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Self-Interest, Beliefs, and Policy Opinions:
Understanding How Economic Beliefs Affect Immigration Policy Preferences

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Abstract

Research on how economic factors affect attitudes toward immigration often focuses on labor market effects, concluding that, because workers' skill levels do not predict opposition to low- versus highly skilled immigration, economic self-interest does not shape policy attitudes. We conduct a new survey to measure beliefs about a range of economic, political, and cultural consequences of immigration. When economic self-interest is broadened to include concerns about the fiscal burdens created by immigration, beliefs about these economic effects strongly correlate with immigration attitudes and explain a significant share of the difference in support for highly versus low-skilled immigration. Our results suggest that previous work underestimates the importance of economic self-interest as a source of immigration policy preferences and attitudes more generally.

Keywords: self-interest; immigration; public opinion; political economy; cultural threat

Author's Note: Replication data for this article can be viewed at huber.research.yale.edu.

A large body of research reveals that Americans' attitudes toward increased legal immigration are a function of whether the immigrants in question are highly skilled or low-skilled (Goldstein and Peters 2014; Hainmueller and Hiscox 2007, 2010; Hainmueller and Hopkins 2015; Hainmueller et al. 2015; Iyengar et al. 2013; Malhotra et al. 2013; Sniderman et al. 2004). Across studies, the American public is substantially more supportive of admitting additional highly skilled immigrants than admitting additional low-skilled immigrants. However, the reason for this difference in attitudes is not clear.

In an important recent study, Hainmueller and Hiscox (2010) argue that the strong preference for highly skilled immigrants seen among both low- and highly skilled respondents shows that highly skilled American workers—those whose wages are expected to be most adversely affected by additional highly skilled immigrants—do not act in their economic self-interest. While this conclusion is consistent with their data, we argue that without direct measurement of individuals' perceptions of both the labor market threat and other potential economic consequences posed by these types of immigrants it is premature to rule out economic self-interest as an explanation for observed policy preferences. More specifically, until we know citizens' beliefs about all of the different economic pathways by which expanding highly skilled or low-skilled immigration may affect them, we cannot assess the extent to which immigration policy preferences are related to economic self-interest.

Building on public opinion research that measures economic concerns, this paper presents results from a novel new survey of Americans' beliefs about the consequences of immigration and immigration policy. In a survey experimental design, we measure respondents' policy preferences about admitting highly skilled and low-skilled immigrants, as well as their beliefs about the multiple potential economic consequences of admitting additional immigrants of a

particular skill level—not only labor market effects, but also effects on household tax burdens, access to government services, and the costs of goods and services that households consume. Additionally, we ask a variety of questions about the perceived cultural and social consequences of immigration, which permits an analysis of the relative predictive power of personal economic, sociotropic, and cultural factors. Overall, these new data allow us to understand differences in how Americans perceive immigrants of particular skill levels, as well as how those perceptions correlate with policy attitudes toward admitting specific types of immigrants.

Our analyses reveal several important patterns not previously explored. First, attitudes toward additional immigrants depend on a respondent's own skill level. In accordance with most basic economic accounts (Borjas 2003; Borjas et al. 1996), low-skilled workers perceive a greater threat to their wages and employment from low-skilled than highly skilled immigrants, while highly skilled workers perceive a greater threat from highly skilled immigrants.¹ When measured directly, respondents appear to understand the likely labor market consequences of different types of immigrants.

Second, for all dimensions of economic consequences *apart from the labor market*, Americans believe low-skilled immigrants will be worse for their households than highly skilled immigrants. Once we measure beliefs about the full range of potential economic effects of immigration, the preferences of highly skilled respondents for highly rather than low-skilled immigrants appears consistent with perceived economic self-interest.² Although others have examined economic influences outside of the labor market, this paper is to our knowledge the first to measure citizen perceptions of all of these factors.³ Thus, despite perceiving similarly skilled immigrants as more threatening to their labor market positions, differences across individuals in negative assessments of the *overall* household economic effects of low-skilled

immigration are more strongly correlated with fears about their fiscal burden for both highly and low-skilled respondents.

Third, measures of perceived economic self-interest correlate with attitudes toward immigration policy and, in part, explain differences in support for admitting additional highly or low-skilled immigrants. While our reliance on survey data requires us to exercise caution when describing the relationship between beliefs and policy attitudes as causal, we continue to find that these perceptions explain policy attitudes after accounting for cultural and sociotropic concerns. Overall, although cultural fears and sociotropic economic factors play an important role in explaining immigration attitudes, personal economic concerns are also valuable for understanding variation across both individuals and types of immigrants in support for additional immigration.

This work contributes to the literature about the role of self-interest and symbolic considerations in shaping immigration policy attitudes. Some previous research has concluded that economic self-interest plays little role in explaining mass attitudes toward immigration (Burns and Gimpel 2000; Card et al. 2011; Chandler and Tsai 2001; Citrin et al. 1997; Hainmueller and Hiscox 2007, 2010; Hainmueller and Hopkins 2015; Hainmueller et al. 2015; Iyengar et al. 2013; McClaren and Johnson 2007; but see Malhotra et al 2013), a finding that is adduced as evidence that economic self-interest fails to explain mass attitudes toward public policy more generally (but see Scheve and Slaughter 2001). Our findings suggest that one reason for the apparent small role of self-interest in explaining immigration policy attitudes may be measurement problems. When economic self-interest is not confined to labor market concerns alone, beliefs about economic effects play a larger role in our understanding of citizen attitudes about immigration than previously documented.

Our results also provide guidance for policymakers. In particular, politicians and elites must grapple with the fact that citizens have beliefs not only about the labor market and cultural effects of immigration, but also about its non-labor market economic consequences. Dancygier (2010) highlights the key role of local economic considerations in explaining immigration policy conflict in Europe, and several U.S. studies (e.g., Hopkins 2010; Newman 2013) point to the role of changing local demographics in exacerbating local anti-immigrant concerns. Our work shows that Americans appear to distinguish between low- and highly skilled immigrants in forming their beliefs about these other effects. Additionally, these data may help us understand the reason that changing local conditions have large effects, because the effects of new immigrants on local service use and access to existing services are likely readily visible to many natives.

Finally, and most generally, theoretical models of economic self-interest rest on the critical assumption that agents understand their own respective roles in the economy. However, past studies that assess the efficacy of economic models as they relate to immigration policy attitudes and other domains often rely on proxies of perceived economic self-interest rather than citizens' subjective perceptions of the ways in which policy can affect personal economic concerns. Our argument is that an appropriate measurement of economic self-interest must assess citizens' *beliefs* about their personal economic situations across the multiple dimensions in which policy can affect economic wellbeing. In other policy domains, where efforts are made to distinguish economic self-interest from other explanations for policy preferences, a key task is therefore to measure beliefs about the myriad ways that policy can shape self-interest. That is, scholars must measure beliefs about how the mechanisms they propose are affected by interventions in order to properly evaluate those models.

Economic Self-Interest and Immigration Policy Attitudes

We seek to understand how Americans' views about immigration policy are shaped by their understandings of the personal economic effects of admitting additional immigrants. Prior research suggests four pathways by which immigration can affect personal economic conditions that likely vary depending both on the type of immigrant in question—highly or low-skilled—and the skill level of the respondent. We briefly review those arguments and show that despite this rich theoretical literature, no prior work directly measures citizens' *beliefs* about these different economic effects or examines how heterogeneity in citizen and immigrant skill levels relates to these perceptions.⁴

First, immigration may affect labor market prospects. In the most straightforward economic account, the factor proportions model with a closed economy (Borjas 2003; Borjas et al. 1996), citizens face greater labor market threat from similarly skilled immigrants. These immigrants increase the supply of available workers at that skill level, resulting in lower wages and greater unemployment for current workers. Immigrants of a different skill level, by contrast, should either have no effect on the worker or actually increase the relative demand for her labor, thereby improving her economic prospects. These predictions yield mixed empirical support and are sensitive to assumptions about the nature of the economy (Leamer and Levinsohn 1995; Orrenius and Zavodny 2007).

Second, immigration may increase tax burdens. Although the empirical research is ambiguous (Fix et al. 1994; Smith and Edmonston 1997), some respondents might reason that low-skilled immigrants are a greater financial burden than highly skilled immigrants because the former are expected to pay less in taxes, especially at the state and local levels (Hanson et al. 2007; Smith and Edmonston 1997), and/or consume more in government services. Assuming the government maintains a constant level of per capita service and redistribution, the cost of serving

additional immigrants is likely to lead to higher taxes. If taxes are progressive, this increased fiscal burden will fall more heavily on the wealthy, who tend to be highly skilled. However, if the taxes in question are local, residential sorting by class may mean the burden instead falls on lower income individuals.

Third, immigration may affect access to existing government services through crowding (Dancygier 2010; Facchini and Mayda 2009; Hanson et al. 2007). This occurs if immigrants consume government services whose funding is not increased sufficiently to accommodate growing use. Crowding may take place, for example, in local schools and access to basic social services, which low-skilled immigrants likely consume at higher rates than highly skilled immigrants (who can also likely support, through their taxes, expansion of those services; Facchini and Mayda 2009). If the crowding is focused on services that low-income citizens use, concerns about crowding should be greatest for low-skilled citizens.

