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Does Immigration Undermine Public Support for Social Policy?

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Table S1. Means for Dependent Variables in 2006, by Country

	Jobs	Unemp.	Income	Retirement	Housing	Healthcare	*N*
Australia	.422	.567	.592	.946	.800	.984	2,075
Canada	.340	.625	.672	.945	.842	.961	604
Denmark	.574	.806	.545	.973	.823	.990	1,096
Finland	.563	.857	.758	.973	.865	.995	850
France	.595	.671	.754	.927	.861	.925	789
Germany	.691	.720	.733	.944	.779	.964	1,252
Ireland	.646	.831	.800	.997	.963	.996	699
Japan	.520	.568	.644	.881	.368	.868	913
Netherlands	.551	.687	.708	.964	.824	.991	763
New Zealand	.359	.495	.486	.954	.709	.978	1,010
Norway	.774	.884	.725	.985	.816	.991	1,103
Portugal	.837	.914	.941	.983	.948	.985	1,041
Spain	.845	.931	.870	.997	.965	.978	1,387
Sweden	.571	.837	.670	.966	.784	.936	895
Switzerland	.494	.675	.687	.902	.636	.881	741
United Kingdom	.561	.580	.701	.975	.866	.992	746
United States	.386	.516	.521	.901	.769	.897	1,258
ICC	.121	.162	.114	.226	.199	.274	

Note: Country *N*'s refer to samples with income as the dependent variable.

Table S2. Means for Dependent Variables in 1996, by Country

	Jobs	Unemp.	Income	Retirement	Housing	Healthcare	*N*
Australia	.407	.637	.494	.938	.747	.937	1,452
Canada	.356	.676	.484	.894	.718	.939	550
France	.689	.805	.729	.923	.863	.886	1,105
Germany	.805	.843	.706	.967	.827	.976	2,446
Ireland	.692	.912	.783	.991	.939	.991	854
Japan	.610	.707	.625	.902	.597	.898	661
New Zealand	.526	.628	.440	.938	.766	.969	920
Norway	.796	.928	.717	.995	.731	.993	1,085
Spain	.911	.940	.894	.990	.978	.992	1,727
Sweden	.631	.900	.688	.977	.806	.961	1,020
Switzerland	.567	.723	.617	.906	.578	.903	2,015
United Kingdom	.693	.784	.679	.980	.892	.986	750
United States	.380	.466	.484	.862	.662	.845	1,034

Note: Country *N*'s refer to samples with income as the dependent variable.

Sensitivity Analyses for Foreign-Born Population Presence in Samples

As noted in the main text, it is not possible to exclude foreign-born respondents from these analyses. However, we can assess the potential bias that unobserved immigrant respondents may introduce to our estimates, assuming the estimated odds ratios for the statistical effects of immigration on social policy support are the population-weighted average of effects on the native- and foreign-born respondents.

First, we may assume that immigration has no association with support for social policy among foreign-born respondents, $\hat{\beta}_{imm} = 0$. We can reasonably assume the proportion of foreign-born respondents in the analytic sample is equal to the foreign-born proportion in the underlying population. With no strong theoretical reason to assume otherwise, we also assume the standard errors of the coefficients for the native- and foreign-born respondents are the same, $s.e._{nat} = s.e._{imm}$. Under these three assumptions, the regression coefficient and standard error for the association between immigration and social policy support among the native born can be expressed as,

$$\hat{\beta}_{nat} = \frac{1}{1-\%f}\hat{\beta}$$

$$s.e._{nat} = \frac{1}{\sqrt{\%f^2 + (1-\%f)^2}} s.e.$$

$$s.e._{nat} = \frac{1}{\sqrt{\%f^2 + (1-\%f)^2}} s.e.$$

where $\%f$ is the fraction of the sample assumed to be foreign born, and $\hat{\beta}$ and $s.e.$ are the coefficient and standard error from the main analyses reported in the article.

The resulting estimates for $\hat{\beta}_{nat}$ and $s.e._{nat}$ for each of the three immigration measures in 2006 are reported in the following table as odds ratios. Magnitudes of the odds ratios presented here and in the article are very similar, and the patterns of statistical significance are the same.

