

# Gender Pension Gap in Eastern and Western Germany

By Anika Rasner

Now, 25 years after the fall of the Berlin Wall, eastern and western German men are receiving similar state pensions, the main pillar in the system of old age provision in Germany. In contrast, the average pension paid to eastern German women far exceeds that of their western counterparts. A cohort comparison shows a narrowing of the gender gap when it comes to pension entitlements in eastern Germany. This decline is less a result of higher pension entitlements among eastern German women than a consequence of significant drops in pensions among eastern German men. In western Germany, however, the gender pension gap has remained consistently high throughout the cohort comparison. Western German women born in the baby boom years have only managed to narrow the gender gap to a limited extent despite their increasing labor participation.

The present analysis first compares the development of average pension payments received by pensioners in eastern and western Germany who retired between 1993 and 2013. A cohort comparison analyzes the extent to which the existing East-West differences, particularly among women, are likely to continue into the future.

With the passing of the Unification Treaty of August 31, 1990 and the Pension Transfer Law of July 25, 1991, the German pension laws set down in Book VI of the German Social Code were extended to include the states of the former German Democratic Republic (GDR).<sup>1</sup> Consequently, on January 1, 1992, the day on which the new regulations came into effect, almost eight million people who are insured in the statutory pension insurance and just under four million pensioners from the former GDR were merged with the western German system.<sup>2</sup>

One of the biggest challenges that arose in connection with the alignment of the two pension insurance systems was recalculating existing eastern German pensions on the basis of western German pension laws. Although pension insurance in the GDR was also organized on the basis of a pay-as-you-go (PAYG) system, there were still substantial differences between east and west. At the time of reunification, for example, pension levels in the GDR were still very low,<sup>3</sup> with many pensioners on minimum-level pensions.

The German Pension Transfer Law meant existing pension entitlements were re-calculated, taking into consideration the number of contribution years, as well as the individual average incomes for the last 20 years. Owing to the clear differences in income in the east and west,

<sup>1</sup> These analyses came about during the Hans Böckler Foundation-backed project "Die Entwicklung der geschlechtsspezifischen Rentenlücke in Deutschland: Analysen zu Entstehung und Bestimmungsfaktoren im Lebenslauf," project no. S-2012-613-4.

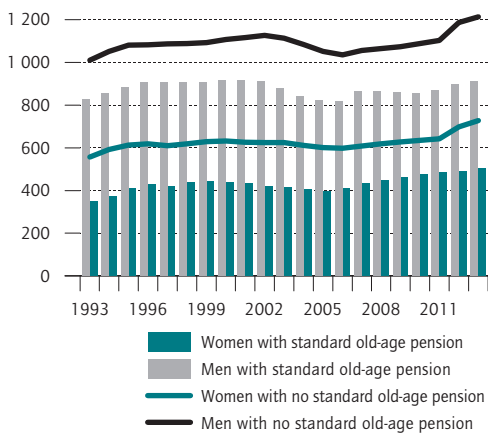
<sup>2</sup> One of the main criticisms made was the fact that reunification-related costs were financed to a certain extent through pension and unemployment insurance. An overview of pension insurance during the process of reunification is provided by G. Ritter, "Die Rentenversicherung im Prozess der deutschen Wiedervereinigung," (2011), in: E. Eichenhofer, H. Rische, and W. Schmähl, eds., "Handbuch der gesetzlichen Rentenversicherung," Book VI of the German Social Code (Cologne): 67-103.

<sup>3</sup> E. Kirner, H. Vortmann, and G.G. Wagner, "Übergang zum neuen Rentensystem ist schwierig," DIW Wochenbericht, no. 14 (1990): 167-171.

Figure 1

**Average Monthly Pensions for All Old-Age Pensioners for Those Entering Retirement from 1993 to 2013 (West)**

In euros (nominal)



Sources: German Statutory Pension Insurance (DRV) statistics: *Rentenversicherung in Zeitreihen – DRV Brochure, no. 22 (Berlin: 2013)*; calculations by DIW Berlin.

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A slight upward trend can be seen in pension rates for western German women.

eastern German incomes had to be upscaled.<sup>4</sup> This provided a basis for recalculating existing pensions, as well as for new pension entitlements for those retiring after reunification. The aim here was to achieve a comparable level of old-age provision in eastern and western Germany.

The present article shows, first and foremost, the development of statutory pension payments since reunification for women and men in eastern and western Germany. The extent to which the existing east-west differences will affect future pension generations is analyzed on the basis of projected data.

