

Economic circumstances and union dissolution of couples in the 1990s in the Netherlands

Discussion paper 04006

Dr. D. Manting & Dr. J.A. Loeve

The views expressed in this paper are those of the authors
and do not necessarily reflect the policies of Statistics Netherlands



Explanation of symbols

.	= data not available
*	= provisional figure
x	= publication prohibited (confidential figure)
—	= nil or less than half of unit concerned
—	= (between two figures) inclusive
0 (0,0)	= less than half of unit concerned
blank	= not applicable
2003–2004	= 2003 to 2004 inclusive
2003/2004	= average of 2003 up to and including 2004
2003/'04	= crop year, financial year, school year etc. beginning in 2003 and ending in 2004

Due to rounding, some totals may not correspond with the sum of the separate figures.

Publisher

Statistics Netherlands
Prinses Beatrixlaan 428
2273 XZ Voorburg
The Netherlands

Printed by

Statistics Netherlands - Facility Services

Cover design

WAT ontwerpers, Utrecht

Information

E-mail: infoservice@cbs.nl

Where to order

E-mail: verkoop@cbs.nl

Internet

<http://www.cbs.nl>

© Statistics Netherlands, Voorburg/Heerlen
2004.

Quotation of source is compulsory.
Reproduction is permitted for own or
internal use.

ISSN: 1572-0314
Key figure: X-10
Production code: 6008304006



Statistics Netherlands

Contents

1	Introduction.....	3
2	What happened in the 1990s?	5
3	Economic circumstances and union dissolution	8
4	Methods and data	10
4.1	Method	11
4.2	Data	11
4.3	Variables.....	13
5	Economic circumstances and union dissolution; empirical results.....	14
5.1	Differentials at the moment of entry into a union	14
5.2	Economic determinants and union dissolution of women.....	16
5.3	Economic determinants and union dissolution of men.....	19
6	Summary and conclusion	21
	References.....	24

ECONOMIC CIRCUMSTANCES AND UNION DISSOLUTION OF COUPLES IN THE 1990S IN THE NETHERLANDS

Summary: This paper investigates the role of economic determinants in the dissolution of recently formed marital and non-marital unions in the Netherlands. As relationship behaviour in the Netherlands has changed rapidly, it is important to study recent developments. Women's economic independence is traditionally seen as one of the major forces behind the increasing instability of marital and non-marital unions. In addition, men's economic and household-specific economic circumstances are also relevant. The economic determinants studied are women's and men's personal income, women's and men's socio-economic position and the contribution of women's income in the total household income. The discrete-time event history analyses cover the dissolution of cohabiting and married unions formed between 1989 and 1999. Using longitudinal data from Statistics Netherlands' Income Panel Study 1989-2000, we find that it is not so much the economic independence of women that influences the process of dissolution but rather their relative economic position in the household. Especially women earning more than half of the household income have a high probability of divorce or separation. This study further shows that men's economic circumstances play an important role for the explanation of union dissolution: the higher the men's income, the lower the union dissolution risk. Also, working men have lower union dissolution rates than men who are unemployed. Although cohabitation and marriage are different in nature, most determinants work in a similar way on stability but there are some interesting differences.

Keywords: cohabitation, divorce, event history, demography, life course, the Netherlands, logistic regression.

These analyses were done within the STRATEGIC RESEARCH PROGRAMME SOCIAL DYNAMICS AND DYNAMICS IN THE LABOUR MARKET of Statistics Netherlands.

See <http://www.cbs.nl/nl/service/onderzoek/strat-ondz/SDA/index-SDA.htm>

1 Introduction

Since the beginning of the nineties, cohabitation has definitely become the first step in the union career in the Netherlands (Manting, 1996). This is also the case in many other Western countries (Kiernan, 2002; Nazio & Blossfeld, 2003). Other types of formal and informal living arrangements have also emerged in the Netherlands alongside marriage and cohabitation. Since the end of the nineties, Dutch couples may for instance opt for formal partnership registration. This arrangement is similar

to marriage in the legal sense, and like marriage it is officially entered in the Dutch municipal population registration. Recently, this arrangement is also being used more by married couples as a short cut to end the marriage.

Changing relationship forms are accompanied by changes in moving out of a union. The traditional way of separation was divorce, but this has now been replaced by a break-up between a cohabitating couple. About 70 thousand cohabiting couples in the Netherlands split up in 2000, while 35 thousand married couples got divorced (Steenhof & Harmsen, 2002a). Another 4 thousand married couples annulled their marriage by turning it into a registered partnership, and then ending the partnership. Despite these significant changes in union behaviour, most research still concentrates on divorce. Even if a study includes cohabitation, it often only studies its role for marital stability. Mostly, the discussion focuses on whether or not cohabitation as a trial period before marriage explains later marital stability. But a trial period is only one of the various functions of cohabitation. Cohabitation may also be a substitute for remaining single or a substitute for marriage (Manting, 1994, 1996). Long-term cohabiters who do not marry may reach a similar level of commitment as married couples over the years (Feijten et al., 2003). For them, cohabitation is a substitute for marriage. However, the majority of cohabiting couples still get married eventually. Entry into marriage after a period of cohabitation is generally an indication for moving towards a higher level of long-term commitment (Mulder & Manting, 1994; Feijten et al., 2003). This study will examine the partners exiting all unions in the Netherlands distinguished by *civil status either at the beginning or during the union*.

The focus of this paper is to study the role of economic determinants in these exits. Many studies point to women's economic independence as the motor of the large demographic transformations over the past decades (Becker, 1981; Blossfeld & Huinink, 1991). This study elaborates further on past research in that it will also investigate whether or not women's economic independence is indeed a discriminating factor in the process of exiting recently formed unions. Does women's economic independence play a role in the dissolution of recently formed unions in the Netherlands or not? Poortman & Kalmijn (2002) showed that work indeed led to higher divorce risks; but that was for people married before the 1970s, not for recent marriage cohorts. Manting (1994) showed that work of women was not relevant for the dissolution of unions beginning in the 1970s or later. Poortman and Kalmijn further showed that the economic independence of Dutch women is not so much reflected by whether or not a woman works, as most Dutch women work but most of them work part-time. Most women earn much less than their partners. This study will also examine whether or not it is women's work per se or their income level that explains divorce and dissolution.

A next question addressed in this paper is whether or not men's economic circumstances explain differentials in splitting up. Past research on divorce has focused on women. Demographic studies are often women-oriented in that demographic measures such as fertility measures relate to women (see for a review on this topic: Oppenheimer, 1988, 1994; Poortman & Kalmijn, 2002; Sayer &

Bianchi, 2000). Oppenheimer (1988, 1994) was critical of the pre-occupation with women's economic independence and argued that male-oriented theories help to explain developments in divorce as well. The increasing deterioration of young men's labour market positions in particular is a relevant factor in rising divorce rates. Poortman & Kalmijn (2002) already showed that men's work is relevant for divorce. In this study, the role of men's economic circumstances will be analysed for their impact on the instability of married and cohabiting couples separately.

A third question examined here is whether the upset in the traditional division of earning within the household increases union instability. Are unions with a traditional division of income (husband as the main breadwinner) more stable than those with a modern division (both partners contribute equally to household income)?

