Good bye Lenin (or not?):
The effect of Communism on people's preferences*

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Abstract

Preferences for redistribution and state intervention in social policies, as well as the generosity of welfare states, differ significantly across countries. In this paper, we test whether there exists a feedback process of the economic regime on individual preferences. We exploit the "experiment" of German separation and reunification to establish exogeneity of the economic system. From 1945 to 1990, East Germans lived under a Communist regime with heavy state intervention and extensive redistribution. We find that, after German reunification, East Germans are more in favor of redistribution and state intervention than West Germans, even after controlling for economic incentives. This effect is especially strong for older cohorts, who lived under Communism for a longer time period. We further find that East Germans' preferences converge towards those of West Germans. We calculate that it will take one to two generations for preferences to converge completely.

1 Introduction

Are individual policy preferences exogenous or are they endogenous to political regimes? We focus on tastes for public social policies which entail redistribution and which in fact differ significantly across countries.[1] Are the regimes different solely because of different initial preferences for redistribution in the populations? Or is there a feedback effect from the regime on preferences? Is it possible that living under a specific system leads to adaptation of preferences?[2]

In order to analyze these questions empirically, one needs an exogenous shock to the regime; post war Germany offers an opportunity to analyze the effect of Communism on people's preferences. From 1945 to 1990, Germany was split into two parts for reasons that had nothing to do with Germans' desire for separation, or diversity of preferences between East Germans and West Germans. Since the political and economic system has been the same in the eastern and western parts of Germany since reunification in 1990, and was the same before 1945, West Germans constitute a meaningful control group for East Germans. Therefore, comparing the differences in attitudes and preferences of Germans after the reunification can give us a clue about the effects of living for 45 years under a Communist regime on attitudes, beliefs and political preferences. We should be clear that with the term "Communism" we refer

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[1]For instance, the difference between Europe and the US has been discussed recently by Alesina and Glaeser (2004).

[2]Several recent theoretical papers have shown that there is scope for multiple equilibria and self-fulfilling beliefs in redistributive policies (see e.g. Piketty 1995, Alesina and Angeletos 2005, and Benabou and Tirole 2005).

in the present paper to the politico-economic system of East Germany.

We are especially interested in measuring how 45 years of Communism affected individuals' thinking toward market capitalism and the role of the state in providing social services, insurance, and redistribution from the rich to the poor. If political regimes had no effect on individual preferences, one should not observe any systematic differences between East and West Germans after reunification. If Communism had an effect, in principle one could think of two possible reactions to 45 years of Communist dictatorship. One is that people turn strongly against the "state" and switch to preferences in the opposite direction, namely in favor of libertarian free markets, as a reaction to an all intrusive state. The opposite hypothesis is that 45 years of heavy state intervention and indoctrination instill in people the view that the state is essential for individual well being. As we shall see, we quickly and soundly reject the first hypothesis in favor of the second. In fact, we find that the effects of Communism are large and long-lasting. It will take about one to two generations for former East and West Germans to look alike in terms of preferences and attitudes about fundamental questions regarding the role of the government in society.

We are interested in the effect of Communism on intrinsic preferences. This effect could arise because of Marxist-Leninist indoctrination, state control over school, press, or state television, etc. Also, simply becoming accustomed to an all encompassing state may make people think of it as necessary and preferable despite the suffocating aspects of the East German regime. Last, some aspects of the East German regime

might indeed be preferred by most individuals to those of the West German regime. However, if it is the case that some areas of social policy objectively worked better in East Germany, then even West Germans should prefer state intervention in these policies, unless there exist informational asymmetries.

In addition to this effect, there is a purely economic effect why East Germans might favor state intervention more than West Germans. In 1990, East Germany was relatively poorer than former West Germany. Since the poor disproportionately benefit from government redistribution, they favor it. However, even after controlling for this economic effect, the effect of Communism on intrinsic preferences is large and significant.

We also investigate *why* former East Germans are more likely to favor state intervention (beside the economic effect). One reason is that they are simply used to it. Another reason is that East Germans believe much more so than West Germans that social conditions determine individual fortunes; this belief is of course a basic tenet of the communist ideology. The more one thinks that it is society's "fault" if one is poor, unemployed or sick, the more one is in favor of public intervention. We find evidence for both effects.

We also analyze whether preferences of East Germans converge towards those of West Germans, given that they now live under the same system West Germans have experienced since 1945. We calculate that, under the strict assumption of linearity, it will take about 20 to 40 years to make the difference between East and West Germans

disappear almost completely, due to the combination of two forces. One is the dying of the elderly and the coming of age of individuals born after reunification; the other is the actual change of preferences of any given individual. We estimate the first effect to account for about one third of the convergence effect, and the second one to account for the remaining two thirds of the convergence.

The question of preferences for redistribution and different visions about the welfare state has recently received much attention. Alesina and Glaeser (2004) discuss the origin of different beliefs and preferences in the US and Continental Western Europe, and in fact place a lot of weight on the influence of Marxist ideology on the preference for redistribution in Europe versus the US. The paper most closely related to ours is Corneo (2004). Building on Corneo (2001), he analyzes preferences for redistribution in Germany, using the 1992 and 1999 cross-sections of the International Social Survey Programme. Consistent with his earlier work and our findings, he observes that East Germans are more in favor of redistribution than West Germans. As Corneo (2001), he points to the possibility that the socialist cultural heritage could be responsible for this difference. Moreover, Corneo (2004) finds that over the time period 1992 to 1999 Germans become less favorable to redistribution. This effect is larger in the East than in the West in most specifications, although not always significantly so. More generally, in a comparison of six Eastern European and six Western countries, Corneo and Grüner (2002) find that Eastern Europeans have stronger preferences for redistribution than individuals from Western countries in 1992. We can expand on these

analyses since we use a panel data set that includes many more individual controls. By using different waves of our data, we can discuss more precisely timing issues and speed of convergence of preferences. By focusing on Germany, we can distinguish more clearly the role of Communism in shaping preferences from other potential reasons why Eastern Europeans might favor redistribution. That is, it could be that preferences in Eastern Europe are different because of different cultures, histories etc. even before the advent of Communism. Moreover, a more uncertain environment and absence of insurance markets could induce Eastern Europeans to favor redistribution.[3] Last, we analyze preferences a decade after the transition started. At this point, it is harder to argue that uncertainty about future economic conditions was larger in East Germany than in the West. Ockenfels and Weimann (1999) conduct public good and solidarity experiments with East and West German subjects, and detect significantly different behavior between both groups. They provide evidence that different behavioral norms between East and West Germans are the most likely cause of the divergent behavior. In their conclusion, they hypothesize that the norms of East Germans might have been shaped by their experiences during socialism.[4] In

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[3]These two reasons (in addition to language issues) make the interpretation of results from cross-country studies especially hard. Other cross-country studies that analyze the legacy of Communism on attitudes towards free markets and labor markets are Shiller, Boycko, and Korobov (1991, 1992), and Blanchflower and Freeman (1997). The effect of Communism on religious beliefs is studied by McCleary and Barro (2003) and Barro and McCleary (2005).

[4]In their experiments, East Germans exhibit less solidarity than West Germans in an anonymous one-shot three-person game. It is very hard to compare their results directly to ours for several reasons. Most importantly, Ockenfels and Weimann do not have an entity like a government in their games. They themselves suggest that group size might matter when analyzing solidarity of East vs. West Germans, since the experiences under the East German system might have differed in contexts involving groups of different sizes.

this sense, their results are consistent with ours.

The paper is organized as follows. In Section 2 we provide a short theoretical discussion of the driving forces of preferences for social policies. Section 3 describes the institutional background, and the data. In Section 4 we present our basic results concerning preferences for state intervention in social policy. Section 5 investigates related attitudes about the role of individual responsibility versus social conditions in determining success in life. The last section concludes.

2 Preferences for social policies: some theory

What explains people's preferences for state intervention in social policies and preferences for redistributive policies?

First of all, there is a purely individualistic economic motive. If an individual is a direct recipient of a transfer program (e.g. income support or free health care), he or she favors it. This holds both for unconditional transfers and those contingent on a certain status (e.g. unemployment compensation). In the latter case, individuals who are more likely to attain the state in which the transfer program pays benefits (e.g. unemployment) favor it more. Expectations of income mobility matter when examining the individual economic motives; today's poor who expect to be rich tomorrow may not like redistributive policies that they will soon have to support rather than to benefit from, and the other way around (see e.g. Ravallion and Lokshin, 2000).

Additionally, there is an economic motivation having to do with transfers that

benefit someone's neighbors, city, or even region. For instance, a public school built in a city with taxes raised across the country benefits the residents of this specific city, and these residents might become more favorable to government intervention. This is an important consideration for Germany, as we discuss in detail in section 4.3.2.

All of the motivations cited so far are economic, because eventually all of them enter a simple cost-benefit analysis of an individual. But it is important to keep in mind that purely individual measures of current (or expected future) income and status may not be sufficient as controls for the economic motives, since even a rich person living in a poor region may favor state intervention and redistribution because he or she benefits from public goods provided in this region.

Third, one can favor redistribution for altruism. A rich person may feel that the poor should be supported financially.[5] Part of this altruism may be construed as purely individualistic, in the sense that the sight of poverty is unpleasant. Feelings of altruism may be stronger if one perceives market outcomes as unfair, and believes that those who succeed are either "connected" or lucky.[6]

Last comes the motive we are interested in: is it possible that living under a specific system leads to adaptation of preferences? We aim to isolate this fourth effect while controlling for the other three motives.

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[5]Corneo and Grüner (2002) call this motive the "public values effect."

[6]See Alesina and Angeletos (2005) for some theory and Alesina and La Ferrara (2005) as well as Corneo and Grüner (2002) for some empirical evidence.

3 Institutional background and data

3.1 Institutional background

3.1.1 Germany before 1945, separation and reunification

Germany was separated in 1945 at the end of World War II. The borders between East and West Germany were the result of bargaining between the Allies and the position of the occupying forces at the end of the hostilities. In 1949, both the Federal Republic of Germany (FRG) and the German Democratic Republic (GDR) were officially founded. The East German regime developed as one of the most rigid of the former Communist regimes. Income inequality in the GDR was low: in 1988, the average net income of individuals with a university degree was only 15% higher than that of blue collar workers, compared to 70% in the FRG. Also, intersectoral differences in net incomes were minimal, on average amounting only to 150 Mark per month with an average monthly income of around 1100 Mark in 1988 (Stephan and Wiedemann, 1990, Schäfgen, 1998). Reunification occurred rather quickly and abruptly in October 1990. East Germany became part of the Federal Republic of Germany, and the economic and political system of the West was transferred to the East.

