

Marital Disruption in Germany: Does the Conservative Welfare State Care? Changes in Material Well-Being and the Effects of Private and Public Transfers

By Hans-Jürgen Andreß and Miriam Bröckel*

Abstract

This paper analyzes the economic consequences of marital disruption in Germany with data from the German Socio-Economic Panel. Based on partnership dissolutions observed in the years 1984–1999, we find clear gender inequalities among the separating men and women. As a result of the changes in household composition, support payments, employment and residential mobility, women, on average, end up with much lower disposable household incomes than during marriage, especially when taking into account the number of dependents. The data show that own economic activity and public transfers are the main income sources, while support payments from the former spouse play only a minor role. Apparently, a conservative but generous welfare state like Germany attenuates the most severe economic consequences of marital disruption. However, since further increases in public spending are not a viable strategy, public policies to increase female employment are needed to insure women against the economic risks of marriage dissolution.

Zusammenfassung

Diese Arbeit untersucht die wirtschaftlichen Folgen von Ehescheidungen in Deutschland anhand von Daten des Sozio-oekonomischen Panels (SOEP). Unsere Analyse der Auflösung ehelicher und nicht-ehelicher Lebensgemeinschaften aus den Jahren 1984–1999 zeigt deutliche Ungleichheiten zwischen den Geschlechtern, wenn sich Männer und Frauen trennen. Als Resultat der vielfältigen trennungsbedingten Veränderungen

* *Acknowledgements:* Research financed by the Federal Ministry for Family Affairs, Senior Citizens, Women and Youth. The opinions expressed are those of the authors and should not be construed as representing the opinions or policies of the Federal Government. The data used in this study were made available to us by the Department of Longitudinal Data and Micro Analysis at the German Institute for Economic Research (DIW, Berlin). For comments and helpful discussions, we are grateful to conference and seminar audiences, Katrin Golsch, Patricia McManus, Johannes Schwarze, several anonymous reviewers and our project advisory group. Peter Gordon-Smith and Marisa Cid improved our English.

(Haushaltszusammensetzung, Finanzen, Erwerbsbeteiligung, Wohnungsmobilität) verfügen Frauen im Durchschnitt über ein geringeres Haushaltseinkommen als während der Ehe, insbesondere dann, wenn man die Anzahl der abhängigen Familienmitglieder berücksichtigt, die von diesem geringeren Einkommen leben müssen. Die Daten belegen weiterhin, dass eigene Erwerbstätigkeit und öffentliche Transferzahlungen die hauptsächlichsten Einnahmequellen darstellen, während private Unterhaltszahlungen eine eher untergeordnete Rolle spielen. Dabei scheint es so zu sein, als ob der konservative, aber dennoch relativ großzügige deutsche Sozialstaat mit seinen Transferzahlungen extreme negative Konsequenzen von Trennung und Scheidung abdämpft. Die Anhebung dieser Transferzahlungen ist jedoch angesichts leerer öffentlicher Kassen keine realistische Politikalternative. Die Politik sollte vielmehr entsprechende Maßnahmen ergreifen, um Frauen eine Erwerbsarbeit zu erleichtern, so dass sie sich aus eigener Kraft gegen die wirtschaftlichen Risiken von Trennung und Scheidung absichern können.

JEL Classifications: J12, J16, J18

Received: 20. 07. 2004

Accepted: 04. 08. 2006

1. Introduction

Much research has been published on the economic consequences of marital disruption in the US (for summaries of selected studies see McKeever / Wolfinger, 2001; Andreß et al., 2003, 25). It shows that even though income losses outweigh income gains both in terms of family and per capita income, these losses are not absorbed equally by both partners. Women and their (dependent) children are usually found among the losers, while men either maintain or even improve their economic status. Although this common picture has been challenged in recent years by the rising dependency of US families on women's income (McManus / Diprete, 2001), there have been similar findings in Sweden (Fritzell, 1990; Gähler, 1998), the Netherlands (Poortman, 2001), Great Britain (Jarvis / Jenkins, 1999) and Canada (Finnie, 1993).

The evidence for Germany, which is rather limited, points in the same direction (Andreß / Lohmann, 2000). Surprisingly few representative analyses are available that study the process of marital disruption over time. An early study by Burkhauser et al. (1990, 1991) is based on very few cases (56 women, 45 men). A similar study based on 331 divorces and 964 separations, including married and non-married individuals, has only been published as a working paper (Schwarze / Härpfner, 2000). A more recent study by DiPrete and McManus (2000) addresses marital disruption (or more specifically, partnership loss) indirectly within a more general framework of life events contributing to individual income mobility. Given rising German divorce rates and increasing numbers of single parents depending on income support, this lack of representative data on the economic consequences of marital disruption has been acknowledged both by the German public and the German Federal Government (BMFSFJ, 2003).

The German experience is also interesting from a comparative perspective. Germany is an important case of a conservative welfare state (Esping-Anderesen, 1999). Compared to other countries, the institutional features of the German welfare state are characterized by strong support for the male breadwinner model (for a recent international comparison see Blossfeld/Drobnič, 2001, 40). Given this dependence on the male breadwinner model, even in its “modernized” version with part-time working women (Pfau-Effinger, 1999), marital disruption is expected to be much more consequential for German women than for women in countries where female autonomy (Orloff, 1993) is much higher in terms of income and employment. On the other hand, since the German welfare state relies so heavily on the male breadwinner model (at least historically), German maintenance law includes rather extensive support regulations for the economically dependent spouse and children. In addition, it is assumed that the rather comprehensive system of public transfers buffers the most severe economic consequences of marital disruption: It not only guarantees a minimum income for everyone in need (*Sozialhilfe*), but also offers an advanced payment scheme for child maintenance for resident parents, when the liable parent does not or cannot comply (*Unterhaltsvorschuss*). Therefore, the economic consequences of marital disruption may be negative for German women, but not as severe as might be expected from the data on female employment and income.

This leads to the following questions: Is a conservative but generous welfare state like Germany able to prevent the possible risks of one of its central features, i.e., the male breadwinner model? What is the role of the specific safeguards it has implemented to prevent economic losses in case of marital disruption? Do, for example, (state-enforced) support payments from the former spouse offset the loss in household income? Or does the welfare state have to step in with public transfers? – If it turns out that own gainful employment, like in many other countries, is the best insurance against the economic pitfalls of marital disruption, then the conservative welfare state with its preference for the male breadwinner is a risk factor in itself.

Given the scarce empirical knowledge of the economic consequences of marital disruption in Germany, this study basically has two objectives. First of all, we try to give a comprehensive picture of the changes of income and socio-economic living conditions for a sample of German married individuals who separated between 1984 and 1999. Longitudinal data on these 418 men and 450 women come from sixteen panel waves of the German Socio-Economic Panel Study (GSOEP), which (amongst other things) includes information on marital status, partnership relations, household structure, income, employment, child care and residential mobility (SOEP Group, 2001; Burkhauser et al., 2001). More specifically, we want to answer the question: Who has to suffer the larger economic decline in the German case – husband or wife? Are these economic losses the same for all men and women? Secondly, by describ-

ing the concomitant changes in living conditions, we want to understand how these individuals cope with the financial strain induced by separation. Who is taking care of the children and how are costs of children shared? Is consumption reduced, e.g., by moving to less expensive homes? Do people become economically independent by own gainful employment? Or do they rely on support payments from their spouse or on transfer payments from the welfare state? In answering the latter questions, we also try to make a contribution to the former discussion on the risks of the German welfare state model. Empirically, we want to know what is the better safeguard against the pitfalls of marital dissolution – own gainful employment or family and state.

The paper is organized as follows: Section 2 summarizes the main features of the German welfare state model relevant to our research problem and then goes on to discuss the main determinants of gender inequalities in material well-being after marital disruption. After this discussion, we specify our research questions more concretely (Section 2.5). Section 3 describes our data and methodology. Section 4 presents the results and Section 5 concludes with a discussion of the main findings.

2. Theoretical Background and Research Questions

Before discussing the economic risks of marital disruption (Section 2.2), we summarize the main features of the German welfare state model (Section 2.1), which contribute to the assumed gender inequalities in material well-being after marital disruption. German family law acknowledges most of these risks (Section 2.3), but the practice of maintenance regulations casts doubts on its efficacy (Section 2.4). Given this background information, we specify our research questions in Section 2.5.

2.1 The German Welfare State Model

As already mentioned in the introduction, the institutional features of the German welfare state are characterized by strong support for the male breadwinner model. Joint taxation of married partners, for example, imposes strong incentives to combine a large primary income, the breadwinner's income, with a comparatively small secondary income. Because married couples are allowed to split their incomes equally between both partners for tax purposes (*Ehegattensplitting*) and given German tax progression, it results in a much lower tax rate for the split incomes than for the larger primary income (Dingeldey, 2001). Furthermore, spouses and minors with marginal attachment to the labor market can participate in the health insurance of the household head without an extra contribution; if one partner dies, surviving dependants will receive pensions that are derived from the contributions of the household head

without contributions of their own. Historically, preservation of the (traditional, complete) family was the main concern of German family policy (Gauthier, 1996). Transfer payments, like child allowances and family tax benefits, are traditional instruments of German family policy allowing the average worker to support a larger family. Hence, when it comes to such general measures of family support, international comparisons always show Germany in the upper ranks (see, e.g., Korpi, 2000).