In short, the purpose of this paper is to study the influence of the economic circumstances of both men and women on the union dissolution risk. The paper elaborates further on earlier research, but improves on it in a few ways. First of all, the role of economic determinants is studied for men and women separately in order to understand whether or not the role of economic determinants is sex specific. The study of divorce is extended to include dissolutions of unions in order to see whether or not the role of economic determinants differs between the more traditional unions (marriage without prior cohabitation) and the modern unions (cohabitation, possibly later converted to marriage). Further, we expand earlier Dutch studies by analysing the impact of income (and changes therein) on union dissolution during the years a union lasts.

Lastly, this study concentrates on very recently formed unions: those formed in the nineties. This is because we wanted to study the role of economic determinants on union instability in the Netherlands today.

2 What happened in the 1990s?

Today in the Netherlands, there are many different ways of having an ongoing steady relationship. Formal relationships are civil marriage, a registered partnership or cohabitation with a cohabitation agreement. Informal relationships are cohabitation without agreement and 'living apart together'. Partnership registration was introduced as a new formal arrangement in 1998. This arrangement is similar (in legal terms) to marriage. Like marriages, these partnerships are also officially recorded in the Dutch municipal population registers. Both heterosexual and homosexual couples can register. Since its introduction, the number of partnership registrations increased from about 4 thousand to 8 thousand in 2002. Most registered partnerships are male-female. Only about seven hundred homosexual couples registered their partnership in 2002. Since 2002, partnership registration has also been used for quite other purposes. Married couples are now increasingly using it as an escape route to avoid lengthy divorce procedures. Marriages can only be annulled

in court, whereas registered partners can end their relationship without going to court. As long as both parties agree, they can end their partnership by an agreement drawn up by a lawyer or notary and have the annulment recorded in the municipal registration. This is much quicker than a divorce. About 4 thousand married couples used this escape route in 2002 (Alders & Steenhof, 2003). This also explains why the number of partnership registrations was relatively high in 2002 (8.6 thousand) compared with the years before.

Another important change in formal union behaviour in the Netherlands is the fact that homosexual couples may now get married. This has been legal since 2001. All rights and obligations with regard to children are identical for homosexual and heterosexual couples. The number of homosexual marriages is still small: in 2002 just under one thousand marriages between two men and fewer still between two women were registered.

A number of couples in the Netherlands have a so-called *living apart together* or *lat* relationship. These are couples that have an ongoing steady relationship, but do not live together. Results of Statistics Netherlands' *Family and Fertility Survey*, conducted in 2003, show that about 125 thousand persons are currently in a lat relationship (Loozen & Steenhof, 2004). About three-quarters of them had cohabited or been married before. Couples in lat relationships are generally in their forties or fifties.

The most obvious change in informal relationships is the increase in cohabitation. The number of cohabiting couples has shot up in the Netherlands, from fewer than 50 thousand in the beginning of the eighties (Van der Avort, 1987) to more than 700 thousand couples today (Garssen, 2003).

Cohabitation has become so normal that it is now definitely the first, normal, step in the union career in the Netherlands. In 2000, more than two-thirds of newly formed couples in the Netherlands were cohabiting. About 85 percent of people in their mid-twenties who entered a union in 2000, did so by cohabiting (Steenhof & Harmsen, 2002b). For most couples, cohabitation is still a temporary phase. In the long run, they marry when children are born and the relationship turns out to be a stable one. Two third of young cohabiting women marry within eight years (table 1, source: De Graaf & Steenhof, 1999).

Table 1. Percentage of marriages of cohabiting women ^a

Union cohort	Percentage of women married within			
	1 year	3 years	8 years	18 years
	in %			
1970-1974	27	58	70	76
1975-1979	24	55	67	71
1980-1984	11	37	63	
1985-1989	11	39	65	
1990-1994	6	27		

^a Age at entry limited to age 20 to 24 and limited by historical period when cohabitation started.

Source: De Graaf en Steenhof, 1999

Over the years, relatively fewer Dutch cohabiting couples have been getting married. The proportion marrying within three years after moving in together dropped from 58 percent of couples who entered their union in the first half of the seventies to 27 percent for couples starting together in the first half of the nineties. This is also reflected in the decreasing proportion of cohabiting women who intend to marry in the future. Most couples marry because they want to have children, and the marriage rate among pregnant cohabiting women is particularly high (Blossfeld et al., 1994). Although cohabitation duration is relatively short in the Netherlands compared with other countries like Sweden or Denmark (Kiernan, 2002; Baizan et al., 2002), it is increasing (table 2: combination of table 1 and 3).

Table 2. Percentage of women cohabiting at several durations of cohabitation ^a

Union cohort	Cohabiting at			
	1 year	3 years	8 years	18 years
	in %			
1970-1974	69	32	10	1
1975-1979	72	33	11	2
1980-1984	85	52	18	
1985-1989	86	50	15	
1990-1994	88	58		

^a Age at entry limited to age 20 to 24 and limited by historical period when cohabitation started.

Source: De Graaf en Steenhof, 1999

About one third of women who started to cohabit in the seventies were still living together three years later, compared with six out of ten women who moved in with a partner in the early nineties. Although the period of cohabitation is increasing, it is generally not a life-long arrangement. The proportion staying together ‘forever’ as an unmarried couple is almost zero.

The above shows that the emergence of new living arrangements has been accompanied by new ways of ending a union. The traditional way was divorce. The number of divorces rose from about 6 thousand (1965) to about 34 thousand in 1995. Since then, the rise has come to a standstill. The modern way out is by breaking up a cohabiting union. The number of divorces today is much lower than the number of dissolutions of cohabitation. In 2000, about 70 thousand cohabiting couples broke up (Steenhof & Harmsen, 2002a), while only 35 thousand married couples got divorced. While 7 percent of women who married in the first half of the nineties were divorced within three years of their wedding, 15 percent of cohabiting women broke up within three years. The more recently a union started, the more instable it is (table 3, source: De Graaf & Steenhof, 1999).

About ten percent of women who started living together in the early 1970s broke up within three years, compared with 15 percent of women whose union started in the early 1990s.

Table 3. Percentage of union disruptions of cohabiting and married women ^a

Union cohort	Percentage of cohabiting women separated within			
	1 year	3 years	8 years	18 years
	in %			
1970-1974	4	10	20	23
1975-1979	4	12	22	27
1980-1984	4	11	19	
1985-1989	3	11	20	
1990-1994	6	15		

Marriage cohort	Percentage of married women divorced within			
	1 year	3 years	8 years	18 years
	in %			
1970-1974	0	1	5	15
1975-1979	0	2	8	17
1980-1984	0	3	11	
1985-1989	0	4	14	
1990-1994	1	7		

^a For several durations of the union, age at entry limited to age 20 to 24 and by period formed.

Source: De Graaf en Steenhof, 1999

All in all, new types of formal and informal union formation have emerged in the Netherlands resulting in increasingly complex patterns of relationship formation and break-up.