**Development of Pension Payments since Reunification**

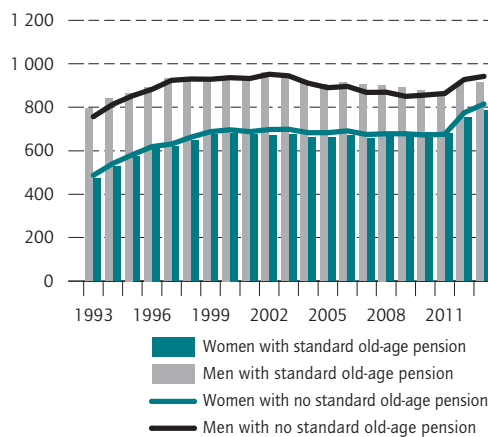
Figures 1 and 2 show an east-west comparison of average monthly pensions for men and women who reached

<sup>4</sup> The conversion rates used to upwardly adjust the eastern German payments can be found in Schedule 10 of the German Social Code Book VI. Owing to the different standards of living and wealth in the east and west, the eastern German entitlements are assigned a higher value even 25 years after the fall of the Wall.

Figure 2

**Average Monthly Pensions for All Old-Age Pensioners for Those Entering Retirement from 1993 to 2013 (East)**

In euros (nominal)



Sources: German Statutory Pension Insurance (DRV) statistics: *Rentenversicherung in Zeitreihen – DRV Brochure, no. 22 (Berlin: 2013)*; calculations by DIW Berlin.

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The gender pension gap in eastern Germany is less striking.

pension entitlement age between 1993 and 2013.<sup>5</sup> The figures for new pensioners include all those who started receiving an old-age pension within the given calendar year. The columns in the figures denote the nominal averages for all old-age pensions in a given year, while the horizontal lines represent those receiving a “standard old-age pension”, who are not included in the calculations (see Box 1). The low standard old-age pension payments have a dampening effect on average pension levels.

During the period under observation, no notable increase in nominal average pensions for western German men was evident (825 euros in 1993 compared with 913 euros in 2013). In the case of western German women, in contrast/conversely, an upward trend, albeit rather slight, can be observed. Average pensions rose from 350 euros in 1993 to 505 euros in 2013.<sup>6</sup> The gender pension gap narrowed from around 58 to just below 45 percent during this period.<sup>7</sup>

<sup>5</sup> The first ever reliable statements on the development of pension payments in eastern Germany were made in 1993.

<sup>6</sup> At an average rate of inflation of just under two percent per year, this resulted in losses in real pension payments.

<sup>7</sup> The gender pension gap measures the difference (in percent) between the average statutory pension payments for men and women. See A. Rasner, “Das

## Box 1

**Glossary of Pension Terms**

**Earnings-related pension points:** In order to calculate the pension level, the time a person has paid into the statutory pension scheme is converted into points. For this calculation, the individual earnings of the insured person are divided by the average earnings of all those who have paid into the system. One point is awarded for each year at average earnings. For half the average wage, 0.5 points are counted. Additional pension points can be earned for periods that are of relevance for pension insurance, such as maternity leave. Due to the persistent salary differences in eastern and western Germany, a conversion factor is applied to bring points earned in eastern Germany in line with western levels (see Schedule 10 of Book IV of the German Social Code (SGB IV)).

**Standard old-age pension:** The eligibility age for a standard old-age pension is gradually being increased to 67 years. For those born in 1949 the standard old-age pension is payable at age 65 and three months. To be eligible for a standard old-age pension, the only requirement is a minimum of five years' contributions. Those receiving a standard old-age pension are a rather heterogeneous group, including, on the one hand, civil servants who had paid into the statutory pension fund for a number of prior years, making them eligible for a standard old-age pension, and, on the other hand, western German women with low labor market participation. Due to the relatively short contribution periods, standard old-age pensions are rather low. When calculating averages for all old-age pensions, the standard old-age pension payments have a cushioning effect on the resulting averages.

If standard old-age pensions are not included in the calculations,<sup>8</sup> the average pensions for men in western Germany increase from 1,010 euros in 1993 to 1,213 euros in 2013, while in the same period western German women's pensions went up from 558 to 728 euros. Here, the reduction in the gender pension gap from 45 to 40 percent is less significant. The different results can be attributed to the large proportion of western German women claiming a standard old-age pension, who, owing to their low level of labor participation, fail to meet the eli-

gibility requirements for early old-age pensions such as the old-age pension for women.

A comparison of all old-age pensioners with those not claiming a standard old-age pension shows the differences in eastern Germany are less striking. For both men and women, an increase in average nominal pensions from 1993 to 2013 was observed. For eastern German men, average pensions rose slightly from 794 to 915 euros, as compared with an increase from 471 to 786 euros for women in eastern Germany. Between 1993 and 2013, the gender pension gap closed from 41 to 14 percent. The considerable differences in pension payments between eastern German men and women shortly after reunification are surprising; the efforts to improve gender equality in the former GDR would appear to have been more fruitful than in West Germany. Having said that, this did not apply to eastern German women who retired post-reunification. Many of the women had no formal professional training and were earning far less than their male counterparts. In addition, many women had to stop working to raise their children.<sup>9</sup> This would suggest that it is younger birth cohorts that profit most from the gender equality. For this age group, full-time employment for men and women was actively encouraged in the GDR and supported by extensive childcare opportunities.<sup>10</sup> Consequently, the gender pension gap for the newly retired is much less pronounced than is the case in western Germany.

