

# Public Support for Migrant Entrepreneurship: The Case of North Koreans in the Republic of Korea

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## Abstract

Migrant entrepreneurship is viewed as a pathway to substantive social integration, one that makes host countries more prosperous in the process. Accordingly, scholars have studied the social context in which migrant entrepreneurs operate, and considered at length the range of policy options that governments can use to support their activities. Conversely, the issue of public attitudes to policies that support migrant entrepreneurship has been largely neglected. Leveraging the case of North Korean migrant entrepreneurs in South Korea, this article fills this gap in the literature by examining how the structure of government support within a broader ‘policy mix’ for migrant entrepreneurship policies acts on public attitudes. Overall, it finds South Koreans are most supportive of migrant entrepreneurship policies endorsed and paid for by large companies through corporate taxation or loans to the individual, rather than the state, and which have a target goal of employment support for profitable migrant-run firms or joint ventures run by teams of natives and migrants. Notably, policies explicitly justified as tools to address discrimination actively discourage support. The specifics of the Korean case show that determinants of native hostility toward migrants apply to migrant entrepreneurship even when ethnic differences and many of the institutional barriers that apply in other cases do not exist, suggesting that ethnicity is not a major motivating factor; economic rationality and what is ‘good for South Korea’ are.

**Keywords:** Migration, Integration, Entrepreneurship, Policy Mixes, Experiments

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# 1 Introduction

What are public attitudes towards migrant entrepreneurship policies? This is an important but largely unstudied question. Entrepreneurship fosters socioeconomic integration among migrants and makes the host country more prosperous (Rath and Swagerman 2016; UNC-TAD 2018). Scholars have studied the social context in which migrant entrepreneurs operate for decades (Ram, Jones, and Villares-Varela 2017; Sinkovics and Reuber 2021), with new work focusing on policies in place to support them (Solano 2021). Yet, the existing literature has largely neglected the issue of public attitudes to policies that support migrant entrepreneurship. This article fills this gap in the literature by examining how the structure of government support within a broader ‘policy mix’ for migrant entrepreneurship policies affects general support and social integration.

To address the question, this paper considers the case of North Korean entrepreneurs in South Korea. This group provides a good case study for social integration. An ethnically identical, culturally and linguistically similar group, North Korean migrant entrepreneurs – indeed, all North Korean migrants<sup>1</sup> – have near-automatic citizenship rights in the Republic of Korea and, while not free of discrimination and integration challenges, do not face the same barriers that migrant entrepreneurs elsewhere often do. As a result, they are, in a sense, among the least likely among all migrants in developed countries to face barriers to integration. Accordingly, the advantageous conditions that obtain in the process of their migration and resettlement facilitate the examination of whether public attitudes that might otherwise be attributed to race or ethnic-based prejudice, a common finding elsewhere, could instead represent simple immigrant discrimination.

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1. In this paper, we refer to North Koreans who have resettled in South Korea as ‘migrants’. There are myriad terms used to refer to those who left North Korea. One of the more common of these, especially in English, is ‘defector’ (*talbukcha*), which carries a political connotation that is frequently unjustified. This group is also and often referred to as refugees, given the conditions under which they left their home country. This term denotes a lack of individual agency in the process that is, again, often unjustified. In the Korean-language text used in this research, we used the term *talbukmin*, which we would translate as ‘defector-migrant’. In this paper, we use ‘migrant’. Denoting migration reflects the objective and the relatively uncontroversial fact that this is a group of people who have left one place to find a new and, for most, better place to live.

Using a choice-based conjoint experiment supported by open-text answers, we examine the determinants of attitudes among South Korean residents regarding business support policies targeting North Korean migrant entrepreneurship. The conjoint permits us to test the simultaneous effects of various attributes in a multidimensional design (Hainmueller, Hopkins, and Yamamoto 2014), and the open-text answers allow us to understand better what motivates support. The work is inspired by the policy mix literature, which focuses on policy instruments and goals, policy rationales, actors, and funding mechanisms (Flanagan, Uyarra, and Laranja 2011; Cunningham and Laredo 2013; Borrás and Edquist 2013; Magro and Wilson 2019).

The specific content of the experimental design reflects theoretical expectations drawn from the literature regarding public attitudes towards immigration and migrant welfare support and the socioeconomic and political context specific to South Korea, with a focus on the policy goals, instruments, and eligibility requirements but considerate of the extent to which prejudice, economic self-interest, and broader sociotropic concerns drive preferences. Furthermore, we consider how endorsements by particular partisan or civic actors impact public support for specific migrant entrepreneurship support policies (Schläpfer and Schmitt 2007).

The conjoint findings show that South Koreans are most supportive of migrant entrepreneurship policies endorsed by and paid for by large companies that have a target goal of employment support for profitable migrant-run firms or joint ventures run by teams of natives and migrants. Evidence from our case suggests that the findings from the immigration attitudes literature can be applied to issues of migrant entrepreneurship support policies. Respondents favor program aims, instruments, and funding structures that match what sociotropic and economic self-interest literature predict. In fact, business support policies explicitly justified as tools to address discrimination discourage support. Elite cues, particularly political party endorsements, tend to discourage support as well, while civil society endorsements have no discernible effect.

Analysis of the open-text answers corroborates the conjoint-based findings, especially regarding the economic rationale behind migrant entrepreneurship policy support. It also reveals a strong national bias, projected as a normative concern, in policy preferences. According to this interpretation, South Koreans are compelled to support policies designed to support North Korean entrepreneurship out of a sense of what is generally ‘good’ for South Korea. This motivation can be linked to sociotropic concerns insofar as it is nation-centric, but it is not related to any specific economic concern nor is it based on feelings of co-ethnic solidarity with North Korean migrants.

Our findings demonstrate how insights from the immigrant attitudes literature, i.e., determinants of native hostility toward migrants, apply to migrant entrepreneurship even when ethnic differences and many institutional barriers do not exist. As such, the broader relevance and contribution of this research lies at the intersection of (ethnic) return migration, entrepreneurship, and migration integration policy.

The rest of the paper proceeds as follows. We begin with a short review of the literature on migrant entrepreneurship and attitudes toward migrants generally to generate a set of theoretical expectations informed by the literature and categorized according to the typology common to the policy mix literature. We then provide a primer on North Korean migrants and migrant entrepreneurs in South Korea, which justifies our case selection. Following this, we review the research design and other methodological considerations, then present our findings. In the conclusion, we offer a summary, consider the limitations of our findings, and introduce avenues for future research.

## 2 Constructing Migrant Entrepreneurship Support

The existing literature on migrant entrepreneurship focuses on the experiences and issues faced by the entrepreneurs themselves (Rath and Schutjens 2015; Ram, Jones, and Villares-Varela 2017) and policies supporting migrant entrepreneurs (Solano 2021). Both the United

Nations Conference on Trade and Development (2018), below ‘UNCTAD’, and the European Commission (2016) have published guides on best practices for supporting migrant entrepreneurship. Reflecting the focus of this literature, both of these guides focus on policy priorities and measures of effectiveness, such as policy strategy coherence, regulatory optimization, human capital development (education and skills), technology exchange, access to finance, and awareness and networking. Building on this work, Solano (2021) utilizes the European Commission’s framework to examine the scope of policy support in different countries and the institutional framework that migrant entrepreneurs face, including restrictions on self-employment, sector-specific restrictions, and forms of policy support offered to address barriers to entry.

However, the focus on program evaluation and policy best practices reflected in the UNCTAD and European Commission reports tells us little about the state of public opinion regarding different policy options. Given the importance of public support for redistribution and migrant integration, this constitutes a considerable knowledge gap. The lack of political power and social capital for minority groups, like North Korean migrants, means they are unable to wield much influence over policy (Kloosterman, Van Der Leun, and Rath 1999; Barrett, Jones, and McEvoy 2001; Jones et al. 2014). Public opinion is potentially more important in determining the contours of policy design (Burstein 2003; Wlezien and Soroka 2016; Klüver and Pickup 2019).

Migrant entrepreneurship support policies are wide-ranging, but the literature on public attitudes toward immigrants and migrant welfare provisions indicates that some policies may be more popular than others. Casting these provisions as part of a broader policy mix (Flanagan, Uyarra, and Laranja 2011; Cocos and Lepori 2020), hereafter we review the most relevant aspects, the mechanisms driving attitudes, and the expected outcomes.

We start with the policy goal, rationale, and public cost. The literature on public attitudes toward migrants indicates that natives may discriminate against the ‘other’, but the reasons for this are manifold (Hainmueller and Hopkins 2014). There is a fairly extensive

literature that considers the extent to which discrimination is motivated by sociotropic concerns (Solodoch 2021), material self-interest (Gerber et al. 2017), and exclusionary attitudes toward ethnically and culturally dissimilar migrants (Esses 2021).<sup>2</sup> However, the boundaries between these motivations are not always clear.

Concerns about employment (labor market competition) and costs to the taxpayer (welfare costs) are generally considered sociotropic or individual material self-interest-related and primary motivations of public attitudes. Hence, in many countries, natives generally support high-skill over low-skill immigration (Tzeng and Tsai 2020). Sociotropic concerns, which regard natives' opinions about the economic or cultural impact of immigrants on the entire country (Kinder and Kiewiet 1981), may motivate natives in favor of migrant entrepreneurship that has a positive effect on employment or the business environment generally, while perceived economic self-interest may mean respondents favor programs that come at low to no cost to the taxpayer or offload costs onto other groups in society (Gerber et al. 2017). Relatedly, the literature on welfare chauvinism indicates that natives are highly motivated by a contributory principle. Migrants are seen as newcomers who have not contributed sufficiently to the tax base to justify certain kinds of support, such as non-repayable grants or cash transfers (Berens and Gelepithis 2019; Eick and Larsen 2022).

Given prior research on the potential salience of labor market competition for opposition to immigration generally (Hainmueller and Hopkins 2014; c.f. Hainmueller, Hiscox, and Margalit 2015), we expect policies that create jobs to generate strong support. We also expect respondents to favor lower-cost programs, and those which shift costs away from them and those around them.

Next, we consider the policy instrument and target beneficiaries. Concerns about labor markets and costs are often motivated by exclusionary attitudes that are often attributed to ethnic discrimination. Thus, the provision of economic support to migrants is often

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2. Exclusionary prejudice is not always motivated by ethnicity either and can be based more narrowly on origins (Denney and Green 2021; Denney, Ward, and Green 2022; Tsuda 2022; cf. Hough 2022a).

structured by exclusionary attitudes toward an ethnic ‘other’ (Careja and Harris 2022).<sup>3</sup> And even when the ‘other’ is a co-ethnic, an exclusionary attitude towards non-natives may prevail (Ward and Denney 2022; Kim 2022). These findings suggest that natives might be unwilling to grant significant financial support to foreign-born entrepreneurs. Thus, they may support more exclusionary institutions that limit foreign ownership or entrepreneurial autonomy.

