Broader Horizons: The Long-Run Impacts of Exposure to New Places

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Abstract

We study how and why exposure to different places shapes individuals' social attitudes and actions by administering an original survey to 15,000 former volunteer missionaries for The Church of Jesus Christ of Latter-day Saints. Leveraging exogenous variation from the location assignments, we document large, long-term changes in stated attitudes toward underrepresented minorities and political out-partisans, but not towards women in the workforce. In addition to attitudes, location assignments change voting and donation behavior, residential racial diversity, and family formation and fertility decisions ten to forty years after volunteering. Mechanism analyses reveal that "contact theory" explains only a small share of results, highlighting the importance of social learning more broadly to attitude formation and expression.

Key Words: racial attitudes, political attitudes, gender attitudes, contact theory, social learning, place effects

JEL Codes: J15, J16, D72

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1. Introduction

In countries across the world growing divisiveness about social issues raises questions about the development of social attitudes and preferences—especially in the formative years of young adulthood. Although economic research often takes these social preferences as given, mounting evidence shows how they are shaped by opportunities like college; study abroad; and national, religious, and humanitarian service (e.g., Malamud and Wozniak, 2012; Mo and Conn, 2018; Berinsky et al., 2022; Ertola Navajas et al., 2022) and by the geographic locations in which these opportunities occur (e.g., Bazzi et al., 2019; Bagues and Roth, 2023; Okunogbe, 2024). Despite the clear importance of place, little is known about who is affected by new cultural experiences, how long changes persist, or the cognitive processes connecting place and preference formation. To answer these questions, we study how and why exposure to new places shapes social attitudes and actions regarding under-represented minorities, working women, and political out-partisans.

Two obstacles complicate estimating the causal effects of exposure to new places on social attitudes. First, systematically different people choose to live in different places, contaminating cross-sectional associations between place and attitudes. To address this difficulty, we study a natural experiment that assigns young volunteers to locations around the world for 1–2 years without regard to their prior preferences: missionary service for The Church of Jesus Christ of Latter-day Saints (the Church). Second, no existing data sources measures mission location assignments, attitudes, and actions. To address this challenge, we administer an original survey to 15,000 individuals who began their volunteer service as missionaries between 1970–2010. Our survey determines where each volunteer was assigned, retrospectively collects the information listed on mission applications, and elicits both stated and behavioral measures of attitudes about race, politics, and gender roles.

Causal identification depends on the assumption that the unobserved determinants of social attitudes are unrelated with location assignments. Although other high-profile research has used this variation from the Church's missionary program to study academic and political outcomes for young adults (e.g., Pope, 2008; Berinsky et al., 2022), we directly address concerns of confoundedness in our data by leveraging the fact that assignments are made by central church leaders using the information on mission applications. First, we highlight that our design identifies the causal effect of being assigned to different locations not the effect of choosing to volunteer. Second, we illustrate the ways in which application information informs assignments. For example, experience or interest in foreign languages increases the probability of being assigned to non-English speaking countries whereas pre-existing medical conditions reduce the likelihood of assignments outside of the United States. Third,

we demonstrate that—conditional on application information—other baseline characteristics are not associated with mission assignments. Finally, we control for mission-application information sets in all of our analytical results and interpret the resulting effects of mission-location assignments as causal.

Our analysis reveals three main results. First, exposure to different places affects some attitudes and actions but not others. For race, mission assignment generates significant dispersion in attitudes towards both Latinos, leads some volunteers to live in more ethnically diverse zipcodes even decades after the conclusion of volunteer service, and to be more likely to marry a Latin American spouse. Mission assignments also reshape the affective polarization in stated attitudes towards Republicans and Democrats and changes voting and donation behavior toward both parties. For gender, there are essentially no effects on stated attitudes, learning about gender issues, or voting for women, but mission assignment does affect individuals own marriage and fertility decisions.

Second, the place effects on attitudes and actions load on salient location characteristics. For example, for every (cross-location) standard-deviation increase in the Latino population share, stated attitudes towards Latinos increase by 0.04 standard deviations and zipcode diversity increases by 0.03 standard deviations. The effects on political polarization load on government size: assignment to a place with one standard deviation higher per-capita government spending reduces the cross-partisan gap in stated attitudes by 0.03 standard deviations and reduces the cross-partisan gap in voting by 0.04 standard deviations. Finally, the effects on marriage and fertility load on local social norms, with a one standard deviation increase in gender equity *increasing* marriage rates for female volunteers and increasing assortative matching for male volunteers. All told, these effects are surprisingly small given the size of the intervention.

