Neo-Nazism and discrimination against foreigners: A direct test of taste discrimination

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Abstract:

I test some predictions of Gary Becker's theory of taste discrimination regarding discrimination of foreigners by employers, co-workers and customers. I combine a 2% sample of the German working population and a 50% sample of German plants with low-level regional data, including the vote shares of three right-wing parties as a proxy for regional racism. The results show that (a) foreigner-native wage differentials rise with the share of right-wing voters, (b) the exact magnitude of the effects varies between skill groups and by gender, the largest effects being found for high-skilled men and women, (c) average employment shares of natives vary very little with the share of right-wing voters, (d) segregated firms become more common in manufacturing and construction when support for right-wing parties rises, while no effects are found for services and gastronomy and (e) the negative wage effects are strongest for foreigners working in services, while no effects are found in manufacturing and gastronomy. These results broadly confirm the predictions from taste discrimination.

Keywords: taste discrimination, segregated firms, wage differentials

JEL Classification: J23, J31, J71

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All analyses used Stata 10.1. Do-Files are available from the author on request. This study uses the weakly anonymous BA-Employment Panel and Establishment History Panel (Years 1998, 2002 and 2005). Data access was provided via remote data access at the Research Data Centre (FDZ) of the German Federal Employment Agency (BA) at the Institute for Employment Research (IAB).

I. Introduction

In this paper, I test some of the predictions from Gary Becker's seminal book *The Economics of Discrimination* (Becker, 1957/1971), in which he formalized the idea of racism and prejudices against socio-economic groups in an economic framework based on preferences and market structures. The basic idea behind this theory is that prejudices against a certain socio-economic group translate into a lower willingness to pay for the labor of that group (employer discrimination), higher wage demand of workers who have to work alongside that socio-economic group (co-worker discrimination) or a lower willingness to pay for goods and services when this involves contact with the members of the discriminated group (customer discrimination).

Many economists have tested the empirical implications of this theory. One of the major difficulties faced by empirical researchers is the fact that tastes are typically unobserved. Most of the literature on discrimination (surveyed, e.g., in Cain, 1986 and Altonji and Blank, 1999) has thus resorted to calculating discrimination as a residual difference between the wages of the respective majority and minority after accounting for differences in productivity using, e.g., Oaxaca-Blinder-decompositions.[1] The usual and well-documented problem with these estimates is that it is usually unclear whether all productivity relevant characteristics have been controlled for and whether the resulting residual is due to discrimination or due to unobserved factors (see Kunze, 2008, for a discussion in the context of gender wage inequalities).

In this paper, I use a direct measure of regional anti-foreigner prejudices to test several predictions of taste discrimination, specifically the combined vote share of three extreme right-wing parties in Germany, the *Nationaldemokratische Partei Deutschlands* (NPD), the

[1] Other approaches involve either field experiments (e.g., Bertrand and Mullainathan, 2004), more classical audit studies or natural experiments (e.g., Goldin and Rouse, 2000).

Deutsche Volksunion (DVU) and the *Republikaner* (REP), in the Federal elections of 1998, 2002 and 2005.[2] Note that "right-wing" in this context refers to the anti-foreigner, often borderline neo-fascist parties prevalent in Europe since a few decades. All three parties used here have a strong anti-immigration/anti-foreigner program with at least the NPD often crossing the border to open neo-fascism/neo-Nazism. In fact, DVU and NPD as well as parts of the *Republikaner* are under surveillance by Germany's domestic intelligence agency, the *Bundesamt für Verfassungsschutz*, for being a threat to Germany's democracy and constitution (Bundesamt für Verfassungsschutz, 2008). The fact that voters of these parties are typically prejudiced against foreigners is well documented in studies by political scientists demonstrating that anti-immigration sentiments play a major role in the decision to vote for these and similar parties (see, e.g., Arzheimer, 2008, and the literature cited therein). Additionally, increases in the vote shares of these parties have been shown to decrease the well-being of foreigners (Knabe et al, 2009). Using election data to measure regional racism, as opposed to, e.g., opinion surveys, has the advantage that voters have low incentives to hide their true preferences towards foreigners. This is not necessarily true for opinion surveys, where respondents might act in a socially acceptable way when answering the questions. Additionally, election data are available on a lowly aggregated regional level whereas I am not aware of any opinion survey allowing for analyses below the level of Germany's 16 Federal States.

[2] Note that the 2005 election was regularly scheduled for 2006. However, then-chancellor Gerhard Schröder used a parliamentary procedure, the *Vertrauensfrage*, to dissolve the German parliament and provoke earlier elections. The reasons for this decision were unrelated to any of the right-wing parties used here or any event relevant to the question investigated in this paper.

I combine the election data with additional regional information from official statistics and merge these with a 2% sample of the German working population and a 50% sample of German plants. The micro data used are panel data taken from social security records, which allows me to control for unobserved individual, county and firm heterogeneity in some estimations. A detailed description of the data can be found in section II.

In a second step, I examine whether foreigner-native wage differentials and firm segregation rise in the number of individuals leaning to right-wing parties and whether there are wage and employment differences with respect to proxies for customer contact. The main underlying assumption of my estimates is that a foreigner's probability to encounter a prejudiced employer as well as the share of prejudiced workers and customers rises in the share of right wing voters in a certain region.

The only paper I am aware of that uses regional data to test some of the direct predictions of Becker's theory is Charles and Guryan (2008) who combine information on regional racial prejudices from the General Social Survey with CPS data and focus on employer discrimination and black-white wage differentials.[3] Their findings suggest the expected relationship between the level of prejudice of the marginal employer and black wages. They also find that increases in prejudice matter only when less prejudiced individuals become more prejudiced, which is also in line with the predictions from Becker's theory. In contrast, this paper also considers some of the predictions regarding co-worker and customer discrimination. As far as I am aware of, this paper is in fact the first to test predictions for all three types of discrimination simultaneously. The big advantage of this approach is that it

[3] Two other papers, Cutler et al. (1999) and Card et al (2008) find that regional attitudes towards foreigners/minorities influence residential racial segregation. However, they do not look at labor market discrimination.

allows for a sharper test of the underlying theory. While one could always find competing explanations for any of the predictions alone, alternative theories become less likely the more predictions of taste discrimination are not rejected by the data.

