

## Culture, Context, and the Taste for Redistribution<sup>†</sup>

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*Is culture an important determinant of preferences for redistribution? To separate culture from the economic and institutional environment (“context”), we relate immigrants’ redistributive preferences to the average preference in their birth countries. We find a strong positive relationship that is robust to rich controls for economic factors and cannot easily be explained by selective migration. This effect is as large as that of own household income and appears stronger for those less assimilated into the destination country. Immigrants from high-preference countries are more likely to vote for more pro-redistribution parties. The effect of culture persists strongly into the second generation. (JEL H23, Z13)*

Preferences for redistribution vary in systematic ways across countries. Individuals in European countries tend to have stronger redistributive preferences than people in the United States (see e.g., Alberto Alesina, Edward Glaeser, and Bruce Sacerdote 2001; Alesina and Glaeser 2004), and individuals in former socialist countries tend to have stronger preferences than those in Western nations (Giacomo Corneo and Hans P. Grüner 2002). These preferences ultimately underlie the tax and transfer systems chosen by governments, so understanding their determinants is of fundamental importance. The persistence of cross-country differences suggests that redistributive preferences may have an important cultural component,<sup>1</sup> and this possibility has been noted in the literature (e.g., Corneo 2001; Alesina and Glaeser 2004). However, isolating the effects of culture from contemporaneous effects of the economic and institutional environment is challenging. This paper provides evidence on the effect of culture on preferences for income redistribution by examining the determinants of preferences among immigrants across 32 countries.

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<sup>1</sup>We follow Luigi Guiso, Paola Sapienza, and Luigi Zingales (2006) in defining culture as “those customary beliefs and values that ethnic, religious, and social groups transmit fairly unchanged from generation to generation.”

If preferences were based solely on current context, then the preference for redistribution in an immigrant's country of origin should not matter after controlling for relevant factors in the country of residence. However, it is possible that immigrants take cultural values with them from their countries of origin, and that these cultural values affect preferences for redistribution, regardless of current context.<sup>2</sup>

Voting patterns during the large waves of immigration into the United States during the nineteenth century suggest that immigrants were influenced by home country culture. Political allegiances during this time were often sharply split along ethnic lines (Richard L. McCormick 1974), and attitudes toward government did appear to reflect the prevailing attitudes in immigrants' countries of origin. Lee Benson (1966, 298–299), for example, argues that Dutch immigrants in New York “abided by their fathers' faith in state rights and negative government” and therefore supported the Democratic Party, which “preached the doctrines of the negative liberal state and state rights.” Immigrants from Scandinavia and Germany were often supporters of early progressive movements, such as socialist political parties. Seymour M. Lipset and Gary Marks (2000, 139–140) note that “the leadership of Germans in the American socialist movement has been linked to the political sources of emigration from Germany ... The German Social Democratic Party was the strongest socialist movement in the world before World War I, and many newcomers brought their ideological sympathies to America.” These anecdotes suggest a persistent cultural component to political preferences. Our empirical analysis formalizes this relationship by relating the preferences of contemporary immigrants to attitudes in their birth countries.

We find that the average preference for redistribution in an immigrant's country of birth has a large and significant effect on her own preference for redistribution. Our main findings can be illustrated in Figure 1, which plots individual preference for redistribution (in deviation from the mean preference of natives in the country of residence) against the mean preference of natives in the immigrant's country of birth. Preferences for redistribution are measured on a five-point scale, and each point on the graph represents the average for all immigrants born in a particular country, irrespective of the current country of residence. Immigrants born in a country with a high preference for redistribution tend to have higher preferences for redistribution than the natives of the countries in which they reside.

This relationship is verified in the regression analyses, where we include country of residence dummies and rich controls for economic and demographic characteristics. We find that a one unit increase in the mean preference for redistribution in an immigrant's country of birth is associated with a 0.34 unit increase in her own preference for redistribution.<sup>3</sup> Our estimates imply that the effect of culture

<sup>2</sup> Alberto Bisin and Thierry Verdier (2004) identify an alternative channel through which culture can affect the amount of redistribution: the cultural transmission of values associated with “work ethic” will affect the level of redistribution that the political equilibrium can sustain.

<sup>3</sup> Note that a possible concern with Figure 1 is that the preferences of natives could potentially be affected by the preferences of immigrants. This is of less concern in the regression analyses: in these specifications, we include residence country fixed effects rather than residence country preferences. The identification of the effect of culture therefore arises from variation in birth country preference across various immigrant groups migrating to the same destination country.

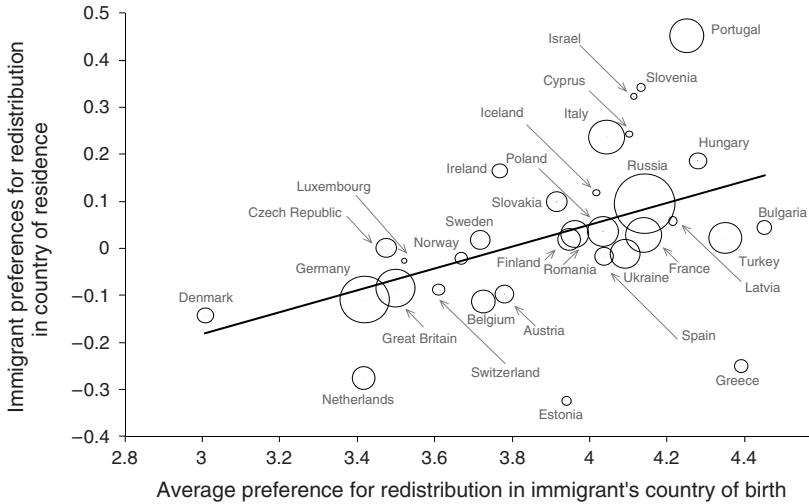


FIGURE 1. IMMIGRANT PREFERENCES FOR REDISTRIBUTION BY PREFERENCES IN COUNTRY OF BIRTH

*Notes:* Immigrant preference for redistribution in country of residence is measured in deviation from the mean preference of natives in the country of residence. It is then averaged over all countries in which immigrants from a given birth country currently reside. Thus, the country labels indicate countries of birth. The size of each circle is proportional to the number of immigrants from the indicated country in the ESS dataset. The regression line has a slope of 0.30 with a standard error of 0.08. The adjusted  $R^2$  equals 0.40.

on own preference for redistribution is approximately as large as the effect of own household income and 60 percent as large as the combined effect of income and education. Although income and education are imperfect proxies for economic self-interest, this indicates that the magnitude of the culture effect is comparable in size to that of other important determinants of preferences for redistribution.

This effect is robust to the choice of economic controls and to a number of sample and specification tests. Overall, the influence of birth country culture appears to be stronger for immigrants who are less politically or socially assimilated into the destination country and for immigrants who migrate to more diverse destination countries. We also examine the intergenerational transmission of preferences by looking at individuals born in their country of residence who have an immigrant parent. A higher mean preference for redistribution in the parent's country of birth is associated with a significantly higher individual preference; the effect is two-thirds as large as the own country of birth effect. The observed heterogeneity in the effect of culture for first-generation immigrants is largely mirrored in the second generation.

