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# The Price of Sharing: Support for Universal and Equal Access to Health Care in Diversifying Neighborhoods

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## Non-Technical Summary

Is immigration undermining mass support for the welfare state? There is a wealth of research showing that race and group bias is a threat to the redistributive programs. Most of the research focuses on mean-tested programs of welfare. But we still know relatively little whether how an increase in the number of immigrants impacts the willingness to fund existing *universal* programmes such as health care. Here we test whether increasing ethnic diversity undermines the normative commitment to universal and equal access to care. These norms are key to the support public health care systems usually command.

Unwillingness to share resources with out-group members, we argue, can have two broad consequences. It can results in growing support for de-funding policies perceived to mainly benefit immigrants. It can also increase support for excluding immigrants from policies that benefit the population as a whole. This research hence taps at the sentiments that directly lead to the debate of free access to the NHS for EU migrants.

Using British panel data matched to contextual data from the 1991 and 2001 censuses, we show that individuals who experience an increase in the share of foreign born in their neighborhood become less likely to support universal access to health care. Our results confirm that a change in ethnic diversity was paralleled by a decrease in support for universal and equal health care.

We find a small effect of diversity on support mainly limited to economically right-wing individuals. On the other side economically left-wing individuals appear to be immune to the effects of neighborhood diversity. This electorate appears to be more sensitive to changes in unemployment levels than to immigration.

Our findings speak to the current political situation. The Conservative party is mainly focused on findings way to limit immigrants' access to the welfare states. On the other hand, the Labor party is faced with a resurgence of "old" Labour in the person of Jeremy Corbyn, who is calling for increased redistribution toward the poor and the unemployed. Each party's electorate appears to be looking at the aftermath of the Great Depression through very different lenses.

# The Price of Sharing:

## Support for Universal and Equal Access to Health Care in Diversifying Neighborhoods*

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"The NHS will provide a universal and comprehensive service with equal access for all; free at the point of use, based on clinical need, not ability to pay."

From the NHS website, *Principles and values that guide the NHS*


## *Abstract*

Is immigration undermining mass support for the welfare state? While an increase in the number of immigrants might not impact the willingness to fund existing universal programmes such as health care, it can undermine the normative commitment to universal and equal access to care. These norms are key to the support public health care systems usually command. Using British panel data matched to contextual data from the 1991 and 2001 censuses, we show that individuals who experience an increase in the share of foreign born in their neighborhood become less likely to support universal access to health care.

# 1 Introduction

In their pioneering work, Alesina and Glaeser (2006) emphasize the role of race and group bias for understanding the United States' position as a welfare laggard among advanced capitalist countries. Does this mean that the growing ethnic diversity triggered by international immigration is a threat to the redistributive programs of European countries? There is growing evidence that this might indeed be the case. This paper further contributes to this debate by examining a subset of attitudes that have been mostly overlooked by the existing research.

Theoretically, we distinguish between ethnic diversity's potential impact on two types of attitudes. One is the willingness to *fund* policies that are *targeted* to the worse-off. The second one is the commitment to *universal* and *equal* access to universal policies such as health care and old age pensions. There is mounting evidence that growing ethnic diversity is undermining support for the first subset of social policy. The reason is straightforward: support for policies that mainly benefit "others" - and not the median voter - will be highly sensitive to perceptions of who "others" are (Cavaille and Trump 2015). The effect appears to be especially large for high income individuals who are the least likely to receive these targeted benefits (Dahlberg, Edmark and Lundqvist 2012).

Cultural and racial affinity is believed to be less critical to social programs that benefit the population as a whole, redistributing resources not vertically from the rich to the poor but horizontally, from the the healthy to the sick, from the young to the old[1] and, in T.H. Marshall's words, from the "bachelor" to "the father of a large family" (Marshall 1950: 38). Because most people (expect to) have a family and (expect to) grow old, support is high and trumps dis-affinity with other recipients. This rational is especially salient in the instance of health care: most people rely on public health services for everyday care and expect to receive life-saving services in the instance of a critical event (Jensen and Petersen 2014). Not only do social policies such as pensions and health care command high levels of (self-interested) support (Pierson 1996, 2001), they are also less likely

[1] Or the old to the young through the public provision of education.

to prime individuals to focus on the deservingness of its recipients. Indeed, because the benefits provided by these policies are not concentrated among the worse-off, members of the majority are less likely to associate immigrants to the modal recipient (Esping-Andersen 1990; Rothstein 1998; Korpi and Palme 1998; Larsen 2008).

Unwillingness to share resources with out-group members, we argue, can have two broad consequences. It can results in growing support for de-funding policies perceived to mainly benefit immigrants. It can also increase support for excluding immigrants from policies that benefit the population as a whole. This is what researchers and pundits have called "welfare chauvinism" (Van der Waal et al. 2010; Mewes and Mau 2012; Bay, Finseraas and Pedersen 2013). While immigration might not increase support for de-funding universal policies, it can undermine the normative commitments that bolster mass support for universal programs.

To our knowledge, this paper provides one of the first examination of the impact of immigration and welfare chauvinism on support for universal policies.[2] More specifically, we examine whether a change in the ethnic diversity of a neighborhood impacts British "natives'" commitment to an undifferentiated provision of health care to whomever needs it. We hypothesize two channels through which diversity will matter for normative commitments to universal access and equal provision. First, ethnic diversity will decrease the willingness to make health care accessible to all, as "all" is now associated with outgroup members. This effect will be felt among all income groups. The British National Health Service (NHS) is used by both rich and poor and both groups will become less willing to "share." Second, we expect growing ethnic diversity to undermine individuals support for equal provision of healthcare, but only among high income groups. High income groups might associate ethnic diversity with a decline in quality of care and be more supportive of letting those who can afford it – like themselves – buy their way into better healthcare. To the extent that an increase in the share of immigrants impacts the perceived quality of health care provision, low-income individuals should become even more committed to maintaining the same

[2] See Eger (2009) for a first investigation.

level of care for all, with the caveat that "all" might not include immigrants.

