

# Varieties of Nationalist Frames and Support for High-skill Immigration in a Developmental Setting

Xinyi Jiang

Zhejiang University

Li Shao

shaoli19871987@gmail.com

Zhejiang University

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## Research Article

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# **Varieties of Nationalist Frames and Support for High-skill Immigration in a Developmental Setting**

## **Abstract**

The current literature deems nationalist sentiments contributive to the public opposition (exclusion) of immigration, while it does not account for the heterogeneous effects generated by the varieties of nationalist frames. In the setting of developing countries, nationalist frames usually emphasize outcompeting the advanced geopolitical rivals (“Competing Hypothesis”) or learning from the developed countries (“Learning Hypothesis”). Thus, these two frames can encourage citizens to accept high-skilled immigrants to fulfill the developmental national goal. One pre-registered survey experiment in China confirms the positive results from both the Learning frame and the Competing frame, compared to the Exclusionary frame and the control group. A supplementary analysis on observational survey data suggests that Chinese respondents support immigration when they are more open to learn from the other countries and when they perceive stronger geopolitical competition with China’s rival, i.e., the United States. These findings suggest that with proper frames, nationalism can encourage acceptance of immigrants.

Nationalism is seen as an obstruction for the native citizens to embrace immigrants and more liberal immigration policies (Bonikowski et al., 2021; Joppke, 2010; Ko & Choi, 2022). This view rests on nationalism's boundary-making logic: by defining who belongs to the nation, nationalism also marks immigrants as potential outsiders to the national community. Such boundaries can turn immigration into a perceived threat to cultural cohesion, social solidarity, and national sovereignty, thereby generating exclusionary sentiment toward immigrants.

Such exclusionary nature, however, is merely one aspect of nationalism. Nationalism also contains the desire for building a strong and prosperous country for the interests of the nation, especially in developing countries in which citizens share a historical memory of the nation's poverty, backwardness and weakness. To these "backward" countries, one important nationalist goal is to catch up the advanced countries by economic, technological and social development. To take Singapore as an example, its nationalism has long emphasized national strength through economic competitiveness. From the early post-colonial period, the state framed foreign expertise, global capital, and technological transfer as indispensable tools for securing the country's survival and raising its international standing. Nationalism functioned not through cultural exclusion but through a developmental orientation that encouraged learning from advanced economies and integrating skilled foreign workers into national growth strategies.

This developmental aspect of nationalism may generate a different effect on citizens' attitude to immigration. Economic and technological development needs human resources, talented engineers, doctors, scientists and scholars. Developing countries do not have sufficient supply of these talents

for development, especially when they become mid-income countries and the marginal benefits of population dividend is declining. In addition, the “successful model” of development, such as the United States, also relies on the inflow of international talents. When citizens in “backward” setting realize that the importance of talent supply for the continued development for their nation, they may become open to high-skill immigrants.

This paper proposes that developmental frames of nationalism can encourage citizens’ acceptance of immigrants, compared to the exclusionary frame that dominates the previous literature on the relation between nationalism and immigration attitude. Developmental nationalist frames can be found in developing countries where the citizens share a consensus that the route to strengthen the nation is via modernization, featured by economic and technological development. Dominated by this consensus, citizens believe that policies beneficial to developmental goals are desirable, including those attracting foreign talents to work. We propose two developmental frames, the “Competing” frame that sets the developmental goal as to outcompete the geopolitical rivals, and the “Learning” frame that underscores the importance of learning from the successful developed models.

Via a pre-registered experiment in China, we find that both frames are effective in boosting citizens’ support for high-skill immigrants. China is an ideal case for its high level of nationalist sentiment and its controversial attitudes toward foreign immigrants (Singer & Quek, 2022). We randomly assigned four groups. The “Competing”, “Learning” and “Exclusionary” groups read a passage about foreign immigrants with the respective frames. The control group read nothing. The

experiment shows that both developmental frames significantly increase support for high-skilled immigration relative to the Exclusionary frame, especially by strengthening respondents' perception of immigrants' developmental contribution.

To supplement this experiment with realist evidence, we leverage Asian Barometer Wave 5 (Hereafter ABS5), in which include both questions on Chinese citizens' attitudes on foreign immigrants and those on their attitudes toward China's geopolitical rival (the United States) and their attitudes toward learning from the foreign countries. Our analysis of ABS5 points in the same direction: learning-oriented and competition-oriented nationalist attitudes are positively associated with support for admitting foreign workers. This finding strengthens the experimental evidence by providing more representative results on the relation between the developmental frame of nationalism and positive immigration attitudes.

This article makes three contributions to research on nationalism and immigration attitudes. First, it contributes to the literature on nationalism and immigration attitudes by challenging the conventional findings that nationalism shapes immigration preferences mainly through exclusionary boundary-making. Existing research links nationalism to cultural threat, anti-immigrant prejudice, and restrictive immigration preferences (Bonikowski et al., 2021; Green et al., 2011; Hainmueller & Hopkins, 2014; Ko & Choi, 2022; Pehrson et al., 2009). We instead argue that nationalism also contains a goal-oriented dimension centered on national strength, modernization, and international status. This is consistent with experimental evidence showing that immigration attitudes are shaped not only by exclusionary concerns but also by appeals to

collective national interests (Dennison, 2022; Hix et al., 2021; Schaub et al., 2021). When high-skilled immigrants are framed as contributors to national development and technological upgrading, nationalism can increase rather than reduce support for immigration.

