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Graduate migration, partisanship, and city preferences: An experimental approach to place-consonant migration decisions

Michael Ewers[1] | Bethany Shockley[2]

[1]Department of Geography & Earth Sciences, University of North Carolina at Charlotte, Charlotte, North Carolina, USA

[2]Department of International Studies, American University of Sharjah, Sharjah, United Arab Emirates

Correspondence

Michael Ewers, Department of Geography & Earth Sciences, University of North Carolina at Charlotte, 9201 University City Blvd. McEniry 324. Charlotte, NC 28223, USA.
Email: mewers@charlotte.edu

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Abstract

How do university students evaluate prospective jobs in different cities after graduation? While the literature has identified drivers of graduate migration, research has yet to account for the role of individual social and political attitudes in shaping destination preferences. Using a conjoint survey experiment, this paper introduces the concept of *place-consonant migration* to describe the desire for proximity to like-minded communities with respect to political partisanship. Building on research that has established the utility of experiments in evaluating complex migration decision-making, we provided University of North Carolina at Charlotte undergraduate students with hypothetical job packages to consider upon graduation which combined the city names with randomised levels of income and amenity factors. Adapting to rapidly changing social and political dynamics, we conducted the experiment across three cross-sections of students to capture the potential impact of the Covid-19 pandemic and other social and political developments on the migration decisions of college graduates. The analysis demonstrates how place characteristics combine with individual partisan attitudes to produce place-consonant migration preferences among students. Moreover, by conducting multiple waves of our experiment during contemporaneous social and political events, our results show that place-consonant preferences change over time.

KEYWORDS

cognitive dissonance, Covid-19, graduate migration, partisan sorting, place attractiveness, survey experiment

1 | INTRODUCTION

While nearly two-thirds of young adults with university degrees in the United States live in one of the country's 56 major metropolitan areas (Cortright, 2020), graduate migration behaviours and city preferences are changing. The years following the 2008 financial crisis have witnessed an exodus from traditional "superstar cities", such as New York, Boston, and Los Angeles, and the emergence of new destinations in places like Charlotte, Denver, and Dallas (Frey, 2019, 2022a). More recently, the Covid-19 pandemic, urban social unrest, and rising costs of living have reshaped public opinion towards major cities, and attitudes and behaviours vary significantly

across social and political groups (Kenan Institute, 2020). How do university students evaluate major US cities as places to live and work after graduation? While a large body of research has emerged around establishing the drivers of graduate migration, less is known about how city preferences are shaped by individual attitudes and identities, especially considering recent political and economic uncertainties.

University students are an ideal demographic for understanding migration decision-making because the period around and after graduation corresponds with the highest migration propensity across the life course (Corcoran & Faggian, 2017). This paper generates new insights into graduate choices by combining three strands of research. First, the established (primarily economic) drivers of graduate and skilled migration to cities include the cost and benefit of migration choices (Sjaastad, 1962), urban amenities, and the clustering of human capital (Berry & Glaeser, 2005). Second, geographers strongly support the theorisation of *sense of place*—including *place attachment*, *identity*, and *reputation*—as qualitative forms of connection and belonging that shape migration decisions (Diener & Hagen, 2022). Finally, a third body of research examines the linkages between migration and sociopolitical identities, which posits that individuals with similar values and backgrounds self-sort into similar communities (Bishop, 2009; Mummolo & Nall, 2017; Tam Cho et al., 2013).

However, research has yet to investigate how the qualitative attraction of cities compares to the other, more well-known considerations of income, amenities, and social networks or how the national-level context and individual identities and attitudes mediate migration decisions. For instance, is there something intangible about particular cities that shape migration preferences among young adults? We argue that there *is* and that a city's attractiveness is due, in part, to *place consonance*: the desire for proximity to like-minded communities with respect to political partisanship. *Place-consonant migration preferences*, we show, reflect the ways in which individual political attitudes mediate place preferences while controlling for established drivers of migration.

We examine how prospective graduates evaluate the intangible characteristics of major US cities in conjunction with competing personal and employment-related priorities and how this calculus has morphed throughout 2020 and the first half of 2021. We ask three questions: How do place preferences (city reputation and attachment) shape migration decisions in relation to more established drivers of migration choices (e.g., compensation, financial conditions, amenities)? How is graduate migration decision-making mediated by individual political attitudes and contemporaneous social and political unrest? And finally, how do place preferences and individual identities combine to produce place-consonant migration choices?

Rather than simple cost-benefit analyses, the paper proposes a model in which individuals undertake complex decision-making; they weigh personal and family priorities, economic and social gains, and several diverse amenity-based factors (Baláž et al., 2016; Clark & Maas, 2015). We contribute to the nascent literature that uses lab and survey experiments to explore the micro-foundations of migration choices (Batista & McKenzie, 2021; Czaika et al., 2021). One means of unpacking this multidimensional decision-making process is through experimental methods (Baláž & Williams, 2017), including conjoint survey experiments (Hainmueller & Hopkins, 2015), which force participants to assess tradeoffs between various locational attributes (Ewers & Shockley, 2018). Indeed, the utility of conjoint experiments as a basis for studying migration decisions has been explored by (Prike et al., 2022). Therefore, we conducted a conjoint survey experiment with University of North Carolina at Charlotte (UNC Charlotte) students across three periods. The survey presents the students with seven hypothetical city and job packages to consider upon graduation.

The timing of the surveys provides essential context. Our study began with the goal of better understanding urban attractiveness and place preferences but was soon overtaken by the onset of the Covid-19 pandemic and social unrest across major US cities. We adapted our research to capture how graduate decision-making processes may have changed in response to the Covid-19 pandemic. Then, considering the social unrest in the fight for racial justice in the summer of 2020 and the 2020 presidential election, we decided to continue with the second round in the Fall of 2020. Finally, with the Capitol riots at the start of 2021, we embarked on the third wave in Spring of 2021. The result is a unique snapshot of student preferences at different critical periods across a potentially transformative year. The repeated, cross-sectional nature of this experiment provides insight into the potential impact of the pandemic and other social and political developments on the migration decisions of college graduates.

Although economic factors are consistent predictors across all three survey waves, findings indicate that cities' attractiveness is impacted by long-standing partisan impressions and short-term shocks that appear sensitive to national-level political dynamics. The paper makes three main contributions. First, it theorises place-consonant migration choices to conceptualise how graduate migrants' place preferences are mediated by individual identities and attitudes and the macro-level context while controlling for established drivers of migration. Second, it utilises experimental methods to unpack graduate migration decision-making, isolating aspects of place preferences (reputation and attachment) and more well-studied migration choices' drivers (e.g., financial considerations, amenities, and dis-amenities). Finally, the impact of 2020–2021 events is captured in three opinion snapshots covering major national events, including Covid-19 and the 2020 presidential elections.

2 | WHERE GRADUATES MIGRATE AND WHY

University students provide significant insight into the locational decisions of skilled migrants more generally (Corcoran & Faggian, 2017). Annually, about half a million new freshmen migrate out of their state to attend college or university, and over three million total university degrees are awarded (NCES National Centre

for Education Statistics, 2020). Cities are interested in this demographic because these individuals spend money, buy property, start businesses, and settle down to build families. Thus, cities seek to attract and retain new graduates and then rely on migratory inertia to keep said talent.

Existing research has found that young and skilled workers are motivated first by jobs and economic opportunities (Storper & Scott, 2009). The graduate migration literature confirms the importance of wages in migration decisions by finding consistent evidence for a wage premium associated with moving after college graduation (Winters, 2012). Cities with large existing human capital stocks provide optimal destinations, allowing graduates to take advantage of their human capital investments and specialisations (Berry & Glaeser, 2005). Top-tier metropolitan areas have the wages and amenities sought by the most competitive college graduates and specialised learning and experience opportunities unavailable in second-tier cities (Kenan Institute, 2020). U.S. Census data illuminate the importance of large metropolitan areas: people move to metros that are geographically proximate; people moving to one of the largest 100 metro areas are likely coming from another top-100 metro; and people from the Midwest and Northeast are moving South, and West, leaving cities that only grow due to international in-migration (U.S. Census Bureau, 2019).

Secondary to job and wage considerations, graduate and skilled migration decisions and city preferences are shaped by amenity factors, including urban and cultural amenities and natural and weather-related factors (Buch et al., 2017). New graduates are more likely to leave areas that do not include sufficient recreational activities and cultural amenities (Whisler et al., 2008) or are more likely to stay for the amenities if their university is in a large metropolitan area (Stephens, 2019). Moreover, Adamson et al. (2004) suggest that dis-amenities, such as pollution, commuting times, and crime, may strongly repel high-income households.

2.1 | Graduate migration decision-making

The above research on the factors shaping city attractiveness to graduate and skilled migrants generally shows that different levels and combinations of job and amenity factors make destinations attractive and may reach thresholds to stimulate or change graduate migration decisions. Revealed preference studies, usually based on official census data, estimate the relative importance of amenities based on observed demographic changes in relation to various city characteristics. Recent studies have demonstrated the potential for stated preference research to unpack migration decision-making processes and locational preferences (Buchholz, 2022), using choice experiments to overcome the endogeneity limitations of revealed preference studies (Arntz et al., 2022). For example, Koşar et al. (2022) study individual preferences for several locational attributes, including income, housing characteristics, amenities, crime levels, and school quality. They emphasise the social dimensions of moving to explain long-term declines in internal migration, finding that the non-monetary costs increase with age, home ownership, and for the "rooted" (125).

To capture complex migration decision-making processes (Baláž et al., 2016), we utilise a conjoint survey experiment that simulates dilemmas when migrants choose among competing alternatives. Conjoint survey experiments can help migration scholars improve other survey methods' shortcomings by adding the strength of inferences from lab experiments and decomposing treatments to explore the underlying dimensions (Haaijer & Wedel 2007). Originally designed for market research, conjoint experiments present respondents with scenarios or "baskets" containing randomised attributes, and respondents are asked to choose or rate different baskets (Green et al., 2001). Conjoint and other survey experiments overcome some of the limitations of traditional survey questions by evaluating individual determinants of migration and place attractiveness in a more realistic choice scenario as part of a whole bundle of other dimensions (Petzold, 2017). This means there is a lower chance of overstating the importance of a single factor.

