

Good-Bye Lenin (or Not?): The Effect of Communism on People's Preferences

By ALBERTO ALESINA AND NICOLA FUCHS-SCHÜNDELN*

Are individual policy preferences exogenous or are they endogenous to political regimes? We focus on tastes for public social policies that entail redistribution and that 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; postwar 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 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 significant 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.

* Alesina: Department of Economics, Harvard University, Cambridge, MA 02138 (e-mail: aalesina@harvard.edu); Fuchs-Schündeln: Department of Economics, Harvard University, Cambridge, MA 02138 (e-mail: nfuchs@harvard.edu). We thank Matthias Schündeln and Andrei Shleifer for conversations; Susanto Basu, three anonymous referees, and participants in seminars at UC Berkeley, Boston College, Dartmouth University, Harvard University, and the Max Planck Institute for Research on Collective Goods, Bonn, for comments; Joachim Ragnitz and Harald Uhlig for providing data to calculate aggregate transfers; and Antonia Attanassova, Filipe Campante, Davide Cantoni, and Francesco Trebbi for excellent research assistantship. Alesina gratefully acknowledges financial support from National Science Foundation grant 9730402 through the National Bureau of Economic Research. Fuchs-Schündeln thanks the Institute for the Study of Labor (IZA) for its hospitality.

¹ For instance, the difference between Europe and the United States has been discussed recently by Alberto Alesina and Edward L. 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., Thomas Piketty 1995; Alesina and George-Marios Angeletos 2005; and Roland Bénabou and Jean Tirole 2006).

Last, some aspects of the East German regime might indeed be preferred by most individuals to those of the West German regime. If it is the case, however, 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 toward 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 United States and continental Western Europe, and in fact place a

great deal of weight on the influence of Marxist ideology on the preference for redistribution in Europe versus in the United States. The paper most closely related to ours is by Giacomo 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. 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 in favor of 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 Hans Peter Grüner (2002) find that in 1992 Eastern Europeans had stronger preferences for redistribution than individuals from Western countries. We can expand on these analyses since we use a panel dataset 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

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 toward free markets and labor markets are Robert J. Shiller, Maxim Boycko, and Vladimir Korobov (1991, 1992), and David G. Blanchflower and Richard B. Freeman (1997). The effect of Communism on religious beliefs is studied by Robert J. Barro and Rachel M. McCleary (2005), and McCleary and Barro (2006).

Germany than in the West. Axel Ockenfels and Joachim Weimann (1999) conduct public good and solidarity experiments with East and West German subjects, and detect significantly different behavior between the 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 this sense, their results are consistent with ours.

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

I. 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 benefit from, and vice versa (see, e.g., Martin Ravallion and Michael 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 IIIC.

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 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 altruistic reasons. 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.

II. Institutional Background and Data

A. Institutional Background

Germany before 1945, Separation, and Reunification.—Germany was separated in 1945 at the end of World War II. The borders between East

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 (1999) do not have an entity like a government in their games. They themselves suggest that group size might matter when analyzing solidarity of East versus West Germans, since the experiences under the East German system might have differed in contexts involving groups of different sizes.

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

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

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, 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 percent higher than that of blue collar workers, compared to 70 percent in the FRG. Also, intersectoral differences in net income were minimal, on average amounting only to 150 marks per month, with an average monthly income of around 1,100 marks in 1988 (Helga Stephan and Eberhard Wiedemann 1990; Katrin Schäfers 1998). Reunification occurred rather quickly and abruptly in October 1990. East Germany became part of the FRG, 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. To check whether the two regions were similar in terms of income, we analyze the average per capita income levels of different German regions, as well as subregions of Prussia, in 1928, 1932, and 1936 (the data from the *Statistische Reichsamt* are reported in Table A1 in the Web Appendix, available at http://www.e-aer.org/data/sept07/20051016_app.zip). We assign every region to East and West, depending on whether it belonged primarily to the GDR or FRG between 1949 and 1990.⁷ The level of income per capita in pre-World War II Germany does not show any systematic difference between East and West; in fact, the largest difference, in 1932, amounts to only 4 percent. Moreover, destruction during World War II was major and universal in both parts of Germany.