In the first step of the econometric analysis in section III, I test for the existence of foreigner-native wage and employment differentials and their relationship with the extent of regional racism. A potential problem with the election data in this analysis is that they are only informative about the share of *very* prejudiced individuals in a county. As equilibrium wage differentials in Becker's theory are based on the prejudice of the marginal employer (see also Charles and Guryan, 2008), that is the employer who hires the last foreigner in a world where foreigners sort themselves into the least prejudiced firms first, I am likely to understate the true effect of prejudice on wages. However, evidence from political scientists indicates that high vote shares of extreme right wing parties very often go hand in hand with attitude shifts in the population at large. Thränhardt (1995) provides evidence from Germany that historically high votes of extreme right wing parties very often went hand in hand with mainstream parties' campaigns against foreigners, in particular asylum seekers. Arzheimer and Carter (2006) document a positive correlation between the vote share of extreme right parties and a farther right ideological position of the major mainstream party. Similar evidence is found by Arzheimer (2009) who provides evidence from a variety of European countries that high votes shares for extreme right parties often go hand in hand with a prominence of typically right wing topics in the manifestos of mainstream parties. Finally, in another cross-country study Lubberts et al. (2002) provide evidence for a positive correlation between nationwide (negative) attitudes against foreigners and the vote shares of the country's extreme right wing-party.

In fact, the qualitative predictions from Becker's theory regarding employer discrimination are confirmed in my analysis – at least for females and high-qualified males. I also find some evidence that the employment prospects of foreigners are worsened by

increases in the right-wing vote shares, which would be the expected results if wage rigidities prevent a full adjustment of foreigners' wages. However, employment effects are generally very small.

In a second step, I look at plant homogeneity in terms of nationality using a simple index of plant segregation. Homogenous plants can arise if employers have no racial preference, but workers in plants are prejudiced. In this case, workers would demand higher wages when having to work alongside members of the discriminated group. For employers, it becomes consequently optimal to hire only workers from one group, thus creating segregated workplaces where contact between the different nationalities is reduced. Another possibility are prejudiced employers hiring only the group of workers that is the relatively cheapest (after adjusting for the possible discomfort of employing foreigners in the case of prejudiced employers). Here, my analysis shows that in the cross-section right-wing votes and measures of plant segregation are positively correlated. When controlling for plant and county heterogeneity, this effects disappears when looking at all industries. However, right-wing votes have a strong positive influence on plant segregation in manufacturing and construction, whereas weaker effects are found in services and gastronomy. Results of this analysis can be found in section IV.

Finally, in section V, I consider the question whether wage and employment differentials differ with customer contact. Specifically, I investigate whether foreigner-native wage differentials have a different relationship with the share of right-wing voters in industries requiring personal contact with customers, e.g., gastronomy or services, than in industries which require less or no personal contact with customers, e.g., manufacturing. I also consider the question whether such firms are more likely to hire natives than foreigners in these cases. Here, my results suggest that a rise in regional racism leads to a (relative) decline in foreigners' wages working in services, but not in manufacturing or gastronomy. This result is in line with expectations for services and manufacturing, but – at least at a first

glance – not for gastronomy, where personal contact with customers is common. A prime difference between gastronomy and services, however, is that foreignness is often a desirable characteristic of restaurants. In other words, we can imagine that even a prejudiced person who frowns upon the though of getting his hair cut by a foreigner might prefer his Pizza being prepared by an Italian chef, which in turn should reduce the extent of customer discrimination in gastronomy.

II. Data

A. Person-level data

The individual level data used in this study come from the so called employment panel of the Federal Employment Agency (*BA- Beschäftigtenpanel*) for the years 1998, 2002 and 2005., which are the years where Federal elections were held. Specific information on an earlier version of the employment panel can be found in Koch and Meinken (2004), the current version is described (in German) in Schmucker and Seth (2009).

The individual data originate from social security information and is collected in the so called employee history by the Federal Employment Agency.[4] In Germany, employers are obliged by German law to deliver annual information on their employees, as well as additional information at the beginning and end of an employment, to social security. These notifications are used to calculate pensions, as well as contributions to and benefits from health and unemployment insurance. The data contain information on the beginning and end of employment, daily wages, a person's age and sex, as well as several variables collected for statistical purposes, e.g. education or nationality. The resulting spell data cover approximately

[4] More information on person-level data from German social security records can be found in Bender at al. (2000).

75 - 80% of the German workforce, excluding free-lancers, the self-employed, civil servants and (unpaid) workers helping in family businesses (Koch and Meinken 2004, p. 317). Note that this fact prevents me from analyzing the relationship between discrimination and self-employment, as for instance done by Borjas and Bronars (1989).

The employment panel is drawn from the employee history in a two step procedure. First, all persons born on one of seven specified dates are selected. As the German social security number is tied to the date of birth and does not change over time, it is possible to track those persons over time. Additionally, entries in and exits from the labor force are automatically covered by this procedure as new entrants born on one of these dates replace persons leaving the labor force. In a second step, the panel is formed by drawing four cross-sections per year – on the last day of March, June, September and December respectively – from this data. Finally, if a person receives unemployment benefits or is in an active labor market program on one of those days, an artificial observation indicating this fact is generated from other data sources of the Federal Employment Agency. The resulting panel is unbalanced due to entries into and exits from the labor force. However, there is no missing information due to non-response. As most records in the data are based on the annual notifications to social security, which means that there is essentially no wage variation within the year for these observations, this study uses only the last observation available for each year.

The data also contain information on the county (*Kreis* or *Kreisfreie Stadt*) where the worker's employer is located and that can be used to merge regional information with the data. A German *Kreis* is similar to the US counties in the hierarchy of public administration. It is the third highest level of administration, placed above the communal level, but below the Federal States (*Bundesländer*) and the country administration, the Bund. A county usually covers several towns or villages (*Kreis*) or one large city (*Kreisfreie Stadt*). In two cases, Berlin and Hamburg, it is also identical to the Federal State (*Bundesland*).

Low-skilled workers are defined as workers without post-school training, regardless of the amount of secondary schooling, while skilled workers have completed vocational training and high-skilled workers are those with an academic degree. I also calculate potential experience as age - 6 - the usual years of schooling associated with a certain degree, where 6 is the usual school-starting age in Germany

To arrive at the estimation sample, I first drop persons younger than 25 and older than 55 to avoid problems with ongoing education and early retirement. I further restrict the sample to regular, full time workers, dropping trainees, home and part-time workers as well as the unemployed. Restricting the sample to full-time workers is necessary as the data does not contain any information on working hours, which could be used to construct a measure of hourly wages. Wages that are top-coded at the contribution limit to social security are imputed using a Tobit-based imputation as described in Gartner (2005).[5] Finally, I drop the bottom 1% of the wage distribution to control for outliers. The resulting sample covers 528,329 person-year-observations from 249,404 men and 430,140 observations from 218,036 women. Descriptive statistics can be found in Table 1.

