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Diskussionspapiere  
Discussion Papers

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An Analysis of Men in East Germany  
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by

James C. Witte<sup>1</sup> and Gert Wagner<sup>2</sup>

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**Deutsches Institut für Wirtschaftsforschung**

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**Abstract**

This paper uses data from the GSOEP to look at the relationship between labor force status and fatherhood among men in East and West Germany. For many years, in particular from the late fifties through the mid-seventies, fertility patterns in the East and West were quite similar. With the introduction of pro-natalist policies in the East in the mid-seventies, total fertility in the East increased relative to the West. Subsequently, fertility decreased during the final years of the GDR and then plummeted shortly after Unification. Today the popular expectation is that East German fertility will rebound, probably by the end of the decade, and stabilize at the low level found in the West. The available preliminary evidence, however, is that this expectation may be overly optimistic; in fact, fertility in East Germany may remain below that found in the West. To begin with, Pohl (1995) found that with regard to attitudes about marriage and contraceptive use, young men in the East are no more family-oriented than their peers in the West. Further, Witte and Wagner (1995) show that the fertility decision of women in the East are based not only on their own employment status, but also that of their partners. Moreover, the behavior on the part of these young people in the East is wholly consistent with a Western-style rational decisionmaking model of fertility process.

This paper explores this topic more fully. Based on the premise that preferences for children do not systematically vary between East German and West German young men, the analyses will focus on male labor force status as a potentially critical variable in the fertility choices of couples. The main analytical question is to consider the extent to which differences in fertility may be explained by variation in employment and economic security. Using the the pre-Unification period in the West as a baseline, we consider the degree to which the unprecedented fertility decline in the East follows from the tenuous labor market position of East German young people--men as well as women. Furthermore, it is hoped that the paper's comparative perspective will contribute to a more nuanced account of the processes of assimilation that are part and parcel of German Unification.

## **Introduction: Males and the Economics of Fatherhood**

Demographers have generally viewed reproductive behavior from the woman's point of view. In part, the traditional demographic perspective is justified on analytical and conceptual grounds. Quite simply, female reproductive behavior is easier to measure: births are easier to record than conceptions. Furthermore, demographers have long grappled with the so-called "two-sex problem." Systematic gender differences in the age at which men and women participate in a variety of social behaviors, combined with variation in cohort sizes, often lead to conflicting results depending on whether the analysis is based on women or men.

Beyond the analytical justification for focusing on women in the study of fertility, there is a biological basis for this emphasis as well. As a biological process the expenditure of energy associated with reproductive behavior is not equally distributed. Biological anthropologists note that relatively minor changes in diet and physical exertion may interfere with female reproductive function, while it appears that dramatic environmental change or physical strain are needed to disrupt male reproductive function (Ellison 1994; Campbell and Leslie 1995). Adapting this model to the social environment suggests that male reproductive behavior should be far less sensitive to social change than female reproductive behavior.

However, our focus is on fatherhood and not fertility. Analytical and practical concerns motivate this emphasis as well. While it is quite common for survey data to ask women for a fertility history, males are rarely asked to do the same.<sup>1</sup> Thus, as detailed below, our analysis is based not on biological fatherhood, but rather on a particular social form of fatherhood: living with one's child. Looking at parenthood, gender-based differences in the expenditure of energy are presumably not as extreme, though by no means absent. With increasing calls for gender-based equality, there have been changes that, on the whole, probably amount to less

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<sup>1</sup> An exception here is the US Census Bureau's Survey of Income and Program Participation (SIPP), which includes a fertility history question for all respondents in one of its topical modules. In general, however, the question is considered too invasive, particularly as the data quality is presumed to be suspect.

differentiation in the roles of mothers and fathers. In most industrialized countries it has become easier for women to combine child rearing and paid labor outside the home; while many young men are taking a more active role in childrearing. However, given the considerable differences that remain, it is likely that labor force status and economic security affect the choice of men to become fathers in a different way than they affect the choices of women to become mothers.