One important identifying assumption of our analysis is that East and West Germany were indistinguishable until the exogenously imposed separation in 1945. Table A1 shows average per capita income levels of different German regions, as well as subregions of Prussia, in 1928, 1932, and 1936. We mark a region by E or W, de-

pending on whether it mainly belonged to the GDR or FRG between 1949 and 1990. Unmarked regions do not belong to Germany after 1945.[7] As the table shows, the level of income per capita in pre-World War II Germany does not show any systematic difference between East and West; in fact, on average they are almost identical. Moreover, destruction during World War II was major and universal in both the later FRG and GDR.

However, income per capita aside, there might have been differences in attitudes before 1945. One possible issue is that Prussians might have had a more militarist "state-centric" view about the state than other Germans. Note, however, that part of former Prussia belonged to the FRG and part to the GDR between 1949 and 1990, and not all regions of the later GDR belonged to Prussia (see Table A1). We address the issue of Prussia explicitly in section 4.

The period of the "Weimar Republic" (1918 to 1933) enhanced conformity between the German regions. Yet, already before that at the turn of the last century, the later East and West Germany were quite similar along many economic dimensions, e.g. with regard to the percentage of the population working in industry, agriculture, or commerce (Statistisches Reichsamt, 1898, pp. 224-233).[8] Moreover, in the elections of 1898, around the same number of constituencies in the later East and West Germany

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[7]Note that some regions transcend the borders established after World War II, in which case we assign the region to East, West or outside Germany depending on its largest share.

[8]The perception that the territory of the GDR was different (e.g. more agricultural) than the West before 1945 seems to be caused by the fact that the far Eastern part of Germany in the borders before 1945 was indeed much more rural. Yet, this refers to the regions that after 1945 belonged to Poland, Russia, and Czechoslovakia, not to the GDR.

voted primarily in favor of the Social Democrats. In the West, the largest party was the *Zentrum* party, which was more in support of state intervention than the Conservatives, which was the most prominent party beside the Social Democrats in the East (Statistisches Reichsamt, 1899, pp. 246-247). Hence, it seems that, if anything, the West was at that time more in favor of state intervention than the East.

3.1.2 East-West migration between 1945 and 1989

From a peak population of 19.1 million people living in 1947 in the Soviet zone that officially became the GDR in 1949, around 3 million people emigrated into the FRG before the Berlin Wall was built in August 1961 (Rytlewski and Opp de Hipt, 1987, Storbeck, 1963, Heidemeyer, 1994).[9] From August 1961 to December 1988, only slightly more than 600,000 people emigrated from East to West (Schumann et al., 1996). The large number of East-West migrants before 1961 is in contrast to only around 30,000 people per year emigrating from West to East in the 1950s, and almost no West-East emigration after 1961 (Münz and Ulrich, 1997). Migration poses a challenge to our identification, since it raises the possibility of self-selection: if the distributions of preferences for state intervention were identical in East and West before 1945, but migration after 1945 was largely driven by these preferences, then this could explain why we would observe stronger preferences for state intervention in the East in the 1990s.

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[9]The reported numbers are estimates based on different data sources. Data on migration flows before 1949 are especially unreliable.

The sociological literature acknowledges six main reasons for East-West migration, namely fleeing from the Soviet army (*Hiergebliebene*), returning after having been displaced during the war, migration to the West via the East of emigrants from parts of the former German Reich not belonging to Germany any more after 1945, political reasons, migration of individuals who suffered from expropriation and other economic discrimination, and general economic reasons. While extensive survey evidence on the reasons of migration does not exist, it is widely believed that family reunions and the economic prosperity of the West were the two main reasons for migration (see e.g. Heidemeyer, 1994, and Storbeck, 1963). Although surely preferences for state intervention played a role for migration, it is not clear that this motive is strong enough to explain the large observed differences in preferences between East and West Germans after reunification. Last, and most importantly, if stronger preferences for state intervention in the East would be caused exclusively by self-selection, then this difference should be persistent over time for any individual after reunification; in fact it is not, as we show in section 4.2.

3.2   Data

The German Socioeconomic Panel (GSOEP) is an annual household panel, started in West Germany in 1984. From 1990 on, it also covers the territory of the former German Democratic Republic. We use the original sample established in 1984, and the sub-sample covering the territory of the former GDR started in 1990. The original West German sample leaves us with around 11,400 year-person observations, while

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the East German sample covers around 7,000 year-person observations for 1997 and 2002.[10]

In 1997 and 2002, respondents were asked questions concerning their preferences for the role of the state in different areas of social security. The question reads: "At present, a multitude of social services are provided not only by the state but also by private free market enterprises, organizations, associations, or private citizens. What is your opinion on this? Who should be responsible for the following areas?". We use the answers to all areas that concern financial security, namely "financial security in case of unemployment", "financial security in case of illness", "financial security of families", "financial security for old-age", and "financial security for persons needing care".[11] The answers are given on a scale of 1 to 5, which correspond to "only the state", "mostly the state", "state and private forces", "mostly private forces", and "only private forces". We group the first 2 answer categories together to represent individuals with preference for an active role of the state in providing for its citizens, and group the last 3 answer categories together to represent individuals with preferences for private forces. Hence, we create 5 new dummy variables which take on the value of 1 if the respondent answered "only the state" or "mostly the state" for the respective area, and 0 otherwise. This is mainly done to ease the interpretation of the coefficients. As a robustness check, we run ordered probit regressions on the

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[10]The numbers of observation vary slightly with the dependent variable.

[11]The questions of interest hence capture different areas of state intervention associated with redistribution and insurance.

original variables, and the results do not change significantly.[12] Table A2 reports the summary statistics of our newly created variables.

Our explanatory variable of main interest is an East dummy that takes on the value of 1 if the respondent lived in East Germany *before* reunification, regardless of the current place of residence. Hence, this dummy captures people who lived under Communism before 1990. The baseline controls include age, gender, marital status, labor force status, education, and occupation of the respondent, the number of children and the number of adults in the household, as well as the annual household income. All monetary variables are in 2002 DM.[13]

We analyze two additional questions that capture the belief of the respondent regarding important driving forces of success in life. In 1996 and 1999, GSOEP asked the following question: "The following statements express varying attitudes towards life and the future. Please state whether you totally agree, agree slightly, disagree slightly, or totally disagree", followed by several statements that differ between 1996 and 1999. The first statement we use refers to the role of luck in life. We create a dummy variable "luck" that takes on the value of 1 if the respondent agreed totally or slightly with the statements "No one can escape their fate, everything in life happens as it must happen" in 1996 and "What one achieves in life is mainly a question of luck or fate" in 1999.[14] Similarly, the dummy variable "social conditions" takes

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[12]The basic results using ordered probits are shown in Table A4. All other results are available from the authors upon request.

[13]Summary statistics for the independent variables are reported in the working paper version.

[14]We take the average of both questions to alleviate potential measurement error.

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on the value 1 if the respondent agreed totally or slightly with the statement "The possibilities in my life are determined by the social conditions".[15] The answers to these questions are also summarized in Table A2.

Table A3 shows income per capita and unemployment rates in German states (*Bundesländer*) in 1997 and 2002, as well as gross and net transfers per capita that each state receives from other states and the federal government (see section 4.3.2 and the appendix for an overview of the calculation of these transfers). Average income per capita in the East is around 80% of the average West income, and the unemployment rate is roughly twice as large. As we discussed above, before World War II per capita income levels in East and West Germany were virtually identical. The 20 percent difference in per capita income after reunification can be interpreted as the effect of 45 years of different economic and political experiences on economic development.

4   Basic results

Table 1 reports results from our basic specification, in which we include as explanatory variables many individual characteristics and our variable of interest, being from the East. As we discussed above, the left hand side variable is defined as a 0/1 variable with 1 meaning support for an active state role.[16]

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[15]This question was asked in 1999. There is no equivalent statement in 1996.

[16]The coefficients reported in the tables are the total coefficients. We report the corresponding marginal coefficients in the text when we are interpreting the size of the coefficients. The marginal coefficients of interaction variables are calculated as the cross partial derivatives (Ai and Norton, 2003). The marginal effect on y of a dummy variable x has been calculated as $E[y|x=1] - E[y|x=0]$.

The first three explanatory variables are the critical ones; and for all five questions they behave similarly. Consider column 1, which concerns unemployment. An East German is significantly more likely to have preferences for state provision of financial security for the unemployed than a West German. Over time, however, the East Germans are becoming less pro state, since the interaction between being from the East and the 2002 dummy (the third variable) is negative and statistically significant. The dummy variable of being an East German and the interaction of that with 2002 have similar coefficients on all questions. The coefficients on the East indicator variable vary from 0.37 to 0.43, and are hence rather uniform. The interaction of East with 2002 (a rough measure of convergence) varies from -0.06 to -0.18. The economic meaning of these numbers is as follows. Being from the East increases the probability of favoring state intervention by between 14.5 and 17 percentage points in 1997, compared to being from the West. Between 1997 and 2002, the probability of favoring state intervention for an East German declines by between 2.3 and 6.9 percentage points. Given that these questions are reported at a 5 year interval (1997 and 2002), a very rough measure of convergence would imply full uniformity of views from a minimum of about 11 years (column 5) to a maximum of 35 years in column 3. Given that the first survey was taken 7 years after reunification, the complete cycle of convergence (assuming that it is linear) would be between roughly 20 and 40 years, depending on the question; roughly one to two generations.[17]

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[17]Our results are based on unweighted observations. If we use the sample weights provided by GSOEP, the results are very similar. The only difference worth mentioning is that the convergence

The dummy for 2002 captures the change in preferences of a West German between 1997 and 2002. Note that it is significantly positive, indicating that West Germans are becoming more pro government, for 3 of the 5 regressions. In none of the five regressions is there significant evidence that West Germans are becoming less pro government.[18]

The estimates on individual controls yield reasonable results. Larger families, both in terms of number of children and number of adults, are more favorable to government intervention, not surprisingly, since they get more benefits. Interestingly, civil servants have weaker preferences than others for government intervention for the unemployed, probably because they have very high job security. On the contrary, those who are unemployed strongly prefer government intervention for the unemployed. Income enters negatively and is statistically significant in all regressions; the wealthy benefit less from government intervention and pay more for it. Similarly, college educated individuals favor private forces over the state. Self employed are less pro government either because they benefit less from redistribution, or because being self employed is correlated with a more individualistic vision of the world and/or with less risk aversion (Fuchs-Schündeln and Schündeln, 2005).[19] All these variables are always

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results become on average weaker, indicating an even longer process of convergence. However, when we include wealth variables as controls (as described at the end of this section), the convergence results are again very similar to the unweighted results.

