Data Observer

Wolfgang Keck, Anke Radenacker, Daniel Brüggmann, Michaela Kreyenfeld* and Tatjana Mika

Statutory Pension Insurance Accounts and Divorce: A New Scientific Use File

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1 Introduction

The Scientific File of the "Sample of Insurance Accounts" (Versicherungskontenstichprobe, VSKT for short) is one of the main products of the Research Data Center of the German Pension Insurance. This product offers, for example, the complete monthly employment and earning histories of the persons covered in the German Statutory Pension Insurance. It also includes demographic variables, such as the monthly dates of childbirth, albeit for one parent only (nearly always the mother). The data has been used to study many facets of behavioral change in Germany by exploiting the rich longitudinal information available in this data (www.fdz-rv.de/Literatursuche). As of reporting year 2015, it will include further demographic variables, namely monthly dates of marriage and divorce for the divorcees, opening up new avenues for research, in particular to study the economic ramifications of divorce in Germany based on register data.

Information on dates of marriage and divorce were extracted from the "Statistics for the Equalization of Pension Entitlements after Divorce" (*Versorgungsausgleichsstatistik*). The background of this data is the fact that since 1977, the statutory pension entitlements between ex-spouses have to be adjusted at divorce. This process is conducted by the German Pension Insurance, which stores information related to the process of pension adjustment. This article

E-mail: kreyenfeld@hertie-school.org

Wolfgang Keck, Federal Ministry of Labour and Social Affairs, Berlin, Germany,

E-mail: Wolfgang.Keck@bmas.bund.de

Anke Radenacker: E-mail: radenacker@hertie-school.org, Daniel Brüggmann: E-mail: d.brueggmann@phd.hertie-school.org, Hertie School, Berlin, Germany

Tatjana Mika, German Pension Insurance, Berlin, Germany, E-mail: tatjana.mika@drv-bund.de

^{*}Corresponding author: Michaela Kreyenfeld, Hertie School, Berlin, Germany,

explains in more detail the *Versorgungsausgleichsstatistik*, which we will abbreviate with VA-Statistics in the following for improved readability of the text. We compare the sample of insurance accounts extended by variables on divorce with other sources on the divorced population and examine to what extent divorces are captured in the pension data. Finally, we explain how this data will be made available to the scientific community.

2 The statistics on the equalization of pension entitlements after divorce (VA-Statistics)

2.1 Legal background of the VA-Statistics

The Statistics on the Equalization of Pension Entitlements after Divorce (VA-Statistics) is a complete register of persons who have gotten divorced since 1977 and whose pension entitlements were equalized after divorce. There are a couple of caveats that must be mentioned, which pertain to the completeness of the data. First, divorced persons have to be alive at the time of the data retrieval, which is in 2015 for this release of the data. Thus, there may be a selectivity on survival for the older divorce cohorts in the sample. Second, and most importantly, only divorces are included that resulted in an equalization of pension entitlements. As this hinges on the legal regulations, we will explain these in greater detail in the following.

The equalization of pension entitlements between ex-spouses was first introduced as a mandatory element of the divorce process in the Federal Republic of Germany in 1977. In 1992¹, it was implemented in East Germany as well. After a divorce, the earning points of the couples that had been obtained during marriage are added together and equally divided. A motivation for the introduction of this regulation is the close linkage between prior earnings and pension entitlements on the one hand and the unequal division of paid and unpaid labor between spouses that exists in Germany on the other. The equalization of pension entitlements basically protects the rights of the "economically weaker" spouse and aims at compensating the unequal distribution of tasks during marriage. While it is obligatory to have the pension splitting included in

¹ Gesetz zur Überleitung des Versorgungsausgleichs auf das Beitrittsgebiet (VAÜG), https://www.jurion.de/gesetze/rueg/31/.

the divorce proceeding, it is also possible to opt out from this procedure. Legal scholars however seem to agree that the possibilities to arrive at an agreement other than the standard procedure are not much used by spouses (see e.g. Langenfeld/Milzer 2015: 213, fn. 8) which leads to the assumption that the equalization of pension entitlements according to the law is conducted in the majority of divorce proceedings. We will later see that this assumption may be incorrect and that a substantial share of couples has opted out of the procedure.