We test these hypotheses using a high quality panel survey covering the 1990's decade. Respondents were asked at multiple time points whether health care should be available free of charge to everyone regardless of their ability to pay. They were then asked whether it was unfair that wealth enables some to be treated before others, i.e. to "jump the queue." We match this panel survey data with data from two national censuses (1991 and 2001), allowing us to identify the demographic trajectory of small geographical units (around 5,000 individuals). We examine how the attitudes of individuals living in diversifying neighborhoods change relative to the attitudes of individuals living in non-diversifying neighborhoods. The structure of the data allows us to rely on fixed effects to control for the non random allocation of individuals across neighborhoods. We find evidence that support for universal care and equal provision declines among individuals in diversifying neighborhoods, the decline is driven by economic conservatives. However, we find no evidence that high income individuals economic conservatives, relative to low income economic conservatives, are more likely to decrease their support for equal provision.

The next segment develops the argument and key predictions. Section three presents the data and the empirical strategy. Section four the results and section five concludes.

# 2 Immigration and the Willingness to Share

As a species, human beings have evolved to become categorizing machines, relying on strong in-group/out-group biases to make decisions over whom to trust, cooperate with and help (Brewer and Kramer 1985; Tajfel 1982; Hogg and Abrams 1993; Barry 2002; Massey 2007; Brewer and Caporael 2006). The existence of this cognitive mechanism informs a growing body of work on the potential corroding effects of ethnic diversity resulting from immigration on public support for the welfare state in Europe. Controlled experiments ran in a laboratory setting all show that the willingness to contribute to a redistributive fund decreases if recipients are perceived to be

outsiders, i.e. on the other side of a salient racial, ethnic or cultural boundary (Fong 2005; Fong and Luttmer 2011; Pardos and Munoz 2015; Gilens 1999; Baldassarri and Grossman 2013). The more heterogenous European societies become, the reasoning goes, the more its members will support social policy retrenchment.

Extrapolating from behavioral laboratory experiments to make claims about the general sustainability of European welfare states is far from straightforward. By design, experiments only isolate one causal mechanism. In the real world, individuals follow diverse and often contradictory motives. One such competing motive is self-interest, which can weaken the relationship between out-group bias and policy preferences. When forming an opinion about a policy one benefits from, the racial mix of other recipients becomes less relevant. In other words, the effect of ethnic diversity and group bias is most likely limited to specific sub-groups and policies.

First, the effect of ethnic diversity should be concentrated among high income groups, who are less likely to benefit from social spending and should be more sensitive to the perceived ethnic and cultural background of the modal recipient (Rueda 2014; Cavaillé 2015). Similarly, affinity with recipients is less relevant for shaping support for social programs that benefit the population at large (e.g. health care, pensions). In contrast, support for policies that explicitly redistribute resources on a vertical basis, either by design (e.g. means-tested) or because the risk covered is concentrated among the worse-off (e.g. unemployment insurance, see Rehm, Hacker and Schlesinger (2012)), is more likely to be sensitive to identification with recipients (Cavaillé 2015; Pardos and Munoz 2015; Miller 1995).

Existing research supports this framework. Most articles that find a relationship between immigration and social policy preferences rely on a survey item that asks about increasing or decreasing spending on policies targeted to the poor or the unemployed (Luttmer 2001; Eger 2009; Stichnoth and Van der Straeten 2013; Ford 2006). Dahlberg, Edmark and Lundqvist (2012) show that a change in the ethnic composition of an individual's neighborhood[3] increases support for cuts in

[3] Triggered by the random assignment of refugies to one's neighborhood.

social benefits. They also find that this is only true for high income individuals. Pardos and Munoz (2015) and Cavaillé (2015) provide experimental and observational evidence that the determinants of social policy preference vary with the policy area under consideration. The more benefits are targeted (Moene and Wallerstein 2001), the more other-oriented motives, such as cultural affinity, matter. At the spending level, Soroka et al. (2015) use longitudinal spending data to document a negative correlation between an increase in the immigrant population and an increase in spending on transfers to the unemployed. Spending on other policies are not impacted.

Decreasing support for transfers perceived to mainly benefit out-group members is only one possible reaction to growing ethnic diversity. Another strategy is simply the exclusion of immigrants from accessing benefits, something scholars have called "welfare chauvinism" (Van der Waal et al. 2010; Svallfors 2012; Bay, Finseraas and Pedersen 2013). While immigration might not increase support for de-funding universal policy, it can undermine the normative commitments to universal and equal access that bolster mass support for universal programs.

In most advanced capitalist countries, support for universal policies is high: overwhelming majorities agree with the statement that it is the government's role to protect individuals, irrespective of their income, from the consequences of bad health and old age (see Figure 4 in the appendix). T.H Marshall famously argued that this widely shared consensus is more than empathy for the sick and the aging. He described it as the result of a third stage in the historical development of citizenship in western countries: membership in a national community grants individuals "social rights" to not be exposed to "risk and insecurity."

There are good reasons to expect immigration to be a challenge to mass support for a Marshallian conception of social rights. Self-interest, which can provide a buffer between dis-affinity for recipients and support for policy retrenchment, works here hand-in-hand with group bias to promote the exclusion of non-citizens. Indeed, reliance on a service will make one less willing to share it with others. This is more likely to be the case in a context where resources are perceived as scarce. In Western Europe, opinion polls indicate growing skepticism regarding the financial

sustainability of the welfare state. The British, along with the French and the Germans are the most concerned about the financial future of their health care system with close to half of respondents believing in 2008 that the current level of health care spending is unsustainable.[4] Self-interested resource hoarding in times of scarcity makes individuals less likely to want to share resources with individuals who are perceived as having less legitimate claims to the pooled-resources because of their outsider status.

We apply the above reasoning to the case of universal healthcare. We distinguish between support for *universal access* to healthcare, on the one hand, and support for *equal provision* of care, on the other. The former captures support for access to health care based on need only. The latter captures support for the same quality and generosity of care for all users of the health care system, independent of ability to pay (Bay, Finseraas and Pedersen 2013).

First, we expect an increase in the number of immigrants to bolster welfare chauvinism and decrease support for universal access to healthcare. Because all income groups have a self-interested reason to exclude immigrants from accessing the health care system, we generally do not expect high income groups to be more sensitive than low income groups to growing ethnic diversity. [5]

**P**rediction 1: As the number of foreign born individuals in one's neighborhood increases, support for universal and equal access to health care decreases. The increase in the number of foreign born in one's neighborhood will affect all income groups equally.

In addition to welfare chauvinism's impact on respondents' commitment to universal health care, we expect ethnic diversity to matter in a second way, especially for high income groups. An increase in immigrants in one's neighborhood often means fast population growth, which puts a strain on local goods and services. In addition, services that are used by stigmatized groups are

[4] See data from the European Social Survey wave 4, with data collected in 2008, pre-Recession.