Second, the article advances immigration-attitude research by showing that the understanding of immigration inflow is contingent on the stage of development. Previous studies have focused largely on developed countries with large immigration population and they emphasized labor-market competition, fiscal burden, education, cultural threat, and perceived material or symbolic threat (Ben-Nun Bloom et al., 2015; Hainmueller & Hiscox, 2010; Hainmueller & Hopkins, 2014; Malhotra et al., 2013; Mayda, 2006; Scheve & Slaughter, 2001). As we show, in developing-country contexts, immigration attitudes are also shaped by nationalist understandings of geographical competition, modernization, and technological demands. This suggests that citizens do not only rely on conventional personal cost-benefit considerations, but also evaluate immigration in relation to perceived national development.

Third, the study contributes to developmental-state research by highlighting the symbolic effects of developmentalism. Classic studies emphasize state capacity, industrial policy, bureaucratic autonomy, and state-led modernization (Amsden, 1989; Ang, 2016; Breznitz & Gingrich, 2025; Evans, 1995; Johnson, 1982; Kohli, 2004; Naseemullah, 2023). We show that developmentalism also persuades citizens to accept more foreign talents and become less hostile to immigrants. Finally, our findings also suggest a practical implication for immigration policy communication:

developmental frames can better persuade the public to approve more open and selective immigration policies.

### **Nationalism: more than the exclusionary frame**

Nationalism is an ideology that places loyalty and devotion to the nation-state above all other individual or group interests, but scholars have long noted that it can be defined and expressed in divergent ways depending on how the national community's boundaries are drawn and what goals are pursued (Bonikowski et al., 2021; Woods & Dickson, 2017). The current literature predominantly sees nationalism as discouraging acceptance of immigrants and encouraging anti-immigrant hostility. Nationalism inevitably delineates the distinction between ingroup compatriots and the outgroup immigrants. Citizens with nationalist ideology may hold various types of stereotypes toward the outgroup and thus form their bias against them (Hainmueller & Hopkins, 2014). Empirical studies show that high nationalism is associated with anti-immigration attitudes in the United States, Spain and Switzerland (Escandell & Ceobanu, 2010; Green et al., 2011; Thompson, 2022), prejudice to immigrants (Pehrson et al., 2009), stricter immigration control (Ko & Choi, 2022). Scholars also find that other social conditions and policies can lower support for immigration via the mechanism of nationalist sentiment. Education focuses on a narrower form of national identification induces more exclusionary attitudes toward immigrants (Lee, 2023). Economic conditions can increase hostilities to the foreign born by heightened national pride (Kim et al., 2023). Taken together, most current research still sees nationalism as an obstacle to support for immigration.

However, some studies also show that nationalism could have positive impacts on citizens' immigration acceptance. For example, if citizens identify their nationalist attachment more with civic element, nationalism or national pride can encourage their acceptance of immigrants (Jeong, 2013). Moreover, if citizens favor policies that benefit their compatriots, such "parochial altruism" can encourage their support for increasing immigration (Kustov, 2023). In general, the current debate focuses on the exclusionary frame of nationalism when they explore the relation between nationalism and immigration attitudes. The majority of studies believe that nationalism is equivalent to exclusive favor toward the ingroup and thus they argue that nationalism has a negative effect. Scholars who believe nationalism is less exclusive, e.g. to be more civic or somehow altruistic, argue that nationalism can also generate some positive effects. However, the current studies underexplore the other frames that are essential to nationalism, especially the desire for national strengthening and prosperity. This limitation reflects a broader tendency in migration research to reduce multidimensional perceptions of immigration into simplified attitudinal measures, despite the coexistence of both positive and negative migration narratives (Dennison, 2021).

Such research limitation is partially built on the case selection of immigration attitude studies. Most studies focus on developed societies such as those in North America and Western Europe. Extant studies of non-Western countries also mostly rely on developed economies, such as Israel, Singapore, Japan and South Korea (Shao et al., 2023). The cases of developed societies have two features that constrain the exploration of alternative nationalist frames. First, they have passed the bar of high-income country so that their nationalist goal for "strengthening and prosperity" is less compelling to citizens, and the marginal benefits of continued development decrease. Second,

although immigrants may bring economic benefits (Hainmueller & Hangartner, 2013; Hainmueller & Hopkins, 2015), they may also bring disturbance to the “current way of lives” of the natives, which has higher marginal costs. Thus, it is unsurprising that the exclusionary frame is dominant in developed countries.

In developing countries, however, the story is different. Economic and technological development are an essential quest for nationalists. Citizens in developing countries can still perceive the gap between their own nations and developed countries. On the path of modernization and development, citizens in developing countries are more likely than their counterparts in developed societies to recognize that developed countries are ahead of their own. Thus, in developing countries, developmentalism constitutes a central component of nationalism.

Developmentalism as an idea has long existed since the Second World War. The theoretical background is that backward countries who aim at modernization may require the state plays a central role to lead industrialization (Evans, 1995; Gerschenkron, 1962; Kohli, 2004). Driven by the ideas of developmental states, the government use the state-interventionist policies for industrialization, modernization and economic development (Amsden, 1989; Ang, 2016; Evans, 1995; Jeon, 1995; Johnson, 1982). Developmentalism explains the development route and tasks for the backward countries. It was born tightly associated with nationalism even in the 1960s (Martins, 1963). The consensus between citizens and the governments on economic development and modernization forms a social foundation for economic development (Cheang & Choy, 2024; Ortmann, 2009). This consensus emphasizes on collective developmental goals for their country.

