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Fathers' Use of Parental Leave
in Germany**

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Against All Odds: Fathers' Use of Parental Leave in Germany

Abstract: This paper investigates fathers' usage of parental leave in Germany based on data from the microcensuses 1999-2005. We consider two competing hypotheses. On the one hand, we argue that value change is a driving force behind fathers' engagement in parenting activities. We assume that the 'new father' can more often be found among highly educated and urban men who are believed to be the forerunners in terms of new values and ideas. We contrast this hypothesis with the assumption that economic factors are the main determinants of men's parental leave decisions. Our main finding is that fathers are more likely to be on parental leave if they have a highly educated or older partner. We also find that employment through a temporary working contract substantially lowers the chances that men will take advantage of parental leave, while being employed in the public sector increases the chances that men will use their parental leave entitlement.

1 Introduction¹

There is a large body of literature that demonstrates that children are an impediment to their mothers' employment careers. Recommendations to policy makers have usually been to increase women's labor force participation by facilitating work-life balance through childcare and parental leave schemes (Gornick et al. 1997; Kenjoh 2005; Burgess et al 2008). In contrast to the strong public interest in mothers' employment, fathers' work patterns have been far less frequently the focus of the social policy discourse (Gornick and Meyers 2008). Likewise, the employment behavior of fathers has attracted much less attention in research than the employment of mothers. It is mainly through studies on the gendered division of household tasks that we have learned how children affect a man's employment behavior. These studies have pointed out that the arrival of the first child pushes couples towards traditional gender roles, even among those who reported a rather equal division of labor before the child was born (Schulz and Blossfeld 2006; Grunow, Schulz and Blossfeld 2007; Dribe and Stanfors 2009). It has also been found that fathers do not alter their work schedule very much after becoming a parent. While mothers radically reduce their working hours after childbirth, there is evidence that the working hours of men remain the same (Pollmann-Schult and Diewald 2007). Empirical investigations into the 'new

¹ We are grateful for comments that we received at the Annual Conference of the German Society for Sociology held in Jena in 2008. We would also like to thank Gunnar Andersson (SPaDE, Stockholm University) for valuable comments. Thanks also to our colleagues at the Max Planck Institute for Demographic Research for various helpful comments on a first draft of this paper. For language editing, we would like to thank Miriam Hils.

role of fathers' have found that attitudes towards gender roles have changed in recent years, with both men and women embracing a more equal division of household labor. This stands, however, in sharp contrast to men's real engagement in housework and parenting activities.

The aim of this paper is to shed more light on fathers' parenting behavior by looking into the determinants of men's take-up of parental leave in Germany in the period 1999 to 2005. Parental leave benefits were rather low during this period, and it has been assumed that economic considerations were the main reasons for German men's low rates of usage of parental leave (Beckmann 2001; Institut für Demoskopie Allensbach 2005; Vaskovics and Rost 1999). In this paper, we put this assumption to the test. On the one hand, we investigate whether relative economic resources and employment conditions influence men's employment choices. On the other hand, we argue that a change in values is the driving force which explains parental leave usage among men. The paper is structured as follows. In the next section, Part 2, we elaborate our main research hypotheses. Part 3 discusses previous findings. In Part 4 we present data and methods. Part 5 provides a summary of the findings, and Part 6 discusses the results.

2 Theoretical considerations

2.1 Economic approaches to men's participation in non-market work

According to the economic approach of the gender division of work (Becker 1993), the decision about how to allocate time between housework and employment is determined by the human capital endowment of each household member. The

assumption of the theory is a common utility function, which means that all household members are interested in maximizing the utility of the household. The person with higher household-specific human capital will allocate his or her time to the household, and the person with higher market-specific human capital will spend more time in the labor market. Although it is frequently claimed that the economic approach is gender neutral, Becker's approach is not, since he assumes that women would be more likely to specialize in household activities due to their high 'biological commitment' to the care of children (Becker 1993: 37).

Cooperative and non-cooperative bargaining theories have questioned the assumption of new home economics that there is a common household utility function (Manser and Brown 1980; Ott 1989, 1992; Lundberg and Pollack 1994, 1996, 2003; Amilon 2007; Lommerud 1997; Konrad and Lommerud 2000). Instead, it is assumed that employment decisions are a product of intra-family negotiations, whereby each family member maximizes his or her own utility. Agreement is reached through bargaining. The result of the bargaining outcome is very much determined by the resources which the bargaining partners have when they enter negotiations. Market-related human capital is assumed to be of greater value in these negotiations than household-related human capital (Ott 1989: 101). While a specialization in market work results in acquiring more firm and work experience, and thus a higher wage rate, specializing in housework largely means that market specific human capital is devaluated. Thus, specialization influences the distribution of the bargaining power in the relationship (Brines 1993; Lundberg and Pollack 1994; Amilon 2007). The person with the greatest resources will have greater bargaining power, which, in turn, puts him or her in a better position to avoid unpleasant activities, such as housework and childrearing.

The mechanisms that govern employment choices in the bargaining approach are very different from the Beckerian type model. In the Beckerian type model, employment decisions are made by altruist family members who pursue a common family interest, while in the bargaining approach, employment decisions are determined by power disparities in the relationship. Despite these differences, predictions from the two approaches are very similar. The person with the higher human capital endowment will work in the labor market.

Both concepts have in common that they lump housework and childcare into one category. This assumption has been questioned, and several researchers have suggested distinguishing conceptually between the two tasks (Sundström and Duvander 2002; Craig 2006; Deutsch et al. 1993; Mannino and Deutsch 2007). Household labor is usually regarded as an unpleasant duty, whereas investing time in parenting is considered a more rewarding task. Particularly highly educated parents might be more concerned about their children's cognitive abilities, and may therefore want to spend more time with their children (Yeung et al 2001; Craig 2006). This criticism points to the fact that economic resources are important considerations, but cultural factors that define gender relations and what constitutes 'appropriate parenting' cannot be ignored when conceptualizing men's employment choices.