These findings have a number of important implications. Individual preferences for income redistribution cannot be fully explained by economic self-interest or by economic, political, or social aspects of the current environment, since individual preferences continue to be influenced by country of origin even in a common environment. This also suggests that culture may be an important factor in explaining the large observed differences in systems of redistribution across countries. Finally, the inherited cultural values of immigrants can, as the anecdotes above suggest, shape the policies of the societies to which they migrate. Thus, while our primary focus

is on using immigrants as a mechanism to identify the effects of culture, the results also have implications for the political economy of immigration policy.<sup>4</sup>

We consider several alternative explanations for our findings. First, there may be unobserved economic factors that affect preferences for redistribution both in the birth country and the country of residence. In particular, we might be concerned about selective migration driven by economic self-interest. We demonstrate that the results are robust to rich controls for an individual's likely gain or loss from redistribution and that the results are also evident in several subsamples of countries. A second possibility is that individuals update information about the current context slowly, and our estimates are simply picking up this slow updating rather than a true effect of culture. However, we find strong cultural effects even for immigrants who have lived in their country of residence for more than 20 years, and the effects persist in the second generation. Finally, it is possible that cultural factors only influence the way in which individuals respond to survey questions, but do not affect "true" preferences. We find that a higher mean preference for redistribution in the country of birth is associated with an increased probability of voting for a more redistribution party, indicating that cultural influences do affect real behavior.

Three studies that relate specifically to the current study are Guiso, Sapienza, and Zingales (2006); Alesina and Nicola Fuchs-Schündeln (2007); and Alesina and Paola Giuliano (2010b). We discuss the broader literature on preferences for redistribution in Section I of the paper. Alesina and Fuchs-Schündeln (2007) use the separation and reunification of Germany as a natural experiment to examine how Communism affects preferences. They find that those who lived in the former East Germany more strongly prefer redistribution after reunification.<sup>5</sup> The authors convincingly show that living in East Germany, as opposed to West Germany, influences one's preferences for redistribution. By the nature of their natural experiment, however, it is hard to know whether this effect is driven by cultural differences developed under Communism, Communist indoctrination *per se*, or another aspect of living in East Germany during this time period. In addition, they focus specifically on the effects of Communism, whereas we examine the effects of culture more broadly. Guiso, Sapienza, and Zingales (2006) explicitly note the potential role of culture in explaining preferences for redistribution. They find that country-of-ancestry fixed effects are significant determinants of preferences for redistribution in the United States General Social Survey. This is suggestive of a lasting effect of culture but, as the authors note, it is difficult to know what exactly is captured by the fixed effects.<sup>6</sup> Finally, in independent work, Alesina and Giuliano (2010b) show evidence of an effect of birth country preference for redistribution on own preference among

<sup>4</sup> See Rafaela Dancygier and Elizabeth N. Saunders (2006) for a description of differences in preferences for social spending and redistribution between immigrants and natives in Germany and the United Kingdom and a discussion of the implications for nations receiving large flows of immigrants.

<sup>5</sup> Corneo (2004) also notes higher preferences for redistribution among East Germans relative to West Germans.

<sup>6</sup> Raquel Fernández and Alessandra Fogli (2007) and Giuliano (2007) argue that country of birth dummies cannot relate individual behavior to a specific determining factor in the country of origin. They therefore proxy for culture using the mean behavior of interest in the country of origin. We follow this approach. Ran Abramitzky (2008) examines the effects of culture/ideology on preferences for redistribution in a different context, demonstrating that Israeli kibbutzim affiliated with socialist political parties are able to sustain higher levels of redistribution.

US immigrants, consistent with our findings. Our paper demonstrates an effect of culture using data from over 30 countries, and we provide evidence against alternative explanations of this effect. In particular, we show that this effect is strongly robust to a rich set of controls for selection and to the choice of sample countries.<sup>7</sup> We also show that the cultural effect is evident in actual behavior (voting), that it is stronger for those less assimilated into their destination country, and that it persists into the second generation.

The approach of examining immigrant behavior has been used in a growing literature on the economic effects of culture.<sup>8</sup> Francine Blau (1992); Christopher D. Carroll, Byung-Kun Rhee, and Changyong Rhee (1994); Robert W. Fairlie and Bruce D. Meyer (1996); and Heather Antecol (2000, 2001) analyze the behavior of immigrant groups to determine the effects of culture on fertility, savings, employment rates, and wage gaps. In their study of women's work behavior and fertility choices, Fernández and Fogli (2006) advance this literature by formalizing the empirical methodology and more carefully considering issues of selection and omitted variable bias. Related studies using variants of this strategy have found strong effects of culture in explaining other aspects of women's labor supply and fertility (see e.g., Timothy W. Guinnane, Carolyn M. Moehling, and Cormac Ó Gráda 2006; Alesina and Giuliano 2010a; Fernández 2007; Fernández and Fogli 2007), household living arrangements (Alesina and Giuliano 2010a; Giuliano 2007), youth labor force participation and geographic mobility (Alesina and Giuliano 2010a), and trust (Yann Algan and Pierre Cahuc 2010).<sup>9</sup> While our basic identification strategy is very similar to the strategy used in these studies, we look at immigrants not only coming from multiple source countries but also going to multiple destination countries. This approach limits the scope for selection bias since we would expect the form of selection to differ across different destination countries.

The remainder of the paper proceeds as follows. In Section I, we discuss models of preferences for redistribution and formalize our empirical strategy. Section II describes the data and Section III presents the results. Section IV concludes.

## I. Empirical Strategy

Our goal is to examine the extent to which cultural factors influence preferences for redistribution. In this section, we provide an overview of our estimation strategy. We first review economic models of preferences and outline the identifying

<sup>7</sup> As discussed below, we include very rich controls for economic determinants of preferences, including extensive and flexible controls for education, income, and labor market factors, as well as controls for spousal and parental characteristics. We also demonstrate that the results hold in a variety of subsamples of countries.

<sup>8</sup> Fernández (2008) provides a detailed discussion of this strategy, which she terms an "epidemiological approach," as well as an overview of recent literature on culture and economics.

<sup>9</sup> Other studies have used similar strategies to identify the effects of culture on behavior. Andrea Ichino and Giovanni Maggi (2000) exploit movement of bank employees across regions in Italy to examine the effect of individual background on shirking behavior. Raymond Fisman and Edward Miguel (2007) show that among diplomats in New York City those from more corrupt countries are more likely to commit parking violations. Kaiping Peng and Richard Nisbett (1999), and Ara Norenzayan et al. (2002), run experiments on students with varying backgrounds in the same undergraduate university, and find evidence of cultural differences in reasoning processes between (European) American and East Asian students. In the latter study, Asian American students are found to resemble European Americans, or have outcomes in between those of European American and East Asian subjects.

assumptions under which we can estimate the effects of culture separately from economic incentives. We then discuss other models of preferences for redistribution and explain how the factors considered in those models would affect our estimates of culture. In particular, we argue that our method allows us to disentangle elements of preferences that reflect the current economic and institutional environment and those that reflect culture.

Under standard economic models, such as Allan H. Meltzer and Scott F. Richard (1981), an individual's preference for redistribution is determined exclusively by her expected benefit or loss from redistribution.<sup>10</sup> Preferences may also reflect other objective country characteristics, such as inequality, heterogeneity, or institutions. It is possible that an individual's preference for redistribution may, in addition, be determined by country-specific "cultural influences." While this channel has been suggested in the literature (e.g., Corneo 2001; Alesina and Glaeser 2004), it is difficult to distinguish empirically the effect of cultural influences from objective country characteristics. Separating the two within a country is especially challenging because institutions at least partially reflect culture (Guido Tabellini 2010).

Examining immigrants provides a way to identify whether cultural influences exist and are important determinants of preferences. If the Meltzer and Richard model is correct and we can control for the relevant economic and institutional factors, we should not expect the birth country preference for redistribution to be an explanatory factor in the preferences of immigrants.