(TABLE 1 ABOUT HERE.)

B. Firm-level data

[5] The imputation procedure essentially adds a draw from a truncated normal distribution to each censored wage. The parameters of the distribution are estimated from the data by Tobit regressions that are conducted separately for each year. The imputation affects 25,230 out of 334,969 West German and 1,122 out of 38,212 East German observations in 1998, 1,723 out of 396,250 (West) respectively 121 out of 36,089 observations (East) in 2002 and 21,337 out of 357,655 observations (West) and 2,756 out of 46,206 observations (East) in 2005. The changing share of affected individuals is related to changes in the contribution limit to social security over the years.

The firm level data used here are a 50% sample of the population of German plants that employ at least one worker subject to social security contributions (effectively excluding only single person entrepreneurs and most government agencies), the *Establishment History Panel* (see Spengler, 2008, for details and Spengler, 2009, for the codebook and documentation). The data have been formed by aggregating social security records at the plant level and are provided and maintained by the research data center of the Federal Employment Agency in the Institute of Employment Research. Note that the data can be linked over time using plant identifiers, resulting in a panel data set from 1975 (West Germany) and 1992 (East Germany) onwards.

The data contain detailed information on industry and the workforce composition of the plant, including, e.g., the shares of workers with certain educational degrees, with various occupational positions, in certain age groups or with a certain nationality (see Spengler, 2009, for a full list) as well as quartiles of the age and wage distribution. However, there is no information on average wages as the wage data are top censored at the contribution limit to social security. The data also do not contain any information on firm performance variables, like profitability, output, sales, exports or revenue. Additionally, there is also no information on physical capital. However, the administrative nature of the data ensures that there is generally no item non-response. Similar to the person level data, the data contain regional identifiers, specifically the county where the plant is located. This information is again used to merge regional data with the firm level information. Using all available observations for the years 1998, 2002 and 2005 yields a sample of 2,379,061 observations from 935,924 plants. Descriptive information can be found in table 2.

(TABLE 2 ABOUT HERE.)

C. Regional data

The regional data used here originate from various sources from official statistics (see table 3 for a list and descriptive statistics). All data, except for the vote shares, can be

accessed through the website www.regionalstatistik.de, which is operated by the Federal Statistical Office and the Statistical Offices of the Federal States. The election data was obtained directly from the Federal election supervisor (*Bundeswahlleiter*), situated at the Federal Statistical Office.

From the election data, I calculate two measures of regional racism. The first is simply the combined vote share of the three major right-wing parties in Germany, defined as the share of right-wing votes in the total number of valid votes cast.[6] As this measure is influenced by voter turnover, I also calculate a second measure, which is the share of right-wing voters in the country's adult, native population. I will typically refer to these measures jointly as the "share of right-wing voters", except for cases where this may lead to ambiguities. From the election data, I also obtain a measure for voter turnout, specifically the share of eligible voters who actually participated in the election, which can be seen as a proxy for good citizenship and also influences the relative success of the right-wing parties.

(TABLE 3 ABOUT HERE.)

Additionally, I take a number of potentially relevant control variables from various official sources. I proxy regional economic conditions by the gross national product per head and the share of employed individuals in the working age population as (bad) employment prospects have been shown to be major determinant of right-wing votes (Falk et al., 2009).

[6] This uses the so-called *Zweitstimme*. In the German system each voter has two votes, one for a regional candidate (the *Erststimme*) and one for a particular party list that is determined at the level of the *Bundesländer*. The *Zweitstimme* determines the number of seats a party receives in parliament and is less influenced by the respective county's candidate, whose qualities are unobserved. The fact that party lists vary across *Bundesländer* and election years implies that regressions should control for *Bundesland*-year-interactions to account for unobserved candidate/list heterogeneity.

Note that using the unemployment quota instead is difficult in this case as there has been a major change in definition with the introduction of the *Hartz*-reforms in 2005, which does not necessarily influence measured unemployment in all counties equally.

The regional supply of foreigners is approximated using simply the share of foreigners in the county's population, with foreigners being defined as individuals without a German nationality. Controlling for these is also important as there is evidence that the share of foreigners influences attitudes and harassment towards foreigners, although the direction of the relationship differs across studies (e.g., Krueger and Pischke, 1997, for Germany; Green et al., 1998, for New York City; Dustmann et al., 2004, or the UK). In other words, omitting the regional share of foreigners could raise concerns regarding reverse causation or omitted variable bias if, e.g., contact with foreigners increases or decreases racist feelings in the native population while also influencing foreigner-native wage and employment differential through simple supply and demand considerations.

I also control for the share of native young men below 25 years of age in the native population as these are the socio-economic groups most likely to commit racist crimes (Neubacher, 1998; Willems et al., 1993). Additionally, I add controls for the share of men and young people below 25 years of age in the native population. Finally, I control for the number of school leavers with at most a *Hauptschul*-degree, the lowest of three secondary school degrees that can be obtained in Germany.

III. Foreigner-native wage and employment differentials

To fix thoughts, consider a competitive market setting without discrimination where workers are paid according to their productivity. Let wages be denoted as w^N for native workers and as w^F for foreign workers. A prejudiced employer has a distaste for employing foreign workers and will act as if their true wage were $w^F + d$, where d is a measure for the strength of his prejudice. In other words, a prejudiced employer will only hire foreigners if

they are (a) more productive than natives at the same wage rate or (b) willing to work for less money if they are equally productive. The extent to which wage differentials are observed in equilibrium depends on the relative supply of prejudiced employers and foreigners. If there are relatively few prejudiced employers and relatively few foreigners, it is likely that foreigners are able to sort themselves into non-discriminating firms, where they do not suffer wage penalties. Hence, wage differentials can only be observed if the last employer that hires a foreigner is still prejudiced. This in turn implies that prejudice shifts among the less-prejudiced employers should matter more for wage differentials than changes in average prejudice or changes among the more prejudiced workers (see Charles and Guryan, 2008).