2.2 The social embeddedness of paternal employment choices

Sociologists have criticized economic thinking for not adequately accounting for the social embeddedness of employment and parenting behavior (Brines 1993, 1994; South and Spitze 1994; Coltrane 1996; Pfau-Effinger 1998; 2004; Duncan and Edwards 1997; Duncan et al 2003). The allocation of labor in the household is not

only based on objective, 'rational' considerations, but is rather an expression of gender relations. Particularly studies on the division of household tasks have pointed out that male and female behavior is governed by gender role expectations and normative beliefs about what is appropriate for fathers and mothers (Coltrane 1996, 2000). In this sense, behaviour is not solely governed by economic constraints, but also by a cultural understanding of what is assumed to be the 'right' thing for a mother and a father to do.

Duncan and Edwards (1997) coined the term 'gendered moral rationalities' in this context, which they define as "social and cultural collective understandings about what is best, and morally right for men, as well for women" (Duncan and Edwards 1997: 35). They agree that economic constraints are important, but they view them as subordinated to the gendered moral rationalities in guiding women's and men's employment behavior. Similar to the gendered moral rationalities approach, Pfau-Effinger (1998; 2004) argues that societal assumptions about correct gender relations and the division of labor between men and women, as well as cultural constructions of childhood, motherhood, and fatherhood, influence individual decisions about labor market participation. The 'doing-gender approach' goes a step further by arguing that gender is reproduced in everyday activities (West and Fenstermaker 1993). This approach is based on the assumption that "women and men perform different tasks because such practises affirm and reproduce gendered selves, thus reproducing a gendered interaction order" (Coltrane 2000: 1213).

2.3 The educational gradient in gender role attitudes

Gender role approaches conceptualize why household tasks are shared according to traditional gender roles, but they are less explicit about who will deviate from role expectations. It is, however, largely expected that more highly educated individuals will be forerunners of new values and ideas (Inglehart 1977: 78; Lesthaeghe and Neidert 2006; Scarbrough 1998: 155). This assumption is also supported by empirical studies that show that higher education is associated with a more egalitarian understanding of gender roles (Hofäcker 2007).

Our own estimations based on data from the ALLBUS survey support this view. Table 1 gives the share of respondents who agree or strongly agree with various statements of attitudes regarding maternal employment, childcare, and housework. The investigation shows a strong educational gradient for all items, and for both sexes:² Highly educated respondents are more likely than others to think that working mothers can establish a loving relationship with their children, and that the child benefits if the mother works. They are less likely to believe that the child suffers when the mother works. They are also less often of the opinion that the wife must help her husband with his career, and that men should work and women should be homemakers. Finally, highly educated men and women are relatively unlikely to believe that married women should not work if there are only a limited number of jobs available.

The finding that education is highly positively correlated with modern attitudes and ideas would suggest that higher educated males are also forerunners in terms of new

² All results are significant at the 0.01 level, except the first statement for men (only 0.05 level).

parenting behavior. This stands in contrast to the predictions of the economic approach, which suggests that males with high earning potential are less likely to take leave to spend time with their children.

[Table 1 about here]

2.4 Hypotheses regarding the determinants of men's parental leave usage

Drawing upon the theoretical approaches discussed above, we contrast two main hypotheses. The economic approach suggests that relative economic resources should be the driving force behind men's employment choices. Men who have fewer economic resources than their partners should be more likely to be on parental leave. In line with the human capital approach, we assume that this applies to men who are less educated than their partners. Apart from education, age is also used in economic models as an indicator for work experience, and, thus, human capital endowment. We therefore assume that men who are younger than their partners are also likely to be on leave. As others have done before (Coltrane 2000: 1214), we call this assumption the 'relative resources hypothesis'.

If we assume that values and beliefs are important for men's parenting activities, and if we further assume that highly educated individuals are forerunners in terms of new values and ideas, highly educated men should be more likely to take leave than their less educated counterparts. Another indicator that has been associated with modern values and ideas is urbanity (Lesthaeghe and Neidert 2006: 682), which we will also use in our investigation. We further posit that modern values regarding new gender roles might vary by type of union. For example, gender attitudes could be more equal

in non-marital than in marital unions. There is some empirical evidence supporting this assumption which shows that non-marital couples share housework more equally than married couples (Lois 2008; Wengler et al. 2008). However, it has also been proposed that marriage may represent a stronger commitment than cohabitation, which is why married fathers want to invest more in their children than non-marital fathers (Sundström and Duvander 2002; Lappegard 2008; Naz 2007). In sum, the ‘value change hypothesis’ suggests that highly educated, urban fathers, as well as fathers in non-marital unions, may be forerunners in taking parental leave. The ‘relative resources hypothesis’ and the ‘value change hypothesis’ are the primary interests of our study. There are, however other aspects we account for in our investigation. Employment conditions are important determinants of men’s parenting activities (Gesterkamp 2007: 106ff.). Surveys on the attitudes of men and women towards parental leave have also revealed that fathers who find themselves in precarious and unstable employment situations are less willing to go on leave out of fear of losing their employment (Vaskovics and Rost 1999: 43f.; Beckmann 2001). We take this aspect in account by controlling for whether the father has a temporary working contract or is permanently employed by a public enterprise. Apart from the employment situation, we also account for other factors that have been found to influence men’s parenting activities, such as the gender of the children, the number of children, and the ages of the children (Harris and Morgan 1991). Before we put our hypotheses to the test, we briefly summarize the institutional context of parental leave regulations in Germany, and discuss prior empirical findings on men’s take-up of parental leave.