[18]Note that Corneo (2004) finds that between 1992 and 1999 West Germans become significantly less favorable to redistribution. Our data hence indicates that this trend has been reversed in later years.

[19]All these results on individual controls are qualitatively similar to those obtained for the US by Alesina and La Ferrara (2005).

included as controls in all the regressions, and the coefficients are quite stable. From now on, we do not report them to avoid cluttering the tables.

The data set also includes two variables which proxy for wealth. One is the amount of interest and dividend income obtained by the household of the respondent; the second is whether or not the household owns the house it lives in. When we add these variables in the regressions, the results on the East-West differences remain however almost unchanged. The coefficients on the two wealth variables have the expected signs and are statistically significant. Results are reported in the working paper versions. We do not include these two wealth controls in our basic regressions because of data availability. After the inclusion of these variables, we lose around 2,200 observations because of non respondence. We checked all our results including these two variables, and the results are robust.[20]

To make sure that we capture the effect of having lived in the East, and not the effect of being "Prussian", we also include a "Prussia-dummy" as a control into our regressions. This dummy takes on the value of 1 if in the spring of 1990 the individual lived in a region that historically belonged to Prussia.[21] The estimates of the "Prussia-dummy" are sometimes positive and sometimes negative, but never significant. Moreover, its inclusion does not change any of the results.[22]

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[20]These results are available upon request.

[21]We use Prussia in its borders from 1871 to 1914. Region refers here to the unit of *Raumordnungsregionen*, of which there are 23 in the East (including Berlin) and 74 in the West.

[22]Results are available from the authors upon request.

4.1 Age and cohort effects

Let us now consider more closely the effects of the number of years under Communism on individual preferences. Table 2 shows some striking results.[23] Consider column 1. The East indicator variable interacted with age is positive, meaning that older former East Germans are more favorable to state intervention. Note how age not interacted with East is negative, meaning that West Germans are becoming less pro government as they become older, the same result found for the US by Alesina and La Ferrara (2005). The effect of age on preferences is exactly opposite in East and West. The same pattern applies to all other questions. The obvious interpretation of these strikingly different age patterns between East Germans and West Germans is that, while age tends to make individuals less pro government in West Germany, this effect is more than compensated by the fact that elderly East Germans have lived longer under Communism.

Table 3 pushes this age analysis further by looking at five different groups of birth cohort. The five groups are defined as follows: born after 1975, born between 1961 and 1975, born between 1946 and 1960, born between 1931 and 1945, and born on or before 1930. Note that members of the youngest group did only spend their childhood and early adolescence under Communism; this is the omitted group in the regressions. This table shows that the older are progressively more pro government than the younger in the East, a pattern not observed in the West, where in fact the

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[23]In the regressions of this table, we do not include the variables age squared and age cubed to facilitate the interpretation of the age effect.

older tend to be less pro government than the younger. Interestingly, for some of the questions the old rather than the oldest group in the East shows the maximum support of government. Note that the individuals born on or before 1930 lived a significant part of their life before Communism was introduced.

The quantitative implications of the birth cohort effects are large. Figure 1 represents the results from Table 3 in a different way; it shows by how many percentage points an East German of a certain cohort group is more likely to favor state intervention than a West German of the same cohort group.[24] While an East German from the youngest group is only between 3 (column 4) and 11 (column 1) percentage points more likely to be in favor of government redistribution than a West German of the same group, an East German born on or before 1930 is between 21 percentage points (column 1) and 49 percentage points (column 4) more likely than a West German of the same cohort group to believe in government redistribution.

4.2   Decomposition of change over time

Given that we observe that older East Germans are more in favor of redistribution than younger ones, the question arises whether the observed decline in East Germans' preferences for state intervention between 1997 and 2002 is simply a result of a shift in the cohort composition, or whether it is caused by changing personal preferences of East Germans. To investigate the relative importance of both effects, in Table 4 we

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[24]This comparison assumes that all other characteristics are the same between the East and the West German.

report results from the baseline regressions in which we include only individuals who answer the relevant questions in both 1997 and 2002.[25] The interaction effect between East and year 2002 is still negative in all 5 regressions, and significant in all cases except financial security of families (column 3). However, the East time effect is now on average substantially smaller than in the baseline regressions; in absolute terms, it is increasing by 1% in column 1, up to declining by 63% in column 3. On average, the East time effect is 35% smaller than the effect reported in the baseline results in Table 1. Hence, we conclude that around two thirds of the convergence arises from actual convergence of preferences, while around one third arises from changes in the cohort composition.[26] The fact that we find significant actual convergence of preferences points against the hypothesis that the East effect is only due to self-selection of individuals into the West before 1961, and that individual preferences are stable over time.

4.3 The effect of Communism: Poverty or preferences?

4.3.1 Individual economic effects: Household transfers

The poor tend to favor government intervention more than the rich because they are more likely to benefit from government transfers. In our regressions, we always include the logarithmic household income of the respondent as a control, and the

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[25]Note that we use an unbalanced sample for the general results.

[26]The number of observations drops by around 24% if we restrict the sample to those individuals who answer in both 1997 and 2002. Note that the cohort results from Table 3 are consistent with the conclusion from this section that one third of the convergence over time can be attributed to the shifting cohort composition.

coefficient on this variable is always negative and statistically significant. In order to allow for further non-linearities between income and preferences, we also include a fourth order polynomial of household income instead of the logarithm of household income, and our estimates remain virtually unchanged.[27]

In order to capture the extent to which a household is likely to benefit directly from government transfers, we exploit further information on the sources of household income. Specifically, we decompose household income into twelve different sources, of which eight are based on government support (pension income, widow/orphan pensions, short- and long-term unemployment benefits, support for training/education, maternity benefits, student grants, and military compensation), while four do not include a component of government support (wage income, income from self-employment, income from additional employment, payments from persons not living in household). We build a bivariate transfer variable which takes on the value of 1 if a household is currently receiving some form of government support, and 0 otherwise. We then estimate two-stage probit models, in which the first stage estimates the probability of receiving a transfer. The identifying variables used in the first stage are the four private income sources, labor force status, and occupation.[28] Table 5 presents the results of the second stage, in which the predicted probability of receiving a transfer

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[27]Results are available from the authors upon request.

[28]The estimates of interest are almost unchanged if the set of instruments only includes private income sources, or private income sources and labor force status. Since almost all of the respondents report zero income for at least one of the categories, we add DM 10 of annual income to every category for every observation before we take the logarithm. Results are unchanged if we instead add DM 1 or DM 100, or if we include the incomes from different sources in levels and squared.

is added as a control to the basic specification. The estimates of interest, namely the East dummy as well as its interaction with year 2002, are almost unchanged. As expected, we find that individuals who are likely to benefit from government interventions through transfers significantly favor these interventions. The first stage estimations show that the self-employed are least likely to receive transfers, followed by civil servants and white collar workers. Individuals who are not working are more likely to receive a transfer. The higher the income excluding transfers, the lower is the probability of receiving a transfer.[29]

As we discussed above, in addition to current income, expected future income may explain preferences for redistribution. Individuals who expect to rise in the social ladder may oppose redistributive policies which might remain in place for several years. As a rough measure of the effects of expected future income, assuming perfect forecasts, we check whether the growth in income of a respondent between 1997 and 2002 affects his/her preferences in 1997. The future growth rate of income between 1997 and 2002 has a negative effect on preferences for state intervention in 1997 for most of the estimations, but again its inclusion leaves the estimates of the East dummy almost unchanged. Results are available in the working paper version.

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[29]Results of the first stage regression are available from the authors upon request. In the working paper version, we included the different income sources directly as controls in the regressions. The estimates of the variables of interest are almost unchanged under this procedure, and the estimates of the different income sources mostly showed the expected signs, namely a positive sign for transfer income, and a negative sign for private income.

4.3.2 Aggregate economic effects: Regional transfers

In addition to government transfers directly received by the household, there might be an aggregate transfer effect; individuals living in regions poorer than average may prefer government intervention because of the active redistribution from richer to poorer regions which in fact takes place in Germany. On the one hand, the driving force of this effect might be altruism towards the immediate neighbors. On the other hand, individuals can benefit from these aggregate transfers either through the provision of public goods, or through the fact that household income partly depends on these transfers in a way that is not captured in the previous section.[30]

We hence calculate and include a transfer measure on the state level - where state refers to the current state of residence - as independent variable into our regressions. This measure captures transfers between the states, as well as transfers from the federal government to the states. It includes three major components: first, payments between states from the German regional transfer system (*Länderfinanzausgleich*), plus special federal payments associated with this system (*Bundesergänzungszuweisungen*) and the special investment subsidies for the East (*Investitionsförderungsgesetz Aufbau Ost*); second, net transfers to any state through the social security system; and third, payments from different federal investment subsidy programs that are not specific to East Germany. Appendix A gives a detailed description of the construction of this transfer measure and its components, and Table A3 shows the gross and net per

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[30]E.g. an individual might be employed by a firm that receives government subsidies.

capita transfers for every state. These gross transfers sum up to 98 billion Euro in the Eastern states in 2002; i.e. they come quite close to the gross transfers of 101 billion Euro for the Eastern states reported in Lehmann et al. (2005) for the year 2002.[31] To calculate net transfers, we subtract the payment of taxes to the federal government on the state level from the gross transfers.[32] Our net transfers to Eastern states sum up to 66 billion Euro in 2002, compared to 67 billion Euro reported in Lehmann et al. (2005).

In Table 6 we include the gross per capita transfers on the state level for 1997 and 2002 as additional controls. As expected, the transfers have a positive and highly significant effect on the probability of favoring state intervention. After including this control variable, the coefficient on the East indicator variable drops from 0.43 to 0.27, which is the largest decrease among the five regressions, in the regression regarding the financial security of the unemployed. The smallest decrease occurs in the estimation regarding financial security for families, where the coefficient on the East dummy drops from 0.42 to 0.35. Thus, part of the East effect estimated above had to do with East Germans benefitting financially from redistribution. On average, one fourth of the "East effect" can be explained by the fact that the East became poorer during Communism and is now a net beneficiary of redistribution within Germany, rather than to an effect of Communism on preferences.[33] The respondents' preferences for

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[31]To calculate the aggregate flows into the East, we add 1/3 of the transfers to Berlin to the transfers received by the five Eastern states. This procedure has e.g. also been used by Ragnitz (2003).

[32]The information on tax payments comes from the Statistische Bundesamt (various issues).