We estimate specifications of the following form for immigrant preferences:

$$(1) \quad \text{pref}_i = \beta_1(\overline{\text{pref}}_b) + \mathbf{X}_i\beta_2 + \theta_r + \varepsilon_i,$$

where  $\text{pref}_i$  denotes immigrant  $i$ 's preference for redistribution,  $\overline{\text{pref}}_b$  is the average preference for redistribution among natives in birth country  $b$  of immigrant  $i$ ,  $\mathbf{X}_i$  is a vector of individual characteristics,  $\theta_r$  is a fixed effect for residence country  $r$  of immigrant  $i$ , and  $\varepsilon_i$  denotes the error term. We adjust standard errors to allow for clustering of error terms by birth country. The vector of individual characteristics ( $\mathbf{X}_i$ ) includes demographic characteristics, such as age and gender, as well as measures such as income and education that are meant to capture how much the individual stands to gain or lose from more redistribution. The residence country fixed effect captures both the effects of objective characteristics of the residence country, such as political institutions, and the effects of cultural influences of the residence country; we cannot separate the two.

The average preference of natives in the birth country,  $\overline{\text{pref}}_b$ , reflects both objective characteristics and cultural influences in the birth country. However, there is no reason that the characteristics of and institutions in the birth country should directly

<sup>10</sup> Economic factors have been found to influence preferences and voting in a number of studies, e.g., Martin Ravallion and Michael Lokshin (2000); Corneo and Grüner (2002); Andrew Leigh (2005); and Eric J. Brunner, Stephen L. Ross, and Ebonya L. Washington (forthcoming). Individuals who have an expectation of upward mobility may also prefer less redistribution. This prospect of upward mobility (POUM) hypothesis was proposed by Roland Bénabou and Efe A. Ok (2001) and has found empirical support (Alesina and Eliana La Ferrara 2005).

affect preferences for redistribution in the residence country. For immigrants, the coefficient on  $\overline{pref}_b$  should therefore only capture the effect of cultural influences. The identifying assumption for  $\beta_1$  is that there are no omitted factors that are correlated with the average preference for redistribution in the birth country and that affect the individual's preference for redistribution in the country of residence.

There may also be "behavioral" factors that affect individuals' preferences for redistribution. For example, all individuals may have some taste for fairness. If this fairness preference is common across countries, it will not affect our estimate of  $\beta_1$ . We consider systematic variation in taste for fairness across countries to be an element of culture, and such variation should be captured in  $\overline{pref}_b$ . Preferences may also be affected by the characteristics of potential beneficiaries. Individuals may prefer to redistribute to members of their own racial or ethnic group (Luttmer 2001) or to those perceived to be hard-working (Christina M. Fong 2007). Preferences may also vary depending on whether respondents believe income is largely determined by luck or hard work, a possibility we discuss in more detail below. To the extent that these preferences and beliefs are driven by objective societal factors (e.g., racial heterogeneity, low-income labor force participation, economic mobility) that vary at the country level, they will be captured by the residence country fixed effects. To the extent that these preferences and beliefs are shaped by the society in which individuals are raised, and persist through later periods of life, such effects fall within our definition of culture and should be included in our estimate of  $\beta_1$ . Remaining variation not captured by individual controls will fall in the error term but should not affect our estimate of  $\beta_1$  unless it is correlated with  $\overline{pref}_b$ .

Our focus is on determining whether individual preferences for redistribution exhibit a cultural component. In our empirical analyses, we therefore take the birth country preference (shown in Figure 1) as given. We do not attempt to identify the determinants of birth country preference, although previous studies suggest that attitudes toward the recipients of redistribution may play an important role. Alesina, Glaeser, and Sacerdote (2001) and Alesina and Glaeser (2004) show that individuals in European Union countries are more likely to report that they believe the poor are "trapped in poverty" and that "luck determines income" and less likely to report a belief that "the poor are lazy" than those in the United States. It is not clear that these differences in beliefs are supported by empirical evidence.<sup>11</sup> Ultimately, we would expect differences in preferences for redistribution to be reflected in the redistributive policies of countries. In practice, however, the political process may result in differences between preferred and actual redistribution, perhaps explaining why preferred redistribution at the country level does not perfectly correlate

<sup>11</sup> Several theoretical papers have noted that differences in beliefs may arise from multiple equilibria in the interaction between beliefs and redistribution systems; see, for example, Thomas Piketty (1995), Alesina and George-Marios Angeletos (2005), and Bénabou and Jan Tirole (2006). However, we should not expect old beliefs to persist under a new system of redistribution over long periods of time and across generations unless the beliefs, once formed, become part of culture. At the individual level, Corneo and Grüner (2002) show that individuals who believe that hard work is important "for getting ahead in life" have weaker preferences for redistribution. Fong (2001) shows that individuals prefer more redistribution if they believe poverty is determined exogenously and argues that this relationship cannot be explained by imperfectly measured self-interest. In addition, macroeconomic volatility experienced during formative years can result in increases in own preference for redistribution (Alesina and Giuliano 2010b; Giuliano and Antonio Spilimbergo 2009).

with aggregate measures of redistribution, such as government spending. Gaining a better understanding of why countries fall where they do in the distribution of redistributive preferences is an important question, but one that lies outside the scope of this paper.

## II. Data

We use data from three rounds of the European Social Survey (ESS), a biennial cross-sectional survey administered in a large sample of (mostly) European nations. The survey was initiated by the European Science Foundation with the goal of measuring and comparing attitudes and behaviors across countries and over time in a methodologically rigorous way. We use data from three rounds of the survey, conducted in 2002/2003, 2004/2005, and 2006/2007. Thirty-two countries participated in at least one round of the survey, and seventeen countries participated in all three rounds. The countries participating in each round are listed in the first column of Table 1.

Respondents are given the statement “the government should take measures to reduce differences in income levels” and asked if they agree strongly, agree, neither agree nor disagree, disagree, or disagree strongly. We code this question on a five-point scale, with 1 being “disagree strongly” and 5 being “agree strongly.” Although the question does not specify a particular country when it refers to “government,” the question immediately preceding this question asks about policies specifically in the country of residence.<sup>12</sup> We define the preference for redistribution in an immigrant’s birth country as follows: we calculate the mean preference among natives in the birth country in each ESS round, weighted by individual weights, and then average across rounds.<sup>13</sup>

Our primary sample consists of individuals who are immigrants; that is, individuals whose country of birth differs from the country of residence. We restrict this immigrant sample to individuals who are 18 years of age or older and whose birth country is an ESS survey country. We drop observations for which the preference for redistribution is missing (3.7 percent of observations in the immigrant sample).<sup>14</sup> Demographic characteristics of this sample ( $N = 6,249$ ) are given in Web Appendix Table A1.

<sup>12</sup> In Round 1, the immediately preceding question asks respondents their level of agreement with the following statement: “The less that government intervenes in the economy, the better it is for [country].” In Rounds 2 and 3, the immediately preceding question asks respondents to “please say what you think overall about the state of health services in [country] nowadays” on a scale from extremely bad to extremely good. In both cases, [country] is replaced with the name of the country in which the survey is conducted.

<sup>13</sup> If a country did not participate in all rounds of the survey, the birth country preference for that country is defined by the average across the available rounds. In practice, the mean preference for a given country across rounds is almost perfectly correlated. This means that we will retain immigrants from a given birth country in all rounds as long as we observe the birth country in any round. However, we have observations for immigrants to a given destination country in a given round only if the destination country participated in that round.

<sup>14</sup> We also drop observations for which age is missing (less than 1 percent of observations) and observations for which gender is missing (less than 0.1 percent of observations). We also drop 12 observations for which individuals reported being born outside the country of residence but country of birth is missing or the birth country and indicator for native-born are inconsistent.