Finally, immigration may affect the costs of goods and services that households consume by altering labor costs. Assuming that immigration reduces the costs of certain goods, whether those reductions improve overall household purchasing power depends on whether the goods are consumed by a household as well as whether the cost savings are offset by an increase in prices due to increased demand for goods that immigrants consume. Empirically, it appears that low-skilled immigration improves the net purchasing power of high-income citizens, but decreases it for low-income citizens (Cortes 2008). To the extent that income levels track skill levels, low-skilled citizens encounter greater potential negative price consequences from low-skilled immigration than do highly skilled citizens. The effect on prices of highly skilled immigration is less clear.

Previous work has sought to estimate the effects of these different factors on immigration attitudes using contextual measures such as unemployment rates, state fiscal burdens, welfare expenditures, or exposure to costs related to immigration⁵ (e.g., Hainmueller and Hiscox 2010; Hanson et al. 2007; Tingley 2013). Although this measurement strategy generates important insights, the use of objective economic indicators to explain variation in citizens' *beliefs* about the effects of immigration policy on their economic standing requires the untested assumption that those beliefs align with indicators of their tax burden, access to government services, and the costs of goods and services. Another concern is measurement error, which may arise if the proxy measures do not capture important differences across individuals and localities in exposure to these economic effects. In light of these concerns, we suggest it is desirable to instead measure perceptions directly.⁶

Prior research on the economic determinants of immigration attitudes is summarized in Table 1. Three important limitations of this literature are especially prominent. First, column (A) shows that, despite the large body of work detailing how immigration might affect the economic wellbeing of citizens of different skill levels, previous research rarely asks respondents about their perceptions of these consequences, and no studies measure individuals' beliefs about all four of the ways we elaborate for how immigration may affect personal economic standing. Instead, many studies only ask about general policy attitudes or effects for the entire nation. Sniderman et al. (2004) do distinguish personal economic effects from sociotropic effects, but they measure total economic threat to a respondent with a single item. Second, column (B) reveals that only four studies directly ask about respondents' relative policy preferences for both highly and low-skilled immigrants, and none also include measures of the anticipated cultural and sociotropic economic effects of admitting each type of immigrant (see column (C)). Third, as

noted in column (D), no studies measure respondents' assessments of their own labor market skill levels. Instead, prior work relies on indirect measurement, including education, income, the industry of employment or occupation, or ease of finding employment.

[Table 1 Here]

These omissions may explain why prior work (Hainmueller and Hiscox 2007, 2010; Hainmueller et al. 2015; Iyengar et al. 2013) generally concludes that citizens do not respond to different types of immigrants in a manner consistent with their economic self-interest (but see Malhotra et al. 2013). These analyses focus on the assumption that greater labor market threat from similarly skilled immigrants should explain variation in attitudes across citizen and immigrant types toward changes in immigration policy. But why, in light of economic theory, do highly skilled individuals express greater opposition to low-skilled immigrants? There are at least three possibilities.

First, economic self-interest could play little role in immigration attitudes (the conclusion reached in prior work). Second, citizens might be acting in their perceived self-interest, but could have different beliefs about the labor market consequences of immigration than those implied by economic theory. Third, citizens could care a great deal about the economic effects for their households, but focus on economic consequences other than labor market effects. Given the designs of the previous studies highlighted in Table 1, however, we cannot adjudicate among these explanations with currently available evidence. In particular, it is impossible to reject self-interest as an explanation for immigration policy attitudes, or more generally to distinguish among the various theoretical alternatives noted earlier.

Non-Economic Sources of Immigration Attitudes

Our discussion thus far has focused on the ways that immigration can affect individuals' economic well-being, both objectively and as subjectively perceived. Economic factors alone, however, do not explain attitudes toward immigration. For example, various results from the literature indicate that measures of prejudice (Stephan et al. 1999) and views about national identity (Sniderman et al. 2004) predict anti-immigrant attitudes, that cultural cues can strengthen anti-immigrant attitudes (Brader et al. 2008; Valentino et al. 2013), and that experimental manipulations that decrease the likelihood of a particular immigrant fitting in can further depress support (see Hainmueller and Hopkins 2014 for an extensive review of the effects of cultural concerns on immigration attitudes).

This research raises the concern that perceptions of *economic* threat might be affected by the perceived *cultural* threat of different types of immigrants. In light of this possibility, the survey we designed seeks to directly measure the perceived cultural and symbolic threats of both highly and low-skilled immigrants. While we cannot rule out the possibility that cultural threat affects measured personal economic threat, this allows us to test whether any observed correlations between perceived personal economic effects and immigration policy attitudes are affected by including measures of cultural concerns.

Data

To address the limitations of previous research examining American attitudes toward highly and low-skilled immigrants, we undertook a survey of Americans' attitudes toward immigration policy. Three key features distinguish this survey from prior work. First, this is the only survey of which we are aware that measures economic beliefs about the four different personal

economic consequences of immigrants discussed above, allowing for a richer understanding of the contours of citizen beliefs about those consequences. To help distinguish personal economic concerns from other factors in explaining policy attitudes, we also measure citizens' beliefs about the sociotropic effects and non-economic (cultural) consequences of admitting immigrants. Second, we measure these beliefs and overall immigration policy preferences for different types of immigrants, so as to directly assess how citizens understand their personal economic wellbeing will be affected by immigrants with different skill levels. Finally, we measure respondents' assessments of their own skill levels with the same language used to determine their policy opinions about different types of immigrants.

Our survey was fielded by YouGov/Polimetrix from September 7-16, 2013. Our final dataset includes 2000 completed surveys. All analyses use analytic weights.⁷

Survey design details and exact wording of all questions appear in the Supplemental Appendix. In brief, after assessing their own labor market skill levels, approximately 70% of respondents received a three-question battery asking their support for increasing the number of immigrants allowed to enter the United States in general and for both "highly skilled" and "low-skilled" immigrants (the remaining 30% were asked these questions at the end of the survey).^{8,9} Following a set of questions not related to immigration, respondents were randomly assigned to an identical battery of questions about the consequences of general immigration (10%), highly skilled immigration (45%), or low-skilled immigration (45%). These questions asked respondents to assess the effects of admitting additional immigrants of the randomly assigned type for their households' economic standing, as well as the consequences to American culture and the economy as a whole. These questions serve as the basis for the analyses.¹⁰

Attitudes about the Personal Economic Effects of Admitting Immigrants

What do citizens think are the economic consequences of admitting additional immigrants, and do those attitudes differ depending on those immigrants' skill levels? Here we discuss how citizens believe that immigration will affect four dimensions of household economic wellbeing: labor market competition, taxes (fiscal burden), access to existing government services (crowding), and the costs of goods and services. We present data on attitudes about these economic effects from admitting additional highly and low-skilled immigrants.¹¹ Our analysis proceeds in three stages. We first examine the average respondent's evaluation of different types of immigrants and correlate their views about the different dimensions of economic effects with overall assessments of economic outcomes.¹² This analysis reveals that beliefs about the effects of immigration on taxes, service availability, and the costs of goods and services households consume drive economic fears about low-skilled immigrants. In stage 2, we repeat this process, partitioning the analyses by respondent skill level, and find that citizens do perceive greater labor market competition from similarly skilled immigrants. For highly skilled respondents, these labor market concerns, to a degree, offset the other sources of negative views about the effects of low-skilled immigrants. Finally, in stage 3 we assess the relative importance of personal economic circumstances vis-à-vis sociotropic and cultural concerns in understanding evaluations of immigrants of different skill levels.

Stage 1: Average evaluations of immigrants by immigrant skill level

We begin by plotting in Figure 1 beliefs about each of the four dimensions of economic effects and overall household economic consequences. In each case, respondents chose from five response options, which we rescale to range linearly from 0 (the most positive consequences) to 1 (the most negative).¹³ Each pair of bars presents average assessments of the likelihood that

each outcome would occur after admitting additional highly skilled (dark grey bars) or low-skilled (light grey bars) immigrants, while the capped vertical lines represent 95% confidence intervals. Because .5 indicates a neutral response, responses with confidence intervals that do not overlap .5 indicate statistically significant net agreement ($p < .05$).¹⁴ Above each pair of bars is the p-value for a test of whether the average response for those in the highly skilled immigrant condition is different from those in the low-skilled condition. To guard against the possibility that individuals in the labor market respond differently than those who are not, we restrict analysis for the wage/job loss item to the subsample of those in a household in the labor market (i.e., with either the respondent or his or her spouse/partner working or looking for work), which we denote the *labor market subsample*.

[Figure 1 Here]

The leftmost pair of bars reveals that, on average, respondents believe that admitting additional immigrants, whether highly or low-skilled, increases the chances that someone in their household will experience job or wage loss. Both estimates are statistically distinguishable from the neutral response but not each other ($p = .47$). In contrast, while citizens on average believe that both types of immigrants will result in higher taxes, reduce access to government programs, and increase the costs of goods and services, respondents perceive greater personal economic threat from low-skilled immigrants for each of these economic dimensions (all $p < .01$). As such, it is not surprising that overall assessments of the household economic effects of additional highly skilled *and* low-skilled immigrants (the rightmost pair of bars) are negative, but substantially more so for admitting low-skilled immigrants ($p < .001$). Thus, despite general pessimism about the economic effects of additional immigrants for their own households, regardless of those

immigrants' skill levels, the labor market is the one area where respondents report fears that are, on average, not greater for low- rather than highly skilled immigrants.