However, the limited state of the German care system for children, the disabled, and the elderly places severe restrictions on the employment opportunities of family members doing the care work. Although some progress has been made within the last years (BMFSFJ, 2003), care for children below three years of age is still insufficient. Traditionally, day care is organized for somewhat older preschool children on a part-time basis, intended only to *complement* care work within the family. Because of uncoordinated school and work hours and the lack of full-time day schools (Büchel/Spieß, 2002), these problems continue when children enter school. Furthermore, the generous parental leave system, both in terms of time (*Elternzeit*) and money paid (*Erziehungsgeld*), motivates parents to retreat from the labor market for several years and care exclusively for their children, at least until they can enter a preschool child care facility. Great progress has been made to grant fathers the same rights as mothers, but it is predominantly women who stay home because their husbands, on average, earn higher incomes and fear greater opportunity costs when interrupting their careers. Consequently, international comparisons demonstrate that German public policies are not very supportive for employed mothers (Gornick et al., 1996, 1997).

In fact, female employment is moderate in Germany and consists to a large part of part-time employment. In an international comparison, based on data from the late 1990s, the overall economic activity rate of adult German women (47 %) is about the same size as in other European continental states (e.g., France, the Netherlands), but far below the activity rates of women in the Scandinavian countries and the US (UN, 2000, 148). The proportion of adult female part-time employment is comparatively high (30 %) and is only exceeded in very few other European countries such as the Netherlands, Switzerland and the United Kingdom (UN, 2000, 139). When looking at employment in the household context, Germany has the lowest percentage of dual earner and the highest percentage of single earner households of any European country (Dingeldey, 2002, 157; cf. also Anxo et al., 2000). This picture is especially pronounced for families with children: In only one fifth of these families do both parents work full-time. The combination of women's part-time with men's full-time employment is much more frequent (29 %) (ibid.). Correspondingly, an analysis of women's share of total household labor market earnings shows Germany to be in the lower ranks, especially when looking at families with children under 6 years of age (Gornick, 1999). This result is

also a consequence of higher income disparities between men and women in Germany than in other countries. Women's wages in manufacturing equal three quarters of men's wages in Germany (74 %), which is lower than in most other European countries (UN, 2000, 132). As we will see in the following section, both aspects – low female employment and relatively high gender inequalities in earnings – are two of the main economic risk factors of marital disruption.

2.2 Economic Risks of Marital Disruption

In order to understand the economic risks of marital disruption, it is helpful to consider the opposite: the economic advantages of marriage. The economic theory of private households describes such an association of individuals as a small firm allowing production of private and public goods, as well as protection against common life risks, at a much lower price than those individuals would have had to pay were they to produce or buy these goods on their own at market prices (for a textbook summary see, e.g., Bryant, 1990; Cigno, 1991). In case of separation or divorce, most of these advantages are lost: separate homes are necessary, someone is needed to care for the children or earn money for living, life becomes more expensive because economies of scale are lost, and so on. Sørensen (1994, 178) has estimated these losses of economies of scale between 27 and 36 %.

Gender differences in post-separation income are usually attributed to the division of labor within the family, for which strong economic incentives exist when both partners have different levels of productivity in home and market activities. Economic theory of the household asserts that it is efficient, at least in the short run, if the partner with the lower market income, usually the wife, specializes in home work and child care, while the other partner, usually the husband, specializes in market activities.¹ Additional incentives result from the socio-political system, which in the German case strongly supports the male breadwinner model, as we have seen in the preceding section. This unequal division of labor remains efficient as long as this relationship continues. But as rising divorce rates demonstrate, marriage is no longer a life-long commitment. In case of an early break up, the chances of an unequal distribution of marital gains and losses between both partners are high (Ott, 1999). Usually four risk factors can be identified (cf. Holden / Smock, 1991, 68; Sørensen, 1994, 173):

- *Risk 1:* After separation, if there are children, economic needs are higher for the resident parent, in most cases the mother. Because she has to care for the more economically dependent household members, she is often restricted in her earning capacities, especially if child care facilities are scarce.

¹ More specifically, economic theory argues that if women's market skills *relative* to their domestic skills are lower than men's relative skills, then women will remain in the home and men will specialize in paid work.

- *Risk 2:* Moreover, the risk that the resident parent does not receive half of the child maintenance costs from the non-resident liable parent is high.
- *Risk 3:* Income sharing during marriage allows women to participate in men's market incomes, which are on average higher than women's market incomes. It is questionable, whether the amount of maintenance payments from their former spouse after separation compensates the loss of economic support women received during marriage.
- *Risk 4:* Finally, changes in material wealth, pension entitlements, and human capital that both partners experience during marriage are only imperfectly measurable and therefore hard to equalize after separation. Even if they are measurable, the economic loss may be high when they are sold to pay off the partner (e.g., in case of property).

This is especially true for the gains and losses in human capital. Given the frequent division of labor with a husband employed full-time and a (maximum) part-time working wife, who takes care of the household and children (cf. Section 2.1), it is probable that the gains in human capital by continued employment on the side of the husband (cf. Kenny, 1983) are not set off against the losses of human capital by interrupted or delayed working careers on the side of the wife.

2.3 How does German Family Law Deal with the Economic Risks of Marital Disruption?

All of these risk factors are acknowledged by German family law. Parents, irrespective of marital status, have an obligation to *support their children* until the completion of education or training (risk 1, 2; see Corden, 1999, for an international comparison of child maintenance regimes including the German case). Although this is primarily a private matter, the state (local youth authorities) intervenes when a parent cannot or will not meet these responsibilities by helping to establish paternity, enforcing legal responsibility and advancing maintenance payments at a minimum level (*Regelunterhalt*). Parents must share their income with their children: payment in kind by the resident and cash payments by the non-resident parent.² Courts expect that the non-resident parent does everything possible to be able to pay the determined amount of child support. The amount depends on the child's age, the number of entitled persons (other children, previous spouse) and the liable person's income.³ However, depending on the total number of entitled persons and the

² Adult children (18+ years) are entitled to cash payments. The same is true for children under 18 years of age who live neither with their father nor with their mother.

³ For children of unmarried parents the amount of maintenance is set down in legislation (*Regelunterhaltsverordnung*). For children of married parents, maintenance is individually based, although in practice most lawyers and family judges use schedules

available income, neither the child's economic need nor the actual child costs are guaranteed. Furthermore, the liable parent is allowed to retain an amount for his/her basic needs, while the resident parent's basic needs are not considered. Thus, already the legal norms suggest that in some cases child costs are not met and are disproportionately shared by both parents.

Spousal support is a completely private matter; it is assumed that each partner has to provide for his or her own living expenses.⁴ Maintenance claims are restricted to specific facts of the former marriage, among them child care (risk 2, 4) and interrupted educational and working careers (risk 4).⁵ However, if current own income does not allow a standard of living comparable to the former standard during marriage (risk 3), a special maintenance claim exists (*Aufstockungsunterhalt*). There is much public discussion about the significance of this maintenance claim, but the empirical knowledge about its application is scarce. Therefore, its practical relevance for the "average divorce" is hard to determine. Given public expectation in maintenance law that adults primarily care for their own living, it can be assumed that spousal support, although applicable in many situations, is a rather residual claim, which is demanded only under certain circumstances and after child support payments have been made. Whether it is used to offset the marriage-specific changes in human capital remains an open question.

The situation is slightly different for *material wealth and pension entitlements* (risk 4), where the obligation to equalize marriage-specific changes is more explicitly regulated. German family law treats a marriage as a community of goods, unless both spouses have agreed upon separation of property. Marriage-specific changes in property can be equalized at the request of one spouse. Pension entitlements acquired during marriage *must* be equalized by the court (*ex officio*), in case of a divorce. However, due to their young age, many divorced couples in Germany are not very wealthy at the time of separation and divorced marriages on average do not last long enough to acquire large pension entitlements. Therefore, the practical effect of these regulations on the economic position of the average divorced person is rather low (Voegeli/Willenbacher, 1992).

(most frequently the "*Düsseldorfer Tabelle*", which is based on the "*Regelunterhaltsverordnung*").

⁴ This obligation is less strict in the first year of separation. Therefore, spousal support is more often paid during separation than in the time following legal divorce.

⁵ A limited maintenance claim exists, when a former educational degree does not match the actual labor market conditions.

2.4 The Practice of German Maintenance Law

All regulations concerning property division, as well as child and spousal support, are only effective if individuals apply for them. The pure existence of certain legal norms does not guarantee that all entitled persons make use of them or that they are correctly applied and enforced. Unfortunately, our empirical knowledge on the *practice* of German maintenance law is rather scarce (for an overview see Andreß/Lohmann, 2000). During divorce or in separate court proceedings various ancillary consequential matters can be determined given a formal petition, e.g., property division, child maintenance and spousal support. Only pension splitting (*Versorgungsausgleich*) and (up to 1998) child custody are decided ex officio. Court statistics indicate that not all families with children make use of the court system in order to find an agreement on child maintenance (Andreß/Lohmann, 2000, 57). This is even more so for spousal support, for which – as already mentioned – specific eligibility criteria exist (Andreß/Lohmann, 2000, 57). Empirical analyses of court files from the 1980s show that mainly mothers and long-standing house-wives are awarded spousal support. In most cases employed women go away empty-handed, except when their personal income is below the poverty line (Caesar-Wolf/Eidmann, 1985; Willenbacher et al., 1987). These results suggest that the practice of spousal support is much more dominated by the principle of current need rather than by the principle of equalizing marriage-specific changes in income capacity. The question seems not to be how to compensate for past investments into marriage and the family, but how to cover current demands, which are perceived as being more a function of the number of needy children than of the wife's own necessities (Caesar-Wolf/Eidmann, 1985, 183).