TABLE 1—IMMIGRATION FLOWS WITHIN ESS SAMPLE COUNTRIES

Country:	Immigration flows by birth country				Immigration flows by country of destination			
	Number of immigrants from birth country	Distinct destination countries	Most prevalent destination country	Number immigrating to most prevalent country	Number of immigrants in destination country	Distinct birth countries	Most prevalent birth country	Number immigrating from most prevalent country
Austria	100	13	Switzerland	54	335	23	Germany	115
Belgium	165	18	Luxembourg	93	274	19	France	66
Bulgaria <sup>+</sup> *	60	15	Greece	18	10	4	Romania	4
Cyprus <sup>+</sup> *	13	4	Greece	6	27	9	Greece	14
Czech Rep. <sup>#</sup>	126	14	Slovakia	56	124	8	Slovakia	92
Denmark	78	11	Norway	33	88	21	Germany	15
Estonia <sup>+</sup>	27	6	Finland	13	576	6	Russia	487
Finland	158	9	Sweden	131	93	12	Sweden	49
France	404	20	Luxembourg	126	169	19	Portugal	46
Germany	740	28	Switzerland	213	433	27	Poland	99
Great Britain	471	19	Ireland	315	163	23	Ireland	60
Greece <sup>#</sup>	54	16	Cyprus	14	171	19	Germany	50
Hungary	91	17	Austria	26	67	6	Romania	49
Iceland <sup>+</sup> #	13	5	Denmark	5	9	3	Denmark	5
Ireland	72	8	Great Britain	60	384	15	Great Britain	315
Israel <sup>*</sup> #	9	8	Netherlands	2	282	17	Romania	69
Italy <sup>#</sup>	387	16	Switzerland	140	35	13	Switzerland	7
Latvia <sup>+</sup> *	22	8	Estonia	6	141	5	Russia	117
Luxembourg <sup>#</sup>	8	4	Belgium	4	701	21	Portugal	252
Netherlands	160	15	Belgium	53	177	22	Turkey	42
Norway	43	10	Sweden	27	169	20	Sweden	34
Poland	296	22	Germany	99	43	8	Germany	27
Portugal	367	9	Luxembourg	252	69	11	France	37
Romania <sup>+</sup> *	238	22	Israel	69	1	1	Ukraine	1
Russia <sup>+</sup> *	1,142	24	Estonia	487	55	5	Ukraine	47
Spain	108	16	Switzerland	27	102	18	Romania	20
Slovakia <sup>+</sup>	123	11	Czech Rep.	92	76	6	Czech Rep.	56
Slovenia	21	7	Austria	9	47	8	Germany	19
Sweden	117	12	Finland	49	321	24	Finland	131
Switzerland	45	12	Italy	7	719	25	Germany	213
Turkey <sup>+</sup> #	321	14	Germany	88	14	5	Bulgaria	8
Ukraine <sup>+</sup>	270	19	Estonia	76	374	9	Russia	348

Notes: <sup>+</sup> indicates that the survey was not fielded in the first round of the ESS in that country. \* indicates that the survey was not fielded in the second round of the ESS in that country. # indicates that the survey was not fielded in the third round of the ESS in that country.

Table 1 summarizes immigrant flows across countries in our immigrant subsample of the ESS. The first set of columns tabulates patterns of emigration from countries of birth; the second set of columns tabulates patterns of immigration into countries of residence. For example, 100 individuals in the sample were born in Austria but reside in a different sample country, and 335 individuals resided in Austria at the time of the survey but were born in a different sample country. These numbers are unweighted. The table is meant to illustrate the variation in our sample but is not representative of aggregate immigration flows across the sampled countries. We observe substantial diversity in the sample: each birth country has at least four distinct destination countries. Among the 992 possible country pair cells, we observe individuals in 44 percent of them.

TABLE 2—PREDICTORS OF PREFERENCES FOR REDISTRIBUTION

Dependent variable: Subjective preference for income redistribution						
	Immigrants		Immigrants —controls only		Natives —controls only	
	Coefficient	(SE)	Coefficient	(SE)	Coefficient	(SE)
Birth country redistribution preferences	0.364***	(0.089)				
Birth country log GDP per capita	0.190***	(0.064)				
Age	0.004**	(0.002)	0.004**	(0.002)	0.003***	(0.001)
Female	0.091***	(0.030)	0.087**	(0.032)	0.126***	(0.017)
Own low education	0.050	(0.056)	0.067	(0.059)	0.058***	(0.016)
Own high education	-0.088***	(0.026)	-0.096***	(0.027)	-0.161***	(0.019)
Spouse low education	0.059**	(0.028)	0.073**	(0.030)	0.056***	(0.012)
Spouse high education	-0.163***	(0.040)	-0.160***	(0.037)	-0.107***	(0.019)
Divorced or separated	0.084	(0.100)	0.090	(0.100)	0.090***	(0.013)
Widowed	0.017	(0.071)	0.020	(0.072)	-0.003	(0.019)
Never married	0.082	(0.064)	0.092	(0.064)	0.052***	(0.014)
log household income	-0.059*	(0.030)	-0.062*	(0.031)	-0.089***	(0.012)
<i>Primary income source:</i>						
Self-employed	-0.206***	(0.051)	-0.206***	(0.054)	-0.179***	(0.025)
Pension	0.051	(0.037)	0.046	(0.036)	-0.007	(0.019)
Unemployment benefits	0.164*	(0.088)	0.161*	(0.084)	0.107***	(0.038)
Social benefits	0.249***	(0.090)	0.234**	(0.094)	0.113**	(0.040)
Investment	-0.360**	(0.164)	-0.340**	(0.169)	-0.389***	(0.059)
Other	-0.213	(0.141)	-0.224	(0.146)	-0.116***	(0.033)
log household size	0.017	(0.026)	0.012	(0.024)	0.038***	(0.009)
Paid work last week	0.000	(0.033)	0.004	(0.033)	0.006	(0.011)
Has a child in the household	0.066*	(0.038)	0.075*	(0.038)	0.008	(0.010)
Ever unemployed for more than 12 months	0.142***	(0.038)	0.138***	(0.035)	0.135***	(0.024)
Lives in metropolitan area	0.014	(0.041)	0.019	(0.043)	-0.037**	(0.018)
ESS round 2	-0.003	(0.039)	-0.002	(0.038)	0.030	(0.023)
ESS round 3	0.111**	(0.051)	0.109**	(0.049)	0.085***	(0.026)
Residence country dummies (32)		Yes		Yes		Yes
<i>N</i>		6,249		6,249		118,323
Adjusted <i>R</i> <sup>2</sup>		0.1061		0.1000		0.1324

*Notes:* Robust standard errors adjusted for clustering by birth country are in parentheses. The dependent variable is subjective support for income redistribution. Birth country redistribution preferences are measured as the mean subjective preference for redistribution among natives in the immigrant's country of birth. log GDP per capita is measured in purchasing power parity US dollars. Low education includes the two categories "Not completed primary education" and "Primary or first stage of basic." Secondary education is the omitted category and corresponds to the category "Lower secondary or second stage of basic." High education includes the following four categories: "Upper secondary," "Post-secondary, non-tertiary," "First stage of tertiary," and "Second stage of tertiary." The omitted marital category is "Married." The omitted income source is "Salary and wages." (Unreported) dummies are included for missing regressors.

\*\*\*Significant at the 1 percent level.

\*\*Significant at the 5 percent level.

\*Significant at the 10 percent level.

### III. Results

#### A. Determinants of Preferences for Redistribution

In Table 2, we test for the effects of culture on individual preferences for redistribution and explore the effects of traditional economic determinants of preferences. A one unit increase in the mean preference for redistribution in the individual's country of birth, calculated on a 1 to 5 scale, is associated with a 0.36 unit increase in the individual's own preference for redistribution (column 1). This effect is highly statistically significant ( $t = 4.08$ ). The specification in column 1 includes country of

residence fixed effects as well as demographic and socioeconomic status controls. We also control for income in the country of birth, measured by the log of purchasing power parity adjusted GDP in 2004.