Given the patterns in Figure 1, our next question is which of the four separate channels of economic influence are most important in shaping overall assessments of the personal economic consequences of immigration. One informal way to assess this is to predict the summary measure of economic consequences using the four dimensions individually. We present this model in Table 2. Formally, we use ordinary least squares (OLS) regression to estimate the following specification:

Overall Economic Consequence of Immigrant Type $T = B_0 + B_1 \times \text{Labor Market Effects of } T + B_2 \times \text{Tax Effects of } T + B_3 \times \text{Crowding Effects of } T + B_4 \times \text{Cost Effects of } T + \gamma \times C + e$, where C is a vector of demographic and individual-level covariates. We estimate separate models for respondents randomly assigned to be asked about the four economic dimensions for either highly or low-skilled immigrants.

To ensure that labor market concerns are a reasonable consideration, the analyses in Table 2 are limited to the labor market subsample.¹⁵ In column (1), where the outcome variable is overall assessments about the effects of admitting highly skilled immigrants, the regression assigns similar weight (estimates of .262 and .249, respectively) to attitudes about the labor market and tax consequences. Attitudes about access to existing government services and the costs of goods and services are far less meaningful, statistically or substantively. Repeating this analysis in column (2) using standardized measures (so that the attitudinal measures have mean 0 and standard deviation 1) to address differences in the variances of distinct items, we find similar results (the estimate for tax consequences is similar, but for the labor market measure it increases by about 27%). With respect to low-skilled immigrants, parallel results in columns (3) and (4)

reveal that the strongest predictor of the summary measure of economic effects is beliefs about tax consequences. Each unit change in tax attitudes is associated with slightly less than a half-unit move in the overall economic effects evaluation, all else equal. By contrast, the next largest coefficient estimate, for labor market competition, is approximately 70% smaller (column (4)).

[Table 2 Here]

It appears therefore that greater aggregate opposition to low-skilled than highly skilled immigrants does not arise due to large average differences in perceptions of the labor market consequences for these different types of immigrants. Instead (as illustrated in Figure 1), economic attitudes diverge most sharply on beliefs about the other economic consequences of immigrants not often assessed: taxes, services, and household costs. The effects on overall economic assessments of fiscal concerns are very large for attitudes about low-skilled immigrants, and more than one-and-a-half times what is estimated for highly skilled immigrants. Perceptions about labor market competition, by contrast, have over twice the estimated effect for attitudes about highly skilled than low-skilled immigrants, but the absolute size of the effect is more modest.

Stage 2: Do Highly Skilled and Low-Skilled Workers Anticipate Different Economic Effects?

Our preceding analysis examines *average* differences in respondents' attitudes toward low- and highly skilled immigrants. But existing theory suggests that the labor market effects of immigration may vary for different types of workers. Therefore, we next take advantage of the fact that each respondent was asked to assess his or her own labor market skill level to test systematically whether highly and low-skilled respondents anticipate different economic effects by type of immigrant. In Figure 2 we repeat the data presentation from Figure 1, except that we now divide the sample by respondents' self-assessed skill levels. Panel A shows the responses of

highly skilled citizens, while panel B focuses on low-skilled citizens.¹⁶ Several interesting and important patterns emerge.

[Figures 2 Here]

First, comparing the first pair of columns across panels A and B of Figure 2 suggests that low-skilled respondents perceive more labor market threat than highly skilled respondents from both types of immigration. The average labor market threat from a highly skilled immigrant is .62 for low-skilled respondents but only .56 for highly skilled respondents ($p < .05$). Similarly, with respect to low-skilled immigrants, self-assessed low-skilled respondents have an average labor market threat score of .64, compared to only about .52 for highly skilled respondents ($p < .001$). Thus, at least on average, the higher levels of perceived labor market threat from both types of immigrants suggests that labor market worries are potentially a greater source of opposition to immigration for low- than for highly skilled citizens.¹⁷

Second, and consistent with the predictions of the factor proportions model, *both low- and highly skilled workers appear to perceive greater labor market competition from immigrants of the same skill level*. Focusing first on highly-skilled workers (panel A), the average labor market threat from highly skilled immigrants is .56 but only .52 from low-skilled immigrants ($p < .1$). By contrast, for low-skilled respondents (panel B) the labor market threat is .64 from low-skilled immigrants and .62 from highly skilled immigrants ($p = .28$). The magnitudes of these differences are not large (.04 and .02, respectively), but they are consistent with prior economic models.¹⁸ Additionally, these differences are larger when we restrict our attention to single-worker households (out of concern that partners/spouses may have different skill levels than the survey respondents themselves).¹⁹

Third, for outcomes other than labor market competition, both highly and low-skilled workers perceive low-skilled immigrants as being a greater economic burden. The clearest differences are for taxes, where both groups perceive low-skilled immigrants as being more likely to increase their taxes (by about .08 units, both $p < .001$). We see the same pattern for access to government services ($p < .05$), the costs of goods and services ($p = .17$), and the overall summary measure ($p < .05$).

Fourth, predictions about differences in the economic effects of immigration on citizens of different skill levels receive mixed support. Comparing across respondent skill levels, highly skilled (high-income) individuals are not more concerned about the tax burden posed by low-skilled immigration ($p = .41$), nor do they perceive greater benefits in the form of reduced costs of goods and services caused by low-skilled immigration ($p = .53$). There is some evidence, however, that low-skilled respondents are more concerned about the crowding effects of low-skilled immigrants; the average crowding threat score is .66 for low-skilled respondents but only .63 for highly skilled respondents ($p = .11$). Low-skilled respondents also report greater overall economic concerns regarding both types of immigrants than their highly skilled counterparts ($p < .01$ across the two skill-level conditions).

Given this pattern of variation in the assessments of the likely labor market, tax, crowding, and service cost effects of immigration across respondent and immigrant skill levels, an important remaining question is how beliefs about these different economic effects correlate with overall assessments of the personal economic consequences of immigration. To answer this question, we continue our earlier examination of how well the component measures of economic effects explain beliefs about overall economic effects for the labor market subsample, but estimate separate models depending on respondents' self-assessed skill levels. These analyses

appear in columns (5)-(8) of Table 2. In column (5), we find that as with the overall population (column (1)), highly skilled respondents' summary economic assessments of the effects of increased highly skilled immigration are most correlated with their beliefs about labor market threat and tax consequences (with a one-unit change in these attitudes corresponding to a .22- ($p < .001$) and .25-unit ($p < .01$) change in evaluations, respectively, all else constant). When the immigrants in question are low-skilled (column (6)), however, highly skilled respondents' overall economic views are correlated only with beliefs about tax consequences.

We perform parallel analyses for self-assessed low-skilled respondents in columns (7) and (8). For these respondents, the only factor correlated with overall economic views of highly skilled immigrants is beliefs about their labor market effects ($p < .001$), with a one-unit change in this concern altering evaluations by about a third of a unit (see column (7)), all else constant. By contrast, among respondents asked about low-skilled immigration (column (8)), one-unit shifts in fiscal burden concerns, labor market concerns, and beliefs about crowding in access to government services are associated with .41- ($p < .001$), .25- ($p < .001$), and .16-unit ($p < .01$) movements in low-skilled respondents' overall economic assessments, respectively.²⁰

*Thus, for both highly skilled and low-skilled respondents, beliefs about the economic consequences of immigration are predicted much more strongly by their concerns about the fiscal burden of low-skilled than highly skilled immigrants. We also find evidence that highly skilled workers give greater weight to labor market concerns in assessing the personal economic effects of admitting highly skilled (as opposed to low-skilled) immigrants. In contrast, however, the correlation for low-skilled respondents between their labor market concerns and the overall economic outcome measure is similar across immigrant types (the estimate is larger in the highly skilled condition but statistically indistinguishable from that in the low-skilled condition).*²¹

Stage 3: Do Beliefs about Personal Economic Effects Explain Immigration Policy Attitudes?

We have found that survey respondents hold distinct views about the economic effects of highly skilled and low-skilled immigrants for their households' economic wellbeing. Further, these concerns appear to vary with respondents' labor market skill levels and predict overall expectations about the economic effects of immigration on respondents' households. But are these personal economic concerns important predictors of immigration attitudes? How do the effects of personal economics compare to the effects of sociotropic economic evaluations and cultural concerns about immigration?