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

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. We address the issue of Prussia explicitly in Section III.

The period of the Weimar Republic (1918 to 1933) enhanced conformity between the German regions. Yet, already before that, at the turn of the previous century, the areas that became 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, 224–33).⁸ Moreover, in the elections of 1898, around the same number of constituencies in both areas voted primarily in favor of the Social Democrats. In the West, the largest party was the *Zentrum* party, which supported state intervention more than the Conservatives, which was the most prominent party aside from the Social Democrats in the East (*Statistisches Reichsamt* 1899, 246–47). Hence, it seems that, if anything, the West was at that time more in favor of state intervention than the East.

East-West Migration between 1945 and 1989.—From a peak population of 19.1 million living in 1947 in the Soviet zone that officially became the GDR in 1949, around 3 million people emigrated to the FRG before the Berlin Wall was built in August 1961 (Dietrich Storbeck 1963; Ralf Rytlewski and Manfred Opp de Hipt 1987; Helge Heidemeyer 1994).⁹ From August 1961 to December 1988, only slightly more than 600,000 people emigrated from East to West (Karl F. Schumann et al. 1996). The large number of East-to-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 (Rainer Münz and Ralf Ulrich 1997). Migration poses a challenge to our identification, since it raises the possibility of self-selection: if the

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.

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

⁷ Some regions do not belong to Germany after 1945. Moreover, 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.

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.

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 by emigrants from parts of the former German Reich not belonging to Germany 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 for 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., Storbeck 1963; Heidemeyer 1994). 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, this difference should be persistent over time for any individual after reunification; in fact it is not, as we show in Section IIIB.

B. Data

The German Socioeconomic Panel (GSOEP) is a longitudinal survey of private households, established in West Germany in 1984 and carried out annually. Since 1990, it has also covered the territory of the former GDR. We use the original sample established in 1984, and the subsample 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 the East German sample covers around 7,000 year-person observations for 1997 and 2002.¹⁰

In 1997 and 2002, respondents were asked about 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 two answer categories together to represent individuals with preference for an active role of the state in providing for its citizens, and group the last three answer categories together to represent individuals with preferences for private forces. Hence, we create five new dummy variables which take on the value of one if the respondent answered "only the state" or "mostly the state" for the respective area, and zero otherwise. This is done primarily to ease the interpretation of the coefficients. As a robustness check, we run ordered probit regressions on the original variables, and the results do not change significantly.¹² Table A2 in the Web Appendix 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 one 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

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

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

¹⁰ The number of observations varies slightly with the dependent variable.

monetary variables are in year 2002 deutsche marks.¹³

We analyze two additional questions that capture the beliefs of the respondent regarding important driving forces of success in life. In 1996 and 1999, GSOEP asked the question: "The following statements express varying attitudes toward 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 one 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 on the value one 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 in the Web Appendix 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 IIIC and the Web Appendix for an overview of the calculation of these transfers). Average income per capita in the East is around 80 percent of the average in the West, and the unemployment rate is roughly twice as large. As we discuss 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.

¹³ Summary statistics for the independent variables are reported in Table A6 in the Web Appendix.

¹⁴ The answers to the two original questions are given on a scale from 1 to 4, where 1 corresponds to "totally agree." We take the average of the answers to both questions to alleviate potential measurement error. An individual is assigned the value of 1 for the variable "luck" if the average score to both answers is 2 or smaller.

