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# Immigration Policy Prior to the 1930s: Labor Markets, Policy Interactions, and Globalization Backlash

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AFTER THE 1870s, New World doors gradually closed to immigrants. Although much of the literature has focused on the drastic policy changes in the period just after World War I, the doors did not suddenly slam shut on American immigrants when the United States Congress overrode President Woodrow Wilson's veto of the immigrant literacy test in February 1917 or when it passed the Emergency Quota Act of May 1921. A half-century before the Literacy Act, the United States started imposing restrictions on what had been free immigration, and the United States was not the only country becoming less receptive to immigrants. Argentina, Australia, Brazil, and Canada enacted new measures, although the timing varied, and the policies often took the form of a large drop in or even disappearance of immigrant subsidies rather than outright exclusion of immigrants. Immigration policy varied considerably across these five countries over the period from 1860 to 1930, the conventional portrayal of one big policy switch around World War I to the contrary.

What was true of immigration policy was also true of trade policy. Globalization proceeded in fits and starts after 1846 when Britain repealed the Corn Laws and started a liberal trend toward free trade. It took the form of mass migrations, a trade surge, and international capital flows at (relative) levels never reached before or since.<sup>1</sup> The liberal trend did not last long, however, in the face of a globalization backlash. Tariffs started to rise on the European continent. Restrictions on immigration and trade started to rise in the New World. With the end of World War I, the world economy plunged into a dark age of de-globalization and policy antagonism toward factor and goods mobility.

What explains the globalization backlash? A number of candidates have been nominated in the case of immigration policy. Economists have suggested that immigrants crowded out native unskilled workers and contributed to rising inequality in labor-scarce economies, as did free trade. The policy reaction may also have reflected the greater voting power in the hands of those hurt most—the working poor. Possible noneconomic factors include increasing racism, xenophobia, and widening ethnicity gaps between the population stock and the current immigrant flow. The increase in immigrant flows, “lower-quality” immigrants, and the threat of even lower-quality immigrants may have provided further impetus to close the doors.

There have been few attempts to introduce these factors into explicit models of immigration policy formation.<sup>2</sup> This article uses what little theory exists to identify the fundamental factors that underlie changes in immigration policy and to clarify the differences between market and nonmarket influences. In addition, the article explores the extent to which policy responded to the impact of immigrants on labor markets, and the extent to which it tried instead to anticipate those impacts by reacting to the quantity and quality of immigrants.

Finally, the article assesses the impact of policies abroad on policies at home. Which countries were most sensitive to immigration policies elsewhere in the New World, and to what extent did the largest among them, the United States, set the pace for the rest? Trade policy over this period was clearly an interactive game, as countries sought to respond to escalating tariffs elsewhere. But little has been said about how other New World destinations reacted to increasing immigration restrictions by the United States, or, for that matter, how they responded to the push of emigrants out of the United Kingdom. We seek to examine the degree to which one country’s immigration policy may have been influenced by the policies of others.

## Measuring immigration policy

Having set a goal to calibrate the determinants of immigration policy, we must construct a measure that can quantify the policy in the New World. Such a measure is necessary if we hope to assess the extent to which globalization backlash was at work and to identify the form that it took. We have designed an index of immigration (and in one case, emigration) policy that will be used to confront a set of competing hypotheses. The index is likely to be subject to the same criticism as those used to measure trade openness (Anderson and Neary 1994; Sachs and Warner 1995). We recognize that a subjective component to the index remains, but we have tried to use a consistent algorithm.

The index ranges over a scale of +5 to –5. A positive score denotes a pro-immigration policy, possibly including comprehensive subsidies for pas-

sage and for support upon arrival. A negative score denotes anti-immigration policy, possibly including quotas, literacy tests, and legal discriminatory treatment after arrival. A zero denotes policy neutrality, or a neutral outcome between conflicting pro- and anti-immigration policies. A policy can have two functions: first, to signal to groups that their interests are being tended to and second, to change the status quo. Clearly, political agents were trying to affect the flow of immigrants and to respond to their constituencies. Policies were not always effective, but the goal here is to capture the intention, or political signal. The following algorithm was the basis for our assigning scores, and we use it consistently across countries and over time:

- 5 Active worker recruitment abroad with advertising and labor offices, free land or subsidized land purchase, subsidized or assisted passage, temporary lodging, free transport inland from port of arrival, easy naturalization, legal property ownership.
- 4 Free or subsidized land, immigration treaties or contracts with shipping companies, lodging, worker recruitment, easy naturalization, legal property ownership.
- 3 Overseas immigration offices, debarkation coordination, land designated for settlement, easy naturalization, legal property ownership.
- 2 Overseas immigration offices, debarkation coordination, easy naturalization, legal property ownership.
- 1 Modest advertising, easy naturalization, legal property ownership.
- 0 Open doors, no encouragement, no discouragement. Or, a balance of pro-immigration and anti-immigrant policies.
- 1 Regulations on shipping companies and/or contracts for assisted passage.
- 2 Class restrictions on immigration (no paupers, potential wards of the state, criminals) or selective source-country bans (e.g., no Asians).
- 3 The above restrictions plus laws for registration, deportation provisions, laws restricting property ownership, unenforced selectivity laws (such as literacy tests).
- 4 Restrictive quotas, enforced literacy tests, or other measures designed to reduce immigration volume significantly.
- 5 Closed (or only slightly ajar) doors, enforced.

Several complications repeatedly arose in assigning scores to policy. Canada, Australia, and the United States all enacted legislation against Asian immigration, even while encouraging (or at least not discouraging) immigration from Europe. At some points, all three countries had a set of policies that sent a mixed message to both potential immigrants and constitu-

ents. Whenever we found a mix of pro-immigration and anti-immigration policies, we simply added up the positive and negative attributes to get an overall score. Since a source-country ban on immigration was generally scored  $-2$ , and subsidy and recruitment programs were generally scored  $+3$ , Canada received a net score of  $+1$  around the turn of the century. Similarly, in the early twentieth century, Australia recruited and subsidized immigration but also required a dictation test on demand, and we scored this mix a  $0$  for several years. Because of the mix of policies, we allowed half-steps in the scoring. Appendix B uses United States experience to illustrate the scoring, but the full details for all countries can be found elsewhere (Timmer and Williamson 1996: Appendix C). To assess the impact of Empire settlement plans, we also scored the emigration policy of the United Kingdom, using a parallel algorithm.

These policy indexes, plotted in Figure 1, confirm that whereas immigration in the 1860s was generally unrestricted, the doors to the New World were effectively closed by 1930. But in the intervening decades, the trends were less clear. Argentina started on a path of increasing openness and pro-immigration subsidies, but reversed the policy in the 1880s, and the index dropped from  $+4.5$  to  $-2.5$  by the 1920s. Brazil's index underwent a similar path, although the anti-immigrant legislation all came in a rush at the end of the period. Australia's index fell from  $+3$  in the mid-1860s to  $-1$  shortly after the turn of the century, and to  $-2$  in 1930, but exhibited short episodes of more open policies, especially in the 1920s. Canada's index behaved similarly. The United States index fell from  $0$  in the early 1860s to  $-5$  by 1930, and it was the only country never to have a major policy reversal over the period. Thus, while the United States exhibited a steady drift away from free immigration, the others closed their doors in fits and starts.

