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Intergenerational Correlations of Extreme Right-Wing Party Preferences and Attitudes toward Immigration

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ABSTRACT

Intergenerational Correlations of Extreme Right-Wing Party Preferences and Attitudes toward Immigration*

This study analyzes the importance of parental socialization on the development of children's far right-wing preferences and attitudes towards immigration. Using longitudinal data from Germany, our intergenerational estimates suggest that the strongest and most important predictor for young people's right-wing extremism are parents' right-wing extremist attitudes. While intergenerational associations in attitudes towards immigration are equally high for sons and daughters, we find a positive intergenerational transmission of right-wing extremist party affinity for sons, but not for daughters. Compared to the intergenerational correlation of other party affinities, the high association between fathers' and sons' right-wing extremist attitudes is particularly striking.

JEL Classification: C23, D72, J62, P16

Keywords: political preferences, extremism, gender differences, longitudinal data, intergenerational links

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1. Introduction

> *[The child] shall be brought up in a spirit of understanding, tolerance, friendship among peoples, peace and universal brotherhood, respect for freedom of religion or belief of others. (United Nations 1981).*

A number of international declarations and politicians have emphasized the family as the place where promoting tolerance and shaping attitudes of openness should take place (i.e., United Nations 1981; UNESCO 1995). For example, in a public memorial ceremony for the victims of right-wing terrorism, German Chancellor Angela Merkel stated that the origins of disrespectful thought and behavior are closely related to upbringing. She argues that the family is the place where civil society grows and where children learn the basics of responsible coexistence (German Government 2012).

The economic literature on the origins of preference formation has examined parental intentional strategies and modeled their potential long-term social impact (Bisin & Verdier 2000, 2001; Epstein 2007; Guiso *et al.* 2008; Tabellini 2008; Adriani & Sonderegger 2009). In this theoretical literature on cultural transmission, parents actively or passively instill their attitudes and preferences into their children, resulting in similarities across generations. Indeed, political scientists find high correlations of the nature and extent of political preferences between parents and children. The first empirical study that reported a positive intergenerational relationship in political preferences is Jennings & Niemi (1968), whose results were later supported by supplementary study designs and methodological approaches (Alford *et al.* 2005; Hatemi *et al.* 2009; Jennings *et al.* 2009). The origins of attitudes towards immigration and preferences for far right-wing parties, though, have not yet been studied.

To our knowledge, this is the first study that empirically examines the transmission of nationalistic preferences and attitudes towards immigration from one generation to the next, based on rich longitudinal data from the German Socio-Economic Panel (SOEP) for the years 1990-2009. The SOEP allows us to match parents to adult children and is therefore ideally suited to the study at hand. We focus on two related outcomes: extreme party preferences, namely preferences for far right-wing parties, and attitudes towards immigration.[1] We consider socioeconomic and labor market characteristics that might be correlated with children's preferences, such as parents' and adult children's education, income, the regional strength

[1]Several empirical studies point to an important relationship between individuals' anti-foreign sentiments and their affinity towards far right-wing parties (Lubbers *et al.* 2002; Arzheimer 2009a,b; Pardos-Prado 2011).

of right-wing parties, and federal state fixed effects. To minimize the possibility that adult children might influence their parents' party identification and attitudes towards immigration, we examine whether parents ever reported leaning toward far right-wing parties during their offspring's childhood years and measure the relationship with the children's political preferences later in life. Moreover, we compare the intergenerational association in right-wing party affinity to intergenerational estimates for five major parties in Germany.

The results of this study point to a strong intergenerational association in far right-wing attitudes between sons and parents. Having parents who express right-wing extremist attitudes during childhood increases an adult son's propensity to express affinity toward a far right-wing party as a young adult by around 13 percentage points. This is a large effect, given that around 6 percent of adult sons report an affinity toward a far right-wing party at some point in time. In contrast, the intergenerational association in right-wing party affinity between parents and daughters is very close to zero.

As a benchmark, we present the intergenerational correlation of political affinities for other major political parties in Germany. The results point to a puzzling social phenomenon that distinguishes far right-wing party identifications from those with other parties. While we find striking differences in the intergenerational transmission of right-wing party affinity between daughters and sons, there are no comparable large gender differences in the intergenerational association of affinity for other parties.

The findings of the intergenerational association in far right-wing preferences are mainly confirmed by an alternative outcome variable of intolerance, the attitudes towards immigration. Young adults whose parents were very concerned about immigration to Germany during their childhood years have a 27 percentage point (60 percent) higher likelihood of also expressing strong concerns about immigration as young adults. However, no significant gender differences are found.

Potential problems with answers to survey questions, in particular with questions on extreme party affinity, are that individuals do not reveal their true preferences. We therefore compare individual measures of far right-wing party preferences and attitudes towards immigration with official voting results for far right-wing parties at general elections in Germany. We find a positive and statistically significant correlation between the subjective and objective measures at the state level. The positive correlation makes us quite confident about the behavioral validity of the survey measures used. Nevertheless, we should point out that the study estimates and reports intergenerational associations rather than causal effects. In line with most studies on intergenerational transmissions the disentanglement of nurture and nature remains a challenge.

The outline of the paper is as follows. Section 2 presents a short discussion of the development of new theoretical models explaining the intergenerational transmission of preferences and the related empirical

literature. Section 3 describes the data and presents summary statistics. Section 4 discusses the empirical models, and Section 5 documents the intergenerational correlation estimates in right-wing extremist preferences and attitudes towards immigration. Section 6 presents several robustness checks and discusses caveats, and the final section concludes.

2. Related Literature

Why do preferences develop in the direction of aggressive nationalism and xenophobia? One explanation can be provided by the theory of cultural transmission by Bisin & Verdier (2000, 2001) who describe endogenous mechanisms of transmitting preferences, norms, and beliefs. They introduce the myopic concept of "imperfect empathy", which is a bias in parents' evaluation of their children's preferences. According to this theory, in a process requiring socialization costs, parents intentionally shift their children's preferences toward their own. Inspired by their work, scholars have explicitly modeled the conditions under which parents purposely instill pro-social values−generalized morality, generosity, and trust−into their children (Tabellini 2008; Adriani & Sonderegger 2009; Dohmen *et al.* 2011). Corneo & Jeanne (2009) discuss why children's education regarding tolerance may be an optimal parental strategy as tolerance could, for example, improve children's future interactions with other people and thereby increase their welfare as adults. The authors show theoretically how the parental level of certainty about their child's talents, traits, and future income opportunities influence the formation of tolerance values.

Institutional factors such as family patterns can also help explain why some economies could become trapped in a discriminatory steady-state. Corneo (2010) argues that nationalism can be predicted by individuals' ability. The author studies the extent to which parents instill nationalistic views and hostile attitudes in their children. Teaching pride in one's own nation, he argues, would be a way to sustain one's self-esteem, especially for children with low abilities and would hence lead to a high likelihood of having low income later in life. Uncertainty about the child's future economic status would, therefore, fuel nationalism. Thus, tolerance is the result of a cultural process evolving over several generations and requiring governmental intervention into the education of new generations. While the theoretical foundation is provided, contrary to the transmission of pro-social preferences, anti-social preferences have not yet been studied empirically. This study aims at contributing (1) to the literature on intergenerational correlations by considering anti-social preferences and (2) to the empirical literature on anti-immigrant attitudes and far right-wing extremism that has so far payed little attention to the role of family socialization (Krueger & Pischke 1997; Dustmann

& Preston 2001; Mayda 2006; Falk *et al.* 2011; Halla *et al.* 2012).[2]

While the intergenerational link in preference transmission has repeatedly been empirically described, the literature remains largely descriptive. The main challenge is the disentanglement of genetics from socialization. One approach to estimating the importance of heritability is the comparison of monozygotic and dizygotic twin pairs. The first pioneering study on the genetical contribution in social attitudes transmission was Eaves & Eysenck (1974) showing that radicalism (as opposed to conservatism) is heritable. Scarr & Weinberg (1981) find that biological relatives have more similar attitudes toward authoritarianism, prejudices and rigidity of beliefs compared to parents with adopted children. Later studies have used larger samples and report a considerable genetic transmission on outcomes such as political attitudes (Martin *et al.* 1986), political ideological orientations (Alford *et al.* 2005), strength of party identification (Hatemi *et al.* 2009), partisan attachment (Dawes & Fowler 2009), and voting behavior (Cesarini *et al.* 2014). Attitudes toward immigration are explicitly studied by Bell *et al.* (2009), who find a heritability of 52 percent for Canada. In their work on Sweden, Oskarsson *et al.* (2014) argue that the genetic correlation in preferences in favor of immigration and refugees is 0.48, while the common environmental correlation is comparably small (0.09). Their work also contributes to a critical and ongoing debate on whether politics is indeed in the genes or whether the development of political attitudes, partisan attachment, preference for authoritarianism, and prejudices is a result of inherited personality traits and/or intelligence (Scarr & Weinberg 1981; Persson 2010; Gerber *et al.* 2011; Smith *et al.* 2011; Verhulst *et al.* 2012).[3] Despite notable empirical evidence of strong genetic and often weak shared environmental influences, researchers emphasize the significant role of the family in the development of political attitudes, behavior, ideological orientations, and prejudices (Hatemi & McDermott 2012; Oskarsson *et al.* 2014; Miklikowska 2015) arguing that there would be no direct link from genes to outcomes. In fact, Alford *et al.* (2005), Hatemi *et al.* (2009), and Settle *et al.* (2009) report that the direction of partisan attachment is not heritable but instead more affected by shared environmental influences. Thus, while monozygotic twins might indeed be more similar in traits due to genetics, political preferences might be altered by the environment (Shultziner 2013).