3 Economic circumstances and union dissolution

The increased economic independence of women is generally seen as the driving force behind the rising trends in divorce in many European and western countries (Becker, 1981; Blossfeld & Huinink, 1991; Hoem & Hoem, 1988, Waite & Spitze, 1981). Both economic and sociological theories see increasing female educational attainment and labour force participation as very important factors in changing family and fertility behaviour. This is because the economic independence of women reduces the financial advantages of marriage and lowers the financial barriers for divorce (Becker, 1981). Sociologists stipulate that women's economic independence is one of the main factors because it upsets the traditional division of labour. This leads to a lower attractiveness of marriage and a higher attractiveness of other alternatives. The social and economic benefits of marriage are reduced as a result of the decreasing specialisation in child rearing, household maintenance and paid labour. Women's economic independence also lowers the (financial) barriers to divorce. Working women can afford to divorce because they can support themselves by other means than by staying in an unsatisfying relationship.

The role of women's economic independence in rising marital instability has been an object of study in many western and non western countries for several decades.

These empirical studies have led to conflicting results (for an overview, see Poortman & Kalmijn, 2002; Sayer & Bianchi, 2000). Some studies show that women's work does play a role; others show the reverse or no significant impact at all of female employment. One of the reasons for these conflicting empirical results is that the process of dissolution – and the role of its determinants – changes in historical time (Bracher et al., 1993; Manting, 1994; Morgan & Rindfuss, 1985; Poortman & Kalmijn, 2002; Sayer & Bianchi, 2000) and in individual time (Kravdal, 1988; Jaloovaro, 2003). This is why some researchers find that work is not relevant for divorce rates whereas others conclude that it is very significant. Poortman & Kalmijn (2002), for instance, conclude that working women have a higher risk of divorce than women who do not work, but they also show that their conclusion only holds for older marriage cohorts; for more recent marriage cohorts (married after 1970) work has no effect. This latter finding is consistent with other Dutch studies. Manting (1993) also finds that work does not really influence divorce rates of Dutch women married after the 1970s. Lastly, international differences play a role as well. In the Netherlands, as opposed to the US for example, divorced women are eligible for social benefits after divorce, and thus retain an income. This lowers the financial barriers of divorce for Dutch women regardless of their own labour force participation. Indeed within Europe, the influence of work on union dissolution varies significantly (Dourleijn & Liefbroer, 2002).

In these past studies many different indicators have been used to pinpoint the role of economic circumstances on union instability: educational level, educational enrolment, employment, income level and potential economic income. The number of studies is quite small in the Netherlands, but growing rapidly. Poortman & Kalmijn (2002) examined the role of women's economic circumstances by a large number of indicators. Their study shows that it is not so much the independence of women but the upheaval in the traditional division of labour that affects Dutch divorce risks of women. Here we shall examine the role of female economic independence by personal income level and by employment. We believe that today, the economic independence of Dutch women is better indicated by income level than by work per se. This is because although labour participation rates among Dutch women have increased strongly over the years, most women do not earn enough to become economically independent from their partner. The percentage of women in the age group 15–64 years in employment rose from 39 in 1990 to 54 in 2002. A relatively small proportion of women in heterosexual couples are economically independent of their partners, especially when there are children (Portegijs et al., 2003). Only a minority of mothers earn more than 70 percent of the minimum income for a single person, while for men this is 90 percent, irrespective of whether they have children. This implies that employment is not a reliable indicator for the economic independence of women in the Netherlands, and their level of income will give a better insight into the effect of economic independence on union instability in the Netherlands than whether or not they work. In brief, we expect that women's income level is important for union instability, and work is not. The more income a woman has, the lower her financial barriers to divorce and the

smaller the financial benefits of marriage become; this increases the risk of a separation.

The pre-occupation with women's growing economic independence was criticised by Oppenheimer (1988, 1994) who argued that men's positions are also pertinent. Others have elaborated further on her ideas (see for instance, Poortman & Kalmijn, 2002; Sayer & Bianchi, 2000). We also agree that the position of men cannot be ignored in the study of union dissolution and will thus explicitly examine the role of men's economic assets for union instability. Recent studies in western countries have found empirical evidence supporting the significance of men's economic position, both for divorce (Jaloovaro, 2003; Poortman & Kalmijn, 2002; Sayer & Bianchi, 2000) and for dissolution of cohabiting couples (Wu & Pollard, 1998).

Modern Dutch behaviour still largely exhibits a conventional division of roles: most men work full-time, most women part-time, most men do not substantially participate in housework, and most earn much more than their wives. The male role as breadwinner might thus still be of importance, i.e. unions will be more stable when men work and have a relatively high income. Our expectation is thus that working men and men with a relatively high income level have lower dissolution rates than men who do not work or have a relatively low income.

In general, marital specific capital is assumed to create barriers to divorce (Becker, 1981). Household income is such a marriage-specific asset which is lost at the moment a couple breaks up. A relatively high household income is associated with less tension in the household and with higher quality of marriage, thus leading to lower instability rates (Poortman & Kalmijn, 2002). In this study, explicit attention will be given to the effect of household income level on union instability, assuming that a higher household income leads to lower union dissolution risks.

Lastly, we think that the relative income positions of the partners in a union play a role. Other studies have shown the importance of the relative contribution of men and women (for a review, see for instance: Sayer & Bianchi, 2000; Poortman & Kalmijn, 2002). We expect that patterns deviating from the traditional division of labour might still lead to more tension and competition between the partners and thus to greater union instability. Thus, union stability should be much higher among couples in which men contribute more to household income than their partners. And if it is still true that a specialised division of labour results in greater benefits of marriage, then couples in which both partners contribute equally to the household income, should benefit least. Also, if the traditional norm of male provider is still important in the Netherlands, then couples in which women contribute the most to the household income will be the most unstable ones.

4 Methods and data

The questions addressed in this study require longitudinal analyses based on a longitudinal data set.

4.1 Method

Longitudinal analyses were done using binary logistic regression. This is a discrete log linear hazard model (Allison, 1982, 1984; Laird & Oliver, 1981). The model assumes that the hazard rate is piece-wise constant within certain, predefined, time intervals for each person. The hazard rate is the probability that a cohabiting or married person has a union dissolution or gets divorced within a particular year, given that he/she had not yet exited this union at the start of this year.

Log linear analysis can also include time varying covariates. This means that they can vary between years but are assumed constant within each year of the union duration. The values of constant and time varying covariates are assessed for each person in each year. For each (yearly) interval, the hazard is calculated using data of those individuals who are still at risk (by constructing person-year records).

With $X_{k,i}$ the matrix of covariate values for person k in year i of the union, the probability that this person has a union dissolution in year i is denoted by $P_i(X_{k,i})$. Then, the model is defined as follows

$$\log \left(\frac{P_i(X_{k,i})}{1 - P_i(X_{k,i})} \right) = a_i + b^t X_{k,i} ,$$

with interval-dependent parameters a_i , and with b a parameter vector corresponding to the covariates. The additive parameters of union duration (a) and of the covariates (b) are both given in the tables under the heading (B). Several tests can be used to examine the significant improvement of the fit of the model after controlling for a number of effects. Here the conditional L^2 – log likelihood ratio – test is used.

