1980-1984	0.44**	-0.66**	0.76**	-0.26
1985-1989	0.80**	-0.74**	0.96**	-0.50**
1990-1994	0.72**	-0.27	1.43**	-0.75**
1995-1999	1.58**	-1.10	2.04**	-0.63
Unemployment rate in year of leaving education	-0.01	-0.01	0.01	-0.04
Year of survey (1995=ref.)				
2000	-0.31**	0.47**	-0.18	0.53**
Partner (Yes=ref.)				
No	-2.12**	-2.02**	-1.02**	-1.07**
Type of employment partner (Permanent=ref.)				
Unemployment	0.27	0.23	-0.08	-0.48
Temporary	0.08	-0.12	0.08	-0.42
Temporary perspective permanent	0.01	0.05	0.05	0.04
Other	-0.09	-0.23	0.20	-0.07
Education partner (Elementary education=ref.)				
Basic vocational education	-0.24	-0.47	0.23	0.06
Intermediate vocational education	-0.24	-0.70**	0.22	0.04
Intermediate general education	-0.27	-0.55	0.10	-0.29
Lower tertiary	-0.13	-1.06**	0.37	0.27
Higher tertiary	-0.45	-1.63**	0.13	0.70
Occupational class partner (Upper service=ref.)				
Lower service	-0.43	0.36	0.05	0.11
Routine non-manual employees	-0.23	0.26	0.07	0.11
Small proprietors, self-employed, farmers	0.12	0.98	-0.38	0.76*
Skilled workers, supervisors of manual workers	-0.49	0.20	0.02	0.23
Unskilled workers	-0.43	0.45	0.11	-0.07
Constant	-15.52**	-20.92**	-13.52**	-23.42**
Model Chi-square	1102**		747**	
Df	76		76	
N	79552		63049	

* p<0.05, ** p<0.01

Table 6. Entry into parenthood: birth of first child (discrete-time event history analysis)

	Men		Women	
	M1	M2	M1	M2
Type of employment (Permanent=ref.)				
Unemployment	0.29	0.20	1.16**	1.18**
Temporary	0.24	0.13	-0.14	-0.16
Temporary perspective permanent	0.02	0.07	-0.19*	-0.22*
Other	0.08	0.20	-0.24	-0.15
Education (Elementary education=ref.)				
Basic vocational education	-0.31	-0.30	0.18	0.14
Intermediate vocational education	-0.24	-0.27	-0.01	-0.08
Intermediate general education	-0.39	-0.36	-0.03	-0.08
Lower tertiary	-0.36*	-0.29	0.00	-0.03
Higher tertiary	-0.25	-0.15	-0.26	-0.29
Occupational class (Upper service=ref.)				
Lower service	-0.34**	-0.35**	-0.23	-0.27
Routine non-manual employees	-0.33*	-0.23	-0.31	-0.28
Small proprietors, self-employed, farmers	-0.01	0.12	-0.66	-0.63
Skilled workers, supervisors of manual workers	-0.04	-0.03	-0.19	-0.22
Unskilled workers	-0.29	-0.29	-0.34	-0.30
Working hours (Part-time=ref.)				
Full-time	0.16	0.21	-0.50**	-0.51**
Age	0.79**	0.80**	0.71**	0.70**
Age/10 squared	-1.21**	-1.25**	-1.19**	-1.17**
Marital status (Single=ref.)				
Cohabiting	0.86**	0.59*	0.60**	0.60**
Married	2.87**	2.59**	2.64**	2.63**
Year of leaving education (1970-1974=ref.)				
1975-1979	-0.03	0.04	0.25*	0.30**
1980-1984	-0.01	0.23*	0.31**	0.32**
1985-1989	0.06	0.31*	0.43**	0.43**
1990-1994	-0.32	-0.09	0.12	0.13
1995-1999	-0.18	0.03	-0.08	-0.17
Unemployment rate in year of leaving education	-0.03	-0.03	-0.04	-0.04*
Year of survey (1995=ref.)				
2000	0.07	0.18*	0.25**	0.23**
Partner (Yes=ref.)				
No		-0.82*		0.23
Type of employment partner (Permanent=ref.)				
Unemployment		1.13**		0.26
Temporary		-0.26		0.16
Temporary perspective permanent		-0.19		0.11
Other		0.09		0.45*
Education partner (Elementary education=ref.)				
Basic vocational education		-0.10		-0.04
Intermediate vocational education		-0.18		0.03
Intermediate general education		-0.17		-0.02
Lower tertiary		-0.27		0.07
Higher tertiary		-0.27		0.27
Occupational class partner (Upper service=ref.)				
Lower service		-0.09		-0.22
Routine non-manual employees		-0.27		-0.16
Small proprietors, self-employed, farmers		-0.84*		0.04
Skilled workers, supervisors of manual workers		0.12		0.00
Unskilled workers		-0.24		-0.24
Working hours partner (Part-time=ref.)				
Full-time		-0.42**		0.23
Constant	-18.77**	-18.52**	-16.82**	-16.77**
Model Chi-square	1570**	1799**	1837**	1779**
Df	26	42	26	42
N	153234	146674	143578	135588