3. Data

This paper uses data from the German Socio-Economic Panel (SOEP), a nationally representative longitudinal household survey that started annually interviewing more than 12,000 individuals in the Federal

[2] A recent political science study by Coffé & Voorpostel (2010) investigates the intergenerational transmission in far-right attitudes in Switzerland. However, they measure the preferences of both generations at the same time and the estimates might therefore suffer from reverse causality.

[3] The observed correlations might also be partly driven by assortative mating (Hatemi *et al.* 2010; Alford *et al.* 2011).

Republic of Germany beginning in 1984 (Haisken-DeNew & Frick 2005). The SOEP is ideally suited to investigate intergenerational transmissions in political preferences and attitudes toward immigration because it provides repeated measurements on affinity toward far right-wing parties and concerns about immigration for both parents and their children aged 17 and older between 1990 and 2009.[4] The adult children included in our sample are those for whom we have at least one observation of parents' political preferences when they were aged 0-16, and their own political preferences as adults. In our analysis, we mainly focus on whether adult children ever expressed right-wing party preferences or were ever very concerned about immigration to Germany.[5] Finally, the sample is restricted to adult children with German nationality whose parents also report having a German nationality.

3.1. Outcome Variables and Main Explanatory Variables

Right-Wing Party Preferences. The measures of right-wing extremist attitudes used in the analysis are derived from answers to the following question: "Many people in Germany lean toward one particular party in the long term, even if they occasionally vote for another party. Do you lean toward a particular party?" If respondents answer with yes, they are asked: "Which party do you lean toward?" Affinity toward a right-wing party is coded as one if respondents name a right-wing extremist party (*Deutsche Volksunion* (DVU), *Republikaner* (REP) or *Nationaldemokratische Partei Deutschlands* (NPD)) and zero if they name another political party or report having no party affinity at all (Arzheimer 2009a).[6] From the answers to this question we construct our first outcome variable (adult children's extreme right-wing party affinity) as well as the main explanatory variable (parents' extreme right-wing party affinity during the children's formative years).

Worries about Immigration. Moreover, we approximate the extent of the transmission of preferences toward immigration by studying individuals' concerns about immigration. We use the following SOEP question: "What is your attitude toward the following areas – are you concerned about them?" The answer categories are "very concerned", "somewhat concerned", and "not concerned at all". If the adult children (their parents)

[4] Waves 1-6 (years 1984-1989) of the SOEP are not used as preferences for far right-wing parties were first recorded in the year 1990 (wave 7) and attitudes toward immigration in the year 1999 (wave 16).

[5] The robustness section below also presents intergenerational estimates focusing on the number of times parents reported far right-wing party attachment and the number of times they expressed worries about immigration when their children were between 0 and 16 years of age.

[6] In the robustness section, we also report intergenerational associations in extreme right-wing party affinity only for individuals who report having a party preference. This decreases the sample size considerably, as around 50 percent of SOEP respondents in a given year do not report any party affinity. The intergenerational estimates based on this alternative sample are even larger in magnitude than the ones from our preferred model. This suggests that our estimates can be interpreted as lower bounds.

ever reported being very concerned about immigration to Germany, the dependent (explanatory) variable equals one, and is zero otherwise.[7]

The main reason for studying the intergenerational transmission in far right-wing attitudes together with concerns about immigration comes from the political science literature that has identified a strong relationship among extreme right-wing preferences, i.e., far right-wing voting and individuals' immigration sentiments (Lubbers *et al.* 2002; Arzheimer 2009b; Pardos-Prado 2011). In the context of extreme right-wing parties in Europe, Kai Arzheimer writes:

> "[I]ts members are reasonably distinct from the mainstream or established right and share a number of ideological features, in particular their concern about immigration, which swiftly became the single most important issue for these parties", (Arzheimer, 2009b: 259).

In a similar vein, Lubbers *et al.* (2002) point out:

> "People who perceive immigrants as a threat (in line with theories of economic interests) are more likely to blame these out-groups, and, as a consequence, are more likely to vote for extreme right-wing parties", (Lubbers *et al.* 2002: 348).

In line with this literature, we find a positive and statistically significant correlation between right-wing party affinity and individuals' concerns about immigration in our sample with a Spearman correlation coefficient of 0.23. Moreover, we also find a positive and precisely estimated correlation between our subjective outcomes measures and objective voting results for far right-wing parties at recent general elections in Germany. Apart from being theoretically motivated, studying both outcomes has methodological advantages. First, the number of adult children whose parents expressed strong concerns about immigration during their childhood years is considerably larger than the number of parents who reported far right-wing party affinities (see Table 1). This gives more variation and statistical power when estimating the strength of the intergenerational correlation. Moreover, answers to survey questions with respect to worries about immigration might be less likely to suffer from a social desirability bias than eliciting far right-wing party affinity.[8]

The SOEP data have various advantages for studying intergenerational links in political preferences, as it allows merging parents to adult children and provides repeated observations on political preferences over

[7] While this question was in general answered by more respondents than the questions on far right-wing extremist preferences, it was only asked on a yearly basis from 1999 onwards. This is reflected in different sample sizes.

[8] Similar to other studies drawing on survey data, we have to keep in mind the potential risk that not all individuals who have far right-wing party affinities reveal and report their true preferences. In the robustness section below, we carefully discuss these issues.

nearly two decades. Unfortunately, the data does not enable us to link political preferences to individuals' actual voting behavior. However, since regional information is readily available, it is possible to correlate averages in far right-wing party preferences from subjective information with actual voting outcomes. The left panel in Figure 1 displays the relationship between the proportion of individuals with a far right-wing party affinity in the SOEP (x-axis) and the proportion of votes for these parties in the most recent general elections (y-axis, using official votes from the years 1990, 1994, 1998, 2002, 2005, and 2009) at the state level. Similarly, the right panel in Figure 1 shows the relationship between the proportion of people who report being very worried about immigration and the objective electoral outcomes for far right-wing parties in Germany. The results in both figures suggest that subjective data on far right-wing party attachment and attitudes toward immigration from the SOEP contain genuine information on political preferences. Both subjective measures are positively correlated with the strength of far right-wing votes at the general elections in Germany, with a correlation coefficient of 0.41 and 0.40, respectively. Reassuringly, the subjective measures of far right-wing party affinity and concerns about immigration are not statistically positively correlated with the proportion of votes for the other mainstream parties CDU/CSU, SPD, FDP, and the Greens (see Figure A.1 in the Appendix).[9] Please note that Figures A.1-A.5 and Tables A.1 -A.8 (together with additional explanatory text) are reported in the Online Appendix. Overall, far right-wing voting behavior in the elections for the federal parliament in Germany is consistent with far right-wing party preferences as indicated by the respondents of the survey.

FIGURE 1 ABOUT HERE.

3.2. Additional Explanatory Variables

Parental Characteristics. Parents not only transmit political preferences, but also education and income levels (e.g., Björklund & Jäntti 1997; Black *et al.* 2005). Higher levels of educational attainment are negatively related to the propensity to cast an extreme right-wing vote (Lubbers *et al.* 2002). We therefore control for parental education. To capture further family characteristics, we also control for unemployment of the father and mother during childhood years (Siedler 2011). We focus on the total number of years that parents reported being unemployed while their children were between 0 and 16 years of age. Household income is disposable income, i.e., income available to the household after taxes and the government transfers

[9] Note, that there also exists a positive and statistically significant correlation between the proportion of people who are very concerned about immigration to Germany and the proportion of votes for the far left-wing party *Die Linke* at the state level. We return to this issue in more detail in section 5 below.

of all individuals in the household. It is averaged over all years for which information on income is available between the ages of 0 and 16 years. The variable is in prices of the year 2000 and is divided by 1,000.

Local Characteristics. Parents and children are exposed to common local environmental variables, such as media, legal changes, and political events that might independently shape preference formation and might lead to spurious intergenerational correlations if not controlled for (Calvó-Armengol & Jackson 2009; Jennings *et al.* 2009). At the county level, we control for the proportion of votes that the three main extreme right-wing parties (e.g., NPD, DVU, REP) received. To be more precise, we merge in the percentage of valid second votes these three parties received at the county level in the general elections in 1990, 1994, 1998, 2002, 2005, and 2009. Thereafter, we generate an average of the strength of right-wing parties over the period of childhood years for each person in the sample. This variable is used as a proxy to capture the strength of far right-wing parties during people's formative years at the regional level.[10] Moreover, in some specifications we also control for state dummy variables to capture social, political and economic variation across federal states.

3.3. Descriptive Statistics

Table 1 reports summary statistics. Column (1) in Table 1 reports the means for the sample of adult children for whom we have valid information on their party identification (3,052 individuals) and column (5) reports the means for all adult children for whom we observe their attitudes toward immigration (1,923 individuals).[11] In particular, we are interested in whether adult children whose parents preferred far right-wing parties during their childhood years (column (2)) grew up in a different environment to those whose parents never reported an affinity toward a right-wing extremist party (column (3)). Similarly, columns (6) and (7) report the means separately by parents' concerns about immigration to Germany during childhood years.

TABLE 1 ABOUT HERE.

The unconditional means for our outcome variables show striking differences according to the parents' preferences: 15 percent of the adult children from "far right-wing families" also report right-wing preferences,

[10] In a sensitivity analysis, we also include additional local right-wing parties when measuring the proportion of far right-wing votes at the regional level. The inclusion of this alternative measure of extreme right-wing party strength resulted in similar estimates to those reported here.