Beyond that, there has been a legal change that also affected the way in which divorces are covered in the pension data. Until 2009, statutory pensions, occupational and private pensions were taken into account for the division of pension rights after divorce. The procedure was generally judged as very complicated, because the occupational and private pensions had to be reevaluated in terms of their monetary future value and were then recalculated as entitlements to the statutory pension insurance scheme. The whole adjustment of old age security between the partners' entitlements took then place within the statutory pension insurance. Both parties were entitled to reopen the settlement for readjustment if they considered the given result unjust due to changes in the pension entitlements. In 2009, the so-called "Strukturreform des Versorgungsausgleichs" (structural reform of the equalization of pension entitlements) came into force. This reform aimed at simplifying the procedure and reduced the ongoing adjustments of the entitlements after the divorce. One cornerstone of this reform applied to the private and occupational pensions. Since the reform, the respective entitlements after a divorce are no longer administered by the German Pension Insurance (Reimann/Wiechmann 2009: 79). These legal changes simplified the calculations and limited the division of pension rights processed by the German Pension Insurance. However, the change of regulations affected the comparability of the data across time (FDZ-RV 2018; Wagner 2012). Firstly, the pension adjustments no longer include private and occupational pension entitlements. Secondly, the share of divorces covered in the data was affected. Couples who did not have any public pension insurance entitlements, but only occupational or private pensions, were no longer recorded in the data (FDZ-RV 2018: 14). Another cornerstone of the reform concerned marriages of short duration (less than three years), which are since then, by default, exempt from an adjustment of the pension rights unless one spouse demands the adjustment. This regulation means that the data prior and after 2009 are not fully comparable.

² Versorgungsausgleichsgesetz (VersAusglG), https://dejure.org/gesetze/VersAusglG.

2.2 Coverage of divorces in the VA-Statistics

In order to get an understanding of the coverage of divorces in the Pension Insurance Data, we compared the number of divorces in the pension registers with the number of divorces in the divorce statistics. In the period 1992 to 2015 there are 4,407,695 divorces recorded by the German Statistical Office (Federal Statistical Office 2017), but there are only 2,815,334 divorces in the pension registers.³ Thus, for this period only about 64 % of all divorces are represented in the pension data. The under-coverage can be attributed to the following reasons:

- The VA-Statistics 2015 only includes divorces when at least one partner is still alive in 2015. Thus, for earlier years, under-coverage can be due to selection on survival. For later years, only a smaller fraction of divorces are lost due to death. Additional analyses have shown that in 2015, for example, about 2 percentage points of the gap between the VA-Statistics and the data from the German Statistical Office can be explained by deaths.
- There is a small fraction of divorces that were enacted in 2015, but that are not yet included in the pension registers. The reason is a **delay of inclusion** in the pension registers. It applies to 6.1 % of the total cases in 2015. There is no particular selectivity associated with these cases and it only affects the most recent year.
- Another way of dividing pension entitlements between spouses is by agreements under the law of obligations (schuldrechtlicher Versorgungsausgleich).
 This kind of agreement is not part of the VA-Statistics because no pension entitlements are transferred. However, it is unknown to what extent this kind of agreement is applied in practice.
- One important reason for the discrepancy is probably that spouses avoided the regulations and did not initiate the process of pension rights adjustment during the divorce procedures. In fact, it is often assumed in the legal literature that deviations from the standard regulation are rare and uncommon (Langenfeld/Milzer 2015: Rn. 679). However, the statistics of the family courts reports the share of divorces without pension splitting and gives numbers of around 25 % for the years 2011 until 2018 (Federal Statistical Office, various years). To our knowledge, there is no external source that gives information on the reasons why couples avoid the regulation. It is, however, likely that the couples who did avoid the procedure are selective. The following reasons may come into play:
 - One possible reason is that the difference between the pension entitlements of the partners is negligible. In this case, the legal fees paid

³ For this calculation, we only considered divorces of females.

to divorce lawyers and the court would be high in comparison to the pension credits that are transferred. As a consequence, the VA-Statistics is more likely to cover the standard "male breadwinner couple" than the "dual earner couple", where both partners earn equal wages.