While the increase for eastern and western men was rather moderate during the period of observation, the average pensions of their female counterparts were on the rise. In eastern Germany, the gender pension gap had narrowed significantly, whereas in western Germany the gap was closing very slowly, leaving it still relatively wide. In terms of east-west differences, 25 years after the fall of the Wall, it can be said that, on average, eastern and western German men are almost on an equal footing when it comes to the most important pillar of the system for old-age provision in Germany. The situation for their female counterparts, on the other hand, is very different with the pensions of eastern German women far exceeding those of their western German counterparts. The standard pension alone, however, cannot be taken as an indicator for social security in old age. Furthermore, if occupational and private pension funds are also taken into account, the disposable income of west-

Konzept der geschlechtsspezifischen Rentenlücke," *Deutsche Rentenversicherung*, vol. 55 (2006): 270-284.

**8** In 2013, 42 percent of woman qualified for a standard old-age pension, while the equivalent for men was only 32 percent.

**9** H. Trappe, "Lost in Transformation? Disparities of Gender and Age," in: M. Diewald, A. Goedicke, and K.U. Mayer, eds., *After the Fall of the Wall: Life Courses in the Transformation of East Germany*, (Stanford, 2007): 116-139.

**10** B. Hanel, and R. T. Riphahn, "The Employment of Mothers - Recent Developments and their Determinants in East and West Germany," *Journal of Economics and Statistics* 232(2) (2012): 146-176.

ern German pensioners is in fact far higher since supplementary insurance schemes continue to be less widespread in eastern Germany.<sup>11</sup> In addition, since women have less frequent and overall lower pension entitlements in occupational and private pension schemes, the gender pension gap would become even wider, particularly in western Germany.

### Various Reasons for Gender Pension Gap

In the German statutory pension insurance scheme (GRV), those in dependent employment essentially begin to accumulate pension entitlements when they start their first job where they are liable for social security contributions. The greatest share of pension entitlements comes from employment subject to social insurance contributions. For this reason, the statutory pension insurance in Germany is regarded as earnings-centered. Nonetheless, some forms of non-gainful employment can also earn a person pension entitlements, for example, during studies, periods of unemployment or sick leave, as well as when bringing up children or taking care of sick or elderly relatives (unpaid). Such attempts at achieving social equality help close certain gaps in the individual employment history and mitigate the negative effects that temporary non-gainful activities may have. On average, women profit from this pension-related recognition of periods of non-gainful employment more than men.<sup>12</sup>

There are many different reasons for the gender pension gap. When men and woman enter into employment for the first time, they make various choices as to profession and studies with men tending to opt for those areas with higher average salaries and salary increases.<sup>13</sup> Men and women also differ with regard to educational return on investment. In other words, even in cases where women and men do enter the same profession, women will have lower average earnings.<sup>14</sup>

In a pension scheme that is largely earnings-based, as is the case in Germany, differences in salary between women and men<sup>15</sup> are one of the major factors contributing to the gender pension gap. Salary differences are also a result of women often being employed in low-salary jobs.<sup>16</sup> In addition, more women work part-time with correspondingly lower earnings or take on “mini-jobs,”<sup>17</sup> where no pension entitlements can normally be accumulated.<sup>18</sup> Besides lower labor market participation, women also take breaks in employment more often and for longer periods, in particular to raise their children and help care for family members.<sup>19</sup> On the one hand, this interruption to working life may be an expression of personal preference. It may, however, also be due to insufficient childcare facilities and care support systems. Part-time employment and mini-jobs often provide women with the flexibility they need to be able to combine work and family life. The low employment prospects for women may, however, also be a result of income splitting, which can bring about particularly good tax benefits if one spouse—normally the husband—has a higher salary and the other spouse—normally the wife—has very little or no taxable income at all.<sup>20</sup>

The gender pension gap continues to widen when employment ends and people reach retirement age. For instance, married couples tend to retire at the same time.<sup>21</sup> With married women often being a number of years younger than their husbands, their pensions will be correspondingly lower.<sup>22</sup> A large proportion of women also

<sup>11</sup> K. Kortmann and T. Heien, *Alterssicherung in Deutschland 2011 (ASID 2011) – Zusammenfassender Bericht*, (Munich: TNS Infratest Sozialforschung, 2012).

<sup>12</sup> For a discussion on the effectiveness of spouse- and family-related benefits in the statutory pension insurance scheme, see H. Buslei, P. Haan, R. Ochmann, and B. Rürup, “Ehe- und familienbezogene Leistungen in der Alterssicherung: Wichtig für die wirtschaftliche Stabilität von Familien,” *DIW Wochenbericht*, no. 23 (2014).