2.2 | Sense of place and intangible aspects of migration decisions

In addition to the established drivers of graduate migration described above, migration decisions reflect individuals' aspirations, identities, beliefs, and "sense of place" (Hooijen et al., 2020; Mendoza & Morén-Alegret, 2013). These less tangible aspects of place and identity play a lesser-known role in empirical studies of graduate migration.

Migration decisions are strongly influenced by *place attachment*, including psychological aspects, such as cognition and affect, as well as social and physical aspects of place, which create a powerful behavioural tendency to remain in place for the sake of security, goal attainment, and continuity (Scannell & Gifford, 2010). Longstanding geographic work on place attachment and belonging (e.g., Smith, 2018; Tuan, 1977) generally militates against the quantification of "place" (Adams, 2015). Rather, it has been sensitive to the relationship between individual mobility and place attachment—how mobility facilitates new forms of attachment to multiple places where one has lived, worked, visited, or attended school (Gustafson, 2014). These ideas are echoed in the graduate migration literature, where studies have found that social and familial connections combine with job-related factors to shape whether or where someone migrates after graduation (Imeraj et al., 2018; Nelson, 2019). Students develop social connections—and thus new place attachments—with their university's region throughout their studies and beyond, including through internships, social networks, and industry connections (Lysenko & Wang 2023; Stephens, 2019).

Along with place attachment, *place identity* describes how people view cities in terms of "social identification (as an identifier of individual or group identity, or of a group in a certain territory), the profiling of the place itself (distinctive features), or the sense of place (the emotional experience on a place)" (Kourtit et al., 2021, p. 7). Kourtit et al. (2021) conceptualise "city love" as "a multidimensional

concept that captures individual place-based attraction of residents" to a city and its neighbourhoods (p. 439). Like our model, this conceptualisation is based on tangible factors of city attractiveness and the perceptual or intangible characteristics. Social identification and sense of place are strongly shaped by one's duration and length of residence in a place, during which they have developed local ties, social networks, and community connections (Clark et al., 2017). Even after only 4 years of living in a particular city, university students may be more inclined to take a job offer in their current location rather than leave for a new job in a distant city, even if it pays more.

2.2.1 | City image and reputation

City image and reputation play essential roles in the locational decision-making practices of creative workers. Superstar cities are often perceived to offer a complete package of wage potential, specialised job opportunities, amenities, and co-location with creative professionals. In ordinary, non-superstar cities, creative workers may "lack access to the symbolic capital of world cities and creative cities" (Wijngaarden et al. (2019; p. 98). By contrast, cities may also be perceived as declining, over-priced, congested, or dangerous. Whether or not perceptions are fair or accurate, they impact a city's image and reputation in the eyes of potential residents. Moreover, perceptions of places are dynamic, changing over time and across populations based on public discourse, experiences, and current events (Nelson et al., 2020). For example, urban gentrification efforts have rehabilitated the reputations of urban cores in large U.S. cities as places to live and work, resulting in an influx of college-educated residents who have displaced minority communities (Buchholz, 2022).

Creative class literature emphasises social diversity, openness, and tolerance as significant predictors of a city's ability to attract and retain highly skilled individuals (Florida et al., 2008). Some cities use diversity as part of their place branding strategy, especially to attract the creative class, investors, businesses, and tourists. At the same time, some cities seek to depoliticise their branding strategy to avoid taking partisan stances on charged social policy debates (Belabas et al., 2020). However, some recent studies have found social diversity, openness, and tolerance are relatively less important than other amenities, including for university graduates or creative class professionals (Arntz et al., 2022; Vossen et al., 2019).

3 | PLACE-CONSONANT MIGRATION CHOICES

Building on the strengths and limitations of the above literature, we introduce *place consonance* as a new way to conceptualise evidence of young and mobile people gravitating towards cities with reputations that match their own political preferences and attitudes. As a concept, place consonance is inspired by Festinger (1957) theory of cognitive dissonance and its recent application in transportation geography (e.g., De Vos & Singleton, 2020). Cognitive dissonance seeks to explain how people deal with inconsistencies in their beliefs or attitudes and their behaviours. This theory has important implications for behaviour and decision-making. To reduce dissonance and produce consonance, people may change their attitudes or beliefs to match their behaviour or may change their behaviour to match their attitudes. In the case of (dis)satisfaction with one's residential location, a person would have to be willing to overcome the monetary and non-monetary costs of moving to reduce their residential dissonance (De Vos & Singleton, 2020; De Vos et al., 2012). Conversely, in the case of city relocation choice, a person may choose the city that best matches their attitudes and beliefs, therefore achieving place consonance.

Place consonance can clearly be linked to the role of "aspirations as precursor of migration decisions" identified in Czaika et al. (2021) model of migration decision-making (p. 18). The formation of aspirations is a long-term process, shaped by individual upbringing and socialisation, the current stage in the life course, and the future planning horizon. Significantly, aspirations can also "change dynamically through external stimuli" (19), including information from media or social networks. Consistent with their idea of a pyramid of aspirations, place consonance based on political preference is likely related to belongingness.

As depicted in Figure 1, *place-consonant migration* conceptualises how national-level happenings and individual political attitudes mediate place preferences while controlling for established drivers of migration. We accomplish this by examining university students' changing migration and city preferences. Specifically, we conduct a hard test of partisan sorting in which city partisan reputations are observed to attract or repel student respondents (before migration) based on their partisanship while controlling for numerous economic aspects of the migration choice as well as other identifying characteristics of the individual such as race, gender, and family income.

3.1 | Individual political attitudes

Research has examined the general premise that individuals prefer to migrate to locations they perceive as supportive of their attitudes and identity, labelled accordingly in Figure 1. Significantly, researchers from different disciplines using different data types disagree about the role of partisanship in determining migration choices. At the local scale, researchers observe a strong spatial correlation between members of the same political party (Bishop, 2009). On a more macro scale, Tam Cho et al. (2013) tracked migration flows in East and West coast states using voter registration logs to determine political affiliation. They find significant partisan sorting among members of both political parties and particularly among Republicans. In addition, migrant flows also evidenced sorting based on racial and income similarities (Tam Cho et al., 2013). However, the idea of partisan sorting was challenged by Abrams and Fiorina (2012), who suggest

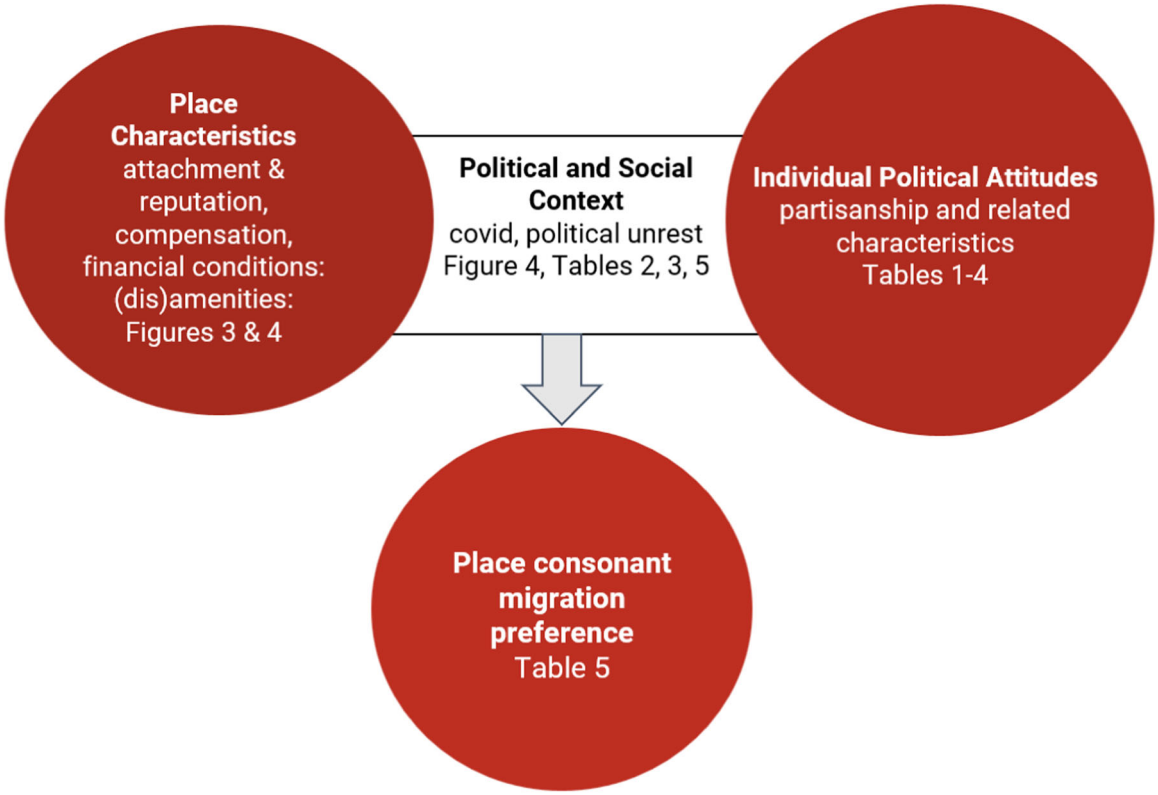

FIGURE 1 Conceptual figure of place-consonant migration.

that the current levels of segregation may owe to other factors rather than politically motivated migration preferences. Mummolo and Nall (2017) contend that partisanship is a relevant social identity that often shapes individual consumption choices in the same way as race and gender. They find that although Democrats prefer to live near other Democrats, these preferences do not impact actual behaviours, which they surmise are driven by other economic factors. Recently, Martin and Webster (2020) have argued that partisan sorting at the neighbourhood level is an artifact of a location's influence on a person's ideology rather than individuals sorting based on preferences before moving. Partisan sorting can be viewed as one way to reduce cognitive dissonance, using migration to relocate to a more like-minded community.