Table S3. Estimated Odds Ratios for Immigration Effects among the Native Born, Assuming No Effect among the Foreign Born

	Jobs	Unemp.	Income	Retirement	Housing	Healthcare
Percent Foreign Born	.936	.933	.957	.970	.990	.960
t-score	–2.656	–1.962	–1.637	–.662	–.231	–.769
Net Migration	1.106	1.237	1.188	1.697	1.558	1.170
t-score	.907	1.515	1.693	3.516	3.596	.769
Change in Percent Foreign Born	1.006	1.008	1.005	1.014	1.009	1.004
t-score	2.892	3.091	2.120	4.478	2.892	.940

Alternatively, we may assume that Hypothesis 1 is true for native-born respondents: immigration has a significant negative relationship to support for social policy. Specifically, we conservatively assume $\hat{\beta}_{nat} = -2 * s.e._{nat}$. The remaining parameters may be expressed as,

$$s.e._{nat} = s.e._{imm} = \frac{1}{\sqrt{\%f^2 + (1-\%f)^2}} s.e$$

$$\hat{\beta}_{nat} = -\frac{2}{\sqrt{\%f^2 + (1-\%f)^2}} s.e.$$

$$\hat{\beta}_{imm} = \frac{\hat{\beta} - (1-\%f)\hat{\beta}_{nat}}{\%f}.$$

The corresponding estimates are presented in the following table as odds ratios. The negative effects of the percent foreign born and the change in the percent foreign born on the native-born respondents are statistically significant by assumption. Magnitudes of the effects are small relative to effects on the foreign born, however. Additionally, a significant negative effect of net migration on the native born would have to be counterbalanced by an unreasonably large positive effect among the foreign born.

Table S4. Estimated Odds Ratios for Immigration Effects among the Native and Foreign Born, Assuming Significant Negative Effect among the Native Born

	Jobs	Unemp.	Income	Retirement	Housing	Healthcare
Percent Foreign Born (Native)	.951	.932	.948	.912	.919	.900
t-score	–2.000	–2.000	–2.000	–2.000	–2.000	–2.000
Percent Foreign Born (Immigrant)	.892	1.009	1.071	1.538	1.685	1.573
t-score	–4.593	.266	2.551	9.376	12.366	8.613
Annual Net Migration (Native)	.801	.755	.816	.740	.781	.665
t-score	–2.000	–2.000	–2.000	–2.000	–2.000	–2.000
Annual Net Migration (Immigrant)	9.540	31.583	14.044	335.393	124.541	51.700
t-score	20.365	24.611	25.928	38.651	39.117	19.373
Change in Percent Foreign Born (Native)	.996	.995	.996	.994	.994	.991
t-score	–2.000	–2.000	–2.000	–2.000	–2.000	–2.000
Change in Percent Foreign Born (Immigrant)	1.073	1.099	1.065	1.156	1.107	1.094
t-score	34.270	35.641	28.928	45.384	34.195	20.568

These hypothetical scenarios indicate it is quite possible for immigration to have different relationships to social policy support for the native and foreign born. However, the positive effects on any unobserved immigrants in the sample would need to be unreasonably large to substantially bias the results presented in the article.