- It can also be assumed that marriages of shorter duration are less likely to be covered, because the amount of pension points that must be split are often negligible. Since the reform in 2009, marriages with a duration of less than three years are furthermore exempt by default from the pension rights adjustment after divorce.
- Partners may also have avoided the regulations because they have entered into a more general agreement on how assets should be divided after divorce. This applies, in particular, to couples with large amounts of wealth and private property. Wealthy couples, regardless of the division of labor, may be less likely to be included in the data.

The Federal Statistical Office records the number of divorces by the year the divorce was legally effective. In general, the year of the legal divorce matches the year of pension rights adjustment. However, there are exceptions to this rule. In order to illustrate this, we have plotted in Figure 1 the number of divorces

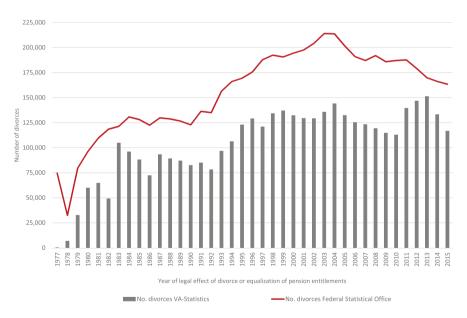


Figure 1: Number of divorces in the Statistics of the German Federal Statistical Office (by year of legal divorce) and in the VA-Statistics (by year of pension adjustment).

Source: Federal Statistical Office 2018, FDZ-RV: VA-Statistics 2016, own estimations.

obtained from the data of the Federal Statistical Office and the VA-statistics. Divorces from the first data source are displayed by the legal date of divorce. Divorces from the latter data source are displayed by the date when the pension equalization became final. The figure clearly shows that pension rights adjustments are delayed when a legal reform is implemented. For example, the figure shows a drop and subsequent spike of divorces in the VA-data for the year 1983. This year saw the introduction of a new legislation on pension adjustments on divorce in case of hardship. There is also a drop and a subsequent increase around 1992, which coincides with the introduction of the pension splitting in East Germany. The figure shows another peak in 2013 as a consequence of the reform of the pension rights adjustment in 2009. The explanation for the steep increase and the subsequent decrease lies in the fact that before the reform pension entitlements from East and West Germany could not be set off against each other. In such cases, the equalization of pension entitlements was postponed and the marriage was legally divorced without a pension equalization. After the reform, the suspended procedures were resumed and were supposed to be realized within five years, i. e. before September 1, 2014, which explains the abrupt decline starting in 2014.

3 Distribution of data to the scientific community

3.1 VSKT & VA-Statistics 2015

The VA-Statistics is a separate register. However, it will not be provided to the scientific community as a separate product. Instead, information from the VA-Statistics was merged to the VSKT by an individual identifier. The VSKT is one of the main and most established products of the Research Data Center of the German Pension Insurance (Stegmann 2018). It is a sample of insurance histories of all insured persons in the German Pension Insurance aged 15 to 67 years. The universe of insurance accounts covers about 90 % of the resident population of Germany. It includes all persons who have had at least a one-month creditable period in the German Pension Insurance during their lifetime. In addition, all persons currently living abroad but who do have at least a one-month creditable period in Germany are also covered. From this overall population a one-percent sample has been drawn (see Stegmann 2018 for details). The Scientific Use File of this sample is furthermore restricted to all insured persons of the birth cohorts 1948 to 1985 with German citizenship living in Germany.