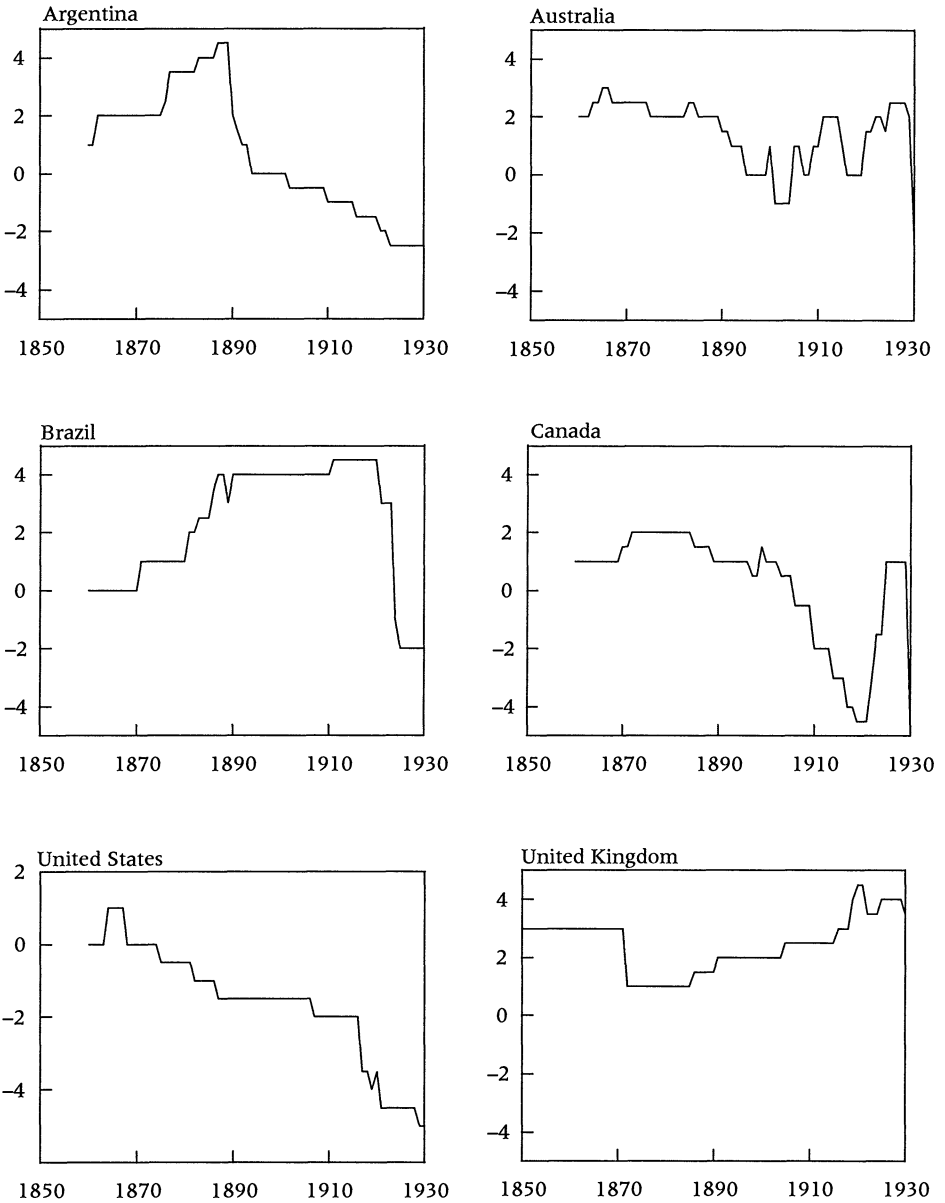
Although there are some cases of substantial short-term variance, as in Australia between 1890 and 1930, strong policy persistence is the norm. Policy was slow to change, sometimes constant over a decade or more, even though intensive political debate often accompanied the apparent quiescence. The best examples of this stability are Brazil over the three decades from 1890 to 1920, a period that ended in 1921 when immigration restrictions were imposed, and the United States from 1888 to 1916, a period that ended with the override of President Wilson's veto of the legislation introducing an immigrant literacy test in 1917.

The literature offers several explanations of the evolution of immigration policy from the middle of the nineteenth century to the Great Depression.

## Models of immigration policy

Formal models of immigration policy are few, but there is a general consensus that immigration policy has always been sensitive to labor market

**FIGURE 1 POLICY: An immigration policy index**



NOTE: The index ranges over a scale of +5 to -5. A positive score denotes a pro-immigration policy, a negative score an anti-immigration policy. See text for further explanation.

conditions,<sup>3</sup> and that immigration itself has always been sensitive to wage and unemployment rate differentials between countries. For example, Claudia Goldin (1994) notes that in the United States in the late 1890s,

during a time of economic recession and high unemployment, there was a new push for immigration restrictions. At that time, however, the rate of immigration slowed markedly, reaching a low in 1897, the same year that the first vote on immigration restriction was taken in the House of Representatives. Similarly, Australian inflows dropped sharply in the recession of the 1890s when attitudes inimical to immigrant subsidies hardened (Pope and Withers 1994). These observations suggest that the impetus to restrict immigration was far more sensitive to labor market conditions than to immigration levels.

To complicate matters, the ethnic composition of immigrants was clearly a factor in the politics of restriction. Australia maintained a strict policy aimed at keeping the country one of British and Irish descent, while avoiding persons of “yellow” skin (Pope and Withers 1994). The United States completely banned immigrants from China in 1882 and immigrants from all of Asia in 1917 (Green 1995). Increasing demands for restriction in the 1880s and 1900s paralleled an increase in the relative numbers of immigrants from southern, central, and eastern Europe, the so-called new immigrants. It is difficult to sort out whether these policies were a result of racism and xenophobia or whether ethnic origin merely served to signal, however imperfectly, the human capital content or “quality” of the immigrants (Foreman-Peck 1992).<sup>4</sup> If countries were sensitive to the source of immigrants, this further suggests that there might be competition among them for those of higher quality, or competition to keep out those of lower quality. Did Argentina, for example, have to subsidize immigration in order to attract better immigrants? Were they successful in doing so?

As James Foreman-Peck (1992) notes, the two central questions for any model of immigration policy formation are: Who gains and who loses? Who decides the policy? Consensus is clear regarding the first question. Wage earners—unskilled workers in particular—lose with immigration, as the labor pool swells and wages sag. Owners of other factors of production—land, capital, and perhaps even skills—gain from the more abundant unskilled labor supply that makes these other factors more productive. We hasten to add two caveats. While most attempts to measure the impact of mass migration on wages prior to 1914 have found that wages were downwardly sensitive to immigration (Williamson 1974; Taylor and Williamson 1997; Green 1994; Goldin 1994; Hatton and Williamson 1995; Williamson 1996), a study of Australia found that wages actually increased with immigration, if only marginally (Pope and Withers 1994). The Australian result could be explained if immigrants augmented labor demand enough to offset their impact on increased labor supply (for example, by working previously unsettled land or by inducing an accumulation response as capital from the home country chased after labor). If labor demand keeps pace with labor supply, then native labor is not hurt by immigration.

The second caveat concerns disequilibriums in the labor market, when the impact of immigration on wages is unclear. The issue of unemployment has not really been examined in the context of immigration policy, but suppose wages are sticky downward and unrelated to the size of the unemployment pool, perhaps for efficiency reasons or “fairness.”<sup>5</sup> In such a situation, immigration will not have any effect on wages, but it will add to the numbers unemployed. No one benefits from immigration: capitalists do not gain by a fall in wages, and the number of unemployed increases. Eventually, both sides might unite in favor of immigration restrictions. Goldin (1994) suggests that this aligning of interests occurred in the United States during the 1890s. Note, however, that the impact of an economic downturn on native unemployment should have been partially muted by immigrant behavior, as recent (but now jobless) immigrants returned home—that is, immigrants themselves did voluntarily what a policy of immigrant restriction would have done.<sup>6</sup> This they did in great numbers, but not great enough to make the “guestworker effect” operate with much quantitative muscle, even during that critical depression decade of the 1890s (Hatton and Williamson 1995); while the US unemployment rate was reduced a bit by return migration in the 1890s, the reduction was a modest share of the total unemployment rate.

These two caveats aside, most discussions of the politics of immigration assume that the interests of capital and labor are divided. As such, the immigration literature should be closely aligned with theories of long-run interest groups in trade policy. The parallels between trade and immigration policy are discussed at length in our previous article (Timmer and Williamson 1995) so here we focus only on immigration policy.

In addition to the capital–labor divide, Foreman-Peck (1992) argues that land ownership might have mattered, especially in the late nineteenth century when agriculture was still a large sector of the economy.<sup>7</sup> He takes the following approach. Assume that individuals receive their incomes from one of the following three sources: wages, profits, or land rents. Depending on the franchise, the government maximizes a weighted objective function that includes rents, profits, and wages of native labor. The critical question is whether immigrant and native labor are complements or substitutes in production: if they are substitutes, then immigration hurts wages of the natives. Estimating a production function, Foreman-Peck concludes that they were substitutes in the late-nineteenth-century US economy. Thus, the larger the weight on labor interests, the more restrictive the immigration policy. The reverse is true as the political system attaches larger weights to the interest of capital or land.

Foreman-Peck allows for the possibility of two types of immigrants: skilled and unskilled. It might be that skilled immigrant labor was a complement to domestic labor, whereas unskilled immigrant labor was a substi-



tute. We would then expect to see a policy that encouraged the immigration of skilled and discouraged the immigration of unskilled workers. Foreman-Peck argues that this concern about unskilled labor, and not racism or xenophobia, was responsible for policies in the Americas that restricted Asian immigration and for policies in South Africa that restricted African immigration.

Although Foreman-Peck does not implement a formal empirical test, his discussion of Argentina, Britain, South Africa, and the United States indicates that some of the historical facts are consistent with his theory. For example, landed interests were largely in control of immigration policy in Argentina and the government offered generous subsidies to attract farm laborers from the Mediterranean Basin. In contrast, the United States had a more universal voting franchise, rejected subsidies, and gradually closed the door as the frontier itself was closed (by 1890, or so said the Census Commissioner at that time).

Goldin (1994) takes a different approach. Following a long tradition in American historiography that has focused on sectional interests, she looks at regional splits and rural–urban differences. Although she does not model the relationship formally, she assumes that individual US Senators and Representatives advocate policies that favor their constituents, in proportion to the numbers represented by each urban, rural, and regional interest group. The passage of the literacy test, which was first attempted in 1897 and was finally successful in 1917, seems to have been the result of two (often opposing) forces: demographic changes and changes of heart. The changes of heart were many. Goldin suggests that capitalists were for the first time aligned with labor in opposing immigration during the recessionary years of the 1890s when unemployment was high. Later, during times of full employment and rising wages, capital shifted back to its more traditional pro-immigration stance, but the South adopted an anti-immigration stance, a change of heart probably motivated by the urge to protect its relative population share and voting clout. Finally, the northern Midwest, fairly pro-immigration in the 1890s, underwent an anti-immigration switch following World War I. Goldin argues that this was mostly a change of heart by older immigrant groups, pushed to patriotism by the war.