Several baseline models were estimated. Analyses were conducted for men and women and for type of union separately. This was done because covariates differ as a result of compositional differentials between sex and type of union. In order to avoid a relatively high number of significant second and third order effects (which also might be an artefact of the large sample), we decided to estimate four separate models for men and women separately and for those who enter a union either by (direct) marriage or by cohabitation. This was also done to simplify the presentation.

4.2 Data

Statistics Netherlands has several sources to study union dissolution from a longitudinal perspective, for instance the Social Economic Panel, the Family and Fertility Surveys and the Income Panel Study (IPO). In this study, analyses were done using the IPO 1989-2000 because it enables us to do a longitudinal study of the role of economic determinants. The purpose of the IPO is to illustrate the composition and distribution of income of persons and households in the Netherlands. It is representative for the whole non-institutionalised population. The basic survey population for the IPO is a sample from the fiscal administration. As long as a person is in the fiscal administration, they will stay in the panel. Statistics

Netherlands adds other information to the sample, collected from other administrative sources such as study allowances and rent subsidies.

The IPO covers a 0.6 percent sample of the population. Each year, the sample is refreshed by adding 0.6 percent of all new-born babies and of immigrants (about 3 to 4 thousand persons a year). Each year people leave the sample because of death or emigration. As a result, information is available for about 115 thousand persons who were in the sample between 1989 and 2000. The IPO was selected for these analyses because it is an excellent source for studying the relationship between income and union dissolution from a longitudinal perspective. Instead of many other panels, where income is measured at the beginning of an event (marriage for instance) or at the moment of the interview, this source contains longitudinal income information over the years. Moreover, it is a large sample so that we were able to estimate separate models for cohabiting or married men and women. The advantage of a register panel is that there is almost no panel attrition and almost no non-response (about 2 percent). The most relevant advantage is of course, the relatively good estimation of different income variables. Another advantage is that the large number of persons in the sample enables us to make interesting breakdowns in income variables. For example, it is possible to distinguish the disabled from the unemployed, whereas this is not possible in most small-scale surveys. There are also disadvantages, however: few determinants are included in the database, and those are not included for the purposes of doing research on divorce. Another disadvantage is that whereas all income variables are annually based, demographic variables – such as household type or age at entry of a union - refer to the end of a given year. This also means that the exact timing of union formation and dissolution is unknown which is of course a serious disadvantage for this study. Events can only be roughly estimated by comparing the situation at the end of a year to the situation at the end of the following year. This implies that the formation and dissolution of short unions will be underestimated as unions that began and ended in the same calendar year are simply not recorded. It also results in an overestimation of people moving directly into marriage: a number of them might have cohabited in the same calendar year in which they married, but if they were not yet cohabiting at the end of the previous year, this period will not be measured. This means that persons with a relatively short period of cohabitation are sometimes defined as having married directly. A maximum 6 percent probably did marry within one year of moving in with each other (table 1). And we also saw that about 4-6 percent of cohabiting couples broke up within a year (table 3). The proportion of divorces in the first marriage year is negligible.

We selected only unions formed between 1989 and 1999 as we wanted to study newly formed unions in the nineties. This also avoids left-censoring. Dissolution in a given year occurs when a person was part of a couple at the end of the previous year, but is not at the end of the current year. Either a divorce or a separation is counted, whatever comes first. This implies that a separation is counted whenever spouses who are not yet divorced are no longer officially living at the same address at the end of a given year. Right censoring occurs in the case of death or emigration of at

least one of the partners, or at the end of the observation period. A negligible number of separations of cohabiting couples might actually be a death of one of the partners.

The average weighted number of dissolutions in this analysis is representative for all unions formed in the Netherlands in the 1990s. The average duration of these unions is relatively short: four years on average, ten years maximum. This is of course because the majority of unions are right censored in 2000. Given the fact that union instability is studied during the first years of the union with a maximum of ten years, this study need not bother with the fact that the impact of determinants may change in the course of the union.

Some persons are excluded from the analyses, for instance those with a negative income (mostly self-employed) or because of missing data on relevant variables. All in all, about 22 thousand unions remained.

The first dependent variable is divorce of unions entered directly by marriage, the second dependent variable is the dissolution and/or divorce of a union that began with cohabitation and may or may not have been converted into marriage over the years.

4.3 Variables

The selected demographic control covariates are: presence of children, age of youngest child, foreign background, age at union and birth cohort. Also, a covariate is introduced indicating a change in civil status during the union: from ever married to married or from never married to married. This time-varying covariate is of course only included in models of dissolution of unions entered by cohabitation first. These variables all refer to the situation at the end of a given year.

The selected economic determinants are: main source of income, individual yearly disposable net personal income, and yearly disposable net household income. As there are too few men with no income, models of union dissolution of men do not distinguish between men with no income and unemployed men. We did make this distinction in models of union dissolution of women, because a substantial proportion of women – housewives – have no income at all. Furthermore, a measure indicating whether or not a woman contributes more to the household income than her partner was introduced. In most studies, this is a relative measure, sometimes distinguishing equal proportions (for instance, one, two, three of four quarters of total income). In this study, a distinction is made between women contributing less (40 percent or less), more or less the same (40 to 60 percent) or more (60 percent or more) to the household income than her partner. This is seen as an indicator of a traditional, an equal, or a deviant pattern of division of labour respectively.

5 Economic circumstances and union dissolution; empirical results

5.1 Differentials at the moment of entry into a union

From previous studies it is known that couples who live together before marriage differ from those who enter marriage directly. Cohabiting couples have different norms and attitudes. Motives for breaking up differ slightly between formerly cohabiting and married persons (table 4). Incompatible plans for the future and disagreement on whether to have children were more often reasons to separate.

Table 4. Reasons that played an important role in a former union disruption^a

Reasons for	Women		Men	
	Divorce	Disruption of cohabitation	Divorce	Disruption of cohabitation
	in %			
- could not talk with partner	64	55	59	52
- conflict of characters	56	51	57	54
- extramarital affair	35	31	37	27
- incompatible plans for the future	34	45	27	39
- sexual problems	29	20	24	14
- financial problems	24	18	14	9
- addiction problems	20	18	5	5
- disagreement about the number of children	9	14	8	8

^a More answers per respondent were possible implying that percentages do not add up to 100 percent.

Source: De Graaf en Steenhof, 1999

The most important reasons for breaking up for both men and women, and among both married and unmarried couples, are conflicting personalities and personal communication problems.

Cohabiting couples are generally more reluctant than married couples to share long-term financial obligations such as buying a home, especially in the first years of a union (Mulder & Manting, 1994; Feijten et al., 2003). Another important difference between (first) married and cohabiting couples is the bearing and rearing of children. Although the number of children born outside marriage is increasing rapidly, most women get married for the first time just before or shortly after the birth of their first child (Blossfeld et al., 1994). Financial impediments to separation also differ between married and cohabiting couples. Barriers are generally lower among cohabiting couples than among married ones. This is partly because many cohabiting couples have no legally binding agreement. Most cohabiting couples will not be faced with alimony demands by the ex-partner after splitting up. Also, most ex-cohabiters have no other financial obligations after the dissolution. So cohabiting couples less often face high costs after breaking up.

