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# Sensitivity to Issue Framing on Trade Policy Preferences: Evidence from a Survey Experiment

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**Abstract** We explore the impact of issue framing on individual attitudes toward international trade. Based on a survey experiment fielded in Argentina during 2007, which reproduces the setup of earlier studies in the United States, we show that individuals' position in the economy and their material concerns define the strength of their prior beliefs about international trade, and thereby mitigate their sensitivity to the new dimensions introduced in informational cues. Extending the analysis beyond the United States to a country with different skill endowments allows us to better explore the role of material and nonmaterial attributes on individual attitudes toward trade. We find that skill is a central predictor of support for openness. The effect is strongest for individuals in the service sector and in cities that cater to the producers of agricultural commodities. Our findings suggest that the pattern of support for economic integration reflects the predictions from recent literature in international economics that emphasizes trade's impact on the relative demand for skilled labor regardless of factor endowments. Our findings also amend recent empirical contributions that suggest socialization is the main factor explaining individual sensitivity to issue framing on trade preferences. We suggest that material conditions associated with income and price effects are crucial, both in shaping trade preferences and in affecting the malleability of attitudes to issue framing. Hence, our results provide a crucial contribution to our general understanding of the attributes shaping susceptibility to political framing in policy debates.

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Recent empirical work on the determinants of trade policy preferences based on the United States reveals that individuals' responses to survey questions are susceptible to *framing effects*, the strength of which usually covaries with respon-

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dents' level of education, as Hiscox shows.<sup>1</sup> That is, more educated individuals are more likely to appreciate the benefits of integration—especially those who have been exposed to trade theory and the principle of comparative advantage—and to have a cosmopolitan outlook, and therefore greater tolerance toward foreigners and their products. For these reasons the educated are less sensitive to framing effects in defining their views on trade policy.<sup>2</sup> This conjecture seems to be borne out in studies using survey data for advanced economies and supported by experimental surveys in the United States. But it has not been duly tested beyond the United States and other developed economies with similar endowments of skill, which is correlated with educational attainment and socialization, thereby masking the confounding effect of trade on the relative demand for skill.

The interpretation of Hiscox's findings for the United States points to the cognitive effects of education, rather than to the expected material impact of trade on the demand for the labor market skills that the more educated are likely to possess. Building on the pioneering work of Bauer, de Sola Pool, and Dexter,<sup>3</sup> Mansfield and Mutz argue that sociotropic motivations and foreign policy stances dominate individual self-interest in shaping attitudes toward trade and economic integration.<sup>4</sup> The emphasis on socialization, ideological leanings, education, and sociotropic perceptions has relegated material interests to a secondary role in the most recent literature on trade policy preferences.<sup>5</sup> We aim to bring material interests back into the debate by focusing on material motivations as an alternative process affecting individuals' susceptibility to framing effects in public opinion surveys.

Understanding the determinants of trade policy preferences and the impact of issue framing on shaping such preferences is central to explaining changes in public support for different trade (and other economic policies) in democratic polities. Yet disentangling the role of material incentives from cognitive and informational determinants of individual responses to public opinion survey questions is a daunting task. Cognitive abilities are collinear with education and skill, and skill plays a central role in most theories of international trade, including factor content explanations of the direction and distributional consequences of trade;<sup>6</sup> theories of comparative advantage;<sup>7</sup> and the "new" new trade theory's emphasis on the skill premia generated by trade.<sup>8</sup> Hence exploring the relationship between skill and trade attitudes, and the mitigating effect of education and socialization,

1. Hiscox 2006.

2. See Hiscox 2006; and Hainmueller and Hiscox 2006.

3. Bauer, de Sola Pool, and Dexter 1963.

4. Mansfield and Mutz 2009.

5. See Mansfield and Mutz 2009; and Hainmueller and Hiscox 2006.

6. See Stolper and Samuelson 1941; and Rogowski 1989.

7. See Dornbusch, Fischer, and Samuelson 1977; and Davis 1995. See also MacDougall 1951.

8. See Melitz 2003; Helpman 2006; Verhoogen 2008; and Goldberg and Pavcnik 2007.

requires sampling beyond the set of countries with similar relative endowments of skill where the effect of material and nonmaterial determinants of attitudes toward trade cannot be easily disentangled.

To explore these determinants we conducted an original survey experiment in Argentina, which has different skill endowments than the United States thereby allowing us to better explore the role of material and nonmaterial attributes on trade policy preferences. The survey instrument reproduces the issue-framing design Hiscox introduced in his study of trade policy preferences in the United States.<sup>9</sup> The instrument randomly exposes different groups of individuals to alternative frames linking trade policy to employment and price effects, which are pervasive in political discourses on trade politics.

The results of our experiment show that material concerns are decisive in defining the strength of individuals' prior beliefs regarding international trade, and thereby their sensitivity to framing effects. Indeed, we show that the expected consequences of trade on an individual's well-being are not only associated with preferences over trade, but systematically affect an individual's sensitivity to the new dimensions introduced by question frames. We find that skill is a central predictor of support for openness, especially among individuals in the service sector and those in cities catering to producers of agricultural commodities. By contrast, support for trade is lowest among the less skilled, those employed in the manufacturing sector, and those who reside in large cities where import-competing industries tend to cluster. Our findings suggest that public support for openness is associated with the expected effect of trade on the relative demand for skills even in a country where skilled labor is relatively scarce. We also show that when the expected negative distributive consequences of integration are salient enough, individuals are likely to hold stronger prior beliefs, which make them less susceptible to change their views once subjected to framing effects. Moreover, we find this effect even among more-educated individuals, a finding that cannot be explained by theories that emphasize the role of socialization. Our results thus qualify the view that socialization is the main factor explaining support for free trade as well as permeability to issue framing. Individuals who are not clearly and directly affected by openness are more likely to hold diffuse prior beliefs over trade policy, and hence are more likely to update their opinion on trade's desirability when exposed to frames that emphasize its effects on prices and employment, even after conditioning on respondents' educational level. This novel result has important implications for our understanding of the politics of trade. It also serves as a cautionary note to researchers using framing experiments embedded in surveys about the need to take into account the sources of individuals' prior beliefs when assessing the effect of informational cues.