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

III. 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 an indicator variable with one meaning support for an active state role.¹⁶

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 year 2002 dummy (the third variable) is negative and statistically significant. The dummy variable of being an East German and the interaction of this dummy with the year 2000 dummy 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 five-year interval (1997 and 2002), a very rough measure of convergence would imply full uniformity of views in a minimum of about 11 years (column 5) and a maximum of 35 years (column 3). Given that the first survey was taken seven years after reunification, the complete cycle of convergence (assuming that it is linear)

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 (Chunrong Ai and Edward C. Norton 2003). The marginal effect on y of a dummy variable x has been calculated as $E[y|x = 1] - E[y|x = 0]$.

TABLE 1—BASIC REGRESSIONS

Dependent variable: Responsibility for financial security ...	... when unemployed	... when sick	... of the family	... when old	... when requiring care
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 (*10 ³)	0.614** (0.296)	0.150 (0.289)	0.255 (0.292)	0.434 (0.286)	-0.042 (0.286)
Age cubed (*10 ⁵)	-0.406** (0.185)	-0.095 (0.181)	-0.193 (0.183)	-0.279 (0.197)	0.066 (0.179)
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)
Observations	18,489	18,487	18,485	18,516	18,514
Log likelihood	-11,060	-12,192	-11,954	-12,250	-12,568

Notes: Probit regressions. The dependent variable is an indicator variable that takes the value one if the household responds “only the state” or “mostly the state” to the question of who should be responsible for the financial security of different groups. Omitted categories are fewer than nine years of schooling, female, single, blue-collar worker, and employed.

*** Significant at, or below, 1 percent. ** Significant at, or below, 5 percent. * Significant at, or below, 10 percent.

would be between 20 and 40 years, depending on the question—roughly one to two generations.¹⁷

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 three of the five 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 individuals 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 Matthias Schündeln 2005).¹⁹ All these variables are 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 dataset also includes two variables that proxy for wealth. One is the amount of interest

and dividend income earned by the household of the respondent; the second is an indicator variable for home ownership. 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 Alesina and Fuchs-Schündeln (2005). 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 nonresponse. 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 in our regressions. This dummy takes on the value of one 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, the inclusion of the Prussia dummy does not change any of the results.²²

A. 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 toward state intervention. The coefficient on age itself is negative, meaning that West Germans are becoming less pro-government as they become older, the same result found for the United States 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.

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 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 toward redistribution. Our data, hence, indicate that this trend has been reversed in later years.

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

²⁰ These results are available upon request.

²¹ We use Prussia in its 1871-1914 borders. 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.

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.

TABLE 2—REGRESSIONS WITH AGE INTERACTED WITH EAST

Dependent variable: Responsibility for financial security ...	... when unemployed	... when sick	... of the family	... when old	... when requiring care
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)
Observations	18,489	18,487	18,485	18,516	18,514
Log likelihood	-11,034	-12,148	-11,914	-12,165	-12,541

Notes: Probit regressions. The dependent variable is an indicator variable that takes the value one if the household responds “only the state” or “mostly the state” to the question of who should be responsible for the financial security of different groups. 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.

*** Significant at, or below, 1 percent.

** Significant at, or below, 5 percent.

* Significant at, or below, 10 percent.

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 cohorts. 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 spent only their childhood and early adolescence under Communism; this is the omitted group in the regressions. This table shows that the old are progressively more pro-government than the young in the East, a pattern not observed in the West, where in fact the old tend to be less pro-government than the young. Interestingly, for some of the questions, the second oldest rather than the oldest group in the East show 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 three (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.

