

Grabka, Markus M.

**Article**

## Income distribution: Signs of a trend reversal in the poverty risk; single parents less frequently at risk of poverty

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AT A GLANCE

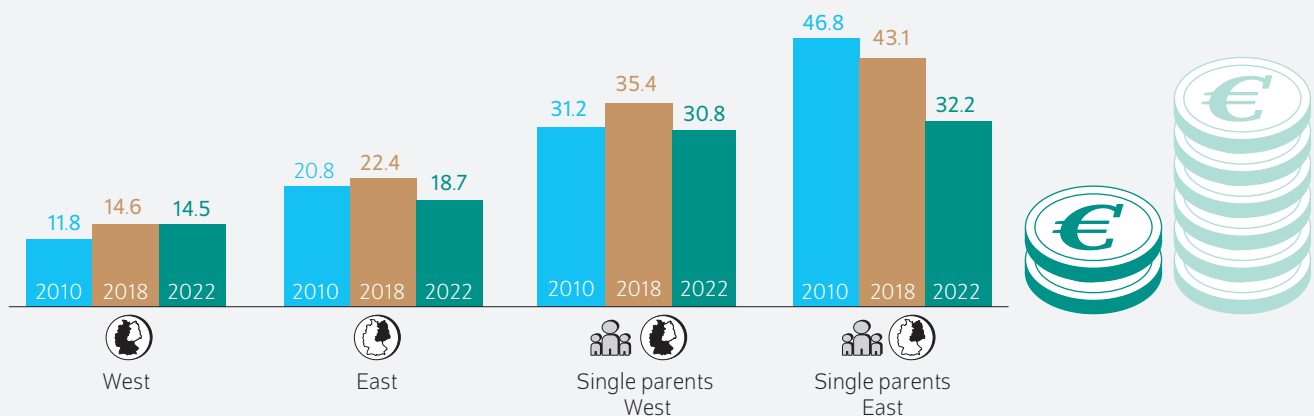
# Income distribution: Signs of a trend reversal in the poverty risk; single parents less frequently at risk of poverty

By Markus M. Grabka

- According to SOEP data, gross hourly wages have increased by around 15 percent since 1995 when adjusted for inflation; primarily the bottom wage decile is recovering
- At the same time, the low-wage sector has declined by nearly five percentage points since 2007; in eastern Germany, the sector has declined by 14 percentage points
- Adjusted for inflation, net household income increased by 35 percent on average since 1995; despite this, it stagnated in the bottom decile
- Poverty risk has declined from a high level; risk has greatly declined for single parents by 4.3 percentage points
- To further reduce the poverty risk, education expenditure should be targeted to reduce the number of school dropouts

## Risk of poverty on the decline especially in the east of Germany and among single parents

Low-income rate in percent



Source: SOEPv39, authors' calculations.

Notes: Individuals in private households whose disposable income is less than 60 percent of the median. Needs-adjusted household income of the current month.

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## FROM THE AUTHORS

*"The poverty risk has been on a slight decline recently, especially in the east of Germany and among single parents. Policy measures such as increases to the minimum wage and family policy reforms such as the increase to the children's allowance, changes to advance maintenance payments, or the increase in the tax-free amount for single parents have decreased the poverty risk."* — Markus M. Grabka —

## MEDIA



Audio Interview with Markus M. Grabka (in German)  
[www.diw.de/mediathek](http://www.diw.de/mediathek)

# Income distribution: Signs of a trend reversal in the poverty risk; single parents less frequently at risk of poverty

By Markus M. Grabka

## ABSTRACT

Despite high inflation, the real gross hourly wages of employees grew by around 15 percent from 1995 to 2022. In particular, the lowest wage decile caught back up to all other deciles following a sharp drop in real wages. At the same time, the low-wage sector has shrunk by nearly five percentage points since 2007, and by even more in the east of Germany (14 percent). In 2022, 18.5 percent of employees had their main occupation in the low-wage sector. In inflation-adjusted terms, net household income has increased by 35 percent on average since 1995. After a long period in which the poverty risk grew, the trend finally seems to be shifting in the other direction. Across Germany, the poverty risk has declined by 4.3 percentage points for single parents since 2010; in the east, this decline was by 14.5 percentage points. If policymakers' aim is to reduce the poverty risk, they should focus on children and youth, as the dropout rate has increased to 13.1 percent. Without a degree, a person is more likely to take a low-paying job that puts them at risk of poverty. Targeted education expenditure, which could be financed via wealth taxes, is very much needed for this reason.

Over the past 30 years, the German economy has faced countless upheavals that have also affected the labor income of the population. After reaching peak unemployment in the mid-2000s, the labor market has fundamentally stabilized since. Despite major economic downturns, especially the global financial market crisis in 2007 and subsequent euro area crisis as well as the coronavirus pandemic in 2020, the unemployment rate remained low. Following Russia's invasion of Ukraine in 2022, inflation skyrocketed to a level not seen for decades.

These events also had an impact on the wages and incomes of private households and their distribution. This Weekly Report presents the development of gross hourly wages and net household income, taking the poverty risk from 1995 to 2022 into special consideration.<sup>1</sup> Income data (Box) from the Socio-Economic Panel (SOEP)<sup>2</sup> at DIW Berlin is used, which was collected together with *infas – Institut für angewandte Sozialwissenschaft*. This is supplemented with data from the Federal Statistical Office.

## Inflation moderately dampening real hourly wages

A good three quarter of people of working age between 25 and 64 in Germany primarily earned a living through their own employment in 2023.<sup>3</sup> Dependent employment is by far the most important and most common source of livelihood. Therefore, the following section examines the development

<sup>1</sup> The year 1995 was chosen as the start year because the transition of the former East German economy following reunification was nearly complete by this time.

<sup>2</sup> SOEP is an annual representative survey of private households. It began in West Germany in 1984 and expanded its scope to include the new federal states in 1990; cf. Jan Goebel et al., "The German Socio-Economic Panel (SOEP)," *Journal of Economics and Statistics* 239, no. 29 (2022): 345–360 (available online; accessed on January 8, 2025). This applies to all other online sources in this report unless stated otherwise. The data version SOEPv39 was used for this Weekly Report, see the DIW Berlin website for more information.

<sup>3</sup> Statistisches Bundesamt, "Drei Viertel der 25- bis 64-Jährigen lebten 2023 von eigener Erwerbstätigkeit," press release from April 2, 2024 (in German; available online).