* p<0.05, ** p<0.01

Table 7. Family situation at age 35: a) married (or cohabiting) versus not married (or cohabiting) and b) parent versus not parent (logistic regression analysis)

	Married		Parent	
	Men	Women	Men	Women
Duration of unemployment	-0.01	0.00	0.00	0.02**
Duration of temporary employment	-0.01	-0.01	0.01	0.01
Education (Elementary education=ref.)				
Basic vocational education	0.12	1.44*	-0.64	0.78
Intermediate vocational education	0.32	1.39	-0.32	0.23
Intermediate general education	-1.12	0.33	-1.71	-0.34
Lower tertiary	-0.71	0.59	-0.64	0.65
Higher tertiary	0.25	0.78	-1.55	-0.41
Occupational class father (Upper service=ref.)				
Lower service	0.43	-0.36	-0.13	1.45*
Routine non-manual employees	1.74*	-0.06	-0.44	0.25
Small proprietors, self-employed, farmers	0.56	0.46	-0.70	1.14
Skilled workers, supervisors of manual workers	0.66	-0.30	-0.34	0.72
Unskilled workers	0.37	-0.68	0.41	0.43
Occupational class of first employment (Upper service=ref.)				
Lower service	0.15	0.07	-0.87	-0.75
Routine non-manual employees	-0.41	-0.33	-0.12	-0.38
Small proprietors, self-employed, farmers	[a]	[a]	-1.38	[a]
Skilled workers, supervisors of manual workers	-0.16	-1.01	-0.27	0.20
Unskilled workers	-0.41	-0.26	-0.48	-0.36
Type of first employment (Permanent=ref.)				
Temporary	0.21	-0.14	-0.91*	0.24
Temporary perspective permanent	-0.20	0.40	-0.77*	-0.66
Marital status (Single=ref.)				
Cohabiting			0.84	1.10
Married			3.77**	3.66**
Divorced			0.15	0.92
Remarried			2.84**	2.54**
Year of leaving education (1970-1974=ref.)				
1975-1979	-0.14	0.39	-0.18	0.05
1980-1984	-0.03	0.41	-0.04	-0.12
1985-1989	-0.88	0.74	0.50	0.67
1990-1994	-1.08	[a]	-2.03	-3.53
1995-1999	[a]	[a]	[a]	[a]
Unemployment rate in year of leaving education	-0.09	-0.15	-0.05	-0.08
Year of survey (1995=ref.)				
2000	-0.51	-0.25	-0.80**	0.39
Constant	3.15*	2.29	0.42	-2.35
Model Chi-square	25	18	147**	115**
Df	24	23	29	28
N	447	368	458	371

* p<0.05, ** p<0.01

[a] coefficient is not estimated due to lack of cases