This fact poses a problem for the analysis conducted here as right-wing voters are very likely among the most prejudiced persons in a given county, which means that changes in the right-wing vote share are most informative about changes in the right tail of the prejudice distribution. However, as outlined in the introduction, evidence from political scientists indicates that high vote shares of right wing parties often go hand in with attitude changes in the population at large (e.g., Thränhardt, 1995; Lubberts et al., 2002; Arzheimer, 2009; Arzheimer and Carter, 2006). This evidence suggests that the estimated coefficients may be indicative for the consequences of more general changes in prejudice among the population. In fact, the results of my empirical analysis broadly confirm the predictions of Becker's theory. However, one should keep in mind that my estimates very likely represent lower bounds.

In the first step of the empirical analysis, I test the hypothesis that foreign workers receive lower wages in regions/years where discrimination, as approximated by the votes for right-wing parties, is high. For this purpose, I use wage regressions of the form

$$Ln(wage_{ict}) = \eta_i + \zeta_c + \beta' X_{it} + \delta' W_{ct} + \theta*(Bundesland*year) + \lambda*RW_{ct} + \tau*(RW_{ct}*foreigner_t) + \varepsilon_{ict}, \quad (1)$$

where $wage_{ict}$ is the monthly real wage of individual i in county c at time t, η_i and ζ_c capture individual and county level heterogeneity, X_{it} contains time varying individual controls, specifically age, potential experience and education dummies for being low-skilled, skilled or high-skilled. W_{ct} contains the regional control variables described in section II.C. θ is a set of *Bundesland*-year-interactions that account for the fact that a party's candidate list varies across *Bundesländer* and elections, which might influence the vote shares. RW_{ct} is either the vote share of right-wing parties or the share of right-wing voters in the population in the respective county and election. λ allows the wages of natives to vary with regional discrimination and τ is the relative wage gap between foreigners and natives per unit increase in the measure of regional prejudice. I estimate equation (1) separately for low-skilled, skilled and high-skilled workers. As some regressors vary only at the county level, all standard errors are adjusted for clustering on that level to avoid the Moulton-problem (Moulton, 1990).

If wage rigidities prevent the adjustment of foreigners' wages, we would expect employers' prejudices to show up in their hiring decisions instead of wages. To test this possibility, I use firm-level data and estimate the regression

$$Share\ of\ natives_{ict} = \alpha + \zeta_c + \beta' X_{it} + \delta' W_{ct} + \theta*(Bundesland*year) + \tau*RW_{ct} + \varepsilon_{ic,} \qquad (2)$$

where ζ_c again captures regional heterogeneity, θ contain *Bundesland*-year-fixed effects, W_{ct} are the usual county-level control variables and X_{it} contains firm-level control variables, specifically firm age, firm age squared, firm size, firm size squared, the shares of women, white- and blue-collar workers, the shares of high- and low-qualified workers and the shares of workers below 30, between 40 and 54 and above 54 years of age. Note that these estimates do not control for firm fixed effects as these would capture most of an employer's eventual prejudice. Remember further that the share of foreigners living in the respective county is held constant. Our parameter of interest is τ that tells us how the average employment share of natives in a county varies with the share of right-wing voters. Standard errors are again adjusted for clustering on the county level.

The crucial and fundamentally untestable assumption underlying the wage and employment estimates is that discriminatory employers become more frequent when more individuals vote for right-wing parties. While this assumption is not unrealistic, it need not hold necessarily as changes in the number of right-wing voters could entirely be driven by changes in the attitudes of non-business owners. In that case, we would expect the estimates for τ to be biased towards zero, which still allows us to interpret them as lower bounds of the true effects.

Results from the wage regressions can be found in table 4. We observe a non-significant positive effect for low-skilled and skilled workers, while foreign high-skilled male workers suffer non-trivial wage penalties relative to natives of 1.8% and 2.7% per percentage point increase in the share of right-wing voters. For women, we also see negative wage effects for skilled workers and even larger effects than those found for men when looking at high-skilled women. Note that the stronger effects found for higher skill-groups can be explained by the fact that these are more often paid outside of collective bargaining agreements, which makes their wages depend less on institutional factors. One thing that is important to stress at this point is that the estimates represent wage penalties of foreigners relative to natives. In other words, the estimates should be interpreted as the relative wage difference between similar foreign and native workers in the same county at the same time. They are not absolute wage penalties in the sense that foreigners could necessarily earn more by moving into less prejudiced regions.

(TABLE 4 ABOUT HERE.)

Before discussing these estimates in greater details, consider first the employment estimates in table 5. The results for the employment shares of natives point into a similar direction as the wage estimates: Regardless of the measure of discrimination used, employers tend to hire less foreigners and more natives whenever the number of right-wing voters rises. However, the estimated effects are generally small in economic terms as a one percentage

point increase in the share of right-wing voters changes native employment shares by only 0.1 to 0.2 percentage points.

(TABLE 5 ABOUT HERE.)

These results are broadly in line with the predictions of Becker's theory. However, given that changes in the number of right-wing votes should be most informative about very prejudiced individuals, while only the prejudice of the marginal employer should matter for equilibrium wage (or employment) differentials, it is puzzling that we actually observe these differentials. From table 3, we see that the average share of foreigners in a county is about 7%, whereas the average share of right-wing voters lies – depending on the measure – between 0.7% and 1%. Taken at face value, these numbers suggest that foreigners should be able to avoid discriminatory employers and the associated wage penalties by simply working for other, unprejudiced employers. A possible explanation for the estimation results could be that changes in the number of right-wing voters also capture changes in attitudes towards foreigners over the whole distribution of prejudices. As already pointed out earlier, there is some supporting evidence from political scientists that high votes shares of extreme right wing parties may be indicative for more general attitude changes against foreigners. Hence, it seems possible that a higher number of right-wing voters is simply the (observed) tip of the iceberg of underlying raises in prejudice.

IV. Plant segregation

Segregated workplaces or plants can arise through two theoretical channels. First, there may be co-worker discrimination. If native workers are prejudiced against foreigners, they will demand higher wages whenever they are forced to work along members of the minority group. For a color-blind employer it then becomes optimal to create a segregated workforce by either hiring only foreigners or only natives. Second, segregation of this type can also arise through employer discrimination as non-discriminatory would simply hire the

cheaper workers (often foreigners) and discriminatory employers would hire either only natives if foreigners' wages were too high or only foreigners if the wages of foreigners relative to natives are so low that hiring them pays even for discriminatory employers. The key testable prediction from this idea is that plants should become more homogeneous when a certain region becomes more prejudiced.