9. Hiscox 2006.

## The Impact of Issue Framing on Individual Attitudes Toward Trade

When exploring the determinants of trade policy preferences, scholars have focused on the expected effect of trade on the well-being of individuals, firms, and interest groups.<sup>10</sup> Most of the empirical literature draws on workhorse models of international trade to derive predictions about the distributional consequences of trade opening on individuals and groups as a function of their position in the economic division of labor. The predictions are grounded in two strands of economic theory, which suggest that support for free trade is a function of the expected effects of trade on the return to the factors of production or the assets owned by the respondent as proposed by the Heckscher-Ohlin (and the Stolper-Samuelson theorem) or the specific factor (or Ricardo-Viner) models of trade, respectively.<sup>11</sup> Whether the fault line arises across factor ownership or sector of employment depends on the underlying assumptions about the determinants of trade flows—either the relative abundance of a factor in a country or a particular sector's degree of exposure to trade competition—and the level of intersectoral factor mobility.<sup>12</sup>

Scheve and Slaughter, O'Rourke and Sinnott, and Mayda and Rodrik find that skill levels (either educational attainment or occupation) dominate sector of employment as a determinant of trade policy preferences at the individual level.<sup>13</sup> The findings are consistent with factor content models of trade and Stolper-Samuelson effects: the skilled in skill-abundant countries are likely to benefit from the rise in prices of exports, which are likely to be skill intensive.<sup>14</sup> Scheve and Slaughter also note that American homeowners in areas that are negatively impacted by trade are less likely to support openness than their skill endowment would predict, showing that an indirect material effect of trade also shapes individual preferences.<sup>15</sup>

Yet skilled individuals are also more supportive of trade in countries that are relatively better endowed with unskilled labor. While potentially refuting the Stolper-Samuelson theorem, this finding is still consistent with the predictions derived from recent developments in trade theory: increasing economic integration through trade can result in a rising skill premium. Given that not all firms have the potential to engage in trade, the ones that do are more likely to produce higher-quality goods resulting in higher demand for skills, and hence an increase

10. On individual preferences, see Balistreri 1997; Scheve and Slaughter 2001; Mayda and Rodrik 2005; O'Rourke and Sinnott 2001; Hainmueller and Hiscox 2006; and Mansfield and Mutz 2009. On factor and sector-level preferences, see Rogowski 1989; Hiscox 2002; and Frieden 1991. On firm-level preferences, see Milner 1988.

11. See Stolper and Samuelson 1941; Jones 1971; Samuelson 1971; and Mussa 1974.

12. See Alt and Gilligan 1994; and Hiscox 2006.

13. See Scheve and Slaughter 2001; O'Rourke and Sinnott 2001; and Mayda and Rodrik 2005.

14. Leamer 1984.

15. Scheve and Slaughter 2001.

in the skill premium.<sup>16</sup> These firms are also likely to demand skill-intensive services from the nontradable sector, which has the potential to increase the relative demand for skilled labor in all countries irrespective of their relative endowments.

In contrast to the literature on trade, public opinion scholars emphasize how framing effects can shape the perception of individual utility, thus calling into question the material origins of individual policy preferences, and focusing instead on how socialization, ideological bias, and elite consensus shape how individuals process policy preferences.<sup>17</sup> Several studies show that individuals' sensitivity to issue framing depends on their prior beliefs, which are generated by strongly held values and cognitive abilities.<sup>18</sup> Hiscox makes an important contribution to this literature with path-breaking insights on the effects of issue framing on trade policy preferences.<sup>19</sup> Using a survey experiment, Hiscox finds that the wording of survey questions has a sizeable effect on attitudes toward trade; yet he also finds that framing effects are weaker among individuals with higher education—who are more supportive of trade. Based on those results, he concludes that socialization shapes the impact of issue framing on responses to public opinion surveys.

Hiscox acknowledges, but does not explore, the potential effect that material interests could have on individuals' prior beliefs and how these interests could affect individual response to framing effects. Here we depart from Hiscox: the incentive to obtain information about an issue is as much related to an individual's education and sophistication as it is to the expected effect of that issue on the individual's material well-being. For material self-interest to affect public opinion, the policy issue must be tangible and immediate so that individuals can identify its material effects.<sup>20</sup> In particular, when individuals can clearly discern a policy's material consequences, they have more incentives to obtain information that generates stronger prior beliefs before being exposed to the survey experiment, thereby making them less susceptible to issue framing.<sup>21</sup> This assumption motivates our empirical strategy.

## The Argentine Survey Experiment: Background and Expectations

In order to explore the influence of material self-interest—rooted in the expected distributive consequences of trade—on trade policy preferences and on individu-

16. See Melitz 2003; Verhoogen 2008; and Galiani and Porto 2010.

17. See Chong and Druckman 2007b; and Tversky and Kahneman 1981.

18. See Druckman 2001; Stanovich and West 1998; Levin, Schneider, and Gaeth 1998; Miller and Fagley 1991; Fagley and Miller 1997; Sieck and Yates 1997; and Chong and Druckman 2007a.

19. Hiscox 2006.

20. See Sears and Funk 1991; and Taber 2003, 448.

21. See Taber 2003; and Lodge and Taber 2000.

als' sensitivity to issue framing, we fielded a survey experiment in Argentina during 2007. The survey experiment reproduces Hiscox's design—which he fielded in the United States in 2003—to allow for a better comparison across cases.<sup>22</sup> We chose Argentina, first, because the difference in skill endowments and educational attainment—Argentina's relative endowment of skill is low—compared to the United States enables a better assessment of predictions based on socialization and material interests. Second, Argentina has recently experienced high levels of contestation around trade policy, which is reflected in the political elite's efforts to frame political debates on the expected consequences of economic integration.

In the postwar era, Argentina embraced an inward-looking developmental strategy, which resulted in high levels of protectionism. During this period, the main political divisions were reflected in a strong and irresolvable urban-rural cleavage, with exporters of agricultural commodities promoting trade liberalization and industrialists and workers supporting import-substitution and protectionism.<sup>23</sup> Average tariffs rates hovered around 100 percent until the mid-1970s when the last military rulers (1976–83) dramatically reduced them.<sup>24</sup> Facing hyperinflation after his election in 1989, President Carlos Menem broke with the traditional protectionist stance of his party—the Peronist Party or Partido Justicialista—and embraced trade liberalization. Tariffs declined from an average of 39 percent to 10 percent in 1992.<sup>25</sup> Menem's trade reforms were explicitly framed as necessary to control hyperinflation, as Menem's Finance Minister Domingo Cavallo eloquently explained:

As a political strategy when I was appointed Secretary of economic affairs, I merged the Ministry of Public Works into a single Ministry of Economy and Public Works to link convertibility with privatization, economic liberalization, and improvements in economic efficiency. That is, all the reforms were linked to inflation, and this link facilitated the support of public opinion and Congress.<sup>26</sup>

Argentine trade policy, however, took another sharp turn at the onset of the twenty-first century. In December 2001, a dramatic economic and political crisis led to a three-fold devaluation of the local currency, providing a boost to the tradable sectors by simultaneously protecting import-competing firms while making exports more competitive in foreign markets. Moreover, the sharp increase in the price of commodities in the 2000s positively affected Argentina's terms of trade: about two-thirds of Argentina's exports are primary products or manufactured goods of primary origin whose prices went up, while most of the country's imports are

22. Hiscox 2006.

23. O'Donnell 1977.

24. Galiani and Porto 2010, 6.

25. Gerchunoff and Torre 1996.

26. Murillo's personal interview with Domingo Cavallo, New York, 6 May 2003.

industrial, intermediate, and capital goods that experienced a relative decline in prices.