The political impact of the change in North–South demographic composition was offset by the changing composition of the cities. Goldin finds that the probability that a legislator would vote for immigration restrictions was negatively related to the proportion of foreign-born in the district and was also negatively related to the level of urbanization. This relationship suggests that efforts of what we might now call family reunification were operating in the cities, and since cities were on the rise pro-immigration interests increasingly made themselves heard.

More important than either of these nonmarket influences, however, was the impact of increasing immigration on wages and the subsequent

effect on votes. Especially after the turn of the century, Goldin finds a significant negative impact of immigration on wages, a result consistent with other historical studies (Hatton and Williamson 1998). The change in real wages is, in turn, a significant explanatory variable in accounting for the Congressional vote to override the presidential veto of the literacy test in 1915. The higher the growth in wages, the less likely was the Representative to vote for an override (and thus for restriction).

These two findings of Goldin's research—that wages influenced US immigration policy and that immigrants influenced wages in American labor markets—are useful in our comparative assessment of immigration policy in the New World. However, we only require that politicians and their constituents *believed* that immigration retarded wage advance. It appears that they did.

William Shughart, Robert Tollison, and Mwangi Kimenyi (1986) look at shifting degrees of enforcement of immigration restrictions. Workers want high wages, and they pressure politicians to enforce immigration restrictions. Capitalists and landowners want lower wages, and they try to reduce enforcement. Their model predicts that as the economy goes through business cycles, the ideal policy mix shifts, resulting in changes in the degree of enforcement against immigration. The authors test the model using data from the United States from 1900 to 1982, and the results are supportive. Even taking into account official changes in immigration policy, the size of the enforcement budget, and the political party in the White House, the degree of enforcement is significantly, and negatively, related to real GNP. Unemployment and the real wage were also significant explanatory variables, but not so consistently as real GNP. Had the authors looked at US policy toward indentured labor contracts prior to 1900, they would have seen the same correlation: harsh policy during slumps; soft policy during booms.

The three studies discussed above are the only ones to offer empirical support for theories of immigration policy.<sup>8</sup> All three address the role of labor markets, but they limit their attention to absolute gains and losses resulting from immigration, ignoring the relative effects. Recently, a renewed interest in distributional questions has developed among those studying the consequences of migration. Immigrants can create more inequality in the country of destination and less inequality in the country of origin. The empirical literature on this issue has grown voluminous in a short time, perhaps because the consequences of immigration have gained prominence on the American political scene. The debate began over the impact of immigration in the United States (Borjas 1994), expanded to consider European immigration (Freeman 1995), and spilled over into the issue of out-migration from developing countries (Wood 1994). The distributional impact of migration has even been confirmed for the late nineteenth cen-

tury, with the demonstration that inequality increased in the receiving countries and decreased in the sending countries (Williamson 1997).

There is not yet consensus (or much theory) on how these distributional consequences will affect immigration policy. Consider the impact of immigration on future economic growth. It is true that a labor-scarce country will do better to allow immigration than to allow the export of capital, thus becoming more populous rather than less so (Cheng and Wong 1990). But if immigration induces falling wages or greater inequality, and if, as a consequence, the median voter becomes too poor, then citizens might vote for distortionary redistributive policies that can slow growth. Inequality may also lead to political instability, which can slow growth. While all of these assertions may sound plausible, economists have yet to identify unambiguously the impact of inequality on growth.<sup>9</sup>

There are other models of income distribution and policy formation that do not depend on a link to economic optimization. For example, citizens might vote for restriction on immigration simply because they dislike increased inequality and the lower living standards of their unskilled neighbors (Luttmer 1997). Or, changes in income distribution might tip the balance of political power among competing interest groups, leading to changes in immigration policy (Timmer 1996). Jess Benhabib (1996) suggests that the distribution of capital and labor among voters will, from the perspective of the median voter, affect the skill mix of an ideal immigrant. A relatively capital-rich median voter will prefer a less-skilled immigrant; a relatively labor-rich voter prefers a capital-rich, skilled immigrant.

## A menu of hypotheses

This brief review of the literature offers several promising hypotheses that we organize here around a set of explanatory variables. Details of the variables and their sources can be found in Appendix A.

First, immigration policy might respond to either the quantity or the quality of immigration, or both. The size of the immigrant flow as a share of the native labor force is one obvious variable, although the experience of the 1890s has already suggested that labor market conditions might have mattered far more than size of flow. The quality of the immigrants is another candidate, measured in comparison with the native labor force. The vast majority of immigrants came from and entered unskilled jobs. Some had good health, high levels of literacy, numeracy, on-the-job training, and considerable exposure to work discipline. Other immigrants did not. Quality and quantity were highly correlated prior to World War I: the switch of emigrant source from higher-wage to lower-wage areas of Europe correlated with the rise in immigration rates. It is likely that these two effects reinforced each other in their impact on policy. A variable that combines

the rising quantity of immigration with the falling quality might do better than the two measures of quantity and quality in competition with each other.

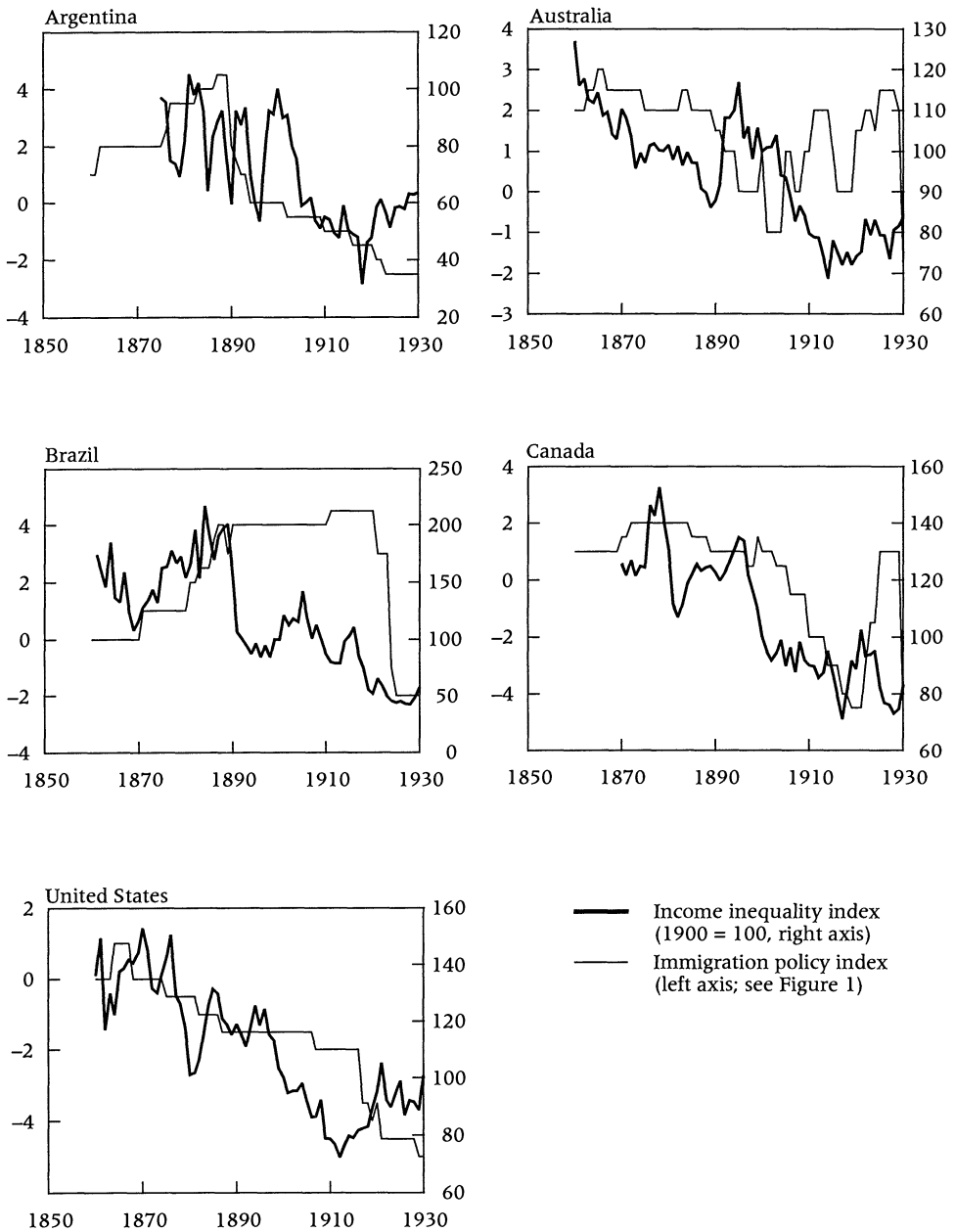
Second, immigration policy might respond to labor market conditions. This possibility can be sharpened by distinguishing between short-run timing and long-run fundamentals of policy. Unemployment, wage growth, and other macro indicators should serve to isolate the role of business cycles, trade crises, world price shocks, and other short-run events that might affect the timing of changes in immigration policy. In addition, the use of lagged dependent variables should help to ascertain how slowly policy responds to long-run labor market fundamentals.