To test this prediction I create a measure of firm homogeneity calculated as the Herfindahl-index of the employment shares of the respective nationality groups with 100 being again the value associated with maximal homogeneity. This measure distinguishes between different groups of foreigners, specifically the major guest workers nationalities (Turks, Greeks, Italians, Spanish/Portuguese, Yugoslavians), Northern Americans/Australians, East Europeans, Polish, West Europeans and other foreigners. [7]

Using this index instead of a dummy for (full) plant segregation takes into account the relatively strict employment protection laws in Germany (see, e.g., OECD, 2004a, b). These basically prevent plants, which strive to become segregated, from dismissing all their foreign or native workers at once and only allow for gradual adjustments towards full segregation. Given that this paper looks at a relatively short period of time, it seems very likely that only plants that are already relatively segregated to begin with could change to being fully segregated. In this case, looking only at full segregation could miss large parts of the adjustments that take place in the plants.

I then test the prediction whether plants are more homogenous in regions/years where there are more right-wing voters. Specifically, I estimate the regression

$$Plant\ homogeneity_{ict} = \eta_i + \zeta_c + \beta' X_{it} + \delta' W_{ct} + \theta*(Bundesland*year) + \tau*RW_{ct} + \varepsilon_{ict} \quad (3)$$

where η_i and ζ_c capture firm and county level heterogeneity, X_{it} contains the usual time-varying firm-level controls, specifically firm age, firm age squared, firm size, firm size

[7] The results are qualitatively identical when using a simpler index distinguishing only between natives and foreigners computed as 2*|share of Germans – 50|, so that plant with either 0% or 100% of natives are assigned a value of "1" while split workforces are assigned a value of "0". Results are available on request.

squared, the shares of women, white- and blue-collar workers, the shares of high- and low-qualified workers and the shares of workers below 30, between 40 and 54 and above 54 years of age. W_{ct} contains the regional control variables described in section II.C. θ is again a set of *Bundesland*-year-interactions. RW_{ct} is again either the vote share of right-wing parties or the share of right-wing voters in the population in the respective county and election. Interest lies again in τ, which tells us about the changes to plant homogeneity when the county becomes more or less prejudiced. I also report estimates based on estimating equation (3) without firm fixed effects as these capture all time-constant prejudices in a plant's workforce and a version where I allow the effects to differ between industries. This latter specification accounts for the possibility that prejudiced workers sort themselves into certain branches where it is more or less likely to meet foreigners. Identical to the previous estimates, standard errors are again adjusted for clustering on the county level. The key assumption underlying this test is again that the average prejudice of the workforce in a given country is positively correlated with the number of right-wing voters in that county.

Estimation results can be seen in table 6. The estimates without firm fixed effects in columns (1) and (2) generally suggest that plants become more homogeneous when support for right-wing parties rises, which is in line with the predictions from taste discrimination. However, the effects are very small from an economic perspective, as a one percentage point increase in the share of right-wing voters generally leads to changes in homogeneity by about 0.12 to 0.23, which is quite small compared to a mean index value of 94. Looking at the fixed effects estimates in columns (3) and (4) strengthens this picture as the effects become even smaller and consequently insignificant.

(TABLE 6 ABOUT HERE.)

While this evidence seems to contradict the predictions from taste discrimination, there is a potential problem with these estimates, specifically the possibility that prejudiced workers select themselves into certain industries to minimize their exposure to foreigners

either as co-workers or as customers. In fact, we can imagine that the possibility to encounter foreigners as customers is particularly unpleasant for a prejudiced worker as he is to some degree forced to interact with them and treat them politely, whereas he can ignore foreign co-workers more easily. A related point is the fact that plants in some industries, e.g., in gastronomy, are predominantly owned by foreigners, which should create another incentive for prejudiced workers to select out of the respective industry. If such selection effects play a large role, it might very well be the case that most prejudiced workers are found in industries without much public exposure and where businesses are not predominantly foreign-owned, e.g., in manufacturing or construction, whereas more tolerant workers can be found in services and gastronomy.

Looking at columns (5) and (6) actually confirms these conjectures. Manufacturing (the base alternative) and even more so construction plants become more homogenous whenever support for right wing parties rises, while these effects are much smaller in gastronomy and in particular in services. In fact, if we look at the combination of the main and interaction effects, the effects are essentially zero in business services and also relatively small in other services and gastronomy. In manufacturing and construction, however, a one percentage point increase in the share of right-wing voters leads to increases in the homogeneity index by 0.72 in manufacturing and to an increase by 1.06 in construction. These effects are equal to about $1/14^{th}$ of a (overall) standard deviation and to about $1/7^{th}$ of a within standard deviation. In other words, while taste discrimination by coworkers seems to influence plant segregation in manufacturing and construction, it does not appear to be a main driver of the overall differences observed in the German economy.

V. Public contact and foreigner-native wage and employment differentials

In this section, I investigate the consequences of customer discrimination. The main idea of taste discrimination in this context is that prejudiced customers prefer not to interact

with foreigners when purchasing goods or services, effectively lowering their willingness-to-pay in such situations. Consequently, foreigners are relatively less productive in jobs that require personal contact, which means that employers would only hire minority workers at lower wages or – if that is not possible – not at all when their business requires personal contact.

I test this prediction by estimating wage regressions that incorporate interactions between proxies for personal contact – in this case dummies for working in gastronomy/retail and in services –, being a foreigner and the shares of right-wing voters. Using firm level data I also investigate whether firms hire more natives when their business activities require personal contact and regional racism is high. A similar idea was used by Holzer and Ihlanfeldt (1998), who looked at black-white wage and employment differentials in firms with predominantly white or black customers.