On the other hand, court files give only an incomplete picture of maintenance agreements. Many scholars and practitioners suspect that a substantial number of agreements are reached on a private basis with and without notarial authentication. Information on these kinds of agreements outside the court system can be obtained from survey data. A summary of recent studies shows that problems with spousal support are rather frequent (Andreß et al., 2003, 168, 215). At least two thirds of the respondents in these studies either do not receive any kind of spousal support or receive irregular and inadequate payments. The situation is better for child support, but far from being satisfactory: At least one fifth, in some studies even more than half of the entitled mothers and fathers report similar problems with support payments for their children (Andreß et al., 2003, 168, 187). Moreover, the amount of support usually paid is relatively small (Andreß/Lohmann, 2000, 60, Andreß et al., 2003, 190, 218). Hence, when looking at total household income of single mothers and divorced women, private transfers (including support payments) constitute a much smaller part of the income package than public transfers (Hauser/Fischer, 1990; Wong et al., 1993; Burkhauser et al., 1991).

In sum, there are not many reasons to expect that actual maintenance payments will significantly enhance the economic situation of the, mostly female, entitled persons, although German maintenance law in principle addresses most of the aforementioned risk factors.⁶ Therefore, we assume that either self-help (e.g., increased employment, decreased consumption) or the German welfare state is the main source of protection for the economically deprived family members. According to official statistics for the year 2000, 26 % of all single mothers were dependent on income support (*Sozialhilfe*), while only 3 % of all German households received income support (Haustein et al., 2002).⁷ In addition, single parent households received housing benefits three times more often than the average German household (14 % in West, 34 % in East Germany; Statistisches Bundesamt, 2002b, 508). Finally, 11 % of all single parents received child support from an advanced payment scheme organized by local government agencies (forsa, 2003). However, not all of these cases are a result of marital break up⁸ and the data distract our attention from the many other cases, in which the afflicted individuals help themselves. Therefore, the relation of self-help and public support remains an open question.

2.5 Research Questions

The preceding discussion of the economic risks of marital disruption and corresponding regulations of German maintenance and divorce law supports our introductory presumption that marital disruption has adverse economic effects on the afflicted persons and, especially so, on women and their dependent children. However, as already noted, the evidence for these negative effects comes mostly from other countries. Our knowledge of the practice of law in Germany is based on studies from the 1980s and scattered survey data. Therefore, an updated analysis of marital dissolutions in Germany is urgently necessary:

*Q*₁: How large are the economic changes for married men and women with respect to separation and divorce in Germany in the last two centuries?

This research question can be answered by simply comparing pre- and post-separation incomes. In order to understand the underlying processes, we want

⁶ This does not mean that support payments are economically irrelevant. Given the low household income of many entitled persons, even small amounts of support payments may prevent them from falling below the poverty line.

⁷ By the end of 2004 “*Sozialhilfe*” has been abolished in favor of other systems of income support. These systems are not discussed because they are not relevant for our observation period (1984–1999).

⁸ According to recent government statistics 55% of all single parents are either living separately from their married partner or have been divorced (Statistisches Bundesamt, 2002a, 63). The rest are either widowed (7 %) or have never been married before (38 %).

to go one step further. The economic situation of the household is a function of its income sources and its level of consumption, both of which are influenced by the actions of its members. In case of marriage dissolution, various changes occur that affect both income and cost of living: a new home is needed, child custody must be decided, income support from the former spouse becomes an issue, alternative incomes are sought as individuals strive for economic autonomy (increased employment, public transfers, etc.). This adds another series of research questions:

*Q*₂: Who cares for the children of the marriage and are the costs of child care covered by support payments from the non-resident parent?

*Q*₃: Who leaves the family home and how does this residential mobility affect the cost of living for mobile and immobile individuals?

*Q*₄: How does marital disruption change the labor supply of men and women?

We start our analysis with the last three questions to understand how people cope with the costs of living (*Q*₂, *Q*₃) and strive for new income sources (*Q*₄). Based on this information, we interpret the observed overall changes in household income (*Q*₁). Finally, we focus on the structure of the income package after marital disruption and ask:

*Q*₅: How much do the separated and divorced individuals depend on own gainful employment, private transfers, especially from the former spouses, and public transfers?

This last question is related to our introductory discussion concerning the German welfare state model. We asked whether a conservative but generous welfare state like Germany is able to prevent the possible risks of one of its central features: the male breadwinner model. The preceding analysis of the economic risks of marital disruption and corresponding regulations of German maintenance and divorce law reinforces our hypothesis that private transfers are inadequate and have to be augmented for those with restricted income capacities by other non-work income sources. We suspect that if the conservative German welfare state buffers the negative economic effects of marital disruption, it does so by public transfers and less so by legal norms.

3. Data and Methodology

3.1 Sample

The following analysis uses data from sixteen GSOEP panel waves covering the period from 1984 to 1999 (SOEP Group, 2001; Burkhauser et al., 2001). It focuses on separation of married couples, since earlier analyses (Andreß/Güllner, 2001) have shown that separation is connected with more economic changes than legal divorce, which follows separation, sometimes several years

later, when the economic situation has already stabilized. Separations were identified by combining information from the partner variables provided by the panel group at the German Institute for Economic Research (Berlin) and from survey questions about family status and life events (Güllner, 2000). The year in which these separations are observed is defined by t . Since we want to compare the situation before and after these separations, data of at least one spouse have to be available for the years $t - 1$ (before) and $t + 1$ (after). Therefore, the unit of analysis is the corresponding separation in t augmented by data from the years before and after the event.⁹

All in all, we found 559 married men and 558 married women separating within the observation period. But since 141 men and 108 women left the panel in the year of separation, only data for 418 men and 450 women are available for analysis. This result confirms the well-known fact that separation is an important cause of panel attrition (Fitzgerald et al., 1998; Pannenberg, 2001). Obviously, panel attrition is higher for men than for women, but elsewhere we have shown that possible biases caused by gender-specific attrition rates can be controlled by using the cross-sectional weights provided with the GSOEP data (Andreß et al., 2003, 326).¹⁰ Nearly two thirds of these separated individuals get legally divorced within the observation period: 18 % within the same year of separation, 38 % one year later, and 29 % two years later. The remaining 15 % need more than two and up to 11 years. It should also be noted that almost all sample members are in their working age (only 2 % are older than 60 years).

It should also be noted that due to different attrition rates of men and women it is not guaranteed that both spouses are included in our analyses. For example, if we measure median household incomes before separation when both spouses were still living together, the corresponding values for men and women nevertheless can be different, because the data of some spouses are missing. Missing values are another problem of our analysis. Depending on the specific variables used in the following analyses, the effective sample may be lower than $N = 868$, which in many cases precludes excessive differentiation with respect to control variables.¹¹

⁹ For certain analyses the longitudinal comparisons go even further than $t - 1$ and $t + 1$ (see below). If individuals experience several separations, only the first one is included in the sample.

¹⁰ More specifically, we used the cross-sectional weight attached to the corresponding individual in the final year, in which the individual contributed to our data. These weights also control for different selection probabilities due to the stratified sampling design of the GSOEP.

¹¹ Given the structural differences between East and West Germany (higher unemployment rate and on average lower incomes in East Germany) and the different historical background (higher divorce rates, greater number of consensual unions and illegitimate children, more restricted regulations for spousal support in the former GDR), pre-

3.2 Income Indicators

Changes in income are a central focus of our analysis. The GSOEP provides various income indicators for different time periods (month, year) both on the individual and the household level. Given our interest in income redistribution by taxes, private and public transfers, we use data on yearly pre- and post-government household incomes as provided by the cross-national equivalent file (CNEF) of the GSOEP (Burkhauser et al., 2001).¹² We measured all incomes in 1995 prices by using the official cost-of-living index (Statistisches Bundesamt, 2000). Since the Euro was introduced after the end of our observation period, values are printed in German Marks.

These household incomes include private transfers received by the household, but do not take into account private transfers paid to other individuals outside the household. Given the importance of private transfers for our research problem, some remarks on the underlying survey questions are necessary. Received private transfers are based on the so-called income calendar, which records the receipt of various income components for each month of the year preceding the interview, among them (support) payments from individuals outside the household (including payments from the advanced payment scheme for child maintenance). Received private transfers are included in CNEF pre-government household incomes, which then are subjected to the CNEF tax simulation program to obtain (after adding social security pensions and public transfers) post-government household incomes. Although the GSOEP personal interview also includes a question about the amount of (support) payments being made for individuals outside the household in the year preceding the interview, this information is not used in the CNEF. For our

liminary analyses were done separately for East and West Germany, but standard errors increased dramatically due to the small number of cases in many table cells. For the same reasons, we refrained from differentiating with respect to certain periods (e.g., before and after German reunification). We are, however, sure that all results remain stable when excluding individuals from East Germany.

¹² The CNEF augments the detailed GSOEP data on various income sources with the imputed rental value of owner-occupied housing and imputed payroll and income taxes. The term “household income” is identical to the term “family income” in the US-American context. The use of *yearly* pre- and post-government household incomes also has important implications for our longitudinal comparisons. Since the event of interest (separation) occurred at some point in time between the panel interview in t and the preceding interview in $t - 1$, yearly incomes from $t - 1$ are not a valid indicator of the economic situation before the event. In many cases they already characterize the time of separation. Therefore, our income comparisons are based on data from $t - 2$ and $t + 1$. All selected cases were inspected manually to make sure that they were already living together with their marriage partner at $t - 2$. Technically, things are even more complicated: because yearly household incomes are based on retrospective questions, we use data from panel wave $t + 2$ (including retrospective information for $t + 1$) and panel wave $t - 1$ (including retrospective information for $t - 2$).

analysis, we have deducted these support payments¹³ from CNEF post-government household incomes in order to receive a measure of *disposable* household incomes for separated individuals. Given this procedure, it should be noted that received private transfers are taxed and include all kinds of donors (“individuals from outside the household including payments from advanced maintenance scheme”), while paid private transfers are not taxed, but are restricted to the former family (children, spouse). In many cases, the amount paid by the liable person and the amount received by the entitled person do not agree (Penning, 2003). But given the different question wordings and possible biased reports about support payments (Schaeffer et al., 1991), no attempt was made to correct the data.