The favorable terms of trade—and consequent incentives to export agricultural products—led to sharp increases in the domestic price of food: in early 2006, for instance, food prices started growing at a faster pace than the general inflation rate and reversed the positive relationship between trade openness and prices people experienced under Menem.<sup>27</sup> The rising price of food, but more importantly the sharp increase in the price of meat—a main staple in Argentinians’ diet—became a sensitive and salient political issue. In 2006 President Néstor Kirchner faced his first public conflict with agricultural producers and responded by restricting trade. In a public speech of February 2006, Kirchner provided a rationale for this stance:

We want the price of beef to come down, but we want it to come down due to the consciousness and responsibility of the production and processing sectors, and we do not want them to subject the domestic price of beef to that of exports.<sup>28</sup>

In March 2006, he decreed export restrictions and price controls for meat. The saliency of trade on debates about the price of meat is reflected in a public opinion survey from the last quarter of 2006, where respondents estimated that meat constituted more than two-thirds of the country’s exports when the true number was 2.4 percent mostly because of export restrictions.<sup>29</sup> By January 2007 the conflict over food prices had taken the center stage: 90 percent of Argentines perceived inflation as growing when its annual level reached 10 percent.<sup>30</sup> The public’s growing perception of rising inflation in a country that had experienced hyperinflation in the 1990s encouraged the government to impinge on the technical autonomy of the INDEC, the national statistical office. The technicians in charge of estimating the consumer price index were sacked, and the administration started releasing a distorted inflation index, which was much lower than those recorded by private and provincial agencies. Hence, when we fielded our survey experiment in March–April 2007, the rising price of food was already a salient and sensitive issue. In people’s minds inflation was linked to trade in the political discourse of a popular president whose wife would be elected as his successor a few months later.

The Argentine public, however, was divided in its perception of trade’s material effects on a different dimension: an increase in the demand for services, including labor services in the nontradable sector, which constitutes the majority of employment in Argentina. The rising price of commodity exports resulted in a sharp

27. Cohan and Levy-Yeyati 2010.

28. “No nos Alegria de Ninguna Manera que haya un Foco de Aftosa,” *La Nación* (Internet ed.), 10 February 2006. Available at (<http://www.lanacion.com.ar/779631-kirchner-no-nos-alegria-de-ninguna-manera-que-haya-un-foco-de-aftosa>). Accessed 8 October 2012.

29. See Knack 2007; and INDEC 2007a.

30. Poliarquía 2011.

increase in the demand for services mostly in the cities of the Argentine hinterland, which benefited from the multiplying effect of the expansion of agricultural production stimulated by the export boom.<sup>31</sup> By contrast, the demand for services in metropolitan areas was offset by the negative effect of trade on the import-competing industries, which cluster around the large cities. That is, the export-oriented coalition, which benefits from the positive spillovers of trade, is based in the hinterland and the protectionist coalition, which emerged around import-competing interests, is based in the major industrial cities of Buenos Aires, Córdoba, Rosario, and La Plata. This urban-rural cleavage, which had dominated Argentine politics since the early 1900s, was exacerbated by the improvement in Argentina's terms of trade. Moreover, in the 2000s, agricultural producers were backed by the growing service sector that caters to them in the country's interior.

Hence, we use the region of the respondent—either import-competing or not—as a proxy for the direct or indirect impact of trade on the relative demand for their services. We expect stronger prior beliefs and weaker sensitivity to issue framing among the losers from trade—those in import-competing industries as well as those in the service sector in the import-competing regions who make up the protectionist coalition—because the distributive consequences of trade are clearer for them. These respondents are net losers given the expected negative effects of trade both on the demand for their services and on their real income, through the impact of rising prices for food, which they consume but do not produce. By contrast, those in the non-import-competing hinterland, even those employed in the nontradable sector, will be positively affected by the (indirect) income effect created by trade on the demand for their services because of the positive spillover effects of higher activity in agriculture. However, the distributive effects of trade are less clear for them because they experience both the positive impact on the demand for their services and the negative impact of higher prices, thereby generating weaker prior beliefs and making them more susceptible to framing effects. Therefore, we expect both lower support for trade opening and weaker framing effects across individuals located in import-competing regions relative to respondents in non-import-competing regions. We can thus derive our first hypotheses as follows:

*H1a: Individuals in import-competing regions are less supportive of trade than individuals in non-import-competing regions.*

*H1b: Individuals in import-competing regions are less sensitive to framing effects than individuals in non-import-competing regions.*

The impact of education, which is central for Hiscox, can reflect both socialization and material effects associated with the demand for skilled labor, given that

31. Bisang, Anlló, and Campi 2008.



trade openness increased the demand for skilled labor and the wages of skilled workers in Argentina.<sup>32</sup> Both interpretations should thereby lead us to expect education to be positively correlated with support for openness. However, each of these interpretations—socialization and skill formation—leads to different expectations regarding the formation of prior beliefs and sensitivity to framing effects. According to Hiscox, the socializing effect of education should strengthen prior beliefs regarding trade and reduce sensitivity to issue framing regardless of the expected material effects of trade in the two regions. By contrast, if the effect of education is through skill formation, we should observe regional differences among skilled workers. The positive impact of trade on the demand for and wages of the more skilled workers in the hinterland, along with the negative income effects of higher prices, should generate weaker prior beliefs for educated respondents in the non-import-competing regions and make them more sensitive to issue framing than individuals with the same educational level in import-competing regions. In the import-competing regions, skilled workers suffer both from the negative effect of trade derived from a decrease in the (indirect) demand for their services as well as the negative effect of higher food prices. These skilled workers should have stronger prior beliefs, and therefore be less sensitive to issue framing than their peers in the nonimport-competing regions. We can derive a second set of hypotheses as follows:

*H2a: Educated individuals are less sensitive to framing effects than less educated individuals.*

*H2b: Educated (less educated) individuals are less sensitive to framing effects in the import-competing regions than educated (less educated) individuals in the non-import-competing regions.*

Alternatively, we look at the differences among those employed in manufacturing, a sector of revealed comparative disadvantage in Argentina, and those in services. We expect the former to hold stronger prior beliefs and be less susceptible to framing effects given the direct effect of trade on their well-being, while the effect of trade on service workers is likely to be more diffused and result in weaker prior beliefs and greater responsiveness to issue framing.

## Results from a Survey Experiment

The experiment was embedded in a face-to-face national survey using a nationally representative sample of 2,793 individuals during April 2007.<sup>33</sup> For the experi-

32. See Galiani and Porto 2010; and Bustos 2011.

33. See the appendix for more information about the survey experiment.

ment, respondents were randomly assigned to four groups, with each receiving different introductions to the survey question about the consequences of international trade.<sup>34</sup> These introductions, which reproduce Hiscox's setup, present either possible benefits of trade, possible costs, or both effects, while the fourth group is the control group and received no introduction at all. The exact wordings are shown below, with percentages indicating the size of the group in relation to the entire sample.