The relationship between employment status and fertility for women has been the subject of a long standing debate as to whether unemployment decreases or increases the fertility rate (Butz and Ward 1979, 1995; Zimmermann and DeNew 1991, Dinkel 1994). Two effects, each influencing the fertility rate in an opposite manner are plausible and likely: unemployment lowers the opportunity costs of caring for a child and **increases** the fertility rate; unemployment reduces the budget available to care for a child and **decreases** the fertility rate. The balance struck between these two effects depends, in large part, on the resources available to women to lower the costs of child care (cf. Spiess 1997), as well as the value of her paid labor. In addition to the latter effect, in market oriented economies there are long-term costs associated with an interruption in employment due to the subsequent devaluation of human capital (cf. Ott 1992).

Consistent with this model, since Unification economic circumstances have divided women in the East into two groups based on their employment status (Witte and Wagner 1995b). There are only minimal opportunity costs of child-bearing for women outside the employment system, since they are likely to remain there until the East German labor market rebounds in future times. In addition, because the replacement rate of unemployment insurance benefits in East Germany is relatively high, the economic situation of an unemployed person is not particularly difficult (cf. Frick et al. 1995). On the other hand, the opportunity costs of having a child are quite high for employed women. In most cases, if a woman remains outside the employment system beyond the parental leave period, she is likely to experience difficulty

reentering the labor force, making leaving the labor force to have a child quite costly.<sup>2</sup> The alternative is to restrict the subsequent interruption to employment, returning to work, at the latest, once the child reaches the age of three and parental leave benefits expire. In this case, the fundamental problem of combining childrearing and employment is postponed only until the child begins school at the age of six or seven (cf. Witte and Wagner 1995b). Ancillary problems-- perhaps real or perhaps perceived on the part of employers and coworkers--such as restricted labor market flexibility (e.g., mobility) and job commitment (e.g., willingness or ability to work overtime) remain even if a woman finds child care and returns to work.

Though the current German example is particularly extreme, the growing importance of female labor force participation and its complex relationship to fertility have forced demographers to reconsider the standard view of the relationship between the economic circumstances of men and fertility patterns in industrialized society. In this view, the industrial revolution established a gendered division of labor that clearly separated women and men in the type of work they did as well as in the locus of their productive effort. The male became the “bread winner,” who brought home the means for the family to participate in an economy that was increasingly dependent on cash transactions (Bernard 1981). In this context, the standard male model treats children as not unlike other sorts of consumer goods: “... other things being equal, couples with higher income will have more children, just as they will have more cars and more European vacations “ (Butz and Ward 1995, p 670). As income fluctuates with the business cycle, fertility follows suit: fertility rates increase in times of prosperity and fall when the economy turns down.

The efficacy of this simple, straightforward model has, however, been challenged by changes in female labor force participation. Men are no longer the sole intermediaries between the business cycle and fertility. Prosperity still increases male incomes, but it also raises the

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<sup>2</sup> An exception may be young women, such as teachers, who occupy civil service positions that provide tenure for life. In such instances, job security would presumably have little impact on fertility decisions.



opportunity costs of childbearing for women. These developments force us to reconsider the relationship between economic circumstances of males and fertility and redefine the economic bases of fatherhood. German Unification provides an ideal context for this question as it has been a period of profound change in the East German economy and has been accompanied by dramatic demographic change as well.

### **Recent German Fertility Trends**

Though there were any number of significant and unanticipated consequences of Unification, the immediate decline in East German fertility stands out as particularly striking. Vital statistics clearly indicate that the fertility rate in East Germany dropped sharply after German Unification (cf. for example Eberstadt 1994). The total fertility rate was cut in half within a bit more than one year. Calculated on a yearly basis, the total fertility rate fell from 1,517 births for each 1,000 women in 1990 to 830 births for each 1,000 women in 1993. Moreover, fertility has not yet rebounded but remains stable at a low level: 774 births, in 1993, and is estimated to have fallen to 750 births in 1994. Moreover, recent age-specific total fertility rates indicate that decreased fertility is not specific to any one age group, but cuts across the child-bearing years, though a closer look shows a slightly greater decline among women of younger ages than among somewhat older women.