[33]Since there is most likely some measurement error in our transfer numbers (see Appendix A),

public intervention are influenced by economic effects in the region where they live, but even after controlling for that, we still find a large and statistically significant effect of being from the East.

As a robustness check, we repeat this exercise using net transfers on the state level as a control. The results are almost unchanged whether we use net transfers or gross transfers as a control.[34] Thus, we can confirm that around one fourth of the East effect can be attributed to the receipt of aggregate transfers, while the remaining statistically highly significant part can be attributed to the effect of Communism on preferences of East Germans.

4.4   Migration and preferences

So far, we have treated all East Germans as one homogeneous group. Yet, 7 percent of East Germans in our sample have migrated to the West. In Table 7, we add the dummy variable "East living in East", which takes on the value of 1 if an East German lives in the territory of the former East Germany in the observation year, and 0 otherwise.[35]

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we also included the three subcomponents of the transfers separately as controls. The results are almost unchanged, with the coefficient on the East dummy falling on average by 31%, but still being highly significant in all cases. If the true transfer numbers are a linear transformation of our transfer numbers, the results for the East dummy will be unchanged.

[34] Results are available from the authors upon request.

[35] We also estimated a model in which we include instead a dummy variable "East residence" that takes on the value of 1 if the respondent lives in the East in the observation year, regardless of whether the respondent is from the former East or the former West, as well as interactions of this variable with the East dummy, the year 2002 dummy, and their interaction (results are available from the authors upon request). While this is a better modeling approach, the interpretation of the results is more complicated. Since only 0.6% of the West Germans in our sample live in the East, we hence decided to refrain from splitting the West Germans according to current residence. Results do not change significantly.

The coefficient on the East-dummy now captures the preferences of an East German living in the West. As the table shows, East Germans living in the West are more in favor of government intervention than West Germans. However, East Germans living in the East are at least twice as much in favor of government intervention than East Germans who moved to the West. This result can be interpreted in two ways. First, it could be that, having lived among West Germans for some time, preferences of East Germans who moved to the West have converged faster than preferences of East Germans who stayed in the East. Second, those who migrated to the West could be a self-selected group that had lower preferences for state intervention to begin with.[36]

With regard to convergence, one can observe that all the convergence in preferences between 1997 and 2002 is driven by East Germans who stayed in the East. The preferences of East Germans who moved to the West do not change in a statistically significant way between 1997 and 2002. Again, there are several possible explanations for this phenomenon. It could be that preferences of East Germans who moved to the West converged initially, but that they have reached their new steady-state level by 2002. In this case, we should not necessarily expect full convergence either for East Germans staying in the East. On the other hand, it could be that those East Germans who moved to the West not only had different preferences at the time of migration, but that their preferences also exhibit different convergence patterns. In

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[36]Note e.g. that the average age of East respondents who moved to the West is 34, while the average age of East respondents who stayed in the East is 45.

the case of preferences regarding financial security when unemployed and financial security of old individuals and families, East Germans who moved to the West even become more pro state over time, although this effect is not statistically significant;[37] this might be interpreted as a backlash of preferences after experiencing life in the West.

4.5 Differences across regions and along other attributes

In order to gain further insights about whether the measured effect really captures the effect of Communism, we analyze the homogeneity of the effect across different attributes. We would expect the effect of Communism to be relatively homogeneous across eastern regions, as well as across different groups of the population (e.g. male vs. female individuals). Hence, we would be worried if the "East" effect on preferences were very heterogeneous, and especially if we detected it only in one or two single states, or in specific groups of the population.

First, we rerun our baseline regression including separate dummies for all 5 Eastern states plus East Berlin instead of one single East dummy. Note that, consistent with the East dummy, these dummies refer to the state of residence at the time of reunification. As table 8 shows, the coefficients on the Eastern state dummies are positive and significant in all states. Moreover, they are of similar size across the states.[38] We redo this exercise on the even smaller units of *Raumordnungsregionen*

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[37] The associated p-values are 0.17, 0.38 and 0.95.

[38] The only slight outlier that emerges is the state of Mecklenburg-Vorpommern, which is in 4 out of 5 cases more pro private forces than the other Eastern states, although it is still relatively pro-government compared with West Germany in a statistically significant way.

(see footnote 21).[39] While many of the coefficients are not significant, which is not surprising given the smaller number of observations per unit, the results are quite homogeneous across the regions.

To analyze the homogeneity of the effect of Communism on preferences across different groups, we create interactions of all the independent variables with the East-dummy, and include all interaction terms as further controls.[40] Thus, we can test whether the effect of a certain characteristic on preferences for state intervention is significantly different in the East from the effect in the West. Strikingly, the only characteristic for which this is consistently the case is age, as we would expect and detected before (see the analysis in section 4.1). Only 8 out of the other 105 coefficients on interaction terms (21 interaction terms in 5 regressions) are statistically significant, but never consistently across the five different regressions.[41]

5 Social conditions, individual effort, and luck

Why do former East Germans favor state intervention? One possibility is that they are used to think (partly because of the influence of Communist ideology) that it is "society's fault" if people are poor, unemployed, or in need of help. If the individual is not responsible, but society is, then society (i.e. the state) should take care of these

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[39] Results are available from the authors upon request.

[40] Results are available from the authors upon request.

[41] Being married has a statistically significantly different effect in East and West in two out of the five regressions, as has belonging to the group of "other nonworking". For being male, self-employed, retired, or having intermediate or technical school as highest education, this is the case in only one out of the five regressions.

problems.

In Table 9 we report a regression in which the left hand side is a variable that takes the value of 1 if the respondent believes that social conditions determine individual possibilities in life. In column 1, we find a strong effect of being from the East. The probability of believing in the influence of social conditions is 11 percentage points higher for an East German than a West German. In the next column we interact the East indicator variable with the age of the respondent and find, once again, a strong age effect.[42] Older East Germans are more likely to believe in social conditions as major determinants of individual fortunes than younger East Germans. We interpret this as the effect of having lived longer under a Communist regime. In the West, the age effect is not significant. Needless to say, this question about "social conditions" can be interpreted in many different ways by the respondents. Social conditions may e.g. refer to family connections, or much broader societal forces.

In any event, Table 10 shows that the effect of having lived in the East goes well beyond these beliefs about social conditions. In this table, we repeat the baseline regression including the dummy variable capturing beliefs in an important role of social conditions as control. While the variable capturing the beliefs about social conditions has a significantly positive influence on preferences for an active state role, the East indicator variables are still significant and only slightly smaller than in the baseline results in Table 1. Thus, even after controlling for beliefs regarding social

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[42]As in table 2, we omit higher order terms of age as controls in this regression.

conditions, former East Germans believe in state intervention more than former West Germans.

Alesina and La Ferrara (2005) and Alesina and Glaeser (2004) find that those who believe that luck determines wealth and success in life are more pro redistribution than those who belief that mostly individual effort is responsible for success.[43] We pursue this line here as well. Table 11 shows a regression in which the left hand side variable is defined as 1 if the respondent believes that luck determines individual fortunes. The East indicator variable is now negative. Column 2 shows no age effect for East Germans beyond the positive age effect also observed for West Germans.[44] Table 12 shows that those who belief that luck matters a lot in determining individual success are more favorable to government intervention. Not surprisingly, given the lower belief in the role of luck by East Germans, the inclusion of this variable has no significant effect on the east indicator variable.[45]

6   Final remarks

We find that East Germans are much more pro-state than West Germans. According to our results, it will take about one to two generations (20 to 40 years) for an average East German to have the same views on state intervention as an average

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[43]Alesina and Angeletos (2005) and Benabou and Tirole (2005) present models seeking to explain the equilibrium redistributive policies as a function of individual beliefs about luck and effort as determinants of success.

[44]Again, we omit higher order terms of age as controls in this regression.

[45]We also analyzed the agreement to the statement "One has to work hard to achieve success" in 1999, and all results are very similar to the results regarding the variable "luck" (e.g., East Germans believe more in the importance of hard work, as they believe less in the importance of luck).

West German. The difference in preferences between former East and West Germans is due in large part to the direct effect of Communism. This effect could arise due to indoctrination, e.g. in public schools, or simply due to becoming used to an intrusive public sector. If Communism was indeed what made East Germany poorer than the West, then a second, indirect effect of Communism is that it has made the former East more dependent on redistribution and therefore more favorable to it.

Former West Germany has hence received a major "political shock", in the sense that the new members of the unified Germany are much more favorable to state intervention. This shock has potentially long-lasting effects, since we find that preferences need one to two generations to converge.

In evaluating these results, one always has to wonder whether or not survey answers are meaningful, namely whether they reflect what individuals truly believe (Bertrand and Mullainathan, 2001). We are quite confident that they truly reflect preferences for two reasons. First, the basic correlations of the answers with variables like income, wealth, and labor force status are consistent with obvious individual cost-benefit analyses. Second, evidence on voting behavior in East and West over the observation period is consistent with the picture emerging from this survey. Table A5 shows the share of votes obtained by various parties in the different states in the elections for the federal parliament (*Bundestagswahlen*) in 1998 and 2002. In this table, the parties are ordered from left to right to coincide with their position in the political spectrum. Thus, the first column shows the vote share per state of the most

leftist party, the PDS (*Partei des Demokratischen Sozialismus*), which is in effect the successor party of the SED (*Sozialistische Einheitspartei Deutschlands*), the ruling party in the GDR. In 1998, the percentage of votes received by this party was about 20 per cent in the East, but only around 1 to 2 per cent in the West; it was around 10 per cent in Berlin, which includes both former East and former West Berlin. This is consistent with our finding of a much more pro-state, left-leaning population in the East, as captured by the survey. Also, comparing the 2002 and 1998 elections, we see how the percentage of the PDS votes in the East shrinks substantially, presumably in favor of the SPD, the main center left party, whose share increases almost identically to the reduction in votes for the PDS. This indicates a movement away from the communist leaning left toward the center of the political spectrum, and shows a convergence of the East to the West. This voting behavior is therefore consistent with the preferences regarding state intervention expressed by the respondents of the survey.

In summary, we provide evidence that individuals' preferences are rather deeply shaped by the political regime in which they live.

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Appendix

A Aggregate transfers

Gross transfers into East Germany amounted to around 101 billion Euro in 2002 (Lehmann et al., 2005). Most of these transfers come as a part of the federal legislation already in place in Germany before reunification, and are therefore not special transfers to East Germany, but transfers from richer states or the federal government to poorer states. Subtracting federal tax revenues collected in the East from the gross transfers, one arrives at net transfers of 67 billion Euro in 2002 (Lehmann et al., 2005). Lehmann et al. (2005) do not report the transfers on the level of the states, but their reported numbers of transfers into the East can serve as a reference point to validate our calculations.