<sup>13</sup> S. Gundert and K.U. Mayer, “Gender Segregation in Training and Social Mobility of Women in West Germany,” *European Sociological Review*, no. 28(1) (2012): 59-81; E. Smyth and S. Steinmetz, “Field of Study and Gender Segregation in European Labour Markets,” *International Journal of Comparative Sociology*, vol. 49, no. 4-5 (2008): 257-281.

<sup>14</sup> D. Glocker and J. Storck, “Risks and Returns to Educational Fields – a Financial Asset Approach to Vocational and Academic Education,” *Economics of Education Review* 42 (2014): 109-129.

<sup>15</sup> OECD, *Closing the Gender Gap* (Paris, 2012).

<sup>16</sup> T. Kalina and C. Weinkopf, “Niedriglohnbeschäftigung 2008: Stagnation auf hohem Niveau – Lohnspektrum frant nach unten aus,” *IAQ Report*, no. 2010-06.

<sup>17</sup> D. Voss and C. Weinkopf, “Niedriglohnfall Minijob,” *WSI Mitteilungen*, no. 1 (2012): 5-12.

<sup>18</sup> Since January 1, 2013, mini-jobs have been liable to pension insurance contributions, although those employed in mini-jobs can apply for exemption from this liability, which the German legislature introduced to improve the precarious “security” situation in this form of employment. The majority of people employed in mini-jobs, however, make use of the possibility of exemption.

<sup>19</sup> C. Boll, *Lohneinbußen von Frauen durch geburtsbedingte Erwerbsunterbrechungen. Der Schattenpreis von Kindern und dessen mögliche Auswirkungen auf weibliche Spezialisierungsentscheidungen im Haushaltszusammenhang. Eine quantitative Analyse auf Basis von SOEP-Daten* (Frankfurt am Main: 2011).

<sup>20</sup> V. Steiner and K. Wrohlich, “Introducing Family Tax Splitting in Germany: How Would It Affect the Income Distribution, Work Incentives and Household Welfare?,” *Finanzarchiv*, vol. 64, no.1 (2008) 115-142.

<sup>21</sup> M. Coppola and C.B. Wilke, “How Sensitive Are Subjective Retirement Expectations to Increases in the Statutory Retirement Age? The German Case,” *MEA Working Paper Series*, no. 207 (Mannheim: Mannheim Research Institute for the Economics of Aging, 2010).

<sup>22</sup> M. Brüssig, “Fast Die Hälfte aller neuen Altersrenten mit Abschlägen – Quote weiterhin steigend: Probleme mit dem Anstieg der Altersgrenzen vor allem bei Arbeitslosen, aber auch bei Erwerbstätigen,” *Altersübergangs-Report*, no. 1 (Duisburg: Institut Arbeit und Qualifikation, 2010).

## Box 2

**Statistical Data Fusion and Data Projection**

Statistical data fusion was applied to obtain the set of data used for this report, the basis being anonymous data from the Socio-Economic Panel (SOEP) study<sup>1</sup> collected by the field-work organization TNS Infratest Sozialforschung on behalf of DIW Berlin, as well as the Sample of Active Pension Accounts (VSKT) provided by the research data center of the German Pension Insurance scheme (FDZ-RV) for those born between 1936 and 1965.<sup>2</sup> Unlike with record linkage approaches, where identical observations in two data sources are linked by means of an unambiguous ID number, data fusion involves combining "statistical twins" on the basis of socio-demographic characteristics found in both. The identity of the people is not known at any point. The main purpose is to fuse data that display as many similar attributes as possible.

The aim of data fusion is to merge the in-depth and complex data from the SOEP study—which contains information on household context, education, and employment history, as well as various other earnings and income types (including pension payments from private and workplace pension plans)—with detailed longitudinal pension entitlement data and insurance periods contained in the Sample of Active Pension Accounts (VSKT).

<sup>1</sup> The SOEP study is a representative longitudinal study of households conducted annually since 1984 in western Germany and since 1990 in eastern Germany. See G.G. Wagner, J. Göbel, P. Krause, R. Pischner, and I. Sieber, "Das Sozio-oekonomische Panel (SOEP): Multidisziplinäres Haushaltspanel und Kohortenstudie für Deutschland—Eine Einführung (für neue Datennutzer) mit einem Ausblick (für erfahrene Anwender)," *ASTA Wirtschafts- und Sozialstatistisches Archiv*, vol. 2, no. 4 (2008): 301–328

<sup>2</sup> See A. Rasner, J.R. Frick, and M.M. Grabka, "Statistical Matching of Administrative and Survey Data: An Application to Wealth Inequality Analysis," *Sociological Methods & Research*, vol. 42, no. 2 (2013): 192–224.