The economic variables affect preferences for redistribution in the direction that is consistent with economic self-interest. Higher-income households have lower preferences for redistribution. Similarly, individuals with less than secondary education have a higher preference for redistribution, and individuals with more than secondary education have a lower preference; the same pattern is observed for spousal education. Individuals who have ever been unemployed for a twelve month period have a higher preference. We also examine the effects of primary source of income, with the omitted category being wage and salary income. Relative to this group, individuals whose primary source of income is self-employment or investment income have lower preferences for redistribution. Those whose primary source of income is pension, unemployment benefits, or social benefits have a higher preference for redistribution, though the effect of pension income is not statistically significant. Age has a positive effect on preferences, as does being female.

The log of purchasing power parity adjusted GDP in the birth country is included as a control to capture economic differences across countries. To the extent that these differences in economic environment affect the cultural preference for redistribution, we are perhaps overcontrolling. However, we wanted to capture differences in birth country culture beyond just simple differences in the level of economic development of the birth country. The GDP coefficient is positive and significant in our base specification, but its magnitude and significance level are sensitive to the choice of sample. Hence, we mainly regard it as a control variable and do not attach an economic interpretation to it. Columns 2 and 3 of the table demonstrate that the effects of our demographic and economic characteristics on preferences are similar for immigrants and natives.<sup>15</sup>

In order to compare the magnitude of the culture effect directly to the magnitude of economic determinants of preferences, we standardize the preference variable and the explanatory variables and re-run the specification in column 1. The estimates imply that a one standard deviation increase in the birth country preference for redistribution is associated with a 0.11 standard deviation increase in the immigrant's own preference. In comparison, a one standard deviation increase in the log of household income is associated with a 0.07 standard deviation decrease in own preference. The coefficient on income is somewhat difficult to interpret, since this specification also controls for education and other proxies for income. If we remove the controls for own education, spousal education, source of income, and the indicator for whether the individual had paid work in the last week, then the coefficient on culture is 0.13, whereas the coefficient on log household income is  $-0.12$ . Finally, if we re-introduce own education as a linear variable to the previous specification, the estimates imply that a one standard deviation increase in the birth country

<sup>15</sup> The regressions in these columns exclude the birth country preference and GDP measures since these variables cannot be identified separately from the residence country fixed effects in the native sample. We cannot reject the hypothesis that the individual characteristics predicting preferences for redistribution have the same effects for natives and immigrants ( $p$ -value: 0.36).

preference for redistribution is associated with a 0.11 standard deviation increase in own preference. Summing the relevant coefficients, the combined effect of a one standard deviation increase in log household income and own education is a 0.18 standard deviation decrease in own preference. It is important to note that income and education are imperfect proxies for true economic self-interest. Nevertheless, the results do suggest that culture is an economically significant determinant of redistributive preferences.

### B. *Robustness Analysis*

A concern when examining the preferences of immigrants is selection. Although cross-country migration decisions are clearly non-random, our primary concern here is whether selective migration could spuriously generate an effect of birth country preference for redistribution on own preference.

One possible type of selection is preference-based (Tiebout) selection. Migrants with high preferences for redistribution (from whichever country they come) may choose to move to high-preference countries, and similarly, those with low preferences may move to low-preference countries. In the extreme case, if all individuals moved to countries exactly aligned with their own preferences, we would not estimate any effect of culture even if cultural effects were in fact strong. More generally, such selective migration would attenuate our coefficients, biasing our estimates of culture effects downward.

A second form of selection is economically motivated selective migration. We explore this possibility by testing the sensitivity of our results to the choice of economic controls (Table 3). In row 1, we regress individual preference for redistribution on the birth country preference, controlling only for residence country fixed effects. The estimated preference coefficient is 0.26 ( $p < 0.01$ ). Row 2 presents the same specification as column 1 in Table 2; the preference coefficient is 0.36.

We next include richer control variables (row 3). We define the own education indicators more narrowly, resulting in seven possible educational attainment categories. We include third order polynomials in the log of household income and household size, a quadratic term for age, more detailed controls for employment status and history, indicators for religious affiliation, indicators for the length of residence in the country, and a dummy variable for linguistic minority that is equal to one if the language most commonly spoken at home is not one of the primary residence country languages. The estimated preference coefficient in this specification is 0.34 ( $p < 0.01$ ). We define the set of control variables used in row 3 as our baseline set of controls. These controls are included in all further analyses, unless otherwise indicated.

In row 4, we add controls for citizenship, whether the individual voted in the last national election, and frequency of religious attendance. We do not include these variables in the baseline set of controls because they may be partially determined by preferences for redistribution, but their inclusion does not affect the estimate. It is possible that the effects of our income variables on an individual's gain or loss from redistribution may depend on the tax and transfer systems of the country of residence. We therefore include interactions of income, income squared, and income

TABLE 3—EFFECT OF BIRTH COUNTRY CULTURE ON IMMIGRANTS' PREFERENCES FOR REDISTRIBUTION IN RESIDENCE COUNTRY

Dependent variable: subjective preference for income redistribution				
Specification:	Coefficient on birth country redistribution preferences	(SE)	Adjusted $R^2$	$N$
1. Country dummies as only controls	0.264***	(0.092)	0.0701	6,249
2. Baseline, but fewer controls	0.364***	(0.089)	0.1061	6,249
3. Baseline	0.341***	(0.084)	0.1101	6,249
4. Baseline, but more controls	0.339***	(0.082)	0.1101	6,249
5. Baseline, but interacting a cubic in log household income with country dummies	0.321***	(0.079)	0.1151	6,249
6. Comprehensive controls	0.289***	(0.070)	0.1324	6,249

*Notes:* Robust standard errors adjusted for clustering by birth country are in parentheses. (Unreported) dummies are included for missing regressors. The baseline regression with fewer controls corresponds to Column 1 of Table 2. The baseline regression adds several controls: We include more detailed controls for own education (“not completed primary education,” “primary or first stage of basic,” “lower secondary or second stage of basic,” “upper secondary,” “post-secondary, non-tertiary,” “first stage of tertiary,” and “second stage of tertiary”); third order polynomials in the log of household income and household size; a quadratic term for age; indicators for whether the spouse is currently working and whether the respondent has ever had a paid job; a dummy for linguistic minority coded as 1 if the respondent’s primary language spoken at home is spoken at home by less than 30 percent of the native population; a set of five 0/1 dummies to express the length of time a respondent has lived in the residence country; and a set of eight 0/1 dummies to express religious affiliation. The regression with more controls (row 4) adds a dummy equal to 1 if the respondent attends religious services once a month or more, a dummy equal to 1 if the respondent voted in the last national election, and a dummy equal to 1 if the respondent is a citizen of the residence country. Row 6 includes all of the controls in rows 4 and 5 and adds the following additional controls: the Gini coefficient of the birth country (from the UN-WIDER database), a set of 0/1 dummies for main activity over the last week, three 0/1 dummies to indicate union membership, 10 occupational categories, 16 industry categories, mother’s and father’s education (defined as in Table 2), and a full set of dummies for within-residence country region.

\*\*\*Significant at the 1 percent level.

\*\*Significant at the 5 percent level.