## Box

## Assumptions for income measurement

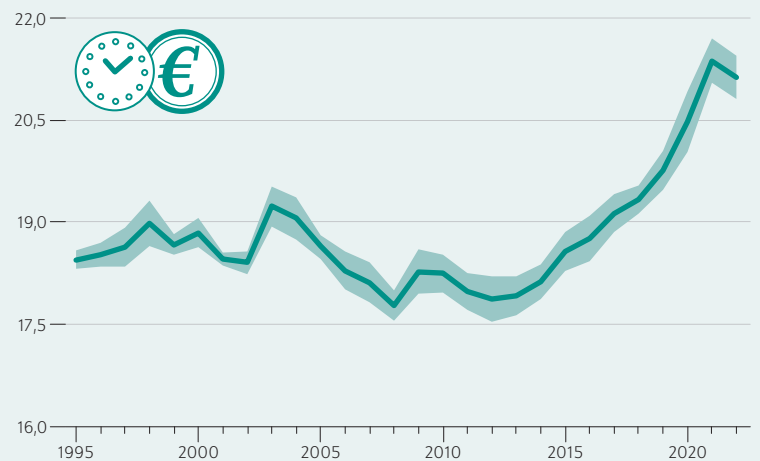
This Weekly Report uses the concept of the gross hourly wage. The gross hourly wage is calculated using the contractually agreed upon work hours (if there are no contractually agreed upon hours, the hours worked are used) and the information on gross monthly earnings, including possible overtime pay, from the previous month. One-off payments such as a vacation allowance, Christmas allowance, or bonuses are not included. The weekly hours worked are multiplied by a factor of 4.33 to calculate the monthly hours worked. Secondary employment is not considered here; only the wage from the main occupation is used.

The net household incomes are needs adjusted. In line with international standards, the income situations of households of different sizes and compositions are made comparable by converting the total income of a household into a needs-weighted income (equivalent income). Household incomes were converted using a scale generally accepted in Europe and recommended by the OECD. Every household member was assigned an equivalent income calculated in this manner, under the assumption that all household members benefit from their shared income equally. In the process, the head of household receives a weight of one, and the other adults in the household and children 14 and over receive a weight of 0.5. Children under 14 receive a weight of 0.3.<sup>1</sup> We thus assumed a cost depression in larger households.

Two concepts for measuring net household income are available in the SOEP. One concept uses the income from the current month and the other uses the net household income from the previous year. The first concept has the benefit of consistency between current household structure and income earned. However, it only describes a moment in time, as the income situation can change over the course of the year, for example due to seasonal unemployment or non-regular payments such as investment income. Annual income captures this volatility better, as the SOEP asks about different types of income received in the previous year in detail.

1 Cf. the definition on the Eurostat website (available online).

Figure 1

Real contractual gross hourly wages in main employment  
In euros per hour

Notes: In 2020 prices. Employees in main employment in private households, not including apprentices, interns, or the self-employed. The shaded areas indicate the 95-percent confidence band; the probability of error is correspondingly five percent.

Sources: SOEPv39, authors' calculations.

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There were real losses in gross hourly wages in 2022 for the first time since 2012 as a result of inflation.

of the real<sup>4</sup> contractual gross hourly wages of employees' main occupation is first examined.<sup>5</sup>

The average real gross hourly wage declined by three percent overall between 1995 and 2012 (Figure 1). This phase was initially characterized by high unemployment in Germany, to which the collective bargaining partners responded with wage restraint. In contrast, wages increased by 19 percent in real terms from 2013 to 2021. However, there were real losses again for the first time in nearly 10 years in 2022 due to high inflation.<sup>6</sup>

## Bottom wage decile is benefitting from above-average growth

As the development of the hourly wage across the distribution can differ from the development of the average, gross hourly wages are sorted according to amount and divided into ten groups of equal size (deciles). The lowest decile indicates the wages of the poorest ten percent of the population

4 Converted using the Federal Statistical Office's consumer price index in 2020 prices.

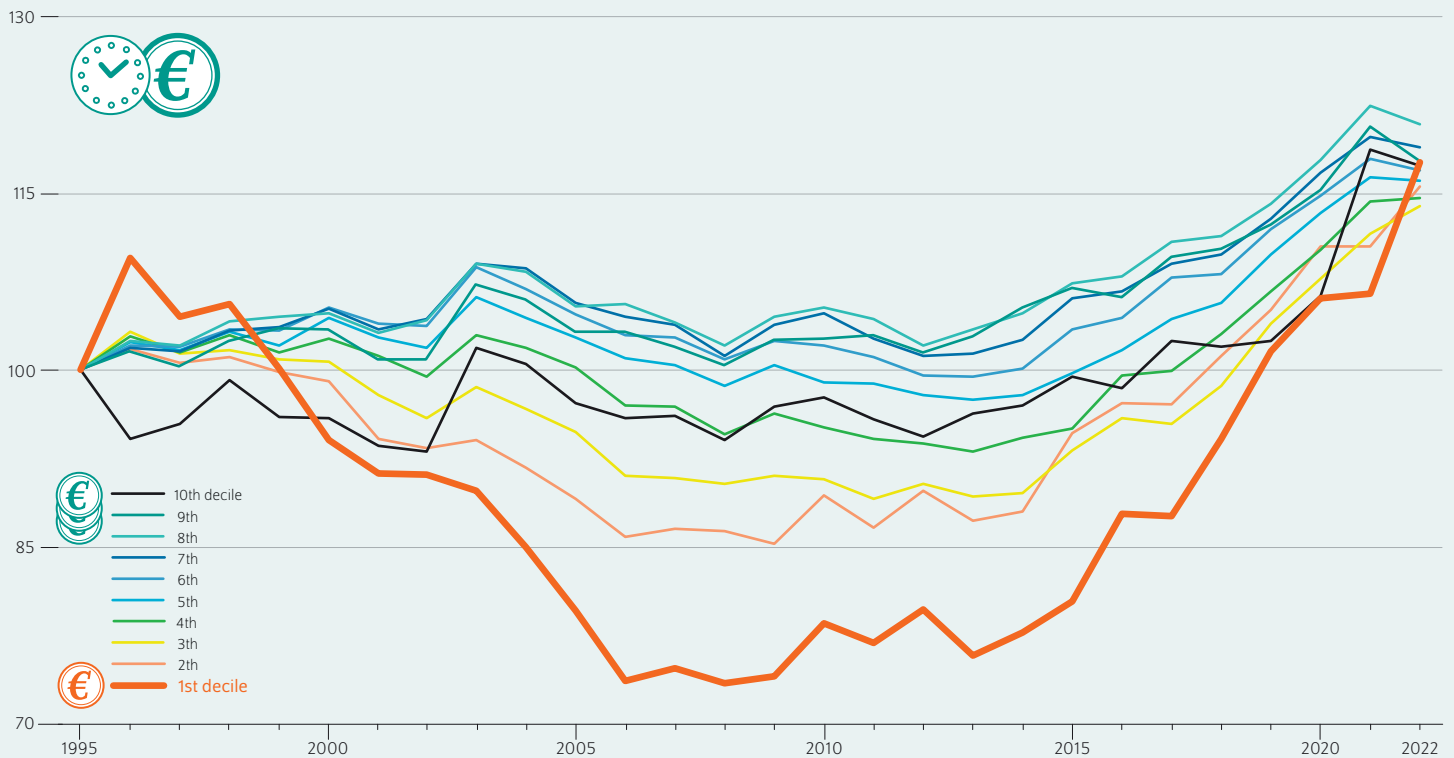
5 This does not include the self-employed, apprentices, interns, and those performing military or civilian service.