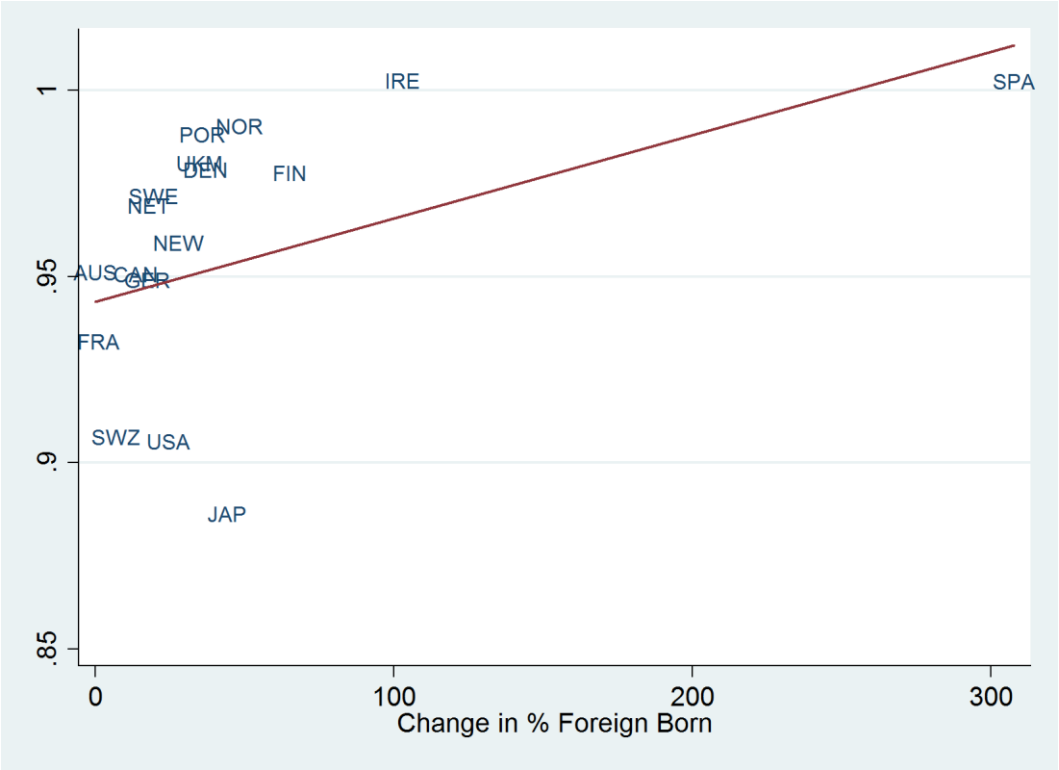

Figure S1. Bivariate Association between Percent Agreeing Government Should "Provide a Decent Standard of Living for the Old" (*y*-axis) and Change in Percent Foreign Born (*x*-axis) across 17 Affluent Democracies in 2006 ($r = .47$).
Note: Spain's extraordinary growth in percent foreign born obviously influences the association in Figure S1. However, the correlation becomes even more positive if we omit Spain ($r = .49$, $p = .06$).

Table S5. Multi-Level Logit Models of Welfare State Attitudes on Individual-Level Control Variables in 17 Affluent Democracies in 2006: Odds Ratios and *Z*-Scores