For instance, citizens evaluate policy issues through their perceived contribution to national-level objectives rather than individual-level considerations (Dennison, 2022). Given that late-developers may need to oppress social consumption and welfare for capital accumulation and reinvestment (Gerschenkron, 1962; Kohli, 2004), such consensus is important because it reflects an implicit social consensus to tolerate the loss of social welfare and political rights in exchange with greater general economic growth. When development is the central task, the citizens may value the state's "performance legitimacy" rather than the procedural legitimacy (Yang & Zhao, 2017). Citizens determine their support to the government according to the government's performance on economy rather than the results of fair election (Dickson et al., 2016; Yang & Zhao, 2017). In summary, developmentalism composes a varied frame of nationalism that focuses on development and modernization. The goal of developmental frames is to promote economic modernization, technological upgrading, state capacity, and the nation's overall position in the international hierarchy. When multiple social goals exist in a country, development is the priority one. The state and the society have the expectation to work together toward this central goal. The society expects the state to implement developmental policies and evaluates its legitimacy by the results of development, while the state expects that the society to coordinate with it.

The strength of developmental frames of nationalism could be conditioned on the perceived level of economic development. Citizens in developed countries are less likely to have a strong attachment to the developmental frame when they enjoy an advanced level of living and welfare conditions compared to the less-developed countries. Since they have entered the membership of the wealthy-country club, they no longer see economic development as a compelling mission for their nation. In contrast, citizens in developing countries are more likely to have a strong

attachment to this developmental frame because they perceive their nation as in the process of catching-up. This developmental frame is even more compelling when nationalists in developing countries perceive that developed countries threaten their national interests and security. When nationalists fear that their country may lose a future conflict, they are more supportive of their government's campaign to catch up their powerful rival by development. Therefore, developmental nationalist frames are more likely to mobilize citizens in developing countries, where development for national strength and prosperity is widely understood as a central task. The strength of these frames, nevertheless, depends more on citizens' perception of the nation's status than on its objective level of development.

Developmental nationalist frames generate a different interpretation of immigration from the exclusionary frame. Rather than viewing immigrants as outsiders or threats, these frames present high-skilled immigrants as human resources for economic modernization, technological upgrading, and national catch-up. We propose two variations of developmental nationalist frames toward high-skilled immigrants: the Competing frame and the Learning frame. Both frames argue that high-skilled immigrants can contribute to the nation's economic modernization and technological upgrading, but they differ in how they interpret developed countries. The Competing frame treats developed countries as geopolitical rivals. From this perspective, attracting high-skilled immigrants is a strategy for strengthening national competitiveness and helping their home country to catch up with or surpass its rivals so that they can defend against the potential threats from the geopolitical rivals. The Learning frame, by contrast, treats developed countries as successful models of modernization. It emphasizes that their developmental success has partially relied on the inflow of high-skilled immigrants, and therefore argues that the home country should learn

from this experience and become more open to high-skilled immigration for continued development.

Both the Competing and Learning frames emphasize the benefits that the nation can obtain by opening to high-skilled immigrants. However, they differ from the utilitarian arguments in previous studies, which suggest that citizens form immigration attitudes by calculating the expected benefits and costs of immigration. When immigration is perceived to bring economic benefits, citizens are more likely to support it; when it is perceived to impose economic costs, they are more likely to oppose it. For instance, immigrants may be seen as contributing to overall economic growth (Hainmueller & Hiscox, 2010), or as potential competitors in local labor markets (Scheve & Slaughter, 2001). As developmental nationalist frames, the Competing and Learning frames do not focus on individuals' gains or losses, but on the benefits of immigration at the macro country(nation) level. High-skilled immigrants are valued because they can strengthen the nation's economic and technological capacities, rather than because they directly serve individuals' material interests. Nevertheless, when previous literature shows that personal economic consideration can effectively affect public approval of immigration (Ben-Nun Bloom et al., 2015; Hainmueller & Hiscox, 2010; Malhotra et al., 2013; Mayda, 2006), we still have limited evidence on whether developmental nationalist frames focusing on national development can similarly mobilize public support for high-skilled immigration.

## **Research question, case selection and hypothesis**

According to such research gap, this paper asks a core question: Can developmental nationalist frames counteract exclusionary sentiments and increase public support for high-skilled immigration in a developing context?

This paper aims to provide empirical tests on the effects of developmental frames on immigration attitudes in a developing setting. We chose China as the case for several reasons. First, China's economic development mode fulfills the definition of a developmental state in which the government plays a significant role in guiding the direction of industrial development and investment. More importantly, the Chinese government explicitly adopts the developmentalism as its policy-making principle by stating that economic development is one of its central tasks. This developmentalism is shared by the Chinese society, in which people evaluate the government's legitimacy by its economic performance (Yang & Zhao, 2017).

Second, Chinese citizens have a high level of nationalism due to the mass education and government indoctrination (Wang, 2014; Weiss, 2014; Woods & Dickson, 2017). The developmental frames have long existed in China's nationalist ideology. Ever since the Republic of China period (1911-1949), economic development has become an important source to salvage the nation from foreign invasion and colonization, and get independent and prosperous (Zanasi,

2019). Nowadays, the Chinese Communist Party also officially states that modernization is the most important road to the “great rejuvenation of Chinese nation<sup>1</sup>.”