B. 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

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

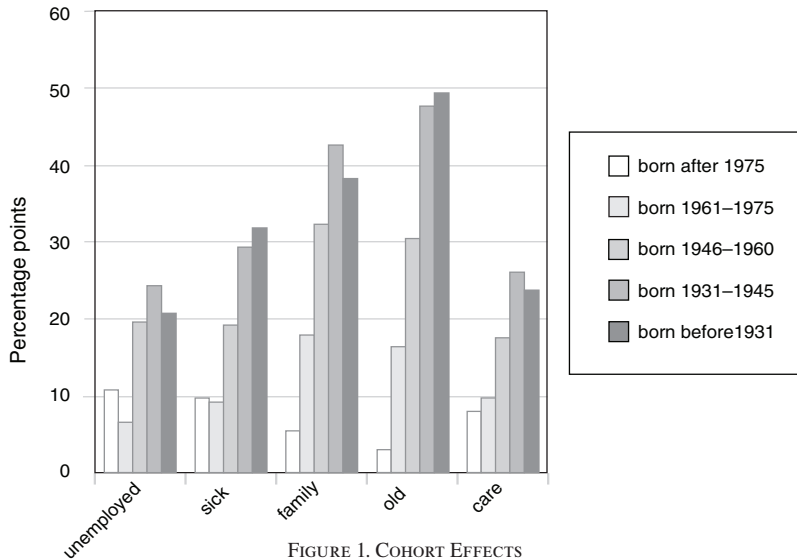


FIGURE 1. COHORT EFFECTS

Notes: This figure indicates by how many percentage points an East German of a certain birth cohort group is more likely to favor state intervention than a West German of the same birth cohort group (assuming all other characteristics are the same). A household is defined as favoring state intervention if the head responds “only the state” or “mostly the state” to the question of who should be responsible for the financial security of different groups.

TABLE 3—REGRESSIONS WITH COHORTS INTERACTED WITH EAST

Dependent variable: Responsibility for financial security ...	... when unemployed	... when sick	... of the family	... when old	... when requiring care
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)
Observations	18,489	18,487	18,485	18,516	18,514
Log likelihood	-11,021	-12,152	-11,905	-12,162	-12,534

Notes: Probit regressions. The dependent variable is an indicator variable that takes the value one if the household responds “only the state” or “mostly the state” to the question of who should be responsible for the financial security of different groups. 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.

*** Significant at, or below, 1 percent. ** Significant at, or below, 5 percent. * Significant at, or below, 10 percent.

TABLE 4—REGRESSIONS WITH INDIVIDUALS WHO ANSWER IN BOTH 1997 AND 2002

Dependent variable: Responsibility for financial security ...	... when unemployed	... when sick	... of the family	... when old	... when requiring care
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)
Observations	14,110	14,110	14,110	14,110	14,110
Log likelihood	-8,414	-9,321	-9,131	-9,323	-9,576

Notes: Probit regressions. The dependent variable is an indicator variable that takes the value one if the household responds “only the state” or “mostly the state” to the question of who should be responsible for the financial security of different groups. 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.

*** Significant at, or below, 1 percent.

** Significant at, or below, 5 percent.

* Significant at, or below, 10 percent.

effects, in Table 4 we 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 five 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 percent in column 1, and declining by 63 percent in column 3. On average, the East time effect is 35 percent 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 due only to self-selection of individuals into the West before 1961, and that individual preferences are stable over time.

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

²⁶ The number of observations drops by around 24 percent 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.

C. The Effect of Communism: Poverty or Preferences?

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 coefficient of this variable is always negative and statistically significant. In order to allow for further nonlinearities 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 12 different sources, of which 8 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 4 do not include a component of government support (wage income, income from self-employment,

²⁷ Results are available from the authors upon request.

TABLE 5—REGRESSIONS WITH PROBABILITY OF RECEIVING A TRANSFER

Dependent variable: Responsibility for financial security ...	... when unemployed	... when sick	... of the family	... when old	... when requiring care
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)
Observations	18,139	18,138	18,138	18,165	18,164
Log likelihood	-18,902	-20,079	-19,872	-20,129	-20,401

Notes: The table shows the second-stage results of bivariate probit regressions. The dependent variable is an indicator variable that takes the value one if the household responds “only the state” or “mostly the state” to the question of who should be responsible for the financial security of different groups. 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.