The most recently available data records a four percent increase in births in the first ten months of 1995 relative to the same time period in 1994--though from such a low level an increase of this magnitude only amounts to an additional 2,662 births throughout all of East Germany (Dorbritz 1996). It is far too early to conclude if this marks a turning point and, if so, just how high East German fertility will climb. Indeed it is too soon to accurately decompose the recent increase in births into those attributable to a change in age-specific fertility among relatively young women and into those that are the result of births among older women who put off having children in the first four years following unification. The definitive

answer will only be known once these cohorts of women have concluded their childbearing years. Until then demographers must rely on projections that can only be improved, if we have a better understanding of the determinants of fertility. The results presented below are intended to add to this understanding by exploring the economic bases of fatherhood.

### **Data: The German Socio-Economic Panel**

Our analyses of the individual level correlates of changing patterns of fertility in Germany are based on data from the German Socio-Economic Panel (GSOEP) (cf. Wagner et al. 1993). Due to the variety of individual-level, socio-economic variables collected by the GSOEP, our analysis of fertility may go beyond standard demographic projections based on vital statistics and time-series analysis--methods that have changed little since they were first developed in the 1920s (Ryder 1990).

The analyses presented below are based on two analytical files. The first looks at men in the West during the years from 1984 to 1988. This data is intended to provide a baseline and considers the period just before Unification, so as not to confuse the general effects of economic circumstances on fatherhood with those specific to Unification. Our analyses in the East are also based on five years of GSOEP data, but in this case from the years following Unification (1990 to 1994).

Though drawn from different time periods the two data sets are constructed in a very similar manner. The dependent variable used in our analyses is whether or not a man becomes a father in 1985 to 1988 in West Germany or in 1991 to 1994 in East Germany. Our definition of fatherhood is very specific: a respondent between the ages of 16 to 51 "becomes a father," if at the time of the survey he shares a household with a child who was born since the previous data collection<sup>3</sup>. Thus, we view paternity in a social rather than a biological sense. Moreover, we necessarily overlook fathers who do not live with their children.

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<sup>3</sup> "Grandfathers" do not occur in the small samples.

Due to the small number of events (114 births) that take place in the GSOEP East sample our models use relatively few covariates. Taking into account the natural, biological lag between conception and birth, each of the covariates comes from the year prior to the observation of whether or not the male becomes a father. Thus, while the dependent variable comes from data collected between 1985 and 1988 in the West and 1991 and 1994 in the East, data for the independent variables was collected between 1984 and 1987 in the West and 1990 and 1993 in the East. The primary covariates used include: age, marital status, whether or not there are other children in the household, household income, and employment status of the man and of his partner, if he is married to or living with a woman. As more data accumulates, more detailed models may be possible, but here our primary interest is in the effects of employment and unemployment rather than simply maximizing the share of explained variance.

Our multivariate models pool the 1985/88 (West) and 1991/94 (East) birth data for each male respondent. The fertility outcomes for each observation, i.e., each male year at risk of becoming a father, are treated as dichotomous indicator variables. Logistic regression techniques are then used to regress the dichotomous outcomes on a set of independent variables. The resulting model may be seen as a discrete time hazard model, where the estimated coefficients are interpreted as indicating the effect of the variables on the fertility rate or, alternately, on the conditional probability of giving birth in a time period equal in length to the discrete time interval--here, one year (cf. Allison 1982). In our multivariate analyses we include a dummy variable for year of observation to test whether the probability of giving birth systematically varies between the years which are under consideration.<sup>4</sup>

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<sup>4</sup> The common technique, this pooling procedure does, however, violate the standard assumption of independent observations since individual women contribute multiple observations to the analyses. In the analyses presented here the implications are mitigated, somewhat, as any single woman contributes at most two observations. Subsequent analyses with additional years of fertility data from each woman should make use of statistical techniques to assess the clustering effect of the pooling procedure.