All household incomes were equivalized with respect to household size according to the formula:

$$(1) \quad \text{equivalized household income} = \text{household income} / \text{size}^{\theta}.$$

These equivalized household incomes were then assigned to each individual in the household and analyses were done on the individual level. A value of 0.5 was used for the elasticity parameter θ , yielding moderate economies of scale with increasing household size similar to equivalence scales applied by the OECD (cf. Buhmann et al., 1988). In separate analyses, θ is varied to check the sensitivity of our results against different assumptions concerning economies of scale. $\theta = 1$ yields per capita incomes and $\theta = 0$ total household income.

3.3 Methods

The following analysis focuses both on the *absolute* value of various measures of economic well-being after separation and their change *relative* to their amount before separation. Consider the case of equivalized household income: let $I_{i,t-2}$ and $I_{i,t+1}$ be the equivalized household incomes of individual i two years before ($t - 2$) and one year after separation ($t + 1$). As a measure of change, we use the percentage change in equivalized household income for each individual:

$$(2) \quad \Delta I_i = 100 * (I_{i,t+1} - I_{i,t-2}) / I_{i,t-2}.$$

In the following, ΔI_i is termed a *change score* of income. Because of the variance of economic changes (not all women lose and not all men win), we present the median, the first and the third quartile of the distribution of change scores. Similar change scores were computed for other measures of economic

¹³ The corresponding question distinguishes between different addressees (parents including parents-in-law, spouse, children including son-in-law and daughter-in-law, other relatives, other non-related individuals). We have only used (support) payments for children and the former spouse.

well-being (e.g., housing costs). Likewise, the distribution of absolute values is characterized by the median. It should be noted that, in general, the median of change scores does not equal the percentage change of median absolute values. For example, $\text{Me}(\Delta I_i)$ does not equal $100 \cdot (\text{Me}(I_{i,t+1}) - \text{Me}(I_{i,t-2})) / \text{Me}(I_{i,t-2})$.

4. Results

We start with an analysis of gender-specific changes in child care, housing and employment (Section 4.1–4.3), before turning to the more specific question of available incomes after marital disruption (Section 4.4–4.5). Although the statistical analyses focus mainly on differences between men and women, to control for relevant living conditions, all tabulations were also broken down by household type and employment status. If important differences were found, they are also documented in the following tables or mentioned in the text.

4.1 Children and Support Payments

As German survey data show, during marriage, child care is largely left to women (BMSFJ, 2003, 133). This inequality continues when a marriage breaks down. 64 % of all married women in our sample live together with children after separation, while only 19 % of all married men do.¹⁴ Similar results are known from recent representative surveys of divorced men and women (Andreß et al., 2003), which showed that after separation only 17 % of all minor children live with their father, while the majority (83 %) stay with their mothers. Even if 70 % of the non-resident fathers report that they have contact with their children several times a month,¹⁵ this does not change the overall picture: the daily workload of child care after separation remains in most cases with the mother.

With the GSOEP data, we can check whether these inequalities are compensated for by maintenance payments from the former husband. Unfortunately, it is not possible with GSOEP data to identify liable and entitled persons in a strict legal sense. But as described in Section 3.2, we can determine those individuals that receive and/or make support payments to other persons outside their own private household. According to the data shown in Table 1, only 39 % of all men and 3 % of all women give money to their children and/or former spouse after separation. Even when focusing exclusively on parents,

¹⁴ After separation these data may include children from a new partner. 53 % of all married men and 25 % of all married women live together with minor children and a new partner after separation.

¹⁵ According to the resident mothers only 40 % have these kinds of frequent contacts.

Table 1: Private and Public Transfers for Separated Men and Women

	All men		Men with children ^{a)}		Men without children		All women		Women with children ^{a)}		Women without children	
	$t - 2$	$t + 1$	$t - 2$	$t + 1$	$t - 2$	$t + 1$	$t - 2$	$t + 1$	$t - 2$	$t + 1$	$t - 2$	$t + 1$
Support payments												
payments made ^{b)} (%)	–	39	–	50		21	–	3	–	3		2
payments received ^{c)} (%)	–	2	–	6		1	–	18	–	20		15
Proportion of hh income (%)												
private transfers ^{d)}	0	1	0	0	0	1	2	11	2	12	0	9
public transfers ^{d)}	11	12	13	19	8	11	12	26	14	33	8	10
labor income ^{e)}	79	76	82	73	74	77	79	56	78	49	82	70
Public transfers more than 50 % of hh income (%)	5	11	6	13	5	11	11	24	12	31	9	10

Notes:

^{a)} Made support payments: individuals living with children before ($t - 2$) separation, received support payments/transfers as % of hh income: individuals living with children at the corresponding time point ($t - 2, t + 1$).

^{b)} Made support payments for children or former spouse.

^{c)} Received payments from other individuals outside the household including advanced maintenance payments.

^{d)} Mean percentage of disposable household income (after deducting taxes and support payments, but including private and public transfers).

^{e)} Gross earnings as percentage of pre-government income (before taxation and not including private and public transfers), mean value.

Source: GSOEP 1984–1999, weighted data.

only half of all fathers (3 % of all mothers) make support payments (correspondingly, figures for individuals without children are much lower; men: 21 %, women: 2 %). On the other hand, as few as 2 % of all men and 18 % of all women receive support payments. The figures are slightly higher for individuals living together with children after separation (men: 6 %, women: 20 %), but 80 % of all women living together with children do not receive any support payments at all. Compared to the survey data mentioned in Section 2, this is an extremely high figure. It seems that support payments are underestimated in the GSOEP data. However, the overall picture – very few support payments for men and more although insufficient support payments for women – is very consistent with other findings for Germany (Andreß et al., 2003, 167). Although German maintenance law, at least in principle, includes many regulations to compensate for most of the economic risks of marital disruption (cf. Section 2.3), we now have to conclude that these regulations are either not used or insufficiently applied.

Accordingly, private transfers comprise only a small part of household income after separation, much smaller than public transfers. As Table 1 demonstrates, private transfers only make a difference for women and constitute only 11 % of their income package. Women's (and men's) economic situation after separation depends much more on public transfers. In the case of single mothers, public transfers constitute, on average, one third (33 %) of their income package. This proportion is less high when looking at all separated women (26 %) or at men's household incomes (12 %), but it is still a significant figure which in all cases increases with separation (from $t - 2$ to $t + 1$). Therefore, although a rather comprehensive system of (legal) maintenance regulations exists in Germany, it is not the former spouse who bears the main burden of income maintenance after separation.¹⁶ First and foremost, it is the separated individual who takes care of him- or herself by gainful employment (see below). Even in the case of single mothers, nearly one half (49 %) of their income package comes from their own or from other household member's labor income (cf. Table 1).¹⁷ Another source of protection are public transfers which secure a significant part of the income package for the separated individuals, especially for women with children. For 31 % of all women with chil-

¹⁶ Not surprisingly, individuals making support payments have much higher equivalized household incomes (median: 29,666 DM, first quartile: 20,351 DM, third quartile: 43,846 DM) than individuals, who do not pay (Me: 22,583 DM, Q_1 : 14,374 DM, Q_3 : 34,348 DM).

¹⁷ Strictly speaking, average percentages of labor income in Table 1 are not comparable with average percentages of private and public transfers. CNEF income data do not include net earnings that we could relate to our measure of net disposable household income (after taxation). Therefore, we used gross earnings as a percentage of pre-government household income (before taxation). If one assumes that the tax rate is the same for earnings as for all other income components, then the figures in Table 1 roughly indicate the (average) significance of earnings within the income package.

dren, public transfers are the main income source in the sense that half of their disposable household income consists of public transfers (cf. Table 1). Compared to mothers' dependence on public transfers during marriage (12 %), this figure has dramatically increased. Corresponding percentages for women without children and for men (irrespective of parental status) are much lower, but increase as well after separation, which shows the importance of public transfers for all groups of separated individuals.

4.2 Residential Mobility

In our sample, 54 % of all married men and women changed their home when separating from their partner. In other words, both genders have to cope with residential mobility to the same extent. Focusing on individuals with children after separation, the overall mobility rate is slightly lower and noticeable differences between men (23 %) and women (48 %) are visible (for a similar observation in the US see Booth / Amato, 1992). On the one hand, this result is in accordance with the common assumption in divorce proceedings that children should stay in their familiar environment and not change homes. On the other hand, it is surprising that this is true especially for men and less so for women. However, arguments about home and household contents are seldom decided by courts and are mostly settled on a private basis, where other criteria may be relevant (Andreß / Lohmann, 2000, 55). One of them is perhaps the question of who is able to pay the family home. Given single mothers' smaller incomes (see the following sections), it can be suspected that the higher mobility rate of women with children is partly a forced choice. By moving to smaller and correspondingly less expensive homes, they are able to reduce the financial strain caused by separation (see below).

Table 2 looks beyond straightforward residential mobility and describes the concomitant changes in size, quality and price of the home. The data are shown both in absolute (m², number, DM) and relative terms (per household member, percentage of household income) and differentiate between men and women as well as between mobile and immobile persons. We also conducted separate analyses for people living with and without children and report important differences in the text but not in the table.