We build a gross transfer measure that adds up three subcomponents of the transfers for any state in West and East. The first subcomponent includes the payments from the German regional transfer system (*Länderfinanzausgleich*), also incorporating special payments by the federal government to poorer states (*Bundesergänzungszuweisungen*) and the special investment subsidies for the East (*Investitionsförderungsgesetz Aufbau Ost*). The calculation of this subcomponent is described in further detail in subsection A.1. The second transfer measure calculates the net transfers to any state within the social security system (see subsection A.2). The last transfer measure, described in subsection A.3, incorporates federal investment subsidy programs that are not specific to East Germany. To calculate net transfers, we subtract tax payments of every state to the federal government from the gross transfer measure.

While our total transfer measure almost adds up to the one provided by Lehmann et al. (2005), namely 98 billion Euros vs. 101 billion Euros, the numbers for the different subcomponents diverge from the ones reported in Lehmann et al. (2005). However, we want to point out that, if the true number per state is a linear transformation of our measure, then the results for the estimates of interest would be unchanged. In a robustness check, we include the three subcomponents separately as controls. It is even more likely that the true transfers per state are a linear transformation of the calculated numbers within each subcategory (see also footnote 33). The three transfer subcomponents are highly positively correlated (with a correlation coefficient between 0.68 and 0.8). Moreover, the gross transfer measure is highly negatively correlated with tax payments to the federal government, with a correlation coefficient of -0.83.

A.1　German regional transfer system

Realizing the different economic powers of the states, the need for a financial equalization scheme was written down in the West German constitution in 1949. In 1993, federal and state governments reformed the system to administer massive monetary flows into the new eastern German states. The new system (*Solidarpakt I*) was established in 1995, and scheduled to expire at the end of 2004. In response to the still significant economic needs of the eastern German states, the federal and state governments negotiated an extension of the system (*Solidarpakt II*) in 2001, which started to become effective in 2005 and is scheduled to expire at the end of 2019.

The financial equalization scheme between the federal government and the states (*Länderfinanzausgleich*) comprises a horizontal and a vertical component. In the horizontal component, the financial needs and financial resources of any given state are determined via specific formulas. Based on these calculations, it is decided whether a given state should receive extra financial resources, or should share its resources with other states. The financial flows between the states in this step sum up to zero. In the subsequent vertical component, certain states receive additional financial resources from the federal government (*Bundesergänzungszuweisungen*). On top of that, since 1995 the Eastern German states have received special support from the federal government based on the "law for the promotion of investment in Eastern Germany" (*Investitionsförderungsgesetz Aufbau Ost*).[46] Last, the debt of the East German government was taken over by the Western German states. This led to annual interest and amortization payments by only the Western states (*Fonds Deutsche Einheit*).[47] Most of the information used to build this transfer measure comes from the Bundesministerium der Finanzen (2005). This subcomponent of the transfers sums up to 15 billion Euro in 2002 for the East, compared to 17 billion Euro reported in Lehmann et al. (2005).

There is one additional transfer measure that should be added to these numbers, which Lehmann et al. (2005) report to sum up to 10 billion Euros. In a first step of the equalization scheme, the receipts from value added taxes are divided between the states. 75% of the receipts are divided based on the number of inhabitants, while 25% of the receipts are divided according to a formula that takes the financial needs of the states into account. Hence, this procedure leads to implicit flows between states. Unfortunately, we were not able to obtain the amounts of these implicit transfers on the level of the states. However, it is likely that adding these amounts would result in a linear transformation of our measure, since the applied formulas are very similar.

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[46]Since 2002, these flows have become part of the *Bundesergänzungszuweisungen*, and hence they have only been added in 1997.

[47]Note that results are unchanged when we omit the *Fonds Deutsche Einheit* in calculating the transfers.

A.2 Net transfers through the social security system

The fairly generous West German social security system was adopted in the East right after reunification. Thus, the social security system is a uniform German-wide system. The system provides indirect West-East transfers, since the gap between contributions and payments is larger in the East than in the West. We calculate these indirect transfers by subtracting social security contributions made by the inhabitants of any state from the social security payments received by inhabitants of that state. The source of these numbers are the national accounts of the states (*Volkswirtschaftliche Gesamtrechnung der Länder*). This component adds up to 76 billion Euros for the Eastern states in 2002, compared to 55 billion Euros reported in Lehmann et al. (2005). We have no good explanation for this discrepancy.

A.3 Transfers through investment subsidy programs

Last, there exist several investment subsidy programs, financed and organized through the European Recovery Program, the state-owned bank *Kreditanstalt für Wiederaufbau*, or directly through the federal government as part of the federal government's special infrastructure programs (*Gemeinschaftsaufgabe Verbesserung der regionalen Wirtschaftsstruktur*).[48] These programs apply to Eastern as well as Western states. We have information on the average subsidies per state for the period 1999 to 2003 (Bundesamt für Bauwesen und Raumordnung, 2005), and calculate an annual subsidy by dividing these figures through 5. Thus, there is no time-series variation in our information concerning these subsidies. This component adds up to 7 billion Euros for the Eastern states, compared to 18 billion Euros reported in Lehmann et al. (2005). The list of programs captured in Lehmann et al. (2005) is longer than the list of programs for which we could find data on the state level.

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[48]Specifically, we capture subsidies through the following programs: *Städtebauförderung, ERP Regionalprogramm, ERP Existenzgründungsprogramm, ERP Eigenkapitalhilfeprogramm, ERP Innovationsprogramm, ERP Umweltprogramm, GRW gewerbliche Wirtschaft, GRW Fremdenverkehr, GRW Infrastruktur, KfW Infrastrukturprogramm, KfW Innovationsprogramm, KfW Mittelstandsprogramm, Gemeinschaftsaufgabe Hochschulbau, KuM-Förderung.*

Table 1: Basic regressions

Dependent variable	Responsibility for the financial security when unemployed (state=1)		Responsibility for the financial security when sick (state=1)		Responsibility for the financial security of the family (state=1)		Responsibility for the financial security when old (state=1)		Responsibility for the financial security when requiring care (state=1)	
	Coeff.	Std. Err.	Coeff.	Std. Err.	Coeff.	Std. Err.	Coeff.	Std. Err.	Coeff.	Std. Err.
east	0.432***	0.030	0.434***	0.028	0.420***	0.028	0.426***	0.028	0.371***	0.028
year02	0.064***	0.023	0.165***	0.023	-0.012	0.024	-0.033	0.023	0.103***	0.023
east*year02	-0.123***	0.039	-0.161***	0.036	-0.060*	0.036	-0.143***	0.036	-0.176***	0.036
age	-0.026*	0.015	-0.005	0.015	-0.009	0.015	-0.019	0.014	-0.003	0.014
age squared	0.001**	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
age cubed	0.000**	0.000	0.000	0.000	0.000	0.000	-0.000	0.000	0.000	0.000
college	-0.203***	0.064	-0.258***	0.061	-0.141**	0.062	-0.277***	0.061	-0.122**	0.060
vocational training	-0.096*	0.057	-0.140***	0.054	-0.136**	0.055	-0.163***	0.054	-0.087	0.054
secondary schooling	-0.101*	0.059	-0.071	0.056	-0.023	0.057	-0.103*	0.056	-0.068	0.056
intermediate schooling	-0.103	0.069	-0.152**	0.066	-0.147**	0.068	-0.155**	0.065	-0.052	0.065
male	-0.083***	0.023	-0.072***	0.022	-0.003	0.022	-0.020	0.022	0.020	0.021
number of children	0.034**	0.014	0.034***	0.012	0.064***	0.012	0.038***	0.012	0.010	0.012
number of adults	0.022*	0.013	0.043***	0.012	0.022**	0.011	0.037***	0.011	0.007	0.012
married	0.069*	0.039	0.106***	0.037	0.026	0.037	0.045	0.036	0.109***	0.036
divorced	0.089*	0.052	0.048	0.051	0.042	0.050	0.047	0.050	0.107**	0.049
married but separated	0.011	0.087	-0.028	0.083	-0.042	0.083	0.082	0.084	0.161*	0.084
widowed	-0.050	0.060	0.027	0.058	-0.043	0.059	-0.038	0.057	0.075	0.057
log(household income)	-0.156***	0.027	-0.264***	0.025	-0.135***	0.025	-0.224***	0.025	-0.148***	0.025
civil servant	-0.122**	0.057	-0.222***	0.059	0.085	0.059	-0.060	0.059	-0.113**	0.055
self-employed	-0.317***	0.052	-0.403***	0.053	-0.332***	0.053	-0.450***	0.053	-0.306***	0.051
white-collar worker	-0.030	0.033	-0.044	0.032	0.011	0.032	-0.089***	0.031	-0.101***	0.031
unemployed	0.161***	0.051	0.005	0.047	0.142***	0.047	0.005	0.046	-0.034	0.046
retired	-0.075	0.059	-0.090	0.057	0.149***	0.058	0.019	0.056	0.011	0.056
maternity	0.015	0.080	-0.051	0.077	0.119	0.075	-0.197***	0.077	-0.081	0.075
nonworking	-0.027	0.043	-0.022	0.042	0.158***	0.042	-0.012	0.041	0.021	0.041
training	-0.049	0.066	-0.021	0.063	-0.115*	0.065	-0.086	0.063	-0.021	0.063
other nonworking	-0.000	0.052	-0.093*	0.049	0.062	0.049	-0.046	0.049	-0.097**	0.049
constant	1.994***	0.303	1.852***	0.293	0.728**	0.293	1.859***	0.291	1.178***	0.287
obs	18,489		18,487		18,485		18,516		18,514	
log likelihood	-11,060		-12,192		-11,954		-12,250		-12,568	

Note: Probit regressions. Omitted categories are less than 9 years of schooling, female, single, blue-collar worker, and employed.

Table 2: Regressions with east*age interaction

Dependent variable	Responsibility for the financial security when unemployed (state=1)		Responsibility for the financial security when sick (state=1)		Responsibility for the financial security of the family (state=1)		Responsibility for the financial security when old (state=1)		Responsibility for the financial security when requiring care (state=1)	
	Coeff.	Std. Err.	Coeff.	Std. Err.	Coeff.	Std. Err.	Coeff.	Std. Err.	Coeff.	Std. Err.
east	0.029	0.064	-0.034	0.060	-0.032	0.060	-0.226***	0.060	0.002	0.059
year02	0.070***	0.023	0.172***	0.023	-0.006	0.024	-0.024	0.023	0.108***	0.023
east*year02	-0.139***	0.039	-0.176***	0.036	-0.074**	0.037	-0.168***	0.036	-0.189***	0.036
age	-0.000	0.001	-0.002	0.001	-0.003**	0.001	-0.003***	0.001	-0.005***	0.001
east*age	0.009***	0.001	0.011***	0.001	0.010***	0.001	0.015***	0.001	0.008***	0.001
obs	18,489		18,487		18,485		18,516		18,514	
log likelihood	-11,034		-12,148		-11,914		-12,165		-12,541	

Note: Probit regressions. Included as controls are number of children and number of adults in household, logarithm of household income, and dummies for education, sex, marital status, employment status, and occupation.