3 Summary of prior empirical findings

3.1 German family policies and official indicators of fathers on parental leave

In (West) Germany, parental leave was introduced in 1986.³ The duration of leave was initially 10 months, combined with an income-tested benefit of 600 DM (roughly 300 euros). Since then, the length of leave has been modified several times. The last change was in 1992, when the maximum duration of leave was extended to three years. Since this reform, the maximum period of parental leave (three years) and the maximum duration of parental benefits (two years) have not been synchronized. Between 1992 and 2007, the duration of leave and the amount of parental leave benefits did not change significantly. The maximum duration of leave has been three years, which was combined with a parental leave benefit of 300 euros per month.⁴

³ In 1979 a regulation was introduced which granted employed women paid leave for the duration of six month after childbirth. The pay for this period was equivalent to sick pay (max. 750 DM). This policy measure was discontinued with the introduction of the *Erziehungsurlaub* (parental leave) in 1986, which gave mothers and fathers an equal right to use leave.

⁴ Parental leave benefits have been income tested. Between 1986 and 2000 income limits for couples were €15,032 net income per year (BMJFFG 1989: 32); between 2001 and 2003 benefits were €51,130 for the first six months and €16,470 from the seventh month (BMFSFJ 2002: 74). From 2004 until 2006, the income limits were drastically reduced to €30,000 per year for the first six months (BMFSFJ 2006: 78). Between 2001 and 2006, parents received €450 benefits per months if they reduced the benefit

However, there have been some minor changes which have made it easier for fathers to take leave. With the 1992 reform, it became possible for non-married fathers without child custody to take leave if the mother consented. In 2001, more flexibility was introduced, and it became possible for both partners to take leave simultaneously. In 2007, Germany introduced a radically new pay scheme which grants 67 percent of the former net income for 14 months (Henninger et al 2008; Leitner et al 2007). Two months are reserved for the father (paternity quota), and can only be used by the mother if she is single or in certain other special circumstances.

Unfortunately, there are no official statistics on the share of men who are taking parental leave. However, German statistics provide information on the share of men who receive parental benefits. Not all individuals who are on parental leave receive parental leave benefits. Furthermore, parental leave benefits are independent of prior employment. Therefore the percentage of men who receive parental leave benefits is not a perfect indicator for the share of men on parental leave. Despite these shortcomings, this indicator is nevertheless very useful in confirming that the chances that a German man will take advantage of parental leave regulations remain low. Until 2007, only between one and three percent of all individuals who received parental leave benefits were males (see Table A1 in the Appendix). If only the group of employed men who receive parental leave benefits is considered, the share of males is even lower (see Table A2 in the Appendix).

period to one year. If they chose the shorter benefit period, different income thresholds applied (see BMFSFJ 2002: 21; BMFSFJ 2006: 19f).

The parental leave reform of 2007 shifts Germany more in the direction of the Nordic countries.⁵ Newly published data from the Ministry of Family Affairs show that, since the reform, the percentage of fathers filing for leave has skyrocketed. Unfortunately, we are not yet able to investigate the effect of the policy reform on men's behavior for Germany since our data only spans the period 1999 to 2005.

3.2 International studies on men's parental leave usage

Most studies on father's usage of parental leave have been conducted for the Nordic countries (Sundström and Duvander 2002; Duvander et al. 2008; Byrge and Duvander 2006; Duvander and Andersson 2006; Naz 2007 and Lappegards 2008; Duvander and Jans 2008). One reason for this certainly is that it is quite common for fathers in the Nordic countries to be on leave. Unlike Germany before 2007, most Nordic countries have a paternity quota, or time which is reserved for the father after the birth of a child, and cannot be taken by the mother. Furthermore, researchers in these countries benefit from the fact that they have access to register data which may be applied to the study of men's employment behavior.

⁵ Today, all of the Scandinavian countries have leave schemes that reserve a certain duration of leave to the father (paternity quota) (Ostner and Schmitt 2007). In 1974, Sweden was the first country in the world to grant parental leave that was related to the previous income. The duration of leave was six months with a wage replacement of 90 percent. The length of leave has been extended several times, and can now be taken up to one year. The wage replacement rate is currently 80 percent during parental leave (Björnberg and Dahlgren 2007: 53). For an overview on the share of men in parental leave in Scandinavian countries, see the appendix.

Using register data of Swedish couples, Sundström and Duvander (2002) find that fathers take longer periods of leave with first-born children if they are married and if their partners are highly educated. Furthermore, both men's and women's income has a positive impact on men's chances of taking leave, although the impact of men's earnings is higher than that of women's.

Byrge and Duvander (2006) investigate how women's and men's workplace characteristics determine fathers' use of parental leave. They find that fathers working in the public sector, in larger firms, and in female-dominated workplaces use more parental leave. In contrast, mothers' workplace characteristics do not appear to matter, with the exception of female-dominated workplaces, which decreases fathers' likelihood of using leave. In addition, they find positive effects of the mothers'—but not of the fathers'—education on the chances that fathers will take leave.

Lappegard's (2008) results for Norway are similar to Sundström's and Duvander's for Sweden. She also finds a positive effect for married and first-child fathers on men's take-up of leave. Furthermore, the educational levels of the mother and of the father have positive effects on fathers' use of leave. However, mothers' university education has a stronger impact than the fathers' education on leave-taking. Unlike the study by Sundström and Duvander, Lappegard finds a more pronounced effect of women's than of men's income.