[5] In other words, because of a different attitudinal outcome, we do not expect to reproduce the heterogeneity in Dahlberg, Edmark and Lundqvist (2012).

often perceived as lower in quality. High income individuals have the options to opt out and buy their way into better care. In other words, high income individual might maintain their normative commitment to universal access while decreasing their commitment to equal provision: support for universal access need not mean support for the same quality of care for all.

**P**rediction 2: As the number of foreign born in one's neighborhood increases, tolerance of differentiated health care provision increases, especially among high income respondents.

In addition to income, we expect economic ideology to predict who will be more or less likely to translate growing ethnic diversity into lower support for universal access and equal provision. Indeed, behavioral models of attitude formation emphasize individual differences in the interpretation of new information. Students of American Politics point to ideology and partisanship as powerful filters that shape how new information gets interpreted and how it affects existing policy preferences (Bartels 2007; Margalit 2012; Bullock 2009).

In the case of normative commitments to "social rights," economic left-right ideology is a most likely candidate. Indeed, commitment to Marshallian social rights is part of an ideological package associate with the Left on economic issues and with European social democratic parties. While universal policies have been embraced by both sides of the ideological spectrum, conservatives have remained somewhat critical of a worldview that emphasizes the duty of the government to protect individuals from insecurity, risk and want. According to conservative thinking, the benefits of the "nanny state" outweigh its costs for growth, market competition and individual motivation to work hard. As a result we expect individuals on the left-wing of the economic ideological spectrum to be less likely to translate a change in ethnic diversity into lower support for universal access and equal provision. On the other hand right-wing economic conservatives should be more likely to react to changing neighborhood diversity by decreasing their commitment to both universal access and equal provision.

**P**rediction 3: The relationship between growing neighborhood diversity and decrease in support for universal and equal access to health care will be stronger among economically right-wing

individuals.

# 3 Data and Empirical Strategy

## 3.1 Case selection: Great Britain and the National Health Service

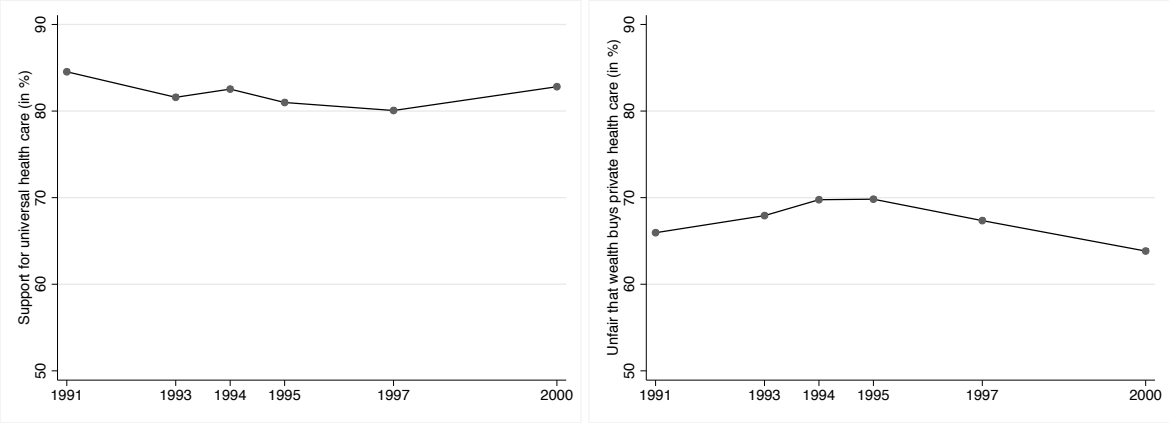
To test these predictions, we rely on individual panel data collected in Great Britain over the 1990s decade. We chose Great Britain for three reasons. First, Britain's National Health Service (NHS) is explicitly built on the idea of universal and equal access to health care.[6] Anyone who is a UK resident can receive care and does not have to pay any fee.[7] The public's commitment to these principles is very high. As Figure 1.A illustrates very clearly, throughout the 1990s, more than 80 percent of respondents express agreement or strong agreement with the claim that "all health care should be available free of charge to everyone regardless of their ability to pay." According to Figure 1.B up to 70 percent find it unfair that "some people can get medical treatment before others, just because they can afford to pay for it."

Second, the NHS has a neighborhood-centric organization. Individuals are assigned to a health center based on where they live. We can expect a change in the ethnic composition of a neighborhood to be directly experienced during a visit to one's doctor. We examine whether this experience weaken the normative consensus underpinning the provision of universal health care in Great Britain. Recent events indicate that it might. In May 2015, British Prime Minister David Cameron

[6] When the NHS was launched by the ruling Labour Government in 1948, it was based on three principles, which still remain core to the organization today: 1) that it meet the needs of everyone; 2) that it be free at the point of delivery; 3) that it be based on clinical need, not ability to pay, see quote at the beginning of the text.

[7] With the exception of some charges, such as prescriptions and optical and dental services, the NHS remains free at the point of use.

**Figure 1:** Attitudes towards health care over time




(a) Support for universal health care (b) Unfair that wealth buys private health care

Data: BHPS, 1991-2000.

announced that restrictions on EU migrants' access to benefits would be an "absolute requirement" in the renegotiation of Britain's membership in the EU. This confirms the clear policy-relevance of health care access in the current immigration debate.

This brings us to the third reason: in Great Britain, welfare and migration are deeply intertwined policy issues. Each opening of British borders to new EU entrants, such as Poland in 2004 or Romania in 2014, has been followed by a sharp increase in EU arrivals and has sparked intense debates over these migrants' access to the country's welfare system. Based on data from the British Social Attitude Survey (BSA), in 2012, 62 percent of the population states that immigration increased pressure on the NHS in their local area, and 71 percent that it increases pressure on the NHS in the country as a whole. Over the 1986 to 1996 period, agreement with the statement that health care should be the same for everyone, irrespective of income, increased from 46 to 61 percent of the population. In 1999, 38 percent of respondents found it "wrong" that people with higher incomes could buy better health care than people with lower incomes. In 2004, this number was down to 24 percent where it still was in 2010. While 44 percent of top quartile respondents found it wrong in 1999, only 16 percent did in 2010.[8] We examine whether individual experiences

[8] Survey evidence obtained through the British Social Attitudes Survey, see britsocat.com

with neighborhood diversity could explain this decline in support for equal provision.