We expect labor market fundamentals to be captured by unskilled real wages—a measure of absolute performance—or by unskilled wages relative to income of the average citizen—a measure of relative performance. The latter is a measure that gauges the unskilled worker's economic performance against that of the average: it is a measure of inequality that politicians and voters could easily see and understand. The validity of these variables does not require that immigration was the key force driving the living standards of the working poor in the New World. It requires only that politicians and voters believed that immigration was a powerful influence on living standards. Whether it was the absolute or the relative performance that mattered is an empirical issue, but Figure 2 suggests that the inequality variable is likely to do well, especially in the cases of Argentina, Canada, and the United States.

Third, a country's immigration policy may have been influenced by the immigration policies of other countries, either directly or indirectly. If the country anticipates the influence of immigration policies abroad on immigration inflows at home, the effect is direct. Since the labor market in the United States was so large relative to the rest of the New World, and since so many European emigrants went there,<sup>10</sup> it is unlikely that the United States paid much attention to immigration policies being introduced elsewhere. Australia may have been more concerned with British Empire settlement policy than with United States policy. Argentina and Brazil, meanwhile, must have paid close attention to United States policy since they could reasonably expect the marginal European emigrant (for example, southern Italian emigrants) to be pulled from or pushed toward Latin America in response to less or more restrictive policy in the United States. Authorities might have moderated those changes by mimicking United States policy before being confronted with the actual migrant response. The same might have been true of Canada, which, in spite of British Empire settlement policy, had to accommodate a long porous border with its big neighbor to the south.

Fourth, nonmarket forces probably remain after these market forces have been allowed to have their impact. After controlling for immigrant

**FIGURE 2 The inequality and immigration policy correlation**



NOTE: Higher inequality index indicates less inequality.

quality, did racism have an independent influence? Did differences in ethnicity matter? Did the political response to market events change as the working poor found their political power increasing?

## Empirical tests

Since our interest is in long-run fundamentals, we smooth the policy index exponentially, and call the converted index *polism*.<sup>11</sup> The converted index should do better in isolating the underlying fundamentals affecting policy in contrast with the timing of policy change. We estimate policy equations to identify the impact of market and nonmarket forces. Was policy driven by labor market conditions or by ethnic concerns? Was the reaction to a rising immigrant flood everywhere the same in the New World? With the policy equations estimated, we then use them to identify the sources of policy change.

## Time series results

Overall, the empirical findings are quite satisfying. Table 1 reports results using a lagged dependent variable (that is, a lagged policy index for the country in question), while Table 2 reports results where the policies of other countries replace the lagged dependent variable.

There are no variables in the tables that measure political environment. We cannot find evidence that changing political institutions and franchises systematically affected the degree and direction of policy change. We tried two measures of political openness: an index of democratic characteristics and a measure of competitiveness in political participation, both constructed by Ted Gurr (1990). Although these variables might be significant in explaining policy differences across countries, they are not important in explaining policy shifts within countries.<sup>12</sup> This result is probably due to the fact that significant political change was minor in our time series.

The most consistent effect emerging from Table 1 is that immigration policy is slow to change. The lagged dependent variable is highly significant in all countries. This is especially true of Brazil and the United States, but the result is driven by the 1888–1916 period in the United States and by the 1890–1920 period in Brazil. These two episodes of persistence were followed by a major switch in policy, from open to closed. Big policy switches often required long periods of debate. This was not always true, however, as can be seen by the major switch in Argentina's policy over only five years, 1889–94.

We have introduced variables with differing lags. Labor market and immigration variables were usually lagged two periods—an indicator of legislative delay—while economic conditions were taken as current. These measures of current macroeconomic conditions—growth in real GDP per capita (*ypcgr*) and unemployment (*unemp2*)—did not prove consistently useful in accounting for policy change: macroeconomic conditions mattered in Australia, but not in Canada and the United States, and they took the wrong sign in Brazil. Thus, Australia offers the only evidence that these

**TABLE 1 Explaining immigration policy using lagged dependent variables:  
Ordinary least squares; dependent variable is immigration policy, POLISM**

	Argentina	Brazil	Australia	Canada	United States
<b>Labor market effects</b>					
Nominal wages/ GDP per capita WTOY(-1)	0.003 (0.547)				
Nominal wages/ GDP per capita WTOY(-2)		0.005* (1.773)			
Nominal wages/ GDP per capita WTOY(-4)				0.015** (2.460)	0.005* (1.973)
Nominal wages WAGEN(-2)			0.004* (1.903)		
Real wages WAGER(-2)		0.007* (1.698)			
Change in real wage growth D(WGRR(-2))					1.407* (1.677)
<b>Economic conditions</b>					
Growth in real GDP per capita YPCGRR	-1.044* (-1.913)	3.452** (2.565)			
Unemployment rate UNEMP2		-0.034*** (-3.104)			
<b>Immigrant effects</b>					
% foreign population FORPOP(-2)	-4.740** (-2.425)				
Change in % foreign population D(FORPOP(-2))			-18.405* (-1.741)		
Average wages at immigrant origin IMWAGE(-2)				0.031** (2.468)	
Change in immigrant wages D(IMWAGE(-2))			0.028** (2.379)		0.015** (2.005)
Brazilian relative wages BRWTOY(-1)	0.011** (2.291)				
Brazilian real wage growth BRWGRR	0.862** (2.341)				
<b>Lagged dependent variable</b>					
POLISM(-1)	0.677*** (4.413)	0.953*** (24.592)	0.761*** (9.842)	0.874*** (17.582)	0.957*** (29.839)
Constant	-0.327 (-0.530)	-1.116* (-1.686)	-0.341 (-1.088)	-4.018*** (-2.958)	-0.704** (-2.138)
No. of observations	54	68	70	57	70
Mean dependent variable	0.362	2.385	1.485	0.050	-1.649
R-squared	0.971	0.924	0.809	0.909	0.972
Adjusted R-squared	0.967	0.919	0.791	0.904	0.970
Log likelihood	-27.430	-63.164	-52.495	-55.548	-6.249
Durbin-Watson	1.691	1.589	1.948	2.098	1.386
F-statistic	316.527	192.143	44.570	176.309	555.669

(t-statistics in parentheses; White-corrected standard errors) (\*\*\*) significant at the .01 level; \*\* at the .05 level; \* at the .1 level)  
NOTE: POLISM is the POLICY variable smoothed using exponential weights selected by TSP software.

macroeconomic conditions were critical in shaping the timing of policy change.

Did labor market conditions have a consistent influence on immigration policy? And if so, was it the absolute or relative income performance of unskilled workers that mattered? It appears to have been both. The change in real wage growth of the urban unskilled (*dwgrr*) mattered most in the United States, nominal wages (*wagen*) mattered most in Australia, while real wage levels (*wager*) mattered most in Brazil.<sup>13</sup> But apart from the lagged dependent variable, the most significant influence on policy is the ratio of the unskilled wage to per capita income, or of income near the bottom of the distribution to the average (*wtoy*). This measure of unskilled labor's relative economic position stands up as an important influence on policy in the United States, Canada, and Brazil, regardless of what else is included in the equation—including real wage growth, real wage levels, unemployment, and attributes of the immigrants. The variable is not significant for Argentina and Australia. But for the other countries, high unskilled wages relative to average income correlate with more open immigration policies, and the correlation is significant; greater relative scarcity of unskilled labor encouraged less restrictive policy; declining relative scarcity of unskilled labor encouraged more restrictive policy.

So far, we have looked at the indirect impact of immigration on policy by exploring labor market performance.<sup>14</sup> Perhaps the size and character of the current and expected future immigrant flow precipitated policy change, the latter serving to anticipate the labor market impact. Two variables measure these direct immigration effects. First, the quality, or human capital content, of the immigrants is proxied by the real wage of unskilled urban workers in the source countries (*imwage*). Changes in that proxy were important for Australia. Second, we use measures of both the current flow—the immigration rate (*imrate*)—and the cumulative stock—the share of foreign-born within the total population (*forpop*). The immigration rate never proved to be a helpful explanatory variable, but the share of foreign-born did matter for Argentina and Australia. Higher immigrant quality or rising immigrant quality tended to precipitate more open immigrant policy in Australia, Canada, and the United States. More to the point, low and falling immigrant quality precipitated immigrant restriction, even after controlling for other forces. To some extent, therefore, policy in these countries anticipated the impact of low-quality immigrants on unskilled wages and moved to eliminate such immigration. In addition, Argentina seems to have looked to the north across the Rio de la Plata to watch labor market conditions in Brazil, acting as if they knew those conditions could divert immigrants to or from Argentina's borders, either by immigrant responses to these relative labor market conditions or by their responses to likely policy changes in Brazil. Thus, rising relative unskilled wages and rising



absolute wages in Brazil tended to produce more open policy in Argentina. This result is consistent with the estimated policy spillovers reported in Table 2, results that we discuss below.