In absolute terms, mobile persons move to smaller and less expensive homes (less m², less rooms, less housing costs). On the other hand, immobile persons, by definition, occupy the same home as before and, therefore, have to cope with paying unchanged housing costs from (in most cases) smaller household incomes. After separation, immobile men spend 22 % of their household income on housing, while mobile men spend 20 %. On the individual level, housing costs increase at least 49 % for half of the immobile men, while the median increase for the mobile men is only 25 %. Similar differ-

ences can be observed for immobile (+68 %) and mobile women (+19 %). Thus, by moving to less expensive homes, the separated individuals are able to reduce the financial strain caused by the household split at the expense of less housing quality and lost neighborhood contacts.

Table 2
**Characteristics of the Home by Residential Mobility
of Separated Men and Women (median values)**

	immobile			mobile		
	$t - 1$	t	% change ^{c)}	$t - 1$	t	% change ^{c)}
Men						
Absolute size (m ²)	88	88	–	89	54	–40
Relative size (m ² per hh member)	31	61	+100	27	42	+57
Number of rooms ^{d)} (mean)	3.7	3.7	–	3.7	2.3	–40
Number of rooms per hh member	1.3	3	+100	1	2	+50
Yearly rent ^{e)} (DM)	8,016 ^{a)}	8,083 ^{b)}	–1	9,032 ^{a)}	6,742 ^{b)}	–21
Yearly rent ^{e)} as % of hh income	14 ^{a)}	22 ^{b)}	+49	16 ^{a)}	20 ^{b)}	+25
Women						
Absolute size (m ²)	86	86	–	100	63	–37
Relative size (m ² per hh member)	24	33	+46	33	32	+6
Number of rooms ^{d)} (mean)	3.9	3.9	–	3.9	2.6	–33
Number of rooms per hh member	1	1.5	+33	1.3	1.3	0
Yearly rent ^{e)} (DM)	8,532 ^{a)}	8,457 ^{b)}	+3	8,856 ^{a)}	8,202 ^{b)}	–21
Yearly rent ^{e)} as % of hh income	15 ^{a)}	24 ^{b)}	+68	20 ^{a)}	25 ^{b)}	+19

Notes:

^{a)} Measured at $t - 2$.

^{b)} Measured at $t + 1$.

^{c)} Median of the change scores obtained by comparing the before and after measures for each individual.

^{d)} Excluding kitchen, bathroom, and rooms smaller than 6 m².

^{e)} Rent excluding heating costs.

Source: GSOEP 1984 – 1999, weighted data.

When interpreting these data with respect to possible gender differences, we have to remember the changes in household composition as described in the previous section. If children mostly stay with their mothers, then household

size, on average, decreases more for men than it does for women, irrespective of their mobility status. In other words: women, on average, share their home with more persons, even when they stay in the family home. While immobile men after separation occupy homes with 61 m² and 3 rooms per household member, immobile women have only 33 m² and 1.5 rooms for each household member. Since mobile men mostly live alone, they win personally in terms of size (42 versus 27 m² before) and rooms (2 versus 1 room before), even when their new homes are on average smaller than their former family home. Mobile women, on the other hand, have to find a home that fits the needs of their larger households, with the effect that the number of m² and rooms per household member remains more or less unchanged (32 versus 33 m² before, 1.3 rooms before and after). The most important difference in our context, however, concerns the financial strain caused by the household split. Women have to pay one quarter of their household income for their home, even when they move to a (absolutely) smaller and less expensive home after separation. Although men also experience increased financial strain due to their higher incomes, housing costs take up only one fifth of their household income after separation (22 % for immobile and 20 % for mobile men).

The hypothesis that residential mobility is a forced choice, especially for women, can be tested when comparing relative housing costs after separation with those during marriage. Both mobile men and women experience less increases in financial strain (men: +25 %, women: +19 %) than those men and women that stay in the family home (men: +49 %, women: +68 %). An interesting aspect (from more differentiated analyses not shown in Table 2) is the fact that, already during marriage, mobile women together with their (former) husbands had to pay one fifth of their household income for housing (immobile women: only 15 %, immobile and mobile men: 14–16 %). Had they stayed in the family home after separation, nearly one third of their household income would have been spent for housing (Andreß et al., 2003, 108). By moving to a less expensive home they were the ones among all the separated that could keep the increase in financial strain within limits (i.e. +19 %, compared to 25–68 % in the other groups; cf. Table 2). For women with children, the figures (not shown in Table 2) are even more impressive: Relative housing costs increased for immobile women with children by 68 %, while mobile women with children decreased their relative housing costs by 19 %. These data suggest that residential mobility is partly enforced for women. Otherwise, they would have to cope with increased housing costs. This might also explain the comparatively high mobility rates of women with children, who contrary to the mentioned legal norms, leave their familiar environment more often than men with children.

4.3 Employment

Table 3 shows that 87 % of all separating men and 63 % of all separating women (58 % of all separating women with children) are either full-time, part-time or marginally employed. Compared to stable marriages, these are rather high rates of economic activity, especially for women (Andreß/Lohmann, 2000, 78). We are interested in finding out how these men and women adapt their employment status to the new situation after separation. Table 3 illustrates the corresponding changes in economic activity one year after separation. Some persons have extended their employment, in the sense that former part-timers are now working full-time or that persons formerly not gainfully employed are now working at least irregularly or marginally. Since most men work full-time before separation, further increases of employment are hardly feasible (7 %), so that these kinds of changes are mostly observed for women (29 %), especially for women with children (34 %). Given the predominance of full-time employment before separation, the opposite, a reduction of employment, is much more probable for men. However, this event is observed as often (12 %) for men as for women (women without children: 13 %). This contradicts the prejudice often heard in public debates that men reduce employment in order to shirk maintenance payments for spouse and children. All in all, it is predominantly women with children who change their activity status in great numbers (47 %), mostly by increasing employment (34 %).

Of course, this operationalization of change ignores alterations in working hours and payment within the same job as well as changes from one full-time (part-time) job to another. Therefore, the percentage of mobile persons in Table 3 underestimates true career mobility. To get an impression of these more subtle changes, we analyze the effects in terms of earned income. Our indicator uses yearly earnings before taxes measured in 1995 prices. Yearly data are chosen to make this analysis comparable with the following analyses on equivalized household incomes. Earnings before taxes are preferred to net earnings because we are interested in the effects of working hours and remuneration and not in the question of how the state privileges or under-privileges changes in employment.¹⁸ Furthermore, the income tax bracket for married individuals changes one year after separation.

According to these data, both men and predominantly women experience positive changes. Due to their lower economic activity before separation, the increases in earnings are especially high for women: 50 % of them experience increases of 17 % and more, while the median for men amounts to +5 %. On the other hand, since women start from a much lower level their earnings are far behind men's despite the large increases. It should also be noted that not all men and women expand their economic activity in terms of earnings. A

¹⁸ Gross and net earnings are available on a monthly basis. For an analysis of these alternative indicators see Andreß/Güllner (2002a).

quarter of them has to deal with declines in earnings of at least -8 % for men and -9 % for women. But this observation concerns a minority, leading us to the general conclusion that both genders predominantly try to expand their economic activity. This results in increased earnings for women, starting however from a very low level, and minor positive changes for men, who have already exhausted their economic capacity before separation.

Table 3

Changes in Employment and Earned Incomes for Separated Men and Women

	Men		All women		Women with children ^{a)}	
	$t - 2$	$t + 1$	$t - 2$	$t + 1$	$t - 2$	$t + 1$
Employment status ^{b)} (%)						
full-time	86	78	34	43	22	31
part-time	1	2	21	17	26	22
marginal	–	1	8	3	10	4
training	1	1	2	1	–	1
unemployed	11	18	28	26	33	28
other	1	2	8	10	10	14
Change in employment ^{c)} (%)						
decreased		12		12		13
no change		82		59		53
increased		7		29		34
Gross earnings ^{d)} (Median, DM)	52,891	54,132	26,541	31,507	20,355	30,769
Change in earnings ^{e)} (%)						
1 st quartile		–8		–9		3
median		5		17		23
3 rd quartile		24		62		71

Notes:

^{a)} Women living with children after separation.

^{b)} Individuals younger than 61 years of age.

^{c)} See text for further details.

^{d)} Individuals gainfully employed before and after separation.

^{e)} Distribution of change scores obtained by comparing earnings between $t - 2$ and $t + 1$ for each individual.

Source: GSOEP 1984–1999, weighted data.

4.4 Income and the Effects of Private and Public Redistribution

According to Table 3, women's yearly gross earnings after separation (31,507 DM) amount to 58 % of men's earnings (54,132 DM). Although the earnings gap is not that large when looking at net earnings (about 75 % according to the earnings indicator based on net monthly incomes; cf. Andreß/Güll-

ner, 2002a), women need other income transfers a lot more than men to achieve the economic status they had together with their husband during marriage. On the other hand, men's economic status is not as high as these data suggest because part of their income will be transferred to their former wife and children after separation in the form of maintenance payments. To see the effects of private and public redistribution, we modeled this process in four steps: (i) factor incomes, (ii) taxation, (iii) payment and receipt of private transfers and (iv) receipt of public transfers (including social security pensions).¹⁹ Table 4 shows the corresponding equivalized household incomes of men and women at each redistributive step. The following interpretation focuses mainly on the income changes observed at the individual level when comparing these equivalized household incomes two years before and one year after separation. For this purpose, Table 4 includes the median (Me) and the quartiles (Q_1 , Q_3) of this distribution of individual (percentage) change scores.