First, I calculate individual level wage regressions of the form

$$Ln(wage_{ict}) = \eta_i + \zeta_c + \beta' X_{it} + \delta' W_{ct} + \theta*(Bundesland*year) + \lambda*RW_{ct} + \gamma_1*gastronomy/retail_{it} + \gamma_2*services_{it} + \mu_1*(RW_{ct}*gastronomy/retail_{it}) + \mu_2*(RW_{ct}*services_{it}) + \tau_{1*}(RW_{ct}*foreigner_t) + \tau_{2*}(RW_{ct}*foreigner_{t*}gastronomy/retail_{it}) + \tau_{3*}(RW_{ct}*foreigner_{t*}services_{it}) + \varepsilon_{ict}, \quad (4)$$

where $wage_{ict}$ is the monthly real wage of individual i in county c at time t, η_i and ζ_c capture individual and county level heterogeneity, X_{it} contains the same individual-level controls as in equation (1), specifically age, potential experience and education dummies for being low-skilled, skilled or high-skilled. W_{ct} contains the usual regional control variables described in section II.C. θ is again a set of *Bundesland*-year-interactions, the γ capture wage differentials across industries, the μ allow industry-wage-differentials to be different with the level of prejudice and the τ are estimates for the changes in the foreigner-native-wage differential in the respective industry when the share of right-wing voters rises. The sample is restricted to individuals working in manufacturing, retail/gastronomy and services with

manufacturing being the base alternative. These sectors can be seen as classical examples for industries requiring either relatively much customer contact (gastronomy, retail and services) or almost none at all in the case of manufacturing. Consequently, we would expect τ_2 and τ_3 to be negative. Standard errors are again adjusted for clustering on the county level.

Second, I test for differences in the employment of natives using firm level data and estimating the following panel regressions:

$$Share\ of\ natives_{ict} = \eta_i + \zeta_c + \beta' X_{it} + \delta' W_{ct} + \theta*(Bundesland*year) + \tau_1 * RW_{ct} + \tau_2 * (RW_{ct} * gastronomy/retail_i) + \tau_3 * (RW_{ct} * business\ services_i) + \tau_4 * (RW_{ct} * personal\ services_i) + \tau_5 * (RW_{ct} * construction_i) + \tau_6 * (RW_{ct} * other_i) + \varepsilon_{ict} \quad (5)$$

where η_i and ζ_c again capture firm and regional heterogeneity, θ contain *Bundesland*-year-fixed effects, W_{ct} are the usual county-level control variables and X_{it} contains the same firm-level control variables as in equation (2), specifically firm age, firm age squared, firm size, firm size squared, the shares of women, white- and blue-collar workers, the shares of high- and low-qualified workers and the shares of workers below 30, between 40 and 54 and above 54 years of age. The parameters of interest are τ_1 to τ_6 that show how the employment shares of natives in the respective industries change with the share of right-wing voters in the county. The base alternative is again manufacturing. Theoretically, we would expect τ_2, τ_3 and τ_3 to be positive, as these industries require more personal contact with customers, whereas there is no strong prior for the expected signs of τ_5 and τ_6. Again, standard errors are adjusted for clustering on the county level.

Results for the wage regressions are displayed in table 7. Here, we observe wage penalties for foreigners working in services, but not in gastronomy. In services a one percentage point increase in the share of right-wing voters in the county leads to wage penalties of approximately 2% to 3% for men and even larger, although insignificant, effects for women. The pattern is less clear when looking at wages in gastronomy and retail, where the results show a non-significant wage premium for men and an equally non-significant

wage penalty for women. A potential explanation for this fact is that many restaurants are inherently foreign and that even (mild) racists who prefer not to get their hair cut by a foreigner might still prefer their Pizza being prepared by an original Italian chef. Another potential explanation could be occupational segregation if most foreigners in gastronomy work in occupations with few customer contacts, e.g. as cooks. However, given the large prevalence of foreign waiters in Germany, this explanation seems less likely.

(TABLE 7 ABOUT HERE.)

Consider now the employment estimates displayed in table 8. Here, the results are somewhat more inconclusive. In fact, the results suggest an increase in the share of native workers in manufacturing, gastronomy and construction whenever the share of right-wing voters rises. Considerably weaker effects are found for service firms and in particular for business service firms. However, all estimates effects are generally economically small as one percentage point changes in the share of right-wing voters generally leads to very small changes of about 0.4 percentage points in the employment share of natives.

(TABLE 8 ABOUT HERE.)

Taken together, these results are again broadly in line with the predictions from taste discrimination. Similarly to the results in section III, most effects seem to work through wages rather than employment. In particular, foreign workers in services seem to be harmed by regional prejudice, which is consistent with discrimination by customers.

VI. Conclusion

In this paper, I tested several predictions from taste discrimination, specifically the existence of foreigner-native wage and employment differentials, firm segregation and the role that customer contact plays for the aforementioned effects. I approximated regional prejudice against foreigners by using election data for the vote shares of German right wing,

anti-foreigner parties and combined these data with a 2% sample of German workers and a 50% sample of German plants taken from social security.

My results suggest that (a) foreigner-native wage differentials rise with the share of right-wing voters, (b) the exact magnitude of the effects varies between skill groups and by gender, the largest effects being found for high-skilled men and women, (c) average employment shares of natives vary very little with the share of right-wing voters, (d) segregated firms become more common in manufacturing and construction when support for right-wing parties rises, while no effects are found for services and gastronomy and (e) the negative wage effects are strongest for foreigners working in services, while no effects are found in manufacturing and gastronomy. These results broadly confirm the predictions from taste discrimination. Additionally, while one can always find explanation for each of the findings, an alternative explanation for all of the findings reported above seems highly unlikely. In other words, racism matters for the economic outcomes of foreigners in Germany.

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Table 1: Descriptive statistics, individual level

	Mean	Std. Dev (overall)	Std. Dev. (within)	Min.	Max.
Log monthly wage	7.60	0.60	0.19	5.12	9.02
Monthly real wage (2000 prices, Euro)	2292.56	1038.74	347.39	167.13	8246.01
Foreigner (1 = yes)	0.07	0.25	0.07	0.00	1.00
Age (years)	39.77	8.28	2.39	25.00	55.00
Potential experience (years)	21.63	8.70	2.40	1.00	39.00
No post-school education (1 = yes)	0.15	0.36	0.10	0.00	1.00
Vocational training (1 = yes)	0.74	0.44	0.11	0.00	1.00
University graduate (1 = yes)	0.11	0.31	0.07	0.00	1.00
Male	0.55	0.50	0.00	0.00	1.00
Right wing voteshare	1.06	1.65	1.35	0.00	8.91
Share of right-wing voters in population	0.69	1.06	0.87	0.00	5.58
GNP per head (1000 Euro)	29.76	13.05	3.78	11.24	84.21
County population	387,726	479,212.	109,530	35,219	3,395,189
Share of employed individuals in working age population	80.22	22.34	6.57	35.72	186.66
Share of foreigners in county population	10.49	5.80	1.34	0.46	26.04
Share of men in county population	48.33	0.88	0.30	44.87	50.41
Share of men below 25 in county population	3.79	0.55	0.20	2.67	6.59
Share of individuals below 25 in county population	7.51	1.02	0.40	5.49	13.86
Number of school leavers with at most *Hauptschul* degree	1347.05	1512.46	357.87	107.00	11207.00
Voter turnout (%)	79.75	3.60	1.90	64.86	88.78
No. of individuals			467,440		
No. of observations			958,469		