We also explored the impact of a variable that measured the difference in ethnic composition between the current immigration flow and the population stock (*gap*), but it was never significant. The literature had led us to expect that a rising gap between the ethnic origins of the population stock and the new immigrants would erode commitments to free immigration. In Table 2 Brazil offers some weak support for this view, but the effect does not appear elsewhere.

To what extent was a change in a country's policy a reaction to policy changes abroad? The results appear in Table 2, where the lagged dependent variable is replaced by migration policy changes abroad. As expected, the United States—the New World immigration leader—was not responsive to competitors' policies. Nor, for that matter, was Canada, a surprising result that seems to confirm Canadian success in shielding its labor market from the eastern and southern European exodus to North America. For the other countries, policy abroad mattered greatly. For Argentina, it was the combined impact of Australian, Canadian, and Brazilian policy that mattered, more restrictive policy abroad inducing more restrictive policy at home. Brazil tended to mimic the policies followed in Argentina and the United States, although it also exhibited that puzzling inverse response to policy change found in Australia and Canada.<sup>15</sup> Australia, in turn, was more likely to favor open immigration policies when the United Kingdom offered more generous subsidies to its emigrants, and also when the United States was more open.

While the size of the immigrant flow did not have any consistent impact on New World policy up to 1930, its low and declining quality certainly did, provoking restriction. Racism or xenophobia does not seem to have been at work. Rather, immigrant quality, labor market conditions, and policies abroad—especially those set by the economic leaders, Britain and the United States—mattered most. New World countries acted in an effort to defend the economic interests of domestic unskilled labor.

### Policy spillovers on immigrant destination by quantity and quality

Table 3 elaborates on the issues already raised in Table 2, namely, how policies adopted in one part of the New World influenced immigrant flows to other parts of the New World. The dependent variable in Table 3 is a given country's share of that year's five-country immigration flow. As we might have expected from Table 2, policies abroad hardly mattered at all for the United States. That is, the US share of immigration did not depend

**TABLE 2 Explaining immigration policy using cross-country policy responses: Ordinary least squares; dependent variable is immigration policy, POLISM**

	Argentina	Brazil	Australia	Canada	United States
<b>Labor market effects</b>					
Real wages WAGER(-2)	-0.034*** (-4.246)	0.059*** (10.260)			
Nominal wages WAGEN(-2)			0.031*** (5.618)		
Nominal wages/GDP per capita WTOY(-2)	0.017* (1.941)	-0.024*** (-3.940)			
Nominal wages/GDP per capita WTOY(-4)				0.051*** (3.447)	0.031*** (3.810)
Real wage growth WGRR					4.730 (1.390)
<b>Economic conditions</b>					
Unemployment UNEMP2			-0.061*** (-4.738)	-0.045*** (-2.885)	
Growth in GDP per capita YPCGRR			2.720* (1.797)		
<b>Immigrant effects</b>					
% foreign population FORPOP(-2)	-19.447*** (-6.476)				
Immigrant-native ethnicity gap GAP(-2)		-4.146 (-1.626)			
Skill-weighted immigration rate THREAT(-2)				-0.649* (-1.687)	
<b>Policy spillovers</b>					
Argentine policy ARPOLISM(-2)		1.038*** (8.301)		0.002 (0.017)	0.213* (1.711)
Australian policy AUPOLISM(-2)	0.480*** (4.773)	-0.960*** (-7.583)		-0.022 (-0.105)	-0.050 (-0.327)
Brazilian policy BRPOLISM(-2)	0.401*** (4.153)				0.068 (0.654)
Canadian policy CAPOLISM(-2)	0.328*** (5.369)	-0.635*** (-9.728)	-0.002 (-0.032)		0.120 (1.055)
US policy USPOLISM(-2)		0.531*** (3.743)	0.681*** (5.614)	-0.120 (-0.360)	
British policy UKPOLISM(-2)			0.186* (1.848)	-0.395 (-0.891)	-0.107 (-0.475)
Constant	4.262*** (6.484)	1.499 (1.626)	-1.828*** (-3.714)	-3.649* (-1.916)	-5.285*** (-4.963)
No. of observations	54	68	69	57	69
Mean dependent variable	0.278	2.385	1.480	0.050	-1.673
R-squared	0.913	0.815	0.626	0.769	0.635
Adjusted R-squared	0.901	0.794	0.590	0.731	0.593
Log likelihood	-57.300	-93.498	-75.422	-82.013	-94.225
Durbin-Watson	0.991	0.943	0.877	0.878	0.242
F-statistic	81.735	37.790	17.309	20.029	15.129

(t-statistics in parentheses; White-corrected standard errors) (\*\*\*) significant at the .01 level; \*\* at the .05 level; \* at the .1 level)

**TABLE 3** Policy spillovers on immigrant destination: Ordinary least squares; dependent variable is the share of immigrants arriving at destination (IMMPCT)

	Argentina	Brazil	Canada	Australia	United States
<b>Policy spillovers</b>					
Argentine policy ARPOLISM					0.011 (1.497)
Australian policy AUPOLISM			-0.007* (-1.726)		0.005 (0.390)
Brazilian policy BRPOLISM			-0.003 (-1.413)	-0.005** (-2.387)	0.004 (0.491)
Canadian policy CAPOLISM				-0.004* (-1.984)	0.004 (0.516)
US policy USPOLISM	-0.010*** (-2.991)	-0.005 (-1.422)	-0.004 (-1.150)	-0.003 (-1.493)	
<b>Lagged dependent variable</b>					
Immigrant share IMMPCT(-1)	0.537*** (5.443)	0.711*** (8.391)	0.744*** (8.125)	0.638*** (7.256)	0.632*** (6.469)
Constant	0.033*** (3.557)	0.017* (1.808)	0.043*** (3.184)	0.031*** (2.911)	0.207*** (2.959)
No. of observations	69	69	69	69	69
Mean dependent variable	0.102	0.086	0.108	0.065	0.639
R-squared	0.562	0.556	0.643	0.725	0.597
Adjusted R-squared	0.549	0.542	0.620	0.708	0.565
Log likelihood	134.302	119.532	140.170	166.176	78.201
Durbin-Watson	1.886	2.396	1.613	1.607	1.846
F-statistic	42.406	41.314	28.767	42.138	18.660

(t-statistics in parentheses) (\*\*\*) significant at the .01 level; \*\* at the .05 level; \* at the .1 level)

on the policies elsewhere. But for the other destinations, more open immigration policies abroad reduced one's share of arrivals. For example, Australia's openness decreased flows to Canada, Brazil's pro-immigrant subsidies reduced flows to Australia, and Argentina saw an increased share of the immigrant pie as the United States closed its doors. The impact of policy spillovers is significant but small, due to the stickiness of both policy and immigration patterns.

Table 3 explores the impact of policy abroad on the distribution of immigrant destinations, while Table 4 explores the impact on immigrant quality. The quality proxy is a weighted average of (urban) unskilled wages prevailing in the sending regions at various points in time. Table 4 shows that the lagged dependent variable and policy choices in other countries account for more than 80 percent of the variance in the quality measure. When US policy became more restrictive, immigrant quality rose everywhere else. Immigrants favored the United States, so that when the United

**TABLE 4 Policy spillovers on immigrant quality: Ordinary least squares; dependent variable is the quality of immigrants (IMWAGE)**

	Argentina	Brazil	Canada	Australia	United States
<b>Policy spillovers</b>					
Argentine policy ARPOLICY		0.256 (0.657)	0.691 (1.645)		
Brazilian policy BRPOLICY	0.435* (1.814)		0.008 (0.030)		-1.114*** (-2.955)
Canadian policy CAPOLICY	-0.891** (-2.977)	-1.125*** (-2.948)		0.135 (0.344)	-0.667** (-2.351)
US policy USPOLICY	-1.729*** (-3.071)	-1.632** (-2.536)	-3.123*** (-3.734)	-1.251** (-2.007)	
<b>Lagged dependent variable</b>					
Average wages at immigrant origin IMWAGE(-1)	0.564*** (6.672)	0.655*** (7.679)	0.673*** (8.047)	0.845*** (14.548)	0.790*** (10.963)
Constant	17.917*** (5.428)	14.024*** (3.901)	18.674*** (3.699)	10.512*** (2.645)	17.194*** (3.070)
No. of observations	71	-69	71	71	71
Mean dependent variable	46.907	48.932	72.799	77.987	68.313
R-squared	0.891	0.888	0.867	0.883	0.853
Adjusted R-squared	0.885	0.881	0.859	0.878	0.847
Log likelihood	-186.894	-191.023	-207.621	-213.240	-201.135
Durbin-Watson	1.754	1.881	1.573	1.683	2.082

(t-statistics in parentheses) (\*\*\*) significant at the .01 level; \*\* at the .05 level; \* at the .1 level)

States became more restrictive, the other countries got rejects of higher quality than they would have received otherwise. The same was true of restrictive Canadian policy, for Argentina, Brazil, and the United States. Even the United States found its immigrant quality falling as Brazil subsidized immigration more heavily: that is, as Brazil increased subsidies, the United States lost some high-quality immigrants. Similarly, the United States seemed to benefit from more restrictive Canadian policy (often taking the form of lower subsidies), just as Canada benefited from more restrictive US policy. Interestingly, Argentina may have benefited from aggressive subsidy programs in Brazil. Perhaps higher-quality immigrants, arriving in Brazil under subsidy plans, found conditions unsatisfactory and moved over the border to Argentina.