To enable the old-age income of those in the baby-boom group to be compared with that of predecessor cohorts, the LAW life projection model developed by DIW Berlin was applied; this model delivered consistent projections on the individual earnings, family, and income biographies of the three analysis cohorts up to the age of 67.3 For younger insured people, this means that expected pension entitlements up to a person's 67th birthday are filled up." For those who are 66 years old in 2007, this is just one year, while for 42-year-olds this would mean filling up 25 years.

Unlike model-based projection methods which simulate results year for year, the LAW life projection model forecasts matching sequences in different life courses. Here, entire biographies of older years (donors) are used on the basis of the similarity between earnings-related and family biographical data (number of years in first marriage, age when second child was born, number of years in unemployment, etc.), as well as age-specific pension entitlements in eastern and western Germany, and sequential projections made for incomplete biographies of younger birth years (recipients). This method does not produce oversimplified life courses, as is the case with model-based imputations, but models the diversity of the life courses in the dataset in its entirety.

In the projection model used here, neither cohort effects nor the mortality of the people in the sample are taken into consideration. The basic economic conditions were kept constant for the reference year 2007. Similarly, changes to the recognition of pension entitlement during periods of unemployment were not adequately considered, either, meaning the projections made here can be seen as optimistic.

<sup>3</sup> See C. Westermeier, A. Rasner, and M.M. Grabka, "The Prospects of the Baby Boomers: Methodological Challenges in Projecting the Lives of an Aging Cohort," *SOEP Papers*, no. 440 (DIW Berlin, 2012).

cease to be active on the labor market towards the end of employment age (between their 58th and 65th years).<sup>23</sup>

The aforementioned reasons do not affect women and men in eastern and western Germany to the same extent. First, full-time employment for eastern German women has been actively encouraged. Second, there are considerable east-west differences in childcare options and attitudes to non-parental childcare, which still ex-

ist, albeit to a lesser extent, even 25 years after the fall of the Wall.<sup>24</sup> In addition, eastern German women have, on average, worked far more hours per week than their western counterparts.<sup>25</sup> Consequently, the salaries of eastern German women are higher, which implies that they benefit to a lesser extent from the income splitting in the German tax law.

<sup>23</sup> A. Rasner and S. Etgeton, "Rentenübergangspfade: Reformen haben großen Einfluss," *DIW Wochenbericht*, no. 19 (2014).

<sup>24</sup> See the 3<sup>rd</sup> report in this issue of *DIW Economic Bulletin*.

<sup>25</sup> See the 4<sup>th</sup> report in this issue of *DIW Economic Bulletin*.

## Future Development of Gender Pension Gap

A cohort comparison examines the extent to which east-west pension differences for men and women are likely to exist in future. To this end, the accumulation of pension entitlements between the 15th and 58th years is broken down using model calculations and the birth cohorts compared.<sup>26</sup> The baby boomer cohort born between 1956 and 1965 are of particular interest here. They are compared with two predecessor cohorts: those born between 1936 and 1945 (war-years cohort), almost all of whom have already retired, and those born between 1946 and 1955 (post-war cohort), who are about to reach retirement age.

To calculate the accumulation of pension entitlements in the course of a person's life, as well as the development of future pensions, statistical data fusion was applied: the fused dataset containing data from the Socio-Economic Panel (SOEP) study and the sample of insured persons and their insurance accounts (Sample of Active Pension Accounts, VSKT) was then analyzed (see Box 2). For the youngest and oldest in the "baby boom" group, data on pension entitlements were available up to the 42nd and 51st year, respectively. To make the pension entitlement accumulated during working life comparable with earlier cohorts, the time left till retirement is completed using a projection model.

The baby boomers differ from the pension generation of today in many ways. It is in this cohort that a clear increase in gainful employment and employment orientation is evident for women—particularly in western Germany. Eastern German baby boomers, in contrast, were strongly affected by the high unemployment rate that continued into the post-reunification years.<sup>27</sup> This is also the age group that, owing to educational expansion in the 1970s, now has better formal education qualifications than the post-war generation. This group also includes more cases of separation and divorce in the course of their lives, however.<sup>28</sup> Besides the general increase in life expectancy in recent years, the fast ap-

proaching pension age of the "baby boomers" has been another of the motives for the extensive reforms in the past few decades which have resulted in fundamental changes to old-age provision in Germany.