Naz (2007) investigates the determinants of fathers' leave-taking in Norway. In line with the results of the study by Lappegard, she finds a positive effect of mothers', but not of fathers', income. In addition, she finds an effect of higher education for fathers, but not for mothers. Similar to Sundström and Duvander (2002) and Lappegard (2008), her research shows that married fathers use more leave than cohabiting fathers. Concerning the workplace characteristics, Naz finds that there are no

workplace effects for the use of the ‘paternity quota,’ but strong positive effects of female-dominated professions for the use of gender-neutral leave. If mothers worked full-time prior to childbirth, the effect on fathers’ leave-taking is positive.

Nepomnyaschy and Waldfogel (2007) use U.S. data from 2001 to investigate the determinants influencing fathers’ take-up of short leave after the birth of a child. Unlike the studies for the Northern European countries, they find that cohabiting fathers are more likely to take leave than married fathers. The authors assume that this might be due to more egalitarian and gender-neutral attitudes towards childrearing among cohabiting couples than among married couples. It should be emphasized here that the institutional context of the U.S. is very different from that of the Nordic countries, particularly as the financial compensation during parental leave is very different. We must therefore be cautious when comparing the results from the Nordic countries with findings from Anglo-Saxon countries.

3.4 German studies on men’s parental leave usage

While research on Scandinavian countries has produced wide evidence of the determinants and lengths of fathers’ parental leave usage, there are no comparable studies for Germany. Data sets which have previously been used to study mother’s parental leave usage (Ondrich, Spieß and Yang 1996; Gustafsson et al 1996; Drobnič 2000) cannot be used for the study of male behavior. Fathers’ usage of parental leave is such a rare event that common survey data sets, such as the German Socio-Economic Panel, do not yet include enough cases for a reasonable investigation of father’s parental leave usage.

There are, however, various empirical studies on men and women's attitudes towards fathers on parental leave. The first study to investigate these issues was by Vaskovics and Rost (1999), who surveyed new fathers who did *not* take leave, and queried the respondents about their reasons for not doing so. Beckman (2001) conducted a study on mothers on parental leave, asking the respondents about the reasons why their partners did not take any leave. The most recent study, conducted by the Institut für Demoskopie Allensbach (2005), questioned young men about their attitudes towards parental leave. A consistent finding of these investigations is that the loss of income is a prime reason for the low acceptance of parental leave among fathers. Another reason that was mentioned frequently, particularly in the eastern states of Germany, is the fear of losing one's job as a consequence of taking parental leave (Beckman 2001: 6). Additional reasons given for men's unwillingness to take leave include concerns about parental leave creating career disadvantages, and the fear of being stigmatised for using leave (Vaskovics and Rost 1999; Institut für Demoskopie Allensbach 2005). However, a large proportion of men, as well as women, appear to have never seriously thought about the possibility of men's leave. It was clear to them that the mother of the child would use the parental leave (Vaskovics and Rost 1999; Institut für Demoskopie Allensbach 2005).

Apart from quantitative studies, there have been several studies on the sharing of household tasks. These studies directly or indirectly addressed the situation of fathers using parental leave (Vaskovics and Rost 1999; Kassner and Ruling 2005, Rost 2002: 375). Evidence from qualitative studies is rather mixed. There is evidence to support the proposition that income differences are an important consideration in men's employment choices (Vaskovics and Rost 1999; Rost 2002), and that a sufficiently high family income is a precondition for men's decisions to use parental leave

(Kassner and Rüling 2005: 236). These results tend to suggest that attitudes on gender roles are not that important for the division of work, and that the decisions are rather made pragmatically. There are, however, also studies that mention highly educated urban men as forerunners in terms of new parenting behavior (Kassner and Rüling 2005: 239).

4 Data, method and variables

4.1 Data

For our analyses we use data from the German microcensuses. The German microcensus is a representative population sample containing one percent of the households in Germany. It has been conducted in western Germany since 1957 and in eastern Germany since 1991. Until 2004 the survey was conducted once a year, but since 2005 households have been surveyed throughout the whole year (Lechert and Schimml-Neimanns 2007). We use the Scientific-Use-File, which is a factual anonymised 70 percent sub-sample of the original microcensus provided for research purposes by the German Federal Statistical Office (Lüttinger and Riede 1997; Emmerling and Riede 1997).

We restrict the investigation to the period 1999-2005. This restriction is made because earlier microcensuses did not include information on parental leave-taking, and later microcensuses are not yet available. We furthermore restrict the analysis to men who were aged 18 to 45 at the time of the interview, and who had a child under age three who lived in the same family unit. In defining a family unit, we use the ‘new concept of family forms’ (*neues Konzept der Lebensformen*), which enables us, in contrast to

the traditional concept, to identify non-marital unions as families (for details, see Lengerer, Bohr and Janßen 2005; Nöthen 2005).

A data problem concerns the risk population. Only men who were employed before the child was born are eligible for parental leave.⁶ Since the microcensus does not provide detailed retrospective employment histories, we cannot clearly identify who is eligible for leave and who is not. However, we assume that respondents who were not employed at the time of interview were not been eligible for leave when the child was born. We therefore exclude this population from the sample. Table 2 provides an account of the distribution of the employment status before omitting the non-employed from the study.⁷ As can be seen from the table, less than one percent of men with children under age three are on parental leave. For comparison, between 36 to 41

⁶ Another minor problem concerns the fact that the kin relationship within a family cannot be clearly assessed with the microcensus. Therefore, it is not possible to identify step-fathers who, until the year 2000, were only eligible to take leave to look after the children if they were married to the mother of the child.