We attempt to provide (preliminary) answers to these questions in Table 3.²² Approximately 90% of respondents were asked their opinions about the economic consequences of their assigned type of immigration (highly or low-skilled) for the nation as a whole (sociotropic assessments). The question's 5-point response scale is coded to range from 0 to 1, with higher values indicating more negative assessments. These same respondents reported their views about six anticipated cultural effects of immigration, namely, whether immigrants of their assigned type would (1) arrive able to speak English, (2) obey the law, (3) support American values, (4) want to become part of American culture, (5) raise their children with American values, and (6) be easy for Americans to get along with. Using responses to these questions, we constructed a factor score to gauge cultural threat concerns, with higher values pertaining to greater cultural threat (rescaled to range from 0 to 1). The components load well onto a single factor and generate only one factor with an eigenvalue greater than one (3.95). Factor loadings range from 0.74 to 0.86.²³ To compare the predictive value of a respondent's self-assessed personal economic concerns, sociotropic economic concerns, and cultural concerns in explaining

opposition to immigration, we estimate a regression model using OLS. Our baseline regression takes the following form:

$$\begin{aligned} \text{Overall Opposition to Immigrant Type } T = & B_0 + B_1 \times \text{Household Economic Effects of } T + \\ & B_2 \times \text{Sociotropic Economic Effects of } T + B_3 \times \text{Cultural Threat Index} + B_4 \times \text{Survey} \\ & \text{Question Placement} + \gamma \times C + e, \end{aligned}$$

where C is a vector of demographic and individual-level covariates. The binary indicator, Survey Question Placement, identifies the approximately 30% of respondents asked the immigration policy attitude question at the end of the survey. This allows average survey responses to vary with respect to question placement.²⁴

Initially, we focus on opposition to admitting additional highly skilled immigrants. The column (1) specification includes only the measure of overall household economic effects (expected economic self-interest), the indicator for whether the respondent provided her opinion at the end of the survey, and demographic controls. The coefficient estimate for household economic effects is .77 and significant at $p < .001$.²⁵ In column (2), we include the sociotropic economic indicator and cultural threat index and find that the coefficient estimate for personal economic effects is reduced but not eliminated. Thus, individual-level variation in expected personal economic effects continues to be strongly correlated with variation in individual-level opposition to highly skilled immigration. Sociotropic and cultural concerns are also important predictors of opposition to immigration (all $p < .01$).

[Table 3 Here]

One concern with the column (2) specification is that variation across individuals in immigration policy attitudes and expected economic effects may not relate specifically to opposition to highly skilled immigration, but instead from general opposition to immigration. That is, the relationship between personal economic standing and policy attitudes may be

spurious if general opposition to immigration for non-economic reasons (e.g., ethnoculturalism or ingroup bias) produces both a hostile response when asked for an economic assessment as well as opposition to additional immigration. Although we previously demonstrated that citizens appear to hold distinct views about the economic effects of these two types of immigrants, we can also estimate a model in which we add an additional variable that captures a general negative attitude toward new immigrants: opposition to admitting the other type of immigrant. Thus, in column (3), we include in the regression model respondents' stated opposition to admitting low-skilled immigrants.

Including this measure attenuates the effects of the personal economic, sociotropic economic, and cultural concerns. Nonetheless, assessments of personal economic effects remain a statistically and substantively important source of policy attitudes, with a one-unit change in this evaluation shifting overall immigration support by .09 units ($p=.11$), all else equal. This is even more striking given that 60% of the sample has the same policy views toward highly and low-skilled immigrants. For individual respondents, perceptions of personal economic effects therefore explain differences in policy preferences for different types of immigrants.

In columns (4)-(6), we present parallel specifications predicting opposition to low-skilled immigration for those assigned to that treatment condition. The pattern of results is highly similar to that in columns (1)-(3): Personal economic concerns remain an important predictor of policy attitudes when we account for sociotropic economic and cultural measures, as well as for policy preferences toward highly skilled immigrants.²⁶ After controlling for these factors, increasing one's assessment that low-skilled immigration will hurt overall household finances from its lowest to highest possible value is associated with a .24-unit increase in opposition to

admitting more of these types of immigrants into the country ($p < .001$). Economic self-interest, therefore, appears to be an important source of variation in immigration policy attitudes.

A final question is thus how well differences in understandings about personal economic, sociotropic, and cultural effects explain the relatively greater opposition to low-skilled immigration in the general population. In column (7), we pool the earlier samples and compare average opposition to highly skilled versus low-skilled immigrants. On average, opposition is .14 units higher toward low- than highly skilled immigrants, conditioning on the other included controls. How well is that difference accounted for by individual-level variation in assessments of the three measures of personal and social effects that we examine? In the column (8) specification, where we include those variables, the estimate is reduced to about .05, approximately 67% smaller than in the column (7) specification. Overall, this suggests that a simple answer to why Americans have different policy preferences about admitting highly versus low-skilled immigrants is that they have distinct beliefs about how these different types of immigrants will affect their households, the economy of the country as a whole, and the nation's social fabric. Each of these factors, including economic self-interest, appears to be an important source of variation in policy attitudes.

Discussion and Conclusion

What explains variation in how Americans react to the prospects of additional highly or low-skilled immigrants? Prior work on immigrant skill levels, which generally finds that both highly and low-skilled citizens show a strong preference for highly skilled immigrants, is often interpreted as the result of highly skilled citizens' indifference to the economic implications of immigration for their households. Our research calls this conclusion into question. Whereas previous work has largely overlooked channels other than the labor market through which immigration might affect perceived economic interests or substituted

contextual measurements of these factors, we measure citizen perceptions of an extensive set of economic effects. We find that for highly skilled respondents, the perceived overall economic consequences of immigration are affected by both labor market consequences and concern about additional taxes, with support for, or opposition to, additional low-skilled immigration strongly predicted by beliefs about the fiscal burdens that new immigrants might impose.²⁷ Thus, when considering respondents' overall beliefs regarding the net effect of immigration on household economic welfare, economic self-interest is a substantively important predictor of attitudes toward immigration across individuals and different types of immigrants.

We estimated the conditional effects of economic and other concerns using regression analysis on cross-sectional data, obtaining partial correlations between these concerns and immigration policy attitudes. Thus, if all else equal there is a large difference in an attitude regarding immigration policy between those who are concerned about the fiscal burden of new immigrants and those who are not, regression analysis would produce a large coefficient estimate for an item tapping this attitude. If the observed difference in immigration attitudes across these two groups was caused by the difference in respondents' conclusions regarding fiscal burden, then the regression estimate is a causal effect of beliefs about the fiscal burden of immigration. However, there are several threats to validity.

First, we provide no model to explain variation in respondents' beliefs. If variation on a particular item is correlated with an omitted factor that also affects policy attitudes, the estimated effect of the measured item will be biased. Second, if variation in the measured item is itself caused by variation in policy attitudes, then the item's estimated effect will be biased as well. We address this concern by controlling for several theoretical arguments for how immigration might affect the economy and society, as well as attitudes toward immigration of the other skill type, which proxy for general attitudes toward immigration. Third, subjects may not hold actual

opinions on the distinct economic consequences about which we asked, but may instead provide responses that rationalize their broader attitudes toward immigration or immigrants of a certain type. That our findings persist when we examine only those whose immigration attitudes were measured after we assessed expectations about specific economic consequences (see footnote 10) provides some evidence that particular attitudes were not provided merely to justify already expressed policy attitudes. We acknowledge, however, that as with all observational survey analysis, we cannot rule out this possibility.

The inherent limitations in demonstrating causal relationships in this context suggest one direction for future research. In particular, one could examine whether immigration policy attitudes respond to exogenous changes in economic (or other) beliefs about the consequences of immigration (e.g., Goldstein and Peters 2014). Another approach might involve survey experiments that alter subject beliefs through framing or information provision to test whether altered beliefs are associated with changes in immigration policy attitudes. We note, however, that prior research has not tested, but rather assumed, how manipulation of immigrant characteristics affects beliefs.

These concerns aside, our work advances the existing literature by expanding the conceptualization of perceived economic self-interest beyond labor market effects to include citizens' beliefs of the fiscal burden of increased numbers of immigrants, crowding in access to existing government services, and the costs of goods and services (which we directly measured). In so doing, we find that the dismissal of perceived economic self-interest as an important predictor of immigration policy attitudes has been premature because previous researchers have not actually measured citizens' beliefs and have missed the relevant economic concerns held by the American public about the admission of more immigrants. In measuring beliefs, we have

taken an empirical strategy that adheres more closely to the underlying theoretical economic models considered in the literature. We leave to future work the identification of the factors that influence belief formation. One potential approach is to exploit differences in local-level immigration patterns (assuming local experiences are key information sources), though this would require accounting for unobserved factors that may simultaneously explain exposure to different immigrant populations and attitudes toward immigrants.

Outside of immigration policy, we demonstrate the key role of measuring beliefs in order to properly understand the contours of public opinion. These beliefs are the key intermediary between models of economic (or other) effects and policy attitudes, making it essential that scholars identify and measure the multiple pathways by which policy choices can affect beliefs about salient outcomes. As social scientists increasingly turn toward experimentation to evaluate theoretical predictions, we must remember that experimental interventions may work through multiple pathways, and it is only by properly measuring intermediate beliefs that we can fully understand the key dynamics of individual attitudes.

¹ As described below, we rely on self-assessed labor market skill level, as opposed to prior work that uses indirect proxies (e.g., education).

² Previous studies examine the effects of these non-labor market factors on immigration policy attitudes by using contextual measures (e.g., state fiscal burdens, unemployment rates) or survey-based assessments of the consequences for the entire nation (e.g., Hainmueller and Hiscox 2010; Hanson et al. 2007; Tingley 2013).

³ Sniderman et al. (2004) examine perceived personal economic concerns as a whole but do not investigate each dimension individually. Outside the area of legal immigration, Citrin et al. (1990) and Espenshade and Calhoun (1993) examine perceptions of multiple economic effects of the changing demographic composition of California and illegal migrants, respectively.

⁴ We emphasize that what matters is whether citizens perceive these economic effects, not whether their estimates are accurate.