6 This is a four-percent decline compared to the previous year relative to the real wage index of the Federal Statistical Office, cf. the data on the website of the Federal Statistical Office (in German; available online). However, since the second quarter of 2023, there have been real wage increases for six consecutive quarters.

Figure 2

**Standardized real contractual gross hourly wage by decile**

Indexed, 1995 = 100



Notes: Employees in main employment in private households, not including apprentices, interns, or the self-employed. In 2020 prices.

Sources: SOEPv39, authors' calculations.

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**The bottom wage decile has recovered since 2013.**

and the top decile indicates the wages of the richest ten percent.<sup>7</sup> The average of each decile is normalized to the value in 1995 to depict the development of the wages per decile in percentage terms (Figure 2).

The development of the bottom wage decile is of particular interest. At its peak between 1995 and 2005, real wages fell by more than 25 percent. This was due to, among other things, an increase in the number of minijobs and poorly paid service jobs as well as the privatization of public companies (such as municipal hospitals). Such privatization often went hand in hand with wage losses when the employees in these sectors signed new contracts.

By 2013 at the latest, a trend shift had set in. Since then, the bottom wage decile has been experiencing above-average growth. In 2022, the bottom wage decile had recovered so much that its relative wage growth barely differed from

the majority of the other deciles. This positive development was the result of, among other things, the introduction of the minimum wage in 2015 and its subsequent increases. However, the unions' wage policy has also changed. For years, unions have been demanding not only equal percentage wage increases for all employees across all wage groups, but also stronger flat-rate minimum payments that will be considerably higher for the bottom wage groups in relative terms than for other higher wage groups.

Overall, the deciles diverged between 1995 and the mid-2000s, with real wage losses in the bottom half of the distribution and slight growth in the top half. The deciles have been converging again since 2013, resulting in recent relative increases differing only slightly. Thus, the wage distribution experienced wage compression again.<sup>8</sup>

<sup>7</sup> It should be noted that the decile a person belongs to can change over time if their income changes.

<sup>8</sup> Wage compression in the distribution was also confirmed by the official statistics, cf. Statistisches Bundesamt, "Abstand zwischen Gering- und Besserverdienenden wird kleiner," press release from April 29, 2024 (in German; available online).

### Trend reversal in the low-wage sector

The low-wage sector is often the focus of public discourse.<sup>9</sup> The low-wage sector consists of workers who earn less than two thirds of the median of the contractual gross hourly wage.<sup>10</sup> According to SOEP data, the low-wage threshold in 2022 was around 13.60 euros per hour.

Expanding the low-wage sector was politically desirable in the 1990s and 2000s as a way of increasing labor market flexibility and reducing the high unemployment rate for people with low productivity. Between 1996 and 2007, the share of employees in the low-wage sector grew from around 16 percent to more than 23 percent. Since then, however, a trend reversal has been observed. The introduction of the minimum wage in 2015 has contributed to this reversal, especially the marked increase from 9.60 in 2021 to 12 euros in 2022. Contrary to fears, the minimum wage has only slightly negatively affected employment in the low-wage sector.<sup>11</sup> As a result, 18.5 percent<sup>12</sup> of all dependent employees had their main occupation in the low-wage sector; this is around the 2000 level.

### Low-wage sector shrinking considerably in the east

We assume that increases in the minimum wage have a greater effect on the wage distribution in the east of Germany because wages there are lower on average than in the west. The first finding is that the low-wage sector is significantly more important in the east than in the west (Figure 4). For example, the difference between the two parts of the country was a good 20 percentage points in 2000. In 2007, the growth of the low-wage sector in the east reached a peak of 38 percent. Since then, the situation has brightened substantially: In 2022, there were fewer than 24 percent of dependent employees working in the low-wage sector.<sup>13</sup> The trend had only begun to change in the west in 2017, but to a smaller extent. There, around 17 percent of dependent employees are working in the low-wage sector. Overall, the substantial convergence of the wage distribution in both parts of Germany

<sup>9</sup> Cf. the definition of the low-wage sector: Federal Statistical Office, *Low-wage rate* (2024) (available online).

<sup>10</sup> The median splits workers in two equally sized groups: The first group consists of workers with low wages and the other of workers with high wages.

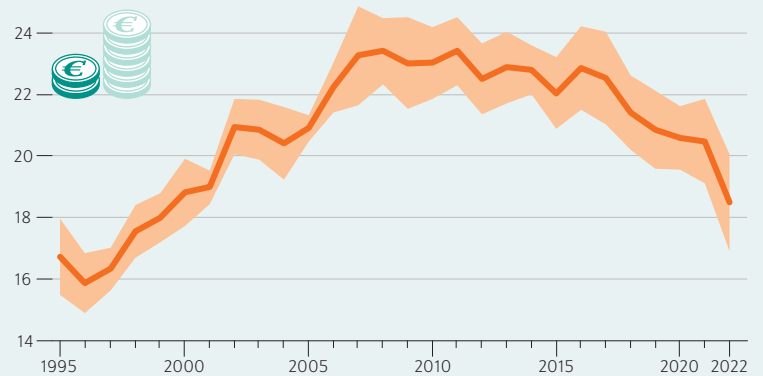
<sup>11</sup> The minimum wage commission gives various explanations as why the introduction of as well as the repeated increases in the minimum wage have barely had any negative effects on employees. For example, it is argued that there is a high degree of monopsony power in sectors that are heavily affected by the minimum wage, such as retail and the hotel and catering industry (cf. glossary entry on the minimum wage on the DIW Berlin website). In addition, the minimum wage resulted in reorganization and real allocation effects, leading to, for example, minijobs being transformed into employment subject to social insurance contributions. Cf. Mindestlohnkommission, *Vierter Bericht zu den Auswirkungen des gesetzlichen Mindestlohns. Bericht der Mindestlohnkommission an die Bundesregierung nach § 9 Abs. 4 Mindestlohngesetz* (Berlin: 2024) (in German; available online).