In addition to the more common aspects of the policy mix<sup>4</sup> – instruments and goals – research indicates that attitudes may be impacted by cues from political elites, which often exercise considerable influence on public opinion formation (Nicholson 2012; Druckman, Peterson, and Slothuus 2013; Bullock 2020). Endorsements from specific parties or political leaders can affect support for particular policies that target migrant groups, either in the form of motivating support (Harteveld, Kokkonen, and Dahlberg 2017) or opposition (Rossell Hayes and Dudek 2020).

Interest group and civil society endorsements may act as another form of elite or group cues. Research indicates support for particular migrant-related policy proposals among particular interest groups, especially business associations, are likely to impact attitudes towards immigration policies (Facchini, Mayda, and Mishra 2011; Freeman and Tendler 2012). Likewise, civil society organizations are seen as facilitating significant changes in migration policy (Narkowicz 2018; Chung 2020), although the evidence for the effects is mixed; the limits to public awareness of civic groups make their expected endorsement impact on public opinion unclear (Dür 2019; Jungherr et al. 2021).

Table 1 summarizes the broader theoretical approach employed in this research, specifying the aspect of the policy mix we are concerned with, the mechanisms that motivate attitudes, and the expected outcome for public opinion. In the next section, we discuss our case

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3. This can also extend to programs that may not have high unit costs, like Covid-19 vaccination (Larsen and Schaeffer 2020; Iida, Kawata, and Nakabayashi 2022).

4. Interest in and research on policy mix approaches is driven largely by the innovation policy literature (Flanagan, Uyarra, and Laranja 2011; Cunningham, et al. 2013; Borrás and Edquist 2013; Magro and Wilson 2019).

selection in more detail and then connect our theoretical approach to our experimental design to show how we empirically resolve our theoretical expectations.

<b>Aspects of Policy Mix</b>	<b>Mechanism(s)</b>	<b>Expected Outcome</b>
Policy goal and rationale	Sociotropic and integration concerns	Preference for programs that support employment and improved business conditions generally over more specific or targeted aims
Public cost	Economic self-interest	Support for lower-cost programs or financing by sources other than individual respondents
Policy instrument and beneficiary	Discrimination and welfare chauvinism	Preference for in-kind over cash provisions and lower-cost programs; ownership restrictions expected
Political actors	Partisan cues	Likely to increase or decrease support
Civic and interest groups	Civic and interest group cues	May impact opinion but expectations are unclear

**Table 1:** Summary of Theoretical Expectations Regarding Migrant Entrepreneurship Support

### 3 North Koreans in South Korea

This paper considers the unique case of North Korean migrant entrepreneurs in the Republic of Korea (or, South Korea). Strictly speaking, the South Korean government views North Koreans in the North as residing in its sovereign territory and thus as co-nationals.<sup>5</sup> Upon escape and subsequent resettlement, they are provided with considerable support.<sup>6</sup> Unlike other migrant groups studied in the literature, migrants of North Korean origin who arrive in South Korea have near-automatic rights to citizenship (Green and Denney 2018; cf. Greitens 2021). Furthermore, they do not face many of the same resettlement and integration barriers that migrants elsewhere do, including comparatively low levels of discrimination vis-a-vis other migrants (Ha et al. 2016; Denney and Green 2021)

Most notably, North Korean migrants in South Korea do not face hard language barriers (Ram, Jones, and Villares-Varela 2017), or institutional restrictions on residency and self-employment common to many migrant entrepreneurs (Solano 2021). As noted in competitive studies of migrant integration (Alba 2005) and in similarly designed studies focusing on North Koreans (Hur 2022), the key variables are claims of a common origin and ethnicity. These conditions allow us to examine whether attitudes that might otherwise be attributed to race or ethnic-based discrimination may be simple immigrant discrimination.<sup>7</sup> Co-ethnics

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5. As per article three of the South Korean constitution, “The territory of the Republic of Korea shall consist of the Korean peninsula and its adjacent islands.” This is the legal claim to all North Korean territory. See: <https://www.law.go.kr/lstInfoP.do?lslSeq=61603#>. The legal case confirming the right of North Korean citizens to South Korean citizenship is Nationality Act Case 12-2 KCCR 167, 97Hun-Ka12, August 31, 2000. See: <http://search.ccourt.go.kr/xmlFile/0/010400/1/pdf/e97k12.1.pdf>.

6. The scope and scale of South Korean government support for members of this group has waxed and waned during the 21st century. Currently, new arrivals receive a basic payment of approx. 6,000 USD per person plus housing, as well as employment subsidies, several other support payments tailored to individual demographics, educational, and vocational training opportunities. The system as currently constituted is described on the website of the Ministry of Unification: <https://www.unikorea.go.kr/unikorea/business/NKDefectorsPolicy/settlement/System/>.

7. Hur (2022: 1) argues convincingly that the resettlement of North Korean migrants in South Korea is “a case of co-ethnic integration that naturally controls for many confounders of successful integration.” We agree but note, with implications for our own study, that some of these controls are overstated, most notably when asserting, “All North Korean refugees are required to complete the same three-month integration program at Hanawon, the government’s resettlement center” (Hur 2022: 3). The Hanawon integration program is not homogenous, differing in part on the educational choices made by the arriving migrant. Nevertheless, the number of natural controls applicable in the case of North Korean migrants entering South Korea sets the case apart from others.

from North Korea are, arguably, some of the least likely among migrants to face barriers to integration. Alba (2005), for instance, notes four potential "bright boundaries" that may clearly demarcate native-immigrant group membership: citizenship, religion, language, and race. None of these visible boundaries apply to North and South Koreans.

Yet, native South Korean attitudes toward North Korean migration and support for welfare policies to support them are sometimes mixed (Denney and Green 2021; Denney, Ward, and Green 2022; Ward and Denney 2022).<sup>8</sup> That research finds a lack of social integration (Yoon 2021; Hough 2022b; Yoon 2021) underscores the importance of the current research for both comparative reasons and South Korea specifically.

## 4 Data and Methodology

We use a choice-based conjoint to measure preferences for various policy proposals. A commonly used experimental approach in the political and social sciences (Hainmueller, Hopkins, and Yamamoto 2014), the conjoint is a multidimensional design ideal for testing the simultaneous effect of different attributes on an outcome. In this case, policy support for North Korean migrant entrepreneurship.

As discussed, our research design is motivated by the literature on policy mixes. In designing the conjoint, we choose attributes reflective of our various quantities of interest regarding public attitudes towards migrant support policies. These attributes include the policy goal and rationale, funding instrument, and endorsement by political, business, and civil society actors. Our design choices reflect what we find to be theoretically and substantively meaningful. Table 2 shows our choice of attributes and their corresponding levels. Each attribute reflects an aspect of the policy mix identified above, and the levels reflect theoretically motivated and locally relevant values.

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8. Multiple studies show that this group faces systemic and everyday discrimination (e.g., Kim and Jang 2007; Bidet 2009; Youm and Kim 2011). Surveys also find that cultural and language differences impede faster and more substantive social integration (Hana Foundation 2017: 16; Hana Foundation 2020: 40; Hana Foundation 2021: 41).

Policy Mix Aspect	Attribute	Values
Policy goal and rationale	Policy Goal	Support entrepreneurship Support start-ups or firm growth Employment support Support innovation or research & development
	Reason to Support Policy	It is good for South Korea It will help North Koreans who face discrimination It will improve local business conditions Other countries use similar policies to help new immigrants
Cost	Public Cost	Government deficit spending Income tax increase Corporate tax increase
Instrument and beneficiary	Policy Instrument	Advisory services only Subsidized office space and incubation support Non-repayable grants (i.e., cash transfer) Tax credit Special low interest loan
	Eligible Recipients	All businesses run by migrants All joint ventures between defector-migrants and native South Korean partners Only profitable defector-run businesses
Political actors	Main Endorser	Some people endorse this policy The President endorses this policy The Minjoo Party endorses this policy The People's Power Party endorses this policy
Civic and interest groups	Views of Business Community	Some businesspeople support this policy Small business owners support this policy An association of SMEs supports this policy Large companies support this policy
	Views of Civil Society	Some members of civil society support this policy North Korean defector-run NGOs support this policy Migrant worker groups support this policy Human rights groups support this policy

**Table 2:** The Policy Mix: Defector Business Support Attributes and Values

Attributes also contain a level we consider a ‘natural’ reference category, as either a conceptually meaningful but non-specific value (e.g., ‘support entrepreneurship’ or ‘some businesspeople support this policy) or as an intuitive default value, such as ‘all businesses’ under the recipients attribute as a commonsense assumption for who will get support, or ‘deficit spending’ as a common and easy way for governments to fund programs.

Among the attributes devised, the policy goal is most notable as the attribute that, in our view, is most closely related to the concept we are most interested in – social integration via migrant entrepreneurship. Within this attribute, the ‘employment support’<sup>9</sup> policy goal is that which measures most directly the social integration aspect of migrant entrepreneurship support (Brell, Dustmann, and Preston 2020). We give particular focus to this attribute in the analysis below. The other policy goals are meant to reflect common types of entrepreneurship support.

The policy rationales provided are meant to determine the extent to which respondents can be persuaded to assist with the integration process ('help North Koreans who face discrimination') or an economic ('business conditions') rationale. Appealing to 'other countries' draws on the idea that South Koreans may wish to reflect policies common internationally and the general category 'it is good for South Korea' represents the default value, reflecting a general sense of being good for the country.

The public cost and instrument values draw from the migration integration literature (e.g., UNCTAD 2018 and Solano 2021) and broader policy mix literature on interventions for business support reviewed above. Eligible recipients measures types of economic ('only profitable migrant-run businesses') and/or social discrimination ('joint ventures with South Korean partners') regarding natives' ownership preferences for firms receiving policy support.

The remaining attributes (endorser, business view, and civil society view) are designed to represent various actors that may activate political or group cues. For political endorsers, we use the ruling ('Minjoo Party') and opposition ('People's Power') parties at the time of the survey, the president, and the general non-politicized reference value.<sup>10</sup> Business

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9. With this attribute level, we are measuring employment support for the North Korean migrants by supporting businesses run by them, in addition to those these businesses may employ. That may be other North Korean migrants (or those from other origins) and/or native South Koreans.

10. In Korea, the right-of-center People's Power Party is widely seen as the steward of the economy, whilst the Minjoo Party, in accordance with changes elsewhere, is a very broad church that has gone from representing the interests of the working class to a broader coalition of lower and middle socio-economic and educated groups. North Korean migrants, however, motivated by policies on North Korea specifically, have tended to support the conservative party irrespective of class affiliations. The president, at the time of the survey, was Moon Jae-in, a member of the Minjoo Party. On left-right differences in attitudes towards North Korean migrants, see Kim and Lee (2021).

group values represent common categories in industrial democracies. Civil society groups represent generic ('human rights groups' and 'migrant worker groups') and three specific to South Korea ('North Korean migrant-run', 'Joint Venture' and 'Profitable North Korean migrant-run').

To complete the experiment, 2,009 South Koreans were recruited using an online panel of participants who opted-in between August 26 and September 27, 2021. The sample is balanced by age, region, and gender to approximate population statistics for that year. Appendix A in the Supplementary Information provides a more thorough sample overview.