Differences between types of union with regard to economic circumstances are practically unknown. Yet, these economic differentials may play a role in explaining the differential stability of unions. Put more simply, if female employment increases

union instability, and if cohabiting women work more often than married women, then compositional differences between the two may partly explain differentials in union instability. In order to examine whether or not there are compositional differences, the distribution of all the covariates at the beginning of a union was estimated (table 5).

Table 5. Frequence distribution of the covariates ^a

	Men		Women	
	entry by marriage	entry by cohabitation	entry by marriage	entry by cohabitation
	in %			
Cohabiting and				
ever married		17		21
never married		83		79
Age at union				
less than 24 years	13	17	32	32
25-29 years	33	39	26	32
30- 34 years	18	18	13	13
35-39 years	11	8	9	7
40+ years	25	17	20	16
Birth cohort				
born before 1950	19	11	14	11
1950-1959	16	13	14	11
1960-1969	49	51	40	42
1970 or later	16	25	32	36
Foreigner				
yes	27	20	24	16
no	73	80	76	84
Presence of children				
no children	70	84	69	79
youngest child 0 to 5 years old	21	14	20	16
youngest child 6 to 17 years old	9	2	11	5
Main source of income				
not working, no income	1	2	9	2
working	82	84	69	79
unemployed	7	7	13	9
disabled	3	3	2	2
pension or other income	7	4	7	7
Woman earns				
less than 40% of total hh income	52	37	54	35
about half of total hh income	37	52	34	53
more than 60% of total hh income	11	11	11	12
	x 1000			
Total unions per type/gender	2,9	7,2	2,6	6,7
Total unions per gender	10,2		9,3	
	in % of total (per gender)			
Type of union in total unions	29	71	28	72

^a At the end of the year the union began, per type of union and gender.

To begin with demographic differentials, most Dutch people forming a union in the nineties cohabitated. Cohabitation is indeed the normal way of beginning a co-residential relationship: more than seven out of ten unions formed in the nineties were cohabitating unions. Most men and women (80 percent) who moved in together had never been married at that time. More women than men had been married when they started to live together, 21 and 17 percent respectively. Women are somewhat younger when they begin a union than men. The majority were born in the sixties.

In line with earlier findings, people entering cohabitation relationships differ in many respects from people who marry without living together first. The well-known differences between having and bringing up children are reinforced here; more childless men and women cohabit instead of marrying directly. About 70 percent of married people and about 80 percent of cohabiting people were childless in the year the union started. The others either had children born in an earlier union or marriage, or children born in the year the union started. The number of men and women with (older) children at the beginning of a (first or higher order) union presented in this table is relatively higher than if the disruption of *first* unions is studied.

Couples who start out by living together differ from those who marry straight away. Firstly, the proportion of working women is much higher among cohabiters (79 percent) than among directly marrying couples (69 percent). The proportion of women with no income at all is also higher among the directly married than among women who cohabit. Also, more than half of cohabiting women contribute equally to household income as opposed to one third of married women. Most directly married couples have a traditional division of labour with the husband earning most and the wife earning only a little or nothing at all.

In analyses not presented here, several baseline models were estimated including solely demographic variables and including both demographic and economic covariates, to examine which demographic covariates were significant. Age at union was not significant. This is probably the result of two opposite effects. On the one hand, an older age at union coincides with a longer search period, which is generally associated with lower divorce risks. On the other hand, an older age at union in this specific study also coincides with more second or higher order unions. These are generally more unstable than first unions. Secondly, birth cohort was not significant after controlling for socio-economic determinants. This implies that changes in socio-economic circumstances across the generations are more relevant for union dissolution than year of birth. Other demographic determinants are significant and they are included in the final models.

5.2 Economic determinants and union dissolution of women

Below, results for women will be discussed first, starting with the results of divorce of directly married women. This model resembles the more common divorce studies most (table 6).

Tabel 6. Models of disruption of unions by type of union of women: logistic regression coefficients of demographic and socio-economic determinants

	Women entry by marriage				Women entry by cohabitation			
	model 1	model 2	model 3		model 1	model 2	model 3	
	B	B	B	exp(B)	B	B	B	exp(B)
Union duration								
1st year (reference)								
2nd year	0.116	0.138	0.182	1.20	-0.338 **	-0.315 **	-0.308 **	0.73
3rd year	0.207	0.239	0.290	1.34	-0.496 **	-0.455 **	-0.449 **	0.64
4th year	-0.002	0.047	0.110	1.12	-0.672 **	-0.607 **	-0.605 **	0.55
5th year	-0.239	-0.166	-0.104	0.90	-1.029 **	-0.961 **	-0.963 **	0.38
6th year	-0.675 **	-0.593 *	-0.534 *	0.59	-1.239 **	-1.151 **	-1.154 **	0.32
7th year	-1.298 **	-1.218 **	-1.156 **	0.31	-1.053 **	-0.943 **	-0.955 **	0.38
8th year	-0.448	-0.362	-0.300	0.74	-1.248 **	-1.140 **	-1.174 **	0.31
9th year	-0.718	-0.616	-0.567	0.57	-1.160 **	-1.023 **	-1.054 **	0.35
10th year	-0.297	-0.205	-0.144	0.87	-2.491 **	-2.356 **	-2.388 **	0.09
Type of union								
never married (reference)								
ever married					0.132 *	0.202 **	0.184 **	1.20
subsequently married					-1.394 **	-1.309 **	-1.322 **	0.27
Foreigner								
yes (reference)								
no	-0.418 **	-0.352 **	-0.310 **	0.73	-0.592 **	-0.544 **	-0.524 **	0.59
Presence of children								
no children (reference)								
youngest child 0 to 5 years old	0.046	0.095	0.111	1.12	0.011	0.058	0.021	1.02
youngest child 6 to 17 years old	0.707 **	0.817 **	0.828 **	2.29	0.315 **	0.324 **	0.269 **	1.31
Main source of income								
not working, no income (reference)								
working	0.220	0.133	0.206	1.23	-0.267 *	-0.349 **	-0.253	0.78
unemployed	1.420 **	1.207 **	1.282 **	3.61	0.571 **	0.367 **	0.444 **	1.56
disabled	1.038 **	0.919 **	1.033 **	2.81	0.214	0.059	0.124	1.13
pension or other income	0.417	0.362	0.433	1.54	0.560 **	0.405 **	0.477 **	1.61
Personal income level	0.011	0.038 **	0.002	1.00	-0.001	0.041 **	0.014	1.01
Household income level		-0.024 **	-0.008	0.99		-0.036 **	-0.022 **	0.98
Woman earns								
less than 40% of total hh income (reference)								
about half of total hh income			0.278	1.32			-0.044	0.96
more than 60% of total hh income			0.863 **	2.37			0.495 **	1.64
Constant	-3.690 **	-3.339 **	-3.757 **		-1.079 **	-0.633 **	-0.834 **	
- 2 loglikelihood	3371	3355	3341		14555	14431	14385	
df	17	18	20		19	20	22	
p-value		0.000	0.001			0.000	0.000	
occurrence/exposure rate	0.030	0.030	0.030		0.092	0.092	0.092	
Number of events	399	399	399		2437	2437	2437	
Number of occurrences	13213	13213	13213		26350	26350	26350	

* p <= 0.05 ** p <= 0.01

Divorce rates more or less decrease with union duration. The presence and the ages of children are significant, but there is no real difference between no children and young children. Perhaps this is an artefact of the fact that a relatively large number of (ever married) women in second or higher order unions have young children who were born in an earlier marriage or union. The higher instability of women with children born in an earlier marriage is offset by a lower instability of women with small children of their own. Since children generally stay with the mother after divorce, the insignificance of the impact of young children relatively to having no children at all will probably be visible only for mothers, and not so much for fathers. The risk of mothers with older children separating is higher than that of childless women or women with young children. Women with a native Dutch background have a lower risk of divorce than women born abroad or women or daughters of first generation immigrants.