Table 3: Regressions with cohorts interacted with east

Dependent variable	Responsibility for the financial security when unemployed (state=1)		Responsibility for the financial security when sick (state=1)		Responsibility for the financial security of the family (state=1)		Responsibility for the financial security when old (state=1)		Responsibility for the financial security when requiring care (state=1)	
	Coeff.	Std. Err.	Coeff.	Std. Err.	Coeff.	Std. Err.	Coeff.	Std. Err.	Coeff.	Std. Err.
east	0.318***	0.068	0.246***	0.063	0.147**	0.064	0.081	0.064	0.205***	0.064
year02	0.066**	0.026	0.162***	0.026	-0.045*	0.027	-0.066**	0.026	0.105***	0.025
east*year02	-0.111***	0.039	-0.137***	0.037	-0.033	0.037	-0.107***	0.036	-0.156***	0.036
born 1961-1975	0.014	0.074	0.018	0.070	-0.204***	0.072	-0.215***	0.072	-0.027	0.070
born 1946-1960	-0.092	0.100	-0.061	0.095	-0.431***	0.097	-0.391***	0.096	-0.086	0.094
born 1931-1945	-0.064	0.127	-0.105	0.122	-0.488***	0.124	-0.517***	0.123	-0.092	0.120
born before 1931	-0.008	0.155	-0.104	0.149	-0.420***	0.151	-0.467***	0.151	-0.006	0.146
born 1961-1975*east	-0.106	0.075	-0.007	0.071	0.120*	0.071	0.128*	0.072	0.012	0.071
born 1946-1960*east	0.169**	0.077	0.180**	0.072	0.286***	0.073	0.314***	0.073	0.152**	0.073
born 1931-1945*east	0.356***	0.081	0.392***	0.075	0.501***	0.076	0.643***	0.076	0.365***	0.076
born before 1931*east	0.303***	0.099	0.458***	0.091	0.454***	0.090	0.754***	0.091	0.391***	0.090
obs	18,489		18,487		18,485		18,516		18,514	
log likelihood	-11,021		-12,152		-11,905		-12,162		-12,534	

Note: Probit regressions. Included as controls are cubic function in age, number of children and number of adults in household, logarithm of household income, and dummies for education, sex, marital status, employment status, and occupation.

Table 4: Regressions with individuals who answer in 1997 and 2002

Dependent variable	Responsibility for the financial security when unemployed (state=1)		Responsibility for the financial security when sick (state=1)		Responsibility for the financial security of the family (state=1)		Responsibility for the financial security when old (state=1)		Responsibility for the financial security when requiring care (state=1)	
	Coeff.	Std. Err.	Coeff.	Std. Err.	Coeff.	Std. Err.	Coeff.	Std. Err.	Coeff.	Std. Err.
east	0.446***	0.035	0.394***	0.033	0.407***	0.033	0.391***	0.033	0.333***	0.033
year02	0.052**	0.026	0.164***	0.026	-0.032	0.027	-0.048*	0.026	0.095***	0.025
east*year02	-0.124***	0.043	-0.109***	0.040	-0.022	0.040	-0.067*	0.039	-0.130***	0.040
obs	14,110		14,110		14,110		14,110		14,110	
log likelihood	-8,414		-9,321		-9,131		-9,323		-9,576	

Note: Probit regressions. Included as controls are cubic function in age, number of children and number of adults in household, logarithm of household income, and dummies for education, sex, marital status, employment status, and occupation.

Table 5: Regressions with probability of receiving a transfer

Dependent variable	Responsibility for the financial security when unemployed (state=1)		Responsibility for the financial security when sick (state=1)		Responsibility for the financial security of the family (state=1)		Responsibility for the financial security when old (state=1)		Responsibility for the financial security when requiring care (state=1)	
	Coeff.	Std. Err.	Coeff.	Std. Err.	Coeff.	Std. Err.	Coeff.	Std. Err.	Coeff.	Std. Err.
east	0.453***	0.031	0.487***	0.029	0.398***	0.029	0.462***	0.029	0.394***	0.029
year02	0.052**	0.023	0.141***	0.023	-0.028	0.024	-0.061***	0.023	0.087***	0.023
east*year02	-0.133***	0.039	-0.174***	0.036	-0.074**	0.036	-0.148***	0.036	-0.182***	0.036
probability of receiving transfer	0.240***	0.054	0.176***	0.052	0.345***	0.050	0.175***	0.051	0.160***	0.050
obs	18,139		18,138		18,138		18,165		18,164	
log likelihood	-18,902		-20,079		-19,872		-20,129		-20,401	

Note: The table shows the second stage results of bivariate probit regressions. Included as controls in the second stage regressions are cubic function in age, number of children and number of adults in household, and dummies for education, sex, and marital status. Additionally included in the (not reported) first stage regressions predicting the probability of receiving a transfer are dummies for employment status and occupation, as well as wage income, income from self-employment, income from additional employment, and payments from persons not living in household. Income variables are in logs.

Table 6: Regressions with aggregate transfers

Dependent variable	Responsibility for the financial security when unemployed (state=1)		Responsibility for the financial security when sick (state=1)		Responsibility for the financial security of the family (state=1)		Responsibility for the financial security when old (state=1)		Responsibility for the financial security when requiring care (state=1)	
	Coeff.	Std. Err.	Coeff.	Std. Err.	Coeff.	Std. Err.	Coeff.	Std. Err.	Coeff.	Std. Err.
east	0.269***	0.044	0.334***	0.042	0.349***	0.042	0.345***	0.042	0.271***	0.042
year02	0.039*	0.024	0.150***	0.024	-0.023	0.024	-0.045*	0.024	0.088***	0.023
east*year02	-0.144***	0.039	-0.173***	0.036	-0.069*	0.036	-0.154***	0.036	-0.188***	0.036
gross transfers (*10^3)	0.029***	0.006	0.017***	0.005	0.012**	0.005	0.014***	0.005	0.017***	0.005
obs	18,488		18,486		18,484		18,515		18,513	
log likelihood	-11,045		-12,185		-11,950		-12,244		-12,561	

Note: Probit regressions. Included as controls are cubic function in age, number of children and number of adults in household, logarithm of household income, and dummies for education, sex, marital status, employment status, and occupation.

Table 7: Regressions with residence

Dependent variable	Responsibility for the financial security when unemployed (state=1)		Responsibility for the financial security when sick (state=1)		Responsibility for the financial security of the family (state=1)		Responsibility for the financial security when old (state=1)		Responsibility for the financial security when requiring care (state=1)	
	Coeff.	Std. Err.	Coeff.	Std. Err.	Coeff.	Std. Err.	Coeff.	Std. Err.	Coeff.	Std. Err.
east	0.076	0.090	0.204**	0.089	0.221**	0.089	0.202**	0.088	0.130	0.088
east living in East	0.383***	0.092	0.246***	0.090	0.212**	0.090	0.239***	0.089	0.258***	0.089
year02	0.064***	0.023	0.165***	0.023	-0.013	0.024	-0.033	0.023	0.103***	0.023
east*year02	0.160	0.117	-0.070	0.111	0.100	0.114	0.007	0.107	-0.085	0.113
(east living in East)*year02	-0.302**	0.119	-0.092	0.113	-0.169	0.114	-0.157	0.108	-0.092	0.114
obs	18,489		18,487		18,485		18,516		18,514	
log likelihood	-11,052		-12,187		-11,951		-12,246		-12,562	

Note: Probit regressions. Included as controls are cubic function in age, number of children and number of adults in household, logarithm of household income, and dummies for education, sex, marital status, employment status, and occupation.

Table 8: Regressions with east states interacted with year02

Dependent variable	Responsibility for the financial security when unemployed (state=1)		Responsibility for the financial security when sick (state=1)		Responsibility for the financial security of the family (state=1)		Responsibility for the financial security when old (state=1)		Responsibility for the financial security when requiring care (state=1)	
	Coeff.	Std. Err.	Coeff.	Std. Err.	Coeff.	Std. Err.	Coeff.	Std. Err.	Coeff.	Std. Err.
East Berlin	0.442***	0.091	0.537***	0.083	0.477***	0.082	0.375***	0.082	0.449***	0.083
Mecklenburg-Vorpommern	0.265***	0.068	0.290***	0.064	0.253***	0.064	0.300***	0.063	0.390***	0.064
Brandenburg	0.399***	0.062	0.341***	0.057	0.416***	0.057	0.457***	0.057	0.371***	0.057
Sachsen-Anhalt	0.503***	0.059	0.519***	0.052	0.452***	0.052	0.520***	0.052	0.446***	0.052
Thüringen	0.553***	0.060	0.407***	0.053	0.405***	0.052	0.416***	0.052	0.311***	0.052
Sachsen	0.416***	0.047	0.475***	0.043	0.465***	0.042	0.428***	0.042	0.347***	0.042
year02	0.067***	0.023	0.162***	0.023	-0.015	0.024	-0.037	0.023	0.097***	0.023
East Berlin * year02	-0.048	0.127	-0.376***	0.107	0.020	0.109	-0.026	0.109	-0.137	0.110
Mecklenburg-Vorpommern * year02	0.086	0.099	-0.005	0.092	0.066	0.089	0.010	0.088	-0.178**	0.090
Brandenburg * year02	-0.023	0.085	-0.029	0.075	0.025	0.072	-0.134*	0.075	-0.229***	0.075
Sachsen-Anhalt * year02	-0.130*	0.079	-0.226***	0.069	-0.110	0.071	-0.213***	0.068	-0.220***	0.070
Thüringen * year02	-0.457***	0.075	-0.138**	0.070	-0.096	0.068	-0.123*	0.070	-0.010	0.067
Sachsen * year02	-0.063	0.061	-0.200***	0.056	-0.106*	0.055	-0.185***	0.054	-0.207***	0.056
obs	18,286		18,283		18,283		18,312		18,311	
log likelihood	-10,919		-12,042		-11,812		-12,098		-12,414	

Note: Probit regressions. Included as controls are cubic function in age, number of children and number of adults in household, logarithm of household income, and dummies for education, sex, marital status, employment status, and occupation.