[11] Of the children whose childhood we consider through the age of 16, our right-wing sample contains 142 adult men and 40 adult women who ever reported a far right-wing party affinity. In the sample on sentiments toward immigrants, we have 1,323 adult men and 1,066 adult women who ever expressed concerns about immigration to Germany.

while only 3 percent of adult children whose parents did not report right-wing extremist attitudes feel an affinity to these extreme parties later in life. The result of a two-sample mean comparison test in column (4) suggests that the difference of 11 percentage points is statistically significant at the 1 percent level. Similarly, among parents who expressed strong concerns about immigration to Germany during their childhood years, 52 percent of adult children also report concerns later in life. The corresponding proportion among those whose parents were not (or were somewhat) concerned about immigration is 31 percent, with the difference also being statistically significant at the 1 percent level.

Figure 2 shows histograms of adult children's and parents' party preferences by gender, and Figure 3 displays histograms of both generations' concerns about immigration to Germany separately for women and men. If a person ever reported leaning toward two different parties (for example, SPD and the Greens), her preferences are considered in each of the relevant bars. Thus, an individual who has changed her party preference has a higher weight in Table 2 than an individual with completely stable preferences over time. The figure shows that men are more likely to feel close to far right-wing parties than women, and the proportions are higher in the children's generation. Furthermore, men are more likely to ever express strong concerns about immigration to Germany, but the gender differences are smaller compared to the gender gap in far right-wing party preferences. Unreported in the figure is the proportion of people at least once not revealing their party preferences. Overall, slightly more than 90 percent of adult children report no party preference in at least one year during the panel years. In Table A.1 in the Appendix we report the exact proportions of preferences among daughters, sons, mothers and fathers.

FIGURES 2 and 3 ABOUT HERE.

4. Empirical Approach

The following section describes the methodological approach to answer the following questions: How large is the transmission of extremist right-wing attitudes between parents and children? Are attitudes toward immigration transmitted from one generation to the next? Is there a positive association between parents' concerns about immigration during their children's formative years and the adult children's far right-wing party attachment?

Right-Wing Party Preferences. The analysis starts by presenting simple intergenerational associations in right-wing political preferences by estimating logit models of the form:

$$P(rw_i = 1|rw^p_{i_{[0;16]}}, X_i, X^p_i) = \Lambda(\alpha_0 + \beta rw^p_{i_{[0;16]}} + X_i\alpha_1 + X^p_i\alpha_2) \quad (1)$$

where rw_i is a dummy variable equal to one if the adult child i ever reports a right-wing extremist party affinity during panel years (when aged 17 or older) and zero otherwise. One problem with studies on the intergenerational transmission of political preferences is that children's and parents' political attitudes might be jointly determined by a third factor or that parents' political attitudes might be influenced by their children, rather than vice versa. To deal with this potential problem, we regress young people's right-wing attitudes on parents' right-wing attitudes measured during the child's childhood (ages 0-16). Thus, $rw^p_{i_{[0;16]}}$ is a dummy variable that equals one if parents of individual i report right-wing extremist preferences during i's formative years, and zero otherwise. The dummy variable $rw^p_{i_{[0;16]}}$ equals one if the mother, the father, or both parents of child i express right-wing extremist attitudes when the child is aged 0-16, and zero otherwise. In our baseline specifications, X_i is a (1×4) vector with children's average age, age-squared, year of birth, and a female dummy and X^p_i is a (1×3) vector including the mother's and father's year of birth, and a dummy variable indicating whether the mother lived in East Germany in 1989. The dummy variable is included to control for potential political and economic differences between East and West Germany prior to reunification. Finally, Λ indicates the cumulative distribution function of a standard logistic random variable.

The key coefficient β measures the age-adjusted association in right-wing extremist attitudes between parents and children. It is important to keep in mind that the estimate of β cannot be interpreted as a causal effect. Rather, it measures the associations in political preferences across generations and we do not aim at identifying causal mechanisms. As such, this study sheds no light on how important common genetic influences or socialization are for the intergenerational transmission of political preferences.

Worries about Immigration. Next, we study the intergenerational association in concerns about immigration. The corresponding model is as in equation (1), with the exception that we replace the variables rw_i and $rw^p_{i_{[0;16]}}$ with the variables im_i and $im^p_{i_{[0;16]}}$. The variable im_i is equal to one if adult child (aged 17 or older) i ever reports being very concerned about immigration to Germany during the survey years, and zero otherwise. Similarly, the variable $im^p_{i_{[0;16]}}$ is equal to one if the mother, the father or both parents ever expressed concerns about immigration to Germany during their offspring's childhood, and zero otherwise. Third, we also report intergenerational associations between children's right-wing extremist party affinity and their parents' worries about immigration, and how adult children's concerns about immigration are

related to parents' right-wing extremist attitudes during their childhood years.

5. Results

5.1. Baseline Regression

Table 2 reports the intergenerational estimates. We only report marginal effects from logit models for our key explanatory variables. Overall, the table reports marginal effects from 12 different estimations. The structure of Table 2 is such that the results for the outcome variable "Extreme right-wing party affinity" are reported in columns (1)-(3), whereas columns (4)-(6) report the estimates for the outcome variable "Very concerned about immigration". The marginal effects in Panel A are on the explanatory variable whether parents reported a right-wing party affinity during the child's childhood years, and Panel B shows the marginal effects on whether parents were ever very concerned about immigration to Germany during the child's childhood years.

TABLE 2 ABOUT HERE.

We first turn to columns (1)-(3), which report the likelihood of adult children reporting far right-wing preferences. Panel A shows that young people are considerably more likely to feel an affinity to a right-wing extremist party if their parents also expressed an affinity toward a far right-wing party. The estimated marginal effect is 0.06 and statistically significant at the 1 percent level (column (1)). This is a large effect given that around four percent of young people report support for an extreme right-wing party in our sample. Estimating separate regressions by gender reveals that the intergenerational transmission of right-wing extremism is considerably stronger for sons than for daughters. The marginal effect for sons is 0.128 and statistically significant at the 1 percent level. This corresponds to an increase of around 200 percent, since six percent of all sons ever report a far right-wing party affinity. For daughters, the marginal effect is close to zero, and the null hypothesis of a zero intergenerational correlation between parents and their daughters cannot be rejected at conventional significance levels.

The estimate in column (2), Panel B, also points to a significant association between parents who express high levels of concerns about immigration to Germany and their son's propensity to favor a right-wing extremist party, with a marginal effect of 0.03 (statistically significant at 1 percent level). This implies that adult sons whose parents were very concerned about immigration to Germany have a three percentage point higher likelihood of expressing affinity for a far right-wing party compared to those whose parents had no

strong concerns about immigration to Germany. In line with the results in Panel A, the intergenerational transmission is zero for daughters.

In columns (4)-(6) of Table 2, we take a closer look at whether the adult child was ever very concerned about immigration to Germany. The first striking difference in comparison to our first outcome measure is that the intergenerational marginal effects are much larger in magnitude, and all are precisely estimated and statistically significant at the 1 percent level. The second notable difference is that there are no large differences between daughters and sons. For example, the marginal effect for the intergenerational transmission in attitudes toward immigration is 0.28 for sons and 0.25 for daughters (columns (5) and (6), Panel B). Third, in families where parents leaned toward a far right-wing party during childhood, the marginal effect for adult children being very concerned about immigration later in life is 0.23, and significant at the 1 percent level (column (4), Panel A). In line with the estimates in Panel B, we do not find large differences between daughters and sons with respect to worries about immigration.

Overall, these first results document a substantial correlation of right-wing extremist party identification and attitudes toward immigration between parents and adult children in Germany. The estimates also point to considerably stronger intergenerational association of right-wing party affinity for sons than for daughters. Regarding the intergenerational link in attitudes toward immigration, we do not find heterogenous effects by gender.[12]

5.2. Parental Characteristics and Local Environment

The estimates in Table 2 only control for a few exogenous variables. Next, we estimate models that also control for parents' socioeconomic characteristics and regional controls, variables that were found to be relevant explanatory variables in previous empirical studies on far right-wing party preferences, voting behavior, and attitudes toward immigration (Arzheimer 2009a; Mayda 2006; Siedler 2011).[13]

Table 3 presents estimates from three alternative models for our two outcome variables. Columns (1)-(3) report our baseline regressions, columns (4)-(6) report the marginal effects once we also control for further parental characteristics (highest education, number of years parents' were unemployed, and mean household income during child's childhood years). Finally, the regressions in columns (7)-(9) control for the following

[12] One obvious concern with these estimates is that the differences in far right-wing attitudes between daughters and sons might be driven by a lower likelihood of women to report extremist views during the interview, rather than by true behavioral differences. We discuss this issue in more detail in the robustness section below.

[13] It is important to note that some of these variables might not be strictly exogenous, but it is nevertheless informative to see how their inclusion affects the intergenerational transmission process. For instance, if the coefficient measuring the intergenerational link in right-wing attitudes drops considerably by controlling for further socioeconomic background variables, this might indicate the possibility of breaking the intergenerational cycle via certain interventions, e.g., through educational or labor market programs.

regional characteristics: percentage of votes for the main three far right-wing parties during childhood years and a maximal set of federal state dummy variables.

TABLE 3 ABOUT HERE.