Table 2: Descriptive statistics, firm level

	Mean	Std. Dev (overall)	Std. Dev. (within)	Min.	Max.
Herfindahl index of nationality groups in plant	94.46	13.47	7.21	14.86	100
Share of Germans	93.72	18.21	8.52	0	100
Firm age	13.30	9.36	2.51	0	30
Firm size (no. of employees)	14.76	118.20	25.12	1	41,979
Share of women	57.58	38.69	13.21	0	100
Share of full-time workers	55.43	38.00	18.95	0	100
Share of white-collar	29.83	35.39	14.92	0	100
Share of blue-collar workers	15.63	28.23	11.57	0	100
Share of high-qualified workers	3.95	14.22	5.88	0	100
Share of low-qualified workers	12.99	24.18	12.19	0	100
Share of workers below 30 years of age	23.40	28.57	15.63	0	100
Share of workers between 45 and 54 years of age	21.43	27.80	17.20	0	100
Share of workers above 54 years of age	15.70	26.40	13.92	0	100
Right wing voteshare	0.89	1.57	1.42	0.00	8.91
Share of right-wing voters in population	0.57	1.01	0.92	0.00	5.58
GNP per head (1000 Euro)	27.22	11.55	1.60	11.24	84.21
County population	441,892.69	671,968.88	5,497.50	35,219	3,395,189
Share of employed individuals in working age population	75.39	20.09	1.96	35.72	186.66
Share of foreigners in county population	9.54	5.37	0.33	0.46	26.04
Share of men in county population	48.48	0.84	0.18	44.87	50.41
Share of men below 25 in county population	3.83	0.53	0.18	2.67	6.59
Share of individuals below 25 in county population	7.56	0.97	0.35	5.49	13.86
Number of school leavers with at most *Hauptschul* degree	1564.89	2263.61	106.59	107.00	11207.00
Voter turnout (%)	79.74	3.54	1.86	64.86	88.78
No. of firms			974,091		
No. of observations			2,473,757		

Table 3: Descriptive statistics, county level

Variable	**Mean**	**Std. Dev (overall)**	**Std. Dev. (within)**	**Min.**	**Max.**	**Data source**
Right wing voteshare	1.14	1.73	1.66	0	8.91	Official election results
Share of right-wing voters in population	0.73	1.09	1.05	0	5.58	Official election results, *Fortschreibung des Bevölkerungsbestandes*
GNP per head (1000 Euro)	24.68	9.83	1.74	11.245	84.21	*Volkswirtschaftliche Gesamtrechnung*, *Fortschreibung des Bevölkerungsbestandes*
County population	194,309	227,863	3,554.8	35,219	3,398,822	*Fortschreibung des Bevölkerungsbestandes*
Share of employed individuals in working age population	73.35	21.10	2.31	35.72	186.66	*Erwerbstätigenrechnung des Bundes und der Länder*, *Fortschreibung des Bevölkerungsbestandes*
Share of foreigners in county population	7.61	4.65	0.33	0.46	26.04	*Fortschreibung des Bevölkerungsbestandes*
Share of men in county population	48.60	0.85	0.19	44.87	50.41	*Fortschreibung des Bevölkerungsbestandes*
Share of men below 25 in county population	3.96	0.57	0.20	2.67	6.59	*Fortschreibung des Bevölkerungsbestandes*
Share of individuals below 25 in county population	7.71	1-07	0.39	5.49	13.86	*Fortschreibung des Bevölkerungsbestandes*
Number of school leavers with at most *Hauptschul* degree	765.97	761.60	60.26	107	12,223	*Statistik der allgemein bildenden Schulen*
Voter turnout (%)	79.32	4.10	2.14	64.86	88.79	Official election results
No. of counties			386			
No. of observations			1155			

Only counties with complete information on all variables.

Table 4: Right-wing voters and foreigner-native wage differentials by skill groups, individual level estimates, dependent variable: ln(monthly wages in 2000 prices)

	Men						Women					
	Low-skilled		Skilled		High-skilled		Low-skilled		Skilled		High-skilled	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Right wing vote share	-.0017		-.0016		-.0029		.0048		.0016		-.0074	
	(.0032)		(.0014)		(.0061)		(.0043)		(.0026)		(0.0133)	
Right wing vote	.00016		.0011		-0.0179***		.0015		-.0082**		-0.0252*	
share*foreigner	(.0018)		(.0014)		(.0059)		.0034		(.0034)		(0.0134)	
Share of right-wing		-.0036		-.0037		-.0041		.0058		.0000		-0.0141
voters in population		(.0048)		(.0023)		(.0092)		(.0068)		(.0043)		(0.0211)
Share of right-wing		.0003		.0018		-0.0273***		.0024		-0.0124**		-0.0377*
voters in population *foreigner		(.0027)		(.0022)		(.0090)		(.0052)		(.0052)		(0.0203)
Individual fixed effects	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
County fixed effects	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Industry fixed effects (2 digit)	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Bundesland*year interactions	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
No. of individuals	43,732		182,208		35,925		42,098		164,958		20,134	
No. of observations	76,114		381,670		70,545		70,607		324,560		34,973	

Coefficients, standard errors in parentheses. Standard errors are adjusted for clustering on the county level. */**/*** denote statistical significance on the 10%, 5% and 1% level. All estimates contain controls for age, potential experience, education dummies and the following county level variables: GNP per head, the county population, the share of employed individuals in the working age population, the shares of foreigners, men, men below 25 and individuals below 25, the number of school leavers with at most a *Hauptschul* degree and the voter turnout of the respective election.