⁷ We mainly follow the ILO-definition of employment here. People are employed if they work for pay for at least one hour per week. According to the ILO definition, a person who is not working but only temporarily absent from work due to sickness, holiday, or maternity/parental leave is categorized as being employed. Since our focus is on parental leave in this paper, we introduce a separate category for those who are absent from work for this reason. Our definition of unemployment follows that of the ILO, which means that people who do not work but are actively looking for work and are available on the labor market during the following two weeks are regarded as unemployed. Non-employed individuals who do not look for work and who are not available on the labor market are categorized as being inactive.

percent of mothers were on leave between 1999 and 2005. On average, the proportion of mothers on leave was found to be 75 times higher than that of men.

[Table 2 about here]

Apart from the non-employed, we also exclude the very small group of single fathers (0.6 percent of the total sample) and fathers in homosexual unions (0.07 percent) from the multivariate analysis.⁸ The total sample size consists of 63,662 respondents. Out of these 63,662 respondents, 318 are on parental leave, which is 0.5 percent (for a descriptive overview on the sample, see Table A3 in the Appendix)

4.2 Method

As a method, we apply a logistic regression model that distinguishes fathers on parental leave from employed fathers. In our study, we pool the microcensuses 1999-2005. It should be mentioned here that the microcensus is a rotating panel. Seventy-five percent of the population is interviewed every year, while the other 25 percent is replaced by a new sample. This means that, after four years, the sample is fully replaced by a new set of respondents. For our investigation, this means that some respondents might be included several times in the study. Since we do not have information on who is repeatedly interviewed and who is not, we cannot account for this. However, we conducted several checks for the robustness of our results, where

⁸ The description of the distribution of the employment status (see Table 5) does include single fathers. For the multivariate analysis, they were excluded, however.

we only included survey years that were at least four years apart. The results were very much in line with the results reported in this paper.

4.3 Independent Variables

Our major independent variable is the *education* of the respondent. We distinguish between respondents with a vocational degree, a university degree and no degree. Combining the fathers' and their partners' educational levels yields the *relative education*. We distinguish between men living in partnerships in which neither partner has a vocational degree or a university degree, or in which the father is less educated than his female partner, or vice versa. Furthermore, we introduce a variable that indicates the *relative age*. Men are distinguished by whether the partner is about the same age (0-1 years younger or older), 2-6 years or seven or more years older, or 2-6 years or seven or more years older.

Since the value change hypothesis places a role on urbanity and type of union, we also account for these aspects in our investigation. In order to measure urbanity, we take into account the *size of the community*. We distinguish between communities with fewer than 20,000 inhabitants; 20,000-500,000 residents, and more than 500,000 inhabitants. The *type of union* is measured by distinguishing non-marital and marital unions.

Employment conditions are also expected to influence men's take-up of leave. We account for the *type of contract*, distinguishing between respondents with a temporary or a permanent contract, and self-employed respondents. We also use the *type of sector*, differentiating between men working in the private and public sectors.

Prior studies have found that children's characteristics have an impact on parenting behavior (Harris and Morgan 1991). We control for the number of children (one, two, or three or more children), and the age of the youngest child in the household (ages zero, one, or two). We also account for the sex of the youngest child. For multiple births, we do not make a distinction, however. This leads to the following grouping: boy, girl, multiple birth.

Control variables are calendar year, age, and nationality. The *calendar year* was grouped into the categories 1999-2000, 2001-2003, and 2004-2005 to capture the changes in the parental leave regulations. Furthermore, we take into account *regional* aspects, distinguishing between respondents living in eastern and western Germany. *Citizenship* is also accounted for, distinguishing Germans from foreigners. Age is controlled for by the age groups 18-25, 26-30, 31-35, 36-40, and 41-45.

5 Multivariate results

Table 3 provides the results of our investigation. We estimated three models. The first model only includes the respondent's characteristics, while Model 2 also accounts for the relative education and the partner's age. Model 3 finally controls for the age differences between the partners.

Let us first turn to Model 1 and its control variables. There is an increase in men's chances of taking parental years over time, but this effect is not significant. Foreign men are less likely to be on leave than German men, and eastern German men are more likely to be on leave than western German men. Age has a positive impact, showing that older fathers (ages 41-45) are more likely to take leave than their

younger counterparts, but this effect is not significant in the first model. The number of children in the family and the age of the children also affect men's chances of being on leave. Men are more likely to be on leave when the children are younger. It is also more likely that a father will take leave for his first child than for subsequent children. The sex of the child does not have an effect on parental leave usage among men. However, fathers of twins or triplets are much more likely to be on leave than other fathers.

In line with our 'value change hypothesis', urbanity and type of union has a strong impact on whether the father takes leave. Men in bigger cities are more likely to take parental leave than fathers in smaller communities. Furthermore, men in non-marital unions are significantly more likely to take leave to care for their children than married fathers. This finding supports previous findings by Nepomaschny and Waldfogel (2007), and contradicts results for the Nordic countries (Sundström and Duvander 2002, Lappegard 2008; Naz 2007). Education, which is another indicator we use for value change, does not affect a man's chances of being on leave.

The analysis of workplace characteristics showed that the type of contract and the sector people work in have significant effects on father's chances of being on leave. Men working in the public sector are about 60 percent more likely to take leave than those working in the private sector. The odds that fathers with temporary contracts will take leave are about two-thirds lower than among fathers with permanent contracts. A similar result can be observed for self-employed fathers. Obviously, stable and secure employment contracts enhance the likelihood that fathers will take time off to care for their small children.

In the first model, we introduced only the fathers' characteristics. Model 2 also accounts for the combination of the man's and his partner's levels of education. This

model shows that men whose partners have more education than they do are significantly more likely to take parental leave than fathers in couples where both have vocational degrees. Conversely, a father with a partner who has a lower level of education is significantly less likely to reduce his work time to care for small children. Obviously it is not the father's degree per se which plays a role in taking leave, but the 'relative resources' measured by educational differences. The impact of relative age in Model 3 supports this notion. Having an older partner increases the father's likelihood of using parental leave considerably, while having a younger partner decreases it. This indicates that power differences due to different experiences in the labor market play an important role in a father's parenting activities.