The estimates in Table 3, Panel A, show that the inclusion of further controls that might influence the intergenerational association in far right-wing attitudes do not considerably change the baseline estimates. In fact, the marginal effects remain quite stable. Once we control for parents' education and their labor market history, the intergenerational marginal effect drops slightly to 0.054 (column (4)). The intergenerational link remains statistically significant and is still of considerable magnitude, and mainly driven by sons. Controlling for parental educational background and labor market history, young males have a 12 percentage point higher likelihood of reporting a right-wing party affinity if the mother, the father, or both parents report right-wing attitudes earlier in life. Finally, controlling for the strength of far right-wing parties at the regional level and a maximum set of state dummy variables also does not have a considerable influence on the intergenerational link in right-wing extremism, as can be seen in columns (7)-(9) in Table 3.

Panel B reports the intergenerational estimates on people's concerns about immigration to Germany. Overall, the estimated intergenerational effects are very stable once additional explanatory variables are controlled for. For example, the intergenerational estimates in attitudes toward immigration vary between 0.27-0.28 for sons, and are in the order of 0.23-0.25 for daughters.

Turning to the marginal effects for other selected explanatory variables, considerable differences in right-wing party affinity and attitudes toward immigration between sons and daughters are identified. Women are three percentage points less likely to report far right-wing party preferences and 16-17 percentage points less likely to be very concerned about immigration to Germany. Moreover, the results in columns (1) and (2) in Panel A point to significant differences in extreme right-wing party affinity by whether young adults grew up in the former East or West Germany. However, once we control for parental background and the regional strength of right-wing extremist parties during childhood years, we do not find significant differences in political preferences between East and West Germans (column (7)). Overall, controlling for parents' education, labor market history, and for the strength of extreme right-wing parties at the local level does not break down the intergenerational link in extreme right-wing party affinity and attitudes toward immigration.

5.3. Comparison of the Results to Intergenerational Associations for Other Parties

In what follows we ask what is special about the intergenerational associations in extreme right-wing party affinity by comparing the estimates to intergenerational associations for other parties. Table 4 presents the intergenerational associations for the other five main political parties in Germany, namely the center-right Christian-Democrats (CDU/CSU), the center-left Social-Democrats (SPD), the Greens, the Liberals (FDP), and the far left-wing party, *Die Linke*.[14]

The columns in Table 4 are sorted by the vote shares of the parties in the 2009 general elections, the largest vote share going to the CDU/CSU (column (1)), the smallest to the right-wing parties (column (6)). Of particular interest is the comparison of the estimates in column (6) to all other columns that contain estimates for other parties. Panel A reports the intergenerational associations for sons, and Panel B for daughters. Independent of the gender, the more we move to the center of the political spectrum, the higher is the intergenerational association in terms of percentage point changes. However, relating the percentage points changes to the distribution of the relevant party affinity reveals that, among sons, the strength of the intergenerational association is strongest for far right-wing parties (213 percent), followed by the Greens (152 percent) and *Die Linke* (136 percent) (see Figure A.2 in the Appendix). Among sons, the correlation of right-wing party preferences is therefore very sizable if compared to other smaller parties such as the FDP and *Die Linke* and to the mainstream parties CDU/CSU and SPD.

TABLE 4 ABOUT HERE.

One key finding of the present study is the positive intergenerational association in far right-wing party affinity between parents and sons, and the absence of such a relationship for daughters. Are these gender differences only prevalent for the intergenerational link in far right-wing party affinity, or are they consistent with the intergenerational estimates for other parties in Germany? The absence of a positive significant intergenerational association in far right-wing party affinity among daughters is in stark contrast to the intergenerational link in other party preferences. Among daughters, the intergenerational estimates for other parties in Table 4 are all positive and statistically significant at the 1 or 5 percent level. In terms

[14]The largest parliamentary group in the German Bundestag (April 2015) is a center-right alliance between two parties: The Christian Democratic Union (CDU), chaired by Angela Merkel, and the Christian Social Union (CSU). On the opposite center-left are the Social Democrats (SPD), a party that stands for strong worker protection, minimum wages, and robust social welfare, and the Greens, originally a party of the ecologically-minded middle class. The ideological extreme on the left is occupied by the party *Die Linke*, which was formed in June 2007 with the merger of the successor party to the ruling party of the former German Democratic Republic, the Party of Democratic Socialism (PDS), and the West German Party of Labour and Social Justice (WASG). The party positions correspond to the the main trends on the left-right dimension, economic policy, and societal policy as identified by Slapin & Proksch (2008). The authors use German party manifesto data from 1990 to 2005.

of percentage changes, the intergenerational association in party preferences among daughters is strongest for the Greens (224 percent) and *Die Linke* (116 percent). Hence, the absence of a positive association in right-wing party preferences among daughters is not only in stark contrast to the corresponding estimates for sons, but also to the link of political preferences from one generation to the next for other mainstream parties in Germany.[15]

Another distinguishing feature in Table 4 is the fact that adult children from parents with other party preferences do not tend to switch to far right-wing preferences. Therewith, far right-wing party preferences seem not to reflect the adult child's protest behavior in response to other mainstream party preferences of the parents. However, there exists one important exception, both for sons and daughters: if parents reported far left-wing party preferences during their children's childhood years, both sons and daughters are more likely to report a far right-wing party affinity later in life. This association is in the magnitude of 8 percentage points (130 percent) for sons, and 6 percentage points (350 percent) for daughters. These associations point toward strong positive correlations in extreme attitudes between parents and children in Germany. In unreported regressions, we estimated separate regressions for adult children living in East and West Germany. The results indicate that this positive intergenerational link is mainly driven by individuals living in East Germany, where the party *Die Linke* is considerably stronger than in West Germany. At first, the positive link between parents' far left-wing party affinity and children's far right-wing party attachment seems surprising, because these parties are at the opposite ends of the political spectrum and considerably differ, for example, in their politics toward immigration. On the other hand, they also have some similarities, such as their critique of economic modernization, globalization, and they take a rather anti-capitalist and protectionist stance.[16]

5.4. Separate Estimates for Mothers' and Fathers' Political Preferences

Is the intergenerational association higher between sons and fathers *versus* mothers and daughters? To answer this question, we distinguish between mothers' and fathers' far right-wing preferences and their attitudes toward immigration. Table 5 reports the estimated marginal effects. The results in Panel A show that the positive intergenerational association in far right-wing preferences between parents and sons is

[15] Among daughters, the most striking difference to the zero correlations of far right-wing party preferences is a considerably larger intergenerational association for the left party the Greens. This correlation is even higher than the ones for other parties at the center, e.g., CDU/CSU and SPD. For a more extensive study on intergenerational transmission of party preferences, though without a comparison to right-wing preferences, see Kroh & Selb (2009).

[16] In line with these estimates, Figure A.1 in the Appendix shows a strong positive correlation between individuals' concerns about immigration to Germany and official votes for the left-wing party *Die Linke*. Furthermore, individuals' concerns about immigration are also positively related to votes for the SPD, with a correlation coefficient of 0.27.

entirely driven by a positive link between fathers and sons (column (2) in Panel A, Table 5). Moreover, the estimates show that both mothers' and fathers' far right-wing attitudes are positively related to children's concerns about immigration later in life (columns (5) and (6) in Panel A). Note, however, that the strength of the association is stronger between fathers and their children than between mothers and their children.

TABLE 5 ABOUT HERE.

The results in Panel B, Table 5 further show that fathers' and mothers' worries about immigration are not related to daughters' propensity to feel close to right-wing parties. In contrast, the marginal effect for sons in column (2) in Panel B points toward an increase in the propensity to report a right-wing party affinity of 3-4 percentage points when the mother or father report being concerned about immigration to Germany during the child's childhood years. Finally, the estimates in columns (5) and (6) in Panel B show no considerable differences in the correlation of attitudes toward immigration between mothers, fathers, and their adult children.

6. Robustness Checks and Caveats

We conduct several sensitivity analyses to verify the robustness of the results. First, we discuss whether the observed gender differences might be driven by differences in response behavior between women and men. Second, we add further explanatory variables that were found to be important for individuals' preferences in the academic literature. Third, we examine whether the estimates might be biased due to measurement error problems. Fourth, potential selection biases resulting from the sample design are discussed. Finally, we conclude this section by accounting for potential influences of the gender of the child on parents' political preferences.

Gender Differences and Non-Response Behavior. One explanation for the observed gender differences might be statistical challenges in estimating extreme preferences for women. The fact that the gender bias disappears for worries about immigration might be explained by social clues on appropriate responses and behavior in general (Croson & Gneezy 2009). Women could be simply more reluctant to reveal far right-wing preferences. In this case, parental clues would be equally important for women and men, but the distribution of societal preferences—the appropriateness of revealing preferences—would have a larger influence on whether women reveal extreme preferences. Hence, the results could indicate a female non-response bias of extreme political preferences that should be taken into account when empirically analyzing anti-social behavior. Figure 2 shows histograms on party preferences for adult children (upper panel) and their parents

(lower panel). The black bar displays the percentages ever leaning towards a far right-wing party.[17] In both generations, the percentages are considerably higher among men than women. At the same time, women are more likely to support left-wing parties, i.e., combining the percentages for the SPD, the Greens and *Die Linke*.[18] The percentage of individuals who say that they lean toward a political party−but do not reveal to which one−is very low (with less than 1 percent) and is similar for daughters and sons (not shown in the figure). This suggests that among those who feel close to a political party−but do not report to which party−women are unlikely to hide a (far right-wing) party affinity more than men. We interpret this as suggestive evidence that underreporting of far right-wing party preferences among women is unlikely to be a problem. On the other hand, women have a considerably higher likelihood of not having (or reporting) any party affinity. Hence, one problem could be that among those who do not feel close to any political party, the proportion harboring far right-wing preferences is higher among women. To shed some light on this, we studied two groups of women, those who do not reveal their party preferences and those who do. In the first step we investigate whether, among those who do not report a party affinity, women are more likely to indicate far right-wing political attitudes measured on a 10-point left-right political scale (with a "1" indicating far left, and a "10" indicating far right-wing political preferences).[19] We find no empirical evidence that women who do not indicate that they feel close to a political party are more likely to have far right-wing political views. Additionally, we investigated whether among those who answer that they do feel close to a political party, but not to which one, women are more likely to have far right-wing attitudes (measured by a nine or ten on the left-right political scale) than men. We also find no indication that women who feel close to party, but do not say to which one, are more likely to have far right-wing political views.[20]