At the level of factor incomes (step i), 50 % of the separating women lose at least 46 % of their former equivalized household incomes, while 50 % of the separating men experience increases of at least 7 %. Women's median income after separation (17,861 DM) amounts to 38 % of men's (47,253 DM). With every redistributive step, the median and especially the third quartile decline for men. This shows that taxation and private transfers cut away the largest income gains for men (i.e., the distribution of income changes shrinks from above). The cut is clearly visible when private transfers are taken into account. On the side of the women, it is the first quartile and the median that gradually increase (i.e., the distribution of income changes shrinks from below). Thus, every redistributive step alleviates the negative changes in income for women. Finally (step iv), at the level of disposable household incomes (after deducting taxes and support payments, but including private and public transfers), women's median income after separation (19,919 DM) amounts to 66 % of men's income (29,990 DM). However, the overall impression does not change: With respect to equivalized household income, women are the losers and men

¹⁹ Steps (iii) and (iv) could be reversed. For this analysis we used the following information from the CNEF: pre-government household incomes (hhpregov), post-government household incomes (hhposgov), received private transfers (hhprivat), public transfers including social security pensions (hhpublic). Additionally, we operationalized support payments being made for spouse and children (hhsupport) as described in Section 3.2. Post-government household incomes equal pre-government incomes minus taxes plus public transfers and social security pensions. Unfortunately, the CNEF includes received private transfers in pre-government household incomes, which are then subjected to a tax simulation program. Support payments being made for spouse and children are not considered in the CNEF. In order to model private and public redistribution as a third and fourth step, we had to deduct hhprivat and hhpublic from the corresponding CNEF household incomes. More specifically, we calculated the four redistributive steps as follows: (i) = hhpregov – hhprivat, (ii) = hhposgov – hhprivat – hhpublic, (iii) = hhposgov – hhsupport – hhpublic, (iv) = hhposgov – hhsupport. Each of the results was then equivalized according to equation (1).

Table 4: Changes in Equivalized Household Income for Separated Men and Women

	Men					Women					Women versus Men					
	$t - 2^a$	$t + 1^a$	% change ^{b)}			$t - 2^a$	$t + 1^a$	% change ^{b)}			Difference (% points)			Gap reduction in % ^{c)}		
	DM	DM	Q_1	Me	Q_3	DM	DM	Q_1	Me	Q_3	Q_1	Me	Q_3	Q_1	Me	Q_3
Income redistribution																
(i) Pre-government incomes	39,804	47,253	-24	7	69	37,116	17,861	-84	-46	0	-60	-53	-69			
(ii) ... minus taxes	31,127	32,382	-21	4	48	26,382	15,960	-80	-41	-1	-59	-45	-49	2	15	29
(iii) ... including private transfers	30,276	29,084	-35	-6	30	26,003	17,550	-69	-34	0	-34	-28	-30	43	47	57
(iv) ... plus public transfers	31,193	29,990	-26	-4	27	28,519	19,919	-43	-27	-1	-17	-23	-28	72	57	59
(v) ... minus rent ^{d)} for home	25,749	23,717	-29	-11	40	23,584	15,629	-55	-33	5	-26	-22	-35	57	58	49
Equivalence scale																
Per capita income ($\theta = 1$)	17,698	26,244	-1	37	105	16,032	12,523	-38	-7	17	-37	-44	-88	38	17	-28
OECD scale ($\theta = 0.5$)	31,193	29,990	-26	-4	27	28,519	19,919	-43	-27	-1	-17	-23	-28	72	57	59
Total household income ($\theta = 0$)	53,419	34,706	-53	-33	-7	54,632	30,245	-55	-41	-11	-2	-8	-4	97	85	94

Notes:

^{a)} Median equivalized household income.

^{b)} Distribution of change scores obtained by comparing equivalized household income between $t - 2$ and $t + 1$ for each individual (Q_1 : 1st quartile, Me: median, Q_3 : 3rd quartile).

^{c)} For example, the gap reduction rate of 15 % for the median in step (ii) is computed as $100 * (1 - -45 / -53)$.

^{d)} Rent excluding heating costs.

Source: GSOEP 1984–1999, weighted data.

the winners. 50 % of all women lose at least 27 % of their pre-separation equivalized household income, while 50 % of all men lose at least 4 %. Looking at the quartiles, we observe that more women lose than men and that the decline in income is more severe for women than for men.

Before discussing the overall effects of private and public redistribution, we would like to comment on two possible objections against the presented results.

- Given our former analysis of residential mobility in Section 4.2, it could be concluded that women escape, at least partially, these negative economic developments by moving to less expensive homes. But subtracting housing costs from disposable household incomes (Table 4, step v) does not change our main findings: 50 % of the separating women lose at least one third (–33 %) of their former equivalized household incomes (adjusted for housing costs), while the separating men lose “only” one tenth (–11 %). Considering housing costs, however, underscores the negative effects of maintaining two separate households after marital disruption: A clear majority of both genders experiences declines in available income (both medians are significantly below zero).
- Another objection could be that our conclusions about gender inequalities depend on the particular assumptions on income sharing and economies of scale used in the calculations. However, according to the data in Table 4, gender inequalities persist irrespective of the equivalence scale used.²⁰ Not surprisingly, they are at their smallest with total household income ($\theta = 0$ in eq. 1) and at their largest with per capita income ($\theta = 1$). Because total household income is not corrected for household size, it only reflects the loss of the partner’s income, which affects both men and women equally except for the fact that the lost wife’s income is on average smaller than the lost husband’s income. Per capita income, on the other hand, is in comparison to OECD incomes much more a function of foregone incomes *and* household members; it, therefore, shows the highest income gains for men, who have the smaller households after separation. OECD incomes ($\theta = 0.5$), which we have used up to now, measure economic changes in between these two extremes and, therefore, seem to give a valid picture of true changes experienced by both men and women.²¹

All in all, we are sure that the observed gender inequalities are valid and robust against different assumptions. We are ready then to summarize the effects of private and public redistribution. This is done in the third part of Table 3 by computing the difference between men’s and women’s quartile and med-

²⁰ For a simulation of different models of income sharing see Andreß/Güllner (2002b).

²¹ It is a well known fact that assumptions concerning economies of scale have more of an effect on men’s than on women’s incomes, because men experience greater changes in household size (Jarvis/Jenkins, 1999).

ian values of change scores (cf. columns labeled “women versus men”). For example, at the level of pre-government incomes, half of all women lose at least 46 %, while men win at least 7 %. The difference of these two figures, which we call the gender gap, amounts to 53 percentage points. Taxation reduces this gender gap to 45 percentage points, private transfers to 28 percentage points and, finally, public transfers to 23 percentage points. Taking pre-government differences as the baseline, it could be said that taxation has reduced the former difference by 15 %, while the reduction by private and public transfers amounts to 47 % and 57 %. The figures suggest that private redistribution is much more effective in reducing the gender gap than public redistribution because the former redistributive step already amounts to a reduction of 47 %, while the latter leads “only” to a reduction of 57 %.

The explanation for this remarkable result is that private transfers affect both women’s and men’s incomes, while public transfers seem to be relevant only for women. Median post-separation incomes of men decrease from 32,382 DM to 29,084 DM by private transfers, while post-separation incomes of women increase from 15,960 DM to 17,550 DM. Public transfers, on the other hand, do not make a difference for men’s incomes (29,084 DM versus 29,990 DM). They only increase women’s post-separation incomes from 17,550 DM to 19,919 DM. In other words, they affect only one side of the difference: the female one. Furthermore, they are most effective for women with large declines in income, as can be seen from the gap reduction rate for the lower quartile. It amounts to 72 % compared to 57 % for the median and 58 % for the upper quartile.

This result, however, does not change our conclusion about the minor importance of support payments within the income package of women (cf. Section 4.1). In absolute terms, public transfers (+2,369 DM) make a larger difference for women than private transfers (+1,590 DM). The gender gap reduction rate only tells us something about gender inequalities due to separation. In this respect, private transfers decrease gender inequalities to a greater amount than public transfers. Given the intentions of both measures, this is not a surprising result. In our case, private transfers are meant to equalize marriage-specific disadvantages of weaker family members, while public transfers, amongst other things, aim at alleviating poverty.

In response to our research questions, we come up with the following two conclusions: (1) Although transfer payments significantly reduce men’s incomes, separation has many more negative effects for women in terms of household income, which are not compensated for by private transfers from their former husbands. Public transfers have to fill in the gap for women. (2) Although gender inequalities are not diminished, the impact of private transfers on men’s incomes leads to reduced inequalities by private redistribution, much higher than the reduction observed for the other steps of income redistribution.

4.5 Economic Changes in Different Living Conditions

In addition to these overall developments in household incomes, the great variance of all these changes should not be forgotten. For example, not all men gain economically and not all women lose. Turning back to disposable incomes (after deducting taxes and support payments, but including private and public transfers; cf. Table 5, row 1), we see from the first and third quartile that one quarter of all men lose at least 26 % of their pre-separation income and one quarter of all women experience income changes, which are mostly positive (third quartile: -1 %). The variance of these changes is a result of different living conditions after separation. As can be seen from Table 5, women with a new partner experience more positive changes, while partnership status hardly makes a difference for men. With respect to employment status, more positive changes are observed for women if they are gainfully employed after separation, while men experience more negative changes in case of unemployment, at least in the lower quartile. If children live in men's households after separation, more men experience a decline in income than if no children are present. Thus, children seem to be a similar risk for men as they are for women. In absolute terms, women with children have the lowest equivalized household incomes (18,056 DM). However, in relative terms, they lose as much as women without children do, at least in the lower half of the distribution.