After an introduction to the research, respondents were told to think about a hypothetical situation in which the South Korean government expanded support for businesses owned by North Korean migrants. They were then asked to evaluate two competing policy proposals and choose which, among the two, they most support. After answering the forced-choice question, respondents were asked to rate on a scale of 1-7 how much they agreed with each policy. Each respondent completed the exercise (a 'task') five times, resulting in a total sample size of 20,090 ( $2,009 * 5 * 2$ ). After the fourth profile, respondents were asked to explain why they chose the policy option that they did. For each task, attribute levels are fully randomized. To avoid order effects, so too are the order of the attributes. Figure 1 shows an English-language approximation of what each respondent saw when completing a task.

The main analysis of the experimental data is conducted by estimating attribute level effects using Average Marginal Component Effects (AMCEs), which show the causal effect that each attribute level has on the probability of a policy being supported averaged over the effects of the attribute levels (see Hainmueller, Hopkins, and Yamamoto 2014), and Marginal Means (MMs), which show the mean outcome of each attribute levels averaged across the rest. In a forced-choice design, average is .50 with means above the average indicating attribute value favorability. The MM can be read as the percentage of profiles chosen given the attribute value. As per Leeper, Hobolt, and Tilley (2020), MMs are suitable for compli-

menting AMCEs and are advisable for interaction models and estimating conditional average treatment effects. Textual analysis is conducted using a mixed-methods approach of topic modeling and qualitative analysis described in more detail below.

**1/5**

**North Korean migrants receive various types of support for resettlement, but there are areas where more support is considered. Imagine that the South Korean government is considering additional forms of support for businesses owned by North Korean migrants. Please evaluate the following policy proposals and choose the one that you most agree with.**

**This exercise is purely hypothetical. Even if you aren't entirely sure, please indicate which of the two you prefer.**

	<b>Proposal A</b>	<b>Proposal B</b>
<b>Main endorser</b>	The President endorses this policy	The Minjoo Party endorses this policy
<b>Policy goal</b>	Employment support	Support entrepreneurship
<b>Policy instrument</b>	Special low-interest loan	Non-repayable grant (i.e., cash transfer)
<b>Public cost</b>	Income tax increase	Corporate tax increase
<b>Views of the business community</b>	An association of SMEs supports this policy	Large companies support this policy
<b>Views of civil society</b>	Human rights groups support this policy	Some members of civil society support this policy
<b>Reason to support policy</b>	It is good for South Korea	It will help North Koreans who face discrimination
<b>Which of the two policy proposals do you support?</b>	<b>Proposal A</b> <input type="radio"/>	<b>Proposal B</b> <input type="radio"/>

**Rate your agreement with proposal A and proposal B, 1=strongly disagree 7=strongly agree**

<b>Proposal A</b>	1	2	3	4	5	6	7
<b>Proposal B</b>	1	2	3	4	5	6	7

**Figure 1:** The Experimental Design

## 5 Results

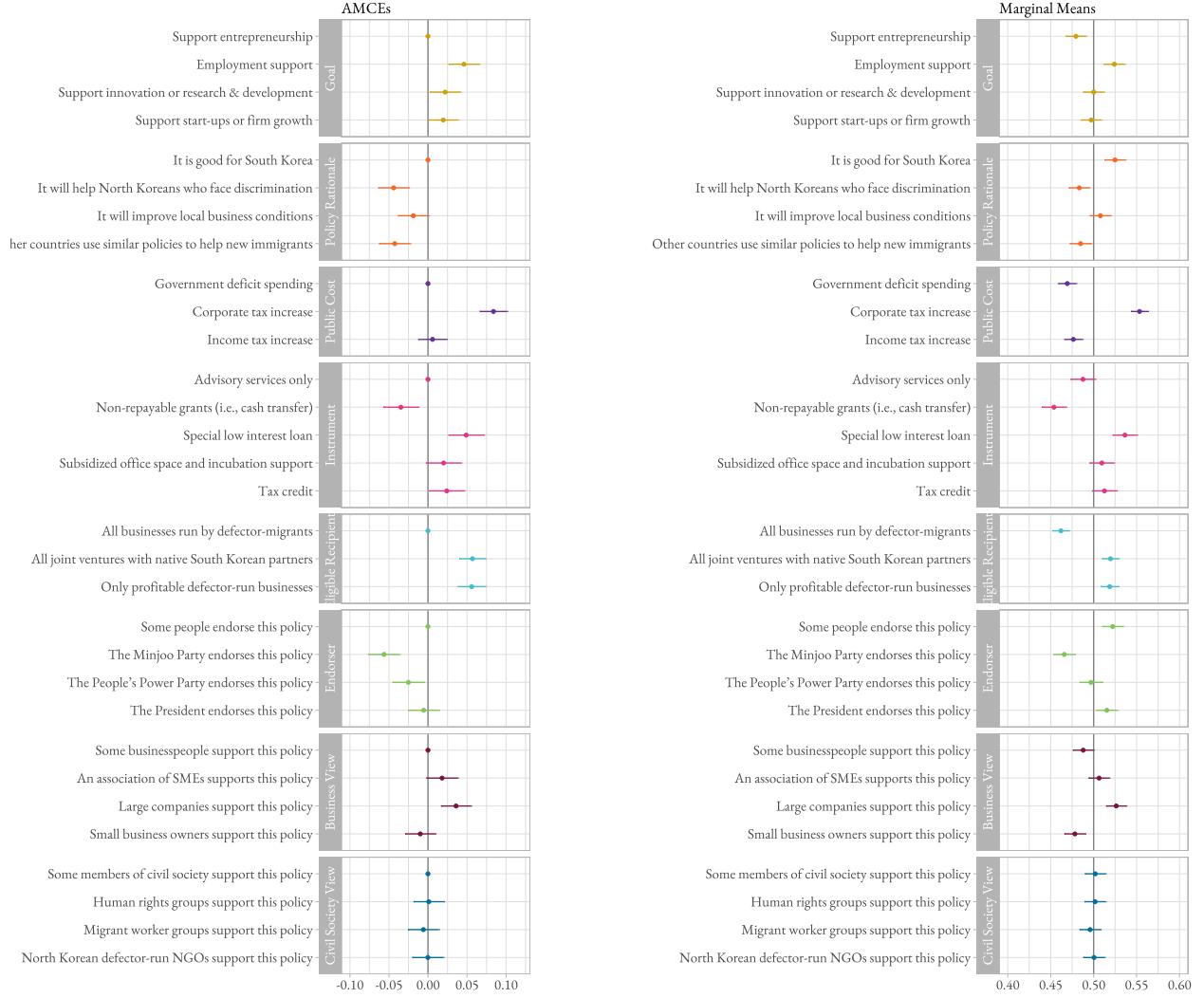
Figure 2 shows the main effects for the AMCEs and the MMs.<sup>11</sup> Overall, we see that migrant entrepreneurship policy with goals of employment support, paid for by corporate tax increases, issued in the form of a repayable loan, and endorsed by the business community are specific aspects of the policy mix that motivate public support. There is a preference that only migrant firms that have demonstrated economic viability (profitability) or those in a joint venture with a native should be eligible. Further, we see that rationales that benchmark other countries' immigrant support policies discourage support, as do cash transfer instruments (non-refundable grants), and political endorsements – especially by the Minjoo Party.

The largest marginal component effect shows in public cost. Respondents are moved by offloading financial responsibility to corporations ('corporate tax increase'). Relative to the baseline category ('deficit spending'), if corporations pay for the policy, the probability of policy support increases by 8.4 percentage points, according to the AMCEs. Or, as per the marginal means, policy profiles containing this attribute level are chosen 55 percent of the time. Similar positive effects are noted for eligibility. Relative to the level specifying eligibility for all migrant-run firms, if joint ventures or profitable migrant-run businesses are specified, the probability of policy support increases by six percentage points each.<sup>12</sup>

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11. Tables for the main AMCE estimates and the marginal means are provided in Appendix C.

12. The difference in interpretation between the AMCEs and marginal means for eligible recipients is instructive. The AMCEs show the marginal effects relative to the reference category ('all business run by migrants'), which suggests support for the other two options (joint ventures and profitable firms). However, as the marginal means show, what is mainly driving opinion is opposition to policies targetting all firms. The relatively low marginal mean evidences this for 'all business' (.46). The two alternatives have a marginal mean above .50, which indicates support, but at .52, it is not particularly high.



**Figure 2:** The effects of policy mix attributes on the probability of support for migrant business policy

*Note:* For average marginal components effects (AMCEs), the estimates show the effects of the randomly assigned information attribute values on the probability of use. The point values from the marginal means (MMs) show the mean outcome of any given attribute level, averaged across all others. The estimates and means are based on the benchmark OLS model with clustered standard errors. The error bars represent 95% confidence intervals.

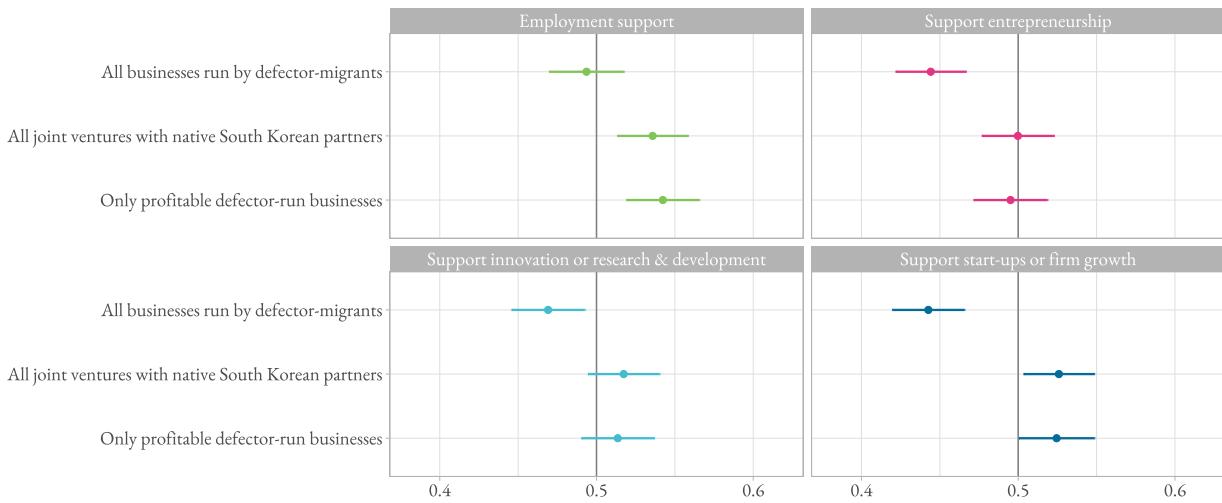
Overall, there is a clear economic rationale motivating preferences, but this is tied to broader sociotropic concerns and those which port onto support for social integration via employment. This is evidenced by ‘employment support’ being the most preferred policy goal.<sup>13</sup> To further explore the interaction of purely economic and broader sociotropic concerns, we examine the interaction between the policy goal and two other important policy mix features – eligibility and instrument. The focus here is on whether the attribute levels for these two additional features affect peoples’ policy goal preferences.