Our data covers the comparatively "quiet" period of the 1990's where immigrant influx was lower and immigrant access to the NHS not a politically salient issue. As shown by Hopkins, the effect of demographic change are much larger when contextual changes are large and quick and the issue is politicized at the national level (Hopkins 2007, 2010). Our results are most likely to be conservative estimates of the impact of neighborhood diversity on social policy attitudes.

## 3.2 Data

Most observational studies testing the impact of immigration on attitudes towards welfare programs rely on cross-sectional data and hence have to make strong identification assumptions. Here we are using individual-level panel data, adding to a very short list of papers that used longitudinal data (Dahlberg, Edmark and Lundqvist 2012; Stichnoth 2012). We combine two types of data. Firstly, we use survey data to measure people's support for (or opposition to) universal health care. Secondly, we match this individual-level panel data with context measures of immigration. To achieve this, we merged the British Household Panel Study (BHPS) and census data from 1991 and 2001. This section briefly outlines the datasets as well as the measures used.

### 3.2.1 Measuring Individual-Level Preferences: The British Household Panel Study

The BHPS is an annual panel study that provides high quality socio-economic data at the individual and household level. Our sample consists of a nationally representative sample of about 5,500 households recruited in 1991.[9] We restricted our sample to only those living in England and Wales due to the different census geo-codings in Scotland, and Northern Ireland, which would not allow

[9] Individuals who split-off from the original household are followed and all members of the new household created are also interviewed. New members joining sample households become eligible for interview. Children of the household are interviewed once they reach 12.

us to compare similar geographic units across the four different countries of the UK. We further restricted our sample to only UK-born respondents to account for attitudes towards the NHS among the majority in-group. In the BHPS, 7.4 percent of the respondents were born outside of the UK, which corresponds to the population average.

The BHPS includes a number of attitudinal questions, repeated at regular intervals. Here we utilize a battery of questions on the NHS that was asked six times in 1991, 1993, 1994, 1995, 1997, and 2000.[10] Firstly, respondents were asked to state their opinion on a five-point scale (1=absolutely disagree; 5=absolutely agree) on whether "all health care should be available free of charge to everyone regardless of their ability to pay". We use this item to capture support for universal access to health care. Secondly, respondents were asked to state their opinion on the following statement: "it is not fair that some people can get medical treatment before others, just because they can afford to pay for it". They were similarly provided a five-point response scale. We use this item to capture support for equal provision of health care. We dichotomized these two dependent variables. Individuals who agree with universal health care and those who agree that buying priority health coverage is unfair are coded as one (response category 4 and 5). Others are coded as 0 (response category 1, 2 and 3).

As Figure 1 on page 9 shows, on the aggregate level, English and Welsh respondents clearly agree with the principle of universal health care and a majority finds it unfair if rich people can skip lines when it comes to health care. There is not much aggregate-level change over time in attitudes toward universal access and equal provision.

To measure income, we use a BHPS variable that measures the total monthly income, including wages, benefits and transfer incomes. To measure ideology, we use a set of survey items that tap into left-right differences on economic issues. These items were repeated at regular intervals.

[10] Waves in which the relevant attitudinal questions were not asked were excluded. 5,069 (30.3 percent) respondents reported attitudes towards the NHS in all six waves. For 6,317 (37.8 percent) respondents only answered the questions only once.

Respondents were asked whether they agree or disagree with the claims listed below. These six items were all re-coded in a way that 1=most left-wing, 5=most right-wing response.

- A: Ordinary people share nation's wealth (reversed)
- B: One law for rich one for poor
- C: Private enterprise solves economic problems (reversed)
- D: Public services ought to be state owned
- E: Government has an obligation to provide jobs
- F: Strong trade unions protect employees

We performed an exploratory factor analysis (EFA) on some waves of the survey followed by a confirmatory factor analysis on other waves and found in all cases that all six items strongly loaded on the same dimension. We perform the EFA using a polychoric correlation matrix adapted to ordinal variables. We extract the factors using a principal-components factor method. The results are robust to using other extraction methods. To measure ideology we use factor scores computed following the EFA. Scores are standardized.[11] We take the mean of 8 year-specific measures available under the assumption that economic ideology is a stable component of one's belief system (Alvarez and Brehm 2002; Goren 2005; Evans and Neundorf 2013).

In order to test our predictions, we need to match respondents to their local context. We obtained secure access to the geocodes of the BHPS, which allows us to identify respondents' locality on different established geographies. Here we are using the 1991 census ward codes, which is due to the data restrictions imposed by the census used to measure context characteristics.

[11] The new latent measure for economic ideology strongly correlates with support for the Conservative Party (r = 0.41), which aligns with our claim that this latent variable captures left-right economic ideology.

### 3.2.2 Measurement of Neighborhood Characteristics: Census Data

Our main research question asks how much immigration potentially undermines support for universal social policies. In order to account for immigration, we are relying on data from the 1991 and 2001 censuses.[12] The years in-between the two censuses were linearly interpolated.

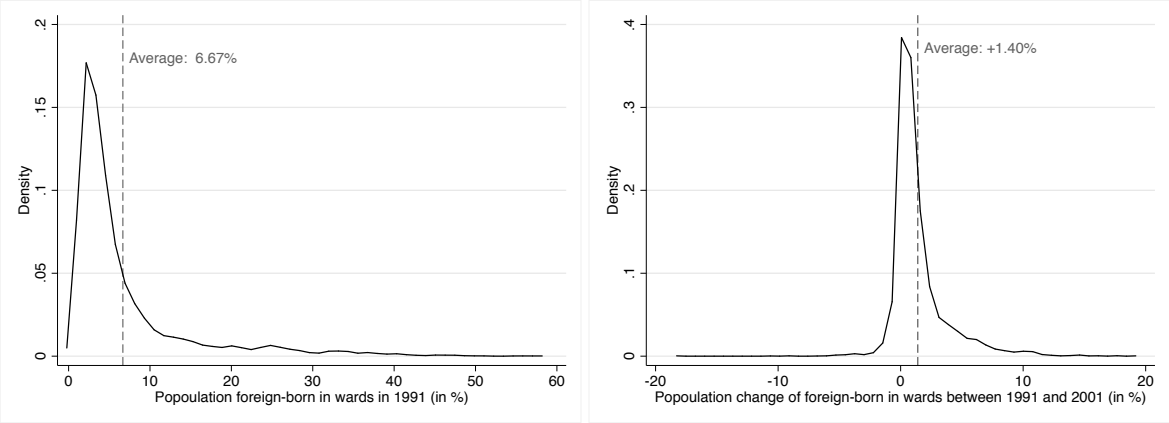
We are using the proportion of foreign-born population as a proxy for immigration. Unfortunately, it is not possible to use more nuanced measures of immigration, as the categorization of countries of birth changed between the two censuses. One main advantage of using census data is the ability to use very low level geographies, which is not possible with other sample-based data. Here we use neighborhoods based on the 1991 census wards that on average have a population of 5,000 people, which we define as the neighborhood.[13] We thereby assume that people react to changes in immigration as part of their local context.[14] The change in local context can be driven