When explaining the last result, we have to look at the employment constellation within the former marriage. Childless women usually have lived in dual earner households with both partners working full-time before separation. Therefore, they miss at least half of the former income package. Women with children, on the other hand, come predominantly from single earner households or worked part-time. They did not have much income per (equivalent) household member before separation and, as shown in Section 4.3, increase their own economic activity afterwards, resulting in much less severe declines in income than women without children. Correspondingly, McManus / Diprete (2001) have argued that the economic consequences of separation depend to a large extent on the employment constellation within the former marriage: the more the other partner contributes to the income package, the greater the economic loss. Table 5 distinguishes between four household types: 1. the husband was the single earner, 2. the husband was the main earner, 3. both spouses contributed equally to the income package (termed dual earner) and 4. the wife was either the single or the main earner.²² Women lose in all situations except when they are the single or main earner. In other words, if the

²² The definition of single earner households is obvious. In dual earner households, we analyzed the percentage difference in earnings between husband and wife. If either one earned more than 20 % than the other, we termed the husband (or the wife) the main earner. If differences in earnings were less than 20 %, we called it a dual earner household.

Table 5: Changes in Equivalized Household Income for Separated Men and Women by Household Type and Employment Status

	Men						Women					
	$t - 2^a$	$t + 1^a$	% change ^{b)}				$t - 2^a$	$t + 1^a$	% change ^{b)}			
	DM	DM	Q_1	Me	Q_3	N	DM	DM	Q_1	Me	Q_3	N
Equivalized household income	31,193	29,990	-26	-4	+27	266	28,519	19,919	-43	-27	-1	300
New partner $t + 1$												
Yes	32,234	35,219	-26	-4	+29	82	32,246	27,336	-49	-1	+33	82
No	31,193	29,286	-26	-4	+27	184	28,010	18,983	-41	-29	-10	218
Employed $t + 1$												
Yes	35,727	34,159	-24	-5	+27	217	28,010	22,129	-41	-28	+5	208
No	19,343	20,249	-33	+4	+25	49	25,318	15,932	-52	-27	-10	92
Children $t + 1$												
Yes	32,575	29,223	-20	-10	+17	75	25,526	18,056	-42	-26	-4	207
No	31,193	30,071	-26	0	+28	191	41,829	26,323	-43	-29	+8	93
Household type $t + 2$												
husband single earner	24,925	27,172	-8	+18	+50	59	20,779	20,175	-39	-27	-5	70
husband main earner	35,902	35,219	-30	-1	+27	103	33,925	18,983	-53	-35	-15	105
dual earner	38,960	30,542	-27	-17	-7	55	39,420	26,323	-42	-32	-22	59
wife main / single earner	24,736	24,871	-39	+6	+31	33	26,888	25,237	-22	0	+34	40

Notes:

^{a)} Median equivalized household income.

^{b)} Distribution of change scores obtained by comparing equivalized household income between $t - 2$ and $t + 1$ for each individual (Q_1 : 1st quartile, Me: median, Q_3 : 3rd quartile).

Source: GSOEP 1984–1999, weighted data.

husband contributes a large part of the income package, negative changes prevail. Men, on the other hand, gain if they are the single earner and are more likely to lose if the wife contributes to the income package. We observe slight negative changes for men as main earners and clear negative changes for men from dual earner households. Thus, the hypothesis is clearly confirmed. Only men whose former wives were the main or single earner do not fit in this pattern: more than half of them experience positive income changes. Since this is a very small group ($N = 33$), it is difficult to say more about these persons. However, most of these men are very young and very often participating in some form of secondary or tertiary education. Transitions from school to work may explain these surprising income increases.

The main conclusion from this section is that besides the predominantly negative trend for women, we also have to mention those women and men who do not fit into this pattern. These are women with a new partner, women who were the main or single income earners, unemployed men, single fathers and men from dual earner households.

5. Conclusion

We have provided comprehensive evidence about changes in material well-being that accompany marital disruption in Germany. The evidence is based on a nationally representative longitudinal survey, uses a larger sample than former analyses and looks at different indicators besides income. Among the separating men and women, we found clear gender inequalities. Women take care of children after separation more often than men, but are only partly rewarded by support payments for their care work. Mothers also change their home more often than if children stay with their father. Given women's lower incomes, the mother's residential mobility is probably a forced choice. The tight economic situation of their households leads many women to increase their employment after separation, especially women living together with children, who show the lowest activity rates during marriage. Men, on the other hand, are mostly employed full-time during marriage and, therefore, have already exhausted their employment capacities. If they do change their activity status, decreasing economic activity is much more probable. However, contrary to public opinion, decreased employment among separated men is rather modest. Women, as a result of all these changes in household composition, support payments, employment and residential mobility, on average, end up with much lower disposable household incomes than during marriage, especially when taking into account the number of dependents. After housing costs have been deducted, women's equalized household incomes one year after separation equal two thirds of men's; women lose one third of their pre-separation household income, while men lose a little bit more than one tenth. Of

course, the size of these inequalities in household incomes depends on how we account for the number of dependents. Aside from the unrealistic assumption that household size does not matter, we always observed more disadvantages for women than for men.

These results apply to the “average” women and the “average” man after separation. They do not imply that all women lose and all men gain economically. A focus on average income changes disguises variations in fortunes amongst men and women. There are individuals with income gains in both groups. For example, women living with a new partner often show positive developments in various respects. Similarly, it is not true that all men are in an advantageous position. Child care, for example, is a similar risk for men as it is for women; and if men live together with minor children after separation, they receive support payments far less often than women. It should also be noted that support payments being made by men significantly lower their economic position, although they are not large enough to maintain the economic needs of their former wife and children. Apparently, men’s earnings potential is not large enough to maintain two separate households. This is also visible when controlling for the costs of the new home: When subtracting rents from men’s disposable household incomes after separation, the great majority has a lower economic standing than during marriage. Men are also more likely to lose economically, if the wife contributes a significant part of the income package. Therefore, besides the overall negative result for women, we should not forget that separation and divorce are risky life events for men as well.

Our analyses also allow a comparison of the impact of support payments and public transfers. Given our results, it can be questioned whether new legal measures and enforcement procedures for child and spousal support will significantly enhance the economic position of the disadvantaged individuals. Our data show that public transfers and own economic activity are the main income sources. Since further increases in public spending are not a viable strategy, public policies to increase women’s employment are needed to insure women against the economic risks of marriage dissolution.

So, how do these results fit into the analyses on marital disruption in other countries? First of all, the economic losses observed for women (and the minor changes observed for men) do not differ too much from the results for the US, Canada, Sweden, the Netherlands and Great Britain (cf. the references in Section 1). Depending on the methodology applied in these studies, economic losses for women are estimated between –18 and –44 % (men: between –7 and –26 %). Of course, a formal test of the (national) context effect would require a truly comparative analysis, but our results already show that the German case does not deviate too much from the international trend. Therefore, we conclude that the economic consequences of marital disruption in Germany are negative for women, but not as severe as one might expect from the dominant incentive structure of the conservative German welfare state. Apparently,

this model of welfare provision includes aspects that attenuate the negative effects of the male breadwinner model on material well-being after marital disruption. However, it is neither the legal system nor the support payments resulting from it that provide the main source of protection. Besides own gainful employment, it is a rather generous system of income support that buffers the most severe negative changes. In this respect, it could be argued that the German welfare state does care about the negative effects of marital disruption. But it does so more or less unintentionally, at least with inadequate measures, since public spending in a globalized world has reached its limits.

6. References

- Andreß, H. J.* (2003): Die ökonomischen Risiken von Trennung und Scheidung im Ländervergleich: ein Forschungsprogramm, *Zeitschrift für Sozialreform* 49, 620–651.
- Andreß, H. J. / Borgloh, B. / Güllner, M. / Wilking, K.* (2003): Wenn aus Liebe rote Zahlen werden. Über die wirtschaftlichen Folgen von Trennung und Scheidung, Wiesbaden.
- Andreß, H. J. / Güllner, M.* (2001): Scheidung als Armutsrisiko, in: E. Barlösius / W. Ludwig-Mayerhofer (Hg.): *Die Armut der Gesellschaft*, Opladen, 169–197.
- Andreß, H. J. / Güllner, M.* (2002a): Einkommensverluste aber Zufriedenheitsgewinne? Die unterschiedlichen Folgen von Trennung und Scheidung für Männer und Frauen. Bielefeld: Arbeitspapier Nr. 10 des Forschungsprojektes “Die wirtschaftlichen Folgen von Trennung und Scheidung für Familien” im Auftrag des Bundesministeriums für Familie, Senioren, Frauen und Jugend (available at: <http://eswf.uni-koeln.de/forschung/wts/>).
- Andreß, H. J. / Güllner, M.* (2002b): Marital disruption in Germany: changes in material and subjective well-being. Bielefeld: Working paper no. 11 of the research project “Die wirtschaftlichen Folgen von Trennung und Scheidung für Familien” for the Federal Ministry for Family Affairs, Senior Citizens, Women and Youth (available at: <http://eswf.uni-koeln.de/forschung/wts/>).
- Andreß, H. J. / Lohmann, H.* (2000): Die wirtschaftlichen Folgen von Trennung und Scheidung: Band 180 der Schriftenreihe des Bundesministeriums für Familie, Senioren, Frauen und Jugend, Stuttgart.
- Anxo, D. / Flood, L. / Rubery, J.* (2000): Arbeitszeitmuster und Einkommensverteilung von Haushalten im internationalen Vergleich, in: I. Dingeldey (ed.): *Erwerbstätigkeit und Familie in Steuer- und Sozialversicherungssystemen. Begünstigungen und Belastungen verschiedener familialer Erwerbsmuster im Ländervergleich*. Opladen, 8–94.
- Blossfeld, H. P. / Drobnič, S.* (2001): Theoretical perspectives on couples’ careers, in: H. P. Blossfeld / S. Drobnič (eds.): *Careers of couples in contemporary society*, Oxford, 16–50.
- Booth, A. / Amato, P.* (1992): Divorce, residential change, and stress, *Journal of Divorce and Remarriage* 18, 205–213.