- Group 1 (25 percent)—pro-trade introduction: “Some people believe that increasing trade with other nations creates jobs and allows you to buy goods and services at lower prices.”
- Group 2 (25 percent)—anti-trade introduction: “Some people believe that increasing trade with other nations causes unemployment and hurts Argentine producers.”
- Group 3 (25 percent)—both introductions.
- Group 4 (25 percent)—no introduction.

To proxy for the regional effects that our first two hypotheses identified, we use the residence of respondents, classifying them as belonging to an import-competing region if they lived in the Metropolitan Area of Buenos Aires (AMBA), La Plata, Rosario, or Córdoba—the main industrial regions of the country where more than half of the national population lives.<sup>35</sup> Agricultural production is concentrated in the non-import-competing region. Yet, agriculture is not labor intensive in Argentina—it employs 1.54 percent of the working population in that region (and 0.48 percent in the import-competing region). Manufacturing comprises 16 percent of employment in the import-competing region as opposed to 10 percent in the non-import-competing region. Additionally, public employment (including education) is 16 percent of employment in the import-competing region and 19 percent in the non-import-competing region. This difference in public employment would generate a bias against our argument due to higher incidence of export taxes on government revenue.<sup>36</sup>

We define individuals as educated if they completed high school (twelve years of education). Defined this way, the sample is split in half between less-educated (50.29 percent) and more-educated (49.71 percent) respondents. Education and region do not overlap, as Table 1 shows.

34. The survey question asks, “Do you agree or disagree with Argentina increasing its commerce with other nations?” Responses as follows: 1, Strongly agree; 2, Somewhat agree; 3, Somewhat disagree; 4, Strongly disagree; 5, Indifferent; 8, Don't know; 9, Not applicable.

35. The import-competing region constitutes 55 percent of our sample.

36. All the employment data are from the INDEC 2007b.

**TABLE 1.** *Distribution of respondents by education level and region*

	<i>Non-import-competing</i>	<i>Import-competing</i>	<i>Total</i>
<i>Low skill</i>	650 46.36% <b>52.04%</b>	752 53.64% <b>48.86%</b>	1,402 50.29%
<i>High skill</i>	599 43.22% <b>47.96%</b>	787 56.78% <b>51.14%</b>	1,386 49.71%
<i>Total</i>	1,249 44.8%	1,539 55.2%	2,788

*Notes:* For each entry in the first column, the first row indicates number of observations in each cell. The second row presents cell number as a percentage of observations by education category (low/high). The third row, in bold type, presents cell number as a percentage of total observations in each regional category (import-competing, non-import-competing).

High-skilled services and high-tech industry constituted 19.5 percent of employment in the import-competing region, but only 12 percent in the non-import-competing region. This variation suggests different material effects derived from region and education interpreted as skill formation—the skilled workers would suffer from a negative effect on the demand for their services in the import-competing region. To tease out whether education’s effect is because of socialization or skill distribution, we both control for the area of residency and use an occupational score as a measure of skills. The latter score assigns higher values to occupations involving larger numbers of subordinate employees (for employers/managers) and, in the case of employees, higher qualifications and job types, whereas white-collar workers are assigned a higher score than blue-collar workers.

Table 2 reports the simple frequency distribution of responses in each of the four experimental groups. The table shows that all groups express strong overall support for trade and that issue framing has, in general, negative effects on responses. In particular, there are statistically significant differences between Group 4 (no introduction) and the rest of the respondents, while differences among groups across framing types are in the expected direction, yet do not attain statistical significance.

In line with the results Hiscox reported, we find that the anti-trade and the combined introductions reduced support for trade. Like Hiscox, we also find that even though respondents receiving the pro-trade frame were more likely to support trade than those who receive the anti-trade frame, they were less likely to support trade openness than those who received no introduction.

**TABLE 2.** *Percentages of respondents who favor increasing trade*

<i>All respondents</i> (N = 2,729)	71.31
<i>Pro-trade introduction</i> (N = 687)	69.43
<i>Anti-trade introduction</i> (N = 674)	67.95
<i>Both introductions</i> (N = 687)	69.29
<i>No introduction</i> (Group 4: N = 673)	78.46

*Note:* Table shows percentage who strongly agree and somewhat agree with the question.

It is remarkable that we find the same result as Hiscox given the notable differences in contemporaneous growth rates in the United States in 2003 (no growth) and Argentina in 2007 (8 percent growth). Differences in economic performance are likely reflected in the emphasis on the consequences of trade in policy debates in both countries: in the United States the issue was framed in terms of employment effects;<sup>37</sup> in Argentina, the debate underlines trade's effects on food prices. Hiscox explains this result by pointing to the failure of pro-trade rhetoric focused on job creation in export industries and lower prices for consumers because of the weaker effect of potential gains vis-à-vis potential losses, as posited by prospect theory. We believe that since the wording of the frame in all its forms alludes to price effects, it introduces a new dimension that resonates with the daily experience of Argentine respondents. Hence, only individuals in the treatment group should report a lower support for trade liberalization because they are exposed to the price dimension in the question frame. In other words, respondents' everyday experience trumps the hypothetically positive effect on prices mentioned in the pro-trade framing vignette.<sup>38</sup>

Based on the information in Table 2, we calculate marginal effects on the probability of trade support for the different treatment groups using logistic regression in Table 3. We follow Druckman in using the "no introduction" treatment as the excluded category to estimate the effects of each introduction on the probability for supporting trade.<sup>39</sup> The general effect of the anti-trade introduction is to reduce support for trade by twelve percentage points. The magnitudes of the effect produced by the mixed and pro-trade introductions are ten and nine percentage points lower than the baseline, respectively.

37. Slaughter 1999.

38. This is an interesting effect to be considered when using survey experiments. Hiscox 2006 could have suffered from a similar effect because in 2003 the United States was undergoing almost null growth and trade competition was associated with job losses.

39. Druckman 2001.

**TABLE 3.** *Impact of frames on individual support for trade (marginal effects from logistic regression)*

<i>Dependent variable:</i> TRADE SUPPORT	<i>Marginal effects</i>
<i>Pro-trade intro</i>	-0.457*** (0.128)
<i>Anti-trade intro</i>	-0.562*** (0.128)
<i>Mixed intro</i>	-0.504*** (0.128)
<i>Constant</i>	1.356*** (0.0962)
<i>Observations</i>	2,679

*Notes:* Standard are errors in parentheses. \*\*\* denotes statistical significance at  $p < .01$ .

#### *Individuals' Sensitivity to Framing Effects*

Consistent with the results in the United States reported by Hiscox, we find that less-educated respondents are less favorable to trade and more sensitive to framing. As Table 4 shows, less-educated individuals in the four experimental groups are less likely to support trade. Additionally, the differences between the “no introduction” group and each of the other groups are consistently larger for the less-educated respondents.

**TABLE 4.** *Sensitivity to framing by education level*

<i>Frame</i>	<i>More education (completed high school and beyond)</i>	<i>Less education (did not complete high school or less)</i>
<i>Pro-trade introduction</i>	78.45% (N = 348)	62.81% (N = 320)
<i>Anti-trade introduction</i>	75.47% (N = 318)	62.61% (N = 345)
<i>Both introductions</i>	77.68% (N = 345)	61.82% (N = 330)
<i>No introduction</i>	83.58% (N = 335)	75.38% (N = 325)

*Note:* Table shows percentage of respondents supporting trade.