Next, in Table A.2 we present results on whether the presence of an interviewer influences adult children's far right-wing party affinity. As such, we control for the variable "Total number of times in face-to-face interview" which counts the number of years the young adult was responding to the SOEP questions with an interviewer present. For example, women might be less likely to reveal their 'true' far right-wing party affinity if an interviewer is present than when filling out the questionnaire anonymously. The estimates in Table A.2 show that this variable has no significant effect on the outcomes, and the intergenerational correlations of far right-wing party affinity and attitudes towards immigration do not change. In unreported regressions, we also controlled for the interview mode when parents' reported their party preferences (i.e., the number

[17] Figure 3 shows histograms of adult children's and their parents' concerns about immigration.
[18] This is mainly driven by a higher chance of support for the Greens among women.
[19] The left-right political scale is only included in the years 2005 and 2009 in the SOEP questionnaire. The question reads: "In politics, people often talk about 'left' and 'right' when describing different political views. When you think about your own political view, how would you rate them on the scale below?". We used data for the year 2005 for this exercise.
[20] All results are available from the authors upon request.

of years parents had face-to-face interviews during childhood years). Reassuringly, the intergenerational estimates are in line with the results in Tables 2 and 3.

Finally, we construct an alternative outcome (dependent) variable measuring the number of times children (parents) report a far right-wing party affinity. Sons report on average 0.128 times to lean toward a right wing party, daughters only 0.046 times. Using these alternative measures, we then estimate a simple OLS regression for sons only. Keeping the estimated coefficients, in a second step, we predict daughters' outcomes as if they were sons and then compare this as-if outcome with the observed outcome. If the gender differences remain, we interpret this as additional evidence that the gender anomalies are likely to be real. The predictions suggest that daughters would lean 0.065 times toward a far right-wing party, instead of the observed outcome of 0.046. In other words, if we adjust the main explanatory variable for the number of times parents responded to the question, we observe a difference in predicted and observed outcomes of 0.014 among daughters. Overall, we interpret these sensitivity analyses as evidence that the observed gender differences are real and unlikely to be driven by differences in response behavior by gender.

Adding Individual-Level Characteristics. As outlined in Section 2, attitudes toward immigration, extreme-right wing party preferences, and individuals' education are likely to be closely linked. Table A.3 in the Appendix therefore reports the intergenerational estimates when also controlling for adult children's own education and their employment status. The way education and employment are related to political preferences is not obvious. For example, it might be that because young people harbor far right-wing preferences, they encounter problems at school and consequently drop out early. This would point toward a causal negative effect of extreme political preferences on schooling, rather than vice versa. Hence, adult children's schooling might be endogenous and therefore a poor control variable in our intergenerational transmission regressions. Despite these potential limitations, though in line with the existing literature, we find a negative and statistically significant relationship between higher levels of education and individuals' likelihood to harbor far right-wing party preferences or to be concerned about immigration in all estimated models. The results in Table A.3 show that all intergenerational estimates are robust to controlling for adult children's education and employment status.[21]

[21] In unreported regressions, we were also controlling for economic worries that the parents had while the child was growing up. In particular, we controlled for whether the parents were very concerned about the economic situation and about their own financial situation (Feldman 1982). The intergenerational estimates when controlling for parents' economic worries were nearly identical to the estimates in Tables 2 and 3, so potential biases due to parents' economic worries during childhood seems unlikely.

Addressing Potential Measurement Errors. There might be the issue of social stigma associated with declaring one's true political preferences, if one's true preferences are extremist in nature. In particular, measurement error in the explanatory variable is a worry, as it is likely to result in downward biased estimates. We address this worry by using alternative measurements for political preferences.

While we cannot completely rule out the absence of measurement error, in Tables A.4 -A.6 we start by reporting various estimates from alternative explanatory variables to seek a more robust picture of the intergenerational estimates than by using one measure only. So far we have defined individuals who answer that they do not have a long-term party attachment as having no far right-wing party preferences.[22] By including people with no party preferences into the control group, we are likely to estimate a lower bound: if individuals with extreme right-wing preferences are more likely to state no party preference at all in the interview, then we underestimate the proportion of individuals with far right-wing party preferences. In Table A.4 , we report intergenerational estimates only for adult children and their parents who report having any party preferences. This reduces the sample size considerably. It turns out that our main estimates so far had been conservative since the estimates in Table A.4 point to an even stronger intergenerational link in far right-wing party preferences for sons, with a marginal effect of 0.195.[23] Again, we do not find any evidence for a positive intergenerational link in far right-wing party affinity for daughters.

We now turn to further alternative explanatory measures, by counting the number of times parents expressed affinity toward right-wing parties and the number of times parents' reported being worried about immigration during their offspring's childhood years. The level of family politicization and consistent cue-giving has been found to matter in children's socialization (Jennings *et al.* 2009). The results in Table A.5 again point to a strong positive intergenerational association in far right-wing party affinity for sons, but not for daughters. Consistent with our previous results, we do not find large differences between sons and daughters in the strength of intergenerational transmission of attitudes toward immigration.

The SOEP not only collects information on respondents' party preferences, but also on the extent of support for the named political party. Using this information, we generate an alternative explanatory variable, "strong support for a right-wing extremist party", that equals one if parents express affinity toward a right-wing extremist party and additionally state that this affinity is very strong or rather strong, and zero otherwise. Similarly, we define only those parents as being very worried about immigration if they reported in more than three years being very concerned about immigration during children's childhood

[22] This is in line with Arzheimer (2009a). Note that one difference between his study and ours is that he studies voting rather than party attachment defining individuals who abstained from voting as not having voted for a far right-wing party.

[23] The estimates in columns (4)-(6) in Panel B are the same as in Table 2 as we do not change the definition for the variable being very concerned about immigration in this sensitivity analysis.

years, and zero otherwise.[24] In line with the results in Table 2, the intergenerational estimates in Table A.6 in the Appendix point to a positive and significant association in right-wing extremism for sons, but not for daughters. The intergenerational estimates on worries about immigration are also consistent with those in Table 2.[25]

Sample Selection. We also examined whether differences exist in the intergenerational transmission by whether the adult children had moved out of their parents' homes. We find no evidence that the transmission is stronger when adult children still live at home, but we must be careful in interpreting this result, since most adult children still lived with their parents while being interviewed. Further, in previous work, we estimated the link between young people's current right-wing attitudes and whether parents ever reported a right-wing party affinity (or concerns about immigration) when children were aged 0-14 and 0-18. This change in the sample selection had little influence on the intergenerational estimates.

Parents Change Attitudes due to the Gender of the Child. Hitherto, the present intergenerational estimates relate parents' preferences measured during childhood to young people's preferences many years later in life. It is therefore unlikely that children influence their parents' political preferences rather than vice versa. The literature shows that the gender of the child matters for parents' political preferences (Washington 2008; Oswald & Powdthavee 2010). We examine whether the differences in the intergenerational transmission in far right-wing party attachment between daughters and sons might be influenced by the gender of the child by estimating fixed effects panel regressions. First, we construct a panel of adult women who were childless in 1990, and then followed them over time.[26] Our key time-varying covariate "firstborn child" becomes one the moment the child is born, and remains zero otherwise. In a second step, we generate time-varying explanatory variables for having a male or female firstborn. Next, we also merge in the political preferences of the fathers. Table A.7 reports marginal effects from fixed effect logit models for mothers and fathers. The estimates show that the gender of the child has no statistically significant impact on mothers' and fathers' political preferences in the majority of regressions. We therefore argue that the differences in the intergenerational correlations between daughters and sons are unlikely to be driven by the gender of the child.

[24] Overall, 2.5 percent of parents reported a strong party affinity toward a far right-wing party at some point in time in Germany, and 17 percent were worried about immigration in more than three years.

[25] Note, however, that the intergenerational transmission of parents' extreme right-wing party affinity on adult daughters' worries about immigration (Panel A, Table A.6) is smaller than the corresponding estimate in Table 2, and not significantly different from zero.

[26] We start in 1990 since this is the first year far right-wing party affinity is elicited in the SOEP.

Caveats. Despite the extensive analysis, we should carefully point out that the present estimates cannot be interpreted as causal effects. In the absence of a plausible exogenous variation in parents' party attachment and worries about immigration, we cannot estimate causal intergenerational effects. The aim of this paper is rather descriptive in nature by providing the first empirical evidence of the role of family socialization in far right-wing party affinity and attitudes toward immigration through intergenerational estimates. As such, the paper might serve as a useful benchmark for future studies examining causal effects in extreme political preferences and attitudes toward immigration.