Third, although the number of foreign immigrants is still small compared to China’s population, it grows rapidly in the recent decade. The decline of population and labor supply also necessitates the reform of immigration policy as one important policy option for the Chinese government. For example, on October 1st, 2025, the Chinese government began allowing the application of “K visa”, designed for young foreign professionals in science, technology, engineering, and mathematics (STEM) fields. Previous studies show that Chinese nationalism’s exclusionary frames produce backlash to their support for foreign immigrants (Liu & Shao, 2022; Shao et al., 2023), which generates policy setbacks. The draft of a more liberal permanent residency reform stirred a huge online protest on the Chinese Internet in early 2020 and forced the Ministry of Justice to rescind its promulgation (Liu & Shao, 2022). The “K visa” also drew public criticism<sup>2</sup>. Anecdotal evidence from social media shows that Chinese Internet users call for a collective action to make complaints via the online feedback system of National Immigration Administration.

Based on these reasons, choosing China as a case has both theoretical and practical implications. China’s high nationalist sentiment with developmental frame provides an ideal field for us to test

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<sup>1</sup>Communist Party of China, “Full Text of the Report to the 20th National Congress of the Communist Party of China,” International Department of the Central Committee of the CPC, accessed May 24, 2026, <https://www.idcpc.org.cn/english2023/tjzl/cpcjj/20thPartyCongrressReport/>.

<sup>2</sup>Alyssa Chen, “Critics Take Aim at China’s New K Visa for Foreign STEM Talent,” South China Morning Post, 2025, <https://www.scmp.com/news/china/diplomacy/article/3327415/chinas-new-k-visa-meant-lure-foreign-stem-talent-instead-its-drawn-criticism>

the effects of developmental frame. At the same time, the exclusionary frame also exists among Chinese public narratives on foreign immigrants, providing an opportunity to compare the effects of exclusionary frame and those of developmental frames (Liu & Shao, 2022; Shao et al., 2023). Finally, understanding the effects of developmental frames can help us to evaluate the future success of China's immigration reform, which has significant influence on China's human capital stock, labor supply, economic development and global talent / technological competition.

Having established China as a suitable case, the rest of this paper tests the two developmental nationalist frames developed in the previous section: the Competing frame and the Learning frame. We develop two hypotheses:

H1 Competing Hypothesis: The developmental nationalist frame focusing on geopolitical competition increases public approval for admitting more foreign talent.

H2 Learning Hypothesis: The developmental nationalist frame focusing on learning from developed countries increases public approval for admitting more foreign talent.

We conducted two complementary studies to test these two hypotheses. First, we designed a pre-registered survey experiment to causally estimate the effects of developmental frames and compare them with the Exclusionary frame. Second, we used nationwide survey data to examine whether Chinese citizens who hold attitudes corresponding to these developmental frames also express more positive attitudes toward high-skilled immigrants to enhance the external validity of our experimental findings.

## **Study 1: Experiment on developmental nationalist frames**

According to the theoretical discussion in the previous section, if developmental nationalist frames prove effective, we expect that exposure to such frames will lead Chinese citizens to evaluate high-skilled immigrants more positively. To test this expectation, we conducted a survey experiment on Chinese Internet users. The practice of this experiment imitates typical scenarios in the news media, either as a news article on the inflow of foreigners (Exclusionary group), or as an article from the government to publicize the advantages of liberal immigration policies. Respondents read a short passage with images as a typical short news post and then answer questions on their policy attitudes (see Appendix 2 for the full questionnaire). This scenario not only is realistic to respondents' media consumption to better test our hypothesis, but also has practical implications for the government's policy advocacy via media formats.

### **Research Design**

We randomly assign respondents to four groups. Except for the control group, the other groups read a short passage on the discussion of foreign talents in China, with the exclusionary, competing and learning frames respectively. The Exclusionary group reads that foreign immigration is a cultural threat, as foreign immigrants and global cultural exchanges generate negative impacts on the purity and continuity of Chinese cultural traditions. We use an image of foreigners walking in a street decorated as an ancient Chinese town to reinforce the Exclusionary treatment. The Competing group reads a passage highlighting U.S.–China technological rivalry. It warns that the US is jealous of China's development and unreasonably oppresses China's tech companies with the excuse of “national security.” China must attract top global talent to strengthen its human

capital base and outcompete Western innovation capacity so that it can win the global technological competition. The Competing group also see an image about a symbolic arm-wrestling match between China and the United States in which two wrestling arms are covered with national flags of China and the US respectively. The Learning group reads a passage advocating learning from the West. It shows that Western innovation hubs such as Silicon Valley owe their global leadership to open immigration policies that attract and retain top international talents. The image that accompanied with the Learning message shows that each famous tech company, Adobe, Google, Twitter, Windows and IBM, has an immigrant non-White CEO.

We use four dependent variables to detect the post-treatment effects. First, we ask respondents' willingness to support a liberal immigration policy to attract more foreign talents [Support Talent]. Second, we ask the extent to which they support international students to stay in China and work [Int' Students]. Third, respondents are asked to evaluate a liberal immigration policy can be helpful for economy and technological development [Boost Growth]. Fourth, we ask whether foreign immigrants' inflow has positive effects on China's economy and technology development [Immi Econ]. All these four questions use a five-point scale and are rescaled to the [0,1] range for interpretation. In addition to these multiple-choice questions, we also ask the respondents whether they have other opinions to write down in a subjective question. We use this subjective question to check the robustness of multiple-choice questions.