Our initial findings show that issue framing does affect public perception of trade because support for trade is higher among those receiving no frame (the control group). That is, framing makes all respondents—irrespective of their educational attainment—respond more negatively to the trade question. And, like Hiscox, we find that higher education is associated with weaker framing effects. The mitigating effect of education on issue framing could result from sophistication that reduces sensitivity to political discourse, but it could also reflect individuals' labor market skills and their capacity to benefit from trade gains.

Disaggregating framing effects across individuals with different educational attainment and region of residence reveals an empirical pattern that cannot be explained by socialization and education: framing effects are indeed smaller among the more skilled in the population, as the conventional wisdom posits. But framing effects are stronger in non-import-competing areas across education levels. That is, for the more and the less educated alike, the indirect distributive effect of trade seemingly shapes the frame's impact on support for trade. In essence, it is harder to shift the views of those living in import-competing areas than of those living elsewhere. The basic intuition is that trade affects income through the demand of services and increases in the price of food, but only in the import-competing regions do both effects move in the same negative direction—making it easier for respondents to perceive the distributive effects of trade and making them less sensitive to framing effects.

We report the responses by each of the four different groups of respondents divided by region in Table 5. In every group, support for openness is higher among respondents in the non-import-competing region than in the import-competing region; the effect of all three introductions is weaker for respondents in the import-competing region than in the non-import-competing region. That is, respondents in the non-import-competing region were more sensitive to framing effects as our hypothesis about material effects suggests.

Using logistic regression, we test for the impact of region on support for trade openness and sensitivity to framing effects in Table 6.<sup>40</sup> To assess the direct effect on support for trade opening, we focus on individuals who were not treated with any frame in Model 1.<sup>41</sup> Model 1 presents results from a logistic model on that subsample in which the dependent variable, *TRADE SUPPORT*, is regressed on our two main independent variables: a dummy variable indicating whether the respondent finished high school (*EDUCATION*), and a dummy indicating residence in the import-competing region.<sup>42</sup> Following Hainmueller and Hiscox, we control for respondents' working status with a dummy variable (*EMPLOYED*) that reflects

40. The distribution of covariates is balanced between the treated (framing) and control (no framing) groups (see Appendix 3).

41. The model was estimated for individuals in the control group of our experiment—those who received no introduction to the question on trade—thus the smaller sample size.

42. Results using an ordered dependent variable are substantively identical to those using the dummy variable, and were thus excluded to avoid clutter.

whether they have paid work to assess the impact of education for individuals who are using their skills in the workforce.<sup>43</sup>

TABLE 5. *Sensitivity to framing effects by region*

<i>Frame</i>	<i>Import-competing</i>	<i>Non-import-competing</i>
<i>Pro-trade introduction</i>	70.51% (N = 263)	71.81% (N = 214)
<i>Anti-trade introduction</i>	71.12% (N = 261)	66.11% (N = 197)
<i>Both introductions</i>	70.90% (N = 268)	69.10% (N = 208)
<i>No introduction (Group 4)</i>	76.65% (N = 279)	83.0% (N = 249)

*Note:* Table shows percentage of respondents supporting trade.

As expected, Model 1 confirms that individuals living in import-competing districts are significantly less likely to support trade integration. In terms of marginal effects, the probability of trade support is reduced by six percentage points for individuals in import-competing regions. Model 1 also confirms that more-educated respondents express greater support for trade opening, controlling for working status as in Hiscox. In terms of marginal effects, having completed high school increases support for openness by ten percentage points. Like Hiscox, we also find that women are significantly more protectionist than men. We find no significant effect for respondents' working status.

To explore framing effects, Model 2 analyzes the responses of all four groups (including the three groups exposed to framing vignettes) and introduces an interaction term between "framing" and "import-competing region." The interaction's effect is positive; based on this model in Table 7 we compute predicted probabilities of trade support for individuals in import-competing and non-import-competing regions and compare framing effects for both groups.<sup>44</sup> The overlap in the confidence intervals (first data column) tells us that in import-competing regions framing's effects are not statistically different from 0 for our representative respondent, thereby suggesting stronger prior beliefs and weaker sensitivity to framing effects. This result supports our hypotheses about material effects.

To contrast the impact of education with the material effects captured by region, we assess how individuals with relatively similar education levels react to framing

43. Hainmueller and Hiscox 2006.

44. In particular, these are predicted probabilities for a forty-three-year-old male who completed high school and has paid work.

TABLE 6. *Individual support for trade (logistic regression)*

<i>Dependent variable: TRADE SUPPORT</i>	<i>Model 1</i>	<i>Model 2</i>
EDUCATION	0.663*** (0.211)	0.743*** (0.0941)
IMPORT-COMPETING REGION	-0.431** (0.201)	-0.426** (0.200)
FRAMING		-0.785*** (0.172)
IMPORT-COMPETING REGION × FRAMING		0.468** (0.224)
EMPLOYED	-0.00549 (0.208)	-0.0229 (0.0949)
AGE	0.0150** (0.00613)	0.00707*** (0.00272)
FEMALE	-0.523** (0.217)	-0.243** (0.0957)
<i>Constant</i>	0.981*** (0.375)	1.107*** (0.221)
<i>Observations</i>	656	2,650

*Notes:* Standard errors are in parentheses. Asterisks denote statistical significance at the following levels: \*\*\*  $p < .01$ ; \*\*  $p < .05$ ; \*  $p < .1$ .

TABLE 7. *Probability of trade support by framing and region*

	<i>Import-competing regions</i>	<i>Non-import-competing regions</i>
<i>Framing</i>	0.80 (0.76, 0.83)	0.79 (0.75, 0.83)
<i>No framing</i>	0.84 (0.80, 0.88)	0.89 (0.86, 0.92)
<i>Difference</i>	0.04	0.10

*Notes:* Predicted probabilities are derived from coefficients reported in Table 6. 95% confidence intervals are in parentheses.

effects depending on their region of residence. Thus, we add to the simple models an interaction term between education, framing, and region. Table 8 (Model 1) presents the results from this model.<sup>45</sup>

45. The marginal effects cannot be interpreted directly from the coefficients. Below we present the marginal effects of framing across educational levels and regions.