To begin with, the accumulation of pension entitlements between the 15th and 58th year acquired solely from employment subject to social security contributions is analyzed by cohort. The second step is to factor in all pension entitlements from all pension-relevant periods in a person's life. The cohort comparison showed a drastic decline in pension entitlements from employment subject to social security for eastern German men (see Figure 3). While eastern German men in the war-years group had earned an average of 35 pension points by the time they reached the age of 57, the baby boomers were predicted to earn as little as 25 pension points. In terms of the current pension-point value<sup>29</sup> for eastern Germany (currently 26.39 euros), this is equivalent to a drop in monthly pension of 264 euros. One reason for this is the persistently high unemployment rate in the post-reunification years. For eastern German women, the comparison also showed a decline, albeit not quite as severe, in pension entitlements from employment liable to social security contributions. Women in the war-years cohort had earned 25 pension points by the age of 57. Eastern German baby-boom women were projected to earn 21.5 pension points. In terms of the current pension-point value for eastern Germany, this is a 93-euro fall in pension payments. This development causes the gender pension gap to close, taking it from 28 percent for the war-years cohort to 15 percent in the baby-boom cohort. This decrease is, however, less the result of increasing pension entitlements for women and more the consequence of significant losses for eastern German men. Overall, one can state that in an employment-centered pension system as the German, the share of earning points coming from employment is constantly decreasing across cohorts.

The cohort comparison revealed a decline in pension entitlements from employment subject to social security contributions for western German men, too, with those from the war-years cohort demonstrating, on average, a stronger decrease than for the baby-boom cohort, which was more moderate on the whole. On the basis of the current pension-point value for western Germany (equivalent to 28.61 euros), the pension payment for the baby boomers is 105 euros lower. Contrary to expect-

**26** The analysis of the accumulation of pension entitlements was conducted until the 58<sup>th</sup> year of the insured's life only. The reason for this is that forecasts on pension transition for those from the baby-boom cohort involve considerable uncertainty. The average pension entitlements specified here are thus lower than the actual pension entitlement that is expected on reaching retirement age. In addition, once a person reaches pension eligibility age, a final calculation including any periods where no or reduced contributions were made is carried out. This final calculation will increase the actual pension payment.

**27** J. Simonson, N. Kelle, L. Romeu Gordo, M.M. Grabka, A. Rasner, and C. Westermeier, "Babyboomer: Mehr Brüche im Erwerbsleben, weniger Rente," DIW Wochenbericht, no. 23 (2012).

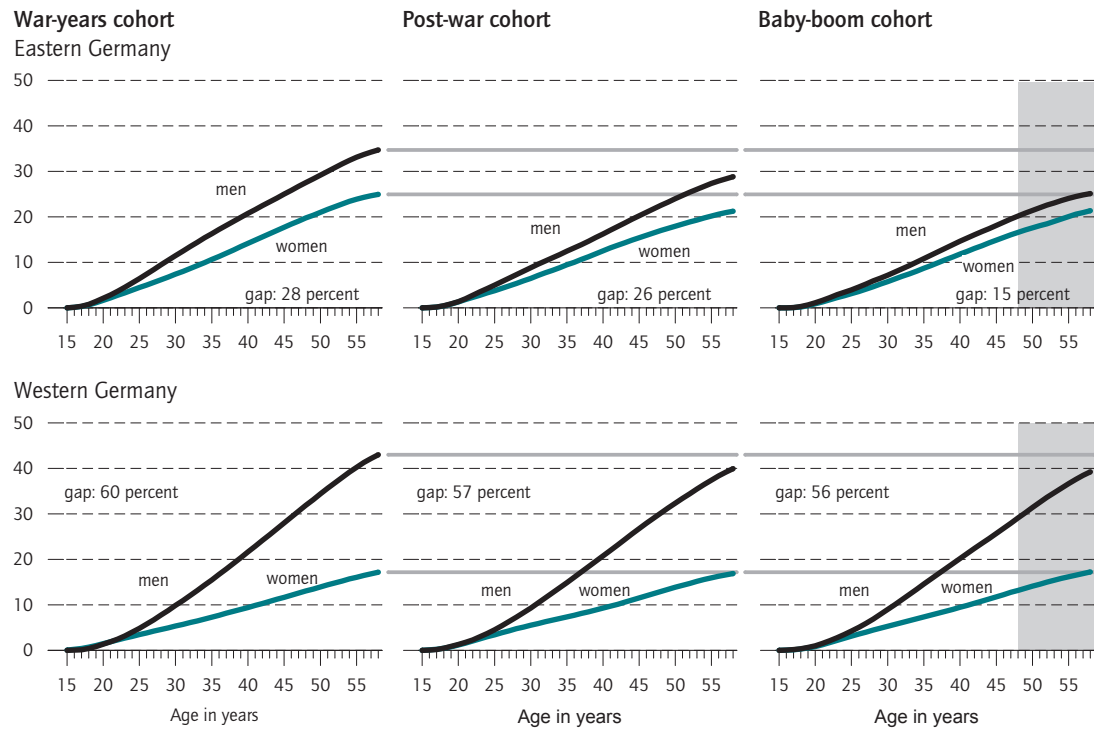
**28** E. Grünheid, "Ehescheidungen in Deutschland: Entwicklungen und Hintergründe," BiB Working Paper 1 (Wiesbaden: Bundesinstitut für Bevölkerungsforschung, 2013).