Finally, we show that attitudes toward groups and individuals grow through ongoing-dynamic channels of social learning that extend well beyond traditional contact-theoretic explanations. Contact theory suggests that authentic interactions with members of other groups could improve attitudes toward them, and we find some evidence of this—particularly for race. Volunteers assigned to places with larger Black and Latino population shares report more positive interactions with locals and retrospectively state that their attitudes towards both groups improved during their volunteer service. Attitudes towards out-partisans tell a completely different story. Volunteers assigned to places with larger government report more hostile interactions with locals and that their attitudes toward out-partisans improved mainly *after* their volunteer service. They are also much more likely to report discussing social issues while serving and observing better-functioning political institutions (compared to their home locations). These patterns with attitudes towards out-partisans are inconsistent with

contact-theoretic explanations and point to dynamic social learning as mission experiences continue to shape how individuals interpret information over the course of their lives.

Our paper relates most closely to a set of papers that study the impact of exposure to new places on immigration views (Berinsky et al., 2022), political identity (Brown et al., 2023), and national integration (Bazzi et al., 2019; Cáceres-Delpiano et al., 2021; Bagues and Roth, 2023; Okunogbe, 2024). Our contribution is using worldwide variation from over 400 different locations to consider multiple dimensions of place and how they interact with long-term outcomes in multiple domains. In this regard, the most closely related paper to ours is Berinsky et al. (2022) which also uses Latter-day Saint missionaries to examine the impact of contact with immigrants on immigration attitudes. They survey BYU students before and after their missionary service and find that missionaries assigned to places with a higher likelihood of interacting with immigrants express more pro-immigrant attitudes. Our sampling method and original survey allow us to estimate effects 10-50 years after service (as in Bagues and Roth, 2023); to measure actions rather than only stated attitudes (as in Bazzi et al., 2019); and to consider new outcome domains of race, politics, and gender.

We also speak to the broader literature on "contact theory" (Allport, 1954), where interaction with individuals from different groups affects attitudes towards those groups. In economics, this has been studied in a variety of contexts, including random roommate assignment (for example Van Laar et al., 2005; Boisjoly et al., 2006; Marmaros and Sacerdote, 2006; Baker et al., 2011; Carrell et al., 2019), assignment across schools (Rao, 2019; **?**; Billings et al., 2021), sports teams (Lowe, 2020; Mousa, 2020), or military assignments (Schindler and Westcott, 2021; Dahl et al., 2021). We build on these studies by finding that while contact with people from a different background is one important driver of changes in attitudes, it is only one mechanism through which social learning affects preference formation.

Finally, we relate to the literature on place effects more broadly. Because of the endogeneity of location choice, many place effect papers often use mover designs. Prominent movers designs include estimating the effects of place on children's later-life earnings (e.g., Chetty and Hendren, 2018a,b), workers earnings (e.g., Card et al., 2023), consumer behavior (Bronnenberg et al., 2012), political identity (Brown et al., 2023), and medical spending and mortality (e.g., Finkelstein et al., 2016). We have two main contributions to this literature. First, because location assignment is conditionally independent in our setting, we are able to estimate place effects without relying on a movers design. Second, rather than focusing on the effects of place on *economic outcomes* (like income, consumption, and health), our study is trying to measure the effects of place on *economic primitives* measured in attitudes towards different groups.

The rest of the paper is organized as follows. Section 2 describes missionary service

and assignment, and Section 3 presents the sampling design, survey, and other data. After describing and validating the empirical approach in Section 4, we present our results in Section 5, and conclude in Section 6.

2. Conceptual Framework and Institutional Background

This section presents the conceptual framework motivating our research question and empirical approach. Next it outlines the institutional details of the Church's missionary program to illustrate why it is an ideal setting for studying the long term effects of place effects on social attitudes.

2.1 Conceptual Framework: Place Effects

Social attitudes are formed not only through individual and family background, but also through the different places where people live and spend time. Exposure to different places entails a variety of experiences: meeting and interacting with new types of people, seeing different government organization and policies, observing different norms and behaviors, etc. Though all of these experiences plausibly impact social attitudes, reduced form empirical work often struggles to disentangle the channels for places effects. Understanding which channels matter and which don't is notoriously difficult.

We motivate our empirical analysis through a simple framework that divides the effects of places into two broad channels: interpersonal contact with people and learning from the broader social environment (e.g., norms, institutions, beliefs, etc.). Although contact has been more deeply analyzed in place-based research, the channels are conceptually distinct generate diverging empirical predictions. This framework helps elucidate the mechanisms by which place may change an individual's social attitudes and actions.