[12] The count data of the censuses can be downloaded from `http://casweb.mimas.ac.uk/step0.cfm`. There is no other data available before the introduction of the Population Surveys in 2002 that provide reliable immigration estimates at a smaller geographic level.

[13] The geocodes used in the 1991 and 2001 census changed. In order to make the local unit comparable, the 2001 Output Areas, which are local units of only 150 people, were aggregated these into the 1991 wards. This process was done using Geoconvert (`http://geoconvert.mimas.ac.uk`). It was not possible to make the geographies of Scotland and Northern Ireland comparable, as different geocodes were used.

[14] Here we do not account for possible changes in immigration as reported, for example, by the media. We assume that changing local context constitutes a stronger personal experience with the issue of immigration. Moreover, the British health system is based on a local link, as British residents have to see a doctor that is inside their local catchment area. We can further assume that when visiting the local General Practitioner or Health Clinic, people are exposed to their neighborhood's cross-section population.

**Figure 2:** Context measures: Proportion of foreign-born




(a) Proportion 1991 (b) Change 1991-2001

by two factors. Firstly, the respondent's neighborhood is changing due to changes in population composition. Secondly, people can move from one neighborhood to the next. Our results are robust to running the analysis separately on each subgroups. More importantly, in preliminary analyses, we find no evidence that decision to move is related to a change in ethnic diversity. This confirm a separate analysis by Kaufmann and Harris (2015) that finds no evidence of selection effects associated with white flight.

Figure 3.A illustrates the distribution of foreign-born population in 1991 in the 3,461 wards that are included in the BHPS.[15] On average 6.67 percent of people living in English and Welsh wards were born outside the UK, ranging from 0.39 percent to 57.58 percent. As Figure 3.B shows, in the 1990s, on average, the foreign-born population increased by 1.40 percent. Only in about 15 percent of all neighborhoods did the proportion of immigrants decrease. In our sample, around 10 percent of wards underwent a 5 percentage points increase or more.

To be able to isolate the effect of immigration, we need to account for other local characteristics

[15] If we are using the full sample of 9,900 wards of England and Wales, the distribution of immigration and changes in the 1990s looks very similar. In other words, the BHPS includes a representative subset of local wards.

that might be related to changes in immigration and that might affect the support for universal health care as well. Most importantly, we need to take into account local deprivation, which is measured using local unemployment rate. Other measures of deprivation or local characteristics were not comparable, as the questions between the 1991 and 2001 censuses changed. The 2001 census included more detailed questions on social and economic question. We were hence able to correlate the unemployment rate with other measures such as proportions of social housing, permanent sick, and blue collar workers. Unemployment is highly correlated with these other measures of deprivation.[16] We therefore feel confident that unemployment is a good summary measure of socio-economic deprivation.

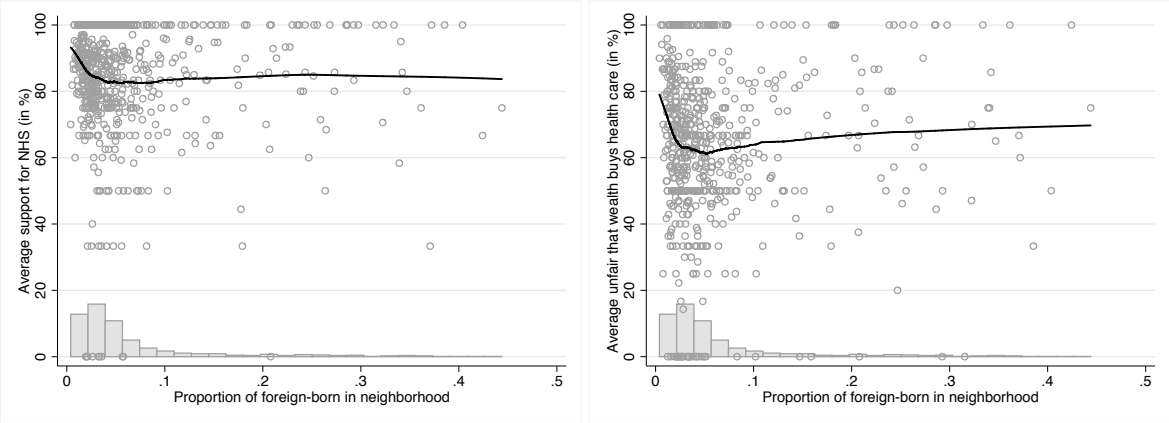
# 4 Results

## 4.1 Descriptive

We can first look at the relationship between neighborhood diversity and social policy support descriptively. Figure 3.A plots the average support for universal health care by ward's foreign-born population in 1991. The lowess curve reveals support for universal health care is strongest in neighborhoods that have the lowest immigration rate and decreases with increasing local immigration. Neighborhoods' average level of support for universal health care seems to stablize at around 80 percent in local wards that have above 8 percent foreign-born population. A similar picture emerges for the second dependent variable, asking respondents whether they find it unfair that wealth buys medical priority.

[16] The correlation between unemployment and proportions of social housing = 0.64; permanent sick = 0.68; blue collar workers = 0.52.

**Figure 3:** Neighborhood diversity (proportion foreign-born in 1991) and aggregated attitudes towards health care




(a) Support for universal health care (b) Unfair that wealth buys private health care

Data: BHPS, 1991-2000. The histogram reports the distribution foreign-born population by wards. The black line is a lowess between foreign-born population and average health care attitudes.