**29** The current pension-point value is one factor of the pension benefit calculation formula that is independent of individual-level factors. The current pension-point value is recalculated each year with the help of the benefit indexation formula. Multiplied with the individual earning points the current pension-point value reflects the actual pension entitlement.

Figure 3

**Pension Entitlements from Employment Subject to Social Security Contributions**

Total pension points



The shaded area denotes the projected period, while the gray line shows the starting pension level for the war-years cohort. Civil servants, the permanently self-employed, and migrants are not included in the calculations.

Source: SOEP v.27; SUF-VSKT-LAW-2007, LAW Life Projection; calculations by DIW Berlin.

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The gender pensions gaps in entitlements from gainful employment are on the decline.

tations, western women barely caught up with the men. A comparison between the war-years cohort and the baby boomers showed pension entitlements from employment subject to social security contributions stagnating at a consistently low level, causing the gender pension gap to narrow slightly from 60 percent to 56 percent, although this is also a consequence of the reduced entitlements among western German men. A more differentiated view at the earnings histories of western German women shows that the number of years in full employment is on the decline, while more and more western German baby-boom women are taking on mini-jobs and working part-time. As mentioned above, these forms of employment generate very little pension entitlement (part-time employment) or none at all (mini-jobs).

The accumulation of pension entitlements between the 15th and 58th year of life obtained from all periods of activity is compared below. This includes periods of study, raising children, non-gainful care work, unemployment,

or illness. The entitlement assigned to these periods varies over the course of time. For example, for every child born before 1992, women are granted two years of parental leave under the current law, while three years are granted for each child born after 1992.<sup>30</sup>

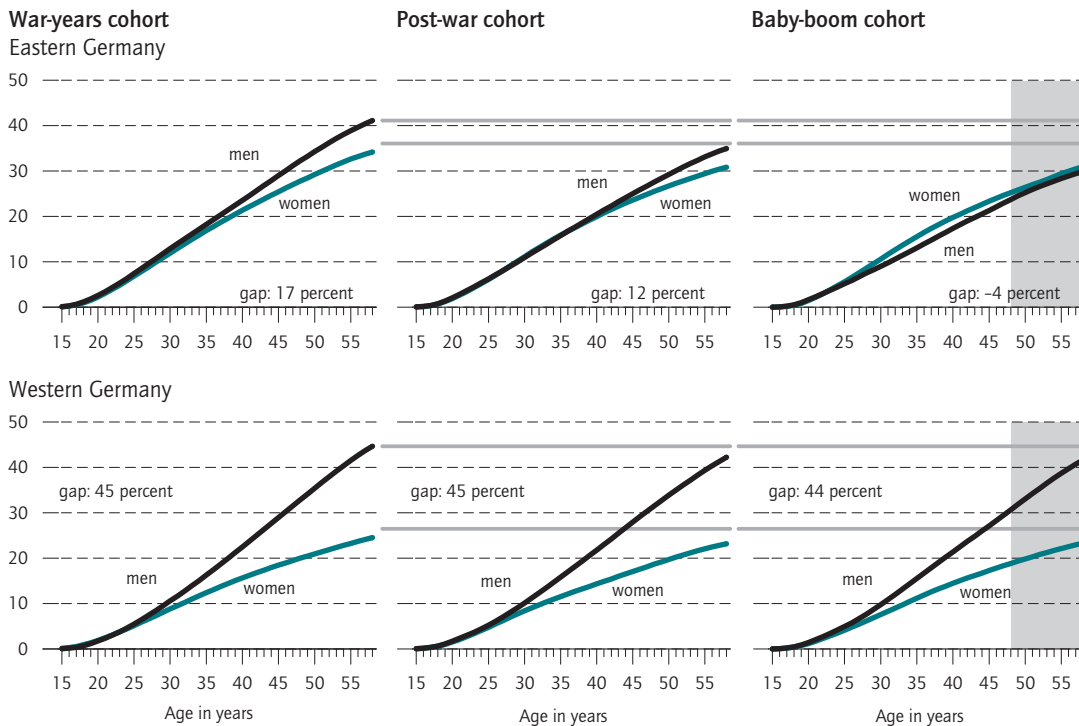
The clear decline in pension entitlements for eastern German men is even more apparent if all pension-relevant periods are factored in. A comparison between the war-years cohort and the baby boomers revealed a decrease in pension entitlements from 41 to 30 pension points (see Figure 4). In terms of the current pension point value for eastern Germany, this is a drop in monthly pension of 290 euros. For eastern German women,

**30** Since 2014, mothers of children born before 1992 have been granted two years of maternal leave recognized in pension entitlements. This entitlement, which is known as the *Mütterrente* (literally: mother's pension) was part of a parliamentary act on the improvement of statutory pension entitlements which entered into effect as of July 1, 2014.