Table 5: Right-wing voters and labor demand for natives, plant level regressions estimates, dependent variable: share of Germans employed

	Linear Regression	
	(1)	(2)
Vote share of right parties	0.0897**	
	(0.0402)	
Share of right voters in population		0.01745***
		(0.0622)
Firm fixed effects	no	no
County fixed effects	yes	yes
Industry fixed effects (2- digit)	yes	yes
*Bundesland**year interactions	yes	yes
No. of plants	974,091	
No. of observations	2,473,757	

Coefficients, standard errors in parentheses. Standard errors are adjusted for clustering on the county level. */**/*** denote statistical significance on the 10%, 5% and 1% level. All estimates contain controls for firm age, firm age squared, firm size, firm size squared, the shares of women, white- and blue-collar workers, the shares of high- and low-qualified workers, the shares of workers below 30, between 40 and 54 and above 54 years of age as well as the following county level variables: GNP per head, the county population, the share of employed individuals in the working age population, the shares of foreigners, men, men below 25 and individuals below 25, the number of school leavers with at most a *Hauptschul* degree and the voter turnout of the respective elect.

Table 6: Plant segregation, plant level regressions, dependent variable: Herfindahl index of nationality groups in plant

	Linear Regressions		Plant fixed effects regressions			
	Vote share	Population share	Vote share	Population share	Vote share	Population share
	(1)	(2)	(3)	(4)	(5)	(6)
Right wing share (base: manufacturing)	0.1157**	0.2276**	0.0287	0.0851	0.7210***	1.1805***
	(0.0575)	(0.0915)	(0.0332)	(0.0534)	(0.1552)	(0.2553)
Right wing share * Retail/restaurants/bars					-0.5506**	-0.9278**
					(0.2234)	(0.3594)
Right wing share * Business services					-0.7532***	-1.2464***
					(0.21.06)	(0.3454)
Right wing share * Personal/social services					-0.4901**	-0.8311**
					(0.2229)	(0.3695)
Right wing share * Construction					0.3398*	0.5888*
					(0.2030)	(0.3336)
Right wing share * Other					-0.7028***	-1.1109***
					(0.1539)	(0.2538)
Individual fixed effects	no	no	yes	yes	yes	yes
County fixed effects	no	no	yes	yes	yes	yes
Industry fixed effects (2 digit)	yes	yes	yes	yes	yes	yes
*Bundesland**year interactions	yes	yes	yes	yes	yes	yes
No. of firms				974,091		
No. of observations				2,473,757		

Coefficients, standard errors in parentheses. Standard errors are adjusted for clustering on the county level. */**/*** denote statistical significance on the 10%, 5% and 1% level. All estimates contain controls for firm age, firm age squared, firm size, firm size squared, the shares of women, white- and blue-collar workers, the shares of high- and low-qualified workers, the shares of workers below 30, between 40 and 54 and above 54 years of age as well as the following county level variables: GNP per head, the county population, the share of employed individuals in the working age population, the shares of foreigners, men, men below 25 and individuals below 25, the number of school leavers with at most a *Hauptschul* degree and the voter turnout of the respective election.

Table 7: Right-wing voters and foreigner-native wage differentials by public contact, individual level estimates, dependent variable: ln(monthly wages in 2000 prices)

	Men		Women	
	Vote share	Population share	Vote share	Population share
	(1)	(2)	(3)	(4)
Right wing share (base: manufacturing)	.0011	.0011	.00015	-.0014
	(.0016)	(.0024)	(.0042)	(.0067)
Right wing share * foreigner	.0012	.0018	-.0054	-.0083
	(.0011)	(.0017)	(.0042)	(.0065)
Right wing share * Retail/restaurants/bars	-0.0137***	-0.0213***	.0085***	0.0130***
	(.0022)	(.0033)	(.0024)	(.0038)
Right wing share * services	-0.0182***	-0.0279	.0013	.0018
	(.0021)	(.0032)	(.0035)	(.0055)
Retail/restaurants/bars * foreigner	-.0003	-.0003	-.0001	-.0001
	(.0004)	(.0004)	(.0004)	(.0004)
Services * foreigner	.0002	.0002	-.0004	-.0004
	(.0004)	(.0004)	(.0007)	(.0007)
Right wing share * Retail/restaurants/bars * foreigner	.0072	0.0116	-.0060	-.0088
	(0.0108)	(0.0164)	(.0093)	(0.0140)
Right wing share * services * foreigner	-0.0281**	-0.0327**	-0.0262	-0.0382
	(.0098)	(0.0151)	(0.0204)	(0.0317)
Individual fixed effects	yes	yes	yes	yes
County fixed effects	yes	yes	yes	yes
Industry fixed effects (2- digit)	yes	yes	yes	yes
*Bundesland**year interactions	yes	yes	yes	yes
No. of individuals	90,739		49,956	
No. of observations	185,779		91,631	

Coefficients, standard errors in parentheses. Standard errors are adjusted for clustering on the county level. */**/*** denote statistical significance on the 10%, 5% and 1% level. All estimates contain controls for age, potential experience, education dummies and the following county level variables: GNP per head, the county population, the share of employed individuals in the working age population, the shares of foreigners, men, men below 25 and individuals below 25, the number of school leavers with at most a *Hauptschul* degree and the voter turnout of the respective election.

Table 8: Employment shares of natives by industry, plant level estimates, dependent variable: share of Germans

	Plant fixed effects regressions	
	Vote share	Population share
	(1)	(2)
Right wing share (base: manufacturing)	0.4371***	0.7281***
	(0.1519)	(0.2475)
Right wing share* retail/restaurants/bars	-0.0127	-0.0643
	(0.2071)	(0.3350)
Right wing share * business services	-0.6845***	-1.1191***
	(0.2318)	(0.3752)
Right wing share * personal services	-0.2750	-0.4658
	(0.1754)	(0.2852)
Right wing share * construction	0.2639	0.4674
	(0.2096)	(0.3475)
Right wing share * other	-0.4495***	-0.7386***
	(0.1506)	(0.2459)
Plant fixed effects	yes	yes
County fixed effects	yes	yes
Industry fixed effects (2 digit)	yes	yes
*Bundesland**year interactions	yes	yes
No. of firms	974,091	
No. of observations	2,473,757	

Coefficients, standard errors in parentheses. Standard errors are adjusted for clustering on the county level. */**/*** denote statistical significance on the 10%, 5% and 1% level. All estimates contain controls for firm age, firm age squared, firm size, firm size squared, the shares of women, white- and blue-collar workers, the shares of high- and low-qualified workers, the shares of workers below 30, between 40 and 54 and above 54 years of age as well as the following county level variables: GNP per head, the county population, the share of employed individuals in the working age population, the shares of foreigners, men, men below 25 and individuals below 25, the number of school leavers with at most a *Hauptschul*-degree and the voter turnout of the respective election.