<sup>12</sup> With 19.1 percent, the Federal Statistical Office calculated a similar value for April 2022, cf. data on the website of the Federal Statistical Office (in German; available online).

<sup>13</sup> The Federal Statistical Office also reports a decline in the low-wage sector in the east: by 17 percentage points down to 18 percent over a period of ten years, cf. Destatis, "1,3 Millionen weniger Niedriglohnjobs von 2014 bis 2024," press release from February 6, 2025 (in German; available online. Accessed on February 6, 2025).

Figure 3

### Share of employees in the low-wage sector<sup>1</sup> In percent



<sup>1</sup> Employees whose gross hourly wage is less than two thirds of the median.

Notes: Employees in main employment in private households, not including apprentices, interns, or the self-employed. The shaded areas indicate the 95-percent confidence band.

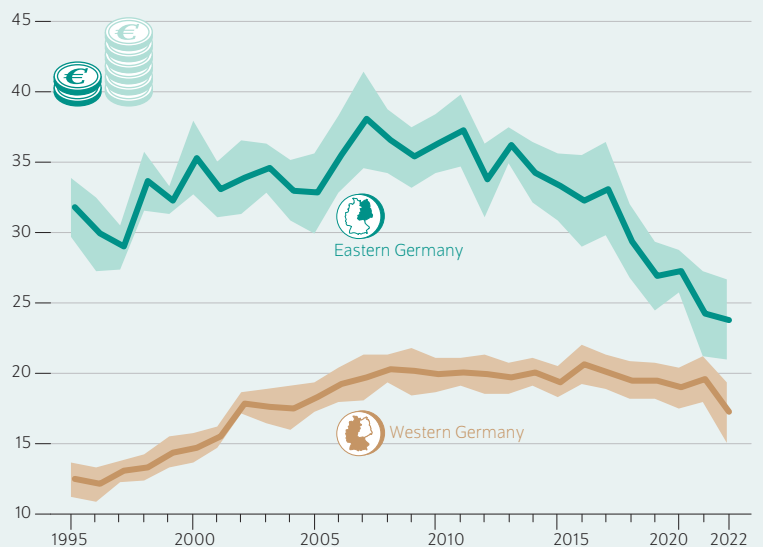
Sources: SOEPv39, authors' calculations.

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The share of employees in the low-wage sector has declined to only 18.5 percent since the introduction of the minimum wage.

Figure 4

### Share of employees in the low-wage sector in the east and west of Germany<sup>1</sup> In percent



<sup>1</sup> Employees whose gross hourly wage is less than two thirds of the median.

Notes: Employees in main employment in private households, not including apprentices, interns, or the self-employed. The shaded areas indicate the 95-percent confidence band.

Sources: SOEPv39, authors' calculations.

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There has been a strong decline in the low-wage sector, especially in the eastern part of the country.



Figure 5

### Development of the real equivalized net household income Indexed, 1995 = 100



Notes: Real income in 2020 prices. Population: Individuals in private households. Equivalized annual income surveyed the following year. Adjusted using the modified OECD equivalence scale.

Sources: SOEPv39, authors' calculations.

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Real net household income has increased by 35 percent on average since 1995.

can be mainly attributed to the stark decline in low-wage-sector employees in the east since 2007.

Women in particular benefit from the decline in this employment segment, as, in general, they work in the low-wage sector more frequently. This is also reflected in the unadjusted gender pay gap: In the mid-2000s, the gender pay gap was around 23 percent (around 10 percent in the east) and it fell to 16.6 percent (seven percent in the east) over the course of the decline of the low-wage sector until 2022.<sup>14</sup>

### Real net household income has increased by an average of 35 percent since 1995

The previous analyses focused on individual gross hourly wages. However, many individuals have additional sources of income, such as government transfers or capital income. Furthermore, people often live together in households and share their economic resources. Thus, we shall now focus on net household income, which has more informative power about the economic situation of people in Germany. We apply needs weighting to account for the economies of scale in households (Box).<sup>15</sup>

<sup>14</sup> The Federal Statistical Office currently reports a gender pay gap of 16 percent. Taking differences in working hours or in the profession into account results in the adjusted pay gap of about seven percent. See Federal Statistical Office, "Gender pay gap falls from 18 percent to 16 percent in 2024 compared to the previous year," press release from February 13, 2025 (in German; available online. Accessed on February 13, 2025).

<sup>15</sup> Cf. the glossary entry on equivalized income on the DIW Berlin website (in German).

The real needs-weighted net household income has been developing positively since the mid-1990s (Figure 5). Thus, households' net income grew slowly between 1995 and 2014, resulting in an increase of 12 percent, or an annual rate of change of around 0.6 percent. Since then, along with real wage increases, net household income has been increasing considerably.<sup>16</sup> Until 2021, real average growth over the entire period was 35 percent.<sup>17</sup>

The development of real net household income can also be shown by deciles. If we standardize to the base year 1995 (=100), we see that the overall gap between poorer and higher-income households has grown. The top decile experienced real growth of 58 percent until 2021, while the bottom of the first (lowest) decile stagnated during the same period. Thus, the first decile is still at the same real income level as it was 25 years ago (Figure 6).

### Signs of a trend reversal in the poverty risk

As the average cannot be used to make any statements about the development of different points on the distribution, we use the risk-of-poverty rate as an example to describe the bottom half of the income distribution. The risk-of-poverty rate is an indicator frequently used in social reporting, for example in the German Federal Government's report on poverty and wealth or also in the *Paritätischen Wohlfahrtsverband's* poverty report.<sup>18</sup>

A person is at risk of poverty if their net household income is less than 60 percent of the median of the needs-weighted net household income. Using data from the SOEP sample, the low-income threshold for a one-person household in 2021 was 1,388 euros net per month in nominal terms.<sup>19</sup> Three alternative data sources can be used to describe the poverty risk: The SOEP data, official Microcensus data, and data from the German section of the European Union Statistics on Income and Living Conditions (EU-SILC).