Figure 4

**Pension Entitlements from All Pension-Relevant Activities**

Total pension points



The shaded area denotes the projected period, while the gray line shows the starting pension level for the war-years cohort. Civil servants, the permanently self-employed, and migrants are not included in the calculations.

Source: SOEP v.27; SUF-VSKT-LAW-2007, LAW Life Projection; calculations by DIW Berlin.

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Only a slight narrowing of the gap between western German women and men can be observed.

the average pension entitlements from all pension-relevant periods are also on the decline. While the women in the war-years cohort managed to accumulate more than 34 pension points by the time they reached their 58th year, the baby boomers had earned just 31 pension points. The decline in this case is less marked. If total pension entitlements are taken into consideration, eastern German women in the baby-boom cohort would in fact overtake eastern German men in terms of average pension points accumulated.

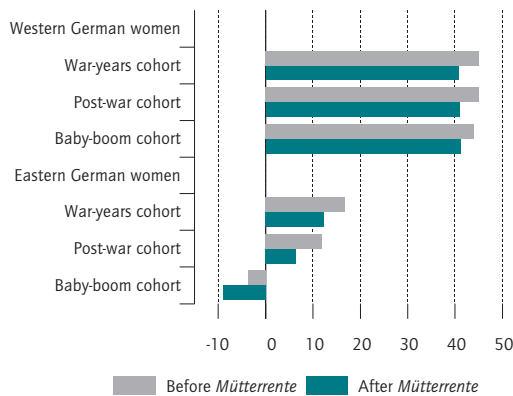
In western Germany, if the entire pension entitlements are considered rather than just those earned from employment liable to social security tax, the gender pension gap may not be strikingly wide. The huge disparity between men and women, however, is ever present. For western German baby boom men, a decline in pension entitlements by three pension points was seen (a fall from 44.5 to 41.5 points), compared with the war-years cohort. Western German women from the baby-boom

cohort dropped one point on average in comparison to those in the war-years cohort (taking it from 24.5 to 23.5 points). Despite them demonstrating the smallest decline in entitlements among all the groups examined, western German women still continue to accumulate by far the least pension entitlements between their 15th and 58th years. The gender pension gap in western Germany remains virtually unchanged at 44 percent.

In Germany, the Mütterrente (effective as of July 1, 2014, see footnote 29), which resulted in the recognition of periods spent bringing up children in pension care entitlements, has not yet been factored into the calculations implemented here. This can, however, be approximated using the existing data. Women from the war-years and post-war years cohorts profit to a large extent from the Mütterrente, since they have more children on average, mainly born before 1992. Figure 5 shows what effects this change in entitlement recognition may have on the gender pension gap. In western Germany, the dispari-

Figure 5

### Gender Pension Gap Before and After *Mütterrente* In percent



Source: SOEP v.27; SUF-VSKT-LAW-2007, LAW Life Projection; calculations by DIW Berlin.

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Eastern German women from the baby-boom cohort are overtaking men.

ty between men and women in the baby boomer cohort decreased from 44 to 41 percent, while in eastern Germany, the gap between women and men worsened, with women in the baby boomer cohort having nine percent greater pension entitlements.

Even if the *Mütterrente* were introduced for reasons of fairness, in western Germany, in particular, this did not lead to any substantial change in the gender pension gap.

## Conclusion

Twenty-five years ago, four million pensioners and eight million insured individuals were integrated from the pension system of the former GDR into a new system for the whole of Germany. Despite the continuing institutional differences between east and west, the ongoing difference in pension payments, and the continuing need for transfer in eastern Germany, the integration of the eastern German pension scheme can be regarded as a success. Analyses have shown that average statutory pensions for men in eastern and western Germany are more or less equal, while the pensions for women in eastern Germany remain higher than those for women from western Germany as a result of far higher labor market participation by eastern German women since the 1950s.

As regards ensuring a good standard of living and avoiding old-age poverty, the development of pension enti-

tlements for future generations of pensioners is a matter of concern. With the exception of western German women, for whom the cohort comparison showed insignificant changes only in pension entitlements, entitlements for all other groups are on the decline. Particularly drastic was the drop for eastern German men from the baby-boom cohort, who were affected worst by the high unemployment levels following reunification, as well as the structural changes on the eastern German labor market. For western German women, too, no substantially positive development can be expected in the near future. Their pension entitlements are exceedingly low and will presumably remain so in future. Even if the statutory pension level is not an indicator of material wealth and security in old age, pension entitlements for western German women are so low that many of them will be forced to rely on other sources of income or old-age security in the household context. In times where divorce rates are high, however, the overall pension situation in the household context as a result of the husband's higher pension is becoming increasingly uncertain.

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