In the first instance, we examine the interaction between goal and eligibility (Figure 3). We observe interaction effects. The type of firms eligible impacts which goal of the migrant support policy people support. Broadly consistent with the main findings, we see that respondents favorably appraise policies that match employment support with firms perceived to be economically viable or socially desirable (joint venture or profitable). We observe that respondents do not prefer policies that are available to all migrant businesses. Still, when the stated goal is supporting employment, they do not oppose it either. For all other goals, respondents do not support policies open to all migrant firms. In other words, policies that have goals of employment as a means of supporting North Korean migrant integration will not be opposed and will often be supported.

For the second interaction (Figure 4), we examine policy goals and instruments. Here we see more evidence that when corporations are financially responsible for supporting the migrant entrepreneurship policies respondents are encouraged to support any of the four policy goals more or less equally. And while in all other cases, respondents do not prefer the policy proposals, it is notable that for ‘employment support’ both deficit spending and increases to (personal) income tax there are no interaction effects. That is, respondents are neither motivated nor discouraged to support the policy. This is further evidence that respondents do not oppose migrant entrepreneurship policies aimed at supporting employment.

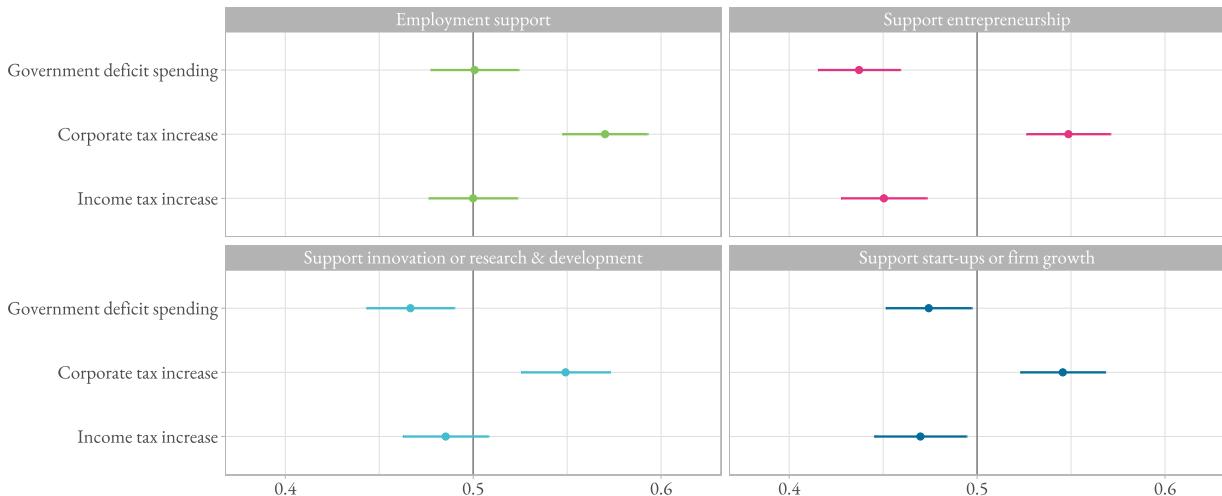
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13. A robustness check on the interpretation of the findings based on the forced-choice outcome is done using the ratings-based measurement. The main findings are corroborated. Further, we provide subgroup analysis by select socioeconomic, political, and demographic variables. The additional analysis is provided in Appendix D of the SI.



**Figure 3:** Marginal means of the interaction effects (eligible recipients \* policy goal)

*Note:* The point values from the marginal means (MMs) show the mean outcome of any given attribute level, averaged across all others. Estimates are based on the benchmark OLS model with clustered standard errors. The error bars represent 95% confidence intervals.



**Figure 4:** Marginal means of the interaction effects (policy instrument \* policy goal)

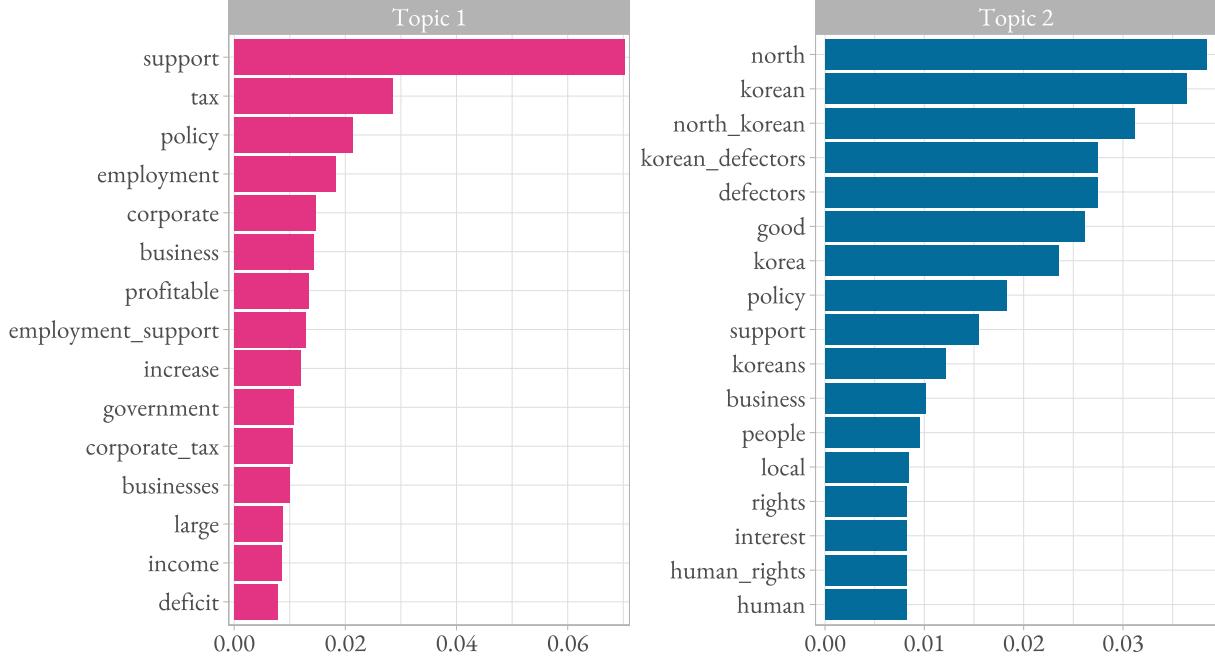
*Note:* The point values from the marginal means (MMs) show the mean outcome of any given attribute level, averaged across all others. The means are based on the benchmark OLS model with clustered standard errors. The error bars represent 95% confidence intervals.

Next, using the open-text answers collected after the fourth task, we examine what motivates migrant entrepreneurship policy support. This approach serves two, partially overlapping purposes. The first is a robustness check on the conjoint analysis, whereby we determine whether the interpretation above is corroborated using an alternative outcome measure. Second, in doing a robustness check, we seek to further unpack the rationales behind respondents' policy preferences. We use a mixed-method approach, combining a topic modeling method with a general qualitative reading and, to validate the analysis, manual coding of the 2,009 open-text responses.

First, for topic modeling, we use Latent Dirichlet Allocation (LDA). This is an unsupervised machine learning approach for classifying and understanding text (Blei, Ng, and Jordan 2003). This technique permits us to determine the number of abstract "topics" within the responses and the words associated with these topics. After translating the answers from Korean to English and cleaning the data, we analyze the response for the optimal number of topics based on a statistical measure of semantic similarity and interpretability (a 'coherence score'). We find two topics among the open-text responses.

Figure 5 reports the two topics and the words associated with them. The value on the x-axis indicates the probability of the word belonging to and thus defining the topic. The more common the word, the higher the probability score. Based on the words in each topic, we can then determine what the topic means, or, more substantively, what meaning and rationale respondents were conveying in their answers. Topic 1, with words like 'support', 'tax', 'policy', 'profitable', and 'employment support', reflects an economically rational motivation for policy preferences consistent with the sociotropic and economic self-interested interpretations of the choice-based conjoint findings. Topic 2, however, reveals a different rationale. Words like 'north korean', 'good', and 'support' are most common, with other words like 'rights' and 'human rights' rounding out what appears to be a normative motivation for supporting entrepreneurship policies for North Korean migrants.

Although the insight provided by Topic 2 is not an interpretation that was necessarily



**Figure 5:** Topics from the implementation of Latent Dirichlet Allocation

Note: The values on the x-axis show the probability of the term given the topic.

expected, the AMCEs and marginal means explored above (see Figure 2) indicate that a normative rationale is motivating preferences. Under policy rationale, ‘it is good for South Korea’ is, in fact, the only attribute level that has a positive impact on whether a respondent supports the policy. In this case, there appears to be a higher-order motivation regarding what should or ought to be done to assist in helping and/or socially integrating North Korean migrants. However, a closer look at the data complicates this interpretation.