We finally turn to the main question of interest here, the effect of economic determinants on union dissolution. First of all, is it true that women's work is no longer relevant for recent union stability? This is indeed so. Work – measured by main source of income – does not raise the divorce rate of married women. This is thus in line with previous studies in the Netherlands (Poortman & Kalmijn, 2002; Manting, 1993, 1994). It was expected that rather than work per se, the income level of Dutch women would influence divorce. Income level is indeed important for union instability: the higher the income, the higher the risk of divorce. But after controlling for relative contribution to the household, it has no significant contribution. So, more important than work and income level per se is the relative contribution of women to the household income; the effect of both work and income level is not significant when controlling for the relative economic position. While there is apparently no difference between women with work and women without an income of their own, disability and unemployment are relevant. We observed a comparatively high rate of union dissolution for women who are disabled or unemployed. Thus, if women depend on social security – be it disablement or unemployment – the rate of union dissolution increases strongly. We expected that the higher the household income, the lower the union dissolution rates would be. This is true, but not after controlling for the relative contribution of women to the household. Directly married women tend to have a more traditional division of labour; women deviating from this pattern because they contribute more than their husbands, have a substantially higher divorce rate than the more traditional women.

All in all, work, a relatively high income level or household income do not really influence divorce, but the division of income between the spouses within the household does.

How does union dissolution differ between women who cohabit and those who marry straight away? To begin with, the overall separation rate of cohabiting women (0.09) is about three times as high as the divorce risk of directly married women (table 6, bottom: 0.03). This higher instability of cohabitation compared with marriage was found in many other countries (Hoem & Hoem, 1992; Clarke & Berrington, 1999; Kiernan, 2002; Manting, 1994). Therefore, although cohabitation

has become a normal way of life, the commitment level of the partners is still much lower than in marriage. Cohabiting women who went on to marry had a 0.27 times lower risk of union dissolution than women still cohabiting. And thus, marriage after a period of cohabitation is still a sign of a higher level of commitment. Divorced and widowed women have much higher rates of dissolution than never-married women. This is probably because many never-married women enter their first union, whereas for ever-married women by definition, this is not the first lasting relationship. Union dissolution rates decrease with union duration. Work does not appear to be relevant for cohabiting women either. That is, after controlling for the division of income within the household. Working women even have a lower (but insignificantly so) rate of breaking up than women who did not work. Disabled women have a higher chance of breaking up. Also, income level does not substantially influence the risk of separation after controlling for the relative income distribution within the household. In contrast with above, household income level is important: the higher the income of the household, the lower the separation rate. Even among modern unions, the most unstable unions are those in which the woman contributes the most to the household income.

5.3 Economic determinants and union dissolution of men

What is the role of men's economic circumstances in the process of breaking up? The empirical results for married and cohabiting men are discussed below (table 7).

Most demographic variables work similarly for both sexes. One exception is the presence of young children. Childless men are more likely to split up than fathers with young children. This is a common finding. The empirical finding supports the notion that children born in earlier marriages stay with their own mother and not with their fathers. And so, the presence of small children indicates the presence of own children in the case of the model of men, but measures both the presence of own children and children born in an earlier marriage in the case of the models of women. As a result, presence of small children works different on the stability of unions between men and women. Are men's work and income indeed relevant for divorce? Yes, they are. Working men have much lower divorce rates than men who do not work. This confirms what we expected, given that men are traditionally the main providers for the household. Whether a husband is disabled or retired seems to be fairly irrelevant for divorce. This is in contrast with the findings for married women which showed that disabled women have a much higher divorce rate. It is the distinction between employment or not that counts for married men. The more a husband earns, the less likely he is to divorce. This is also true after controlling for the relative contribution of the partners to the household income. A higher household income has no substantial impact on divorce. Contrary to expectation, household income level seems fairly unrelated to instability for male separation rates. It was thought that such a union-specific asset would raise the threshold for splitting up. If women contribute relatively more to the household income, the

Tabel 7. Models of disruption of unions by type of union of men: logistic regression coefficients of demographic and socio-economic determinants

	Men entry by marriage				Men entry by cohabitation			
	model 1	model 2	model 3		model 1	model 2	model 3	
	B	B	B	exp(B)	B	B	B	exp(B)
Union duration								
1st year (reference)								
2nd year	0.114	0.114	0.120	1.13	-0.431 **	-0.430 **	-0.424 **	0.65
3rd year	-0.110	-0.110	-0.106	0.90	-0.627 **	-0.623 **	-0.615 **	0.54
4th year	0.041	0.042	0.045	1.05	-0.841 **	-0.836 **	-0.833 **	0.43
5th year	-0.092	-0.092	-0.090	0.91	-1.188 **	-1.183 **	-1.185 **	0.31
6th year	-0.559 *	-0.559 *	-0.561 *	0.57	-0.979 **	-0.973 **	-0.974 **	0.38
7th year	-0.254	-0.254	-0.255	0.77	-0.995 **	-0.989 **	-0.989 **	0.37
8th year	-0.528	-0.528	-0.533	0.59	-0.913 **	-0.907 **	-0.916 **	0.40
9th year	-0.445	-0.445	-0.448	0.64	-1.274 **	-1.269 **	-1.286 **	0.28
10th year	-0.243	-0.242	-0.253	0.78	-1.680 **	-1.679 **	-1.692 **	0.18
Type of union								
never married (reference)								
ever married					0.203 **	0.203 **	0.180 **	1.20
subsequently married					-1.414 **	-1.420 **	-1.442 **	0.24
Foreigner								
yes (reference)								
no	-0.513 **	-0.513 **	-0.505 **	0.60	-0.628 **	-0.626 **	-0.609 **	0.54
Presence of children								
no children (reference)								
youngest child 0 to 5 years old	-0.258 *	-0.256 *	-0.268 *	0.76	-0.008	-0.018	-0.051	0.95
youngest child 6 to 17 years old	0.247	0.248	0.236	1.27	0.326 *	0.316 *	0.302 *	1.35
Main source of income								
not working, no income or unemployed (reference)								
working	-0.560 **	-0.561 **	-0.545 **	0.58	-0.607 **	-0.605 **	-0.512 **	0.60
disabled	0.064	0.064	0.069	1.07	-0.415 **	-0.416 **	-0.336 **	0.71
pension or other income	-0.381	-0.381	-0.384	0.68	-0.513 **	-0.510 **	-0.444 **	0.64
Personal income level	-0.038 **	-0.039 **	-0.035 *	0.97	-0.034 **	-0.028 **	-0.026 **	0.97
Household income level		0.001	-0.001	1.00		-0.005	-0.005	1.00
Woman earns								
less than 40% of total hh income (reference)								
about half of total hh income			-0.063	0.94			-0.202 **	0.82
more than 60% of total hh income			0.131	1.14			0.213	1.24
Constant	-1.878 **	-1.883 **	-1.901 **		-0.009	0.034	-0.020	
- 2 loglikelihood	3917	3917	3916		15918	15915	15872	
df	16	17	19		18	19	21	
p-value		0.930	0.510			0.135	0.000	
occurrence/exposure rate	0.031	0.031	0.031		0.102	0.102	0.102	
Number of events	459	459	459		2793	2793	2793	
Number of occurrences	14920	14920	14920		27330	27330	27330	

* p ≤ 0.05 ** p ≤ 0.01

divorce level is higher, but insignificantly so. So, Oppenheimer's theory that men's economic position is relevant in explaining divorce is supported. Their economic circumstances play an important role in the explanation of divorce differences. We can conclude that individual economic determinants of men seem to be more important than couple-specific circumstances.