7. Conclusions

This paper reports the first results on the strength of intergenerational associations in right-wing extremist party affinity and attitudes toward immigration. As such, the study contributes to both the economic and the political science literature. The estimates are derived from 19 waves of the German Socio-Economic Panel (SOEP), a representative and long-running household panel survey. The intergenerational estimates point to a strong and statistically significant intergenerational association in right-wing extremist party affinity among sons, but not among daughters. Adult males who grew up with right-wing extremist parents have a 13 percentage point higher likelihood of sharing an affinity to these far right-wing parties as young adults. The corresponding marginal effect for daughters is 0.01, and not statistically different from zero. We also estimate that children whose parents expressed deep concerns about immigration to Germany during their children's formative years (ages 0-16) have a 23 percentage point higher likelihood of also being very concerned about immigration as adults. We do not find large differences in the intergenerational transmission in attitudes toward immigration between males and females.

The results on the gender-gap in the intergenerational association in right-wing extremist party affinity and attitudes toward immigration are in line with the existing literature. Studies show a disproportionately low preference of women towards the radical right (Givens 2004), while evidence on women's attitudes towards migration remains more mixed (Hainmueller & Hiscox 2007). In cases where right-wing policies are associated with conservative stances toward redistributive policies and gender issues, lower labor market participation and (sudden) falls in income might drive females to the opposite of the political spectrum (Edlund & Pande 2002; Urbatsch 2011). The observed differences might also be caused by gender gaps in other preferences, such as women's general aversion towards extremism and violence or a reluctance to reveal radical preferences (see Croson & Gneezy (2009) for an overview). As to our knowledge, the literature does not provide any evidence for female underreporting of extreme party preferences. Without any claim

of exclusiveness, our study adds a potential argument to the lower yet existing right-wing preferences of females: while some women do possess right-wing preferences, they do not seem to adopt them from their parents.

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Table 1: **Sample Means By Parents' Party Preferences and Attitudes toward Immigration**

	Parents' Party Preferences				**Parents' Attitudes toward Immigration**			
	(1) All	(2) Right-wing	(3) No right-wing	(4) Diff.[c]	(5) All	(6) Con-cerned	(7) Not con-cerned	(8) Diff.[c]
Adult child's outcome variables:								
Leaning toward a right-wing party[a]	0.039	0.148	0.034	0.114*** (0.018)				
Very concerned about immigration[b]					0.444	0.520	0.310	0.210*** (0.023)
Parental preferences:								
Leaning toward a right-wing party[a]	0.038							
Very concerned about immigration[b]					0.638			
Further explanatory variables:								
Age	22.447	22.739	22.436	0.303 (0.403)	20.714	20.533	21.033	-0.500*** (0.113)
Year of birth	1983.891	1983.974	1983.888	0.086 (0.448)	1986.984	1987.272	1986.479	0.792*** (0.112)
Respondent is female	0.489	0.452	0.491	-0.038 (0.048)	0.491	0.476	0.519	-0.044 (0.024)
Mother's year of birth	1957.066	1958.165	1957.022	1.143* (0.577)	1959.386	1959.942	1958.409	1.533*** (0.240)
Father's year of birth	1954.324	1955.261	1954.288	0.973 (0.658)	1956.745	1957.393	1955.605	1.788*** (0.281)
Mother lived in East Germany in 1989	0.361	0.600	0.352	0.248*** (0.045)	0.327	0.361	0.268	0.092*** (0.022)
Variables when child is 16 years old:								
Mother: Less than High School[d]	0.124	0.157	0.122	0.034 (0.031)	0.097	0.108	0.077	0.030* (0.014)
Mother: High School	0.658	0.652	0.658	-0.006 (0.045)	0.657	0.686	0.607	0.079*** (0.022)
Mother: More than High School	0.211	0.191	0.212	-0.021 (0.039)	0.240	0.201	0.308	-0.108*** (0.020)
Father: Less than High School	0.057	0.078	0.056	0.022 (0.022)	0.055	0.057	0.050	0.007 (0.011)
Father: High School	0.677	0.800	0.672	0.128** (0.044)	0.632	0.721	0.476	0.245*** (0.022)
Father: More than High School	0.251	0.113	0.256	-0.143*** (0.041)	0.295	0.210	0.445	-0.234*** (0.021)
Childhood years (ages 0-16):								
Mother: Number of years unemployed	0.496	1.139	0.471	0.669*** (0.128)	0.579	0.715	0.341	0.373*** (0.072)
Father: Number of years unemployed	0.302	0.722	0.286	0.436*** (0.096)	0.368	0.464	0.199	0.265*** (0.055)
Disposable household income/1000[e]	36.640	29.601	36.915	-7.315*** (1.864)	40.046	36.227	46.764	-10.536*** (1.021)
Observations	3052	115	2937		1923	1226	697	

Notes: [a] The variable is equal to one if the adult child (parents) at least once report an extreme right-wing party affinity during panel years (during the child's childhood years (ages 0-16)) and zero otherwise. [b] The variable is equal to one if the adult child (parents) at least once report that they are very concerned about immigration to Germany during panel years (during childhood years (ages 0-16)) and zero otherwise. [c] Ttest applied to differences. [d] Parental educational degree is measured when the child was 16 years old. [e] Household disposable income is annually observed at the household level and then averaged over the period of childhood. The variable is in prices of year 2000 and is divided by 1000. Difference is *, **,*** significant at the 10 percent, 5 percent, and 1 percent level, respectively.

Table 2: **The Relationship between the Political Preferences of Parents and their Children's - Baseline Regressions**

	Extreme right-wing party affinity			**Very concerned about immigration**		
	(1) All	(2) Sons	(3) Daughters	(4) All	(5) Sons	(6) Daughters
Panel A:						
Parents leaned toward a right-wing party[a]	**0.060*** **	**0.128*** **	**0.010**	0.234***	0.228***	0.228***
	(0.021)	(0.044)	(0.015)	(0.046)	(0.054)	(0.076)
Observations	3343	1690	1653	3101	1564	1537
Pseudo R^2	0.11	0.08	0.10	0.08	0.06	0.09
Panel B:						
Parents were very concerned about immigration[a]	0.014***	0.031***	0.001	**0.272*** **	**0.279*** **	**0.254*** **
	(0.004)	(0.009)	(0.003)	**(0.024)**	**(0.035)**	**(0.031)**
Observations	2060	1040	1020	2054	1038	1016
Pseudo R^2	0.10	0.06	0.17	0.12	0.12	0.11

Notes: [a] The variable is measured during the child's childhood years (ages 0-16). Marginal effects from logit regressions with standard errors in parentheses. Robust standard errors are clustered at mother's identification number. Other explanatory variables are child's age, age squared, year of birth, the mother's and father's year of birth, and a dummy on whether mother lived in East Germany in 1989. Regressions in columns (1) and (4) also contain a female dummy. *, **, *** significant at the 10 percent, 5 percent, and 1 percent level, respectively.

Table 3: **The Relationship between the Political Preferences of Parents and their Children's**

	Baseline Regressions			**Parental Characteristics**			**Local Characteristics**		
	(1) All	(2) Sons	(3) Daughters	(4) All	(5) Sons	(6) Daughters	(7) All	(8) Son	(9) Daughters
				Outcome: Extreme right-wing party affinity					
Panel A:									
Parents leaned toward a	0.060***	0.128***	0.010	0.054***	0.120***	0.010	0.050***	0.123***	0.006
right-wing party[a]	(0.021)	(0.044)	(0.015)	(0.020)	(0.044)	(0.013)	(0.018)	(0.043)	(0.014)
Respondent is female	-0.035***			-0.028***			-0.026***		
	(0.006)			(0.005)			(0.005)		
Mother lived in East Germany in 1989	0.015***	0.036***	0.001	0.006	0.014	0.001	0.013	0.022	0.006
	(0.006)	(0.012)	(0.004)	(0.005)	(0.011)	(0.004)	(0.008)	(0.016)	(0.006)
Parental Characteristics				✓	✓	✓	✓	✓	✓
Local Characteristics							✓	✓	✓
Observations	3343	1690	1653	3052	1559	1493	3031	1550	1144
Pseudo R^2	0.11	0.08	0.10	0.13	0.11	0.13	0.15	0.14	0.18
				Outcome: Very concerned about immigration					
Panel B:									
Parents were very concerned about	0.272***	0.279***	0.254***	0.248***	0.269***	0.226***	0.251***	0.272***	0.228***
immigration[a]	(0.024)	(0.035)	(0.031)	(0.026)	(0.039)	(0.034)	(0.027)	(0.040)	(0.034)
Respondent is female	-0.157***			-0.163***			-0.166***		
	(0.024)			(0.025)			(0.025)		
Mother lived in East Germany in 1989	0.060*	0.001	0.114**	0.057	-0.026	0.130**	0.028	-0.004	0.063
	(0.028)	(0.037)	(0.040)	(0.032)	(0.045)	(0.046)	(0.058)	(0.097)	(0.068)
Parental Characteristics				✓	✓	✓	✓	✓	✓
Local Characteristics							✓	✓	✓
Observations	2054	1038	1016	1923	978	945	1923	973	945
Pseudo R^2	0.12	0.12	0.11	0.13	0.12	0.13	0.14	0.14	0.14

Notes: [a] The variable is measured during the child's childhood years (ages 0-16). Marginal effects from logit regressions with standard errors in parentheses. Robust standard errors are clustered at mother's identification number. Other explanatory variables are child's age, age squared, year of birth, the mother's and father's year of birth, and a dummy on whether the child's mother lived in East Germany in 1989. Regressions in columns (1), (4) and (7) also contain a female dummy. *, **, *** significant at the 10 percent, 5 percent, and 1 percent level, respectively.
Parental Characteristics during Childhood: Parental highest educational degree is measured separately for the mother and father when the child was 16 years old. Two variables capturing the total number of years the mother was unemployed and the total number of years the father was unemployed during child's childhood years. Household disposable income is annually observed at the household level and then averaged over the period of childhood. The variable is in prices of year 2000 and is divided by 1000.
Local Characteristics: County votes for right-wing parties during childhood and federal state dummies.