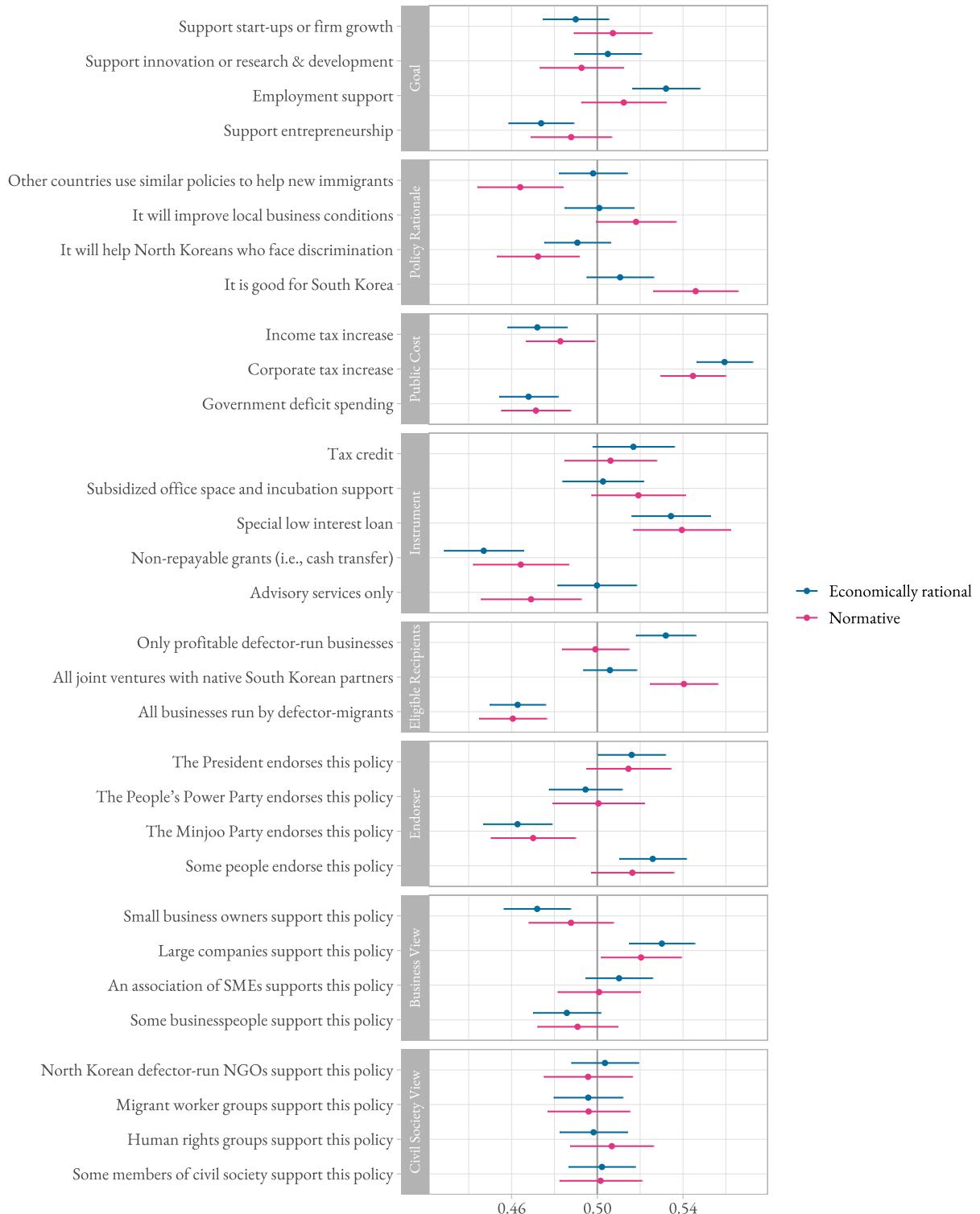
Tellingly, specifying that the policy ‘will help North Koreans who face discrimination’ has a small but negative effect on the likelihood that the policy will be supported (see Figure 2). This seems at odds with the idea that South Koreans are motivated by a sense of moral obligation or normative commitment to helping co-ethnic newcomers from North Korea. The motivation may be centered on some concept of what is ‘good’ – but good for whom?

To better understand the significance behind the two topics, we examine the respondent response-topic probabilities. In addition to extracting topics as a mix of words, the LDA model also estimates the probability that each respondent’s answer belongs to either of the

two topics. Using only those answers for which there is a greater than 50% probability of belonging to the topic, we create two groups according to their open-text answers. Next, we conduct subgroup analysis on the conjoint data, the point of which is to determine whether policy preferences are conditional on whether the respondents belong to the first or second topic group. In other words, do those motivated by an economic rationale evaluate policy mixes differently from those who are normatively motivated? Figure 6 reports the marginal means for the two groups.<sup>14</sup>

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14. In Appendix E of the SI, we perform a robustness check on the analysis based on the LDA model's response-topic probabilities using manually coded responses. The findings show some minor but not substantial differences.



**Figure 6:** Marginal means for the topic subgroups

*Note:* The point values from the marginal means (MMs) show the mean outcome of any given attribute level, averaged across all others. The means are based on the benchmark OLS model with clustered standard errors. The error bars represent 95% confidence intervals.

Instructively, we find heterogeneous treatment effects across the attribute levels. Those belonging to Topic 1 will support policies that target only profitably run migrant-run businesses (a marginal mean of .53), as we would expect, but those belonging to Topic 2 are ambivalent. Respondents whose motivations are classified as Topic 2 are more likely to support policies that are rationalized as being ‘good for South Korea’ (MM of .55), also as we would expect. However, if respondents belonging to Topic 2 were motivated in their policy preferences by some high-order principle to assist newcomers as we posited above, then we would expect to see an anti-discrimination logic moving opinions favorably. This is not the case. Helping ‘North Koreans who face discrimination’ does not sway this group. In fact, we see that they are discouraged from supporting a policy rationalized as similar to policies in other countries for helping new immigrants (MM of .47). Notably, it is this group who are most keen to support migrant entrepreneurship when eligibility is restricted to joint ventures. What does this mean?

A reading of some of the answers suggests a relatively straightforward interpretation. These are respondents mainly motivated by a South Korean-nation-centric logic that excludes overt consideration of North Koreans. One respondent from this group wrote, “If North Korean defectors are successfully settled, then it will be good for South Korea in the end.” Another respondent noted, “It is good for our country,” a common articulation of a similar sentiment. And drawing a sharp distinction between the two Koreas, one person remarked, “We do not need to support North Koreans, but [I chose the policy] because it is good for South Korea.”

The select questions show that South Korean respondents see the successful integration of North Korean migrants as good for South Korea. In this sense, it is a sociotropic-like rationale insofar as respondents think migrant support policies that are good for the country are worthy of support. Notably, there is no mention of employment or a clear economic rationale. As such, it is a kind of support more abstract than that captured by the rationale observed in the Topic 1 group, but arguably no less meaningful.

As noted in Figure 5, some terms seem more focused on North Koreans themselves (e.g., ‘human rights’). A search for responses containing ‘right’ shows some limited support for this interpretation, such as “human rights groups supported it” and “because human rights are important.” However, there are several respondents who see human rights as a politicized concept and even note their opposition to human rights-motivated policies, noting that “human rights groups are problematic.” The endorsement of a human rights group is what motivated them to, presumably, select the option not endorsed by such a group. It would appear that, overall, the Topic 2 group is mainly concerned with helping North Korean migrants to serve better the nation-state to which they belong – the Republic of Korea.

## 6 Conclusion

The issue of support for migrant entrepreneurship has gained prominence within the policy world, with academic interest only more recently following suit. Although there exists a highly developed and growing literature on public attitudes to migrants generally, there is little to no discussion of public attitudes toward migrant entrepreneurship support policies. This is a policy and research shortcoming, given the fact that many migrant entrepreneurs are socially and politically marginalized, and thus less likely to exert influence on public policy targeting them if public opinion is hostile.

In this article, we have sought to demonstrate how the empirically grounded and theoretically rigorous explanations of public attitudes toward migration can be applied to the issue of migrant entrepreneurship support policy mixes. This paper uses the case of North Korean migrants in South Korea, because they are not generally considered an ethnic ‘other’, and face little to no institutional or linguistic barriers to integration. This plausibly makes them a ‘least likely case’ with respect to discriminatory attitudes regarding migrant entrepreneur support policies.

In line with theoretical expectations from the migrant attitudes literature, we find that

native respondents are motivated by economic self-interest in that they prefer policies that are funded through corporation tax rather than income tax or deficit spending. They are also motivated by broader socio-economic concerns such as the fiscal burden of programs and prefer loans to grants, profitable migrant businesses, and programs that support job creation. These can plausibly be interpreted as attitudes driven by sociotropic concerns; however, a preference for joint ventures over migrant-only owned businesses points to the presence of prejudice against migrants as businesspeople.

Interaction effects indicate that ownership discrimination is less pronounced when support policies aim to support job creation, thus indicating that policy designs that focus on this particular concern may help overcome prejudicial attitudes. Conversely, where the costs of migrant support policies are borne by large corporations, respondents are less concerned by their paramount sociotropic concern of job creation. In other words, when they do not have to pay, they are disinterested in policy aims.

Endorsements by political parties or human rights organizations have a negative impact on whether a policy is preferred, although the effect is small. This implies that partisan cues and the support of some civic actors may not be helpful when seeking to build support for migrant support policies. The lack of a civil society endorsement effect is notable given the seminal efforts made and successes of civic organizations in supporting migrant integration more generally (Chung 2020).

Mixed method analysis of the open-text data corroborates the main findings and furthers our understanding of natives' motivations for supporting migrant integration through business support policies. Economic self-interest and concrete sociotropic concerns are referenced by many respondents, while others appeal to more abstract notions of the national or common good. However, these notions are not pan-Korean. If North Korean migrant entrepreneurs happen to benefit from a policy, it is only because that outcome is in the broad national interest.

We note some limitations to the findings presented here. First, the size of the immigrant

group we focus on is small compared to the host society, and this might have some ‘small number effects’ on how the immigrant group is perceived and on how generous natives are prepared to be (cf. Schneider 2008; Pottie-Sherman and Wilkes 2017). Second, the case is unusual insofar as, to the best of our knowledge, most migration worldwide and most migrant entrepreneurship does not involve co-ethnic migrants. Hence, this raises questions about whether addressing sociotropic and economic self-interest concerns in policy design will help build public support for migrant entrepreneurship support policies in cases where native-immigrant group boundaries are clearer. That said, given the paucity of literature on the subject, this article provides insights from which to consider other migrant entrepreneur groups.

Entrepreneurship is viewed as a pathway to substantive social integration. The findings in this paper show how a policy mix framework (Flanagan, Uyarra, and Laranja 2011; Cunningham and Laredo 2013; Borrás and Edquist 2013; Magro and Wilson 2019) can link the literature on migration (T. Tsuda 2009; Chung 2020; Denney and Green 2021) with the work on entrepreneurship as a mechanism for social integration (Rath and Swagerman 2016; UNCTAD 2018). Where much of the research across these domains takes a top-down perspective, we examine public attitudes and the determinants of support for migrant integration through the expansion of entrepreneurship support by operationalizing a policy mix framework using a conjoint design. As such, we forward a more complete view of migrant integration with academic and policy relevance.

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## **Ethics Declaration**

Ethics approval was granted by the ethics committee from the Faculty of Humanities and Faculty of Archaeology, Leiden University.

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Supplementary Information for “Public Support for Migrant Entrepreneurship: The Case of North Koreans in the Republic of Korea”

## Appendix A Additional Survey Information

Table A.1 shows the sample statistics for the survey. From August 26 - September 27, 2021 2,009 South Koreans were surveyed using a Rakuten Insights panel of online opt-in participants ( $n=1,666$ ) with quotas set by age, region, and sex based on the July register of legal residents.<sup>1</sup> To supplement the Rakuten panel and to address poor uptake for older respondents (age 60+), additional participants were recruited from Cint's panel of online participants ( $n=343$ ).<sup>2</sup> Survey weights were created to correct for over- and under-sampling. Table A.2 shows the differences by panels.

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<sup>1</sup>See data from the Ministry of Public Administration and Security at: <https://jumin.mois.go.kr/ageStatMonth.do>.

<sup>2</sup>More information about Rakuten Insights survey panels can be read here: <https://insight.rakuten.com/>. Information for Cint can be read here: <https://www.cint.com/market-research-and-insights/>.