## 4.2 Fixed-effects results

The advantage of our research over previous studies is that we use panel data. Using only the *within* variation, we can therefore eliminate all inconsistency stemming from time-invariant omitted variables. All results reported are based on logistic, fixed-effects regression, predicting a respondent's support for universal health care and agreeing that it is unfair that wealth buys medical priority. To test our first proposition, we estimate variants of the following model:

$$Support_{ijt} = ShareForeignBorn_{jt}\beta_1 + ShareUnemp_{jt}\beta_2 + Income_{it}\gamma + Ideology_{it}\gamma + \varepsilon_{ijt}$$

Results for universal access are presented in Table 1 and result for equal provision in Table 2. Model 0 examines how changes in income and economic ideology impact support for universal access to health care. We then introduce contextual diversity (M1) and finally, contextual unemployment rate (M2). The results in Table 1 align with the prediction that an increase in the share

of foreign born decreases support for universal access health care. In contrast results presented in Table 2 provide little support for the claim that a change in ethnic diversity decreases support for un-differentiated health care. An increase in local deprivation, as proxied by unemployment rates increases both support for universal access and equal provision.

**Table 1:** Logistic regression (fixed-effects): Support for **universal health care** and proportion of local foreign borns

| | (M0) b/se | (M1) b/se | (M2) b/se |
|---|---|---|---|
| *Individual-level variables (i)* | | | |
| Ideology | -0.20*** | -0.16*** | -0.17*** |
| | (0.04) | (0.05) | (0.05) |
| Income | -0.00 | -0.01 | -0.00 |
| | (0.00) | (0.00) | (0.00) |
| *Context variables (j)* | | | |
| % Foreign-born | | -0.03 | **-0.03*** |
| | | (0.02) | (0.02) |
| % Unemployed | | | **0.10***** |
| | | | (0.02) |
| Number of respondents | 3278 | 2052 | 2025 |
| Number of observations | 13609 | 9930 | 9824 |
| ll | -5118 | -3774 | -3724 |

*Significance levels*: $^{*}p<.1$, $^{**}p<.05$ $^{***}p<.01$.*Data*: BHPS (1991-2001). Bootstrapped standard errors. The analyses was only based on respondents born in the Uk.

To examine heterogeneity in reaction to a change in neighborhood diversity, we re-run M2 on different subsets of the data. First we distinguish between respondents in the bottom 25 percent of our sample with regards to average income and respondents in the top 25 percent. Then we distinguish between economically left-wing and economically right-wing individuals. To do so we take individuals who score half a standard deviation or higher on the ideology measure (i.e. economically right-wing individuals) and compare them to individuals who score minus half a standard deviation or lower on the same measure (i.e. economically left-wing). Table 3 presents results for universal access and Table 4 results for equal provision. The exclusion of individual-level controls (ideology and income) does not change the results (not shown).

We find strong evidence that ideology mediates how individuals react to neighborhood character-

**Table 2:** Logistic regression (fixed-effects): Support for **un-differentiated health care provision** and proportion of local foreign borns

| | (M0) b/se | (M1) b/se | (M2) b/se |
|---|---|---|---|
| *Individual-level variables (i)* | | | |
| Ideology | -0.42*** | -0.48*** | -0.49*** |
| | (0.04) | (0.04) | (0.03) |
| Income | -0.01** | -0.01* | -0.00 |
| | (0.00) | (0.00) | (0.00) |
| *Context variables (j)* | | | |
| % Foreign-born | | -0.02 | -0.02 |
| | | (0.01) | (0.01) |
| % Unemployed | | | **0.11*** ** |
| | | | (0.02) |
| Number of respondents | 4782 | 3052 | 3022 |
| Number of observations | 19907 | 14773 | 14639 |
| ll | -5118 | -3774 | -3724 |

*Significance levels*: $^{*}p<.1$, $^{**}p<.05$ $^{***}p<.01$.*Data*: BHPS (1991-2001). Bootstrapped standard errors. The analyses was only based on respondents born in the Uk.

istics. While left-wing individuals appear to be sensitive to a change in unemployment, right-wing individuals only appear to be sensitive to a change in the share of foreign born individuals.

However, there is no evidence that rich and poor differ systematically with regards to changes in attitudes toward the equal provision principle. Sensitivity tests provide some tentative evidence that the very rich in our sample are more sensitive to a change in neighborhood diversity. However, we cannot rule out the possibility that this relationship is driven by the over-representation of right-wing individuals in this group (not shown).

How substantive is the relationship between changing neighborhood composition and changing attitudes? An increase in diversity equal to 10 percentage points results in a 10 percentage points decline in the probability of supporting universal access to healthcare. The size of the effect is similar with regards to support for equal provision. However, over the period, very few respondents experienced such dramatic change (less than 5 percent). The preliminary results are consequently to be interpreted more as a proof of concept than as evidence that, in the 1990's, immigration was undermining mass support for universal and equal health care. In the concluding section, we

**Table 3:** Logistic regression (fixed-effects): Support for **universal health care** by income and ideological groups

| | Bottom 25 % b/se | Top 25 % b/se | Liberals b/se | Conservatives b/se |
|---|---|---|---|---|
| *Context variables (j)* | | | | |
| % Foreign-born | -0.10 | -0.04 | -0.04 | **-0.09*** |
| | (0.06) | (0.02) | (0.05) | (0.04) |
| % Unemployed | 0.13* | 0.10* | **0.23**** | 0.05 |
| | (0.05) | (0.05) | (0.07) | (0.06) |
| *Individual-level variables (i)* | | | | |
| Ideology | -0.26* | -0.07 | | |
| | (0.12) | (0.09) | | |
| Income | | | 0.00 | -0.00 |
| | | | (0.02) | (0.01) |
| Number respondents | 457 | 628 | 411 | 566 |
| Number observations | 2230 | 3037 | 2149 | 3299 |
| ll | -840 | -1166 | -808 | -1277 |

*Significance levels*: $^{*}p<.1$, $^{**}p<.05$ $^{***}p<.01$.*Data*: BHPS (1991-2001). Bootstrapped standard errors. The analyses was only based on respondents born in the Uk.

discuss the implication for the more recent period where immigration and welfare have become a salient issue.