## Quantifying the sources of policy change

Using the estimates from Table 1, Table 5 reports how much each variable contributed to closing the immigrant door. We identified for each country

TABLE 5 Decomposing the sources of policy change

	Argentina	Australia	Brazil	Canada	United States
<b>Time period</b>	1888-98	1926-30	1917-27	1899-1919	1865-85
<b>Policy</b>	4.5 to 0	2.5 to -2	4.5 to -2	1.5 to -4.5	1 to -1
<b>Total change</b>	-4.5 100%	-4.5 100%	-6.5 100%	-6 100%	-2 100%
<b>Attributable to:</b>					
<b>Labor market effects</b>					
Nominal wages/GDP per capita	-0.196 4.4%				
WTOY(-1)					
Nominal wages/GDP per capita			-1.676 25.8%		
WTOY(-2)					
Nominal wages/GDP per capita				-4.024 67.1%	-1.298 64.9%
WTOY(-4)					
Real wages					
WAGER(-2)			-2.330 35.8%		
Nominal wages					
WAGEN(-2)	+0.115 -2.6%				
Change in real wage growth					
D(WGRR(-2))					
<b>Economic conditions</b>					
Growth in GDP per capita					
YPCGRR	-0.737 16.4%		-0.357 5.5%		-0.646 32.3%
Unemployment					
UNEMP2	-0.457 10.2%				
<b>Immigrant effects</b>					
% foreign population					
FORPOP(-2)	-1.182 26.3%				
Change in foreign population					
D(FORPOP(-2))	-0.004 0.09%				
Wages at immigrant origin					
IMWAGE(-2)				-0.681 11.4%	
Change in wages at immigrant origin					
D(IMWAGE(-2))	+0.111 -2.5%				-1.719 86.0%
Brazilian relative wages					
BRWTOY(-1)	-3.292 73.2%				
Growth in Brazilian real wages					
BRWGRR	-0.115 2.6%				
Residual	+0.285 -6.3%	-3.528 78.4%	-2.137 32.9%	-1.295 21.6%	+1.663 -83.2%
					-1.46 58.4%

a period of major change toward more restrictive immigration policy. How much of the change was attributable to general economic conditions, to indirect labor market effects, to direct immigrant effects, and to other factors?<sup>16</sup>

When Brazil's door slammed shut in the 1920s, over 60 percent of the 6.5-point drop in the policy index was attributable to deteriorating labor market conditions, a good share of which was rising inequality. Although the residual is large (over 30 percent), labor market forces still account for nearly two-thirds of this major policy switch from an open immigration policy with generous subsidies in 1917, to a restrictive policy in 1927.

Canada offers even stronger evidence in support of the view that labor markets mattered. During the Prairie Boom from 1899 to 1919, the policy index dropped 6 points. Two-thirds of this drop can be attributed to rising inequality over those two decades (67 percent), and another tenth or so (11 percent) to diminished immigrant quality. The residual is only 22 percent.

Between 1888 and 1898, the policy index for Argentina fell by 4.5 points. Indirect labor market effects at home apparently made only a modest contribution to this big policy change (4 percent). However, it could be argued that Argentina anticipated the likely labor market effects at home by watching labor market developments in Brazil. Rising inequality and deteriorating wage growth in Brazil account for three-quarters of Argentina's policy switch. Increasing foreign presence in Argentina accounts for an additional quarter of the policy switch (26 percent).

Between 1865 and 1885, the immigration policy index for the United States dropped by 2 points. Almost all of that drop can be attributed to labor market effects and deteriorating income conditions of the unskilled. Direct immigrant effects mattered almost as much, captured here by declining quality. We have no explanation for the offsetting residual. In contrast with the powerful labor market effects apparent between 1865 and 1885, almost none of the 2.5-point drop between 1885 and 1917 can be assigned to labor market conditions (1 percent). Thus, Goldin (1994) was right in attributing the passage of the immigrant literacy test largely to nonmarket factors. That is, the residual is very large during this period, confirming the views of American historians who stress nonmarket forces. Note, however, that deteriorating immigrant quality accounts for four-tenths of the move to restriction in the United States during the period (41 percent).

The estimated equations do not explain nearly as much of the Australian switch to more restrictive policy during the late 1920s. The Australian residual is by far the largest in Table 5 (78 percent). We can offer no explanation for the finding, except to argue that many of the variables may have already been affecting the political scene even though policy remained unchanged prior to 1926. The time period is the shortest in the table.

## Conclusions

Our results point to long-run fundamentals driving immigration policy that are very different from the short-term influences on timing about which so much has been written. We find little support for the conventional wisdom that current macroeconomic conditions, as measured by growth and unemployment, had a consistent influence on policy change. Although there is some evidence that policy was sensitive to the “quality” of immigrants—especially in the non-Latin countries, there is no evidence of the influence of racism or xenophobia, once underlying economic variables are taken into account.

Income distribution trends seem to have been especially important for the United States and Canada, both of which tried to protect the economic position of their unskilled workers. Labor became relatively more abundant when immigrants poured in; and governments sought to stop any absolute decline in the wages of the domestic unskilled with whom the immigrants competed, and often even a decline in their wages relative to the average income recipient. The greater the perceived threat to these wages from more immigrants or from lower-quality immigrants, the more restrictive policy became. Meanwhile, Australia was paying attention to unemployment, growth, and nominal wages, and may have reacted to protect the relative position of workers vis-à-vis landed interests (Timmer and Williamson 1996).

Immigration policy seems to have been influenced indirectly by labor market conditions, and directly by immigration forces that, if left to run their course, would have had their impact on labor market conditions. The switch to more restrictive policies was less the result of rising immigrant presence and more the result of falling immigrant quality. But countries did not act in isolation. Domestic policy was correlated with policy elsewhere, and rationally so: except for the United States, countries saw both the quantity and quality of immigration respond to the policies of others, so it is hardly surprising that the door-closing was reactive. (Likewise, it is not surprising that the United States did not react to policy changes by others.) These policy correlations may well have to do more with the change in immigration flows than with any preemptive policy measure.

These results offer lessons for contemporary debates about immigration. The parallels are clear. Inequality has been on the rise in the European economies since the early 1970s, manifested especially by a rising income gap between unskilled and skilled workers, just as it was in the New World economies in the late nineteenth century. We should therefore not be surprised by the renewed interest, in both the United States and Europe, in reducing the migrant flow. Labor-scarce economies have been sensitive in the past to inequality trends in their midst, using restric-

tive immigration policy to offset, or at least to dampen, those trends. If history repeats itself, policies will become increasingly anti-immigrant, at least as long as the relative position of unskilled workers lags behind that of other economic groups.

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## Appendix A: Independent variables

### Economic variables

Variables are lowercased and italicized when used in text. Sources can be found in Timmer and Williamson (1996: Appendix A).

Population (POP)	Reported as actual estimated population.
Nominal GDP (GDPN)	All series have been converted to indexes, with 1900=100.
Real GDP (GDPR)	All series have been converted to indexes, with 1900=100.
Nominal wages (WAGEN)	All series have been converted to indexes, with 1900=100. Unless otherwise noted, the series are wage rates for urban unskilled workers.
Real wages (WAGER)	All series have been converted to indexes, with 1900=100. Unless otherwise noted, the series are real wage rates for urban unskilled workers.
Land values (LANDV)	Nominal estimates. Missing years are estimated by linear interpolation.
Export (X) and import (M) values	Current-dollar estimates of merchandise export and import values.
Growth in real wages (WGRR)	Calculated as $(WAGER_{t+1} - WAGER_t) / (WAGER_t)$
Wages relative to income (WTOY)	Calculated as $WAGEN / GDPN / POP$ , indexed to 1900=100.
Wages relative to land values (WTOR)	$WAGEN / LANDV$ , indexed to 1901=100.
Per capita growth in real GDP (YPCGRR)	Calculated as $(GDPR_{t+1} / POP_{t+1} - GDPR_t / POP_t) / (GDPR_t / POP_t)$
Unemployment (UNEMP)	Estimated by regressing GDPN on time and time squared, and taking the negative of the residuals.
Unemployment (UNEMP2)	Estimated by regressing GDPR on time and time squared, and taking the negative of the residuals.
Trade share of GDP (XMTOY)	Calculated as the total nominal value of exports plus imports, divided by nominal GDP.

### Immigration variables

Most of the immigration data were assembled from: Ferenczi and Willcox (1929, 1930); more detailed sources defending our revision of these data are found in Timmer and Williamson (1996: Appendix A).