	Counts (unweighted proportions)	Weighted proportions
<b>Age</b>		
20-29	318 (16%)	16%
30-39	319 (16%)	16%
40-49	387 (19%)	19%
50-59	410 (20%)	20%
60+	575 (29%)	30%
<b>Gender</b>		
Women	990 (49%)	50%
Men	1,019 (51%)	50%
<b>Region</b>		
Busan, Ulsan/Gyeongnam	303 (15%)	15%
Daegu/Gyeongbuk	198 (9.9%)	10%
Daejeon, Sejong/Chungcheong	219 (11%)	11%
Gwangju/Cheolla	203 (10%)	10%
Kangwon/Jeju	78 (3.9%)	4.0%
Seoul, Incheon/Gyeonggi	1,008 (50%)	50%
<b>Education</b>		
No Formal Education	3 (0.1%)	0.2%
Elementary school or lower	10 (0.5%)	0.5%
Middle school	24 (1.2%)	1.2%
High school	354 (18%)	18%
Some college (including technical school)	44 (2.2%)	2.2%
University	1,342 (67%)	66%
Graduate school and above	230 (11%)	11%
Other (e.g., Seodang)	2 (<0.1%)	0.1%

**Table A.1:** Sample Statistics

	<b>Cint</b>	<b>Rakuten</b>
	<b>N = 343</b>	<b>N = 1,666</b>
<b>Age</b>		
20-29	4 (1.2%)	314 (19%)
30-39	13 (3.8%)	306 (18%)
40-49	1 (0.3%)	386 (23%)
50-59	78 (23%)	332 (20%)
60+	247 (72%)	328 (20%)
<b>Sex</b>		
Women	204 (59%)	786 (47%)
Men	139 (41%)	880 (53%)
<b>Region</b>		
Busan, Ulsan/Gyeongnam	42 (12%)	261 (16%)
Daegu/Gyeongbuk	7 (2.0%)	191 (11%)
Daejeon, Sejong/Chungcheong	14 (4.1%)	205 (12%)
Gwangju/Cheolla	31 (9.0%)	172 (10%)
Kangwon/Jeju	18 (5.2%)	60 (3.6%)
Seoul, Incheon/Gyeonggi	231 (67%)	777 (47%)
<b>Education</b>		
No Formal Education	1 (0.3%)	2 (0.1%)
Elementary school or lower	1 (0.3%)	9 (0.5%)
Middle school	7 (2.0%)	17 (1.0%)
High school	81 (24%)	273 (16%)
Some college (including technical school)	10 (2.9%)	34 (2.0%)
University	202 (59%)	1,140 (68%)
Graduate school and above	39 (11%)	191 (11%)
Other (e.g., Seodang)	2 (0.6%)	0 (0%)

**Table A.2:** Sample Statistics by Panel

## Appendix B Survey Questions

The survey questions used for background and subgroup analysis are reproduced below.

- What was your assigned sex at birth?
  - Man
  - Woman
- Where do you currently reside?
  - Seoul
  - Busan
  - Daegu
  - Incheon
  - Gwangju
  - Daejeon
  - Ulsan
  - Sejong
  - Gyeonggi
  - Kangwon
  - Chungbuk
  - Chungnam
  - Cheonbuk
  - Cheonnam
  - Gyeongbuk
  - Gyeongnam
  - Jeju
  - Overseas [redirected to end]
- Please select your date of birth
  - (calendar choice)
- What is the highest level of education you have achieved?
  - No Formal Education
  - Elementary school or lower
  - Middle school
  - High school

- Some college (including technical school)
  - University
  - Graduate school and above
  - Other (e.g., Seodang)
- How do you identify politically?
  - Very progressive
  - Somewhat progressive
  - Centrist
  - Somewhat conservative
  - Very conservative
  - Don't know
- Which party would you vote for if there was a national election tomorrow?
  - People's Power Party
  - Minjoo Party
  - People's Party
  - Open Minjoo Party
  - Justice Party
  - Other
  - Don't know
  - Prefer not to say
- On average, about how much do you and your family make per month, including income, bonuses, interest, etc.?
  - 1 million won or less
  - 1.1– 2 million won
  - 2.1 – 3 million won
  - 3.1 – 4 million won
  - 4.1 – 5 million won
  - 5.1 – 6 million won
  - 6.1 – 7 million won
  - 7.1 – 8 million won
  - 8.1 – 9 million won
  - 9.1 million – 10 million won

- 10.1 million won or greater
- What kind of national identity do you think South Korea ought to have?
  - A multicultural one
  - An ethnically homogenous one
  - Don't know

## **Appendix C Benchmark Regression Tables**

The tables for the main AMCE estimates and marginal means from Figure 2 in the manuscript are provided in Tables C.1 and C.2.

Attribute	Level	Estimate	Std.error	P
Goal	Support entrepreneurship	0	NA	NA
Goal	Employment support	0.0460711	0.00999206	4.01E-06
Goal	Support innovation or research & development	0.02200303	0.00999897	0.0277694
Goal	Support start-ups or firm growth	0.01956151	0.00966568	0.04298951
Policy Rationale	It is good for South Korea	0	NA	NA
Policy Rationale	It will help North Koreans who face discrimination	-0.0439055	0.01005543	1.26E-05
Policy Rationale	It will improve local business conditions	-0.0188167	0.01001507	0.0602668
Policy Rationale	Other countries use similar policies to help new immigrants	-0.0425783	0.01020244	3.00E-05
Public Cost	Government deficit spending	0	NA	NA
Public Cost	Corporate tax increase	0.08387828	0.00893784	6.31E-21
Public Cost	Income tax increase	0.00582072	0.00930854	0.53176777
Instrument	Advisory services only	0	NA	NA
Instrument	Non-repayable grants (i.e., cash transfer)	-0.034782	0.0115391	0.00257594
Instrument	Special low interest loan	0.04893382	0.01154932	2.27E-05
Instrument	Subsidized office space and incubation support	0.01999878	0.01152513	0.08269984
Instrument	Tax credit	0.02407069	0.01150781	0.03646691
Eligible Recipients	All businesses run by defector-migrants	0	NA	NA
Eligible Recipients	All joint ventures with native South Korean partners	0.05692957	0.00863707	4.36E-11
Eligible Recipients	Only profitable defector-run businesses	0.05591399	0.00905256	6.55E-10
Endorser	Some people endorse this policy	0	NA	NA
Endorser	The Minjoo Party endorses this policy	-0.0562849	0.010225	3.70E-08
Endorser	The People's Power Party endorses this policy	-0.0250921	0.01032809	0.01511959
Endorser	The President endorses this policy	-0.005494	0.0100983	0.58640276
Business View	Some businesspeople support this policy	0	NA	NA
Business View	An association of SMEs supports this policy	0.01801029	0.01021329	0.07783019
Business View	Large companies support this policy	0.03597521	0.00981772	0.000248
Business View	Small business owners support this policy	-0.0098725	0.00988395	0.31787104
Civil Society View	Some members of civil society support this policy	0	NA	NA
Civil Society View	Human rights groups support this policy	0.00101879	0.00992964	0.91827945
Civil Society View	Migrant worker groups support this policy	-0.0058523	0.01009074	0.56193411
Civil Society View	North Korean defector-run NGOs support this policy	-0.0001756	0.01019387	0.98625829
Goal	Support entrepreneurship	0	NA	NA
Goal	Employment support	0.0460711	0.00999206	4.01E-06
Goal	Support innovation or research & development	0.02200303	0.00999897	0.0277694
Goal	Support start-ups or firm growth	0.01956151	0.00966568	0.04298951
Policy Rationale	It is good for South Korea	0	NA	NA
Policy Rationale	It will help North Koreans who face discrimination	-0.0439055	0.01005543	1.26E-05

**Table C.1:** Table for AMCEs

Attribute	Level	Estimate	Std.error
Goal	Support entrepreneurship	0	NA
Goal	Employment support	0.0460711	0.00999206
Goal	Support innovation or research & development	0.02200303	0.00999897
Goal	Support start-ups or firm growth	0.01956151	0.00966568
Policy Rationale	It is good for South Korea	0	NA
Policy Rationale	It will help North Koreans who face discrimination	-0.0439055	0.01005543
Policy Rationale	It will improve local business conditions	-0.0188167	0.01001507
Policy Rationale	Other countries use similar policies to help new immigrants	-0.0425783	0.01020244
Public Cost	Government deficit spending	0	NA
Public Cost	Corporate tax increase	0.08387828	0.00893784
Public Cost	Income tax increase	0.00582072	0.00930854
Instrument	Advisory services only	0	NA
Instrument	Non-repayable grants (i.e., cash transfer)	-0.034782	0.0115391
Instrument	Special low interest loan	0.04893382	0.01154932
Instrument	Subsidized office space and incubation support	0.01999878	0.01152513
Instrument	Tax credit	0.02407069	0.01150781
Eligible Recipients	All businesses run by defector-migrants	0	NA
Eligible Recipients	All joint ventures with native South Korean partners	0.05692957	0.00863707
Eligible Recipients	Only profitable defector-run businesses	0.05591399	0.00905256
Endorser	Some people endorse this policy	0	NA
Endorser	The Minjoo Party endorses this policy	-0.0562849	0.010225
Endorser	The People's Power Party endorses this policy	-0.0250921	0.01032809
Endorser	The President endorses this policy	-0.005494	0.0100983
Business View	Some businesspeople support this policy	0	NA
Business View	An association of SMEs supports this policy	0.01801029	0.01021329
Business View	Large companies support this policy	0.03597521	0.00981772
Business View	Small business owners support this policy	-0.0098725	0.00988395
Civil Society View	Some members of civil society support this policy	0	NA
Civil Society View	Human rights groups support this policy	0.00101879	0.00992964
Civil Society View	Migrant worker groups support this policy	-0.0058523	0.01009074
Civil Society View	North Korean defector-run NGOs support this policy	-0.0001756	0.01019387
Goal	Support entrepreneurship	0	NA
Goal	Employment support	0.0460711	0.00999206
Goal	Support innovation or research & development	0.02200303	0.00999897
Goal	Support start-ups or firm growth	0.01956151	0.00966568
Policy Rationale	It is good for South Korea	0	NA
Policy Rationale	It will help North Koreans who face discrimination	-0.0439055	0.01005543

**Table C.2:** Table for marginal means

## Appendix D Additional Analysis

Additional insights and subgroup analysis are provided in this section. First, we show the AMCEs for the main effects using a ratings-based measure as the outcome variable instead of the force-choice option (Figure D.1). A new dichotomous outcome variable is created by counting ratings above four on the seven-point scale as indicative of the support and anything less as not preferred. The effects as per this robustness check model are not as strong as those from the main model (Figure 2 in the manuscript), but the main findings are effectively corroborated.

Next, we use marginal means to examine conditional average treatment effects between select subgroups. Figures D.2-D.5 show differences by political identification (self-reported progressives and conservatives), education (university education or not), age (at or above the median and below), and income levels<sup>3</sup>. There are no substantive differences in opinion between the groups examined. Finally, Figure D.6 examines differences in opinion by national identity; no major differences in opinion are observed here, either.