⁵ Outside the U.S., similar measures are differences in GDP per capita, Gini coefficients, sector-level inflows of immigrants, tax rates, and fiscal transfers (Citrin and Sides 2008; Dancygier and Donnelly 2013; Helbling and Kriesi 2014; Hooghe and Marks 2004; Mayda 2006; O'Rourke and Sinnott 2006; Sides and Citrin 2007).

⁶ As we note in footnote 3, prior work considers perceptions of the multiple economic effects of illegal immigration or changing ethnic compositions, but none that we are aware of focuses on legal immigration or the distinction between highly and low-skilled legal immigrants.

⁷ Sample construction is described in the Supplemental Appendix. 8,198 individuals were invited to take the survey, 3,428 started it, and 2,789 completed it. AAPOR response rate 5 is 34.0% and response rate 6 is 41.8% (American Association for Public Opinion Research 2011).

⁸ There are no substantive differences across subsequent survey items between those asked their opinions at the beginning and the end (we discuss this finding below and in the Supplemental Appendix).

⁹ One potential concern is whether respondents interpret the qualifiers “highly skilled” and “low-skilled” as proxies for immigrants from a specific country or region, or if they carry some other unanticipated connotation. Previous investigations (e.g., Hainmueller and Hiscox 2010) have not attempted to control for this possibility, but results in Table H1 of the Supplemental Appendix show that the treatments do appear to prime considerations other than the immigrants’ skill levels (namely, cultural considerations). To mitigate this effect on economic evaluations, we control for the cultural perceptions simultaneously manipulated based on the assigned skill level. We leave for future work the development of treatments that solely manipulate considerations about skill levels.

¹⁰ One might be concerned that having respondents assess how increasing immigration affects different dimensions of economic self-interest primes them to offer assessments consistent with their previously solicited policy attitudes but that do not independently affect their policy preferences. To this we have three responses. First, asking people to think about these consequences reflects contemporary public discourse about immigration reform to which citizens are regularly exposed. Second, if these questions prompt concerns about the types of economic threat posed by immigration more generally, then respondent evaluations of these threats should be similar for highly skilled and low-skilled immigration. This is not the case, however, as we show below. Third, we show in the Supplemental Appendix that results are similar if we restrict our analysis to those asked their policy attitudes after the measures of perceived economic effects.

¹¹ As previously discussed, other studies estimate these effects from responses to questions tapping sociotropic concerns. Crucially, we instead rely on beliefs about how these factors affect economic self-interest. At a later point in the survey, we asked about the consequences of increased immigration of a specific skill type for respondents' communities and the nation as a whole, regardless of personal or household effects. Although the anticipated effects of increased immigration on changes in personal and sociotropic tax burdens are highly correlated (.7 to .8), the other potential economic consequences exhibit lower levels of correlation (between .4 and .6). As such, these evaluations are certainly correlated, but not interchangeable.

¹² We replicate previous research that uses objective measures of skill level rather than perceptions to measure economic self-interest, and provide discussion, in the Supplemental Appendix.

¹³ Question wording and survey marginals appear in the Supplemental Appendix. We exclude respondents who answer less than four of the five questions reported in Figure 1 and replace remaining missing values with scale midpoints (i.e., neutral responses). Item nonresponse rates across treatment groups are statistically indistinguishable.

¹⁴ All p-values are two-tailed.

¹⁵ Summary statistics appear in the Supplemental Appendix. Performing the analyses in columns (1)-(4) for the entire sample (i.e., not only those in the labor market) yields a modestly smaller correlation between labor market concerns and overall household economic effects with respect to highly skilled immigrants, but the remainder of the statistically significant estimates for perceptions about immigration vary only slightly (see the Supplemental Appendix).

¹⁶ Survey marginals appear in the Supplemental Appendix.

¹⁷ Low-skilled respondents might perceive labor market threats from highly skilled immigrants because they may believe these immigrants would have difficulty obtaining highly skilled employment and take a low-skilled job, or they could make it possible to substitute technology for low-skilled jobs.

¹⁸ One potential concern with respondents' self-assessed skill levels and reports of attitudes toward immigrants of different skill types is that individuals may use the terms "highly skilled" and "low-skilled" in ways different than defined by the theory. To address this concern, we trained a random subsample of respondents about the meaning of these terms prior to classifying their own skill levels or providing their immigration attitudes. The correlation between self-classification and perceived labor market threat from similarly skilled immigrants is significantly stronger for these respondents, providing even more support for the argument that citizens perceive greater threat from similarly skilled immigrants (see the Supplemental Appendix).

¹⁹ Under this restriction, low-skilled respondents have labor market threat scores .06 units *higher* for low-skilled immigrants than for highly skilled immigrants ($p < .05$), while highly skilled respondents have labor market threat scores .04 units *smaller* for low-skilled immigrants than for highly skilled immigrants ($p < .1$). See the replication materials.

²⁰ Prior work sometimes proxies for skill levels with education. In the Supplemental Appendix, we replicate columns (5)-(8) of Table 2, partitioning workers by education level.

²¹ This test was performed by estimating a model pooling the column (7) and (8) samples and adding a treatment indicator and interactions between that indicator and all model covariates (see the replication materials).

²² See the Supplemental Appendix for summary statistics.

²³ Question wording and response options for the sociotropic and cultural items appear in the Supplemental Appendix, where we also present the effect of assigned immigrant type on each of the six cultural threat items. Results are robust to replacing the cultural threat factor score with a single cultural threat question asked elsewhere in the survey (see the Supplemental Appendix).

²⁴ Restricting the sample to respondents asked their policy attitudes near the beginning of the survey produces highly similar results (see the Supplemental Appendix).

²⁵ In a model with only the demographic measures and the question placement indicator from column (1), the R-squared is .19. Including the single household economic effects item increases the R-squared by .25.

²⁶ In a model including only the demographic measures and the column (4) question placement indicator, the R-squared is .19. Including the single household economic effects item increases the R-squared by .30.

²⁷ Highly skilled workers may pay more in federal taxes than they receive in federal benefits, but natives may believe that at the local level highly skilled immigrants will receive greater benefits than covered by their taxes, especially if they are perceived to have larger families that place greater demands on local services.

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Table 1: Selected Studies that Seek to Assess the Role of Personal Economic Self-interest in Explaining Immigration Policy Preferences

Study	(A) Measure One or More Dimensions of Personal Economic Effects	(B) Distinguish Preferences for Highly vs. Low-Skilled Immigrants	(C) Distinguish Cultural, Sociotropic Economic, and Dimensions of Personal Economic Effects by Immigrant Skill	(D) Measure Perception of Labor Market Skill
Espenshade and Hempstead (1996)	N	N	N	Indirect (Education & Income)
Citrin et al. (1997)	N	N	N	Indirect (Occupation Category & Employment Status)
Bauer et al. (2000)	N	N	N	Indirect (Education)
Burns and Gimpel (2000)	N	N	N	Indirect (Personal Economic Evaluations)
Chandler and Tsai (2001)	N	N	N	Indirect (Income)
Kessler (2001)	N	N	N	Indirect (Education & Average Occupation Wage)
Scheve and Slaughter (2001)	N	N	N	Indirect (Education & Average Occupation Wage)
McLaren (2003)	N	N	N	Indirect (Income & Job Security)
Hooghe and Marks (2004)	N	N	N	Indirect (Education & Occupation)
Sniderman et al. (2004)	Y (Single Item: "I am afraid that my economic prospects will get worse because of minorities.")	Y	N	Indirect (Personal Economic Prospects)
Dustmann and Preston (2006)	N	N	N	Indirect (Education & Labor Market Status)
Mayda (2006)	N	N	N	Indirect (Education)
O'Rourke and Sinnott (2006)	N	N	N	Indirect (Occupation)
Dustmann and Preston (2007)	N	N	N	Indirect (Education, Occupation Category, Job Security, & Ease of Finding Job)
Hainmueller and Hiscox (2007)	N	Indirect (Education)	N	Indirect (Education & Occupation Category)
Hanson et al. (2007)	N	N	N	Indirect (Education & Income)
McClaren and Johnson (2007)	N	N	N	Indirect (Education, Income, & Occupation Category)
Sides and Citrin (2007)	N	N	N	Indirect (Income)
Kinder and Kam (2009)	N	N	N	Indirect (Occupation Category)
Haimueller and Hiscox (2010)	N	Y	N	Indirect (Education)
Card et al. (2011)	N	N	N	N
Dancygier and Donnelly (2013)	N	N	N	Indirect (Employment Sector)
Iyengar et al. (2013)	N	Indirect (Education & Specific Occupation)	N	Indirect (Education and Occupation Category)
Malhotra et al. (2013)	N	Y (Ask Only About Highly Skilled Immigrants)	Indirect (Ask Cultural Questions Only About Indian Immigrants)	Indirect (Occupation Category & Self-Report Employment in High-Tech Industry)
Tingley (2013)	N	N	N	Indirect (Education)
Helbling and Kriesi (2014)	N	Y	Y (Cultural Factors Only)	Indirect (Education & Income)
Hainmueller and Hopkins (2015)	N	Indirect (Education & Profession)	N	Indirect (Education & Profession)
Hainmueller et al. (2015)	N	Y	Y (Cultural Factors Only)	Indirect (Education & Profession)

Note: Order is chronological. List is derived from Malhotra et al. (2013) and updated.