**Table 4:** Logistic regression (fixed-effects): Support for un-differentiated health care provision by income and ideological groups

| | Bottom 25 % b/se | Top 25 % b/se | Econ Liberals b/se | Econ Conservatives b/se |
|---|---|---|---|---|
| *Context variables (j)* | | | | |
| % Foreign-born | -0.06 | -0.02 | -0.05 | **-0.08**** |
| | (0.04) | (0.02) | (0.03) | (0.02) |
| % Unemployed | 0.10* | 0.16*** | **0.13**** | 0.08 |
| | (0.04) | (0.03) | (0.05) | (0.04) |
| *Individual-level variables (i)* | | | | |
| Ideology | -0.48*** | -0.48*** | | |
| | (0.09) | (0.06) | | |
| Income | | | 0.02 | -0.00 |
| | | | (0.01) | (0.00) |
| Number of respondents | 634 | 800 | 568 | 805 |
| Number of observations | 3080 | 4940 | 3296 | 4693 |
| ll | -1172 | -1868 | -1229 | -1814 |

*Significance levels*: $^{*}p<.1$, $^{**}p<.05$ $^{***}p<.01$.*Data*: BHPS (1991-2001). Bootstrapped standard errors. The analyses was only based on respondents born in the Uk.

# 5 Conclusion

We examined whether a change in ethnic diversity was paralleled by a decrease in support for universal and equal health care. We find a small effect of diversity on support mainly limited to economically right-wing individuals. Against expectations, we could not document that high income individuals become more tolerant of unequal provision as their local NHS office becomes more diverse through immigration.

When predicting that income would be an important mediator, we assumed that the item used in the analysis primed respondents to think about high income individuals' ability to "jump the queue." One possibility is that the perceived price of "queue jumping" is low enough that most respondents include themselves in the group of individuals that would benefit. Without more analysis of the interpretation given by respondents to this item, we cannot conclude much from this null finding.

Overall, our findings point to two important follow up research questions. One is to examine whether or not the size of the effect increases when immigration and welfare become politicized at the national level. Hopkins (2010) finds that a change in neighborhood diversity has only little attitudinal impact in times of low-politicization but that the effect increases substantially once the issue is at the center of the political agenda. If this is indeed the case then our findings cast doubt on the claim that universal policies, focused on horizontal not vertical redistribution, are immune to the effects of group bias.

However, the main consequences of immigration on universal policies are unlikely to be cuts in spending on universal policies. The main impact of immigration on mass support is more likely to take two distinct forms. One is reform of the criteria regulating access to the benefits. The second is pressure to legally (for instance through tax breaks) foster the emergence of an upper tier of social service provision. The general result would be a pressure to differentiate service provision based on citizenship status and income.

A second follow up research question is to examine the mediating effects of ideology. Are economically left-wing individuals immune to the effects of neighborhood diversity, even in instances of high political salience? Our tentative answer is a positive one. This electorate appears to be more sensitive to changes in unemployment levels than to immigration. We can expect the former to water down any negative effect of the latter. Interestingly, our findings speak to the current political situation. The current debate in the Conservative party is mainly focused on findings way to limit immigrants' access to the welfare states. On the other hand, the Labor party is faced with a resurgence of "old" Labour in the person of Jeremy Corbyn, who is calling for increased redistribution toward the poor and the unemployed. Each party's electorate appears to be looking at the aftermath of the Great Depression through very different lenses.

# References


Alesina, A. and E.L. Glaeser. 2006. *Fighting Poverty in the US and Europe: a World of Difference*. Oxford University Press, USA.

Alvarez, Michael and John Brehm. 2002. *Hard Choices, Easy Answers: Values, Information, and American Public Opinion*. Princeton: Princeton University Press.

Baldassarri, Delia and Guy Grossman. 2013. "The effect of group attachment and social position on prosocial behavior. Evidence from lab-in-the-field experiments.".

Barry, Brian. 2002. *Culture and equality: An egalitarian critique of multiculturalism*. Harvard University Press.

Bartels, Larry M. 2007. "Homer gets a warm hug: A note on ignorance and extenuation." *Perspectives on Politics* 5(04):785–790.

Bay, Ann-Helén, Henning Finseraas and Axel West Pedersen. 2013. "Welfare dualism in two scandinavian welfare states: Public opinion and party politics." *West European Politics* 36(1):199–220.

Brewer, Marilynn B and Linnda R Caporael. 2006. "An evolutionary perspective on social identity: Revisiting groups." *Evolution and social psychology* pp. 143–161.

Brewer, Marilynn B and Roderick M Kramer. 1985. "The psychology of intergroup attitudes and behavior." *Annual review of psychology* 36(1):219–243.

Bullock, John G. 2009. "Partisan bias and the Bayesian ideal in the study of public opinion." *The Journal of Politics* 71(03):1109–1124.

Cavaillé, Charlotte. 2015. "Does Deservingness Matter More to Some than Others? The Moderating Role of Self Interest.".

Cavaille, Charlotte and Kris-Stella Trump. 2015. "The Two Facets of Social Policy Preferences." *Journal of Politics* .

Dahlberg, Matz, Karin Edmark and Heléne Lundqvist. 2012. "Ethnic diversity and preferences for redistribution." *Journal of Political Economy* 120(1):41–76.

Eger, Maureen A. 2009. "Even in Sweden: the effect of immigration on support for welfare state spending." *European Sociological Review* p. jcp017.

Esping-Andersen, G. 1990. *The three worlds of welfare capitalism*. Polity Pr.

Evans, Geoffrey and Anja Neundorf. 2013. "Core Political Values and the Long Term Shaping of Partisanship." *MPSA, Chicago IL* .

Fong, Christina. 2005. "Empathic responsiveness: evidence from a randomized experiment on giving to welfare recipients.".

Fong, Christina M and Erzo FP Luttmer. 2011. "Do fairness and race matter in generosity? Evidence from a nationally representative charity experiment." *Journal of Public Economics* 95(5):372–394.

Ford, Robert. 2006. "Prejudice and White Majority Welfare Attitudes in the UK." *Journal of Elections, Public Opinion and Parties* 16(2):141–156.

Gilens, Martin. 1999. *Why Americans hate welfare: Race, media, and the politics of antipoverty policy*. University of Chicago Press.

Goren, Paul. 2005. "Party identification and core political values." *American Journal of Political Science* 49(4):881–896.

Hogg, Michael A and Dominic Ed Abrams. 1993. *Group motivation: Social psychological perspectives.* Harvester Wheatsheaf.

Hopkins, Daniel J. 2007. Threatening changes: Explaining where and when immigrants provoke local opposition. In *Unpublished paper. Presented at the 2007 annual conference of the Midwest Political Science Association and the American Political Science Association*.