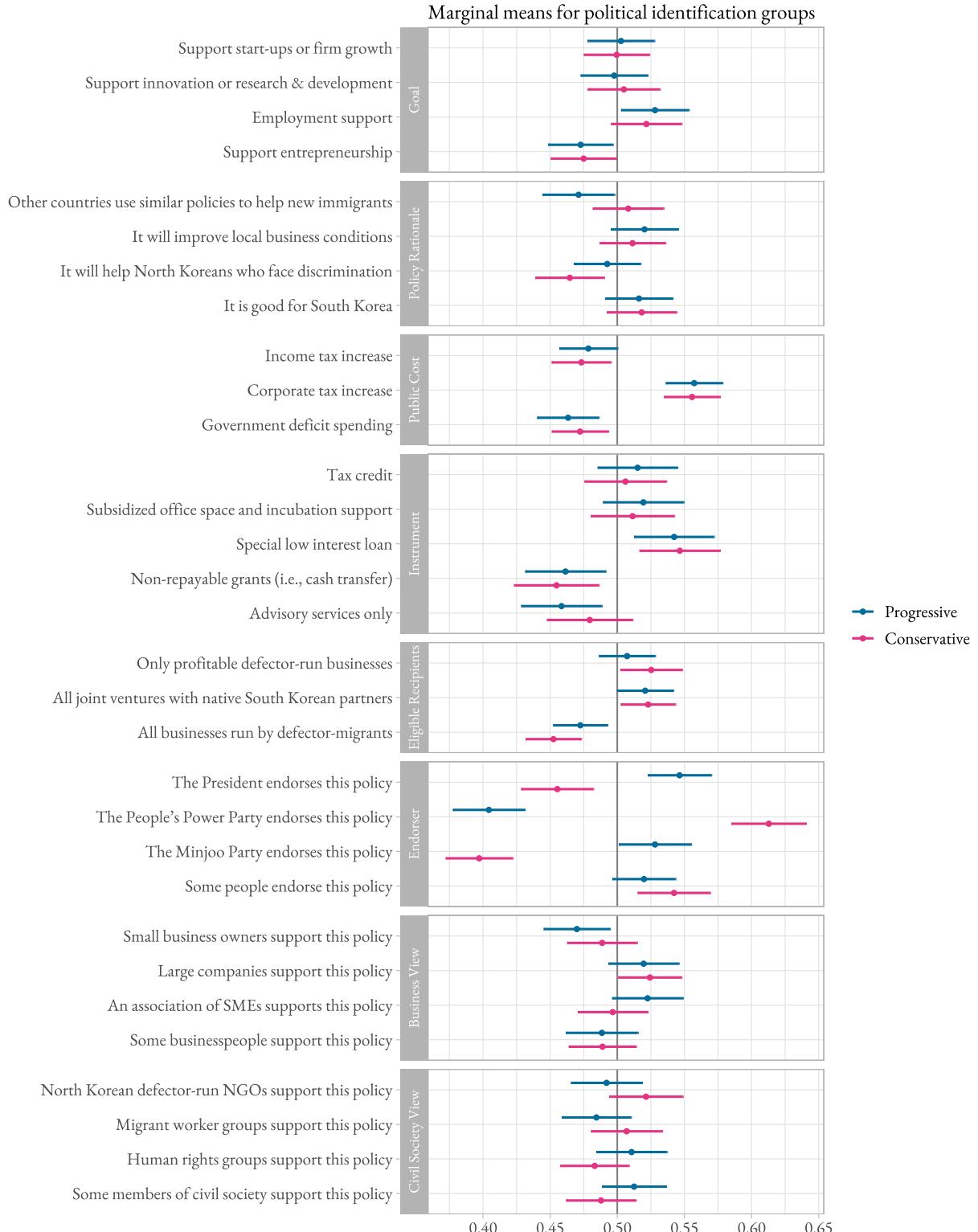
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<sup>3</sup>For political identification, we check the self-reported political ID measure by party support; the findings are effectively the same. For income, we identify three groups by the ranges collected as per the income question, with the lowest three representing 'low income', the next four as 'middle income', and the top four as 'high income'.



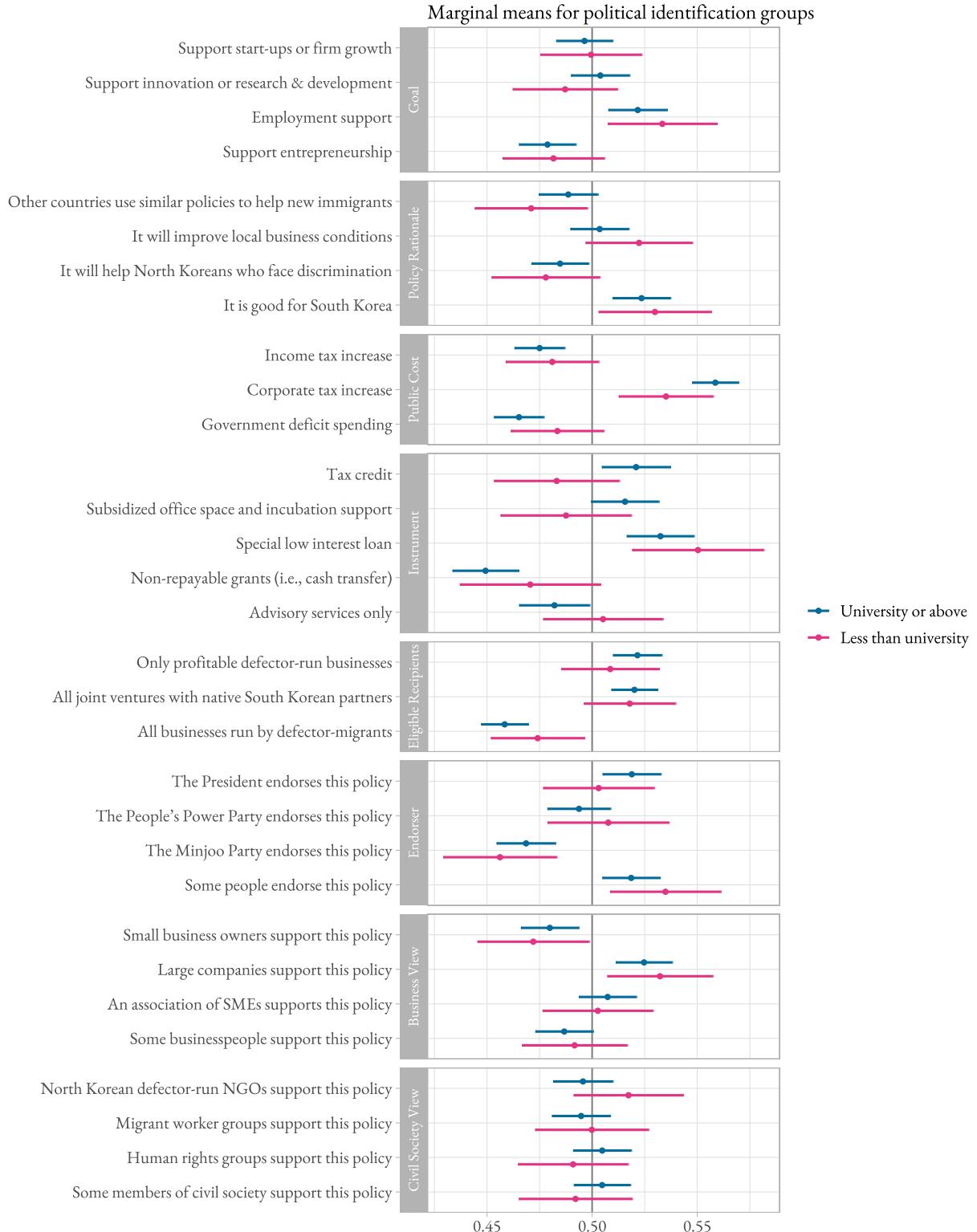
**Figure D.1:** AMCEs of the policy mix attributes, ratings-based measure

*Note:* Based on the benchmark OLS model with clustered standard errors, the average marginal components effects (AMCEs) show the effects of the randomly assigned information attribute values on the probability of use. The error bars represent 95% confidence intervals.



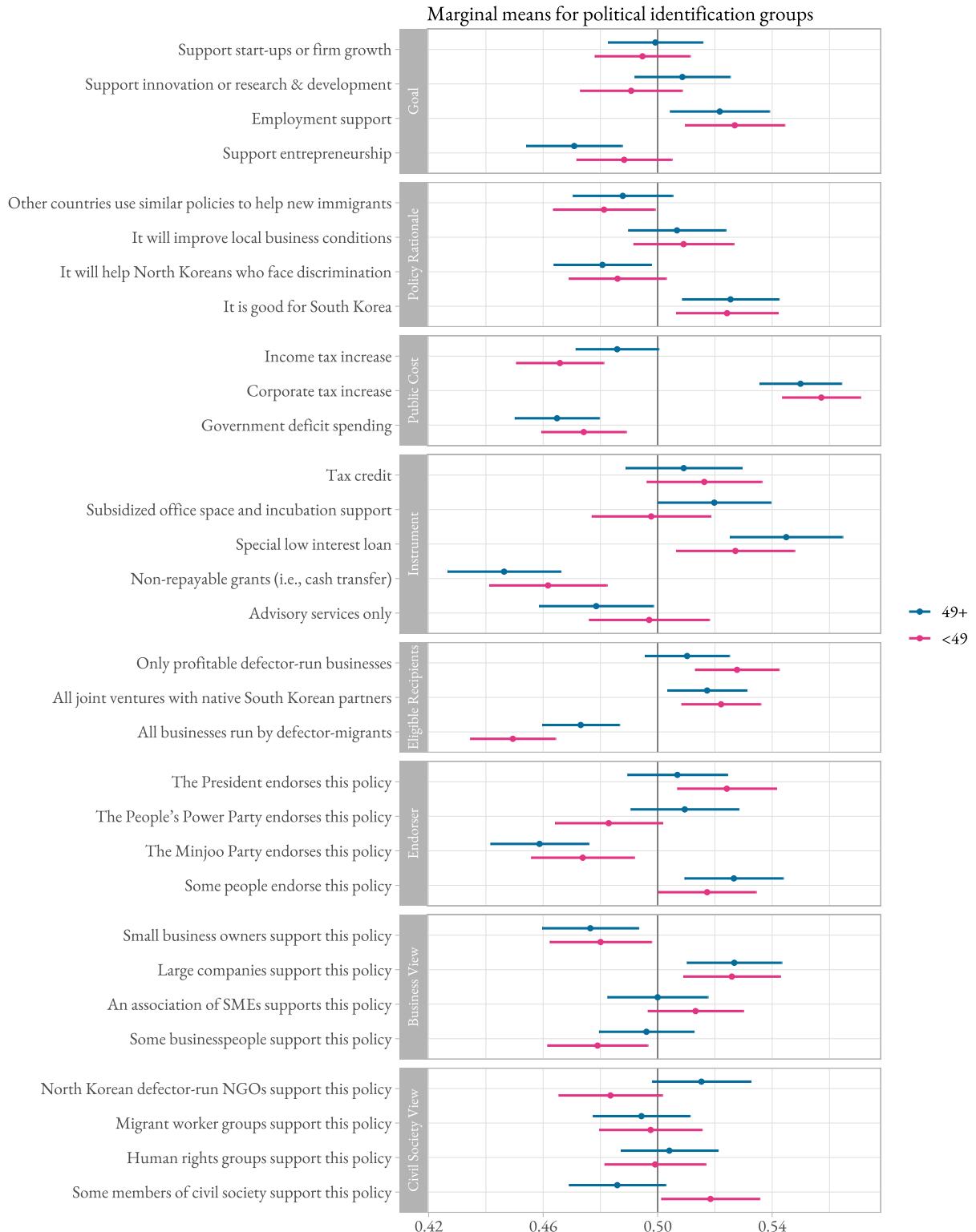
**Figure D.2:** Marginal means of the policy mix attributes for the selected groups

*Note:* Based on the benchmark OLS model with clustered standard errors, the marginal means (MMs) show the mean outcome of any given attribute level, averaged across all others. The error bars represent 95% confidence intervals.