\*Significant at the 10 percent level.

cubed and residence country dummies, allowing the effects of income to vary flexibly by country (row 5). The estimated coefficient is 0.32 ( $p < 0.01$ ). Finally, we add an even more extensive set of economic controls (row 6), resulting in an estimated coefficient of 0.29 ( $p < 0.01$ ).<sup>16</sup>

The estimates in Table 3 demonstrate that the preference effect is robust to the choice of controls for economic factors. Although the point estimates generally decrease slightly as we add more controls, including even the richest set of economic controls results in a large and significant estimate that is similar to the baseline. Selection on unobservables could still be a potential concern if the birth country preference is capturing economic characteristics of immigrants that remain

<sup>16</sup> For this set of controls, we include all the controls in rows 4 and 5 and add controls for main economic activity over the last week, union membership, mother’s and father’s education, occupation and industry indicators, and dummies for within-residence country region. We also add the birth country Gini coefficient to address the possibility that the birth country preference measure is affected by inequality in the birth country. There are 96 controls included in the baseline and 459 controls included in the regression with comprehensive controls (row 6).

unobserved by us but *are* relevant for taxes and transfers. This may seem unlikely, given that we found little selection on a rich set of economic observables. However, we cannot completely rule out the possibility of selection on unobservables.

We have also tested the robustness of our results to the choice of sample and specification (Web Appendix Table A2). For example, our results are robust to excluding the two highest-preference and the two lowest-preference birth countries, excluding individuals for whom the birth country is a former Communist country, and to restricting the sample to the EU-15 countries, the 15 member countries of the European Union prior to the 2004 expansions. These results indicate that cultural influences appear to be important determinants of preferences even among countries that are relatively homogeneous. The fact that we observe significant effects of birth country preference across many different subsamples of countries also provides further suggestive evidence against the selection hypotheses, since we would expect the form of selection to differ in these subsamples. The results are also robust to a number of other specification tests; see Table A2 for details.

### C. Heterogeneity

We next explore whether the birth country effect differs for different types of immigrants. We examine heterogeneity in the birth country effect by regressing an immigrant's preference for redistribution on her birth country mean preference interacted with the relevant indicator variable (Table 4). Each row of the table represents a single regression. However, the direct effect of birth country preference is excluded. Each regression therefore has two coefficients of interest: one measures the average effect of birth country among immigrants for whom the indicator equals one and the other measures the average effect for those for whom the indicator equals zero. The table also reports the  $p$ -value on a test of whether the two coefficients in each regression are equal.<sup>17</sup>

Rows 1, 2, and 3 test whether the effect varies based on the length of time the immigrant has lived in the residence country, citizenship, and voting. We construct three indicator variables. Tenure is equal to one if the immigrant has lived in the residence country for more than 20 years (which is about the median tenure). Citizenship is equal to one if the individual is a citizen of the residence country, and Voting is equal to one if she voted in the last national election. Individuals with longer tenure, citizens, and voters have smaller effects of birth country preference,<sup>18</sup> but the preference effect is still highly significant for each of these groups. The tenure effect suggests that the result is unlikely to be driven solely by slow updating of economic information, since birth country preference is a significant determinant of

<sup>17</sup> The difference between the two coefficients presented in each regression is identical to the coefficient that would arise on the interaction term in a specification with birth country preference and birth country preference interacted with a dummy for the relevant indicator. The reported  $p$ -value is identical to the  $p$ -value on the interaction term in such a specification.

<sup>18</sup> The differences are significant at the 5 percent level for tenure and voting and just above the 10 percent level for citizenship.

TABLE 4—WHICH FIRST-GENERATION IMMIGRANTS ARE MOST INFLUENCED BY THEIR BIRTH COUNTRY?

Dependent variable: Subjective preference for income redistribution				
<i>Specification:</i>	Coefficient on birth country preference for income redistribution	(SE) <i>p</i> -value	Adjusted $R^2$	<i>N</i>
1. By tenure				
<i>Has lived in the country for ≤ 20 years</i>	0.482***	(0.132)	0.1108	6,249
<i>Has lived in the country for &gt; 20 years</i>	0.261***	(0.073)		
<i>p</i> -value on test of equal coefficients		0.033		
2. By citizenship				
<i>Non-citizen in residence country</i>	0.416***	(0.114)	0.1107	6,249
<i>Citizen in residence country</i>	0.271***	(0.071)		
<i>p</i> -value on test of equal coefficients		0.112		
3. By voting				
<i>Non-voter in previous national election</i>	0.419***	(0.097)	0.1107	6,249
<i>Voted in previous national election</i>	0.244***	(0.083)		
<i>p</i> -value on test of equal coefficients		0.026		
4. By children in the household				
<i>Does not have children in the household</i>	0.278***	(0.080)	0.1104	6,249
<i>Has children in the household</i>	0.434***	(0.096)		
<i>p</i> -value on test of equal coefficients		0.006		
5. By linguistic minority				
<i>Speaks dominant language at home</i>	0.282***	(0.075)	0.1106	6,249
<i>Speaks minority language at home</i>	0.482***	(0.148)		
<i>p</i> -value on test of equal coefficients		0.130		
6. By fraction ethnic minority of immigrant group				
<i>Fraction below median</i>	0.305***	(0.100)	0.1106	6,249
<i>Fraction above median</i>	0.509***	(0.151)		
<i>p</i> -value on test of equal coefficients		0.219		
7. By population fraction of immigrant group				
<i>Fraction below median</i>	0.192**	(0.087)	0.1131	6,249
<i>Fraction above median</i>	0.683***	(0.105)		
<i>p</i> -value on test of equal coefficients		0.000		
8. By fraction ethnic minority in residence country				
<i>Fraction below median</i>	0.139	(0.090)	0.1131	6,249
<i>Fraction above median</i>	0.573***	(0.101)		
<i>p</i> -value on test of equal coefficients		0.001		
9. By fraction immigrant in residence country				
<i>Fraction below median</i>	0.207*	(0.105)	0.1112	6,249
<i>Fraction above median</i>	0.474***	(0.087)		
<i>p</i> -value on test of equal coefficients		0.020		

*Notes:* Robust standard errors are adjusted for clustering by birth country. All regressions include the same control variables as the baseline regression reported in row 3 of Table 3. Immigrant groups are defined both by country of birth and by country of residence. Thus, the population fraction of immigrant group is measured as the ratio of immigrants from a particular birth country to the total population in their country of residence. In rows 6 through 9, the median is taken over all immigrants from ESS countries in the ESS dataset. A language is defined as dominant if more than 30 percent of the native population speaks it as a primary language in the home.

\*\*\*Significant at the 1 percent level.

\*\*Significant at the 5 percent level.

\*Significant at the 10 percent level.

own preference even among immigrants who have lived in their country of residence for more than twenty years.<sup>19</sup>

Individuals with children in the household have significantly stronger birth country preference effects (row 4). This result may be somewhat surprising, since we might expect children to hasten the assimilation process. A possible explanation of this finding is that parents want to pass on their birth country culture to their children and that this strengthens the effect on their own preferences.

The effect of birth country preference also varies with social measures of assimilation. We examine the effect of being a linguistic minority or a member of an ethnic minority in the residence country. Because self-reported ethnic minority status may be correlated with omitted variables, we instead construct a group level measure, defined as the share of those from the same birth country who define themselves as ethnic minorities in the country of residence. We find that immigrants who are members of linguistic minorities (row 5) or ethnic minorities (row 6) have stronger preference effects, perhaps because they are less easily able to assimilate into the residence country, although these differences are not statistically significant. Row 7 shows that individuals in a residence country with a large population of other immigrants from the individual's own birth country have a significantly stronger effect of birth country culture. George J. Borjas (1992) notes the potential importance of an individual's ethnic group in determining intergenerational earnings mobility; a similar mechanism may reduce assimilation in our case.