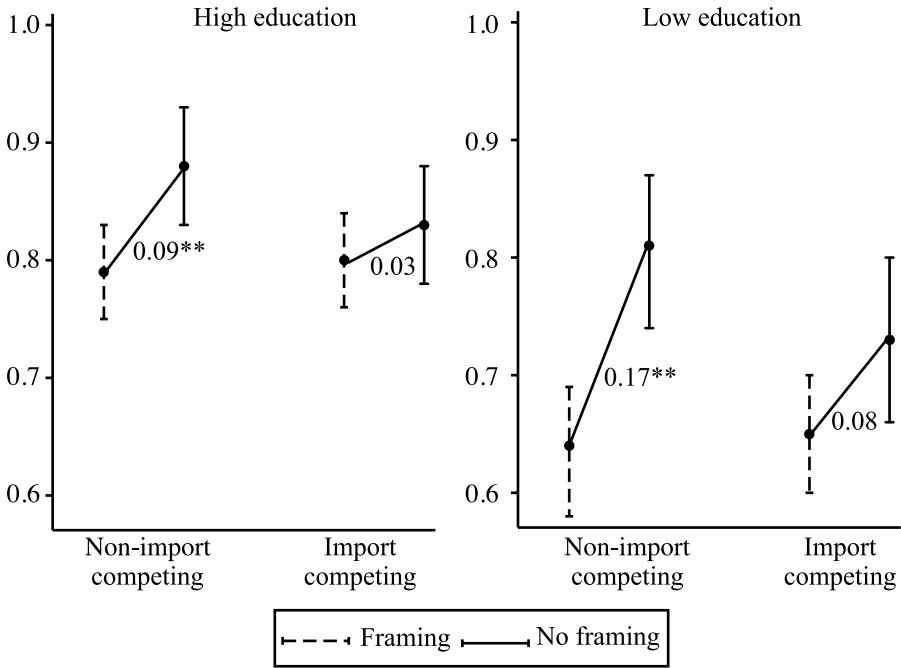
**TABLE 8.** *Impact of region, education, and occupation on individual support for trade (logistic regression)*

<i>Dependent variable: TRADE SUPPORT</i>	<i>Full sample</i>		<i>Services only</i>	
	<i>Model 1</i>	<i>Model 2</i>	<i>Model 3</i>	<i>Model 4</i>
IMPORT-COMPETING REGION	-0.424 (0.264)	-0.445* (0.268)	-0.495* (0.293)	-0.469 (0.304)
EDUCATION	0.591* (0.316)		0.457 (0.356)	
OCCUPATION		0.264 (0.320)		0.450 (0.356)
EDUCATION × IMPORT-COMPETING REGION	0.175 (0.277)		0.0910 (0.308)	
OCCUPATION × IMPORT-COMPETING REGION		-0.144 (0.267)		-0.00305 (0.295)
FRAMING	-0.866*** (0.224)	-0.843*** (0.221)	-0.929*** (0.253)	-0.842*** (0.257)
FRAMING × IMPORT-COMPETING REGION	-0.818*** (0.222)	-0.915*** (0.220)	-0.849*** (0.250)	-0.812*** (0.254)
FRAMING × EDUCATION	-0.0758 (0.234)		-0.235 (0.264)	
FRAMING × OCCUPATION		-0.496** (0.229)		-0.384 (0.259)
FRAMING × EDUCATION × IMPORT-COMPETING REGION	-0.0440 (0.227)		-0.0726 (0.256)	
FRAMING × OCCUPATION × IMPORT-COMPETING REGION		-0.311 (0.222)		-0.159 (0.253)
EMPLOYED	-0.0213 (0.0950)	0.0165 (0.095)	0.00386 (0.105)	-0.0221 (0.106)
AGE	0.007*** (0.002)	0.004* (0.002)	0.00738** (0.00308)	0.00521* (0.00301)
FEMALE	-0.242** (0.095)	-0.190** (0.094)	-0.210** (0.106)	-0.183* (0.105)
<i>Constant</i>	1.165*** (0.254)	1.397*** (0.251)	1.147*** (0.285)	1.218*** (0.283)
<i>Observations</i>	2,650	2632	2,093	2090

*Notes:* Standard errors are in parentheses. Asterisks denote statistical significance at the following levels: \*\*\*  $p < .01$ ; \*\*  $p < .05$ ; \*  $p < .1$ .

To further assess the different interpretations of education as socialization versus skill, we introduce a dummy variable (OCCUPATION) that provides an occupational measure of skill as an alternative to education (Model 2). This dummy variable takes a value of 1 if the occupational score for the household head is above the median of the sample (high skill), and 0 otherwise (low skill). The scoring is explained in Appendix Table A2. The models in Table 8 are therefore run both with education and occupation as a proxy for skill. Although education is significant and occupation is not, the results are robust to the change of education for occupation as a proxy for skills. Given the difficulties in interpreting interactions,

we simulate the predicted probability of trade support for different groups of respondents, while keeping the rest of the variables constant at their means and the binary variables at their modal value. The substantive meaning of our results can thus be interpreted in Figures 1 and 2.



Notes: Predicted probabilities and 95% confidence intervals derived from coefficients reported in Table 8 (Model 1); High education = 1, if education greater than or equal to completed high school. \*\* denotes statistically significant differences (5% alpha level).

**FIGURE 1.** Probability of trade support: Framing effects across education and region

Figure 1 shows that the impact of framing is higher in both regions for the less-educated respondents, whereas support for trade is higher across all education levels in the non-import-competing region. However, Figure 1 also demonstrates that, for individuals with similar education, the difference in the predicted probability is affected by framing to a much larger extent in the non-import-competing region: the difference is nine percentage points and statistically significant whereas in the import-competing region the difference is only three percentage points and not statistically significant. These results confirm our expect-

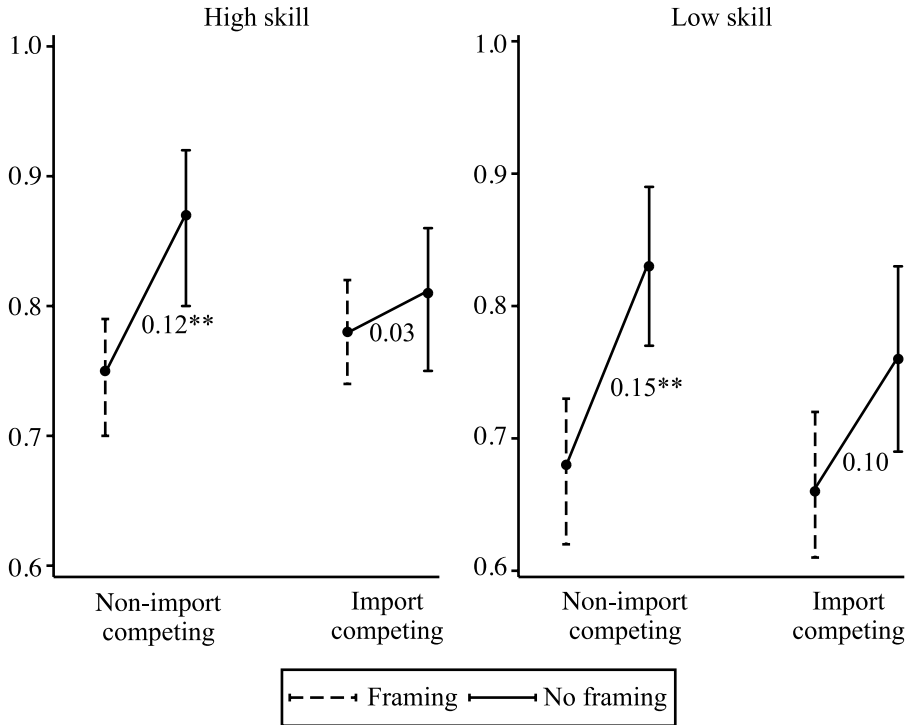
tations that the clearer material effects of trade on individual well-being in the import-competing regions would be associated with stronger prior beliefs, and hence lower framing effects. Although framing effects impact less-educated individuals in both regions, these effects are stronger in non-import-competing regions, where framing produces a difference of seventeen percentage points, as opposed to eight percentage points in the import-competing locations. For educated individuals, we can identify framing effects only in the non-import-competing region where we expected the distributive impact of trade to be less clear. We therefore find stronger empirical support for our interpretation of material effects than for purely socialization effects derived from education. That is, the effect of education on weakening framing effects varies across regions. Moreover, in line with our predictions, education does not seem to mitigate framing effects in the non-import-competing region. This result cannot be explained by socialization. We cannot, however, rule out a mitigating effect of education as reflected by the weaker impact of framing among highly educated respondents in both regions. However, region is significantly associated with differences in the marginal effect of framing whereas education is not.