## Results

The survey was conducted between November and December 2024 via the Qualtrics platform (see Appendix 1 for preregistration details). We recruited participants through a commercial online panel provider. In total, we collected 2,396 valid responses. Among them, a majority were under 30 years old, approximately half were male, and most respondents had completed college-level education or above. About one-third reported annual incomes above 60,000 RMB (roughly USD 9,200). Randomization balance tests show no systematic differences across experimental groups (see Appendix 3 for descriptive statistics and robustness checks).

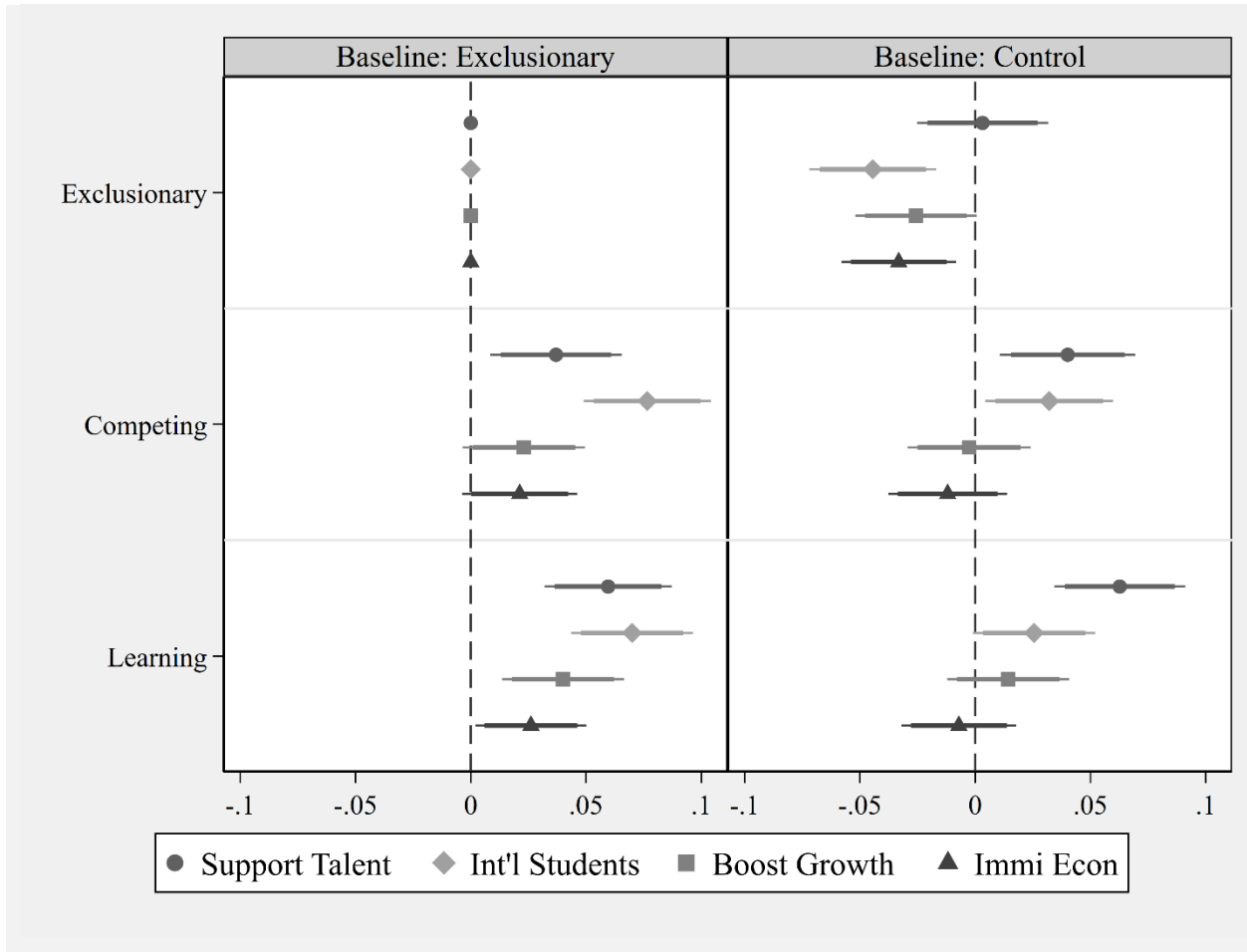
Figure 1 shows the main results of experiment (see Appendix 3 for full regression results). We use OLS regressions with control variables, including gender, age, education, Party membership, and region, to calculate the coefficients of each experimental group as the estimated treatment effects compared to the baseline, i.e. the Exclusionary group on the left panel and the Control group on the right panel, respectively. The thicker confidence interval stands for 90% and the thinner stands for 95%. Both panels show that the Competing frame and the Learning frame have positive influence on respondents' support to introduce more foreign talents.

Compared to the Exclusionary frame, the Competing frame boosts respondents' support for talent attraction policy by 3.70% and support for keeping international students by 7.65%. The Learning frame boosts respondents' support on these policy attitudes questions by 5.95% and 7.00%, respectively. These two frames also change their perception on the effects brought by foreign talents. The Competing frame boosts perceived positive effects to economic and technological

development on both the liberal immigration policy and immigrants' contribution by 2.30% and 2.12%, respectively. The Learning frame increases respondents' agreement on these two variables by 4.00% and 2.61%, respectively.

Compare to the Control group, the Competing frame increases their liberal policy support and international student policy support by 4.01% and 3.21%, and the Learning frame increases such support by 6.27% and 2.55%, respectively. The developmental frames do not boost respondents' perceptions on the positive effects of the liberal immigration policy and inflow immigrants significantly.