These economic and social measures are correlated with each other, so we are not able to separately estimate the partial effect of each measure. Taken together, however, these results do suggest that individuals are less influenced by birth country culture when they are more assimilated into the residence country. This may be because immigrants' preferences begin to converge to cultural norms in the country of residence or because those who choose to assimilate have preferences that are more divergent from their birth country preferences to begin with.

The effect of culture may also be affected by the characteristics of the receiving country. To investigate this possibility, we measure the fraction of the residence country population that is a member of an ethnic minority and the fraction that is immigrant (non-native born), and we construct dummy variables for whether these fractions are above or below the median across the distribution of receiving countries. We find that the effects of culture are significantly stronger in receiving countries with a high share of ethnic minorities (row 8) and in those with a high share of immigrants (row 9). One interpretation is that there is less pressure for immigrants to assimilate in societies that are more multicultural.

<sup>19</sup> Note that our birth country preference measure may be noisy for immigrants with long tenure, since birth country preferences at the time the immigrant migrated may differ from those measured at the time of the survey. Under reasonable assumptions, this would bias the estimated coefficients downward. This could provide an alternative explanation for the observed differences in the coefficients in row 1 of Table 4, but it should not affect our conclusion that culture has a significant effect on preferences even for immigrants who have lived in the residence country for more than 20 years.



TABLE 5—EFFECT OF BIRTH COUNTRY CULTURE ON IMMIGRANTS' VOTING BEHAVIOR

Dependent variable:	Coefficient on birth country redistribution preferences	(SE)	Adjusted $R^2$	$N$
1. Subjective preference for income redistribution using sample for which voting data is available	0.184**	(0.090)	0.1123	2,328
2. Redistribution preferences of the party for which the person voted	0.105***	(0.033)	0.5233	2,328
3. Subjective preference for income redistribution using sample for which Beck data is available	0.181*	(0.106)	0.1103	1,622
4. Left-right party scale using Beck database	0.253**	(0.116)	0.1638	1,622

*Notes:* Robust standard errors adjusted for clustering by birth country are in parentheses. All regressions include the same control variables as the baseline regression reported in row 3 of Table 3. In the first two regressions, the sample is restricted to immigrant respondents who voted in the previous national election and reported the party for which they voted. Political party redistribution preferences is the mean preference for income redistribution among natives voting for the political party for which the respondent voted. In the second two regressions, the sample is restricted to immigrant respondents who voted for a political party that is coded as left, right, or center in the Beck database. The Beck database from the World Bank codes the three largest government political parties and the largest opposition party as left, right, center, or NA. The left-right party scale codes “Right” parties as 1, “Center” parties as 2, and “Left” parties as 3. The Beck data were supplemented with data from the Huber-Inglehart (1995) classification of party politics. These data were the basis of many of the Beck classifications but include parties not coded in the Beck database. Huber-Inglehart classifies parties on a 1–10 left-right scale. Based on the Beck cutoffs, we define parties scored less than 5 as left, those from 5–6 as center, and those above 6 as right. We also added cases where we were able to discern the party match from other sources with confidence; these were generally parties where the left-right classification was clear, but the party was not a main government or opposition party and therefore not included in the Beck database. All party classifications were made prior to running the empirical analyses.

\*\*\*Significant at the 1 percent level.

\*\*Significant at the 5 percent level.

\*Significant at the 10 percent level.

#### D. Cultural Effects and Voting Behavior

A question when interpreting these findings is whether culture affects true preferences or only reporting behavior. We therefore examine the effects of birth country preferences on individual voting decisions. This exercise is limited by the fact that only 46 percent of the immigrant sample was eligible and chose to vote in the last national election. As discussed in the last section, the subsample of immigrants who vote are less influenced by their birth country culture.

Party ideologies are classified in two ways. First, we construct a measure of each party's preference for redistribution by using the voting behavior of the native sample. This party preference variable is defined for each immigrant as the mean preference for redistribution among natives who voted for the immigrant's party. A higher value of this variable implies that the party for which the immigrant voted is likely to be more in favor of redistribution. Second, we categorize political parties as right, center, or left using the Database of Political Institutions constructed by Thorsten Beck et al. (2001).<sup>20</sup>

<sup>20</sup> The Beck data were supplemented with data from John Huber and Ronald Inglehart's (1995) classification of party politics. Please see the notes to Table 5 for more detail.

Before looking at voting behavior, we examine the effect of birth country preference on own self-reported preference for the subsample of immigrants for whom party voting data are available. Row 1 of Table 5 presents our baseline specification for the sample of immigrants for whom our measure of party preference can be constructed. Row 3 presents the specification for the subsample for which the Beck political party classification can be made. The preference effects for these samples are 0.184 ( $p < 0.05$ ) and 0.181 ( $p < 0.10$ ), respectively. These estimates differ slightly from the effect for all voters estimated in Table 4 because even among immigrants who voted, the political party for which they voted is unavailable in 18 percent of cases. We are unable to match the political party to a Beck database classification in a further 30 percent of cases.

In row 2, we replace the dependent variable with our constructed measure of the redistributive preference of the party for which the immigrant voted. Note that this measure is scaled in a way that makes it directly comparable to the individual preference measure. We find that immigrants from birth countries with a high preference for redistribution are significantly more likely to vote for a more pro-redistribution political party in their countries of residence. The estimated effect is 0.11, and it is significant at the 1 percent level. The effect is somewhat smaller than the effect on preferences for redistribution for this sample (row 1) but is estimated with greater precision. This finding is not surprising; we would expect a voting-based measure of preferences to be less noisy than the self-reported categorical measure.

We also find that a higher birth country preference is associated with a stronger preference for redistribution when we measure this preference by the Beck classification of the party for which the immigrant voted. An increase of one unit in the birth country mean preference is associated with a 0.25 unit movement to the left on the three-unit Beck scale (row 4), and the effect is significant at the 5 percent level. We conclude that Table 5 provides strong evidence against the concern that the estimated effects of culture only capture reporting behavior rather than true preferences.

### *E. Intergenerational Transmission of Preferences*

In Rounds 2 and 3 of the ESS, individuals are asked not only their own country of birth but also the country of birth of their mother and father. We construct the sample of individuals who are residing in their own country of birth but who have at least one parent who was born in a different ESS survey country. This sample consists of 4,632 individuals. Of these, 2,920 have a mother and 2,958 have a father who was born in a different ESS survey country.

We first examine the effect of the mean preference for redistribution in the parent birth country, where the parent could be the mother or the father. We define the parent birth country mean preference as the average of the mean preferences in each parent's country of birth. A slight majority of individuals in this sample has one parent who is a native in the country of residence and another parent who emigrated from an ESS survey country. We include the birth country preference of the native parent in the average to correctly scale the cultural effect of the immigrant parent, but this does not drive the estimates because we capture the direct effect of the native parent's birth country preference by the residence country fixed effects.

TABLE 6—THE EFFECT OF PARENTAL BIRTH COUNTRY CULTURE ON SECOND-GENERATION IMMIGRANTS

Dependent variable:	Coefficient on parental birth country redistribution preferences	(SE)	Adjusted $R^2$	$N$
Subjective preference for income distribution				
1. Parental birth country preferences for income redistribution	0.230**	(0.088)	0.1219	4,632
2. Parental birth country preferences for income redistribution	0.171*	(0.098)	0.1218	4,632
Interaction on parental birth country preference and both parents emigrating from the same country	0.173	(0.151)		
3. Mother's birth country preferences for income redistribution	0.164**	(0.069)	0.1356	2,916
4. Father's birth country preferences for income redistribution	0.117	(0.092)	0.1203	2,944

Notes: Robust standard errors adjusted for clustering by birth country are in parentheses. All regressions include the same control variables as the baseline regression reported in row 3 of Table 3.

\*\*\*Significant at the 1 percent level.