The combined data set is labeled VSKT-VA. The first release of it is available for the year 2015. For this year, it includes 267,812 individuals of which more than 34,000 are divorced. Table 1 lists the new variables available in this source. These are the year and month of the marriage as well as the date of the effective divorce. First and second order divorces and their respective marriage and divorce dates are included. Higher order divorces are not included due to data protection reasons. However, a flag for people with more than two divorces is provided. The data does not record the date when the couple separated. However, it includes information on the date when the defendant receives the divorce petition (thus one of the partners officially initiated the divorce proceeding with a lawyer). As the German family law requires couples to be separated for at least one year before they can get legally divorced, the date of separation is at least ten months before the date when the defendant receives the divorce petition. Moreover, variables are added that contain information on the pension entitlements that have been transferred between spouses within the statutory pension insurance. Finally, there is information about the legislation under which the divorce was obtained. The reform of 2009 took effect in almost half of the court decisions on the equalization of pension entitlements in 2010 and was only fully implemented after 2011. This variable allows data users to clearly identify cases for which the new legislation was in force. All dates in the data were also transferred into reference months, starting from the January of the year a person turned 14 years of age (which is the process time by which the employment and earning histories are stored in the data).

Table 1: New variables on marriage, divorce, and the equalization of pension entitlements.

Variable	Label		
EB <i>n_</i> Jahr	Year in which marriage n* began		
EBn_Monat	Month in which marriage <i>n</i> began		
EBn_ Bio	Month in which marriage n began in the individual's biographical timeline		
ESn_Jahr	Year in which marriage n ended		
ESn_Monat	Month in which marriage <i>n</i> ended**		
ESn_Bio	Month in which marriage n ended in the individual's biographical timeline		
ESn_RS	Legislation under which the divorce n was obtained		
VAZU_ESn	Bonus out of pension splitting for marriage n		
VAAB_ESn	Deduction out of pension splitting for marriage <i>n</i>		
DRK_Jahr_n	Year of effect of divorce n or of equalization of pension entitlements		
DRK_Monat_n	Month of effect of divorce n or of equalization of pension entitlements		
Anz_Scheidung	Total number of divorces in the VA-Statistics		

^{*}Information is provided for the first two divorces (n = 1 or 2).

^{**}End of marriage is the month preceding the month in which the defendant receives the divorce petition.

3.2 Selectivity of divorces in the VSKT-VA

To gain further insights into the selectivity of divorcees in the VSKT-VA, we compared basic indicators with data from the Socio-Economic Panel (SOEP). We restricted both samples in a way that they were comparable. We focused on women of the birth cohorts 1948 to 1985 with German citizenship. Furthermore, we considered only marriages which lasted more than three years. We restricted women's age at divorce to range from 25 to 55 and limited to divorces that occurred in the years 2013 to 2015. In the SOEP, we excluded respondents who were civil servants, farmers, salaried professional workers like lawyers and tax accountants, and the self-employed at the time of interview. The reason for this selection is that the pension data do not include these occupations.

In Table 2 we provide mean values of selected socio-demographic variables for both samples and the respective t-test of equal means. The comparison with the SOEP shows that overall patterns are very similar. However, the average number of children is slightly lower in the VSKT-VA than in the SOEP. This may be due to the fact that children were in some instances assigned to the fathers in the VSKT-VA. However, we cannot rule out that the number of children is too high in the SOEP. Unit non-response is lower for women with children in social science surveys as interviewers can more easily reach them. Albeit the SOEP analysis is weighted, the weights may not fully account for this. We also see differences in marriage duration. This is particularly pronounced in the East German sample. These differences pertain to the different definitions of divorce dates in the two data sets, which is the date of legal divorce in the SOEP and the legal date of pension rights adjustment in the VSKT-VA. The VSKT-VA includes the date when the divorce petition was filed, which is usually a couple of months before the legal enactment of the divorce. This is a better measure for the duration of marriages and also matches better the SOEP data.