Can we reach a similar conclusion for the separation of (initially) cohabiting men? Again, there are substantial differences in dissolution rates between couples who married subsequently, and those continuing cohabitation. Also, separation rates of ever-married men are significantly higher. And, men's work and income are also highly relevant for separation of cohabiting men. Working men have much lower dissolution rates than unemployed men. In contrast with the findings of married men, cohabiting men who are disabled or retired have significantly lower dissolution rates than cohabiting men who are unemployed. The more a male partner earns, the less likely he is to break up. This is also true after controlling for the relative contribution of the partners to the household income. A higher household income has no substantial impact on splitting up. Contrary to expectation, household income level seems fairly unrelated to instability for male separation rates. So, Oppenheimer's theory that men's economic position is relevant is now also confirmed with regard to dissolution of cohabitation. Economic circumstances of men play an important role in the explanation of dissolution and divorce differences. Stability is highest in cases where the woman earns about the same as her partner. The division of income within a household, indicated by the contribution of the woman to household income is again a very important fact in union stability.

6 Summary and conclusion

This paper has discussed the effects of the economic circumstances of men and women on the dissolution of recently formed unions, i.e. couples starting out in the nineties. It includes first and later-order unions, and marital and non-marital relationships between married, never-married, divorced and widowed persons. We wanted to study both cohabitation and marriage because we believe that research into the process of union formation and dissolution can no longer be limited to the study of traditional processes of marriage and divorce. Until now, however, relatively little is known about break-ups of cohabiting couples. This study has tried to expand earlier insights into these break-ups compared with divorces of married couples.

The study used longitudinal data from Statistics Netherlands' Income Panel Study 1989-2000, which is conducted to illustrate the composition and distribution of personal and household income in the Netherlands. The panel consists of a sample from the tax administration, and this was the first time it was used for secondary analyses on divorce and dissolution. A register such as this had both advantages and disadvantages: advantages were that there is no selective attrition other than death or migration, and the longitudinal measurement of several income determinants. It

proved to be an excellent source for studying the relationship between economic determinants and union instability. The disadvantages were the relatively small number of covariates and the broad time unit.

The study confirmed earlier findings, showing that – instead of marriage – cohabitation has now become the normal way of beginning a long-term relationship. More than two-thirds of all couples starting a long-term union in the 1990s started by living together. Traditionally, cohabiting couples have had much higher dissolution rates than married ones. Today still, more cohabiting than married Dutch couples split up. Even now, when more couples choose to live together rather than get married straight away, cohabiting couples have a three times higher probability of ending their relationship than those who marry immediately. Cohabiting couples generally have fewer ties to the union and the dissolution threshold is therefore lower. Cohabiting couples who subsequently marry have lower union dissolution rates than those who do not marry. This is in line with the idea that marriage is a sign of a higher level of commitment to maintaining the relationship. This was so at the end of the eighties, and it is still so during the nineties in the Netherlands. However, the risk of these couples divorcing is still much higher than that of couples marrying without living together beforehand. This might be because, as Clarke & Berrington (1999) put it, ‘... it would seem then that any protective effect that cohabitation has in acting as a weeding mechanism is being outweighed by a selection effect’ (page 17).

Cohabiting couples differ from married couples in many other ways as well. With regard to the division of income within the household, for example: in a much larger proportion of cohabiting couples than married couples both partners contribute about equally to the household income at least at the beginning of the union. Also, women who move in with a partner are more likely to work than those who marry a partner without living together first. As such, cohabiting women exhibit the new trends in the female occupational career more clearly than married women, who have a more traditional division of labour. An interesting finding is that there are clearly substantial differences between cohabiting and married women with regard to the traditional division of labour and union instability.

One of the main points of focus in this study was the role of women’s economic independence in the process of union dissolution. This is traditionally put forward as being the main force behind increasing divorce rates. The findings of this study do not support this. Women’s work does not substantially influence the process of divorce or separation: it is not important in the first years of co-residence for unions formed in the nineties. This confirms empirical findings of previous studies in the Netherlands. It was expected that rather more than work in itself, relatively higher income levels of women would increase union instability. On the face of it, it did indeed seem that the higher the woman’s income level, the higher the risk of separating became. However, closer examination showed that women’s income levels do not influence the instability of recent unions in the Netherlands substantially after controlling for the contribution of women to the household income as a whole. A modern division of income, that is an equal contribution to

household income, is associated with higher union stability for couples. But in both modern and traditional unions, the deviant pattern – in which women contribute most to the household income – leads to the highest instability. Thus, even in the modern unions (cohabitation), a deviant division of labour destabilises the union. Level of household income is only relevant for the separation rates of cohabiting women, not for the divorce rates of married women.

While women's economic circumstances therefore cannot be ignored, the results also show that men's economic circumstances should not be ignored either. Where it has been very common to study union dissolution from the viewpoint of women, this study provided new estimates of the importance of men's economic situation for union instability. These findings support Oppenheimer's statement that the pre-occupation with women's changing life course as the main cause of increasing union instability should be reviewed. Indeed men's economic circumstances play an important role. In the Netherlands, the traditional role of the man as main breadwinner of the household is an important feature of union stability: the more a man earns, the lower the dissolution rates. Also, working men have a much lower dissolution rate than non-working men. This is in line with other findings in the Netherlands (Poortman & Kalmijn, 2002). Men's income levels are even more important than household income for divorce and separation risks for men.

This study clearly shows that the focus on marriage and divorce should also be left behind. It is time to move on and concentrate on both marital and non-marital unions in order to gain more insight into the ever increasing instability of unions in the Netherlands. This study shows that marriage and cohabitation differ on a number of accounts. Not only women's economic independence warrants more study but there should also be more explicit attention for men's socio-economic circumstances. Moreover, the role of the relative contribution to household income, and the relative positions of men and women in recent union instability in the Netherlands should not be ignored either.

Acknowledgements

This is a revised version of results presented at the Second Conference of the European Network of divorce in Tilburg (2003). The authors thank participants and colleagues of Statistics Netherlands who made comments on earlier versions.