According to SOEP data, the low-income rate has been rising since the end of the 1990s and increased from around 11 percent to more than 17 percent by 2021 (Figure 7). There are various reasons for this, such as the increase in single-person households in which economic resources are not shared with any other household members. Moreover, there is a large share of young adults who are at risk of poverty, as they have been in training or apprenticeships for a longer period without additional capacity for employment

<sup>16</sup> For example, pensions from the statutory pension insurance system are based on the development of the average wages.

<sup>17</sup> Data on retrospectively surveyed annual incomes, which were collected in 2022 and relate to the previous year (2021), are used to determine the development of net household income.

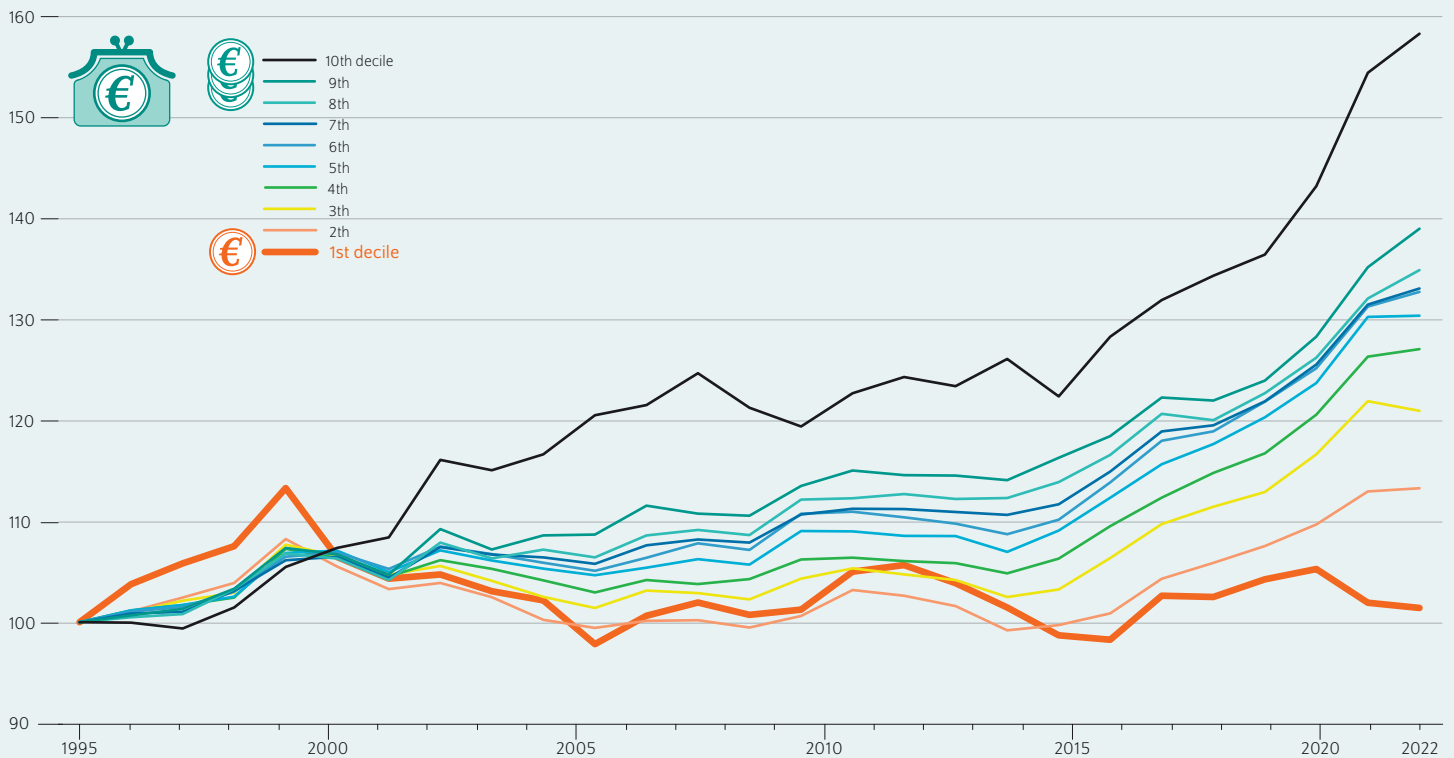
<sup>18</sup> Bundesministerium für Arbeit und Soziales, *Armuts- & Reichtumsbericht der Bundesregierung* (in German; available online) as well as Paritätischer Gesamtverband, *Armutsbericht 2024. Armut in der Inflation* (2024) (in German; available online).

<sup>19</sup> The risk-of-poverty rate is a purely one-dimensional measure, as it only measures income. As a result, aspects such as private assets are not considered. Therefore, we also use the term "low-income rate" in this Weekly Report.

Figure 6

### Development of disposable household income by decile

Indexed, 1995 = 100



Notes: Real income in 2020 prices. Population: Individuals in private households. Equivalized annual income surveyed the following year. Adjusted using the modified OECD equivalence scale. This figure is also available online as an interactive graphic at <https://www.diw.de/einkommensverteilung2025>

Sources: SOEPv39, authors' calculations.

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Only the ten percent of households with the lowest income have not increased their inflation-adjusted income since 1995.

during that time. In addition, the increase in immigration, particularly since 2010, has led to a higher risk of poverty. As immigrants often struggle with the German language or getting their degrees recognized after arrival, their employment rates are lower than those of the native population.<sup>20</sup>

When using EU-SILC data instead, we find a similar trend with an increase in the low-income rate of around 17 percent until 2020. Since then, the rate has fallen to 14.4 percent. Results using Microcensus data confirm the long-term increase in the poverty risk up to nearly 17 percent in 2021. Recently, a slight downturn in the poverty risk has been noticed, as its value has dropped to 16.6 percent. Using SOEP data on current monthly net household income instead of annual net household income (Box), which is comparable with the Microcensus concept, confirms a possible shift in

the trend: Following a peak value of 16.2 percent in 2020, the poverty risk has since declined to 15.3 percent.