3.3 Recommendations for data use

The data opens up the potential to track men's and women's employment and earnings over the divorce process. While prior studies were often confined by small sample sizes, this data makes it possible to study population subgroups and explore changes in the ramifications of divorce across time. A limitation of the data is that the definition of the date of divorce deviates from the one used in the official statistics. Furthermore, the data does not cover all divorces granted

Table 2: Mean values of selected variables in the SOEP and the VSKT-VA 2015, separately for West and East Germany, divorced women*.

Variable	Germany		
	SOEP	VSKT-VA	t-test p> t
Age at divorce	42.35	42.26	0.853
Marriage duration	14.45	16.10	0.001
Years until filing of divorce	-	14.05	-
Number of minor children at divorce	1.44	1.11	0.000
Age of youngest minor child at divorce	9.85	9.33	0.139
Employment rate	0.72	0.69	0.196
Nominal gross income in €	1,973	2,096	0.179
N	283	1,781	
	West Germany		
Age at divorce	42.57	41.62	0.045
Marriage duration	14.58	15.27	0.190
Years until filing of divorce	_	13.86	_
Number of minor children at divorce	1.44	1.20	0.002
Age of youngest minor child at divorce	10.04	9.21	0.028
Employment rate	0.73	0.67	0.078
Nominal gross income in €	1,968	2,027	0.547
N	241	1,516	
	East Germany		
Age at divorce	41.07	45.95	0.000
Marriage duration	13.69	20.81	0.000
Years until filing of divorce	_	15.11	-
Number of minor children at divorce	1.45	0.58	0.000
Age of youngest minor child at divorce	8.73	10.47	0.083
Employment rate	0.71	0.78	0.310
Nominal gross income in €	2,008	2,376	0.149
N	42	265	

^{*}Divorced women of the cohorts 1948 to 1985 who are at age 25 to 55 at divorce with minimum marriage duration of three years, divorces of years 2013, 2014 and 2015. For the SOEP, West and East Germany refers to the federal state the person lived in at the time of the survey. For the VSKT-VA, West and East is constructed by a variable that states whether pension points were exclusively accumulated in either West Germany (OPXAZ = 0) or East Germany (OPXAZ = 1). Income in SOEP is top-coded according to the earnings ceilings of the statutory pension insurance with different amounts for East and West Germany for the respective year. Nominal gross income is not deflated. Employment and income refers to the year prior divorce. Gross income is calculated for those who were continuously employed (12 months) in employment subject to social security contributions.

in Germany. We refrain from providing a weighting factor for this data. However, a couple of recommendations should be given:

- **Shorter marriages** (of less than three years) should be excluded if a comparison across time is conducted that includes the period as of 2009.
- Divorces in **East Germany** are only covered as of 1992. Thus, East Germany must be excluded from the analysis if investigations are conducted for the time prior to 1992.
- For divorcees with employment biographies in both East and West Germany and consequently with earnings points from East as well as West Germany, the effective date of divorce is not available because the pension splitting had to be suspended at the time of divorce until after the reform of 2009. Instead of the legal effect of the divorce (documented in the pension data at the date when the equalization of pension entitlements was carried out) we strongly recommend to use the date when the **divorce petition was filed**.
- It seems likely that standard "male breadwinner couples" are more likely to be included in the data than "dual earner constellations". We do not see any possibility to weight the data to cure that problem. However, separate analyses can be conducted by the prior labor market attachment of women, which somehow ameliorates the problem.

3.4 Conditions of usage

The SUF-VSKT VA 2015 with extended information on VA-Statistics is available through the Research Data Center of the German Pension Insurance (Forschungsdatenzentrum der Rentenversicherung, FDZ-RV). Researchers at scientific institutions and universities can apply for using a scientific use file or for working with the data onsite at the *FDZ-RV*. The application form is available online (www.fdz-rv.de). The data file and the corresponding material (codebook) will be available in German and English.

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