Theoretically one would want to separately model first births and higher parity births. However, due to the small number of births in the Eastern sample, we are unable to make this distinction. Thus, we model all births together, but in our multivariate analyses introduce a dummy variable indicating whether or not the male lived with other children.

Additional variables are included in our models for control purposes. Fertility rates in East and West Germany clearly vary by age. Using the 20 through 25 year old age group as a reference category, we include dichotomous variables to identify three additional age groups: 18 through 19 year-olds, 26 through 30 year-olds and 30 through 35 year-olds. Lower rates of fatherhood among younger men may be attributed in large part to the fact that they have not yet completed their education. In future work we intend to directly measure enrollment status to determine whether there are additional age effects as well.

## Findings

Table 1 provides basic, univariate, descriptive statistics for the two samples used in our analyses. One of our main concerns is the extent to which male reproductive behavior, in particular the determinants of fatherhood, in the East has moved in the direction of patterns found in the West. A prior step, however, requires a comparison of the basic characteristics of the two populations “at risk” of becoming fathers, i.e. males between the ages of 16 and 51 in the East and the West. The West German sample comes from the period 1984-1987 and is intended to serve as a baseline--a representation of the determinants of fatherhood in “normal,” pre-Unification West Germany. The East German sample provides data collected in 1990 through 1993 and is designed to represent male reproductive behavior of an East German population reacting to large-scale social change.

Comparing East and West it is immediately evident that the West German sample is noticeably younger than the East German sample. For example, approximately one in five West German males (21.5 percent) were age 24 or younger in 1987. A smaller proportion of the likely fathers in the East fell into this same age group and only 11.4 percent of the sample

of East German males were between the ages of 16 and 24 in 1994. While this says nothing about the distribution of young men in their early teens, it does indicate that the proportion of males about to enter the age when men are most likely to become fathers is disproportionately smaller in the East. The multivariate results presented below in Table 2 indicate that in the East, as well as in the West, men are significantly more likely to become father's between the ages of 25 and 34--fewer than half of the males in the West German sample were beyond the peak fatherhood years, but more than 60 percent of the young men in the East German sample were 35 or older in 1993. Moreover, looking further into the future, we do know that the pre-school cohorts born in the post unification baby bust in East Germany are quite small; therefore when these persons become of child bearing age, regardless of the fertility rate, a relatively small number of births is to be expected.

Turning to marital status, Table 1 indicates a further difference between the East and West German samples. Considerably fewer West German males between the ages of 16 and 51 are married or cohabiting than in the East German sample. No doubt, this is due in part to the younger age composition of the West German sample; but it also reflects the younger average age at first marriage found in the former German Democratic Republic. Marriage rates have declined in the East since Unification at a pace nearly equal to that of the change in fertility--however, as with fertility, the most recent marriage statistics indicate a slight increase (Dorbritz 1996).

Table 1 also indicates that East German men are somewhat more likely to already be living in a household with children and this result, too, is most likely an amalgam of the older age composition of the Eastern sample and the legacy of fertility patterns in the former GDR. Observers familiar with East German family patterns and the large proportion of out-of-wedlock births in the former GDR may be surprised to note that there is little difference in the percentages of single parents in the two samples. Keep in mind, however, that both samples

are samples of men and that in the East as well as the West the vast majority of single-parent households are female-headed.

Looking at the percentage of males employed in the two samples, Table 1 clearly indicates the different economic contexts in which members of the two samples found themselves. In each of the four years in the West approximately one quarter of the males were not employed. This was a period of some economic difficulty in the West and some of these young men were unemployed; the majority, however, were out of the labor force by choice and were pursuing vocational or academic degrees. In terms of short-term choices about fatherhood both are likely to diminish the likelihood of becoming a father.

Looking at the East, we note that in 1993 also about three-quarters of the young men were employed full or part-time. But, to begin with, the sample in the East is slightly older and thus more likely to have completed their education. More importantly, compared to 1990, when there was legally no unemployment and all persons not working were “not-in-the-labor force,” 16 percent fewer males in this age group in the East were employed in 1993. Compared to the relative employment stability that prevailed as the sample in the West were making decisions about fatherhood, the sample of young men in the East made their decisions in a time of considerable economic uncertainty, indeed.