Table 2: Predicting Summary Economic Evaluations with Dimensions of Economic Assessments

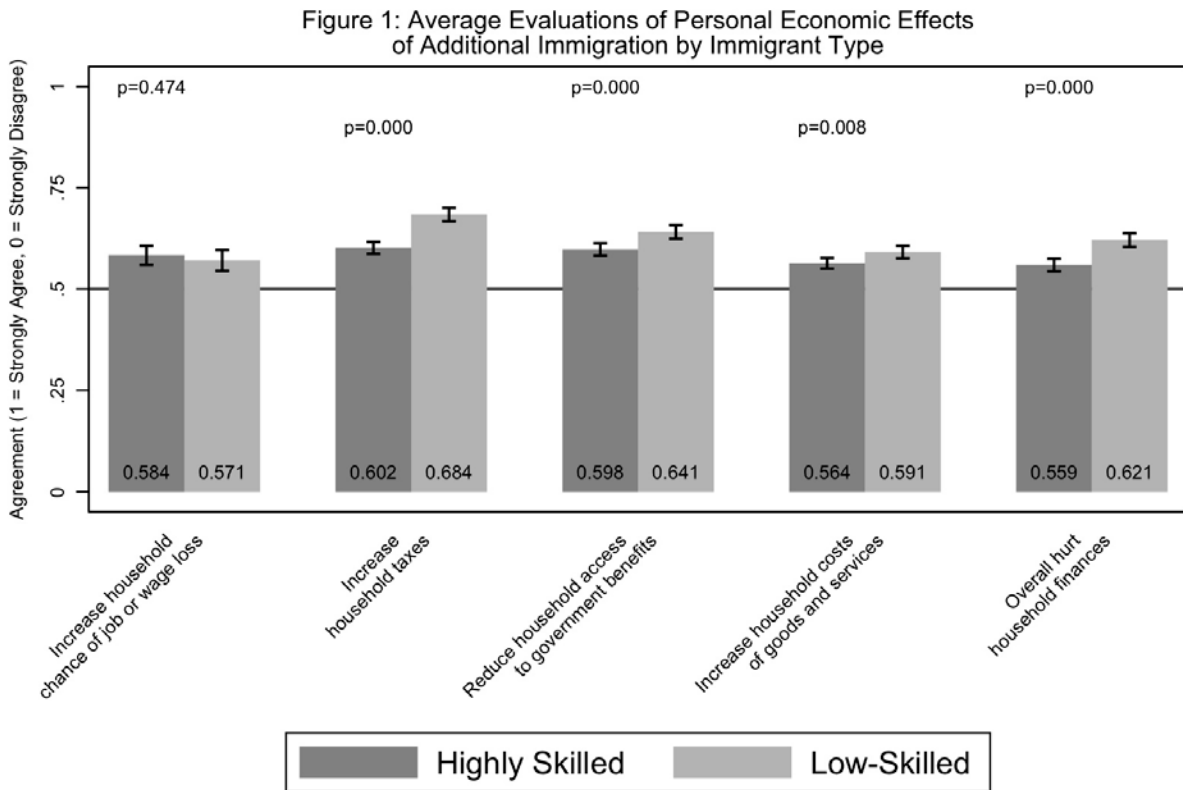
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Respondent Type	Labor Market Subsample (Respondent or Spouse/Partner Working or Looking for Work)							
Immigrant Type	Full Labor Market Subsample				Highly Skilled Subsample		Low-skilled Subsample	
	Highly Skilled Immigrants		Low-skilled Immigrants		Highly Skilled Immigrants	Low-skilled Immigrants	Highly Skilled Immigrants	Low-skilled Immigrants
	Scaled (0-1)	Standardized Measure	Scaled (0-1)	Standardized Measure	Scaled (0-1)	Scaled (0-1)	Scaled (0-1)	Scaled (0-1)
Immigrant of type will								
Increase household chance of job or wage loss	0.262 [0.040]***	0.332 [0.051]***	0.112 [0.044]*	0.143 [0.057]*	0.221 [0.050]***	0.030 [0.044]	0.351 [0.058]***	0.249 [0.069]***
Increase household taxes	0.249 [0.060]***	0.238 [0.058]***	0.438 [0.084]***	0.408 [0.078]***	0.251 [0.078]**	0.419 [0.085]***	0.174 [0.089]	0.413 [0.103]***
Reduce household access to government services	0.079 [0.062]	0.078 [0.061]	0.086 [0.050]	0.084 [0.048]	0.142 [0.083]	0.016 [0.070]	-0.034 [0.063]	0.163 [0.062]**
Increase household costs of goods and services	0.045 [0.078]	0.039 [0.067]	0.063 [0.066]	0.057 [0.060]	0.025 [0.122]	0.147 [0.075]*	0.075 [0.076]	-0.029 [0.100]
Demographic Controls								
Female (Yes = 1)	0.058 [0.028]*	0.233 [0.113]*	0.049 [0.021]*	0.184 [0.078]*	0.106 [0.041]**	0.035 [0.025]	-0.023 [0.024]	0.078 [0.033]*
Age (in Years)	0.001 [0.001]	0.006 [0.003]	0.002 [0.001]***	0.009 [0.003]***	0.002 [0.001]	0.005 [0.001]***	0.001 [0.001]	0.000 [0.001]
Black (Yes = 1)	0.013 [0.058]	0.052 [0.232]	-0.022 [0.050]	-0.083 [0.185]	0.026 [0.074]	-0.027 [0.063]	-0.030 [0.076]	-0.029 [0.073]
White (Yes = 1)	0.016 [0.045]	0.066 [0.179]	-0.007 [0.035]	-0.027 [0.130]	0.036 [0.052]	-0.008 [0.038]	-0.026 [0.066]	-0.008 [0.072]
Hispanic (Yes = 1)	-0.025 [0.052]	-0.099 [0.211]	-0.081 [0.046]	-0.300 [0.171]	-0.030 [0.064]	-0.017 [0.046]	-0.031 [0.069]	-0.154 [0.093]
Education (0=No HS Degree to 3=BA or Higher)	-0.030 [0.016]	-0.120 [0.066]	-0.015 [0.011]	-0.057 [0.042]	-0.035 [0.021]	-0.015 [0.014]	-0.017 [0.017]	0.020 [0.021]
Ideology (Very Liberal to Very Conservative, 5-pt.)	0.039 [0.015]**	0.159 [0.060]**	-0.009 [0.013]	-0.035 [0.048]	0.058 [0.025]*	-0.009 [0.017]	0.019 [0.015]	-0.011 [0.015]
Partisanship (Strong Democrat to Strong Republican, 7-pt.)	-0.009 [0.009]	-0.034 [0.036]	0.017 [0.007]*	0.063 [0.027]*	-0.013 [0.013]	0.022 [0.009]*	0.003 [0.009]	0.014 [0.010]
Constant	0.074 [0.086]	-0.481 [0.266]	0.050 [0.065]	-0.407 [0.219]	-0.016 [0.112]	-0.039 [0.080]	0.232 [0.093]*	0.059 [0.071]
Observations	581	581	585	585	356	371	221	209
R-squared	0.406	0.406	0.456	0.456	0.414	0.452	0.478	0.575

Note: Dependent variable is summary measure of household economic effects for admitting additional immigrants of specific type, scored so that more negative effects are larger values. Table entries are OLS coefficient estimates with robust (Huber/White) standard errors in brackets. Analysis uses analytic weights. In columns labeled "Scaled (0-1)," economic attitude items are scored 0-1. In columns labeled "Standardized Measure," economic attitude items are recoded to have mean 0 and standard deviation 1 within sample used for that column's model estimates. *p<.05; **p<.01; ***p<.001.

Table 3: Predicting Overall Immigration Policy Attitudes by Immigrant Type with Personal Economic, Sociotropic Economic, and Cultural Concerns