*** Significant at, or below, 1 percent.

** Significant at, or below, 5 percent.

* Significant at, or below, 10 percent.

income from additional employment, payments from persons not living in household). We build a bivariate transfer variable which takes on the value of one if a household is currently receiving some form of government support, and zero 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 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 discuss 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 or her preferences in 1997. The future growth rate of income between 1997 and 2002 has a negative effect on preferences for

²⁸ The estimates of interest are almost unchanged if the set of instruments includes only 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, instead, we add DM 1 or DM 100, or if we control directly for income and income squared, without taking logarithms.

²⁹ Results of the first-stage regression are available from the authors upon request. In Alesina and Fuchs-Schündeln (2005), we include 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 show the expected signs, namely a positive sign for transfer income, and a negative sign for private income.

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 Alesina and Fuchs-Schündeln (2005).

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 toward 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 an independent variable in 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. The Web Appendix gives a detailed description of the construction of this transfer measure and its components, and Table A3 in the Web Appendix shows the gross and net per capita transfers for every state. These gross transfers sum up to 98 billion euros in the eastern states in 2002; i.e., they come quite close to the gross transfers of 101 billion euros for the Eastern states reported by Harald Lehmann, Udo Ludwig, and Joachim

Ragnitz (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 euros in 2002, compared to 67 billion euros reported in Lehmann, Ludwig, and Ragnitz (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 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

³¹ To calculate the aggregate flows into the East, we add one-third 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, we also include 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 percent, 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.

³⁰ For example, an individual might be employed by a firm that receives government subsidies.

TABLE 6—REGRESSIONS WITH AGGREGATE TRANSFERS

Dependent variable: Responsibility for financial security ...	... when unemployed	... when sick	... of the family	... when old	... when requiring care
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)
Observations	18,488	18,486	18,484	18,515	18,513
Log likelihood	-11,045	-12,185	-11,950	-12,244	-12,561

Notes: Probit regressions. The dependent variable is an indicator variable that takes the value one if the household responds “only the state” or “mostly the state” to the question of who should be responsible for the financial security of different groups. 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.

*** Significant at, or below, 1 percent.

** Significant at, or below, 5 percent.

* Significant at, or below, 10 percent.

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.

D. 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 one if an East German lives in the territory of the former East Germany in the observation year, and zero otherwise.³⁵

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 as 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 had reached their new steady-state level by 1997. In this case, we should not necessarily expect

³⁵ We also estimated a model in which we include, instead, a dummy variable “East residence” that takes on the value of one 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 percent of the West Germans in our sample live in the East, we decided to refrain from splitting the West Germans according to current residence. Results do not change significantly.

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.

TABLE 7—REGRESSIONS WITH CURRENT RESIDENCE

Dependent variable: Responsibility for financial security ...	... when unemployed	... when sick	... of the family	... when old	... when requiring care
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)
Observations	18,489	18,487	18,485	18,516	18,514
Log likelihood	-11,052	-12,187	-11,951	-12,246	-12,562

Notes: Probit regressions. The dependent variable is an indicator variable that takes the value one if the household responds “only the state” or “mostly the state” to the question of who should be responsible for the financial security of different groups. 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.

*** Significant at, or below, 1 percent.

** Significant at, or below, 5 percent.

* Significant at, or below, 10 percent.

full convergence for East Germans staying in the East either. 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 also that their preferences exhibit different convergence patterns. In the case of preferences regarding financial security when unemployed and financial security of old individuals and families, East Germans who moved to the West become even 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.

E. Differences across Regions and across 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 versus female individuals). Hence, we

would be worried if the “East” effect on preferences were very heterogeneous, and especially if we detected it in only one or two single states, or in specific groups of the population.

First, we rerun our baseline regression, including separate dummies for all five 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* (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

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 four out of five cases more in favor of private forces than the other eastern states, although it is still relatively pro-government compared with West Germany in a statistically significant way.

³⁹ Results are available from the authors upon request.