Others have observed that the employment costs of Unification have fallen even more heavily on women. The results in Table 1 that look at the employment status of the female partners of married and cohabiting men--about two-thirds of the West German and over three-quarters of the East German males-- would support this contention. In the West, over the four year period there appears to have been a modest gain in employment among married and cohabiting partners of men in this age group. In the East, on the other hand, while 84 percent of these women were employed in 1990, only 64 percent were employed in 1993. As a result, the gap between the employment rate for East German men and their spouses/partners grew in the years following Unification and quite possibly the economic balance of power within the

household was destroyed--more and more men took over the old fashioned "bread winner" role.

Against this backdrop, the variation in mean household income experienced by the two samples ought to be viewed with caution. The values reported in Table 1 are post government incomes unadjusted for inflation. Over the four year period in the West, mean household income grew by a modest 11 percent; in the four years after Unification average household income in the East increased by 68 percent.

Table 2 reports logistic regression coefficients obtained when a dichotomous dependent variable indicating whether or not each male respondent shared a household with a new-born child in the following year is regressed on the set of independent variables described in Table 1. The left panel of Table 2 represents the baseline model of the determinants of fatherhood in the West. On the whole, these results present a picture that is quite consistent with the standard economic model of fatherhood. Compared to single men, married and cohabiting males are significantly more likely to become fathers in the following year. Somewhat surprisingly the same is true of divorced and widowed men--though the effect is not nearly as strong and most likely reflects a variety of social processes.<sup>5</sup> West German males are also significantly less likely to become fathers, if they already live in a household with children--moreover this result is unaffected by whether or not the male is a single parent. In keeping with the standard economic model, the probability of fatherhood increases in the West German sample, if a man is employed--moreover, if he is married or cohabiting it is unaffected by the employment status of his partner.

The results for the East German sample may be found in the right panel of Table 2. Compared to the West the impact of being married is relatively small. Moreover, in the East, where out-of-wedlock births made up nearly half of all births prior to Unification, cohabitation

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<sup>5</sup> For example, the divorce may be the result of the male's involvement with a new partner or these respondents prior marital history may be a proxy for unmeasured characteristics that incline the person toward the family.

has a stronger effect on subsequent fatherhood than marriage. For the East German sample the coefficients associated with other children in the household and single parenthood are particularly large and yet statistically insignificant. Most likely these results may be traced back to complexities found in East German households and measurement that comes from confusing children and siblings.

More interesting to note is a clear East/West difference in the significance of employment status of men and their partners. In contrast to the West, the employment status of East German males is not significantly correlated with fatherhood in the following year; however the employment status of the partners or married and cohabiting East German men does have a statistically significant impact on fatherhood. Moreover, the countercyclical relationship between partners' employment status and the likelihood of fatherhood challenges the standard economic model of fertility. In the East, the rapidly changing economic context has produced a situation where the simple income effects of male employment status are decidedly outweighed by the opportunity costs of women leaving the labor force. Furthermore, the statistically significant negative relationship between household income and the probability of fatherhood also speaks against a purely economic model that views children as a more or less standard elastic consumer good. In fact, the more income an East German male's household has, the less likely it is that he will be a father in the coming year.

In addition to demographic and labor market data, the GSOEP also collects a variety of attitudinal data as well. Most relevant for this paper are a series of questions regularly posed to respondents regarding their concerns and worries. Table 3 summarizes the responses given by East German males between 1990 and 1993 as to their concerns and worries with regard to the general economic climate, their own personal economic situation and job security. These results indicate relatively high levels of concern: over one-third of the male respondents expressed great concern in each of these areas. Only about one-quarter of the employed respondents said they had no concerns about their own job security; just over 10 percent of all



respondents said they had no concerns regarding their own personal economic situation and just under 10 percent said they had no worries about the general economic situation. Table 3 indicates, however, that these concerns are not associated with the likelihood of becoming a father. The standard economic model of male fertility would suggest that men with fewer worries would be more likely to become father--yet, none of these variables is significantly associated with whether or not a man becomes a father. Moreover, when these variables are added to the model presented in Table 2 the effects of concerns and worries remains insignificant (cf. Table 4).