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Opposition to Admitting More Highly Skilled Immigrants (0-1)			Opposition to Admitting More Low-skilled Immigrants (0-1)			Pooled, Opposition to Admitting Immigrants of Type (0-1)	
Immigrant of assigned type will hurt overall household finances (0-1)	0.773 [0.044]***	0.229 [0.062]***	0.090 [0.056]	0.765 [0.040]***	0.292 [0.055]***	0.240 [0.052]***		0.269 [0.042]***
Negative overall economic effects for nation (0-1)		0.335 [0.064]***	0.293 [0.054]***		0.503 [0.052]***	0.393 [0.051]***		0.406 [0.045]***
Cultural threat index		0.533 [0.074]***	0.412 [0.061]***		0.179 [0.053]***	0.089 [0.049]		0.363 [0.050]***
Oppose admitting more low-skilled immigrants (0-1)			0.392 [0.037]***					
Oppose admitting more highly skilled immigrants (0-1)						0.299 [0.034]***		
Immigrant is low-skilled (Yes = 1)							0.140 [0.021]***	0.046 [0.015]**
Policy attitude measured at end of survey (Yes=1)	0.037 [0.028]	0.048 [0.023]*	0.042 [0.018]*	0.031 [0.023]	0.032 [0.020]	0.032 [0.018]	0.038 [0.022]	0.048 [0.016]**
Female (Yes = 1)	0.026 [0.026]	0.042 [0.021]*	0.045 [0.018]*	-0.033 [0.021]	-0.037 [0.018]*	-0.055 [0.016]***	0.033 [0.021]	0.000 [0.014]
Age (in Years)	0.002 [0.001]*	0.002 [0.001]***	0.002 [0.001]**	0.001 [0.001]	0.001 [0.001]	0.001 [0.001]	0.002 [0.001]**	0.002 [0.000]***
Black (Yes = 1)	0.051 [0.063]	0.053 [0.046]	0.035 [0.038]	-0.035 [0.048]	0.015 [0.042]	-0.016 [0.040]	-0.019 [0.043]	0.047 [0.034]
White (Yes = 1)	0.039 [0.052]	0.005 [0.037]	-0.020 [0.030]	0.019 [0.040]	0.022 [0.032]	0.007 [0.033]	0.013 [0.037]	0.022 [0.026]
Hispanic (Yes = 1)	0.007 [0.061]	-0.002 [0.043]	-0.004 [0.039]	-0.060 [0.046]	-0.021 [0.034]	-0.031 [0.032]	-0.118 [0.041]**	0.000 [0.031]
Education (0 = No HS Degree to 3 = BA or Higher)	-0.085 [0.014]***	-0.055 [0.012]***	-0.043 [0.011]***	-0.039 [0.011]***	-0.028 [0.010]**	-0.009 [0.010]	-0.103 [0.012]***	-0.043 [0.008]***
Ideology (Very Liberal to Very Conservative, 5-pt.)	0.012 [0.014]	-0.015 [0.013]	-0.025 [0.011]*	0.024 [0.011]*	0.002 [0.010]	0.006 [0.009]	0.040 [0.012]***	-0.005 [0.008]
Partisanship (Strong Democrat to Strong Republican, 7-pt.)	0.007 [0.008]	0.001 [0.007]	-0.006 [0.006]	0.009 [0.006]	-0.004 [0.005]	0.003 [0.005]	0.022 [0.006]***	-0.000 [0.005]
Constant	0.026 [0.085]	-0.077 [0.066]	-0.105 [0.055]	0.105 [0.058]	0.045 [0.050]	0.023 [0.050]	0.424 [0.066]***	-0.061 [0.045]
Observations	779	779	779	766	766	766	1,545	1,545
R-squared	0.441	0.609	0.688	0.488	0.605	0.669	0.200	0.607

Note: Dependent variable is summary measure of opposition to admitting immigrants of specific type, scored so that strong opposition is coded 1 and strong support is coded 0. Table entries are OLS coefficient estimates with robust (Huber/White) standard errors in brackets. Analysis uses analytic weights. ***p<.001; **p<.01; *p<.05.

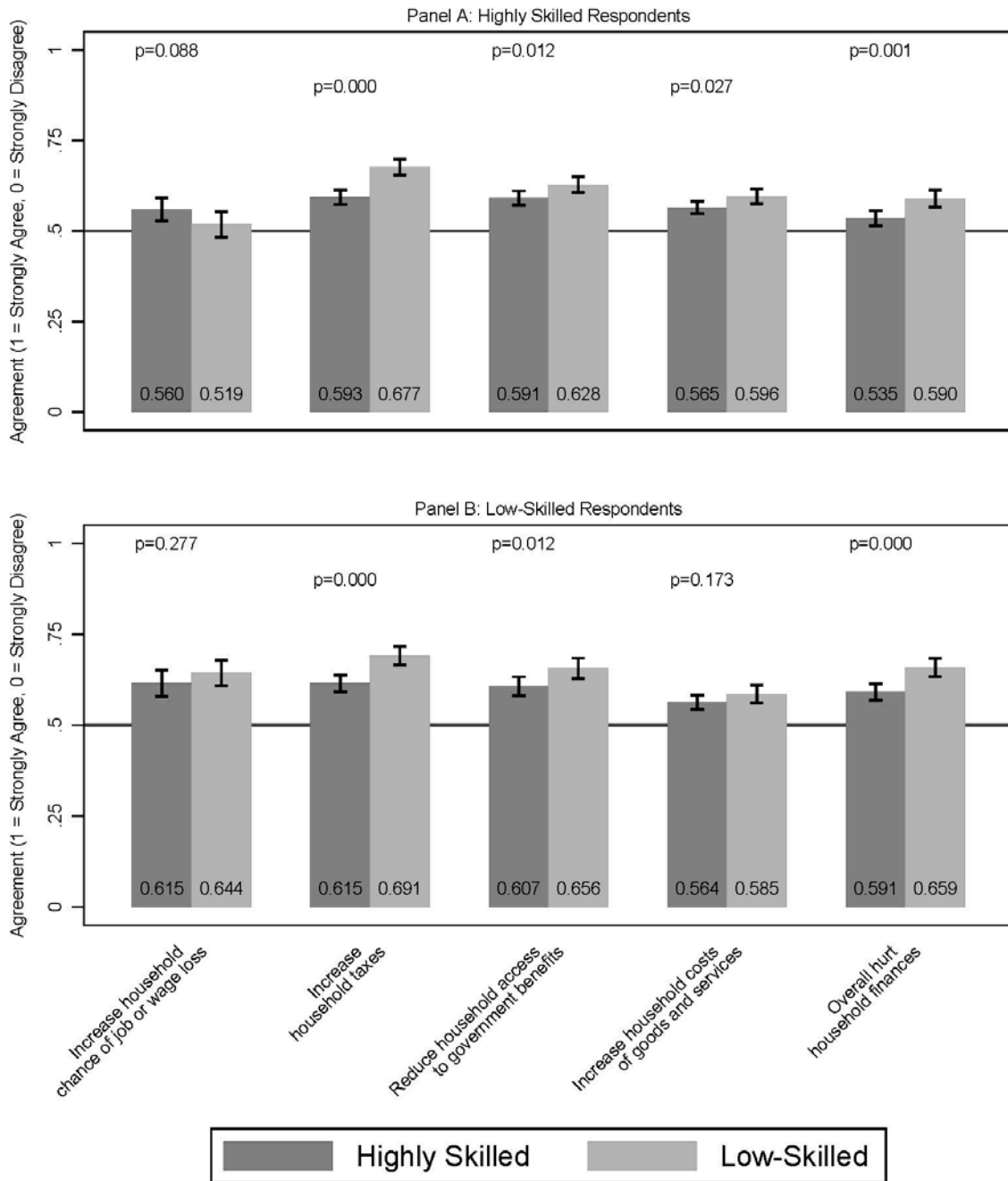


Note: p-values are comparisons between highly and low-skilled immigrant conditions. Numbers on bars are average scale scores. Capped lines denote 95% confidence intervals. Weighted analysis. Unemployment/Wage loss measure presented only for labor market subsample.

Figure 1. Average evaluations of personal economic effects of additional immigration by immigrant type

Note: p-values are comparisons between highly and low-skilled immigrant conditions. Numbers on bars are average scale scores. Capped lines denote 95% confidence intervals. Weighted analysis. Unemployment/Wage loss measure presented only for labor market subsample.

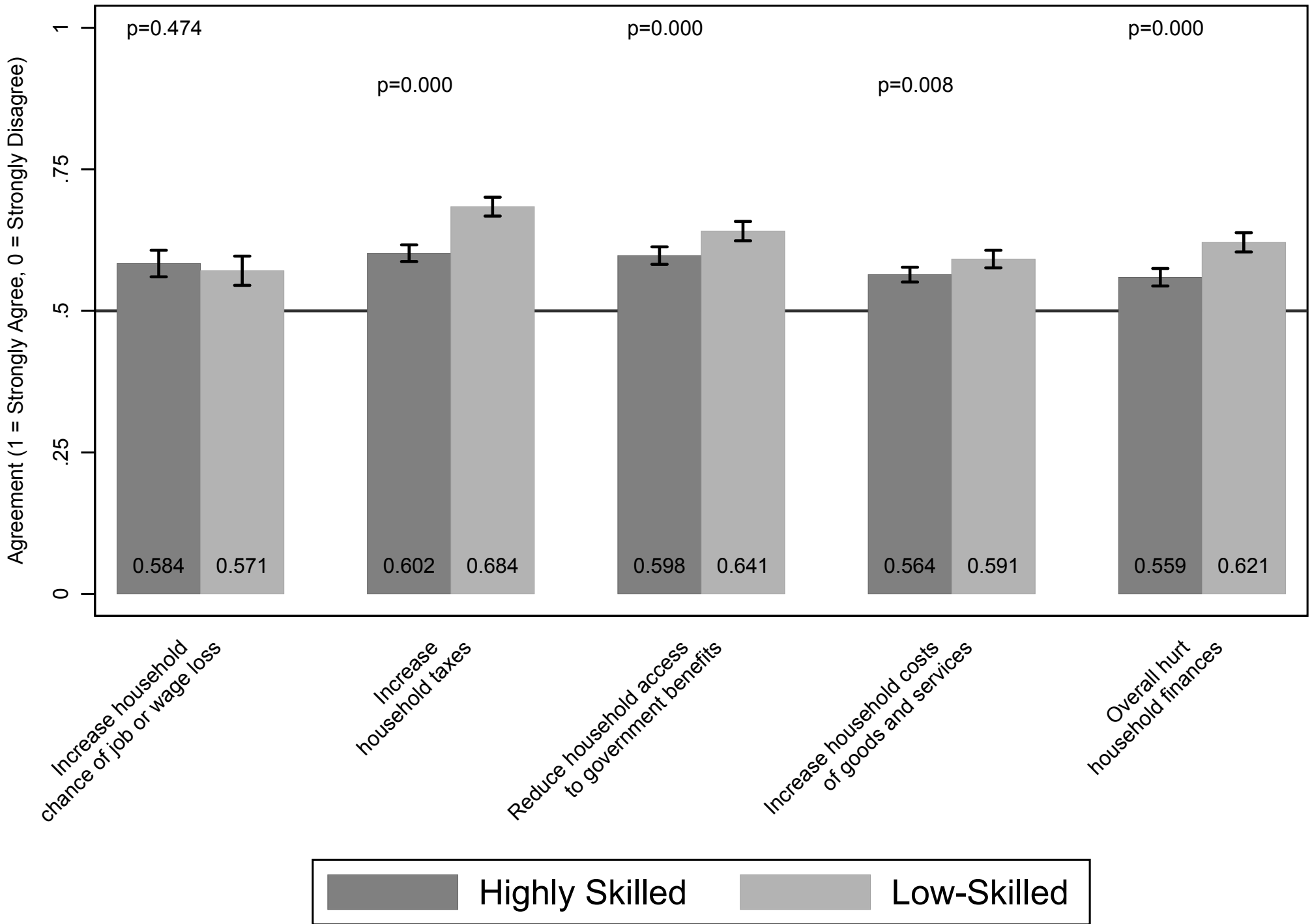
Figure 2: Evaluations of Personal Economic Effects of Immigrants
By Own Skill and Immigrant Skill Level