\*\*Significant at the 5 percent level.

\*Significant at the 10 percent level.

A one unit increase in the parent birth country preference is associated with an increase of 0.23 in the individual preference, and the effect is statistically significant at the 5 percent level (Table 6, row 1). This effect is approximately two-thirds as large as the own country of birth effect. In row 2, we include an interaction of the mean preference in the parent birth country with a dummy variable that equals one if both parents come from the same birth country.<sup>21</sup> The base effect (for those whose parents do not come from the same birth country) is 0.171 ( $p < 0.10$ ). The marginal effect of having a common parental birth country is 0.173 (not significant). This suggests that having two parents from the same birth country amplifies the cultural effect, although the interaction is not estimated with precision. It is also possible that individuals with a strong desire to transmit their cultural values to their children select partners who share these values. In this case, the common birth country effect could partially reflect preference intensity by a single parent rather than a true amplification effect. The country of origin effect appears to be stronger for immigrant mothers: the effect of mother's birth country preference is 0.16 ( $p < 0.05$ ) and the effect of father's birth country preference is 0.12 (not significant).<sup>22</sup> However, we cannot reject the hypothesis that the mother's and father's effect are equally strong.

<sup>21</sup> This indicator is equal to one for 23 percent of our sample. The effect on the interaction term is essentially a comparison of those with one immigrant parent and those with two immigrant parents from the same birth country; only 3.3 percent of our second-generation sample has immigrant parents coming from two different ESS countries and only 2.5 percent of our second-generation sample has one immigrant parent from an ESS country and one immigrant parent from a non-ESS country. It is therefore not possible to exploit this variation to examine the relative influence of mother and father when both parents are immigrants.

<sup>22</sup> The sample in row 3 consists of natives with an immigrant mother from an ESS survey country; the sample in row 4 consists of natives with an immigrant father from an ESS survey country. These samples overlap slightly, since some individuals have immigrant parents from the same ESS source country. The preference variables in these specifications are the birth country mean preference of the mother and father respectively.

These results suggest that cultural effects persist strongly at least into the second generation, a finding that is consistent with previous work on the intergenerational transmission of preferences and with research documenting cultural effects of country of ancestry among second-generation immigrants in the United States.<sup>23</sup> These results also provide evidence against the selective migration and slow updating hypotheses, since the samples consist of individuals born in their country of residence.

We also examine heterogeneity in the effect of culture for second-generation immigrants (Table 7). The patterns for linguistic minority, ethnic minority, immigrant group density, and fraction ethnic minority and fraction immigrant in the residence country all mirror those for first-generation immigrants, although the effects are not generally statistically significant.<sup>24</sup> The notable exception to this pattern is the presence of children in the household (row 1). For first-generation immigrants, this is associated with a significantly larger effect of culture; for second-generation immigrants, it is associated with a significantly smaller effect. It may be that first-generation immigrants make a strong effort to pass along culture to their children, but assimilation of second generation immigrants (who are likely to be married to natives) is accelerated by having children.

#### IV. Conclusion

By studying immigrants, we are able to credibly disentangle cultural determinants of preferences for redistribution from economic and institutional determinants. We find that individuals' preferences for redistribution are strongly affected by preferences in their countries of birth: the average preference for income redistribution in the culture where an immigrant is raised continues to have an effect once they emigrate. This effect is highly statistically significant, economically important, and robust to rich controls for economic factors and to the choice of sample and specification. Our results show that these cultural influences also affect real behaviors, such as voting. Cultural determinants of preferences for redistribution appear to be strongly persistent across generations. We also find that the cultural effect is stronger for immigrants who are less politically or socially assimilated into the destination country and for immigrants who migrate to more diverse destination countries.

At a fundamental level, this paper provides evidence on the nature of preferences for redistribution. We find that these preferences cannot be fully explained by economic self-interest or by economic, political, or social aspects of the current environment, since individual preferences continue to be influenced by country of origin even in a common environment. We take this as evidence that culture is an important determinant of preferences for redistribution.

<sup>23</sup> See, e.g., Bisin and Verdier (2008) for a brief and lucid overview of models and evidence of cultural transmission. Guiso, Sapienza, and Zingales (2008) present evidence of cultural effects persisting over a period of well over 500 years.

<sup>24</sup> The effects for age (closest proxy for tenure), citizenship, and voting in the last election are not reported but the patterns are also similar to those for first-generation immigrants.

TABLE 7—WHICH SECOND-GENERATION IMMIGRANTS ARE MOST INFLUENCED BY THEIR PARENTAL BIRTH COUNTRY?

Dependent variable: Subjective preference for income redistribution				
<i>Specification:</i>	Coefficient on parental birth country preference for income redistribution	(SE) <i>p</i> -value	Adjusted <i>R</i> <sup>2</sup>	<i>N</i>
1. By children in the household				
<i>Does not have children in the household</i>	0.309***	(0.103)	0.1220	4,632
<i>Has children in the household</i>	0.121	(0.091)		
<i>p</i> -value on test of equal coefficients		0.039		
2. By linguistic minority				
<i>Speaks dominant language at home</i>	0.222***	(0.090)	0.1225	4,632
<i>Speaks minority language at home</i>	0.360	(0.215)		
<i>p</i> -value on test of equal coefficients		0.531		
3. By fraction ethnic minority of immigrant group				
<i>Fraction below median</i>	0.148	(0.118)	0.1226	4,632
<i>Fraction above median</i>	0.576***	(0.154)		
<i>p</i> -value on test of equal coefficients		0.027		
4. By population fraction of immigrant group				
<i>Fraction below median</i>	0.210**	(0.099)	0.1220	4,632
<i>Fraction above median</i>	0.307	(0.200)		
<i>p</i> -value on test of equal coefficients		0.671		
5. By fraction ethnic minority in residence country				
<i>Fraction below median</i>	0.198	(0.119)	0.1217	4,632
<i>Fraction above median</i>	0.272	(0.125)		
<i>p</i> -value on test of equal coefficients		0.662		
6. By fraction immigrant in residence country				
<i>Fraction below median</i>	0.193*	(0.106)	0.1229	4,632
<i>Fraction above median</i>	0.285**	(0.129)		
<i>p</i> -value on test of equal coefficients		0.544		

*Notes:* Robust standard errors are adjusted for clustering by birth country. All regressions include the same control variables as the baseline regression reported in row 3 of Table 3. Second-generation immigrant groups are defined both by country of birth of the immigrant parent and by country of residence. Thus, the population fraction of immigrant group is measured as the ratio of second-generation immigrants from a particular birth country to the total population in their country of residence. In rows 3 through 6, the median is taken over all second-generation immigrants from ESS countries in the ESS dataset. A language is defined as dominant if more than 30 percent of the native population speaks it as a primary language in the home.

\*\*\*Significant at the 1 percent level.

\*\*Significant at the 5 percent level.

\*Significant at the 10 percent level.

At a more applied level, this finding has three important implications. First, it suggests that culture may be an important factor in explaining the large observed differences in systems of redistribution across countries. Second, it implies persistence in preferences for redistribution. This persistence means that in settings with multiple equilibria for the amount of redistribution (e.g., as in Thomas Piketty 1995), we are unlikely to observe a sudden shift from one equilibrium to another, which underscores the importance of those factors that determine the selection of the initial equilibrium. Third, while our primary focus is on using immigrants as a mechanism to identify the effects of culture, our findings shed light on the political

economy of immigration policy because the cultural values that immigrants bring along can shape the social policies of their destination countries well into the future. Even if the immigrants themselves have little effect on current policy (e.g., because they are not allowed to vote), the transmission of their cultural values to their children can affect future policy and have a lasting impact.

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