	Jobs	Unemp.	Income	Retirement	Housing	Healthcare
Age	.984*	1.030***	1.020**	1.058***	1.004	1.035*
	(–2.341)	(4.078)	(2.810)	(3.976)	(.416)	(2.151)
Age^2	1.000	1.000**	1.000	1.000***	1.000	1.000*
	(1.735)	(–2.669)	(–1.890)	(–3.376)	(.054)	(–2.107)
Female	1.328***	1.080	1.244***	1.219*	1.182***	1.244*
	(7.889)	(1.959)	(5.756)	(2.500)	(3.775)	(2.523)
Never Married	1.148**	1.377***	1.150*	1.212	1.400***	1.173
	(2.619)	(5.509)	(2.509)	(1.627)	(5.021)	(1.198)
Divorced	1.006	1.238**	1.128	1.018	1.359***	.856
	(.101)	(3.156)	(1.830)	(.126)	(3.905)	(–1.092)
Widowed	1.099	1.128	1.114	.858	1.105	1.258
	(1.154)	(1.293)	(1.164)	(–.848)	(.929)	(1.122)
Household Size	1.074***	1.068**	1.100***	1.015	1.044	1.004
	(3.840)	(3.254)	(4.834)	(.380)	(1.845)	(.086)
Children in Household	.999	.918	.893*	.896	.956	1.228
	(–.019)	(–1.543)	(–2.102)	(–1.005)	(–.708)	(1.693)
Rural	.950	.866*	1.024	.969	.854*	.958
	(–1.016)	(–2.566)	(.447)	(–.277)	(–2.515)	(–.343)
Suburb/Town	.967	.979	1.127**	1.118	1.003	.948
	(–.771)	(–.452)	(2.618)	(1.195)	(.057)	(–.508)
Less than Secondary	1.584***	1.017	1.602***	1.175	1.244***	.977
	(1.596)	(.363)	(1.102)	(1.601)	(4.008)	(–.216)
University or Above	.879**	1.230***	.936	.767**	1.154*	.833
	(–2.728)	(4.046)	(–1.398)	(–2.793)	(2.524)	(–1.663)
Part-Time Employment	1.007	1.214***	1.095	.924	1.299***	.910
	(.128)	(3.292)	(1.562)	(–.689)	(3.829)	(–.743)
Unemployed	1.416***	2.399***	1.530***	1.539	2.501***	1.159
	(3.357)	(6.791)	(3.578)	(1.532)	(5.583)	(.534)
Not in Labor Force	1.034	1.342***	1.016	.946	1.204**	.965
	(.706)	(5.620)	(.313)	(–.538)	(3.118)	(–.306)
Self-Employed	.709***	.726***	.697***	.700***	.769***	.682**
	(–6.193)	(–5.510)	(–6.347)	(–3.300)	(–4.090)	(–3.249)
Public Employment	1.151***	1.259***	1.324***	1.257*	1.158**	1.099
	(3.426)	(4.997)	(6.386)	(2.331)	(2.818)	(.871)
Relative Income	.720***	.814***	.686***	.846***	.831***	.830***
	(–15.660)	(–9.756)	(–17.535)	(–4.704)	(–7.883)	(–4.797)
Low Religious Attendance	.964	.941	.908*	1.112	.947	.932
	(–.909)	(–1.384)	(–2.284)	(1.200)	(–1.112)	(–.700)
High Religious Attendance	1.153*	.998	.957	.842	1.124	.771*
	(2.573)	(–.041)	(–.750)	(–1.504)	(1.662)	(–2.010)
N	17,284	17,134	17,222	17,697	17,238	17,706

Note: References = male, married, no children, urban, secondary education, full-time, private sector, and no religious attendance.

*$p < .05$; **$p < .01$; ***$p < .001$ (two-tailed tests).

Table S6. Two-Way FE Models of Welfare State Attitudes on Individual-Level Controls in 13 Affluent Democracies in 1996 and 2006: Odds Ratios and *Z*-Scores

	Jobs	Unemp.	Income	Retirement	Housing	Healthcare
Age	.982***	1.010*	1.009	1.026**	.992	1.026**
	(–3.743)	(1.971)	(1.836)	(2.706)	(–1.496)	(2.634)
Age^2	1.001*	.999	.999	.999*	1.001	.999**
	(2.367)	(–.715)	(–1.069)	(–2.085)	(1.371)	(–2.882)
Female	1.371***	1.136***	1.278***	1.271***	1.286***	1.221***
	(11.624)	(4.300)	(8.912)	(4.352)	(7.963)	(3.523)
Less than Secondary	1.448***	1.018	1.431***	1.152*	1.143***	.962
	(11.754)	(.508)	(11.038)	(2.077)	(3.599)	(–.569)
University or Above	.859***	1.306***	.960	.835**	1.220***	.917
	(–4.224)	(6.830)	(–1.152)	(–2.739)	(4.859)	(–1.219)
Part-Time Employment	1.043	1.183***	1.064	1.035	1.178***	.886
	(1.020)	(3.813)	(1.471)	(.421)	(3.426)	(–1.487)
Unemployed	1.482***	2.194***	1.479***	1.119	1.799***	1.330
	(5.299)	(8.611)	(5.057)	(.675)	(5.789)	(1.587)
Not in Labor Force	1.077*	1.231***	.984	.948	1.112*	1.052
	(2.015)	(5.231)	(–.444)	(–.716)	(2.477)	(.655)
Self-Employed	.734***	.677***	.655***	.638***	.770***	.701***
	(–7.528)	(–8.996)	(–10.343)	(–6.083)	(–5.674)	(–4.636)
Relative Income	.716***	.796***	.674***	.801***	.773***	.805***
	(–23.251)	(–15.363)	(–27.284)	(–9.312)	(–16.190)	(–8.841)
N	31,272	31,017	30,971	32,061	31,116	32,028

Note: Positive effects near 1.000 were rounded to 1.001 and negative effects near 1.000 were rounded to .999. References: male, married, no children, urban, secondary education, full-time, private sector, and no religious attendance.
*$p < .05$; **$p < .01$; ***$p < .001$ (two-tailed tests).