Past findings are inconsistent in the level of analysis (i.e., county, neighbourhood, or voting district) and the type of data used (i.e., migration flows, migration preferences, or spatial correlation) and have largely ignored city-level preferences. Unsurprisingly, there is little consensus about whether preferences for co-partisan locations are genuine, artifacts of other social identities, or even a product of the location itself. How these preferences relate to other economic and non-economic factors is also unclear. The current project advances the theoretical and empirical discussion by examining place-consonant migration preferences across cities using an innovative experiment for accounting for many aspects of the migration choice before students migrate from a common university location, Charlotte. This common location makes it less likely that a student's Democratic political ideology would have arisen from experiences living in Seattle, for instance, partially obviating concerns about reverse causality in our study compared to others.

3.2 | Political and social context

A third set of factors capture the time-bounded determinants of migration choices that respond to contemporaneous national-level happenings, referred to as the *political and social context* in Figure 1. Although the Covid-19 pandemic and widespread social unrest related to the 2020 presidential elections appear to have shaped migration preferences, the social and political dynamics underpinning these changes have not been explored. The pandemic era has shown us that remote work is possible while highlighting the darker side of big cities, where virus transmission and lockdowns are more severe, violent crime is spiking, and the cost of living is rising. Some pandemic-era mobility was likely temporary, such as the half million wealthier New Yorkers who fled the city in the first 2 months of the Covid-19 pandemic for less dense suburbs or smaller cities in the Northeast. These developments have not been favourable for so-called 'superstar cities', a term developed by Gyourko et al. (2013) to refer to elite coastal city-regions such as Boston, Los Angeles, New York, San Francisco, Seattle, and Washington, D.C. (Renn, 2020). Indeed, 2020–21 Census data confirm that hundreds of thousands have migrated out of cities like New York (−385k), Los Angeles

(−205k), and San Francisco (−129k), while the rapid growth of cities in the South and Southeast has continued (Frey, 2022a). Considering these shifts, we seek to understand whether graduates are more (or less) likely to move to particular cities based on a combination of changing city reputations and their own identities and preferences.

4 | METHODS

4.1 | Data collection and analysis

This paper is based on a biannual Omnibus Survey of students conducted every Fall and Spring semester at the University of North Carolina at Charlotte. The survey is administered by the University's POLS-Lab, a survey research lab located in the Department of Political Science and Public Administration which includes experiments from multiple faculty members. The subject pool is predominately made up of students in social science classes who volunteer for studies, which may offer either the option of earning course credits or monetary incentives. All subjects can select to earn credits through an alternative learning activity if they prefer not to join the experiment, or they can opt out entirely at any time. Students complete the process in two steps: a background survey and then the omnibus of survey experiments (both online at their convenience). The online survey experiments can be completed in a campus computer lab or a personal device.

It is important to note that conventional surveys and survey experiments suffer from drawbacks and limitations, including social desirability bias in responses to sensitive or controversial issues (Lopez-Becerra & Alcon, 2021), sampling, and other measurement errors. Surveys also cannot match qualitative, interview-based methods for capturing subjective experiences and perceptions. We used best practices for survey research to control possible errors. The omnibus surveys include attention-testing items, like a simple math problem or a memory-based question at the end, which were used to ensure students pay attention and answer thoughtfully. By running surveys across three different waves with three samples, we obtained repeated cross-sectional data from which we can identify meaningful changes over time. For this paper, 279 students completed the survey in the Spring (March and April 2020), 362 in the Fall (November and December 2020), and 357 students in the Spring of 2021 (March and April 2021). The first survey was distributed at the beginning of Covid-19 lockdown measures, which may explain a slightly lower number of participants in that wave. The second survey occurred during social unrest and the lead-up to the presidential elections. The last survey occurred in the Spring of 2021 in the wake of the January 6th Capitol riots and the public announcement of the Pfizer and Moderna vaccines.

These are not longitudinal panel data (tracking the same students) but are repeated cross-sectional snapshots of a unique student sample during each wave. Overlap is very uncommon between semesters because most participants were recruited through an introductory political science course to satisfy a general education requirement. For most of these students, it is the only political science course they have ever taken. Additionally, we ran our models within each semester's sample, guaranteeing that each participant only appears once.

Table 1 presents the key demographics of the student respondents across the survey waves. Participants include students from

TABLE 1 Descriptive characteristics of the respondents.

Variable	Spring 2020		Fall 2020		Spring 2021		Total	
	n	%	*n*	%	*n*	%	*n*	%
Gender								
Male	131	47.1	164	45.2	161	45.1	456	45.7
Female	147	52.9	194	53.5	190	53.2	531	53.2
Other	0	0.0	5	1.4	6	1.7	11	1.1
Party								
Democrat	115	41.4	161	44.4	156	43.8	431	43.4
Republican	76	27.3	68	18.8	52	14.6	196	19.7
Independent	75	27.0	104	28.7	122	34.3	301	32.4
Race/ethnicity (three largest)								
White	168	60.4	211	58.4	206	57.7	585	58.7
Black	40	14.4	57	15.7	57	15.9	157	15.4
Hispanic	21	7.6	42	11.6	30	8.4	93	9.3
Family income								
100k or less	137	49.5	194	53.9	175	49.4	506	51.0
Over 100k	140	50.5	166	46.1	180	50.7	485	49.0
Total	279		362		357		998	

diverse backgrounds. About 79% come from a large city or metropolitan area or from a small city closer to urban than rural, about in line with the overall U.S. population. There is a slightly higher proportion of women (53%) than men (46%) or other/unspecified (1.1%). About 59% are white or Caucasian, 15% are African American, 9% are Hispanic, 6% are Asian, and 8% reported two or more ethnicities. Students reported a wide range of family incomes, including low, middle, and higher incomes. Finally, students were asked about their projected income five years after graduation. The majority anticipate the annual income levels presented in the survey experiments, between $40,000 and $80,000.

4.2 | Measuring individual political attitudes

While many potentially relevant political attitudes exist, we argue that partisanship provides a useful proxy for several related individual attitudes and group identities. First, past research (Mummolo & Nall, 2017) has clarified that partisanship influences how people view cities as places to live, work, and settle, with some places more consonant than others. Second, partisanship can change over time, relating to individual identities and place reputation. As people become more ideologically aligned with a partisan identity, they will desire to be around places that match their views. Cities, meanwhile, present different partisan reputations based on contemporaneous socioeconomic and political events. UNC Charlotte is a large, public institution in a politically "purple state", meaning that Republicans and Democrats have relatively even levels of popular support. It also makes our location ideal for exploring the relationship between partisanship and place-consonant migration.

Table 2 displays student attitudes towards cosmopolitanism and nationalism, disaggregated by party affiliation, survey wave/time, family income, gender, and race. The table includes responses to statements measuring nationalism, including the desire for "law and order" over civil rights (Womick et al., 2019), pride in seeing the American flag flying, and the importance of having a strong sense of national identity (Wolak & Dawkins, 2017). The table also displays responses to statements measuring cosmopolitanism, including willingness to talk and learn about

TABLE 2 Nationalism and cosmopolitanism by individual characteristics.

Percent agree/strongly agree with the following statements:	What our country needs instead of more civil rights is a good stiff dose of "law and order".		It's good to spend time with people who are willing to talk and learn about other cultures		If people have a positive view toward other communities, there would be less conflict in the world		When I see the American flag flying, I feel a sense of pride		It is important to me to have a strong sense of national identity	
	n	%	*n*	%	*n*	%	*n*	%	*n*	%
Party										
Democrat	31	7	420	97	388	90	90	21	107	25
Republican	89	45	165	84	138	70	178	91	173	88
Indep./other	47	13	344	93	301	82	140	38	137	37
Family income										
100k or less	77	15	479	95	428	85	183	36	201	40
Over 100k	90	19	446	92	396	81	225	46	215	44
Gender identity										
Male	96	21	406	89	355	78	256	56	243	53
Female	71	13	514	97	464	87	153	29	175	33
Other	0	0	11	100	10	91	0	0	0	0
Race/ethnicity										
White	110	19	547	94	490	84	298	51	284	49
Racial-ethnic minorities	57	14	384	93	339	82	111	27	134	32
Survey wave										
Spring 2020	52	19	254	91	234	84	147	53	144	52
Fall 2020	60	17	344	95	295	81	134	37	138	38
Spring 2021	55	15	333	93	300	84	128	36	136	38
Total	167	17	931	93	829	83	409	41	418	42

Note: Questions developed by POLS-Lab based on nationalism and cosmopolitanism scales. See Womick et al. (2019); Wolak and Dawkins (2017); Saran and Kalliny (2012).

TABLE 3 Racial views (Asked Fall 2020 and Spring 2021 only).

Percent of group that agree/ strongly agree with the following statements	Over the past few years, blacks have gotten less than they deserve.		Irish, Italian, Jewish, and many other minorities overcame prejudice and worked their way up. Blacks should do the same without any special favours		It's really a matter of some people not trying hard enough; if blacks would only try harder they could be just as well off as whites.		Generations of slavery and discrimination have created conditions that make it difficult for blacks to work their way out of the lower class.	
	n	%	*n*	%	*n*	%	*n*	%
Party								
Democrat	299	94	16	5	8	3	297	94
Republican	27	23	60	50	52	43	38	32
Indep./other	206	74	47	17	23	8	226	81
Family income								
100k or less	285	77	57	15	30	8	301	82
Over 100k	244	71	66	19	53	15	257	74
Gender identity								
Male	198	61	78	24	56	17	219	67
Female	325	85	45	12	27	7	332	86
Other	10	91	0	0	0	0	11	100
Race/ethnicity								
White	287	69	87	21	69	17	304	73
Racial-ethnic minorities	245	81	36	12	14	5	257	85
Survey wave								
Fall 2020	261	72	55	15	51	14	283	78
Spring 2021	271	76	68	19	32	9	278	78
Total	532	74	123	17	83	12	561	78

Note: The questions were initially designed by POLS-Lab to be a control measure for racial resentment, but we are showing them here to demonstrate the importance of partisanship further.

other cultures and the importance of having favourable views of other communities to reduce global conflict (derived from Saran & Kalliny, 2012). The primary purpose is to show that, while there is some variation across gender and race, partisanship is the most reliable and significant determinant of variation in nationalism and cosmopolitanism. Cosmopolitan views stay relatively stable across waves, but nationalism and national identity decline significantly, especially for students who identify as Democratic partisans.