When we replace education for occupation and simulate the predicted probabilities of trade support for different groups of respondents in Figure 2, we find similar results in the direction and magnitude of effects. Whereas the low-skilled are affected by stronger framing effects than the high-skilled workers in both regions, framing effects are significant in only the non-import-competing region for both the high- and low-skilled respondents. The lack of significant effect among the low skilled in the import-competing region, in particular, gives further support to our hypothesis about material concerns.

To further probe the argument that material incentives are likely to affect the susceptibility to issue framing, we analyze whether the pattern of responses varies between individuals in manufacturing, the comparative disadvantage sector of the Argentine economy, and those employed in the service sector. We would expect that those in manufacturing are less likely to support openness than those in services, and that they are also less likely to be affected by the frame in the survey.<sup>46</sup> The last two columns in Table 8 reproduce Models 1 and 2 for the sample reduced to individuals in the service sector. The results remain robust across subsamples. Table A4 in the appendix includes the simulation of predicted probabilities, showing stronger regional than skill-level differences in sensitivity to framing effects. Moreover, Table 9 compares mean levels of trade support in the manufacturing and service sectors, while controlling for education and skill levels. It shows that differences in education or skill have little

46. The number of individuals directly involved in agricultural production in our survey is only 2.5 percent of the sample, so we cannot systematically analyze their pattern of support for trade. Unfortunately we do not have data that would allow us to classify individuals by industry beyond the broad categories of service and manufacturing.

impact on sensitivity to issue framing among individuals in the manufacturing sector. Yet these differences are substantial in the service sector, where the effect is indirect, especially for those with lower education or skill levels.



Notes: Predicted probabilities and 95% confidence intervals derived from coefficients reported in Table 8 (Model 2); High skill = 1 if occupational score greater than median. \*\* denotes statistically significant differences (5% alpha level).

**FIGURE 2.** Probability of trade support: Framing effects across occupation levels and region

*Summing Up*

We find different framing effects for individuals with different levels of educational attainment in Argentina. These results are identical to those Hiscox found in the US. Yet we also find support for our hypothesis about the impact of material effects on the intensity of preferences and their sensitivity to framing effects. Individuals in import-competing regions are less sensitive to framing effects across educational or skill levels; we also find that framing effects are weaker among individuals employed in manufacturing than among those in the service sector, in

line with our predictions. Our results cast doubt on arguments that suggest that the mitigating effects of education on framing are solely a function of respondents' sophistication and socialization to the issue. Indeed, the effects we find in import-competing regions are more in line with the interpretation of education reflecting skill differentials rather than socialization. Identifying the sources of material concerns is important not only for understanding trade preferences, but also for understanding individuals' incentives to inform themselves and form stronger prior beliefs, and hence affecting their sensitivity to issue framing.

**TABLE 9.** *Framing effects on individual support for trade: Manufacturing versus services*

	Manufacturing			Services		
	Low education	High education	Difference	Low education	High education	Difference
<i>Framing</i>	68.89	69.81	0.92	61.79	76.21	14.42
<i>No framing</i>	76.47	70.00	6.47	74.72	82.38	7.66
<i>Difference</i>	7.58	0.19		12.93**	6.17	

	Low occupation	High occupation	Difference	Low occupation	High occupation	Difference
	<i>Framing</i>	65.33	74.63	9.30	62.35	74.21
<i>No framing</i>	69.23	78.26	9.03	74.90	81.18	6.28
<i>Difference</i>	3.90	3.63		12.55**	6.97	

*Notes:* Table shows percentage supporting trade. \*\* Significant at 95% confidence level (t-tests).

## Conclusion

We bring material interests back into the academic debate on the origin of trade policy preferences and the impact of framing effects in public opinion surveys. Using a survey experiment we find strong evidence that material concerns not only have the potential to shape individuals' trade preferences, but also to affect respondents' sensitivity to framing effects. Our results suggest that, when assessing the role of framing effects on individual preferences over trade policy, it is not enough to look at education and socialization effects. It is also necessary to analyze how the expected distributive effects of trade influences individuals' prior beliefs on the issue and, hence, mitigates the framing effects. Moreover, our results suggest that the positive correlation between education and support for trade—found in

the United States and reproduced in the Argentine case—may in fact capture skill effects associated with the material distributive effects of trade. These findings are in line with the recent literature on trade, which suggests gains for skilled workers not only in countries where they are abundant, as in the United States, but also in countries where they are scarcer, as in Argentina.

Our work underscores the importance of understanding how material concerns affect framing effects by showing that stronger prior beliefs rooted in the distributive consequences of trade can mitigate the expected effects of issue framing. It is thus important to investigate how these different effects shape the impact of framing to better assess the evolution of public opinion and the role of political discourse in framing public policy views. These effects have been ignored in the literature to date, which has focused more narrowly on the mitigating effects of socialization and education.

Our findings, though preliminary, have important implications for political discourse. Politicians have an easier time shifting public views on trade among those citizens for whom the impact of trade is more ambiguous. Moreover, our results could help explain why politicians emphasize different consequences of trade that resonate with their constituents in order to shape the political agenda to their electoral advantage. Indeed, the Argentine presidents Néstor Kirchner and Cristina Fernández de Kirchner explicitly highlight the deleterious price consequence of exporting food staples in justifying both price controls and trade restrictions. These measures should have been popular in the import-competing regions where their core constituencies were located. But both presidents were able to frame these policies to also resonate with residents of the non-import-competing regions, for whom the effects of trade were more ambiguous, especially those in the service sector for which the positive spillovers of trade were indirect.