TABLE 8—REGRESSIONS WITH EAST SPLIT INTO STATES

Dependent variable: Responsibility for financial security ...	... when unemployed	... when sick	... of the family	... when old	... when requiring care
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)
Observations	18,286	18,283	18,283	18,312	18,311
Log likelihood	−10,919	−12,042	−11,812	−12,098	−12,414

Notes: Probit regressions. The dependent variable is an indicator variable that takes the value one if the household responds “only the state” or “mostly the state” to the question of who should be responsible for the financial security of different groups. The states refer to the state of residence in the spring of 1990. 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.

*** Significant at, or below, 1 percent.

** Significant at, or below, 5 percent.

* Significant at, or below, 10 percent.

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 IIIA). Only 8 of the other 105 coefficients on interaction terms (21 interaction terms in 5 regressions) are statistically

significant, but never consistently across the 5 different regressions.⁴¹

IV. Social Conditions, Individual Effort, and Luck

Why do former East Germans favor state intervention? One possibility is that they are

⁴¹ Being married has a statistically significantly different effect in East and West in two out of the five regressions, as does 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.

⁴⁰ Results are available from the authors upon request.

used to thinking (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 problems.

In Table 9 we report a regression in which the left-hand side is a variable that takes the value of one 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 for 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 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 believe that 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 one 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 believe that luck matters a great deal in determining individual success are more in favor of government intervention. Not surprisingly, given the lesser belief in the role of luck by East Germans, the inclusion of this variable has no significant effect on the East indicator variable.⁴⁵

V. Final Remarks

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

⁴³ Alesina and Angeletos (2005) and Bénabou and Tirole (2006) 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”

⁴² As in Table 2, we omit higher-order terms of age as controls in this regression.

TABLE 9—REGRESSIONS WITH SOCIAL CONDITIONS AS THE DEPENDENT VARIABLE

Dependent variable: Social conditions define possibilities	Basic regression	Regression including age * east interaction
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 (*10 ³)	-0.028 (0.443)	
Age cubed (*10 ⁵)	-0.005 (0.285)	
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)
Observations	8,580	8,580
Log likelihood	-5,412	-5,394

Note: Probit regressions. The dependent variable is an indicator variable that takes the value of one if the household "totally agrees" or "agrees slightly" with the statement "The possibilities in my life are determined by the social conditions." Omitted categories are fewer than nine years of schooling, female, single, blue-collar worker, and employed.

*** Significant at, or below, 1 percent. ** Significant at, or below, 5 percent. * Significant at, or below, 10 percent.

TABLE 10—REGRESSIONS WITH SOCIAL CONDITIONS AS A CONTROL VARIABLE

Dependent variable: Responsibility for financial security ...	... when unemployed	... when sick	... of the family	... when old	... when requiring care
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)
Observations	16,197	16,202	16,199	16,224	16,222
Log likelihood	-9,659	-10,682	-10,484	-10,727	-11,010

Notes: Probit regressions. The dependent variable is an indicator variable that takes the value one if the household responds “only the state” or “mostly the state” to the question of who should be responsible for the financial security of different groups. “Social conditions” is an indicator variable that takes the value one if the household “totally agrees” or “agrees slightly” with the statement “The possibilities in my life are determined by the social conditions.” 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.

*** Significant at, or below, 1 percent.

** Significant at, or below, 5 percent.

* Significant at, or below, 10 percent.

In evaluating these results, one always has to wonder whether survey answers are meaningful, that is, whether they reflect what individuals truly believe (Marianne Bertrand and Sendhil 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 in the Web Appendix 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. The most leftist major party is 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, this party received about 20 percent of the votes in the East, but only around 1 to 2 percent in the West; it was around 10 percent 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, the percentage of the PDS votes in the East shrinks substantially, presumably in favor of the SPD (*Sozialdemokratische Partei Deutschlands*), the main center-left party, whose share increases almost identically to the reduction in votes for the PDS. This indicates that voters' preferences moved away from the Communist-leaning party 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.