Table 3 presents the racial views of student respondents for the Fall 2020 and Spring 2021 waves only. Major metropolitan areas in the United States have become less white and more diverse, from about 38% non-white in 2000 to 44% in 2010, to 50% in 2020 (Frey, 2022b). As with Table 2, partisanship is the strongest predictor of racial views—even stronger than a respondent's racial identity. While 23% of Republicans agree or strongly agree that "blacks have gotten less than they deserve," this support rises to 94% for those aligned with Democrats. While 50% of Republicans agree or strongly agree that blacks should overcome prejudice like Italian, Irish and Jewish minorities did, only 5% of Democrats agree. Our point here is not to dissect the drivers of racism in the United States but rather to show that polarisation in racial attitudes exists, is expressed in partisanship, and should impact migration behaviour and location preferences.

4.3 | Experimental approach

The survey experiment simultaneously accounts for many tangible aspects of place attractiveness, thus isolating the effect of the intangible partisan aspects of places such as Washington, D.C. or Seattle that are necessarily left over. In doing so, we simulate the complex tradeoffs inherent in migration decision-making and identify place-consonant response patterns. The authors fielded a conjoint survey experiment with UNC Charlotte students in each wave of the survey.[1] As illustrated in Figure 2, the experiment provided students with seven potential city and job packages, each with randomly

[1]Approved under UNC Charlotte Office of Research Protections and Integrity Record Number IRBIS-15-0206.

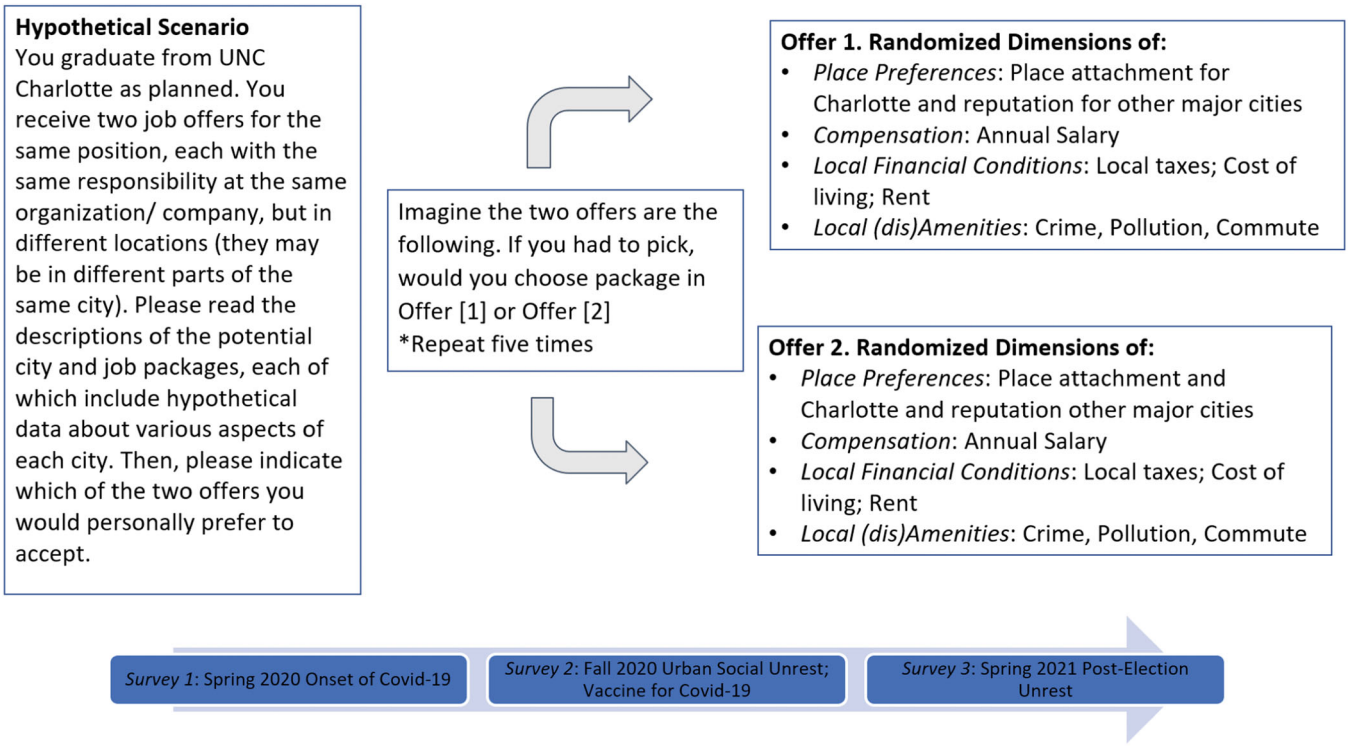

FIGURE 2 Conjoint experiment and dimensions. Possible attributes of each dimension were as follows: **Place Preference (City name)**: Charlotte/Atlanta/Dallas/Los Angeles/Seattle/New York/Washington D.C. **Annual Salary (After tax)**: $40,000/$60,000/$80,000. **Annual income taxes (local, county, state)**: 0%/5%/10%. **Cost of living index (100 = avg.)**: 50/100/150. **Rent (Average annual)**: $1500/$2000/$2500/$3000. **Violent crime index (100 = worst)**: 30/45/60. **Pollution index (100 = worst)**: 30/45/60. **Commute (avg. one-way)**: 25/35/45 min.

combined dimensions and values, including city name (Charlotte and seven other large U.S. cities), salary, taxes, cost of living, rent, crime, pollution, and commuting time. Each respondent received five hypothetical city-job packages, each with two offers. With each offer, the respondent received one of the seven cities but with randomised, fictional values for the other dimensions.

The experiment includes seven possible locations chosen for subjective and objective reasons (see Appendix A Table A1). First, they represent important loci for the broader U.S. population and migration dynamics. As of 2019, these cities contained a collective population of 58.9 million, about 18 percent of the U.S. population. At the same time, larger cities are generally more politically liberal than smaller towns and rural areas, Dallas-Ft. Worth and Charlotte are much more conservative than Washington, D.C., and San Francisco—the two most liberal big cities in the country (Katz & Bradley, 2013). Additionally, the states of Texas and North Carolina are more conservative than the states of California and Washington (World Population Review, 2021). The pattern of partisanship is also verified in the percentage of votes for Biden by metropolitan area included in Appendix A Table A1. Thus, the cities chosen for the experiment represent important variations in the characteristics the literature has documented as impacting and influencing graduate and skilled migration in the United States.

To further support the validity of the treatment cities, Appendix A Table A2 examines LinkedIn data for the top locations of around 70 percent of alumni from the University of North Carolina at Charlotte (30,000 student enrolment, located in a major city). The LinkedIn information aligns well with analysis from the U.S. Census Bureau (2022) that tracks the pre-pandemic (2005–2018) destinations of young adult migrants from Charlotte, North Carolina, using a variety of data sources, including tax, census, and survey data. Indeed, New York, Atlanta, Los Angeles, Seattle, and Washington, D.C., are all top destinations for young adults from Charlotte. Importantly, these data act as a rough baseline demonstrating the relative popularity of various metropolitan destinations *before* the Covid-19 pandemic. In Spring 2021, we asked students about their city of birth, where they consider their "hometown" and where they plan on living after graduation (responses in Appendix A Table A3). While about 25% of students were born in the Charlotte Metropolitan Area, 34% consider it their hometown, and 39% plan on remaining there after graduation. Conversely, 61% of students plan on living in a different location, including several destinations in our experiment.

5 | CONJOINT ANALYSIS RESULTS

Marginal means (MMs) are the predicted means or average level of support for that treatment (Leeper et al., 2020). MMs have a built-in comparison to the overall mean. The MM of 0.5 is displayed with a vertical line in the centre, reflecting the mean of selecting one of the two choice outcomes (1 or 0). If the MM differs from 50% probability,

the 95% error bar does not cross the line, indicating a positive or negative favorability. The MMs graph (Figure 3) displays individual attributes along the vertical axis. MMs here represent the probability of selecting a city-job package with a specific attribute value, averaging over (and thus controlling for) other attributes in the package (Leeper et al., 2020).

A few important overall findings are clear. First, salary has the largest overall effect (positive or negative) on the probability of selecting a package. Compared to profiles with $40,000 salaries, profiles with a salary of $60,000 are 18.7% more likely to be selected, while those with $80,000 are 36.5% more likely to be selected. Percentages are obtained by finding the difference between the MMs for each dyad of attributes to create meaningful comparisons. In aggregate, salary considerations account for approximately 30% of the overall decision weight. This affirms the critical role of wages in shaping migration decisions. The second and third largest overall effects are from the highest levels of rent and cost of living, respectively. Profiles with rent of $3000 per month are 15.7% less