- Bryant, W. K. (1990): The economic organization of the household, Cambridge.
- Büchel, F./Spieß, C. K. (2002): Form der Kinderbetreuung und Arbeitsmarktverhalten von Müttern in West- und Ostdeutschland. Band 220 der Schriftenreihe des Bundesministeriums für Familie, Senioren, Frauen und Jugend, Stuttgart.
- Buhmann, B./Rainwater, L./Schmaus, G./Smeeding, T. M. (1988): Equivalence scales, well-being, inequality, and poverty: sensitivity estimates across ten countries using the Luxembourg Income Study (LIS) Database, *Review of Income and Wealth* 34, 115–142.
- Bundesministerium für Familie, Senioren, Frauen und Jugend (BMFSFJ) (2003): Die Familie im Spiegel der amtlichen Statistik, Berlin.
- Burkhauser, R. V./Duncan, G. J./Hauser, R./Berntsen, R. (1990): Economic burdens of marital disruptions: a comparison of the United States and Germany in the 1980s, *The Gerontologist* 34, 150–160.
- Burkhauser, R. V./Duncan, G. J./Hauser, R./Berntsen, R. (1991): Wife or Frau, women do worse: a comparison of men and women in the United States and Germany after marital dissolution, *Demography* 28, 353–360.
- Burkhauser, R. V./Butrica, B. A./Daly, M. C./Lillard, D. R. (2001): The Cross-National Equivalent File: a product of cross-national research, in: I. Becker/N. Ott/G. Rolf (eds.): Soziale Sicherung in einer dynamischen Gesellschaft. Festschrift für Richard Hauser zum 65. Geburtstag, Frankfurt am Main/New York, 354–376.
- Caesar-Wolf, B./Eidmann, D. (1985): Gleichberechtigungsmodelle im neuen Scheidungsfolgenrecht und deren Umsetzung in die familiengerichtliche Praxis, *Zeitschrift für Rechtssoziologie* 6, 163–189.
- Cigno, A. (1991): Economics of the family. Oxford.
- Corden, A. (1999): Making child maintenance regimes work, London.
- Dingeldey, I. (2001): European tax systems and their impact on family employment patterns, *Journal of European Social Policy* 4, 653–672.
- Dingeldey, I. (2002): Das deutsche System der Ehegattenbesteuerung im europäischen Vergleich, *WSI-Mitteilungen* 3, 154–160.
- DiPrete, T. A./McManus, P. A. (2000): Family change, employment transitions, and the welfare state: household income dynamics in the United States and Germany, *American Sociological Review* 65, 343–370.
- Esping-Andersen, G. (1999): Social foundations of postindustrial economies, Oxford.
- Finnie, R. (1993): Women, men and the economic consequences of divorce: evidence from Canadian longitudinal data, *Canadian Review of Sociology and Anthropology* 30, 205–241.
- Fitzgerald, J./Gottschalk, P./Moffitt, R. (1998): An analysis of sample attrition in panel data, *Journal of Human Resources* 33, 251–299.
- forsa Gesellschaft für Sozialforschung und statistische Analysen (2003): Unterhaltszahlungen für minderjährige Kinder in Deutschland, Band 228 der Schriftenreihe des Bundesministeriums für Familie, Senioren, Frauen und Jugend, Stuttgart.

- Fritzell, J.* (1990): The dynamics of income distribution: economic mobility in Sweden in comparison with the United States, *Social Science Research* 19, 17–46.
- Gähler, M.* (1998): Life after divorce. Economic, social and psychological well-being among Swedish adults and children following family dissolution, Stockholm: Swedish Institute for Social Research Dissertation Series No. 32.
- Gauthier, A. H.* (1996): The state and the family: a comparative analysis of family policies in industrialized countries, Oxford.
- Gornick, J. C.* (1999): Gender equality in the labour market, in: D. Sainsbury (ed.): Gender and welfare state regimes, Oxford, 210–244.
- Gornick, J. C./Meyers, M. K./Ross, K. E.* (1996): Supporting the employment of mothers: policy variations across fourteen welfare states, Luxembourg: Luxembourg Income Study (LIS), Working Paper no. 139.
- Gornick, J. C./Meyers, M. K./Ross, K. E.* (1997): Supporting the employment of mothers: policy variations across fourteen welfare states, *Journal of European Social Policy* 7, 45–70.
- Güllner, M.* (2000): Analyse familiärer Ereignisse (Trennung, Scheidung, Tod) mit Daten des Sozio-ökonomischen Panels. Bestimmung der Untersuchungs- und Vergleichsgruppen anhand der Längsschnittdatei “alleWellen_long.sav”, Bielefeld: Arbeitspapier Nr. 2 des Forschungsprojektes “Die wirtschaftlichen Folgen von Trennung und Scheidung für Familien” im Auftrag des Bundesministeriums für Familie, Senioren, Frauen und Jugend (available at: <http://eswf.uni-koeln.de/forschung/wts/>).
- Hauser, R./Fischer, I.* (1990): Economic well-being among one-parent families, in: T. M. Smeeding/M. O’Higgins/L. Rainwater (eds.), Poverty, inequality and income distribution in comparative perspective. The Luxembourg Income Study (LIS), Washington, D.C., 126–157.
- Haustein, T. et al.* (2002): Ergebnisse der Sozialhilfe- und Asylbewerberleistungsstatistik 2000, *Wirtschaft und Statistik* 2, 123–138.
- Holden, K. C./Smock, P. J.* (1991): The economic costs of marital dissolution. Why do women bear a disproportionate cost? *Annual Review of Sociology* 17, 51–78.
- Jarvis, S./Jenkins, S. P.* (1999): Marital splits and income changes: evidence from the British Household Panel Survey, *Population Studies* 53, 237–254.
- Kenny, L. W.* (1983): The accumulation of human capital during marriage by males, *Economic Inquiry* 21, 223–231.
- Korpi, W.* (2000): Faces of inequality: gender, class, and patterns of inequalities in different types of welfare states, *Social Politics*, Summer 2000, 127–191.
- McKeever, M./Wolfinger, N. H.* (2001): Reexamining the economic costs of marital disruption for women, *Social Science Quarterly* 82, 202–217.
- McManus, P. A./DiPrete, T. A.* (2001): Losers and winners: the financial consequences of separation and divorce for men, *American Sociological Review* 66, 246–268.
- Orloff, A. S.* (1993): Gender and the social rights of citizenship: the comparative analysis of gender relations and welfare states, *American Sociological Review* 58, 303–328.

- Ott, N. (1999): The economics of gender – Der neoklassische Erklärungsansatz zum Geschlechterverhältnis, in: B. v. Dausien/M. Herrmann/M. Oechsle/C. Schmerl/M. Stein-Hilbers (Hrsg.): Erkenntnisprojekt Geschlecht. Feministische Perspektiven verwandeln Wissenschaft, Opladen, 167–196.
- Pannenberg, M. (2001): Documentation of sample sizes and panel attrition in the German Socio Economic Panel (GSOEP) (1984 until 2000), DIW Materialien, No. 6.
- Penning, R. (2003): Ehegatten- und Kindesunterhalt nach Trennung und Scheidung, Bielefeld: unpublished Diploma Thesis.
- Pfau-Effinger, B. (1999): Change of family policies in the socio-cultural context of European countries. Comparative Social Research 18, 135–159.
- Poortman, A. R. (2001): Sex differences in the economic consequences of separation: a panel study of The Netherlands, European Sociological Review 16, 367–383.
- Schaeffer, N. C./Seltzer, J. A./Klawitter, M. (1991): Estimating nonresponse and response bias. Resident and nonresident parents' reports about child support, Sociological Methods and Research 20, 30–59.
- Schwarze, J./Härpfer, J. (1995): Die wirtschaftlichen Folgen von Trennung und Scheidung für Familien: Erwerbstätigkeit, Einkommen und Lebenszufriedenheit, ifb-Materialien 4/2000 des Staatsinstituts für Familienforschung an der Universität Bamberg.
- SOEP Group (2001): The German Socio-Economic Panel (GSOEP) after more than 15 years – Overview, in: E. Holst/D. R. Lillard/T. A. DiPrete (eds.): Proceedings of the 2000 Fourth International Conference of German Socio-Economic Panel Study Users (GSOEP2000), Vierteljahrshefte zur Wirtschaftsforschung 70, 7–14.
- Sørensen, A. (1994): Womens's risk and the economic position of single mothers, European Sociological Review 10, 173–188.
- Statistisches Bundesamt (2000): Preise. Reihe 7: Preisindizes für die Lebenshaltung, Fachserie 17, Stuttgart.
- Statistisches Bundesamt (2002a): Statistisches Jahrbuch 2002 für die Bundesrepublik Deutschland, Stuttgart.
- Statistisches Bundesamt in Zusammenarbeit mit WZB und ZUMA (2002b): Datenreport 2002. Zahlen und Fakten für die Bundesrepublik Deutschland. Bonn: Bundeszentrale für politische Bildung.
- United Nations (2000): The world's women: trends and statistics. New York.
- Voegeli, W./Willenbacher, B. (1992): Property division and pension-splitting in the FRG, in: L. J. Weitzman/M. Maclean (eds.): Economic consequences of divorce. The international perspective, Oxford, 163–183.
- Willenbacher, B./Voegeli, W./Müller-Alten, L. (1987): Auswirkungen des Ehegattenunterhaltsrechts in der Bundesrepublik Deutschland, Zeitschrift für Rechtssoziologie 8, 98–113.
- Wong, Y. L. I./Garfinkel, I./McLanahan, S. (1993): Single-mother families in eight countries: economic status and social policy, Social Service Review 67, 177–197.