(e.g., East Germans believe more in the importance of hard work, and they believe less in the importance of luck).

TABLE 11—REGRESSIONS WITH LUCK AS THE DEPENDENT VARIABLE

Dependent variable: Life achievements determined by luck	Basic regression	Regression including age * east interaction
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 (*10 ³)	2.409*** (0.401)	
Age cubed (*10 ⁵)	-1.460*** (0.251)	
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)
Observations	9,753	9,753
Log likelihood	-5,700	-5,717

Note: Probit regressions. The dependent variable is an indicator variable that takes the value one if the household “totally agrees” or “agrees slightly” with the statements “No one can escape their fate, everything in life happens as it must” or “What one achieves in life is mainly a question of luck or fate.” Omitted categories are fewer than nine years of schooling, female, single, blue-collar worker, and employed.

*** Significant at, or below, 1 percent. ** Significant at, or below, 5 percent. * Significant at, or below, 10 percent.

TABLE 12—REGRESSIONS WITH LUCK AS A CONTROL VARIABLE

Dependent variable: Responsibility for financial security ...	... when unemployed	... when sick	... of the family	... when old	... when requiring care
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)
Observations	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. The dependent variable is an indicator variable that takes the value one if the household responds “only the state” or “mostly the state” to the question of who should be responsible for the financial security of different groups. “Luck” is an indicator variable that takes the value one if the household “totally agrees” or “agrees slightly” with the statements “No one can escape their fate, everything in life happens as it must” or “What one achieves in life is mainly a question of luck or fate.” 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.

*** Significant at, or below, 1 percent.

** Significant at, or below, 5 percent.

* Significant at, or below, 10 percent.

REFERENCES

- Ai, Chunrong, and Edward C. Norton.** 2003. “Interaction Terms in Logit and Probit Models.” *Economics Letters*, 80(1): 123–29.
- Alesina, Alberto, and George-Marios Angeletos.** 2005. “Fairness and Redistribution.” *American Economic Review*, 95(4): 960–80.
- Alesina, Alberto, and Edward L. Glaeser.** 2004. *Fighting Poverty in the US and Europe: A World of Difference*. Rodolfo DeBenedetti Lectures. Oxford and New York: Oxford University Press.
- Alesina, Alberto, and Eliana La Ferrara.** 2005. “Preferences for Redistribution in the Land of Opportunities.” *Journal of Public Economics*, 89(5–6): 897–931.
- Alesina, Alberto, and Nicola Fuchs-Schündeln.** 2005. “Good-Bye Lenin (or Not?): The Effect of Communism on People’s Preferences.” National Bureau of Economic Research Working Paper 11700.
- Barro, Robert J., and Rachel M. McCleary.** 2005. “Which Countries Have State Religions?” *Quarterly Journal of Economics*, 120(4): 1331–70.
- Bénabou, Roland and Jean Tirole.** 2006. “Belief in a Just World and Redistributive Politics.” *Quarterly Journal of Economics*, 121(2): 699–746.
- Bertrand, Marianne, and Sendhil Mullainathan.** 2001. “Do People Mean What They Say? Implications for Subjective Survey Data.” *American Economic Review*, 91(2): 67–72.
- Blanchflower, David G., and Richard B. Freeman.** 1997. “The Attitudinal Legacy of Communist Labor Relations.” *Industrial and Labor Relations Review*, 50(3): 438–59.
- Corneo, Giacomo.** 2001. “Inequality and the State: Comparing US and German Preferences.” *Annales d’Economie et de Statistique*, 63–64: 283–96.
- Corneo, Giacomo.** 2004. “Wieso Umverteilung? Einsichten aus ökonomischen Umfrageanalysen.” In *Finanzpolitik und Umverteilung*, ed. Bernd Genser, 55–88. Berlin: Duncker & Humblot.
- Corneo, Giacomo, and Hans Peter Grüner.** 2002. “Individual Preferences for Political Redistribution.” *Journal of Public Economics*, 83(1): 83–107.
- Fuchs-Schündeln, Nicola, and Matthias Schündeln.** 2005. “Precautionary Savings and Self-Selection: Evidence from the German Reunification Experiment.” *Quarterly Journal of Economics*, 120(3): 1085–120.