[Table 3 about here]

6 Summary and discussion

In this paper, we have investigated men's take-up of parental leave in Germany. We have contrasted two competing hypotheses. On the one hand, we have argued that relative resources determine men's employment choices. Men who are less educated or younger than their partners are expected to be more willing to take leave than others. This 'relative resources hypothesis' has been contrasted with the assumption that value change is the driving mechanism behind men's parenting behavior. Under the title 'value change hypothesis', we have argued that highly educated, urban men in non-marital unions are the forerunners in terms of parental leave take-up.

We find mixed evidence for the 'value change hypothesis'. Urban men and men in non-marital unions are more often on parental leave. However, men's education does

not seem to influence parental leave decisions. Hence, we find strong support for the ‘relative resources hypothesis’. Men who are less educated or younger than their partners are more often on leave than others. This result suggests that economic factors are important for father’s employment choices, an assumption that is also buttressed by the finding that employment characteristics, such as whether the person is employed in the public sector or whether he is holding a temporary working contract, strongly influences the chances of men being on leave.

Does this mean that cultural factors are not important for shaping men’s employment behavior? Obviously, the microcensus is not a good data set for testing the influence of values and ideas on behavior. However, our result might nevertheless say something about the interplay of values and constraints. As an operational definition for ‘new values’, we used educational level, urbanity, and type of union. Urbanity and type of union matter for explaining fathers’ chances of being on leave, while level of education does not. Education has, however, a rather ambiguous meaning in this context. On the one hand, highly educated men are expected to be forerunners in terms of value changes, while on the other hand they receive high labor market income, and might therefore be more likely to work. Fathers’ employment choices have frequently been conceptualized as creating tension between being a “good provider” and an “involved father” (Kaufman and Uhlenberg 2000: 932). This result could be interpreted as meaning that value changes have led to new perceptions of a father’s parenting tasks, but that economic necessities push men back into the role of being the family provider. This is certainly a strong conclusion to draw from our investigations, and this finding should be explored further through studies that show how the interplay of economic constraints and values affect fathers’ parenting behavior.

It will be very interesting to investigate the influence of the parental leave benefit reform in 2007 on fathers' use of leave. With this reform, parental leave benefits have greatly increased for high income earners. Given that the opportunity costs of being on parental leave have declined, it may be expected that highly educated fathers would now more often be on leave than was the case before. The influence that the reform has on the association between relative education and parental leave usage must, however, be left for future research, when data for this period becomes available.

7 Literature

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Appendix

Table A1: Absolute number of persons receiving parental leave benefits by gender, percentage of males receiving parental leave benefits of all recipients of parental leave benefit, 1987-2007

Year	Total number of persons receiving parental leave benefit	Number of women receiving parental leave benefits	Number of men receiving parental leave benefits	men as a % of all benefit recipients
1987	613,995	605,177	8,818	1.4
1989	649,796	640,200	9,596	1.5
1991	789,703	779,063	10,640	1.3
1993	703,386	690,890	12,496	1.8
1995	723,477	705,372	18,105	2.5
1997	751,245	731,930	19,315	2.6
1999	715,287	696,051	19,236	2.7
2001 ¹⁾	570,556	558,431	12,125	2.1
2003	647,031	630,455	16,576	2.6
2005 ²⁾	533,248	516,095	17,153	3.2
2007	571,411	511,399	60,012	10.5

Notes: 1987-1990 only West Germany; 1987-1994, 2007 approved applications; 1995-2005 only first time applications; from 1994 referring to the application during the child's first year of life; 1) only partial recording; 2) without Baden-Württemberg

Source: Statistisches Bundesamt (2008) and various Statistical Yearbooks published by the Statistisches Bundesamt

Table A2: Absolute number of employed persons on parental leave receiving parental leave benefits by gender, percentage of employed males on parental leave receiving parental leave benefits of all employed recipients of parental leave benefits who are on parental leave, 1987-2005

Year	Employed persons on parental leave receiving parental leave benefits	Employed women on parental leave receiving parental leave benefits	Employed men on parental leave receiving parental leave benefits	Men as a % of all benefit recipients
1987	267,394	265,514	1,824	0.7
1989	295,973	293,655	2,318	0.8
1991	405,605	401,912	3,693	0.9
1993	371,439	366,703	4,736	1.3
1995	394,545	387,704	6,841	1.7
1997	411,504	405,393	6,111	1.5
1999	388,787	382,755	6,032	1.6
2001 ¹⁾	321,182	316,074	5,108	1.6
2003	362,331	355,589	6,742	1.9
2005 ²⁾³⁾	254,588	250,124	4,464	1.8

Notes: only dependent employees; 1987-1990 only West Germany; 1987-1994, 2007 approved applications; 1995-2005 only first time applications; from 1994 referring to the application during the child's first year of life; 1) only partial recording; 2) without Baden-Württemberg; 3) including civil servants and trainees

Source: Statistisches Bundesamt (2008) and various Statistical Yearbooks published by the Statistisches Bundesamt

Table A3: Percentage of benefit days taken by men in percentage of all benefit days taken

	Denmark	Finland	Iceland	Norway	Sweden
1990	4.1	2.4	-	-	8.8
1994	4.4	3.6	-	-	12.0
1995	4.4	3.6	0.1	5.8	10.3
1996	4.3	3.6	0.1	6.3	11.7
1997	4.3	3.8	0.1	6.7	11.1
1998	4.8	3.9	2.3	7.0	11.6
1999	5.4	4.0	3.2	7.0	12.8
2000	5.5	4.1	3.3	7.2	13.7
2001	5.7	4.3	11.5	8.3	15.0
2002	5.5	4.8	19.6	8.6	16.6
2003	5.1	5.3	27.6	8.6	18.3
2004	5.5	5.7	31.8	9.0	19.7
2005	5.9	5.5	32.7	9.3	20.5

Source: Nordic Social Statistical Committee (NOSOSCO): Social protection in the Nordic countries, various years.