## **Discussion**

At a first glance, the obvious question raised by our findings centers on the apparent insignificance of one's own economic circumstances in determining whether or not a man is likely to become a father. Though it may fly in the face of popular belief other researchers have raised similar questions. Certainly there is good reason and much promise in pursuing research that seeks to understand how and why traditional male models of fertility may no longer be viable.

This said, our findings incline us to favor a different question. Why the economic circumstances of males do not significantly affect the probability of fatherhood is simply one half of the question. It is equally important to ask how can it be that the likelihood of a married or cohabiting males becoming a father is more closely associated with the employment status of his spouse than that of himself. The gender based division of labor upon which the "bread winner" and "happy homemaker" roles rest may well be socially constructed--but this makes it no less real. Nor does it negate the fact that these roles have been handed down from generation to generation for well over a century. The critical question: why change, why here and why now.

This line of questioning brings us full circle. Impressed by the failure of the standard male model of fertility, we set out to identify the economic factors that *really* influence male reproductive factors. We did not find them. It may well be that the single most important conclusion to take from our findings may be that a simple, male-oriented economic model of fatherhood just does not work. Pohl (1995) makes an interesting point in this regard when she notes that not only are the East Germans particularly effective contraceptors, but also that the methods most frequently employed (oral contraceptives and the IUD) are methods that women control. The same may be said for abortion as well--though access to abortion for East German women has been greatly reduced since Unification. The link between the economic characteristics, particularly attitudes such as their concerns and worries, and fatherhood may be weak, in large part because men play a secondary role in fertility decisions

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**Table 1: Descriptive Statistics for Independent Lagged Variables:  
West German Males (1984-1987) - East German Males (1990-1993)**

	West Germany					East Germany				
	1984	1985	1986	1987	All years	1990	1991	1992	1993	All years
Age										
16 - 24	24.2%	24.2%	23.4%	21.5%	23.3%	15.2%	18.8%	16.6%	13.0%	11.4%
25 - 34	29.9	28.6	27.8	29.1	28.8	28.7	30.5	28.6	28.0	27.1
35 - 44	26.7	26.4	26.2	25.6	26.2	28.3	25.9	28.5	29.2	30.1
44 - 51	19.2	20.8	22.6	23.8	21.7	27.9	24.8	26.4	29.8	31.4
Marital Status										
single	34.2%	34.9%	33.5%	33.0%	33.9%	17.8%	19.2%	18.5%	17.3%	15.8%
cohabiting	4.9	4.4	4.1	4.4	4.4	6.7	7.0	6.2	6.5	7.0
married	54.6	54.1	54.6	54.3	54.4	71.0	68.8	71.0	72.2	73.0
divorced or widowed	2.1	2.3	2.7	3.0	2.5	4.4	5.0	4.4	4.0	4.2
Percent with other child in household	48.3	46.1	43.6	41.7	44.8	49.8	52.0	49.8	49.3	47.6
Percent single parents	4.3	4.4	5.1	5.4	4.8	2.6	3.0	2.8	2.4	2.4
Percent employed	74.0	75.3	76.8	76.6	75.7	84.0	92.7	85.6	79.2	76.3
Percent of married and cohabiting partners employed	42.6	45.3	43.6	47.8	44.9	71.9	83.9	73.9	63.8	63.8
Mean household income	3,182	3,274	3,418	3,536	3,359	2,673	2,039	2,440	2,968	3,422
Number of cases	2,279	2,297	2,291	2,268	9,135	6,050	1,699	1,544	1,445	1,362

Source: German Socio-economic Panel (GSOEP); own estimations.