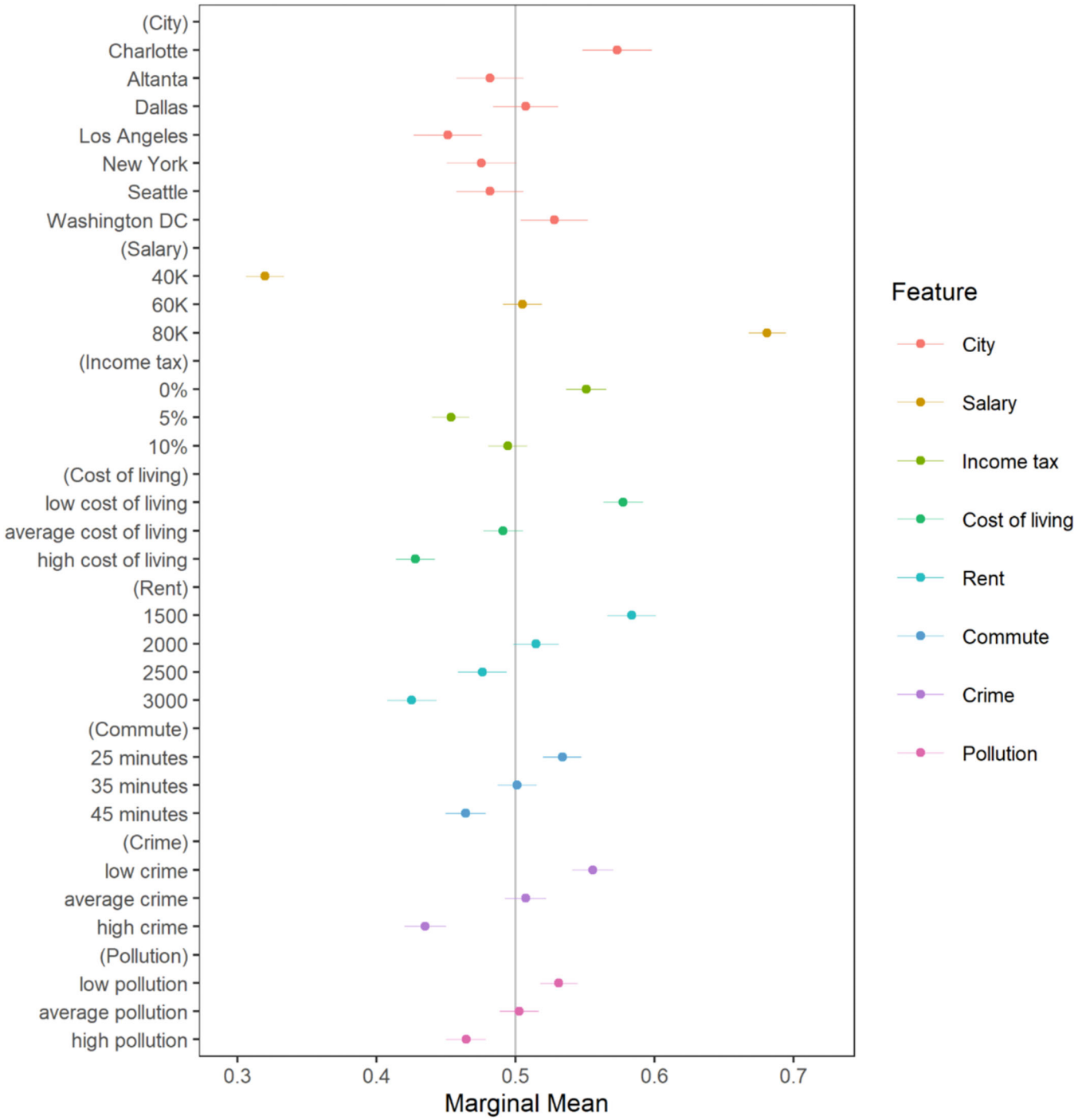

FIGURE 3 Overall marginal mean choice.

likely to be selected than those with rent of $1500 (followed by 11% less likely for $2500 per month). Profiles with a high cost of living are 15.1% less likely to be selected than those with low cost of living.

City names have a variety of effects on the probability of respondents selecting a profile. Charlotte clearly has a strong positive effect on selection. Relative to Charlotte, profiles with Los Angeles are 13% less likely to be selected and New York was 11% less likely to be selected. High crime has a slightly weaker effect on city-job package selection. Profiles with high crime are 12.9% less likely to be selected than those with low crime. Pollution and commute times have similar, small effects on city-job package favorability. Profiles with high pollution are 6.8% less likely to be selected than those with low pollution. Compared to those with 25 min commutes, profiles with a commute of 45 min are 7.3% less likely to be selected. The smallest effect is from income taxes. Relative to places with no income tax, profiles with an income tax of 10% are 6% less likely to be selected.

5.1 | Sub-group analysis: Partisanship and identity in a time of turmoil

MMs are especially important for subgroup analysis, which is necessary to determine the degree to which group heterogeneity is shaping the overall findings (Spilker et al., 2020). For each subgroup, we present individual MMs (displayed in separate graphs in Appendix A Figures A1–A4) and refer to omnibus *F*-tests (presented collectively in Table 4). The *F*-test is a variant of analysis of variance adapted for Conjoint Experiments. It does not make clear which features are significantly different from each other, only whether there are overall differences between the subgroups. Additionally, we use the Chi-squared test to determine the statistical significance of the differences between specific MMs, as summarised in Table 4. The subgroup analysis first tests the impact of individual-level characteristics such as income, partisanship, race, and gender on the randomised job offer characteristics, focusing on preferences for cities. In the second phase of analysis, we examine the impact of partisanship on city preferences over the three different survey waves.

Table 4 demonstrates that respondent preferences significantly differ between high- and low-income subgroups, whether income is measured as family income or estimated post-graduate income. Political ideology and partisanship also produced different preferences overall, and there were significant differences between the overall response patterns of white and non-white respondents. Closer examination revealed a good deal of agreement across members of different groups for economic aspects such as salary and cost of living, with group differences emerging primarily for the city treatments.

The *F*-tests only focus on the average difference between subgroups, whereas Table 5 summarises group differences for city preferences. For the sake of simplicity, we only use the partisanship and family income variables. To our knowledge, these choices do not impact the results presented here. It was also necessary to account for the correlation between each subgroup variable as several scholars have surmised that partisan sorting is not about partisanship per se but rather about other characteristics that correlate with partisanship (Martin & Webster, 2020). Indeed, our data do evidence correlations between income, partisanship, gender, and race, shown in Appendix A Table A4. In keeping with past research, Republicans are more likely to have higher incomes, are male, and are white. Each model used as a basis for the tests presented in Table 5 includes control variables for correlated characteristics. For instance, the models that examine differences by partisanship included controls for the individual's race, gender, and income categories. While such measures do not fully account for the complex relationship between these factors, they serve as reasonable statistical controls to achieve more valid estimates.

The upper portion of Table 5 depicts group differences in city preferences without respect to when the data were collected (first, second, or third wave). Republicans were significantly more eager than Democrats to accept offers in Charlotte or Dallas, while Democrats were more likely to accept offers in New York.[2] Democrats directionally favoured Seattle and Los Angeles, but these differences were not statistically significant. Notably, there was no overall difference in the propensity to accept offers in Washington, D.C., between Democrats and Republicans. Charlotte was the only city for which respondents expressed different preferences based on race and gender, with both whites and males being more likely to accept a job offer that would keep them in Charlotte. Finally, concerning income, lower-income students preferred New York and Washington, D.C., both of which have substantially lower-income populations, although these differences are not statistically significant. There was one other difference between income groups (results shown in the appendix), concerning local, county, and state income tax. Those who anticipated a higher postgraduation income were likelier to choose cities with a 0% income tax (MM = 0.570) than those who anticipated a lower income (MM = 0.525). The gap

TABLE 4 Differences in subgroup preferences omnibus *F*-test.

Subgroup	*F* statistic	*p* value
Party (Democrat/Republican)	1.983	0.004***
Race (White/Racial-ethnic minorities)	1.66	0.027**
Anticipated postgraduation income (high/low)	2.166	0.001***
Family income (high/low)	1.557	0.046**
Gender (male/female)	0.951	0.525
Survey (1, 2, and 3)	0.842	0.761

Note: *$p < 0.10$, **$p < 0.05$, ***$p < 0.01$.

[2]We also tested Democrats, Republicans, and Independents by strength of political leaning. These trends were directionally similar for each subgroup, with stronger alignment towards a party associated with stronger locational preferences (i.e., stronger Republicans were more likely to choose Dallas and less likely to choose Washington D.C. in comparison with weaker Republicans).

TABLE 5 A summary of Partisan City preferences and correlates.

Subgroup	City	Marginal mean	Chi squared	*p* value
Party (Dem/Rep)	*Charlotte*	D: 0.55 **R: 0.62**	4.35	0.037**
	Dallas	D: 0.49 **R: 0.59**	9.20	0.002***
	New York	**D: 0.50** R: 0.41	7.91	0.005***
	Los Angeles	**D: 0.47** R: 0.43	1.34	0.240
	Seattle	**D: 0.49** R: 0.44	2.11	0.146
Race (White/Racial-ethnic minorities)	*Charlotte*	**W: 0.60** REM: 0.53	5.43	0.020**
Family income (high/low)	*New York*	H: 0.45 **L: 0.50**	3.07	0.080*
	Washington	H: 0.49 **L: 0.55**	3.16	0.075*
Gender (male/female)	*Charlotte*	**M: 0.62** F:0.55	4.67	0.031**
Party in Spring 2020	*Washington*	D: 0.52 **R: 0.57**	1.20	0.273
Party in Fall 2020	*Washington*	**D: 0.56** R: 0.42	7.31	0.007***
Party in Spring 2021	*Washington*	D: 0.47 **R: 0.48**	0.04	0.843
Party in Spring 2020	*Charlotte*	D: 0.51 **R: 0.52**	0.04	0.832
Party in Fall 2020	*Charlotte*	D: 0.55 **R: 0.69**	8.14	0.004***
Party in Spring 2021	*Charlotte*	D: 0.60 **R:0.67**	2.05	0.152
Party in Spring 2020	*Dallas*	D: 0.49 **R: 0.59**	3.81	0.051*
Party in Fall 2020	*Dallas*	D: 0.53 **R: 0.56**	0.38	0.538
Party in Spring 2021	*Dallas*	D: 0.46 **R: 0.62**	7.99	0.005***
Party in Spring 2020	*Seattle*	**D: 0.47** R: 0.47	0.01	0.921
Party in Fall 2020	*Seattle*	**D: 0.49** R: 0.43	1.12	0.290
Party in Spring 2021	*Seattle*	**D: 0.49** R: 0.41	1.80	0.180
Party in Spring 2020	*New York*	**D: 0.52** R: 0.43	2.72	0.099*
Party in Fall 2020	*New York*	**D: 0.49** R: 0.35	6.80	0.009***
Party in Spring 2021	*New York*	**D: 0.48** R: 0.45	0.27	0.600
Party in Spring 2020	*Los Angeles*	**D: 0.49** R: 0.47	0.16	0.692
Party in Fall 2020	*Los Angeles*	**D: 0.43** R: 0.37	1.18	0.278
Party in Spring 2021	*Los Angeles*	**D: 0.50** R: 0.45	0.62	0.432

Note: *$p < 0.10$, **$p < 0.05$, ***$p < 0.01$. Bold indicates greater value

between the two groups was 4.5% and statistically significant at the 95% level. Finally, it is worth noting that some of the variability we document between cities may be a function of distance. For example, North Carolina and Texas are much closer in distance than North Carolina and California. However, given that these distances remain constant across partisan groups (i.e., the distance between Charlotte and any location is fixed), the revealed preference by political affiliation gives credence to political sorting.