Table S7. Multi-Level Logit Models of Welfare State Attitudes on Percent Over Age 15 Years Foreign Born from Less Developed Countries (LDCs) (Africa, Asia, or Latin America) in 2000, Immigration Measures and Individual-Level Control Variables in 17 Affluent Democracies in 2006: Odds Ratios and *Z*-Scores

	Jobs	Unemp.	Income	Retirement	Housing	Healthcare
Percent Foreign Born LDCs	.919**	.901**	.943	.934	.972	.979
	(–3.054)	(–2.778)	(–1.931)	(–1.289)	(–.587)	(–.344)
Percent Foreign Born LDCs	.928**	.916*	.944	.924	.975	.976
	(–2.611)	(–2.306)	(–1.770)	(–1.391)	(–.496)	(–.365)
Social Welfare Expenditures	1.031	1.051	1.005	.970	1.009	.992
	(1.043)	(1.256)	(.141)	(–.529)	(.165)	(–.122)
Percent Foreign Born LDCs	.945*	.942	.961	.935	.990	.978
	(–2.007)	(–1.730)	(–1.273)	(–1.125)	(–.183)	(–.332)
Social Democratic Regime	.924	1.503	.582	1.321	.772	2.541
	(–.268)	(1.128)	(–1.674)	(.449)	(–.457)	(1.309)
Liberal Regime	.565*	.492*	.572	1.104	.641	1.399
	(–2.019)	(–2.045)	(–1.795)	(.165)	(–.814)	(.491)
Percent Foreign Born LDCs	.922**	.904**	.948	.941	.984	.983
	(–3.052)	(–2.726)	(–1.899)	(–1.207)	(–.390)	(–.281)
Employment Rate	.967	.973	.956	.938	.904**	.967
	(–1.421)	(–.829)	(–1.805)	(–1.449)	(–2.832)	(–.627)
Percent Foreign Born LDCs	.941	.913	.956	.924	.964	1.016
	(–1.723)	(–1.856)	(–1.131)	(–1.120)	(–.574)	(.192)
Percent Foreign Born	.972	.984	.984	1.012	1.010	.958
	(–1.050)	(–.425)	(–.548)	(.231)	(.196)	(–.705)
Percent Foreign Born LDCs	.941*	.934	.963	1.017	1.030	1.005
	(–2.150)	(–1.833)	(–1.190)	(.453)	(.665)	(.075)
Change in Percent Foreign Born	1.003	1.005*	1.003	1.013***	1.008**	1.004
	(1.912)	(2.170)	(1.426)	(4.195)	(2.895)	(.869)
Percent Foreign Born LDCs	.916***	.895***	.938*	.913*	.960	.974
	(–3.344)	(–3.330)	(–2.355)	(–2.377)	(–1.129)	(–.423)
Net Migration	1.116	1.238*	1.182*	1.667***	1.491***	1.155
	(1.436)	(2.206)	(2.134)	(4.148)	(3.768)	(.798)
N	17,284	17,134	17,222	17,697	17,238	17,706

Note: All individual-level controls from Table 1 in the main text included but not shown. Models with percent over age 15 years foreign born from LDCs and other country-level controls (social welfare expenditures, welfare state regimes, and the employment rate) were estimated but are not shown.
*$p < .05$; **$p < .01$; ***$p < .001$(two-tailed tests)**.**

Table S8. Multi-Level Logit Models of Welfare State Attitudes on Ethnic Fractionalization in 2000, Immigration Measures and Individual-Level Control Variables in 17 Affluent Democracies in 2006: Odds Ratios and *Z*-Scores