**Figure D.3:** Marginal means of the policy mix attributes for the selected groups

*Note:* Based on the benchmark OLS model with clustered standard errors, the marginal means (MMs) show the mean outcome of any given attribute level, averaged across all others. The error bars represent 95% confidence intervals.



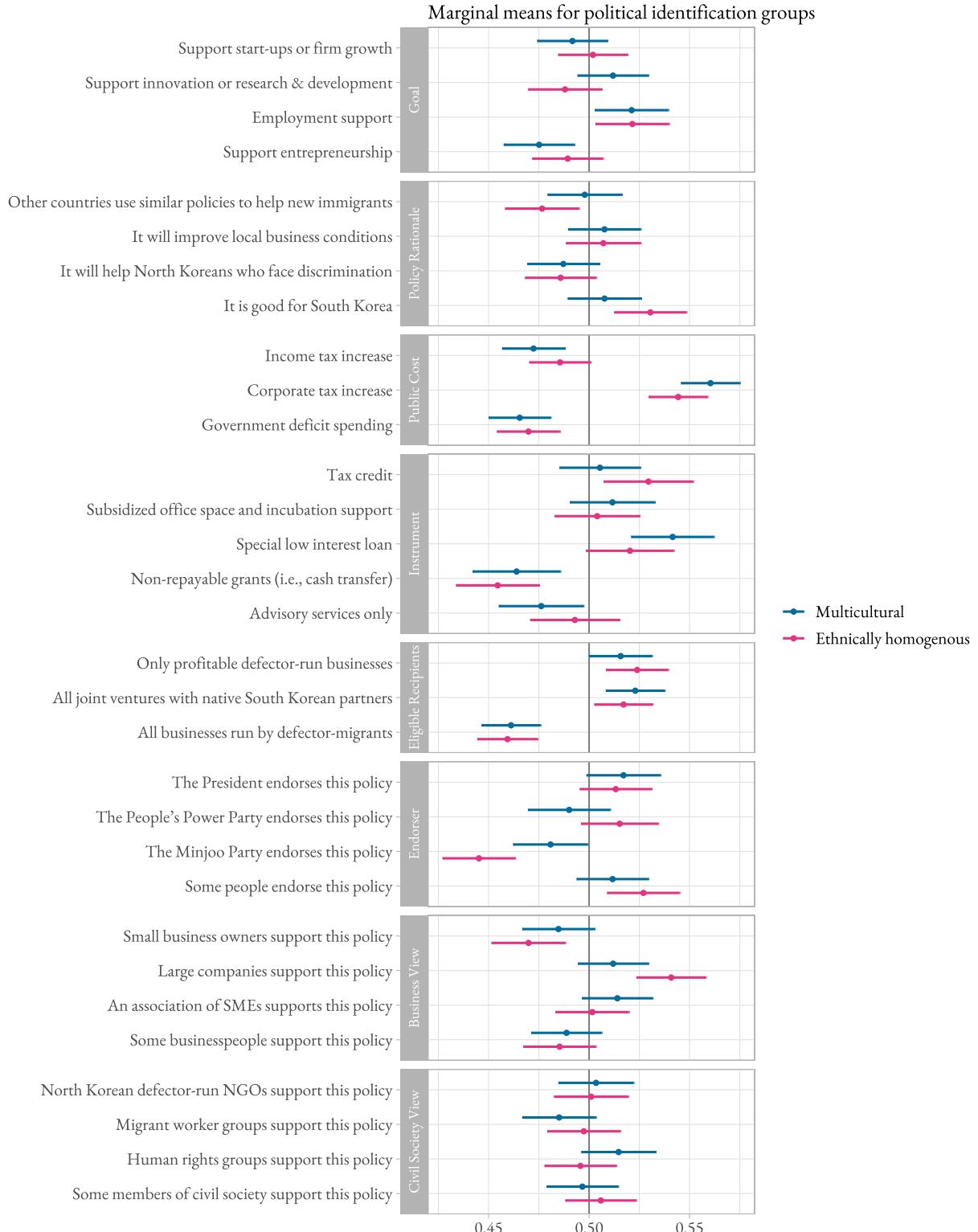
**Figure D.4:** Marginal means of the policy mix attributes for the selected groups

*Note:* Based on the benchmark OLS model with clustered standard errors, the marginal means (MMs) show the mean outcome of any given attribute level, averaged across all others. The error bars represent 95% confidence intervals.



**Figure D.5:** Marginal means of the policy mix attributes for the selected groups

*Note:* Based on the benchmark OLS model with clustered standard errors, the marginal means (MMs) show the mean outcome of any given attribute level, averaged across all others. The error bars represent 95% confidence intervals.



**Figure D.6:** Marginal means of the policy mix attributes for the selected groups

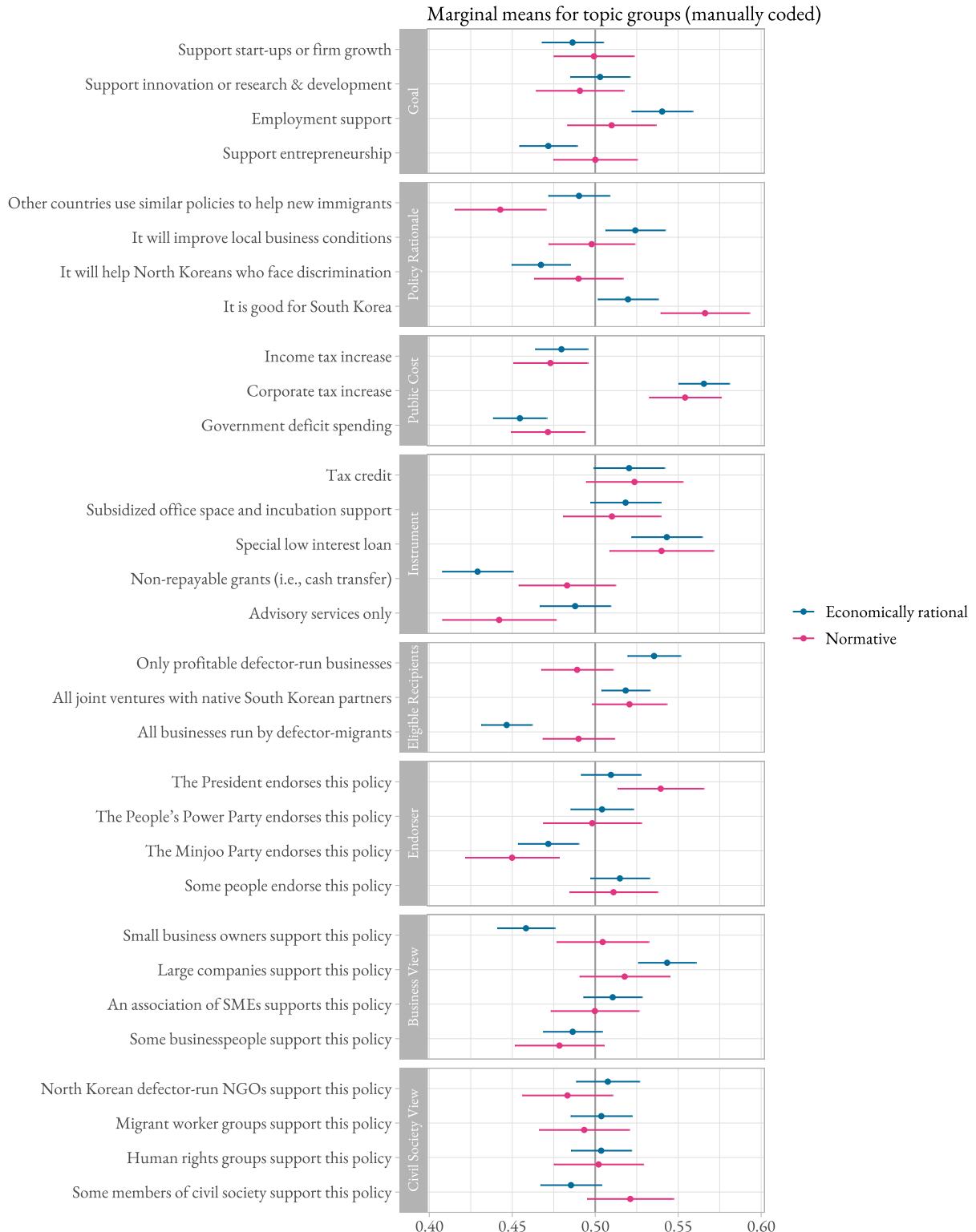
*Note:* Based on the benchmark OLS model with clustered standard errors, the marginal means (MMs) show the mean outcome of any given attribute level, averaged across all others. The error bars represent 95% confidence intervals.

## Appendix E Robustness Check: LDA Analysis

In the manuscript, we examined the response-topic probabilities based on the LDA model's estimates. Here we present the findings from a robustness check. Using the two topics extracted by the LDA model as a baseline, we read and manually coded each response as belonging to Topic 1 (an economic rationale), Topic 2 (a normative rationale), another topic altogether (which we leave unspecified), or to no topic in particular (i.e., not an answer). We then re-run our subgroup analysis on the conjoint data and report the findings in Figure E.1.

The findings as per the manually coded responses largely corroborate those determined by the LDA model. Those belonging to Topic 1 are persuaded by attribute values reflective of an economic rationale (e.g., only profitable businesses should be supported). The Topic 2 group shows, again, that they are motivated by a rationale that the policy proposal is 'good for South Korea. As analyzed in the manuscript, policy rationales based on the ideas of following best practices from other countries designed to help new immigrants dissuade this nation-centric group from supporting the proposed policy mix. The major differences are that, as per the manually coded responses, Topic 2 respondents are not dissuaded by an anti-discrimination focus – the economically rationale are. Furthermore, the joint venture preference for the Topic 2 group disappears.

We conclude that the machine-based and manually coded response-topic findings tell the same basic message, but some differences are worth noting.



**Figure E.1:** Marginal means of the policy mix attributes for the selected groups

*Note:* Based on the benchmark OLS model with clustered standard errors, the marginal means (MMs) show the mean outcome of any given attribute level, averaged across all others. The error bars represent 95% confidence intervals.