### Considerable decline in poverty risk in the east

The analyses on the low-wage sector have shown that the development in the east of Germany has been more positive recently than in the west. This raises the question of to what extent this finding is also reflected in the risk-of-poverty rate. To investigate this, we use SOEP data on monthly net household income.

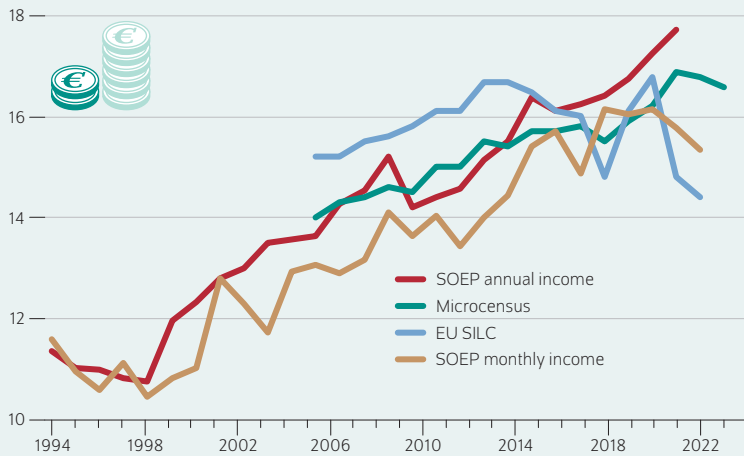
The risk-of-poverty rate was consistently higher in the east than in the west (Figure 8). However, both regions exhibited a similar trend: The poverty risk increased substantially at the end of the 1990s. The east reached its peak with a value

<sup>20</sup> Between 2010 and 2023 alone, the number of foreigners in Germany more than doubled from 6.7 to 13.9 million (author's calculations based on data from the Federal Statistical Office). Also cf. Markus M. Grabka and Jan Goebel, "Real Incomes Increasing, Low-Income Rate Decreasing in Individual Age Groups," *DIW Weekly Report* no. 17/18 (2020): 231–239 (available online).



Figure 7

### Low-income rate<sup>1</sup> Shares in percent



1 Individuals whose disposable income is less than 60 percent of the median.

Notes: Individuals in private households. SOEP annual income: Equivalized annual income surveyed the following year. SOEP monthly income: needs-adjusted household income of the current month. Adjusted using the modified OECD equivalence scale.

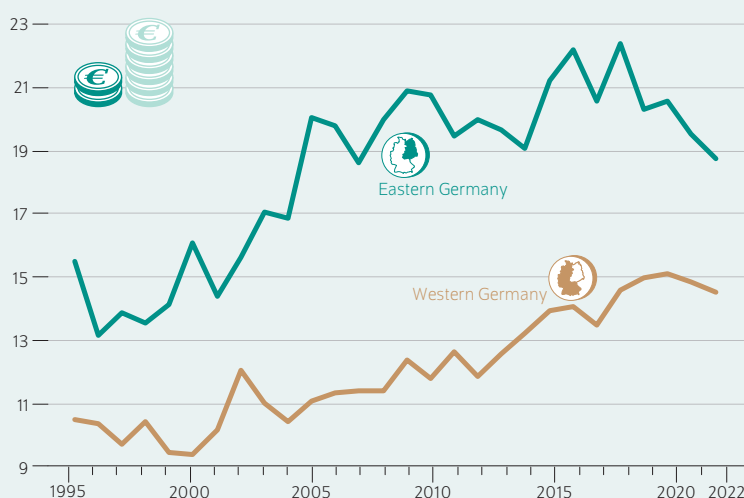
Sources: SOEPv39 and the Federal Statistical Office, authors' calculations. Microcensus and EU SILC information: Federal Statistical Office, Sozialberichterstattung der amtlichen Statistik (2024).

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The share of low-income households declined again in 2022.

Figure 8

### Low-income rate<sup>1</sup> by region In percent



1 Individuals whose disposable income is less than 60 percent of the median.

Notes: Individuals in private households. SOEP monthly income: Equivalized household income of the current month. Adjusted using the modified OECD equivalence scale.

Sources: SOEPv39, authors' calculations.

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The share of low-wage households has declined since 2018, especially in the east of Germany.

of 22.4 percent in 2018; since then, the at-risk-of-poverty rate has sunk to 18.7 percent.<sup>21</sup> The west reached its previous peak at 15.1 percent in 2020 and the rate subsequently fell somewhat to 14.5 percent in 2022. When looking at the poverty risk among age groups, a decline is seen among children and youth (minus two percentage points) as well as 25- to 34-year-olds (minus 2.7 percentage points) (Figure 9). For all other age groups, the poverty risk has been stagnating since 2018.

This trend was much more noticeable in the east: The poverty risk for children and youth has decreased by nine percentage points since 2018 and by 15 percentage points for 25- to 34-year-olds.<sup>22</sup> In contrast, the poverty risk for 34- to 64-year-olds fell by 2.7 percentage points. For 18- to 24-year-olds, the poverty risk increased by nearly five percentage points, and it increased by a little over one percentage point for people of retirement age (65 and older).<sup>23</sup> In addition, it is notable that the risk-of-poverty rate for children and youth in 2022 was nearly the same in both regions of the country (around 18 percent).

Single parents benefit from political measuresThe subpopulation group with one of the highest low-income rates is single parents. Initially, there was an increase in the poverty risk for single parents overall in the long term (Figure 10, top). While around one quarter of all single parents were at risk of poverty at the end of the 1990s, this figure increased to 37 percent by 2018. Since then, it has been on the decline: By 2022, it had fallen to 31 percent. In the east of Germany, this subgroup reached its peak in 2010 at nearly 47 percent. A considerable decline, which was only briefly interrupted around 2018, has been recorded since. Currently, the risk-of-poverty rate for single parents in the east was only 32 percent and thus almost 15 percentage points lower than previously,<sup>24</sup> once again reaching the level of the mid-1990s.

In the west of Germany, the previous peak level for the low-income rate for single parents was around 35 percent in 2018. Following this, the rate began to decline, which, at -4.6 percentage points, was weaker than the decline in the east.