The following regional geographic groupings were used:

Southern Europe	Greece, Italy, Portugal, Spain
Northern Europe	Belgium, Denmark, Finland, France, Germany, Netherlands, Norway, Sweden, Switzerland
United Kingdom	England, Ireland, Scotland, Wales
Eastern Europe	Albania, Austria, Bulgaria, Czechoslovakia, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Russia, Turkey, Yugoslavia
Asia	China, Hong Kong, India, Japan, and others in present-day East Asia, South Asia, Southeast Asia, and the Pacific Islands

*Immigration rate (IMRATE)*: Calculated as total immigration divided by total population.

*Average wages at origin (IMWAGE)*: Measures the average quality of the immigrant, at least as implied by the unskilled wages prevailing in sending countries. For each country, immigration flows were grouped into regions of origin, and the percentage of immigration from each region was calculated. For each region, an annual series of wages was constructed using Williamson's (1995) internationally comparable series, which are purchasing-power-parity adjusted: United Kingdom uses the wage series for Great Britain; Northern Europe uses the series for the Netherlands; Southern Europe uses the wages for Portugal from 1850 to 1870, and, from 1870 to 1930, Italian wages were used but scaled such that the 1870 level of purchasing power matched that of Portugal for the same year (a correction of less than 10 percent); Eastern Europe and "other miscellaneous origin" wages were estimated to be two-thirds of those in Southern Europe; Asian wages were estimated to be half the level of Southern Europe. The variable simply calculates a weighted average of these wages, using the percentage of immigration from each region as the weight.

The following groupings were used:

Australia	United Kingdom, Northern Europe, Southern Europe, Eastern Europe, Asia, and other
Argentina	United Kingdom, Northern Europe, Southern Europe, Eastern Europe, and other
Brazil	Northern Europe (includes in this case United Kingdom), Southern Europe, Eastern Europe, and other
Canada	United Kingdom, Northern Europe, United States (assigned UK wages), Eastern Europe, and other
United States	United Kingdom, Northern Europe, Southern Europe, Eastern Europe, Asia, and other

*Immigrant wages relative to destination (IMWREL)*: Like IMWAGE, this variable also captures immigrant quality, but in this case relative to the receiving region. It was calculated in much the same way as IMWAGE, except that, in addition, it measures wages in regions of emigration relative to wages in the country of destination.

*Wage threat from immigration (THREAT)*: This variable was calculated to measure the extent to which immigration reflected "unfair competition from cheap foreign

labor," that is, a threat to unskilled resident labor. Calculated to interact immigration rates with relative immigrant quality:  $THREAT = (100 - IMWREL) * IMRATE$ . Low *IMWREL* and high *IMRATE* implies big threat and large positive *THREAT*.

*Percent foreign population (FORPOP)*: For most countries, the foreign-born population is counted every ten years in the census. Using immigration data cited above, and in some cases emigration data, the between-census years are estimated. These estimates are divided by the total population estimates to calculate the percent who are foreign.

*Difference in regional stocks and flows (GAP)*: Using the annual composition of immigration (grouped as in *FORPOP*) and the annual composition of the foreign population (as estimated for *FORPOP*), an index was constructed to measure a shift in the composition of immigration relative to the current foreign-born population. For each year and for each group the difference between the percentage of immigrants and the percentage of foreign born was squared, and all groups except "other" were then summed. The index has a minimum value of zero, if the immigration flow looks just like the current foreign population. The theoretical maximum value is 1.

## Appendix B: On constructing the dependent variable: The example of the United States

The text described how the index of immigration policy is constructed, the index or score (*POLICY*) ranging from +5, a policy of generous subsidy and non-discrimination upon arrival, to -5, a policy of serious immigration restriction, effectively enforced. This appendix illustrates the index for the United States between 1860 and 1930. The dependent variable for other countries is described at length in Timmer and Williamson (1996, Appendix C). The value of *POLICY* is reported only for years when it changed.

### United States immigration policy, 1860–1930<sup>17</sup>

Pre-1860	Prior to 1840, most policy was set by individual states. Some restricted the entrance of paupers and criminals, or imposed head taxes to pay for immigrant services. Naturalization was allowed after five years of residence. From 1847 to 1849, the first effective legislation regulating passenger ships was enacted, requiring 14 square feet of clear deck space per passenger and adequate ventilation and food supplies. In 1849, the Supreme Court ruled that the state policies of head taxes and bonding were unconstitutional, leaving no funds to pay for lodging and health services provided to immigrants. In 1855, the individual passenger acts were consolidated and recodified to strengthen the health and safety regulations. Also in 1855, wives and foreign-born children of citizens were granted automatic citizenship.
1860	Passenger Acts are amended to protect female passengers from "seduction by ship personnel." <i>POLICY</i> =0
1862	Congress bans trade by US vessels in coolie, or indentured, labor.

- 1864 Commission of Immigration Office is established with a budget of \$20,000/year for publishing and distributing recruiting literature. Congress legalizes indentured labor contracts of less than one year for payment of passage. POLICY=+1.0
- 1865 Congress fine-tunes the steamship regulations.
- 1866 Congress issues a formal protest to European governments against the deportation of criminals to the United States.
- 1868 Congress repeals the labor-contract provision of the 1864 act. POLICY=0
- 1869 Laws against the coolie trade are strengthened, notably making it illegal to transport individuals under fraudulent claims to induce emigration.
- 1870 Responding to concern that there were insufficient safeguards in the naturalization process, Congress tightens the regulations and puts checks into place. The act extends the right of naturalization to those of African descent.
- 1871 Recognizing deficiencies in the law, Congress reworks the passenger acts, without substantive change.
- 1875 The Immigration Act establishes the notion of "excludable" classes. The Act prohibits the importation of Chinese women for "immoral purposes" (prostitution) and bringing in persons without their consent; makes contracting to supply coolie labor a felony; designates criminals as an excludable class, but specifies that this does not include political offenses or those who received pardons in return for leaving their country of origin. POLICY=-0.5
- 1876 Congress requires a "declaration of intent" prior to naturalization (i.e., filling out paperwork.)
- 1880 The United States negotiates a treaty with China, recognizing the right of the United States to regulate, limit, or suspend Chinese immigration, but not the right to prohibit it.
- 1882 The Passenger Acts are completely revised, detailing the required deck space, food portions, water, and ventilation. New classes are added to the list of excludables: paupers, convicts, persons suffering from "mental alienation," lunatics, and idiots. A head tax of \$0.50/immigrant is imposed to defray the costs of administration. Congress establishes the first legal terms for deportation, by legislating that convicts will be returned to their country of origin. Chinese immigration is suspended for ten years, with a provision to deport illegal Chinese residents. Congress instructs the courts that they are to disallow citizenship for the Chinese. POLICY=-1.0
- 1884 Congress amends the Chinese immigration suspension law to require evidence from legal entrants of belonging to an allowed group (merchants and travelers). Congress clarifies that the law applies to all

- Chinese, regardless of country of origin. Carriers between the United States and Mexico or Canada are exempted from the head tax, while the tax is imposed on those who come by land as well as by ship.
- 1885 The Alien Contract Labor Act makes it illegal to prepay an individual's voyage in return for labor services; voids all existing contracts made prior to immigration; establishes penalties for violators. The Act exempts diplomats and other foreigners temporarily in the United States who bring over staff, specialty labor, domestic servants, and certain professional groups.
- 1887 The Contract Labor Law clarifies the enforcement mechanism of the 1885 Act, and provides that prohibited workers would be sent home. Congress passes a law banning any noncitizen from owning real estate and prohibiting more than 20 percent foreign-held ownership of a corporation, unless the individuals had properly declared their intent to become citizens. POLICY=-1.5
- 1888 The Chinese Exclusion Act suspends all Chinese immigration for 20 years (with student/diplomatic exemptions) and establishes the rules of deportation and fines for violators. For the first time, the law allows for the imprisonment of those who are in the United States unlawfully. (The suspension part of the Act was later found null after failure to ratify the treaty, although the 1882 ban remains in effect.) Congress makes it illegal for Chinese residents to return to the United States if they leave (even if here legally), and stops issuing identity certificates, which had functioned as passports. Alien land-ownership laws are amended to allow governments to set up their attachés in Washington, DC. Congress authorizes funds for finding and deporting illegal contract labor.
- 1891 The Immigration Act adds new groups to the list of excludable classes: those "likely to become public charges," polygamists, those suffering from contagious and dangerous diseases, and anyone "assisted" in passage. The Act bans all advertising for the purpose of encouraging immigration, except by offices of the states. Also, the Act extends the exemptions from the contract labor law to include professors, professionals, and ministers, while adding to those prohibited contracts with family or friends.
- 1892 The Chinese Exclusion Act extends the ban on immigration for another ten years, requires legal Chinese to file for a residency certificate within one year, and provides for the deportation of those who do not have their certificates within that year, unless "at least one credible white witness" can attest to their difficulty in obtaining the certificate.
- 1893 Quarantine act allows the President to restrict or suspend immigration in response to contagious disease threats in foreign countries. Congress reworks some of the procedures to help enforce existing laws. The Chinese Exclusion Act is amended to strengthen its en-