Our results suggest that, in order to understand political coalitions and the role of political discourse and persuasion on the formation of support of policy choices in democratic polities, it is incumbent upon scholars to blend trade theory with political psychology. In particular, our findings show that material concerns have as much bearing on identifying the strength of support for openness as they do on affecting the formation of prior beliefs that determine how sensitive individuals are to framing effects and thereby to public discourses that are used in the formation of policy coalitions.

## Appendix. Argentine Public Opinion Survey

The public opinion survey was fielded in Argentina in March and April 2007. The subjects are drawn from a stratified random sample of adult population residing in cities of greater than 10,000 (excluding the four scarcely populated provinces in the Patagonia region). The breakdown of the number of subjects in each city and district are shown in Table A1; occupational scores in Table A2; distribution of covariates in Table A3; and robustness checks in Tables A4 and A5.

TABLE A1. Number of survey subjects per city and district

Region	City	District	Cases
Cuyo	Tunuyán	Tunuyán	30
Cuyo	San Martín—La Colonia	Various	20
Cuyo	San Rafael	San Rafael	25
Cuyo	Gran San Luis	La Capital	35
Cuyo	Gran Mendoza	Various	190
Northeast	Saladas	Saladas	25
Northeast	General José de San Martín	Libertador Gral. San Martín	60
Northeast	Goya	Goya	50
Northeast	Gran Posadas	Capital	70
Northeast	Gran Resistencia	San Fernando	95
Northwest	Joaquín V. González	Anta	40
Northwest	Tafí Viejo	Tafí Viejo	50
Northwest	Gran San Fernando	Various	20
	del Valle de Catamarca		
Northwest	Santiago del Estero—La Banda	Various	40
Northwest	Gran Salta	Various	60
Northwest	Gran San Miguel de Tucumán	Various	90
Pampeana	Frontera	Castellanos	40
Pampeana	Sunchales	Castellanos	45
Pampeana	Miramar—El Marquesado	Various	50
Pampeana	Balcarce	Balcarce	30
Pampeana	San Francisco	San Justo	45
Pampeana	Junín	Junín	15
Pampeana	San Nicolás de los Arroyos	San Nicolás	20
Pampeana	Bahía Blanca	Bahía Blanca	40
Pampeana	Gran Santa Fe	Santa Fe Capital	65
Industrial/Metrop.	Gran La Plata	Various	100
Industrial/Metrop.	Gran Rosario	Various	115
Industrial/Metrop.	Gran Córdoba	Various	135
Metropolitan	Ciudad de Buenos Aires	Ciudad de Buenos Aires	275
Metropolitan	Gran Buenos Aires	Various	925
Total			2,800

TABLE A2. Occupational scores

Freelance profession	Scores
Stockers	4
Nonspecialized labor	11
Shopkeeper without personnel	18
Arts/technician/specialized labor	24
Independent professional	30
Other	17
<i>Employer</i>	
Employer 1–5 employees	30
Employer 6–20 employees	36
Employer 21+ employees	40

(continued)

TABLE A2. (Continued)

<i>Freelance profession</i>	<i>Scores</i>
<i>Salaried worker</i>	
Housekeeper	7
Nonskilled worker	9
Skilled worker	17
Technician	23
<i>Employees (no hierarchy)</i>	
Government employees	12
Private-sector employees	17
<i>Midlevel management</i>	
Government sector	19
Private sector	24
<i>General management</i>	
Government sector	26
Private sector	30
<i>High management</i>	
Government sector	28
Private sector	37
Rentier/finance	20

Note: Table measures the skill level of individuals with an occupational dummy variable (OCCUPATION) that takes a value of 1 if the occupational score for the head of household is above the median of the sample (high skill), and 0 otherwise (low skill).

TABLE A3. Distribution of covariates: Treatment and control groups

<i>Covariates</i>	<i>No framing</i>	<i>Framing</i>	<i>Difference</i>	<i>t-value</i>
<i>Import-competing region dummy</i>	0.550 (0.018)	0.554 (0.010)	-0.003 (0.021)	-0.18
<i>High-education dummy</i>	0.503 (0.019)	0.494 (0.010)	0.008 (0.022)	0.39
<i>High-occupation dummy</i>	0.490 (0.019)	0.505 (0.010)	-0.015 (0.022)	-0.68
<i>Employment dummy</i>	0.478 (0.019)	0.441 (0.010)	0.037 (0.021)	1.69
<i>Age</i>	43.88 (0.651)	44.03 (0.372)	-0.143 (.750)	-0.19
<i>Female dummy</i>	0.615 (0.018)	0.628 (0.010)	-0.012 (0.021)	-0.58

Note: Standard errors are in parentheses.



**TABLE A4.** *Probability of trade support in the service sector: Framing effects across education levels and region*

<i>High education, non-import-competing regions</i>	<i>Predicted probability</i>	<i>Low education, non-import-competing regions</i>	<i>Predicted probability</i>
<i>Framing</i>	0.77 (0.72, 0.82)	<i>Framing</i>	0.63 (0.56, 0.73)
<i>No framing</i>	0.87 (0.81, 0.93)	<i>No framing</i>	0.81 (0.74, 0.88)
<i>Difference</i>	0.10	<i>Difference</i>	0.18**

<i>High education, import-competing regions</i>	<i>Predicted probability</i>	<i>Low education, import-competing regions</i>	<i>Predicted probability</i>
<i>Framing</i>	0.80 (0.76, 0.88)	<i>Framing</i>	0.64 (0.59, 0.70)
<i>No framing</i>	0.82 (0.75, 0.84)	<i>No framing</i>	0.72 (0.64, 0.80)
<i>Difference</i>	0.02	<i>Difference</i>	0.08

*Notes:* Predicted probabilities derived from coefficients reported in Table 8 (Model 3); high education = 1 if completed high school; 95% confidence intervals are in parentheses; \*\* denotes statistically significant difference at the 5% confidence level.

**TABLE A5.** *Probability of trade support in the service sector: Framing effects across occupation levels and region*

<i>High skill, non-import-competing regions</i>	<i>Predicted probability</i>	<i>Low skill, non-import-competing regions</i>	<i>Predicted probability</i>
<i>Framing</i>	0.73 (0.68, 0.78)	<i>Framing</i>	0.64 (0.57, 0.70)
<i>No framing</i>	0.86 (0.80, 0.93)	<i>No framing</i>	0.80 (0.73, 0.87)
<i>Difference</i>	0.13**	<i>Difference</i>	0.17**

<i>High skill, import-competing regions</i>	<i>Predicted probability</i>	<i>Low skill, import-competing regions</i>	<i>Predicted probability</i>
<i>Framing</i>	0.77 (0.73, 0.82)	<i>Framing</i>	0.64 (0.58, 0.70)
<i>No framing</i>	0.80 (0.74, 0.86)	<i>No framing</i>	0.72 (0.63, 0.80)
<i>Difference</i>	0.03	<i>Difference</i>	0.08

*Notes:* Predicted probabilities derived from coefficients reported in Table 8 (Model 4); high skill = 1 if occupational score greater than median; 95% confidence intervals are in parentheses; \*\* denotes statistical significance at  $p < .05$ .

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