5.2 | Marginal Means over time

The *F*-test for overall differences between the three surveys was not significant ($p = 0.761$ for survey 1 vs. survey 3). This was a surprising result, as the three time periods represent important inflection points in the Covid-19 pandemic. As illustrated in Figure 4, most preference orderings, including those for economic factors such as salary, remain stable over three different periods, suggesting resilience in their influence over migration preferences and behaviour. The significant differences emerge in the attractiveness of certain cities across surveys. While not significant, we can see that Charlotte became slightly more attractive across all subgroups (results only shown for partisanship), suggesting that students became increasingly keen to stay where they were currently located rather than venture out to other cities, likely considering the difficulties of travelling during the pandemic. Similarly, during the second period of Fall 2020, Los Angeles and New York are at their least attractive levels. Respondents were less tolerant of the 35-min commute time in the third

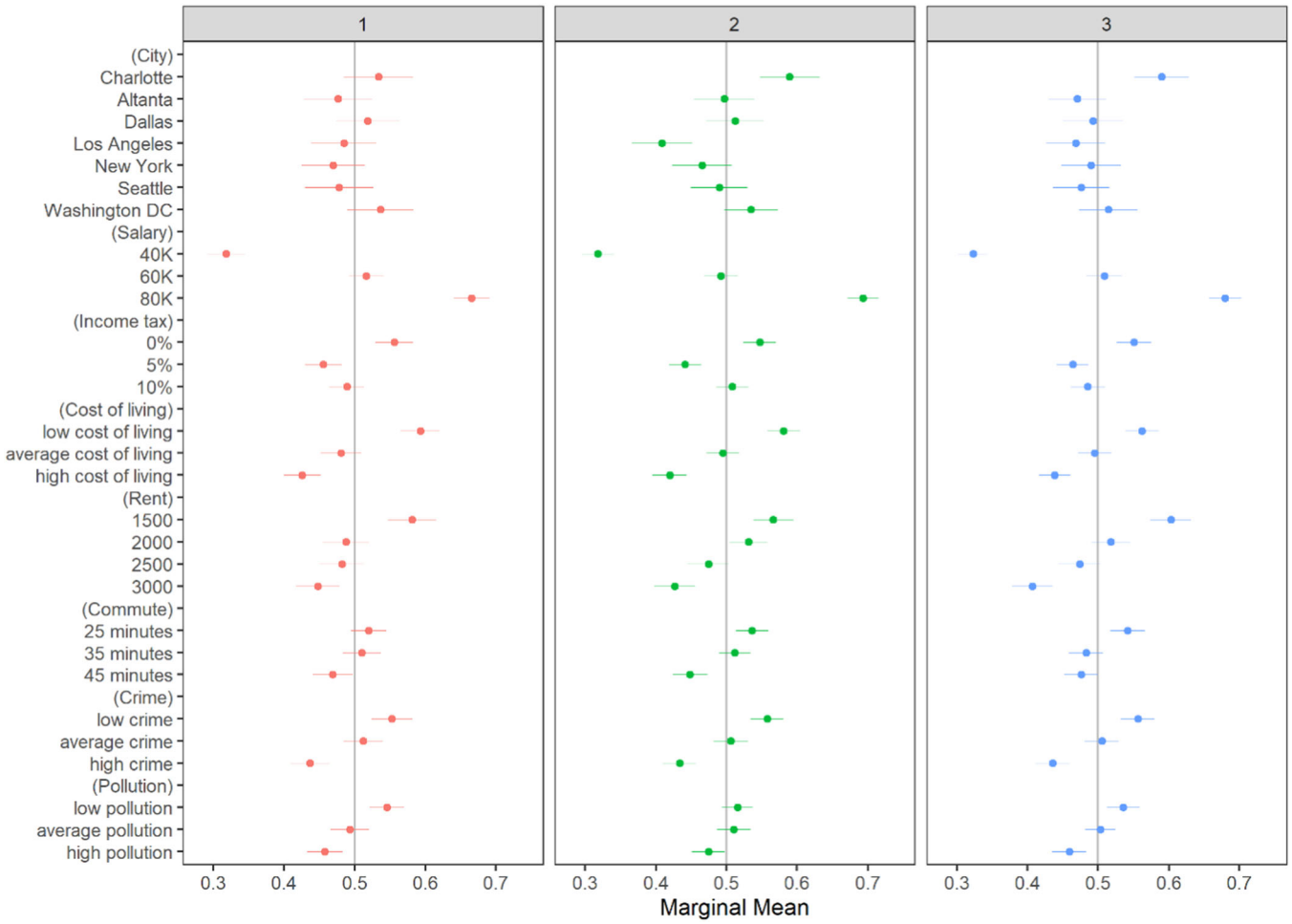

FIGURE 4 Marginal mean choice (surveys 1, 2, and 3).

survey wave than the first wave, suggesting that working from home may have increased respondent sensitivity to travel times. Finally, in the second and third survey waves, respondents are more likely to select offers where their rent price would be $2000 compared to the first wave. This may reflect an appreciation for increasing rent prices and an increased willingness to pay for a nicer home if they are likely to be confined to it.

The lower half of Table 5 depicts the attractiveness of each city by partisanship across each of the survey periods to explore how cities are associated with different parties during the events of the pandemic and the elections. Partisan preferences for Washington, D.C., are the most time-variant, with preferences switching from Republican to Democrat to neutral throughout the survey waves. We surmise that the events related to the presidential elections and ongoing protests made D.C. more attractive to young university Democrats during Fall of 2020. This enthusiasm was relatively short-lived, and respondents from neither party expressed a desire to be in Washington by the Spring 2021 survey, perhaps due to the January 6 protests and Covid-related concerns. Republicans consistently favoured Charlotte and Dallas across all surveys, especially in the last survey when partisan differences for Dallas achieved statistical significance ($p < 0.01$).

Meanwhile, New York presented the opposite scenario, with Republican distaste for the city reaching a high during the Fall 2020 survey, although the city is consistently favoured by Democrats across survey waves. Perhaps the politicisation of Covid-19 pandemic regulations lowered Republican views during this period. These short-term preferences seem to operate along more stable, though weaker, partisan preferences in which certain cities are associated with either Democrats or Republicans. Democrats consistently favour New York, Seattle, and Los Angeles, while Dallas and Charlotte are consistently favoured by Republicans. This is evidence that partisan-based migration preferences exist in students' minds before moving to a specific location rather than being adopted after moving there, as some research has posited (Martin & Webster, 2020). These differences are found while controlling for other individual-level factors, suggesting that they are not merely lifestyle or economic preferences masquerading as partisanship (Abrams & Fiorina, 2012). Of course, this research observes migration preferences and not the migration choices of individuals, which may be constrained by any number of factors (Mummolo & Nall, 2017). At a minimum, partisan migration preferences are an important component of the decision-making processes of university students who will soon be making actual migration choices.

6 | DISCUSSION AND CONCLUSION

This paper has sought to better understand the factors that shape graduate migration decisions and city locational preferences. University graduates are at the period of highest migration propensity in their lifetimes, open to a variety of locations to call home and settle down. Thus, new university graduates are prime targets for cities seeking to grow economically and demographically. Yet, our understanding of the relationship between skilled migration and cities has been profoundly challenged by the Covid-19 pandemic, social unrest in the fight for racial justice in the summer of 2020, the 2020 Presidential Election, and the Capitol riots at the start of 2021. We leveraged this series of unanticipated events to learn about the calculus underlying these graduate migration decision-making processes and how they may have changed in response to contemporary events. Thus, we have theorised "place-consonant migration" to understand entrenched partisan preferences, with individuals seeking states, cities, or neighbourhoods to co-locate with like-minded populations. Partisan preferences helped explain why individuals preferred particular cities in the short and long term. Of course, further research is needed on the role of political identities in the migration decision-making process.

Using a conjoint survey experiment of UNC Charlotte students throughout three periods in 2020 and 2021, we examined how graduate migration decisions are shaped by objective or tangible place characteristics *and* the subjective or perceptual dimensions of potential city destinations. More significantly, we showed how subjective city preferences relate to individual political attitudes and how these preferences and attitudes can change over time. First, in line with theory, economic and job-related factors dominate graduate migration decision-making (Batista & McKenzie, 2021). These are things that Covid-19 and political events could not change. Across all three waves, the highest prospective salaries elicited the strongest positive response to a hypothetical job offer and the lowest salaries elicited the most negative response. The conjoint experiment allowed us to explore beyond well-known economic factors. Results also showed a strong, consistently positive sentiment for remaining in Charlotte, North Carolina, the home city of their university. This reflects people's strong attachment to their homes, regardless of the pandemic, and the strength of the push or pull factors needed to convince someone to migrate anywhere. As of 2019, before the pandemic, Americans were moving at the lowest rate ever (Tavernise, 2019). This suggests an advantage for metropolitan areas home to universities, just as it indicates the difficulty of convincing people to move once they have settled.

Ultimately, large-scale mobility and settlement patterns reflect millions of individual decisions shaped by micro and macro-level factors. Conventional research methods have added to our understanding of migration preferences but also left gaps. Echoing Lee's (1966) migration model, conjoint offers an experimental way of assessing how individuals deploy mental calculus to assess the complex assemblage of location-based factors in influencing decisions. The experiment mirrors real-world situations and forces participants to assess tradeoffs between different 'bundles' of locational preferences. In this way, the conjoint analysis offers a means of elucidating revealed, rather than stated, preferences and allows researchers to understand the key drivers of migration decisions more accurately. It is well-suited for studying a concept such as place consonance because we can control for various treatments and characteristics of specific places. Thus, we can focus on the intangible or ideological nature of a place (e.g., its partisan associations) while benefiting from the benefits of quantitative methods.