Table 9: Regressions with social conditions as the dependent variable

Dependent variable: Social conditions define possibilities (agree=1)	BASIC REGRESSION		REGRESSION INCLUDING AGE*EAST INTERACTION	
	Coeff.	Std. Err.	Coeff.	Std. Err.
east	0.292***	0.032	-0.186**	0.085
age*east			0.011***	0.002
age	0.008	0.022	0.002	0.002
age squared	-0.000	0.000		
age cubed	-0.000	0.000		
college	-0.097	0.097	-0.116	0.093
vocational training	-0.073	0.089	-0.077	0.085
secondary schooling	-0.030	0.091	-0.024	0.089
intermediate schooling	-0.033	0.104	-0.038	0.103
male	-0.145***	0.031	-0.145***	0.031
number of children	0.018	0.017	0.022	0.017
number of adults	0.047***	0.015	0.048***	0.015
married	-0.035	0.051	-0.039	0.047
divorced	0.037	0.072	0.036	0.069
married but separated	0.009	0.125	0.014	0.124
widowed	0.127	0.084	0.128	0.083
log(household income)	-0.140***	0.037	-0.135***	0.037
civil servant	-0.181**	0.076	-0.178**	0.076
self-employed	-0.266***	0.070	-0.267***	0.069
white-collar worker	-0.027	0.044	-0.032	0.044
unemployed	0.159**	0.068	0.152**	0.068
retired	-0.121	0.086	-0.126*	0.073
maternity	0.028	0.112	0.018	0.112
nonworking	0.064	0.059	0.051	0.059
training	0.049	0.095	0.049	0.093
other nonworking	-0.161**	0.071	-0.169**	0.070
constant	1.201***	0.439	1.390***	0.322
obs	8,580		8,580	
log likelihood	-5,412		-5,394	

Note: Probit regressions. Omitted categories are less than 9 years of schooling, female, single, blue-collar worker, and employed.

Table 10: Regressions with social conditions as a control variable

Dependent variable	Responsibility for the financial security when unemployed (state=1)		Responsibility for the financial security when sick (state=1)		Responsibility for the financial security of the family (state=1)		Responsibility for the financial security when old (state=1)		Responsibility for the financial security when requiring care (state=1)	
	Coeff.	Std. Err.	Coeff.	Std. Err.	Coeff.	Std. Err.	Coeff.	Std. Err.	Coeff.	Std. Err.
east	0.421***	0.032	0.423***	0.030	0.412***	0.030	0.406***	0.030	0.334***	0.030
year02	0.050**	0.025	0.154***	0.024	-0.026	0.026	-0.041**	0.025	0.093***	0.024
east*year02	-0.131***	0.041	-0.145***	0.038	-0.051	0.038	-0.108***	0.038	-0.136***	0.038
social conditions	0.075***	0.024	0.087***	0.023	0.089***	0.023	0.087***	0.023	0.073***	0.023
obs	16,197		16,202		16,199		16,224		16,222	
log likelihood	-9,659		-10,682		-10,484		-10,727		-11,010	

Note: Probit regressions. Included as controls are cubic function in age, number of children and number of adults in household, logarithm of household income, and dummies for education, sex, marital status, employment status, and occupation.

Table 11: Regressions with luck as the dependent variable

Dependent variable: Life achievements determined by luck (agree=1)	BASIC REGRESSION		REGRESSION INCLUDING AGE*EAST INTERACTION	
	Coeff.	Std. Err.	Coeff.	Std. Err.
east	-0.273***	0.031	-0.402***	0.081
age*east			0.003*	0.002
age	-0.109***	0.020	0.011***	0.002
age squared	0.002***	0.000		
age cubed	-0.000***	0.000		
college	-0.864***	0.094	-1.009***	0.091
vocational training	-0.223***	0.084	-0.359***	0.080
secondary schooling	-0.134	0.086	-0.230***	0.084
intermediate schooling	-0.186*	0.097	-0.227**	0.097
male	-0.149***	0.030	-0.143***	0.030
number of children	0.032*	0.016	0.015	0.016
number of adults	0.068***	0.014	0.074***	0.014
married	0.037	0.050	-0.045	0.046
divorced	0.075	0.069	-0.016	0.066
married but separated	0.182	0.117	0.103	0.115
widowed	0.195**	0.078	0.103	0.076
log(household income)	-0.406***	0.036	-0.403***	0.036
civil servant	-0.357***	0.085	-0.374***	0.085
self-employed	-0.145**	0.070	-0.166**	0.070
white-collar worker	-0.173***	0.043	-0.197***	0.043
unemployed	-0.015	0.062	-0.019	0.062
retired	-0.079	0.080	-0.035	0.068
maternity	-0.287**	0.112	-0.278**	0.112
nonworking	-0.056	0.055	-0.016	0.054
training	-0.370***	0.092	-0.263***	0.090
other nonworking	-0.374***	0.070	-0.314***	0.069
constant	4.586***	0.419	2.972***	0.311
obs	9,753		9,753	
log likelihood	-5,700		-5,717	

Note: Probit regressions. Omitted categories are less than 9 years of schooling, female, single, blue-collar worker, and employed.

Table 12: Regressions with luck as a control variable

Dependent variable	Responsibility for the financial security when unemployed (state=1)		Responsibility for the financial security when sick (state=1)		Responsibility for the financial security of the family (state=1)		Responsibility for the financial security when old (state=1)		Responsibility for the financial security when requiring care (state=1)	
	Coeff.	Std. Err.	Coeff.	Std. Err.	Coeff.	Std. Err.	Coeff.	Std. Err.	Coeff.	Std. Err.
east	0.432***	0.030	0.442***	0.029	0.430***	0.028	0.435***	0.028	0.375***	0.028
year02	0.061***	0.023	0.160***	0.024	-0.022	0.025	-0.039	0.024	0.102***	0.023
east*year02	-0.134***	0.040	-0.142***	0.037	-0.046	0.037	-0.119***	0.037	-0.157***	0.037
luck	0.038	0.024	0.135***	0.023	0.077***	0.023	0.114***	0.023	0.067***	0.023
obs	17,532		17,535		17,530		17,559		17,558	
log likelihood	-10.510		-11,540		-11,331		-11,600		-11,906	

Note: Probit regressions. Included as controls are cubic function in age, number of children and number of adults in household, logarithm of household income, and dummies for education, sex, marital status, employment status, and occupation.

Figure 1: By how many percentage points is an East German of a certain birth cohort group more likely to favor state intervention than a West German of the same birth cohort group (assuming all other characteristics are the same)?
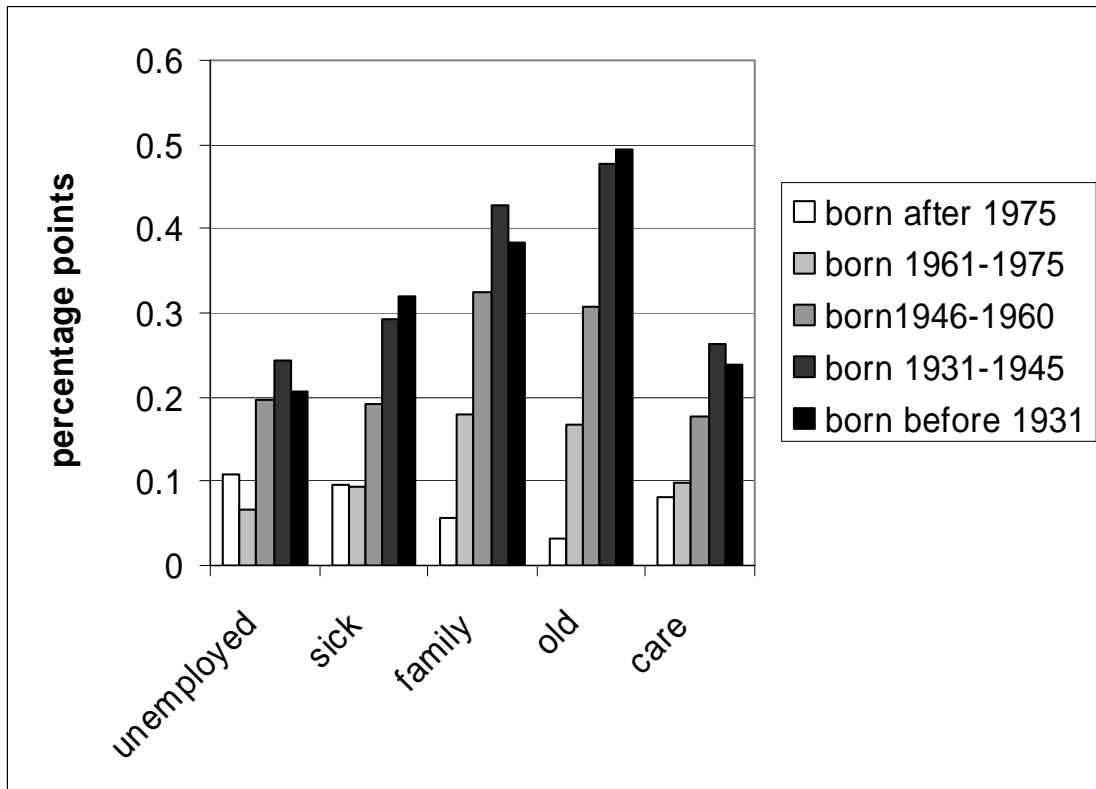
Table A1: Average per capita income 1928, 1932, and 1936 by region

	1928 (in 1928 Mark)	1932 (in 1928 Mark)	1936 (in 1928 Mark)
Prussia	1,174	869	1,161
Province East-Prussia	814	673	849
City of Berlin (E/W)	1,822	1311	1,895
Province Brandenburg (E)	1,140	917	1,158
Province Pommern	921	721	967
Grenzmark Posen/West-Prussia	837	649	781
Niederschlesien	1,057	804	953
Oberschlesien	850	599	758
Sachsen (E)	1,155	844	1,161
Schleswig-Holstein (W)	1,164	938	1,192
Hannover (W)	1,069	859	1,156
Westfalen (W)	1,080	755	1,045
Hessen-Nassau (W)	1,226	963	1,140
Rheinprovinz (W)	1,218	857	1,171
Bavaria (W)	1,041	785	1,049
Sachsen (E)	1,423	964	1,270
Württemberg (W)	1,183	1015	1,348
Baden (W)	1,135	859	1,117
Thüringen (E)	1,095	784	1,087
Hessen (W)	1,158	797	1,039
Hamburg (W)	1,754	1304	1,746
Other States	1,155	913	1,314
Deutsches Reich	1,185	875	1,173
Average "East"	1,203	877	1,169
Average "West"	1,203	913	1,200

Source: Statistisches Jahrbuch für das Deutsche Reich, various issues. Average "East" and average "West" refer to the non-population weighted average incomes of regions that belonged primarily to East Germany after 1945 (marked by "E") and regions that belonged primarily to West Germany after 1945 (marked by "W").