The recent decline in the poverty risk for single parents can be attributed to many things, such as changes to labor market behavior. For example, fewer than half of single parents in the east were employed in the mid-2000s (Figure 10, bottom). The situation has fundamentally changed since then,

<sup>21</sup> One cause of the decline in the poverty risk in eastern Germany is the good labor market situation. Between 2019 and 2023, aggregated gross wages and salaries increased by 23 percent in the east, while this increase was only 18 percent in the west, cf. Federal Statistical Office, *Bruttolöhne und -gehälter (Inlandskonzept) bis 2023 – vorläufige Ergebnisse nach Bundesländern* (2024) (in German; available online).

<sup>22</sup> Other age groups are shown in the official social reporting using Microcensus data. The trend is fundamentally confirmed, but it begins somewhat earlier and is not as strong as it is according to SOEP data. Cf. the data on the *Gemeinsames Statistikportal* (in German; available online).

<sup>23</sup> The Microcensus data also reveals an increasing risk of poverty among people of retirement age.

<sup>24</sup> When using the results of the Microcensus instead, a 9.7-percentage-point decline in the at-risk-of-poverty rate can be observed for the period 2013 to 2023.

as currently over 61 percent of single parents are employed. The employment rate has also increased by around 10 percentage points for single parents in the west since the mid-2000s, from around 53 to 63 percent. The expansion of child-care options likely contributed to this: The number of children under three years old in day care more than tripled between 2006 and 2021.<sup>25</sup>

This development was accompanied by various political reforms with the aim of combating poverty among single parents. These reforms include the children's allowance, which has doubled from 140 euros per month at its introduction in 2005 to nearly twice that, 292 euros, in 2024. At the same time, the number of children who benefit from the children's allowance has increased considerably, from 258,000 children in 2017 to 1.3 million by the end of 2024. Of these, 230,000 children were living in single-parent households.<sup>26</sup> The tax-free amount for single parents was more than doubled in 2020 from 1,980 euros to 4,008 euros. In addition, changes to advance maintenance payments in 2017 led to the number of children benefiting from these rising from 414,000 before the reform to 830,166 after the reform in 2023.<sup>27</sup> Furthermore, single parents have also benefited from the gradual increase in the minimum wage.

### Material deprivation on the decline

Material deprivation is an alternative concept for measuring poverty in a society. Material deprivation occurs when people forego certain goods or services due to financial reasons. Seven indicators have been included in the SOEP since 2005: The survey asks if the respondents have an internet connection or a car in the household; if they have financial savings for emergency situations; if they take at least one week-long vacation per year; if they invite friends out to dinner at least once per month; if they have a warm meal at least every two days with meat, fish, or poultry; or if they replace old furniture with new furniture. When respondents indicate they forego three or more of these indicators due to financial reasons, they are experiencing material deprivation.<sup>28</sup>

Thus, around 19 percent of the population was experiencing material deprivation in 2005 (Figure 11). A similar trend can be observed here in the long term parallel to the positive development of real net household income and poverty risk described above. The share of people who are experiencing

<sup>25</sup> The number increased from 286,017 to 809,908, cf. Bundesministerium für Familie, Senioren, Frauen und Jugend, *Kindertagesbetreuung Kompakt. Ausbaustand und Bedarf 2021* (in German; available online).

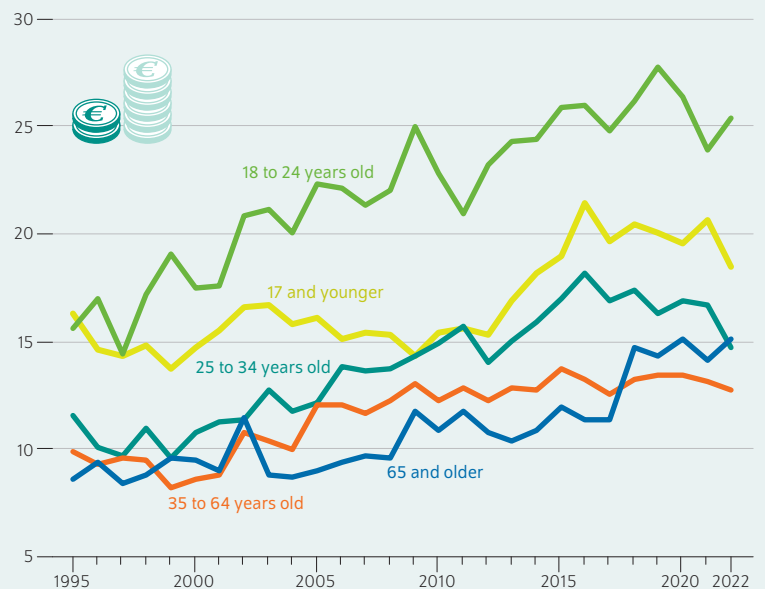
<sup>26</sup> Cf. Karin Christmann, "Armut in Deutschland. Immer mehr Familien nehmen Kinderzuschlag in Anspruch," *Tagesspiegel*, January 3, 2025 (in German; available online).

<sup>27</sup> Cf. the 2024 data from the Bundesministeriums für Familien, Senioren, Frauen und Jugend (in German; available online) as well as Anne Lenze, *Alleinerziehende weiter unter Druck. Bedarfe, rechtliche Regelungen und Reformansätze* (Bertelsmann Stiftung: 2021) (in German).

<sup>28</sup> The Federal Statistical Office has repeatedly changed the indicators for measuring material deprivation, so intertemporal comparisons are not possible. Cf. the 2023 indicators of the Federal Statistical Office (in German; available online). Therefore, SOEP uses a different set of indicators, but they are comparable over time.

Figure 9

### Low-income rate<sup>1</sup> by age In percent



1 Individuals whose disposable income is less than 60 percent of the median.

Notes: Individuals in private households. SOEP monthly income: Equivalized household income of the current month. Adjusted using the modified OECD equivalence scale.

Sources: SOEPv39, authors' calculations.

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Children and youth as well as their parents' generation live in households at risk of poverty more rarely.

material deprivation decreased considerably until 2021 to around only seven percent. When only observing single parents, there is a comparable trend at a high level. While nearly every second single-parent household (47 percent) was experiencing material deprivation in 2005, now only around 18 percent of single-parent households are experiencing material deprivation, a 29-percentage-point decline.