Hopkins, Daniel J. 2010. "Politicized places: Explaining where and when immigrants provoke local opposition." *American Political Science Review* 104(01):40–60.

Jensen, carsten and Michael Bang Petersen. 2014. "Cognitive Bias and the Politics of Health Care.".

Kaufmann, Eric and Gareth Harris. 2015. "White Flight or Positive Contact? Local Diversity and Attitudes to Immigration in Britain." *Comparative Political Studies* p. 0010414015581684.

Korpi, Walter and Joakim Palme. 1998. "The paradox of redistribution and strategies of equality: Welfare state institutions, inequality, and poverty in the Western countries." *American sociological review* pp. 661–687.

Larsen, Christian Albrekt. 2008. "The institutional logic of welfare attitudes how welfare regimes influence

public support." *Comparative Political Studies* 41(2):145–168.

Luttmer, Erzo FP. 2001. "Group loyalty and the taste for redistribution." *Journal of political Economy* 109(3):500–528.

Margalit, Yotam. 2012. "Lost in globalization: International economic integration and the sources of popular discontent1." *International Studies Quarterly* 56(3):484–500.

Marshall, Thomas H. 1950. *Citizenship and social class*. Vol. 11 Cambridge.

Massey, Douglas S. 2007. *Categorically unequal: The American stratification system*. Russell Sage Foundation.

Mewes, Jan and Steffen Mau. 2012. Unraveling working-class welfare chauvinism. In *Contested welfare states: Welfare attitudes in Europe and beyond*, ed. Stefan Svallfors. Stanford University Press Stanford pp. 119–157.

Miller, David. 1995. *On nationality*. Oxford University Press.

Moene, K.O. and M. Wallerstein. 2001. "Inequality, social insurance, and redistribution." *American Political Science Review* 95(04):859–874.

Pardos, Sergi and Hector Munoz. 2015. "Immigration and Support for Social Policy: An Experimental Comparison of Universal and Means-Tested Programs.".

Pierson, Paul. 1996. "The new politics of the welfare state." *World politics* 48:143–179.

Pierson, Paul. 2001. *The new politics of the welfare state*. Oxford University Press, USA.

Rehm, P., J.S. Hacker and M. Schlesinger. 2012. "Insecure alliances: Risk, inequality, and support for the welfare state." *American Political Science Review* 106(2):386–406.

Rothstein, Bo. 1998. *Just institutions matter: the moral and political logic of the universal welfare state*. Cambridge University Press.

Rueda, David. 2014. Food Comes First, Then Morals: Redistribution Preferences, Altruism and Group Heterogeneity in Western Europe. Technical report Competitive Advantage in the Global Economy (CAGE).

Soroka, Stuart N, Richard Johnston, Anthony Kevins, Keith G Banting and Ky. 2015. "Migration and welfare state spending." *European Political Science Review* .

Stichnoth, Holger. 2012. "Does immigration weaken natives' support for the unemployed? Evidence from

Germany." *Public Choice* 151:631–654.

Stichnoth, Holger and Karine Van der Straeten. 2013. "Ethnic diversity, public spending, and individual support for the welfare state: A review of the empirical literature." *Journal of Economic Surveys* 27(2):364–389.

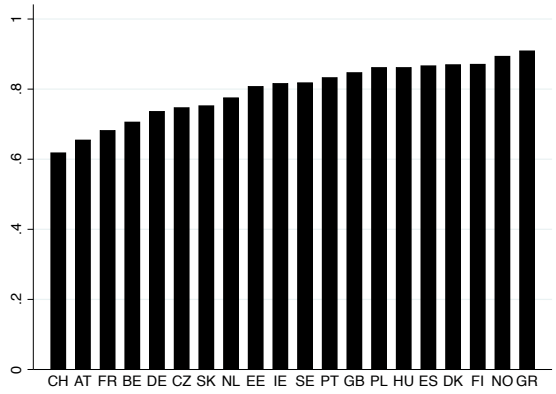
Svallfors, Stefan. 2012. "Welfare Attitudes in Context." *Contested Welfare States: Welfare Attitudes in Europe and Beyond* p. 222.

Tajfel, Henri. 1982. "Social psychology of intergroup relations." *Annual review of psychology* 33(1):1–39.

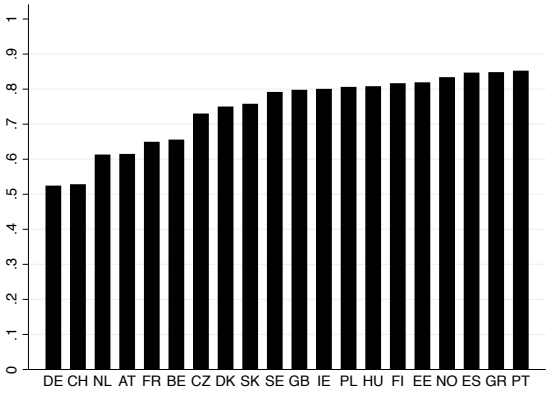
Van der Waal, Jeroen, Peter Achterberg, Dick Houtman, Willem De Koster and Katerina Manevska. 2010. "Some are more equal than others." *Journal of European Social Policy* 20(4):350–363.

# Appendix

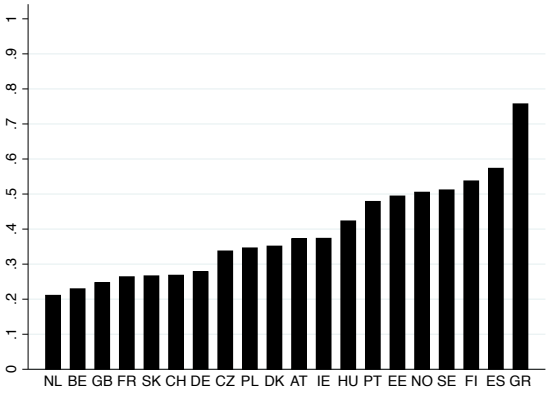
**Figure 4:** Share Population that Agrees that it Should be the Government's Responsibility to...




(a) Ensure adequate health care for the sick




(b) Ensure a reasonable standard of living for the old




(c) Ensure a reasonable standard of living for the unemployed

Respondents were asked to provide an answer on a 0 to 10 scale. These figures plot the share of respondents who chose either answers 8, 9 or 10, expressing a strong commitment to government's role in providing either for the sick, the old or the unemployed.
Dataset: ESS, 2008.