At the same time, survey experiments present several methodological drawbacks. Many experiments, such as the one conducted in this study, use samples of convenience that are not representative of the broader population, thus limiting the study's external validity. Additionally, to achieve experimental control, the study presented respondents with ready-made information about all the elements in the job proposals, whereas in real-life graduating students might need help to seek out this information. For instance, they may not seek out information on the relevant tax rates, so their decision would be based on less, or perhaps different, information than the experiment provides. To some extent, the trade-off between experimental control and real-world processes is present in all experiments (c.f. Prike et al., 2022). We do not claim that our specific findings are generalisable or predictive of future migration trends across all college students in the United States or other WEIRD (Western, Educated, Industrialised, Rich, and Democratic) countries, let alone in non-WEIRD settings. We also acknowledge that no survey, whether experimental or conventional, can fully measure and quantify subjective views and attitudes. In future research, we hope to utilise in-depth qualitative interviews to better understand and further explore the factors underlying place-consonant migration. Despite these limitations, our unique contribution is identifying patterns of subjective migration preferences based on partisanship and showing that current events mediate these subjective preferences. The results suggest further experimental research exploring how individuals weigh economic factors with social and political identities in the migration decision-making process.

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CONFLICT OF INTEREST STATEMENT

The authors declare no conflicts of interest.

DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

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APPENDIX A

TABLE A1 Metro characteristics.

	Charlotte	Atlanta	Dallas	New York	Washing. DC	Los Angeles	Seattle
Annual mean wage, 2019[a]	$52,150	$54,110	$53,800	$66,790	$72,600	$59,770	$68,460
Income taxes (annual local, county, state)[b]	5.30%	5.80%	0.00%	10.10%	6.50%	8.00%	0.00%
Cost of living index (100 = national average)	99	108	102	187	152.1	173.3	172.3
Rent (average for all)	$1346	$1602	$1518	$2284	$2611	$2908	$1728
Median home priceb	$229,000	$259,000	$215,000	$681,000	$557,000	$690,000	$714,000
Violent crime index (100 = worst)	34	55	37	28	56	29	32
Pollution index (100 = worst)	27	44	43	54	40	63	28
Commute (minutes one-way)	25	26	27	41	30	31	27
Pct. college graduates among persons aged 25–34[c]	39	39	35	47	54	35	45
Net migration among persons aged 25–34 and city rank[c]	8024 (6)	5709 (11)	12665 (3)	−37648 (53)	−2168 (44)	−18772 (52)	11244 (4)
MSA population 2019[d]	2,636,883	6,020,364	7,573,136	19,216,182	6,280,487	13,214,799	3,979,845
MSA population percent change (2015–19)	7.7	5.9	7.5	−0.5	3.1	−0.2	6.4
Pct. Biden vote 2020[e]	49.4	57.1	49.9	63.2	72.3	66.4	66.9

[a]U.S. Bureau of Labor Statistics (2019).
[b]BestPlaces (2020).
[c]Frey (2019).
[d]U.S. Census Bureau (2020).
[e]Florida (2020).

TABLE A2 North Carolina universities by residence of Alumni on LinkedIn.

	UNC Charlotte
Charlotte, North Carolina Area	57%
Raleigh-Durham, North Carolina Area	6%
Greensboro/Winston-Salem, NC Area	4%
International	4%
Greater Atlanta Area	2%
Washington D.C. Metro Area	2%
Greater New York City Area	2%
San Francisco Bay Area	1%
Dallas/Fort Worth Area	1%
Greater Los Angeles Area	1%
Greater Seattle Area	1%
Greater Chicago Area	
Greater Boston Area	1%
Greater Philadelphia Area	
Percent of total alumni on LinkedIn	78% of 132,215

Note: Bold indicates the cities used in the experiment.
Source: LinkedIn page for University of North Carolina at Charlotte, (2020).

TABLE A3 Hometown (Asked Spring 2021 only).

		Freq	Percent
City/town where you were born	Charlotte Metro, NC	88	25
	Elsewhere	262	75
	Total	350	
Where you consider your "Hometown" or "where you are from"	Charlotte Metro, NC	134	34
	Elsewhere	261	66
	Total	395	
Where you plan on living after graduation	Charlotte area	154	39
	My hometown	108	27
	Elsewhere (top choices below)	133	34
	Don't know	27	7
	International	11	3
	Washington D.C.	11	3
	Los Angeles/California	7	2
	Dallas/Texas	6	2
	Raleigh-Durham, NC	7	2
	Florida	6	2
	Colorado	5	1
	Seattle/Washington	5	1
	Atlanta, GA	3	1

TABLE A4 A pairwise correlation matrix of subgroup variables.

	Gender (female)	Family income (high)	Party (Republican)	Race (non-White)
Gender (female)	1			
Family income (high)	−0.012	1		
p-value	*0.256*			
Party (Republican)	0.348	−0.233	1	
p-value	*0.000*	*0.000*		
Race (non-White)	−0.133	0.239	−0.356	1
p-value	*0.000*	*0.000*	*0.000*	

Note: *Correlation coefficients are followed by probabilities.

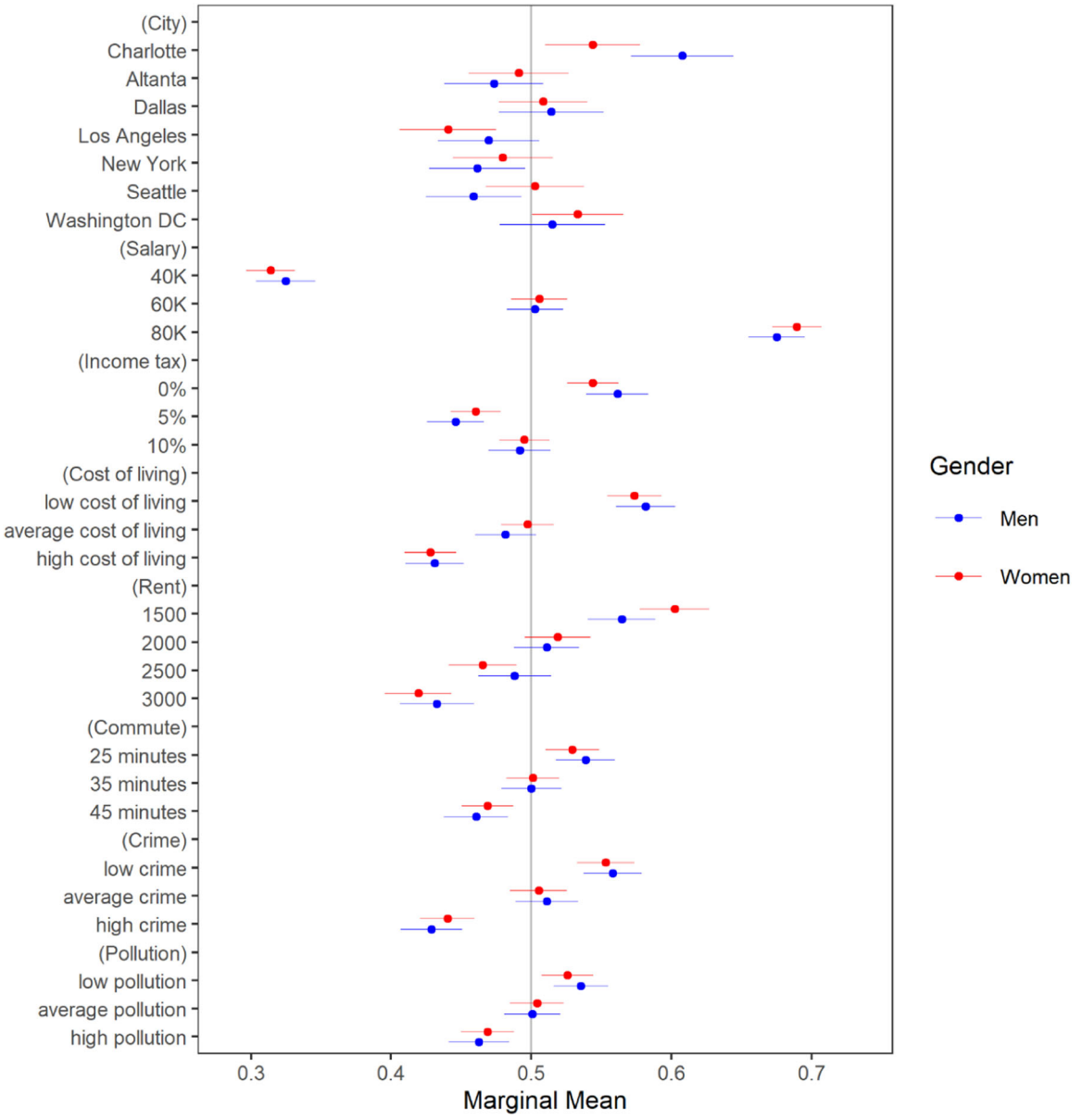

FIGURE A1 Marginal mean choice (by gender).