Table A4: Description of the sample

	1999	2000	2001	2002	2003	2004	2005	Total
Parental leave								
not on parental leave	99.5	99.6	99.5	99.4	99.5	99.5	99.4	99.5
on parental leave	0.5	0.4	0.5	0.6	0.5	0.5	0.6	0.5
Region								
West Germany	88.8	88.7	88.5	88.2	87.4	87.3	86.2	87.9
East Germany	11.2	11.3	11.5	11.8	12.6	12.7	13.8	12.1
Citizenship								
German	87.1	86.4	86.4	87.2	86.6	86.9	85.9	86.7
Non-German	12.9	13.6	13.6	12.8	13.4	13.1	14.1	13.3
Size of place of residence								
<20,000 inhabitants	47.3	46.5	45.9	46.3	45.5	44.8	45.2	46.0
20,000-less than 500.000 inhabitants	40.7	41.4	41.4	41.3	41.4	41.9	41.5	41.4
500,000 + inhabitants	11.9	12.1	12.7	12.4	13.0	13.3	13.3	12.6
Age								
18-25	5.7	5.4	5.3	5.8	6.0	5.5	4.8	5.5
26-30	23.2	22.9	20.4	18.7	17.9	18.7	18.7	20.2
31-35	40.8	40.0	39.3	38.6	37.8	35.8	33.8	38.2
36-40	23.1	24.6	26.8	27.8	28.9	30.2	31.2	27.3
41-45	7.2	7.1	8.2	9.1	9.4	9.8	11.4	8.8
Partnership status								
married	91.4	90.6	89.9	88.5	87.5	87.4	86.7	89.0
cohabiting	8.6	9.4	10.1	11.5	12.5	12.6	13.3	11.0
Education								
no degree	12.1	11.6	12.1	11.9	11.5	11.8	14.1	12.1
vocational degree	64.7	64.5	64.0	64.6	63.0	61.8	63.7	63.8
university	18.7	18.7	19.6	19.4	20.8	21.6	21.9	20.0
n/a	4.5	5.3	4.3	4.1	4.7	4.9	0.2	4.1
Number of children under age 18								
1 child	43.9	43.9	43.0	43.3	43.6	45.5	46.1	44.1
2 children	40.2	40.2	40.1	40.9	40.5	39.0	39.4	40.1
3 or more children	15.9	15.9	16.9	15.8	15.9	15.5	14.5	15.8
Age of youngest child								
0	34.9	36.0	34.9	34.1	35.4	34.2	32.2	34.6
1	34.8	34.2	35.6	34.8	33.8	35.1	36.6	34.9
2	30.3	29.8	29.5	31.1	30.8	30.7	31.2	30.5
Sex of youngest child								
1 boy	50.5	50.6	49.2	49.6	50.0	49.8	51.0	50.1
1 girl	47.7	47.6	49.2	48.5	48.0	48.3	47.3	48.1
Multiples	1.8	1.8	1.7	1.8	2.1	1.8	1.7	1.8
Type of contract								
temporary	7.4	7.3	7.0	6.7	6.9	7.0	7.7	7.1
permanent	80.6	80.4	80.5	80.9	80.4	79.9	79.2	80.3
self-employed	11.7	12.0	12.3	12.2	12.5	12.9	13.0	12.3
n/a	0.3	0.4	0.2	0.1	0.3	0.2	0.1	0.2
Sector								
public	13.6	12.4	12.6	12.8	13.0	13.1	13.0	12.9
private	86.4	87.6	87.4	87.2	87.0	86.9	87.0	87.1

Table A4 (continued): Description of the sample

Education & partner's education								
both no degree	8.0	7.8	7.8	7.8	7.2	7.3	9.2	7.8
both vocational degree	51.9	51.3	51.7	51.7	49.9	48.8	51.1	51.0
both university degree	8.6	8.2	8.9	9.1	9.9	11.2	11.2	9.5
woman < man	18.9	19.3	19.1	18.9	19.7	18.7	19.2	19.1
woman > man	6.7	6.4	6.8	6.9	7.3	7.6	8.9	7.2
n/a	5.8	7.0	5.8	5.6	6.0	6.4	0.4	5.4
Partner's age								
18-25	13.3	14.2	13.2	13.5	14.0	13.7	12.8	13.5
26-30	34.5	32.5	29.9	28.9	27.9	29.1	28.5	30.3
31-35	38.1	38.0	38.8	38.3	38.4	36.2	36.2	37.8
36-40	12.5	13.7	16.3	17.3	17.7	18.7	20.0	16.4
41-45	1.6	1.6	1.9	2.0	2.0	2.2	2.5	2.0
Age difference between the partners								
Partner same age 0-1 year younger/older	30.6	30.5	30.7	30.7	31.3	30.2	29.7	30.6
Partner 2-6 years younger	47.3	46.8	45.3	45.4	45.1	45.5	45.1	45.8
Partner 7 or more years younger	12.5	12.8	13.4	13.7	13.8	14.7	15.4	13.7
Partner 2-6 years older	8.6	9.0	9.3	8.9	8.8	8.7	9.0	8.9
Partner 7 or more years older	1.0	0.9	1.3	1.2	1.0	0.9	0.8	1.0
Number of cases	9,882	9,951	9,613	9,375	8,768	8,348	7,725	63,662