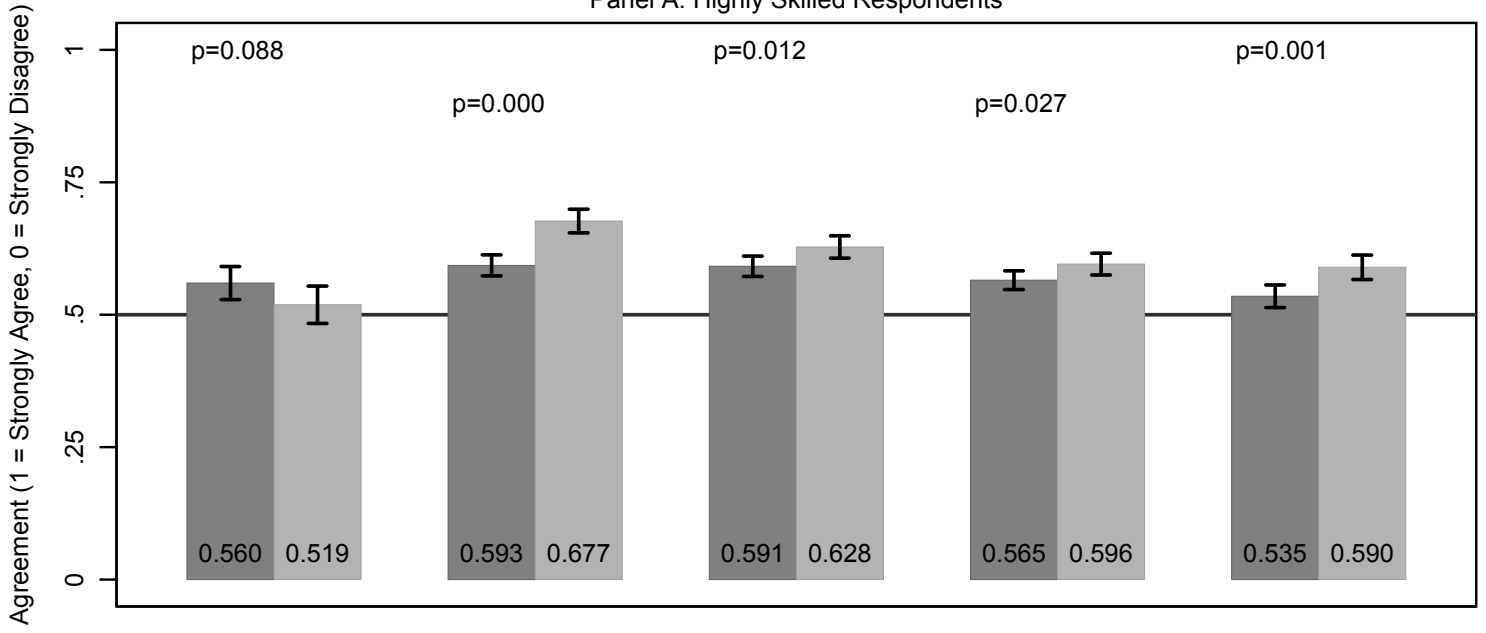
Note: p-values are comparisons between highly and low-skilled immigrant conditions. Numbers on bars are average scale scores. Capped lines denote 95% confidence intervals. Weighted analysis. Unemployment/Wage loss measure presented only for labor market subsample.

Figure 2. Evaluations of personal economic effects of immigrants by own skill and immigrant skill level

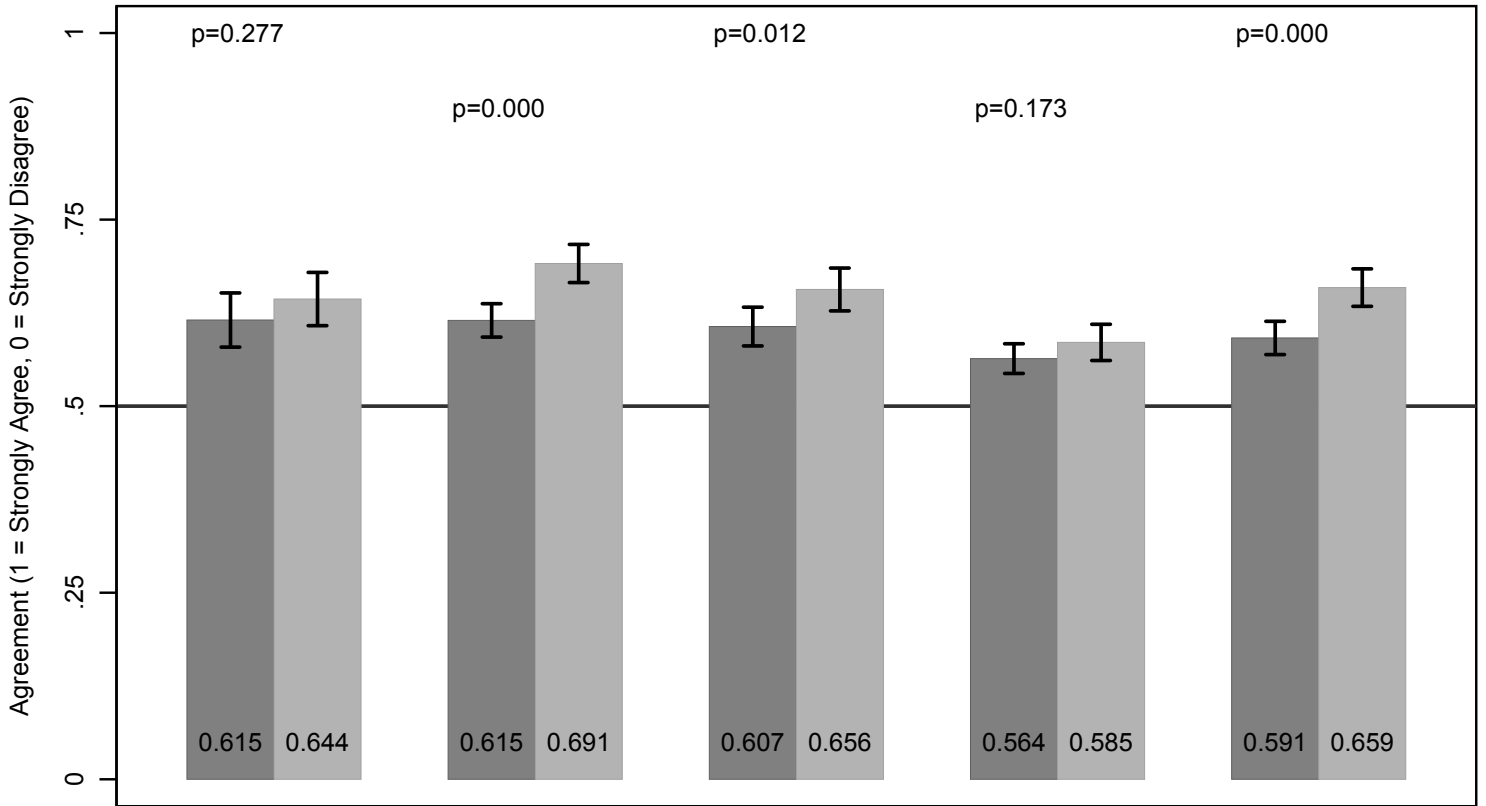
Note: p-values are comparisons between highly and low-skilled immigrant conditions. Numbers on bars are average scale scores. Capped lines denote 95% confidence intervals. Weighted analysis. Unemployment/Wage loss measure presented only for labor market subsample.



Panel A: Highly Skilled Respondents



Panel B: Low-Skilled Respondents



Increase household chance of job or wage loss

Increase household taxes

Reduce household access to government benefits

Increase household costs of goods and services

Overall hurt household finances