- Heidemeyer, Helge.** 1994. *Flucht und Zuwanderung aus der SBZ/DDR 1945/1949–1961*. Düsseldorf: Droste Verlag.
- Lehmann, Harald, Udo Ludwig, and Joachim Ragnitz.** 2005. Originäre Wirtschaftskraft der neuen Länder noch schwächer als bislang angenommen. *Wirtschaft im Wandel*, 11(5): 134–45.
- McCleary, Rachel M., and Robert J. Barro.** 2006. “Religion and Political Economy in an International Panel.” *Journal for the Scientific Study of Religion*, 45(2): 149–75.
- Münz, Rainer, and Ralf Ulrich.** 1997. “Changing Patterns of Immigration to Germany, 1945–1995: Ethnic Origins, Demographic Structure, Future Prospects.” In *Migration Past, Migration Future: Germany and the United States*, ed. Klaus J. Bade and Myron Weiner, Providence/Oxford: Berghahn Books.
- Ockenfels, Axel, and Joachim Weimann.** 1999. “Types and Patterns: An Experimental East-West-German Comparison of Cooperation and Solidarity.” *Journal of Public Economics*, 71(2): 275–87.
- Piketty, Thomas.** 1995. “Social Mobility and Redistributive Politics.” *Quarterly Journal of Economics*, 110(3): 551–84.
- Ragnitz, Joachim.** 2003. “Wie hoch sind die Transferleistungen für die neuen Länder?” *IWH-Pressemitteilung*, 21/2003.
- Ravallion, Martin, and Michael Lokshin.** 2000. “Who Wants to Redistribute? The Tunnel Effect in 1990s Russia.” *Journal of Public Economics*, 76(1): 87–104.
- Rytlewski, Ralf, and Manfred Opp de Hipt.** 1987. *Die Deutsche Demokratische Republik in Zahlen, 1945/49–1980*. München: Verlag H.C. Beck.
- Schäffgen, Katrin.** 1998. “Die Verdoppelung der Ungleichheit. Sozialstruktur und Geschlechterverhältnisse in der Bundesrepublik und in der DDR.” PhD diss. Humboldt-Universität.
- Schumann, Karl F., Gerhard-Uhland Dietz, Manfred Gehrman, Heidi Kaspras, and Olaf Struck-Möbbeck.** 1996. *Private Wege der Wiedervereinigung. Die deutsche Ost-West-Migration vor der Wende*. Weinheim: Deutscher Studienverlag.
- Shiller, Robert J., Maxim Boycko, and Vladimir Korobov.** 1991. “Popular Attitudes toward Free Markets: The Soviet Union and the United States Compared.” *American Economic Review*, 81(3): 385–400.
- Shiller, Robert J., Maxim Boycko, and Vladimir Korobov.** 1992. “Hunting for Homo Sovieticus: Situational versus Attitudinal Factors in Economic Behavior.” *Brookings Papers on Economic Activity*, 1: 127–81.
- Statistisches Bundesamt.** Various issues. *Statistisches Jahrbuch für die Bundesrepublik Deutschland*.
- Statistisches Reichsamt.** Various issues. *Statistisches Jahrbuch für das Deutsche Reich*.
- Stephan, Helga, and Eberhard Wiedemann.** 1990. “Lohnstruktur und Lohndifferenzierung in der DDR: Ergebnisse der Lohndatenerfassung vom September 1988.” *Mitteilungen aus der Arbeitsmarkt- und Berufsforschung*, 23 (4): 550–62.
- Storbeck, Dietrich.** 1963. “Flucht oder Wanderung.” *Soziale Welt*, 14: 153–71.