**Table 2: Determinants of Fatherhood: logistic regression coefficients. West German Men (born after 1935) based on 350 births among 8707 cases with complete data - East German Men (born after 1940) based on 114 births among 5917 cases with complete data**

Covariates at t-1	West		Germany		East		Germany	
	Logistic regression coefficient	Wald statistic	Logistic regression coefficient	Wald statistic	Logistic regression coefficient	Wald statistic	Logistic regression coefficient	Wald statistic
Married living with spouse	2.85**	79.64	.84*	2.99				
Living with partner--not married	2.02**	30.60	1.67**	12.55				
Divorced or widowed	1.54**	5.38	-.01	.00				
Other children 16 or younger in household	-.39**	8.10	8.73	1.25				
Single parent	.74	1.69	-7.01	.06				
Employed full or part-time	.49**	4.03	.44	.28				
Partner employed--if married or cohabiting	-.17	1.54	-.41*	3.31				
Natural log of household income	-.13	0.68	-.68**	4.79				
Age: 24 or younger	-1.13**	10.65	.48	2.07				
Age: 35 through 44	-1.21**	79.74	-1.81**	30.25				
Age: 45 or older	-3.17**	109.72	-1.00**	6.09				
Birthyear (1986)	.27*	2.77						
Birthyear (1987)	-.00	0.00						
Birthyear (1988)	.40**	6.47						
Birthyear (1992)			-.62**	5.01				
Birthyear (1993)			-.37	1.55				
Birthyear (1994)			-.15	.63				
Constant	-3.93**	9.87	-7.02	.75				
		McFadden Pseudo R <sup>2</sup> = 0.17						McFadden Pseudo R <sup>2</sup> = 0.24

Reference categories in brackets: employment status (unemployed or out of labor force); married, cohabiting divorced or widowed (single); children in household (no child 16 or under in household); Age (25 through 34); birth year (1985/1991).

\*\* p < .05; \* p < .10.

**Table 3: Economic Concerns and Worries of East German Men (t-1: 1990 - 1993).  
Broken down by whether they became a father in the following year (t: 1991-1994).**

	Concerns and worries at time $t-1, \dots$					
	about the economy in general.		about personal economic situation		about job security	
	No child $t$	Child born $t$	No child $t$	Child born $t$	No child $t$	Child born $t$
Great concern	39.6%	36.2%	32.4%	36.2%	33.5%	34.0%
Some concern	52.0	56.9	56.2	51.7	42.6	37.7
No concern	8.4	6.9	11.4	12.1	24.0	28.3
N of cases	5,904	116	5,906	116	5,043	106
$\chi^2$		1.16		0.95		1.39
p of $\chi^2$		0.55		0.62		0.50

Source: German Socio-economic Panel (GSOEP); own estimations.

**Table 4: Determinants of Fatherhood--Extended Model with Economic Concerns. Logistic regression coefficients. East German Men (born after 1940) based on 114 births among 5917 cases with complete data**

Covariates at t-1	Logistic regression coefficient	Wald statistic
Married living with spouse	.84*	2.91
Living with partner--not married	1.63**	1.87
Divorced or widowed	-.02	.00
Other children 16 or younger in household	8.72	1.24
Single parent	-7.05	.06
Employed full or part-time--no job worries	.33	.65
Employed full or part-time--with job worries	.35	.86
Partner employed--if married or cohabiting	-.41*	3.36
Natural log of household income	-.70**	4.91
Age: 24 or younger	.47	1.94
Age: 35 through 44	-1.83**	30.78
Age: 45 or older	-1.02**	6.29
Birthyear (1992)	-.63**	5.10
Birthyear (1993)	-.35	1.35
Birthyear (1994)	-.17	.29
Constant	-7.02	.74
McFadden Pseudo R <sup>2</sup> = 0.25		

Reference categories in brackets: employed--no worries, employed with worries (unemployed or out of labor force); married, cohabiting divorced or widowed (single); children in household (nochild 16 or under in household); Age (25 through 34); birth year (1991).

\*\* p < .05; \* p < .10.

Source: German Socio-economic Panel (GSOEP); own estimations.