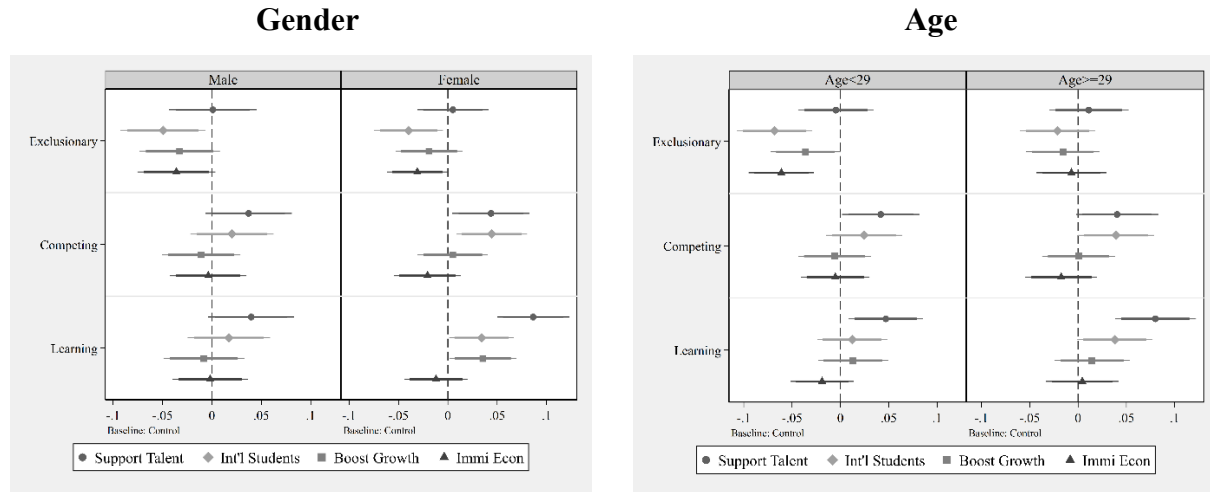
**Figure 1 Effects of Developmental Nationalist Frames on Support for High-Skilled Immigration**



We continue to explore whether such effects may be different across age and gender. Figure 2 presents the heterogeneous effects of developmental frames over gender and age (see Appendix 3 for full results). The left panel compares the treatment effects between men and women. The Exclusionary frame has a similar effect on both genders, while the Competing and Learning frames are more influential over women. The right panel presents the comparison between two age groups split by the median age. We find that the compare to the control group, Exclusionary frame is more effective on mobilizing a negative attitude on immigrating talents among younger respondents. The effects of Competing frame are similar between two age groups, while the Learning frame's

effects are stronger for the elder group. We deem these heterogeneous results suggestive because the differences between two groups do not pass statistical significance test.

**Figure 2 Heterogeneous Effects of Developmental Nationalist Frames over Gender and Age Groups**



One challenge of survey experiments is to examine the success of manipulation. We used a subjective survey question which was asked after the respondents answered the dependent variable questions to examine the success of treatment manipulation and what other thoughts the respondents may have. The question asked respondents what other thoughts they had about immigrants and immigration policies. The answer to this subjective question is not compulsive and thus many respondents left it blank. We read the answers and summarize 23 types of content we want to code in the text. We list our requirements as prompts and requests ChatGPT5-mini model to automatically codes these variables for us. The results and detailed prompts are available in the Appendix 4.

In the subjective questions, we found evidence that the treatments are successful. The respondents in Learning frame group are more likely to mention the value of immigrant talent for the economy and society as well as science and technology. The Learning group mentioned more about the need for talents, compared to other groups. The Competing group mentioned more about the needs for talents, the values of immigrants and the requirement for foreign immigrants to love China, compared to the Exclusionary group. This finding reflects that the Competing frame, focusing on the competition between China and the US, is a nationalist frame that motivates support for immigrating talents by their consideration of the nation's strength. The Exclusionary frame has most mentions about the low quality of immigrants. These findings suggest that the respondents were engaged with the treatment materials and answered their questions based on their reading of the treatments.

There are other interesting results on the subjective questions. For example, although respondents in the Competing and the Learning group are more supportive of admitting foreign talent. They also mention the most on public safety concerns and spy concerns. The Learning group also mentions most on that the government should prioritize Chinese over foreigners. From the subjective answers, we did not find any racial cues affect the results. The Exclusionary group was exposed to an image of White foreigners in China, and the Learning group was exposed to images of CEOs of big tech companies in the US, mostly Indians. These racial cues do not nullify the treatment effects. The subjective answers also show that the chances of respondents to bring up their opposition to Black immigrants are similar among each group.

To summarize the experimental findings, we find reliable results that two developmental frames, the learning frame and the competing frame, are effective in boosting respondents' support for a more liberal immigration policy for migrating more foreign talents. The Learning frame has a slightly stronger effect but not significantly different. Suggestively, the developmental frames are more effective on female and older age groups, while the Exclusionary frame is more attractive to the younger group.

The developmental frames are especially more effective to offset the negative effects generated by the Exclusionary frame. Compare with the Exclusionary frame, the two developmental frames also increase citizens' positive evaluation on the contributions of the liberal immigration policy and those of migrating talents. These findings combined suggest that developmental frames are effective in countering the dominant exclusionary frame from the global anti-immigration trend. Thus, Study 1 provides support for both H1 and H2: both the Competing and Learning frames increase public approval for admitting more foreign talents.