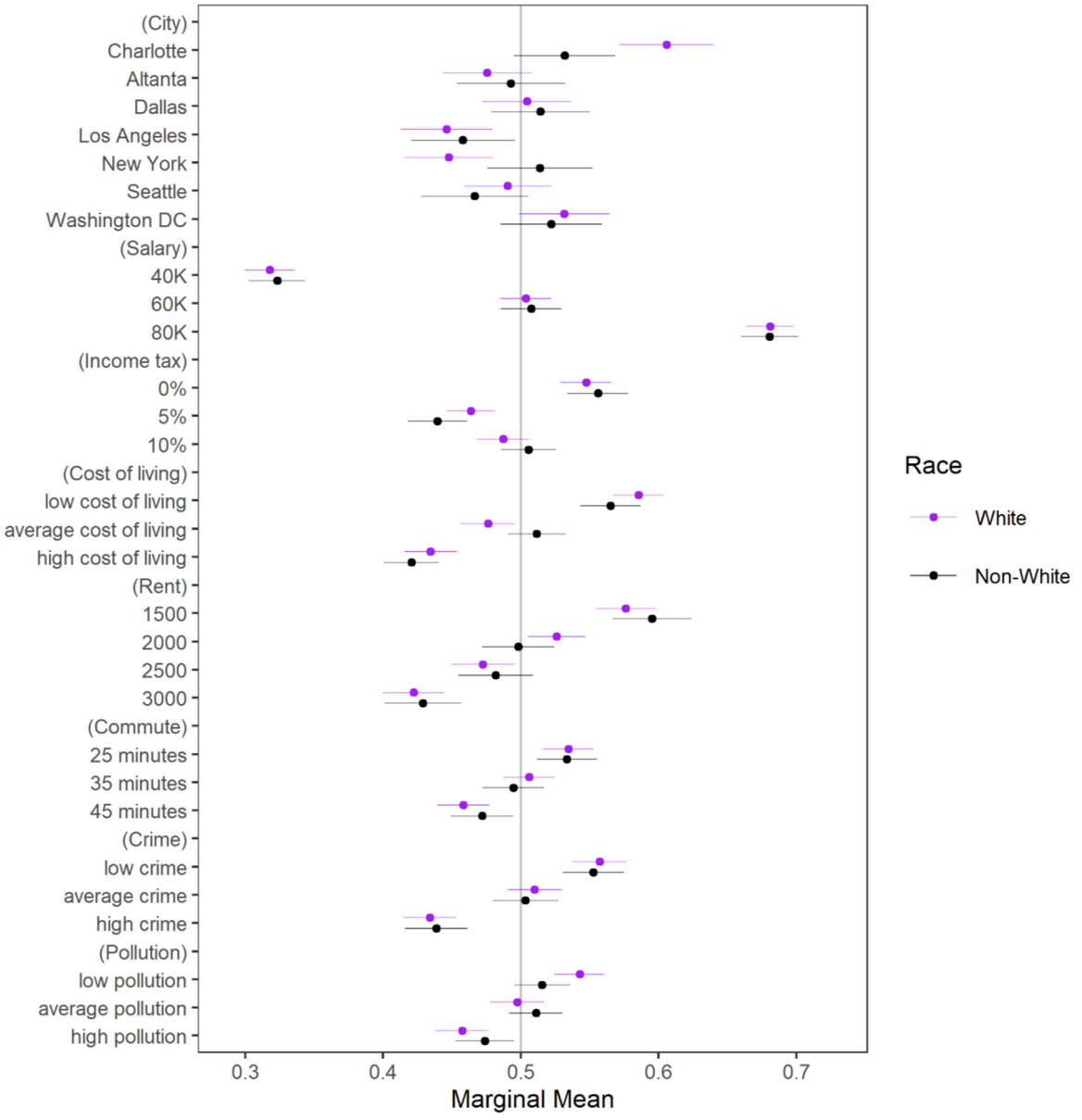

FIGURE A2 Marginal mean choice (by race).

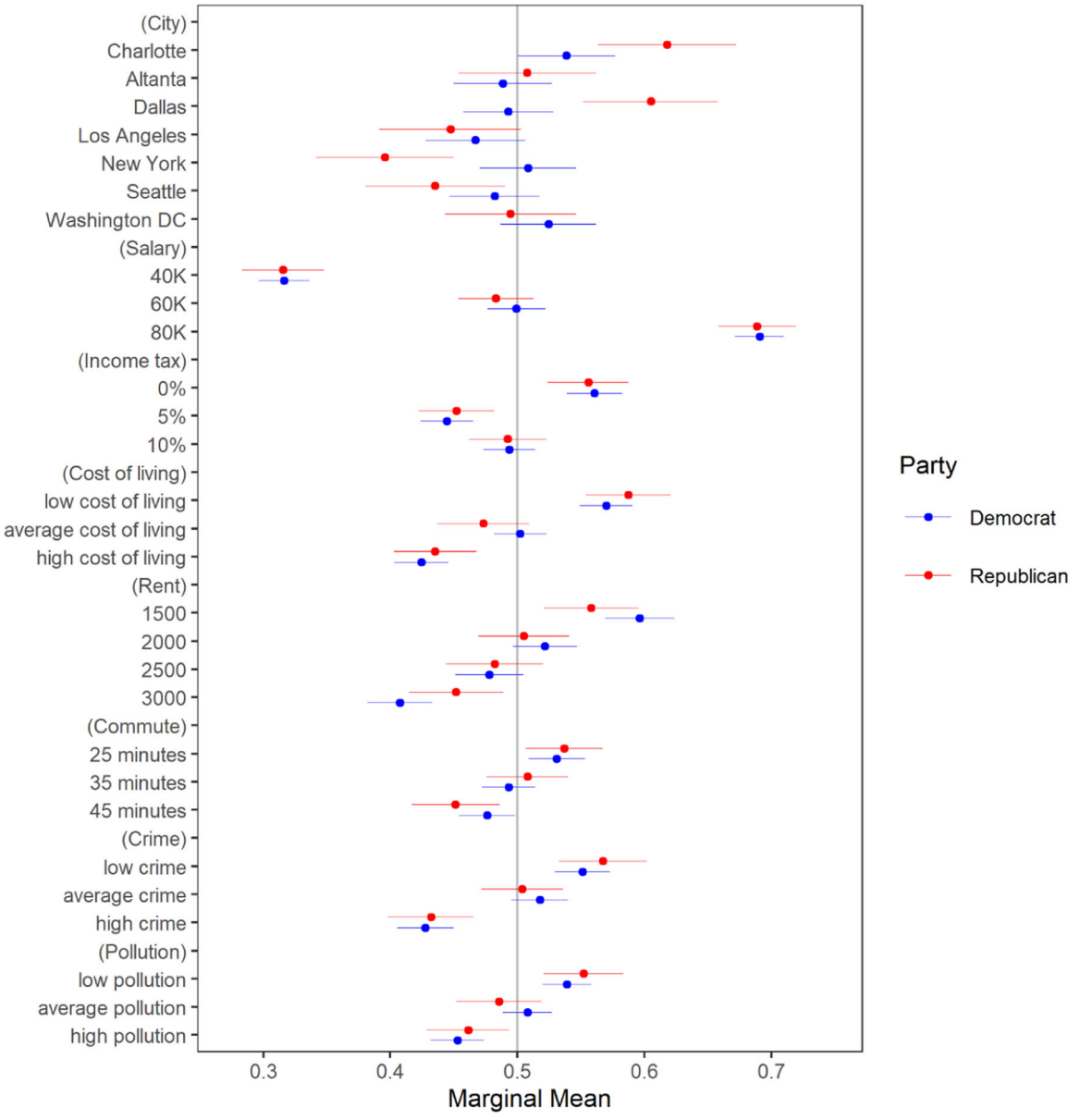

FIGURE A3 Marginal mean choice (by party).

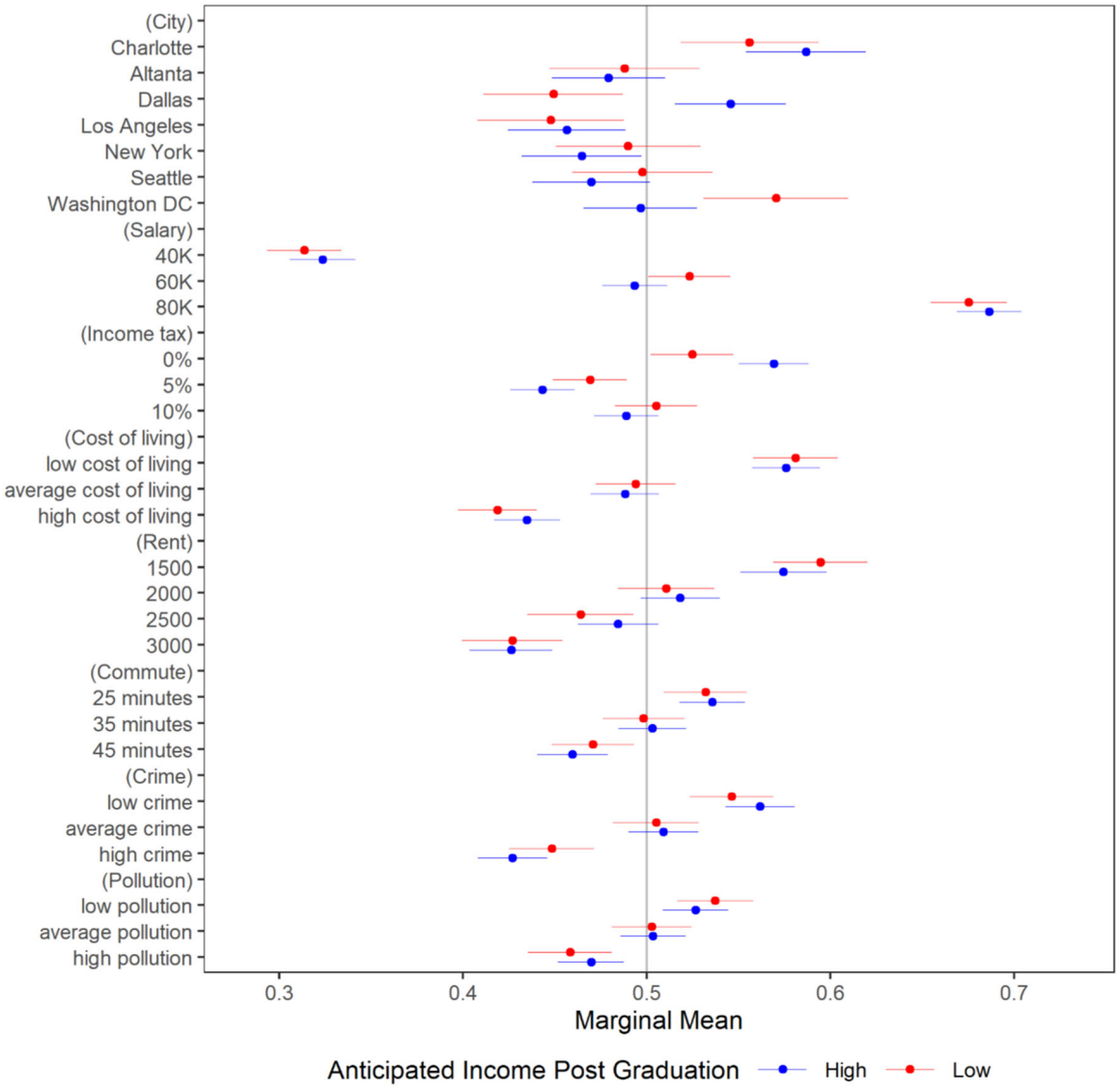

FIGURE A4 Marginal mean choice (by anticipated post grad income).