- forcement, and to allow any non-Chinese witness in place of the white witness.
- 1895 Head tax is raised to \$1/immigrant
- 1898 Congress sets up a commission to examine the effects of immigration on labor and industry, to report back to Congress with advice for handling immigration.
- 1902 The Chinese Exclusion Act extends the ban for another ten years. Essentially, it is the 1892 law reissued.
- 1903 The Immigration Act raises the head tax to \$2. It also adds to the list of excludable classes: professional beggars, epileptics, the insane, prostitutes, and anarchists or others endorsing the overthrow of foreign governments. The Act also extends the period of deportability to two years from admission.
- 1904 Immigrants from Newfoundland are exempted from the head tax. Congress extends the ban on Chinese immigration to all US islands and territories.
- 1907 The Immigration Act raises the head tax to \$4, except for arrivals from Mexico, Canada, Newfoundland, and Cuba. It also restricts entry of those who were granted a passport for a different destination. The Act adds more classes to the list of excludables: unaccompanied minors, "induced" immigrants, and the disabled. The Act establishes a financial test, so that each individual must have \$25, or \$50 per family, the first such requirement on immigrants. Congress sets up another commission to study immigration. POLICY=-2.0
- 1909 Canada and Mexico are exempted from having to produce manifests of their alien arrivals.
- 1910 The White Slave Traffic Act expands deportation statutes and laws on prostitution offenses to include any alien (i.e., any foreign men involved can be prosecuted as well as women), and to extend the period of deportability indefinitely.
- 1917 The Immigration Act establishes a literacy test for immigrants, to be given in any language. Failure to demonstrate literacy will be grounds for denial of admission, although certain groups are exempted. Act adds to the classes of excludables those of "constitutional psychopathic inferiority," a jargon phrase that was also used in Canadian legislation. It is interpreted to mean those who will fail to assimilate. The Act also defines a zone in Asia (actually most of Asia) from which individuals would be ineligible for citizenship through naturalization. Immigration is banned for those who would not be eligible for citizenship through naturalization. Thus, all immigration of Asians is effectively banned. The Act also doubles the head tax to \$8. POLICY=-3.5
- 1918 Congress strengthens the ban on anarchists and other political

- troublemakers, and also agrees to readmit certain aliens who served in the military for the United States or its allies during World War I.
- 1919 Congress gives the President temporary powers to make any necessary rules/prohibitions on alien entry in order to protect the public safety. (Power expired on 4 March 1921.) POLICY=-4.0
- 1920 Congress establishes a five-year window of opportunity to allow admission to those who cannot read, if they are going to marry someone who fought in the war, even if he is an alien (war brides). Congress passes rules to deal with alien activists. It allows the deportation of those “interned as dangerous but not actually convicted of any crime.” It also extends the definition of anarchist to include those associated with antigovernment groups, publications, or organizations affiliated with the publications. POLICY=-3.5
- 1921 Quotas are established to restrict the quantity of immigration from any one country to 3 percent of its population in the United States in 1910, for one year. The ban on all Asian immigration remains in effect, while all immigration from the Western Hemisphere is free from restriction. To keep Canada and Mexico from being throughways to the United States, immigrants from the Western Hemisphere have to have been in those countries for one year before qualifying for quota-free admission. This law, the Emergency Quota Act, was originally a temporary measure, expired in 1922. POLICY=-4.5
- 1922 Act extends the 1921 Act until 1924, and extends the Western Hemisphere residency period to five years. Establishes a \$200 fine for bringing an illegal immigrant, and allows certain aliens brought in over quota to remain.
- 1924 1921 Act is amended to use quotas of 2 percent of a country’s population, using 1890 as the base year (thus further restricting the “new” immigrants). Establishes that, as of July 1927, the quota will be 150,000 total, in the same proportion as the “national origin” of the US population in 1920, excluding from the count immigrants brought against their will (i.e., former slaves do not count toward Africa’s quota). The Act establishes that wives and children under 18 have non-quota status, as do natives of the Western Hemisphere, ministers, professors, and students. Quota preference is given to children of citizens under 21, parents, spouses, and those trained in agriculture.
- 1926 Congress admits wives and children under 18, and professors, who were in the United States prior to 1924. The use of a “national origins” system is postponed until 1928.
- 1928 “National origins” system is postponed until 1929. Women who were US citizens but who gave up such status by marrying a foreigner are admitted if they are unmarried. Congress establishes that one-half of the quotas will be reserved for the preferred classes—wives and children, parents, agricultural workers. Clarifies that American Indi-

ans may travel freely across borders without immigration restrictions, as long as they are not part of a tribe by adoption.

1929 The Deportations Act makes it a felony to return to the United States if deported and a felony or misdemeanor to enter the country at an unauthorized point. Also establishes that those punishable will first be imprisoned, then deported after serving their sentence. National Origins Act takes effect 1 July. POLICY=-5.0

## Appendix C: Decomposing policy changes

We use the estimated equations from Table 1 to construct the decomposition in Table 5. After the change in each of the right-hand side variables is calculated, it is multiplied by the estimated coefficient. Then we calculate their multiplicative impact through the lagged dependent variable. Consider the following example. We have a six year period, 1925–30. Each variable contributes contemporaneously, but also will have its share in the lagged dependent variable. Suppose we have the following equation:

$$\text{POLICY} = C_0 + C_1 * \text{POLICY}(-1) + C_2 * \text{WTOY}(-2)$$

The change in policy is the difference in the index from 1925 to 1930. Then we calculate how much of that change is due to changes in WTOY(-2) from 1925 to 1930 as the sum of all the following components:

$$A = \{\text{WTOY}(1924) - \text{WTOY}(1923)\} * C_2$$

$$B = \{\text{WTOY}(1925) - \text{WTOY}(1924)\} * C_2, A * C_1$$

$$C = \{\text{WTOY}(1926) - \text{WTOY}(1925)\} * C_2, B * C_1, A * C_1 * C_1$$

$$D = \{\text{WTOY}(1927) - \text{WTOY}(1926)\} * C_2, C * C_1, B * C_1 * C_1, A * C_1 * C_1 * C_1$$

$$E = \{\text{WTOY}(1928) - \text{WTOY}(1927)\} * C_2, D * C_1, C * C_1 * C_1, B * C_1 * C_1 * C_1, A * C_1 * C_1 * C_1 * C_1$$

Note that this method does not consider the impact of previous changes to WTOY that are still playing themselves out slowly through the lagged dependent variable. It is not clear whether this means we are underestimating the effects, since the equations themselves omit variables that may have been significant for certain time periods, but were not statistically significant in the regressions using the entire time series.

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## Notes

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1 Liberalization also helped induce economic convergence within the greater Atlantic economy (Williamson 1996).

2 The exceptions are surveyed in our previous article (Timmer and Williamson 1995).

3 After World War II, a focus on human rights developed; most Western countries changed their immigration policies to provide special consideration for political and economic refugees. Prior to the 1930s, such classifications did not exist.

4 The world labor market was by 1890 almost completely segmented into what economists today would call “North” and “South” (Lewis 1978; Taylor 1994; Hatton and Williamson 1994b), and these new immigrant flows were from the “South.”

5 This, it turns out, is a reasonable assumption by the 1890s, at least for United States manufacturing (Hanes 1993, 1996).

6 Immigrants did it even better, of course. A policy of immigrant exclusion would have done no better than to reduce the net inflow to zero. Voluntary return migration drove up out-migration rates to levels high enough to make net inflows negative.

7 The same is true in many developing countries today, where agriculture is a fifth, a quarter, or even a third of the economy. In such countries, rural wage employment is important and landed interests are powerful.

8 Jess Benhabib (1996) takes the median-voter approach, allowing individuals to earn both labor and capital income in the spirit of the growth model of Alesina and Rodrik (1994); voters determine the amount of capital that immigrants must bring with them in order to be admitted. The model, an attempt to look at the dynamics of policy implications, gets very complicated. Perhaps for

that reason, Benhabib does not test the model empirically.

9 See, however, Perotti (1996) for a comprehensive review of the competing hypotheses.

10 About 60 percent of the total emigration out of Europe was to the United States (Hatton and Williamson 1998: Ch. 2), and about 70 percent of the total emigration to our five-country New World sample was to the United States.

11 The smoothing function uses exponentially decreasing weights, as selected by TSP software.

12 In Timmer and Williamson (1996), we constructed a panel data set and used the political variables to help explain policy levels. However, only fixed-effect estimation was possible since the economic data are presented in a form where they are indexed to 1900.

13 These results do not, of course, speak to the issue of whether immigration had an impact on wages. Indeed, we know that it did (Taylor and Williamson 1997; Hatton and Williamson 1998). However, policy changes usually did not have a large enough impact on immigration to matter much for wages.

14 We also constructed a variable that attempted to measure the threat to native wages, by dividing the immigration rate by the average wages in the countries of origin (THREAT). Thus, the variable increases with the volume of immigration and with declining immigrant skills. It was found not significant.

15 This inverse response may well be due to collinearity among the policy indexes.

16 We do not measure the impact of *past* performance on the lagged dependent variable, although we do multiply through the changes in the explanatory variables as they play out slowly *within* the period. Appendix C details the methodology of the calculations.

17 See E. P. Hutchinson, *Legislative History of American Immigration Policy, 1798–1965* (Philadelphia: University of Pennsylvania Press, 1981).



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