## **Study 2: Survey data on long term immigration attitudes**

The survey experiment confirms that developmental nationalist frames can increase support for high-skilled immigration in an immediate information-exposure setting. To examine whether this logic also appears in broader social contexts, we use observational survey data to test whether citizens with developmental nationalist orientations express more favorable immigration attitudes. If the developmental logic holds beyond the experiment, respondents with stronger learning-oriented or competition-oriented nationalist attitudes should be more supportive of admitting

foreign workers. This analysis provides complementary evidence for the external validity of the experimental findings.

## **Data and Sample**

We draw on nationally representative data from the Mainland China sample of ABS5 conducted in 2019–2020 (see Appendix 5 for the ABS5 questions). The original valid sample consists of 4,941 respondents. After processing key variables related to immigration attitudes, nationalist orientations, and demographic controls, the final analytical sample includes 4,928 respondents. All variables are standardized where appropriate, and categorical controls (age, education, income, gender) are recoded into interpretable groups to facilitate analysis (see Appendix 5 for descriptive statistics).

## **Dependent variable**

The dependent variable measures respondents' immigration policy preference. Unfortunately, there is no direct question on immigration policy or preferences for high-skilled immigrants. Thus, we used Q158, i.e. “Do you think the government should increase or decrease the inflow of foreigners who come to work in our country?” as the measurement of their immigration preference. The original responses have a four-point scale. We recode it so that the higher the number the more supportive to immigration a respondent is.

## **Independent variables**

Since there is no direct question on competing nationalism in ABS5, we construct a binary variable “Competing Nationalism” to measure citizens’ inclination to the competing frame. The competing frame regards attracting foreign talents (immigrants) as a means of competing with geopolitical rivals. In China’s case, this geopolitical rival is the United States. Chinese citizens who are used to the competing frame for development may believe that development is to compete with and defeat the United States and become a stronger global power. We assume that citizens are more likely to understand immigration with the competing frame when they perceive that the two countries are (almost) evenly matched in power. After all, there is no actual competition when one outpowers another with significant advantages. Thus, we expect that the competing-frame-inclining respondents should perceive both China and the United States as powerful. We use the aggregation of two variables to measure China’s power. The first variable (Q174) is “Which country has the most influence in Asia?”. The second variable (Q179) asks the same question “in (next) ten years.” 57.6% of respondents chose China in both questions. Thus, we code these respondents as perceiving China as more powerful than those who did not choose China or only answered in one question. We used a question to measure the power of the United States. i.e. the perceived influence on the respondent’s own country (Q184). We deemed those answering “a great deal” and “some” influence as perceiving the US as more powerful and the rest perceiving the US as the less powerful. Then, we coded respondents who perceive both China and the US as powerful as with “high competing nationalism” and code the remaining respondents as with “low Competing nationalism.”

We measured the Learning Nationalism via a direct question (Q156), which asks whether the country should “learn from others” or “defend our way of life.” We coded those choosing “learning from others” as 1 and the rest as 0 (including the missing answers). This binary variable captures respondents’ disposition toward international openness and willingness to adopt foreign practices and ideas.

We do not include Exclusionary frame as an independent variable in this analysis because the dependent variable itself, i.e. immigration preference, is able to capture respondents inclining to the exclusionary frame as long as they grant less support for immigration when they are more convinced with the exclusionary ideas.

### **Control Variables**

The most important confounder of this analysis is respondents’ original nationalism level. We use two variables to control it, following the literature that distinguishes China’s nationalism into victimization and national pride aspects. First, we control the anti-US sentiment because it captures a general trend of xenophobia that could bias the effects of Learning frame and confound the effects of the Competing frame. In addition, it controls a general level of nationalism sentiment for the aspect of “victimization (Woods & Dickson, 2017).” There are three variables to measure the sentiment toward the US in ABS5. Respondents answer whether the US influence the following regions, Asia (Q175), to the world (Q176) and to their own country (Q184), positively or negatively. Three questions use different scales. Thus, we use factor analysis to extract one factor and standardize it with higher value as the more negative the respondents perceiving the US

influence. Furthermore, we include the question on national pride (Q166) to control the general sentiment of nationalism (the national pride aspect). Finally, we include a set of individual-level demographic variables and attitudinal variables to examine the robustness of our findings. The demographic variables include age (SE3\_1), education (SE5), gender (SE2), marital status (SE4), perceived own economic conditions (Q4), and geographical region (Region). The attitudinal variables include social trust (Q22), trust in the central government (Q9), trust in local government (Q15), and three questions on internal and external political efficacy (Q141–Q143). The detailed question wordings are available in the appendix.

## **Results**

We use OLS estimator for analysis. Table 1 presents the results. Model 1 only includes key independent variables and control variables. Model 2 adds demographic controls (including regions) and Model 3 adds attitudinal controls. The results show that both Competing Nationalism and Learning Nationalism have robust positive associations with immigration support across three models. A high level of competing nationalism increases immigration support by 11.5%, 10.3% and 9.3% standard deviations in three models, respectively. Learning Nationalism increases immigration support by a larger margin, 23.5%, 19.3% and 19.6% standard deviations in three models. These results are consistent with the experiment. They confirm that both types of developmental frames have positive effects on immigration support, and Learning Nationalism has a stronger effect in comparison. The survey results suggest that the effects of these frames are very likely to exist in the long run. Citizens carrying the Learning and Competing frames in mind are more likely to support a more liberal immigration policy for foreigners.