Table A2: Summary statistics

year	variable	West sample		East Sample	
		Obs.	Per cent	Obs.	Per cent
1997	Responsibility for the financial security when unemployed (state=1)	6,104	63.24%	3,735	78.85%
	Responsibility for the financial security when sick (state=1)	6,105	34.50%	3,728	52.76%
	Responsibility for the financial security of the family (state=1)	6,095	32.78%	3,732	49.06%
	Responsibility for the financial security when old (state=1)	6,110	38.46%	3,737	56.09%
	Responsibility for the financial security when requiring care (state=1)	6,110	40.77%	3,737	56.44%
2002	Responsibility for the financial security when unemployed (state=1)	5,307	65.33%	3,343	76.64%
	Responsibility for the financial security when sick (state=1)	5,309	40.01%	3,345	51.81%
	Responsibility for the financial security of the family (state=1)	5,311	32.10%	3,347	45.65%
	Responsibility for the financial security when old (state=1)	5,319	36.70%	3,350	48.51%
	Responsibility for the financial security when requiring care (state=1)	5,313	44.27%	3,354	53.04%

year	variable	West sample		East Sample	
		Obs.	Per cent	Obs.	Per cent
1996/99	Life achievements determined by luck or effort (luck=1)	6,555	40.23%	4,070	31.40%
1999	Social conditions define possibilities (agree=1)	5,523	60.44%	3,465	72.41%

Table A3: Gross and net transfers, average income, and unemployment rates by states

	Gross transfers per capita (in DM)		Net transfers per capita (in DM)		Average income per capita (in DM)		Unemployment rates (in %)	
	1997*	2002	1997*	2002	1997*	2002	1997*	2002
Berlin	9,209	11,093	4,599	6,364	28,830	28,528	17.3	16.9
WEST								
Baden-Württemberg	3,589	4,155	-1,996	-1,390	32,621	34,843	8.7	5.4
Bayern	3,513	4,187	-2,133	-1,385	32,011	33,895	8.7	6.0
Bremen	12,602	12,710	6,551	7,535	35,588	37,231	16.8	12.6
Hamburg	6,897	6,809	-884	-1,078	35,056	36,709	13.0	9.0
Hessen	3,971	4,817	-2,184	-1,193	30,683	32,803	10.4	6.9
Niedersachsen	5,892	6,976	1,045	2,378	30,149	31,473	12.9	9.2
Nordrhein-Westfalen	5,524	6,423	-98	970	32,198	34,168	12.2	9.2
Rheinland-Pfalz, Saarland	5,992	6,762	1,140	2,248	29,625	31,329	11.0	7.6
Schleswig-Holstein	5,460	7,348	341	2,751	31,178	31,655	11.2	8.7
EAST								
Brandenburg	9,534	11,463	5,616	7,263	26,288	28,047	18.9	17.5
Mecklenburg-Vorpommern	10,127	12,233	6,351	8,153	24,878	26,834	20.3	18.6
Sachsen	12,349	14,192	8,547	10,064	25,867	28,099	18.4	17.8
Sachsen-Anhalt	12,114	14,159	8,299	9,996	25,227	27,313	21.7	19.6
Thüringen	11,281	12,495	7,579	8,439	25,338	27,941	19.1	15.9

* Values adjusted for inflation.

Table A4: Basic regressions - ordered probit

Dependent variable	Responsibility for the financial security when unemployed (state=1, private=5)		Responsibility for the financial security when sick (state=1, private=5)		Responsibility for the financial security of the family (state=1, private=5)		Responsibility for the financial security when old (state=1, private=5)		Responsibility for the financial security when requiring care (state=1, private=5)	
	Coeff.	Std. Err.	Coeff.	Std. Err.	Coeff.	Std. Err.	Coeff.	Std. Err.	Coeff.	Std. Err.
east	-0.378***	0.024	-0.376***	0.024	-0.349***	0.024	-0.342***	0.024	-0.307***	0.024
year02	-0.038**	0.019	-0.151***	0.020	-0.014	0.020	0.001	0.019	-0.090***	0.020
east*year02	0.102***	0.030	0.137***	0.030	0.031	0.029	0.122***	0.030	0.157***	0.031
age	0.016	0.013	-0.002	0.013	0.004	0.013	0.006	0.013	0.007	0.013
age squared (*10^3)	-0.367	0.253	-0.030	0.261	-0.133	0.258	-0.195	0.251	-0.063	0.259
age cubed (*10^3)	0.002	0.002	0.000	0.002	0.001	0.002	0.001	0.002	-0.000	0.002
college	0.278***	0.055	0.339***	0.056	0.200***	0.056	0.294***	0.057	0.240***	0.055
vocational training	0.193***	0.050	0.213***	0.050	0.176***	0.051	0.195***	0.051	0.183***	0.050
secondary schooling	0.183***	0.051	0.160***	0.052	0.076	0.052	0.175***	0.053	0.167***	0.052
intermediate schooling	0.171***	0.058	0.146**	0.059	0.155***	0.059	0.131**	0.060	0.144**	0.060
male	0.057***	0.019	0.098***	0.019	0.022	0.018	0.072***	0.019	0.022	0.019
number of children	-0.018	0.011	-0.027***	0.010	-0.045***	0.010	-0.027***	0.010	-0.008	0.010
number of adults	-0.016	0.010	-0.047***	0.010	-0.029***	0.010	-0.038***	0.009	-0.008	0.010
married	-0.036	0.031	-0.061*	0.032	-0.006	0.031	-0.012	0.031	-0.084***	0.032
divorced	-0.084*	0.043	-0.003	0.044	-0.055	0.043	-0.030	0.044	-0.083	0.045
married but separated	0.065	0.067	0.026	0.068	0.034	0.066	-0.055	0.069	-0.139**	0.069
widowed	0.009	0.050	-0.032	0.049	0.018	0.049	0.047	0.048	-0.051	0.050
log(household income)	0.129***	0.022	0.234***	0.022	0.135***	0.021	0.217***	0.022	0.144***	0.022
civil servant	0.114**	0.048	0.203***	0.049	-0.093**	0.049	0.121***	0.047	0.105**	0.046
self-employed	0.302***	0.044	0.381***	0.044	0.317***	0.044	0.441***	0.043	0.319***	0.043
white-collar worker	0.056**	0.027	0.062**	0.027	0.012	0.026	0.130***	0.027	0.123***	0.027
unemployed	-0.113***	0.037	-0.009	0.039	-0.119***	0.037	0.008	0.039	0.024	0.040
retired	0.027	0.047	0.090*	0.050	-0.098**	0.048	0.085*	0.048	0.040	0.049
maternity	-0.034	0.061	0.030	0.062	-0.099*	0.056	0.162***	0.060	0.116*	0.062
nonworking	-0.009	0.034	0.018	0.035	-0.147***	0.034	0.026	0.034	0.000	0.035
training	0.018	0.054	0.008	0.056	0.059	0.056	-0.002	0.054	0.022	0.056
other nonworking	0.008	0.041	0.186**	0.042	-0.048	0.043	0.058	0.043	0.088**	0.043
obs	18,688		18,688		18,688		18,688		18,688	
log likelihood	-22,278		-21,857		-23,366		-22,695		-21,306	

Note: Ordered probit regressions. Omitted categories are less than 9 years of schooling, female, single, blue-collar worker, and employed.

Table A5: Results of elections for the Bundestag, 1998 and 2002

State	year	PDS	GRÜNE	SPD	CDU/CSU	FDP	others
Berlin							
	1998	13.4	11.3	37.8	23.7	4.9	8.8
	2002	11.4	14.6	36.6	25.9	6.6	4.9
WEST							
Baden-Württemberg							
	1998	1.0	9.2	35.6	37.8	8.8	7.6
	2002	0.9	11.4	33.5	42.8	7.8	3.6
Bayern							
	1998	0.7	5.9	34.4	47.7	5.1	6.2
	2002	0.7	7.6	26.1	58.6	4.5	2.4
Bremen							
	1998	2.4	11.3	50.2	25.4	5.9	4.7
	2002	2.2	15.0	48.6	24.6	6.7	2.9
Hamburg							
	1998	2.3	10.8	45.7	30.0	6.5	4.7
	2002	2.1	16.2	42.0	28.1	6.8	4.8
Hessen							
	1998	1.5	8.2	41.6	34.7	7.9	6.2
	2002	1.3	10.7	39.7	37.1	8.2	2.9
Niedersachsen							
	1998	1.0	5.9	49.4	34.1	6.4	3.2
	2002	1.0	7.3	47.8	34.5	7.1	2.2
Nordrhein-Westfalen							
	1998	1.2	6.9	46.9	33.8	7.3	4.0
	2002	1.2	8.9	43.0	35.1	9.3	2.5
Rheinland-Pfalz							
	1998	1.0	6.1	41.3	39.1	7.1	5.4
	2002	1.0	7.9	38.2	40.2	9.3	3.3
Saarland							
	1998	1.0	5.5	52.4	31.8	4.7	4.5
	2002	1.4	7.6	46.0	35.0	6.4	3.7
Schleswig-Holstein							
	1998	1.5	6.5	45.4	35.7	7.6	3.3
	2002	1.3	9.4	42.9	36.0	8.0	2.4
EAST							
Brandenburg							
	1998	20.3	3.6	43.5	20.8	2.8	8.9
	2002	17.2	4.5	46.4	22.3	5.8	3.8
Mecklenburg-Vorpommern							
	1998	23.6	2.9	35.3	29.3	2.2	6.6
	2002	16.3	3.5	41.7	30.3	5.4	2.8
Sachsen							
	1998	20.0	4.4	29.1	32.7	3.6	10.2
	2002	16.2	4.6	33.3	33.6	7.3	5.1
Sachsen-Anhalt							
	1998	20.7	3.3	38.1	27.2	4.1	6.6
	2002	14.4	3.4	43.2	29.0	7.6	2.4
Thüringen							
	1998	21.2	3.9	34.5	28.9	3.4	8.1
	2002	17.0	4.3	39.9	29.4	5.9	3.6

Source: Statistisches Bundesamt, Wirtschaft und Statistik 10/2002, p.827, Table 4.