	Jobs	Unemp.	Income	Retirement	Housing	Healthcare
Ethnic Fractionalization	.993	.995	.999	1.001	1.008	.984
	(–.903)	(–.494)	(–.116)	(.056)	(.763)	(–1.246)
Ethnic Fractionalization	1.002	1.004	1.006	1.006	1.012	.985
	(.210)	(.423)	(.734)	(.431)	(1.004)	(–1.000)
Percent Foreign Born	.941*	.935	.954	.964	.972	.989
	(–2.417)	(–1.923)	(–1.797)	(–.786)	(–.682)	(–.214)
Ethnic Fractionalization	.986*	.986	.994	.990	1.000	.977
	(–2.495)	(–1.876)	(–.892)	(–1.292)	(–.022)	(–1.762)
Change in Percent Foreign Born	1.007***	1.009***	1.005*	1.013***	1.008**	1.006
	(3.975)	(3.788)	(2.329)	(4.767)	(2.714)	(1.546)
Ethnic Fractionalization	.989	.987	.993	.982	.995	.974
	(–1.509)	(–1.345)	(–.951)	(–1.909)	(–.605)	(–1.915)
Net Migration	1.165	1.296*	1.210*	1.781***	1.521***	1.352
	(1.507)	(1.998)	(1.963)	(4.116)	(3.496)	(1.613)
Ethnic Fractionalization	.996	.997	1.000	.992	1.002	.978
	(–.625)	(–.440)	(–.001)	(–.962)	(.222)	(–1.578)
Percent Foreign Born	.919***	.901***	.929***	.903***	.927**	.961
	(–4.126)	(–3.798)	(–3.503)	(–3.758)	(–2.642)	(–.806)
Net Migration	1.299***	1.482***	1.329***	2.061***	1.678***	1.422
	(3.417)	(3.854)	(3.624)	(5.949)	(4.772)	(1.812)
N	17,284	17,134	17,222	17,697	17,238	17,706

Note: All individual-level controls from Table S5 included but not shown. Models with ethnic fractionalization and other country-level controls (social welfare expenditures, welfare state regimes, and the employment rate) were estimated but are not shown. In all those models, ethnic fractionalization is insignificant.
*$p < .05$; **$p < .01$; ***$p < .001$ (two-tailed tests)**.**

Table S9. Multi-Level Logit Models of Organizational Memberships on Percent Foreign Born and Net Migration and Individual- and Country-Level Control Variables in 17 Affluent Democracies in 2006: Odds Ratios and *Z*-Scores

	Unionization	Left Party Affiliation	Far Right Party Affiliation
Percent Foreign Born	.944	1.010	1.214
	(–1.352)	(.260)	(1.173)
Net Migration	.892	.941	.524
	(–.702)	(–.396)	(–1.056)
N	8,730	16,225	16,225

Note: For the left and far right party affiliation models, the samples include all respondents without missing data in the 2006 ISSP. For the unionization model, the sample is all full-time workers without missing data. The same individual-level controls as shown in Table S5 are included in each model, except for the unionization model. In the unionization model, the variables for part-time employment, unemployment, and not in the labor force are omitted. Based on reports of party affiliation, the ISSP recodes respondents into far left, left/center left, center/liberal, right/conservative, and far right. We dichotomized this variable into left or not and far right or not.
p* < .05; ***p* < .01; ****p* < .001 (two-tailed tests).**

Table S10. Multi-Level Logit Models of Preferences for Greater Spending on Percent Foreign Born and Net Migration and Individual- and Country-Level Control Variables in 17 Affluent Democracies in 2006: Odds Ratios and *Z*-Scores

	Spend More on Health	Spend More on Old Age Pensions	Spend More on Unemployment Benefits
Percent Foreign Born	.952	.914***	.904***
	(–1.703)	(–4.129)	(–3.529)
Net Migration	1.436***	1.629***	1.564***
	(3.299)	(5.821)	(4.095)
N	17,671	17,493	17,248

Note: The same individual-level controls as shown in Table S5 are included in each model. The spending question reads: "Listed below are various areas of government spending. . .Remember that if you say 'much more', it might require a tax increase to pay for it." The response options were: spend much more, spend more, spend the same as now, spend less, and spend much less. We dichotomized these into spend more or not.
p* < .05; ***p* < .01; ****p* < .001 (two-tailed tests).**