Table 4: **Intergenerational Correlations of Party Preferences**

	(1) CDU/CSU	(2) SPD	(3) FDP	(4) *Die Linke*	(5) Greens	(6) DVU, REP, NPD
Parental Preferences on Sons:						
CDU/CSU	**0.238*****	-0.101***	0.037***	-0.023***	-0.046***	0.005
	(0.023)	(0.019)	(0.011)	(0.008)	(0.014)	(0.011)
SPD	-0.152***	**0.204*****	-0.027***	0.008	0.035**	-0.005
	(0.020)	**(0.021)**	(0.010)	(0.008)	(0.015)	(0.010)
FDP	0.026	-0.056*	**0.020**	-0.020*	0.079**	-0.015
	(0.037)	(0.031)	**(0.021)**	(0.012)	(0.033)	(0.017)
Die Linke	-0.114***	0.083*	-0.019	**0.072*****	0.121***	-0.018
	(0.029)	(0.043)	(0.015)	**(0.024)**	(0.040)	(0.014)
Greens	-0.054**	0.050	0.006	0.019	**0.146*****	-0.005
	(0.026)	(0.031)	(0.015)	(0.014)	**(0.029)**	(0.015)
DVU, REP, NPD	-0.019	-0.098***	-0.004	0.080**	-0.033	**0.128*****
	(0.052)	(0.038)	(0.022)	(0.037)	(0.029)	**(0.044)**
Parental Preferences on Daughters:						
CDU/CSU	**0.212*****	-0.108***	0.017**	-0.023***	-0.042**	-0.007
	(0.021)	(0.017)	(0.008)	(0.007)	(0.017)	(0.005)
SPD	-0.136***	**0.191*****	-0.017**	-0.002	-0.010	0.006
	(0.017)	**(0.020)**	(0.007)	(0.006)	(0.017)	(0.005)
FDP	0.013	-0.031	**0.043****	-0.002	0.108***	0.005
	(0.034)	(0.030)	**(0.020)**	(0.014)	(0.042)	(0.009)
Die Linke	-0.099***	-0.002	-0.011	**0.050****	0.139***	0.002
	(0.023)	(0.034)	(0.010)	**(0.020)**	(0.049)	(0.008)
Greens	-0.098***	0.007	0.008	0.019	**0.269*****	-0.006
	(0.019)	(0.027)	(0.012)	(0.013)	**(0.036)**	(0.005)
DVU, REP, NPD	0.007	-0.059	0.044	0.062**	-0.036	**0.010**
	(0.055)	(0.039)	(0.030)	(0.029)	(0.038)	**(0.015)**

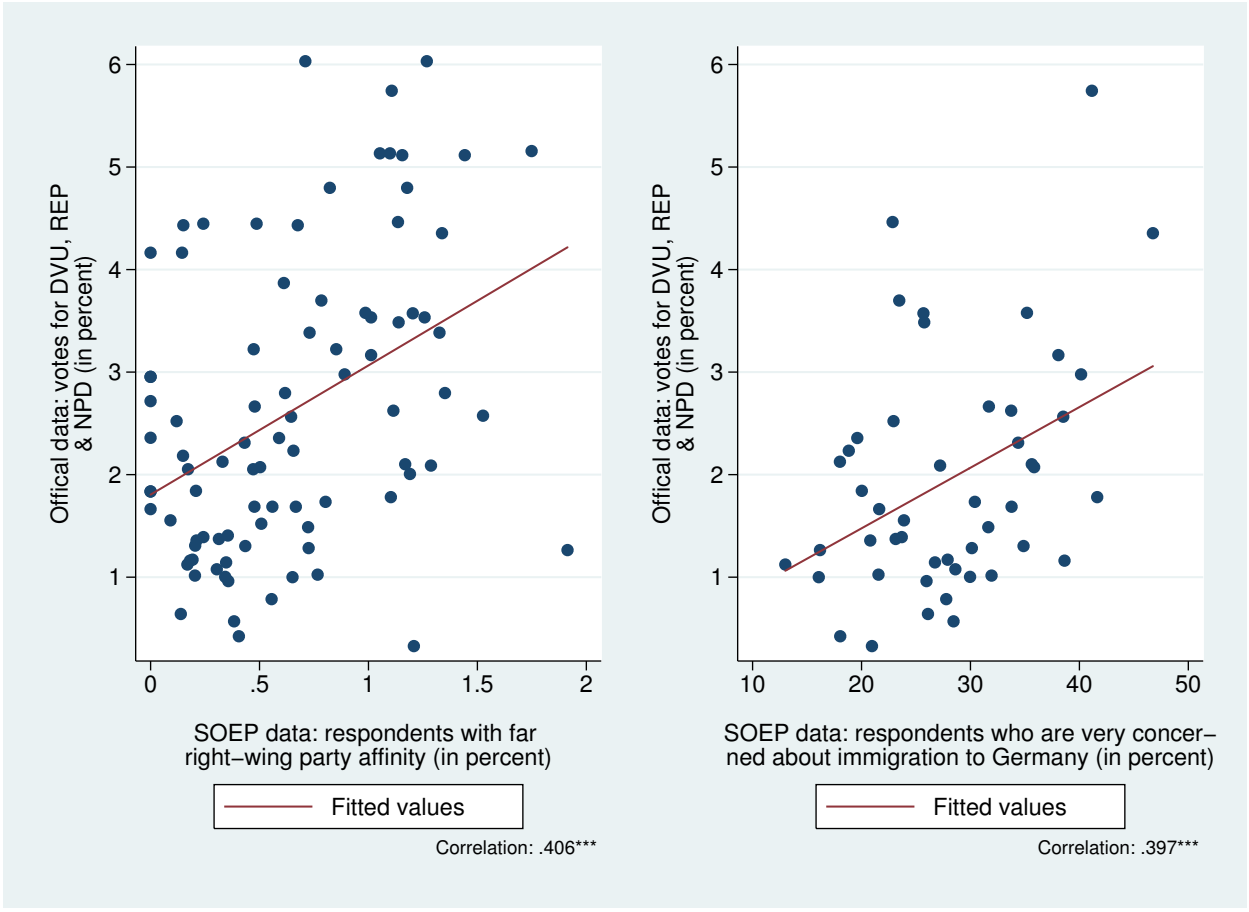
Notes: All parental party affinities are measured during the child's childhood years (ages 0-16). Marginal effects from logit regressions with standard errors in parentheses. Each marginal effect (standard error) comes from a different regression. Number of observations in the upper (lower) panel is 1690 (1653). Robust standard errors are clustered at mother's identification number. Other explanatory variables are child's age, age squared, year of birth, the mother's and father's year of birth, and a dummy on whether the child's mother lived in East Germany in 1989. Separate regressions by child's gender. The parties are ordered according to the results of the 2009 federal elections (*Zweitstimme*). *, **, *** significant at the 10 percent, 5 percent, and 1 percent level, respectively.

Table 5: **The Relationship between Mothers' versus Fathers' Political Preferences and their Children's**

	Extreme right-wing party affinity			**Very concerned about immigration**		
	(1) All	(2) Sons	(3) Daughters	(4) All	(5) Sons	(6) Daughters
Panel A:						
Father leaned toward a right-wing party[a]	0.072***	0.160***	0.003	0.278***	0.247***	0.307***
	(0.025)	(0.053)	(0.013)	(0.047)	(0.055)	(0.075)
Observations	3277	1663	1614	3049	1542	1507
Pseudo R^2	0.11	0.08	0.09	0.08	0.07	0.09
Mother leaned toward a right-wing party[a]	0.026	0.048	0.009	0.196***	0.164*	0.209*
	(0.023)	(0.046)	(0.022)	(0.071)	(0.088)	(0.124)
Observations	3317	1677	1640	3076	1551	1525
Pseudo R^2	0.10	0.06	0.10	0.07	0.06	0.09
Panel B:						
Father was very concerned about immigration[a]	0.016***	0.038***	0.001	0.242***	0.256***	0.225***
	(0.004)	(0.010)	(0.003)	(0.024)	(0.034)	(0.033)
Observations	2001	1019	982	1995	1017	978
Pseudo R^2	0.11	0.09	0.16	0.12	0.11	0.10
Mother was very concerned about immigration[a]	0.013***	0.031***	-0.000	0.268***	0.254***	0.269***
	(0.005)	(0.010)	(0.003)	(0.024)	(0.034)	(0.033)
Observations	2043	1029	1014	2037	1027	1010
Pseudo R^2	0.10	0.07	0.17	0.12	0.11	0.12