References

- Allison, P.D. (1982), Discrete-time methods for the analysis of event histories. In: S. Leinhardt (ed), *Sociological Methodology*, Jossey-Bass Publishers, San Francisco, 61-98.
- Allison, P.D. (1984), *Event history analysis, regression for longitudinal event data*, Sage University Paper Series on Quantitative Applications in the Social Science, Sage, Beverly Hills.
- Alders, M.A. & L. Steenhof (2003), *Vierduizend flitsscheidingen in 2002*, Webmagazine, 19 May 2003, www.cbs.nl.
- Baizan, P. & A. Aassve & F. C. Billari (2002), *Institutional arrangements and life course outcomes: The interrelations between cohabitation, marriage and first birth in Germany and Sweden*, MDIDR working paper W 2002-026, June 2002, Max-Planck-Institut für demografische Forschung, Rostock.
- Becker, G. S. (1981), *A treatise on the family*. MA: Harvard University Press, Cambridge.
- Blossfeld, H.-P. & J. Huinink (1991), Human capital investments or norms of role transition? How women's schooling and career affect the process of family formation. *American Journal of Sociology*, 97, 143-68.
- Blossfeld, H.-P. & D. Manting & G. Rohwer (1994), Patterns of change in family formation in the FRG and the Netherlands: some consequences for solidarity between generations. In: H.A. Becker & P.L.J. Hermkens (eds), *Solidarity of generations, demographic, economic and social change, and its consequences*, Thesis Publishers, Amsterdam, 175-196.
- Bracher, M. & G. Santow & S.P. Morgan & J. Trussell (1993), Marital dissolution in Australia: Models and Explanations. *Population Studies*, 47, 403-425.
- Clark, L. & A. Berrington (1999), Socio-demographic predictors of divorce. In: Simons (ed), *High divorce rates: the state of the evidence on reasons and remedies*, The research Secretariat of the Lord's Chancellors Department (London: LCD 1999).
- De Graaf, A. & L. Steenhof (1999), Relatie en gezinsvorming van generaties 1945-1979: uitkomsten van het Onderzoek Gezinsvorming 1998 (Partnership and family formation of cohorts 1945-1979: results of the Netherlands Fertility and Family Survey 1998). *Maandstatistiek van de Bevolking*, 1999/12, CBS, Voorburg, 21-36.
- Dourleijn, E. & A.C. Liefbroer (2002), *Unmarried cohabitation and union stability: A test of the selection hypothesis using data on 16 European countries*, Paper prepared for the conference on Divorce in cross-national perspective: A European Research Network, Florence, 14-15 November, 2002.

- Feijten, P. & C.H. Mulder & P. Baizán (2003), Age differentiation in the effect of household situation on first-time home-ownership. *Journal of housing and the Built Environment*, no. 18, Kluwer Academic Publishers, The Netherlands, 233-255.
- Garssen, J. (2003), Demografie van Nederland, 2003. *Bevolkingstrends*, 51/4, CBS, Voorburg, 12-29.
- Hoem, B. & J. M. Hoem (1988), *Dissolution in Sweden: The break-up of conjugal unions to Swedish women born in 1936-60*, Stockholm Research Reports in Demography, no. 45, University of Stockholm.
- Hoem, B. & J.M. Hoem (1992), The disruption of marital and non-marital unions in contemporary Sweden. In: J. Trussell, R. Hankinson and J. Tilton (eds), *Demographic applications of event history analysis*, Clarendon Press, Oxford, 61-93.
- Jalovaara, M. (2003), Socioeconomic differentials in divorce risk bij duration of marriage. *Demographic Research*, vol. 7, paper 16, Online journal of the Max Planck Institute for Demographic Research, 538-564.
- Kiernan, K. (2002), *Unmarried cohabitation and parenthood: here to stay? European perspectives*. Paper presented at the Conference on Public Policy and the Future of the Family, October 25th 2002.
- Kravdal, O. (1988), The Impact of first-birth timing on divorce: new evidence from a longitudinal analysis based on the central population register of Norway. *European Journal of Population*, 247-269.
- Laird, N. & D. Oliver (1981), Covariance analysis of censored survival data using log-linear analysis techniques. *Journal of the American Statistical Association*, 76, 231-40.
- Loozen, S. & L. Steenhof (2004), *Ruim 125 duizend personen met een l.a.t. relatie*, Webmagazine, 12 January 2004, www.cbs.nl.
- Manting, D. (1993), Welke vrouwen maken een echtscheiding mee? (Which women experience divorce?) *Maandstatistiek van de Bevolking*, 1993/2, CBS, Voorburg, 18-29.
- Manting, D. (1994), *Dynamics in marriage and cohabitation. An inter-temporal, life course analysis of first union formation and dissolution*. Dissertation, Thesis publishers, Amsterdam, 1994.
- Manting, D. (1996), The changing meaning of cohabitation and marriage. *European Sociological Review*, vol. 12, no. 1, May 1996, 53-66.
- Morgan, P.S. & R.R. Rindfuss (1985), Marital disruption: structural and temporal dimensions. *American Journal of Sociology*, vol. 90, no. 5, 1055-1076.
- Mulder, C.H. & D. Manting (1994), Strategies of nest-leavers: 'settling down' versus 'flexibility'. *European Sociological Review*, vol. 10, no. 2, September 1994, Oxford University Press, 155-172.

- Nazio, T. & H.-P. Blossfeld (2003), The diffusion of cohabitation among young women in West Germany, East Germany and Italy. *European Journal of Population*, 19, 47-82.
- Oppenheimer, V. K. (1988), A theory of marriage timing. *American Journal of Sociology*, 94, 563-591.
- Oppenheimer, V. K. (1994), Women's rising employment and the future of the family in industrial societies. *Population and Development Review* 20, no. 2, June 1994, 293-342.
- Poortman, A.-R. & M. Kalmijn (2002), Women's labour market position and divorce in the Netherlands: Evaluating economic interpretations of the work effect. *European Journal of Population*, no. 18, 175-202.
- Portegijs, W. & A. Boelens & S. Keuzenkamp (2002), *Emancipatiemonitor 2002*, Sociaal en Cultureel Planbureau en Centraal Bureau voor de Statistiek, Den Haag, November 2002, SCP-publication 2002/13.
- Sayer, L.C. & S.M. Bianchi (2000), Women's economic independence and the probability of divorce. A review and reexamination. *Journal of Family Issues*, vol. 21, no. 7, October 2000, Sage Publications, Inc.
- Steenhof, L. & C. Harmsen (2002a), Ex-samenwoners. *Maandstatistiek van de Bevolking*, 2002/3, CBS, Voorburg, 17-20.
- Steenhof, L. & C. Harmsen (2002b), Nieuwe samenwoners. *Maandstatistiek van de Bevolking*, 2002/2, CBS, Voorburg, 7-11.
- Van der Avort, A.J.P.M. (1987), *De gulzige vrijblijvendheid van expliciete relaties*. Tilburg University Press.
- Waite, L.J. & G.D. Spitze (1981), Young women's transition to marriage. *Demography*, vol. 18, no. 4, November, 681-694.
- Wu, Z. & M. Pollard (1998), *Economic circumstances and the stability of nonmarital cohabitation*, The income and Labour Dynamics Working Paper Series, 75F0002M, no. 98-10, Statistics Canada.