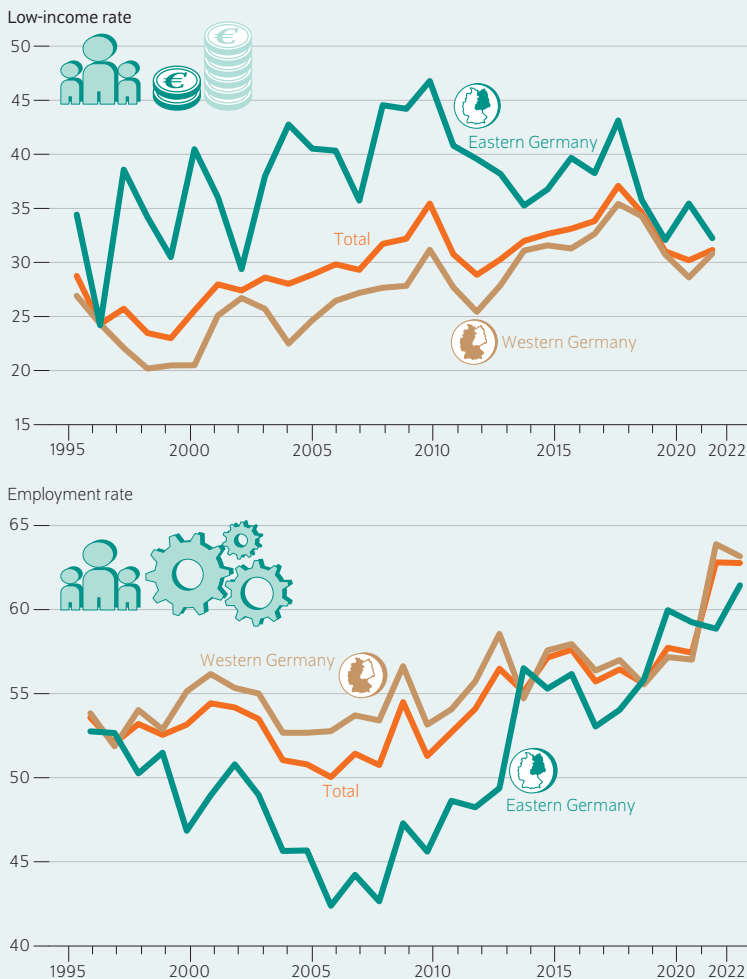
### Conclusion: Reduce number of school dropouts

Real gross wages as well as real net household income have increased considerably over the long term, although inflation stalled this growth at first in 2022. Positive growth has been observed for the ten percent of people with the lowest wages and net household income. Not only has the low-wage sector lost significance, primarily in the east, but there are also signs of a turnaround in the poverty risk trend. The development in the east is more positive than the development in the west. When viewing the poverty risk by household type, we see that the risk is decreasing for single parents in particular; this decline suggests that the various reforms focusing on single parents have had an impact. Despite this, the poverty risk among the population as a whole remains significantly higher than it was in the late 1990s.

Figure 10

### Low-income rate<sup>1</sup> and employment rate among single parents by region

In percent



<sup>1</sup> Individuals whose disposable income is less than 60 percent of the median.

Note: Individuals in private households.

Sources: SOEPv39, authors' calculations.

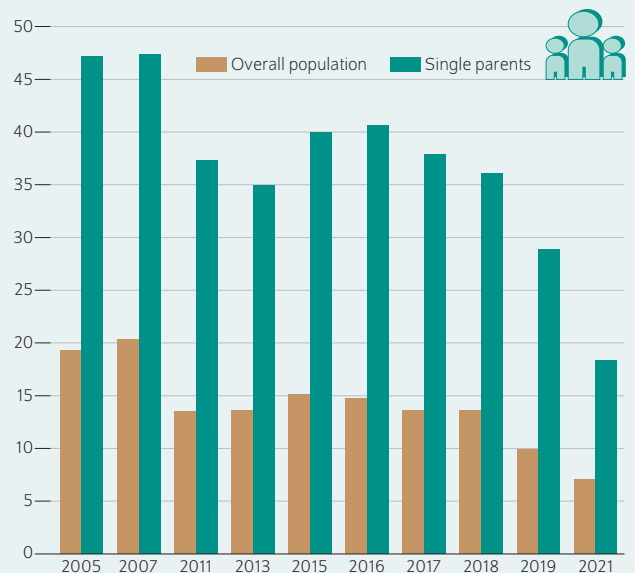
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The share of single parents with low income has declined significantly, especially in the eastern German states.

Figure 11

### Shares of the overall population and of single parents who are materially deprived

In percent



Notes: Individuals in private households. An individual is materially deprived if three of seven indicators are not fulfilled due to financial reasons. Data for 2011 and 2013 are underestimated, as new subsamples did not contain questions on material deprivation.

Sources: SOEPv39, authors' calculations.

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The share of single parents who are materially deprived is on the decline.

educational qualifications, people are at risk of poverty, and, moreover, young people are very much needed on the labor market. Targeted education expenditure could, for example, be financed via higher wealth taxes. In Germany, there is no vertical equity, as people with comparable financial situations are taxed differently according to income type. For example, wages are taxed at a rate of up to 45 percent, while income from capital investments are taxed at a maximum rate of 25 percent (plus the solidarity surcharge) regardless of the amount.<sup>30</sup> This could be changed by increasing taxes on capital income.

One target group for policy action should be children and youth, as the share of school dropouts<sup>29</sup> increased from 9.5 percent in 2014 to 13.1 percent in 2023. Without any

<sup>29</sup> Federal Statistical Office, *Frühe Schulabgänger/-innen* (2024) (in German; available online). The indicator shows the share of people between the ages of 18 and 24 in the population that are not in or are no longer in training or continuing education and do not have the German equivalent secondary school degree.

Moreover, more focus should be placed on the growing issue of old-age poverty, as it becomes nearly impossible for the elderly to make their way out of poverty once they have entered it.

<sup>30</sup> Cf. Stefan Bach and Hermann Buslei, "Abschaffung der Abgeltungsteuer und Rückkehr zur persönlichen Besteuerung führt zu Steuerausfällen und belastet hohe Einkommen kaum," *DIW Wochenbericht* no. 45 (2017): 1016–1025 (in German; available online).

JEL: D31, I31, I32, J31

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**Markus M. Grabka** is a Research Associate at the Socio-Economic Panel (SOEP) research infrastructure at DIW Berlin | [mgrabka@diw.de](mailto:mgrabka@diw.de)



## LEGAL AND EDITORIAL DETAILS



DIW Berlin — Deutsches Institut für Wirtschaftsforschung e. V.  
Mohrenstraße 58, 10117 Berlin

[www.diw.de](http://www.diw.de)

Phone: +49 30 897 89-0 Fax: -200

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