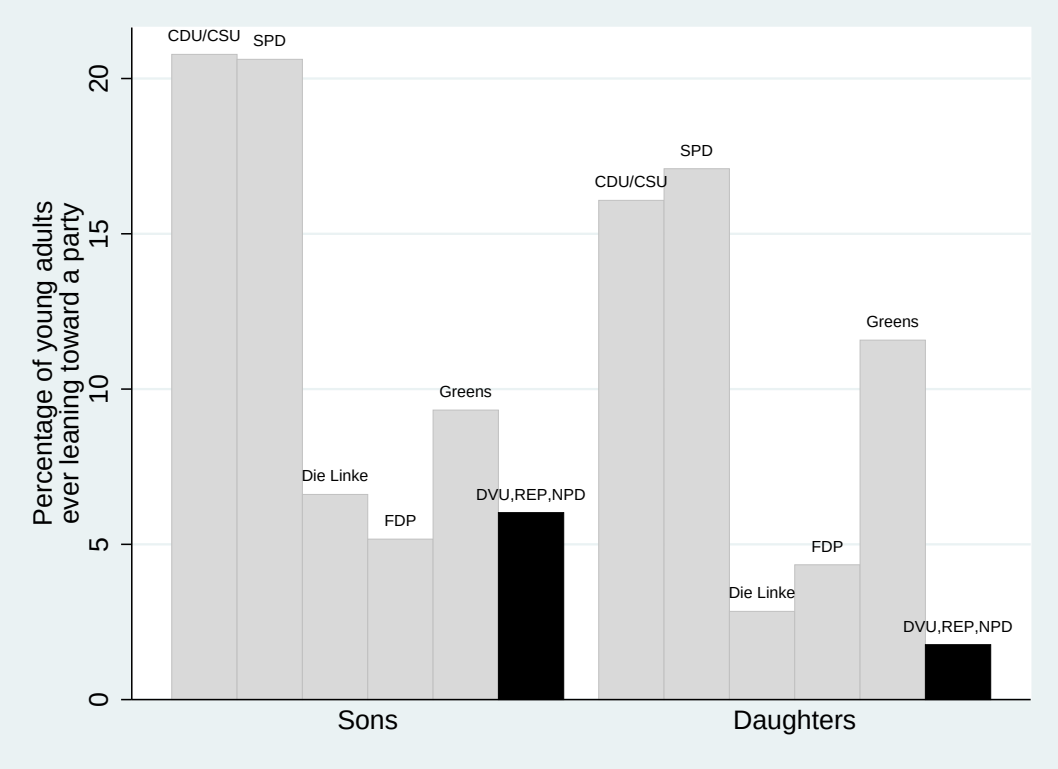
Notes: [a] The variable is measured during the child's childhood years (ages 0-16). Marginal effects from logit regressions with standard errors in parentheses. Robust standard errors are clustered at mother's identification number. Other explanatory variables are child's age, age squared, year of birth, the mother's and father's year of birth, and a dummy on whether the child lived in East Germany in 1989. Regressions in columns (1) and (4) also contain a female dummy. *, **, *** significant at the 10 percent, 5 percent, and 1 percent level, respectively.

Figure 1: **Official Votes for Far Right-Wing Parties and Subjective Measures (Far Right-Wing Party Affinity and Concerns about Immigration) at the State Level**

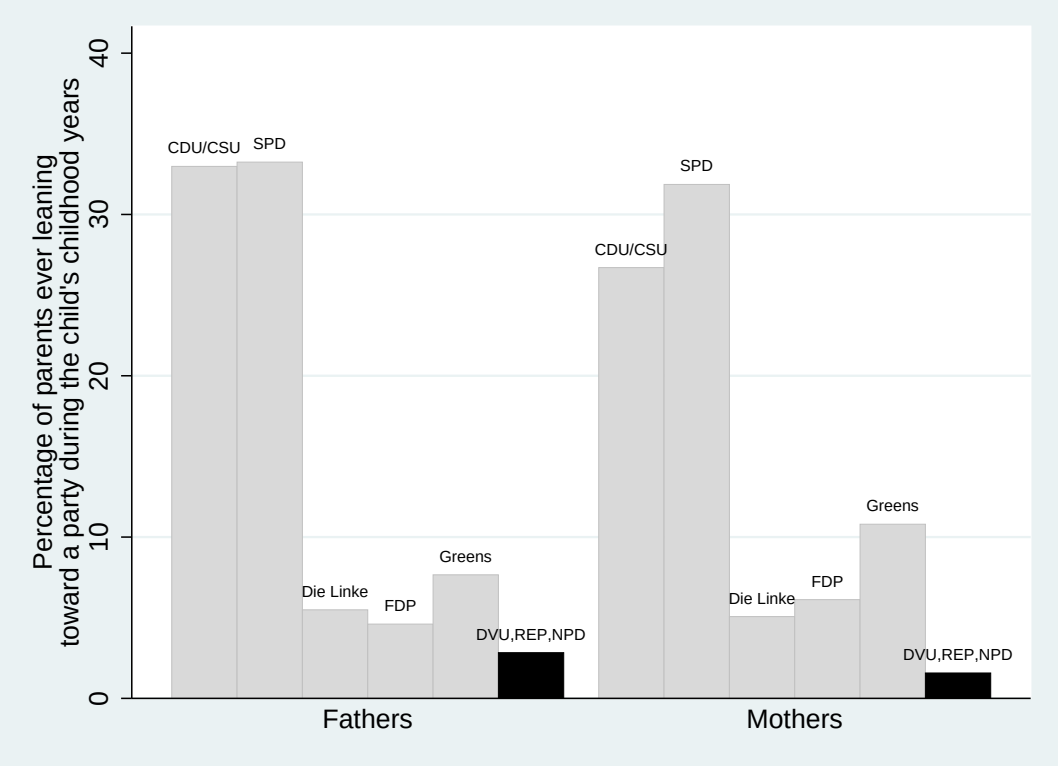


Note: The figure displays the proportion of votes for far right-wing parties (DVU, REP and NPD) in general elections (y-axis) with the proportion of SOEP respondents who report a far right-wing party affinity (left panel) and the proportion of SOEP respondents who report being very concerned about immigration to Germany (right panel). The figure displays the link between official and subjective measures using data at the state level for the years in which general elections took place in Germany (left panel: 1990, 1994, 1998, 2002, 2005, and 2009; right panel: 2002, 2005, and 2009).

Figure 2: **Distribution of Political Preferences for Adult Children and Parents, by Gender**



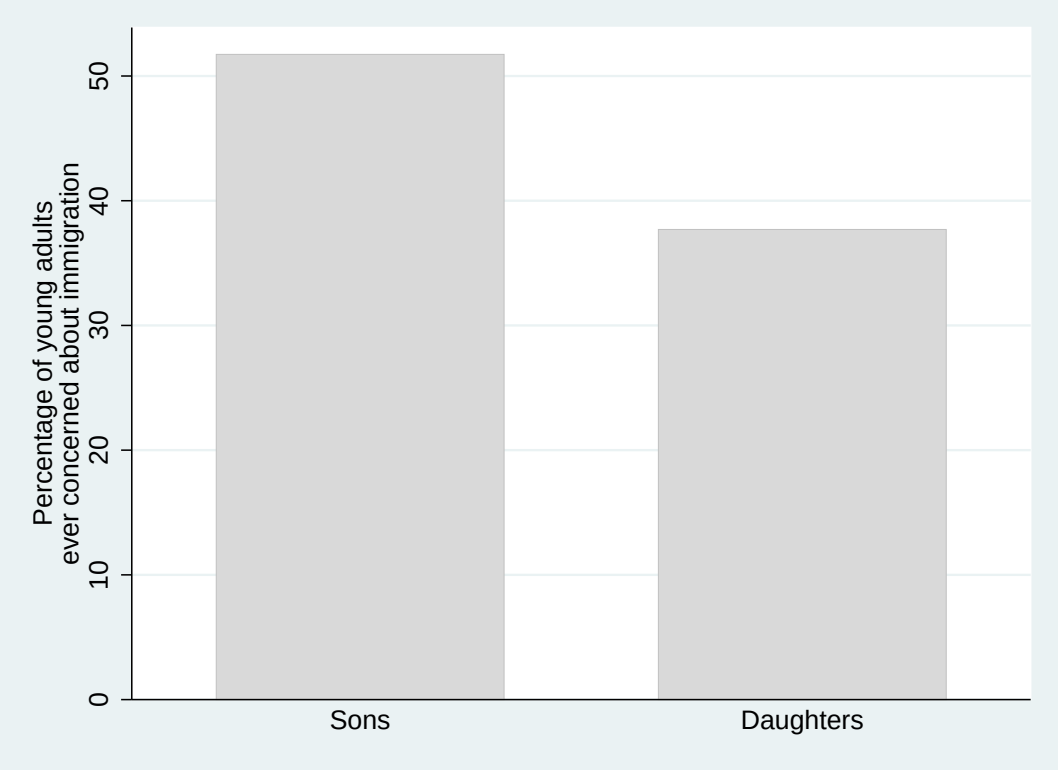
(a) **Adult Children's Party Preferences**



(b) **Parents' Party Preferences During the Child's Childhood Years**

Note: The figure displays the percentage of adult children (upper panel) and parents (lower panel) at least once leaning toward a major party CDU/CSU, SPD, Greens, FDP and *Die Linke* (in gray bars). The black bars indicate the percentage of respondents reporting at least once a far right-wing party affinity. The percentages who report no party affinity at least once during the panel years are: sons 91 percent, daughters 94 percent, fathers 72 percent, and mothers 79 percent. The differences are statistically significant. These figures refer to individuals who at least once respond "*No*" to the filter question "*Many people in Germany lean towards one party in the long term, even if they occasionally vote for another party. Do you lean towards a particular party?*". Table A.1 summarizes the percentages by gender.

Figure 3: **Distribution of Concerns about Immigration for Adult Children and Parents, by Gender**



(a) **Adult Children's Concerns about Immigration**

(b) **Parents' Concerns about Immigration During the Child's Childhood Years**

Note: The figure displays the percentage of adult children (upper panel) and parents (lower panel) who were at least once concerned about immigration to Germany. The percentages who do not answer this question (item non-response) at least once during the panel years are: sons 2.6 percent, daughters 3 percent, fathers 4 percent, and mothers 4.9 percent.