**Table 1 Regression Results on Immigration Support (ABS-5)**

|                                            | (1)<br>Simple          | (2)<br>Demo Ctrl      | (3)<br>Full           |
|--------------------------------------------|------------------------|-----------------------|-----------------------|
| Competing Nationalism                      | 0.115***<br>(0.0292)   | 0.103***<br>(0.0306)  | 0.0933***<br>(0.0307) |
| Learning Nationalism                       | 0.235***<br>(0.0822)   | 0.193**<br>(0.0820)   | 0.196**<br>(0.0823)   |
| Std.anti-US sentiment                      | -0.136***<br>(0.0164)  | -0.123***<br>(0.0166) | -0.125***<br>(0.0167) |
| Std. national pride<br>(higher=more proud) | 0.0270*<br>(0.0146)    | 0.0295**<br>(0.0146)  | 0.0167<br>(0.0150)    |
| Constant                                   | -0.0649***<br>(0.0195) | 0.177<br>(0.108)      | 0.276**<br>(0.112)    |
| DemoControls                               | No                     | Yes                   | Yes                   |
| Regions                                    | No                     | Yes                   | Yes                   |
| AttitudeControls                           | No                     | No                    | Yes                   |
| Observations                               | 4941                   | 4928                  | 4928                  |
| R <sup>2</sup>                             | 0.021                  | 0.046                 | 0.050                 |

Standard errors in parentheses; missing variables coded as midpoints.

\*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

We conduct heterogenous analyses to detect to what extent the effects of inclinations to two nationalism frames on immigration support are moderated by a variety of variables. We use interaction models in the estimation. We find that women are more susceptible to both competing and learning nationalism than men to determine their attitudes toward immigration. Older respondents' competing nationalism inclination has lower effects while learning nationalism has higher (but very moderate) effects. Higher national pride enlarges the effects of Learning Nationalism while reduces the effects of Competing Nationalism. The higher anti-US sentiment enlarges the effects of both frames but in a very moderate scale. Higher trust in the central government reduces the effects of learning nationalism while generates almost no heterogenous

effects (slightly positive) to competing nationalism. Higher social trust significantly enlarges the effects of competing nationalism on immigration, while its heterogeneous effects on learning nationalism are very moderately positive. These heterogeneity results are suggestive given the instability of statistical significance test results. The detailed results are available in the appendix.

Overall, the ABS5 results provide additional observational support for H1 and H2. Citizens with stronger Competing and Learning nationalist orientations are more likely to support admitting more foreign workers, which is consistent with the experimental finding that developmental nationalist frames increase support for high-skilled immigration.

## **Conclusion**

This paper examines whether nationalism necessarily reduces support for immigration, or whether different nationalist frames can generate different immigration attitudes. Existing studies usually emphasize the exclusionary logic of nationalism, treating immigrants as outsiders who threaten national identity, cultural cohesion, or economic interests. This paper proposes a different argument: in developing-country settings, nationalism may also contain a developmental logic. When national strength, modernization, and technological upgrading are widely understood as central national goals, high-skilled immigrants are regarded not as threats but as resources for national development.

Using evidence from China, this paper tests two developmental nationalist frames: the Competing frame and the Learning frame. The survey experiment shows that both frames increase support for high-skilled immigration relative to the Exclusionary frame. Respondents exposed to the

Competing and Learning frames express stronger support for attracting high-skilled immigrants and retaining international students, and they are more likely to recognize the developmental contribution of immigration. The observational analysis using ABS5 provides consistent evidence: respondents with stronger competition-oriented and learning-oriented nationalist attitudes are more supportive of admitting foreign workers.

These findings suggest that the Competing and Learning frames are not contradictory. They represent two compatible ways of linking immigration to national development. The Competing frame emphasizes strengthening the nation in geopolitical and technological rivalry, while the Learning frame emphasizes adopting successful experiences from developed countries. However, both frames rest on the same developmental nationalist logic: openness to high-skilled immigration can serve the collective goal of national modernization and national strengthening.

This paper makes three contributions. First, it shows that nationalism does not affect immigration attitudes only through exclusionary boundary-making. The Competing and Learning frames can also increase support for high-skilled immigration because they present immigration as serving national development and technological upgrading. Second, it extends the literature on nationalism and immigration attitudes to a non-Western developmental setting, showing that nationalism operates through different evaluative logics across developmental contexts. In developing-country settings, nationalism more often incorporates developmental goals, and citizens assess immigration in relation to national modernization and technological competition rather than purely through cultural or economic threat. Third, it contributes to developmental-state research by

highlighting the symbolic effects of developmentalism. Development functions as both a state objective and a public interpretive frame. Practically, these findings suggest that framing high-skilled immigration as serving national development may help build public support for more open immigration policies.

This paper also points to several directions for future studies. First, scholars can continue to examine whether developmental nationalist frames work similarly in other late-developing societies. Second, this paper treats high-skilled immigrants as a broad category, while public attitudes may vary by nationality, race, skill type, and cultural distance. Future studies may discuss how the backgrounds of immigrants may affect the effectiveness of developmental nationalist frames. Third, the experiment captures immediate framing effects, and future research can further examine whether these effects persist over time under changing geopolitical or economic conditions. Fourth, future survey studies can better design questions that directly ask respondents whether they agree with the Competing and Learning frames.

Policy implications follow from these findings. More broadly, public support for high-skilled immigration depends on how nationalism links to national development goals. Framing immigration as a driver of technological upgrading, innovation capacity, and global competitiveness can strengthen public acceptance. In China's context, embedding high-skilled immigration within narratives of national modernization and technological competition can help increase support for more open talent policies and more liberal immigration policies.

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