Source: Scientific-Use-File German microcensuses 1999-2005 (own estimations)

Table 1: Share of the respondents who agree or strongly agree with the following statements

Men					
	no degree	vocational degree	university degree	Total	Total number of cases
1. Working mother can establish loving relationship with children	65.9	77.2	75.5	75.7	1,171
2. Child benefits if mother works	33.8	44.9	54.5	45.4	1,174
3. Pre-school child suffers if mother works	68.2	63.8	50.7	62.0	1,173
4. Help husband with career more important than own career	35.4	25.9	15.3	25.0	1,174
5. Man works outside the home, woman homemaker	41.9	41.2	26.0	38.6	1,172
6. Married woman should not work if limited number of jobs	54.6	42.4	20.2	39.8	1,173
Women					
	no degree	vocational degree	university degree	Total	Total number of cases
1. Working mother can establish loving relationship with children	71.5	86.3	93.1	83.9	1,211
2. Child benefits if mother works	40.1	65.9	83.4	62.4	1,210
3. Pre-school child suffers if mother works	67.3	46.2	28.3	48.6	1,211
4. Help husband with career more important than own career	44.1	19.1	9.0	23.3	1,210
5. Man works outside the home, woman homemaker	62.0	30.8	7.6	34.8	1,211
6. Married woman should not work if limited number of jobs	52.9	28.8	8.3	31.6	1,210

Notes: Respondents in education or with missing information on the level of education have been excluded. Respondents whose highest degree is an internship (*Berufliches Praktikum/Volontariat*) or a preparatory traineeship (*Anlernausbildung*) have also been excluded from the sample.

Source: German General Social Survey (ALLBUS) 2004.

Table 2: Fathers' employment status by year, column percentages

	1999	2000	2001	2002	2003	2004	2005	Total
Employed	88.1	90.5	90.2	88.9	87.4	86.6	86.8	89.1
Parental leave	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.5
Unemployed	6.0	5.2	5.5	6.8	8.6	9.2	9.6	6.8
Inactive	3.5	3.9	3.8	3.7	3.5	3.6	3.1	3.7
Total	100	100	100	100	100	100	100	100

Source: Scientific-Use-File German microcensuses 1999-2005 (own weighted estimations)

Notes: The sample consists of men aged 18-45 with at least one child under the age of three in the family.

Table 3: Logistic regression models, odds ratios, dependent variable: using/not using parental leave

	Model 1		Model 2		Model 3	
	Exp(B)	Sig.	Exp(B)	Sig.	Exp(B)	Sig.
Year						
1999-2000	1		1		1	
2001-2003	1.10		1.07		1.07	
2004-2005	1.15		1.09		1.09	
Region						
West Germany	1		1		1	
East Germany	1.44	**	1.40	**	1.41	**
Citizenship						
German	1		1		1	
Non-German	0.66	*	0.71		0.70	
Size of place of residence						
<20,000 inhabitants	1		1		1	
20,000-less than 500,000 inhabitants	1.35	**	1.31	**	1.31	**
500,000+ inhabitants	1.80	***	1.57	***	1.56	***
Age						
18-25	0.65		1.33		0.61	**
26-30	0.67	**	0.87		0.64	***
31-35	1		1		1	
36-40	0.94		0.78	*	1.03	
41-45	1.24		0.86		1.57	**
Partnership status						
married	1		1		1	
cohabiting	1.79	***	1.80	***	1.76	***
Education						
no degree	1.00					
vocational degree	1					
university	0.79					
n/a	0.83					
Number of children under age 18						
1 child	1		1		1	
2 children	0.70	***	0.69	***	0.69	***
3 or more children	0.38	***	0.37	***	0.38	***
Age of youngest child						
0	1		1		1	
1	0.99		0.98		0.99	
2	0.64	***	0.62	***	0.63	***
Sex of youngest child						
1 boy	1		1		1	
1 girl	0.97		0.97		0.97	
Multiples	2.55	***	2.52	***	2.51	***
Type of contract						
temporary	0.34	***	0.33	***	0.31	***
permanent	1		1		1	
self-employed	0.47	***	0.43	***	0.43	***
n/a	4.00	**	4.06	**	4.17	**

Table 3 (continued): Logistic regression models, odds ratios, dependent variable:

using/not using parental leave

	Model 1		Model 2		Model 3	
	Exp(B)	Sig.	Exp(B)	Sig.	Exp(B)	Sig.
Sector						
public	1.63	***	1.54	***	1.55	***
private	1		1		1	
Education & partner's education						
both no degree			0.76		0.74	
both vocational degree			1		1	
both university degree			1.32		1.32	
woman < man			0.39	***	0.38	***
woman > man			2.97	***	2.95	***
n/a			0.78		0.78	
Partner's age						
18-25			0.39			
26-30			0.87			
31-35			1			
36-40			1.41	**		
41-45			2.43	***		
Age difference between the partners						
Partner same age 0-1 year younger/older					1	
Partner 2-6 years younger					0.83	
Partner 7 or more years younger					0.57	**
Partner 2-6 years older					1.69	***
Partner 7 or more years older					2.19	***
Model summary						
Log likelihood (starting model)	4004.76		4004.76		4004.76	
Log likelihood (final model)	3863.73		3747.24		3747.73	
Cox & Snell R ²	0.002		0.004		0.004	
Number of cases	63,662		63,662		63,662	
Number of positive events	318		318		318	

Source: Scientific-Use-File German microcensuses 1999-2005 (own estimations)

Notes: The sample consists of men aged 18-45, living in a heterosexual partnership and at least one child under the age of three in the family. Unemployed and inactive persons are excluded. *** p<0.01;

** p<0.05; * p<0.1