2.1.1 Two Main Mechanisms

A natural starting point for understanding place effects is interpersonal contact with local residents. Classical contact theory proposes that positive contact between social groups can reduce prejudice (Allport, 1954) while acknowledging how (perceived) antagonistic contact could exacerbate animus (Blalock, 1967).[1] This contact channel has been the explicit focus of many papers studying the effects of place (Bazzi et al., 2019; Berinsky et al., 2022;

[1] Allport originally proposed four criteria for contact to reduce prejudice: common goals, cooperation, equal status, and institutional support (Allport, 1954). Although empirical evidence is mixed regarding the necessity of the individual criteria (see meta-analysis in Pettigrew and Tropp, 2006), it is clear that cooperation and common goals matter in many contexts (e.g., Lowe, 2020). Therefore, rather than relying on any specific criterion we focus on their combined implication for the overall valence of contact.

Bagues and Roth, 2023; Okunogbe, 2024). Consider three connections between place effects and this contact hypothesis. First, because demographics are highly correlated across space, exposure to new places often implies contact with new social groups. Second, to the extent to which contact reduces uncertainty about and stereotypes toward other groups (Pettigrew and Tropp, 2006), exposure to very different places may generate particularly strong contact effects. Third, place effects are likely to generate longer and more often repeated opportunities for contact than minor interventions in the lab or even other significant changes. But while contact is likely important, these opportunities are likely not the only mechanism that drives place effects.

Just as experiences in different places present opportunities for contact with new groups of people, they may also entail exposure to new cultures, policies, beliefs, institutions, and social norms. Research in economics and the broader social sciences has shown that these aspects of a person's experience also shape social attitudes and preferences. For example, preferences are shaped by external social norms (e.g., Krupka and Weber, 2013), cultures and institutions (e.g., Alesina and Giuliano, 2015), and messages and persuasion about values (e.g., DellaVigna and Gentzkow, 2010). We aggregate these non-contact aspects of place under the label 'social environment' and note two conceptual differences from contact effects. First, place effects operating through this channel will also likely depend on direct observations and experience with the relevant pieces of the social environment. Second, whereas contact is typically expected to mainly affect one's perceptions of others, immersion in this type of new social environment has the potential to also change one's identities, values, and perception of self.

2.1.2 Testing Both Mechanism

Our framework suggests that both contact and other learning from the social environment. As such, understanding how place shapes preferences requires distinguishing between these mechanisms. Because any attitude or action is likely shaped by both mechanisms to different extent, we consider four testable empirical predictions to distinguish between these models.

The first two predictions (at least partially) align with each other. First, both mechanisms suggest that the sign of place effects depends on the quality of the exposure. Quality, however, has different implications under each model. For contact, it is the positive or negative valence of interactions whereas for social environment it is the perceived quality of the social norms, values, and institutions. Second, in both models, the magnitudes of place effects increases in both intensity (more exposure to groups, norms, or institutions) and in distance from "prior" exposure.

The other two predictions are more divergent. Third, the two models have different

predictions for the timing of effects. Contact effects often appear immediately and (in smaller interventions) quickly fade out (Pettigrew and Tropp, 2006). On the other hand, to the extent to which learning from the social environment influences norms, beliefs, and identity, these changes may unfold slowly (Alesina and Fuchs-Schündeln, 2007) and may even continue after exposure by altering how individuals interpret new information (Malmendier and Nagel, 2016). Finally, the two mechanisms tend to affect attitudes and actions in different ways. Although strong contact interventions do shape both attitudes and actions, the effects on attitudes and closely related actions tend to be much larger (see behavioral effects in Corno et al., 2022, for examples). On the other hand, changes to perceived norms and identities may actually affect actions more.[2]

Traditionally, the way to test and compare independent mechanisms like these would be through a multi-armed RCT. For example, (Lowe, 2020) tests the collaborative and combative mechanisms for contact theory by jointly randomizing the demographics of cricket teammates and opponents. In the domain of place effects this is infeasible because every place is defined by a bundle of multiple treatments (demographics, social norms, institutions, etc.), and interventions only manipulate which bundles individuals experience. At the same time, the ideal experiment can still be approximated if there is sufficient diversity in the joint distribution of place characteristics (the independent mechanisms) and a large enough set of places (the multiple treatment arms) to compare.

2.2 Missionary Service in The Church of Jesus Christ of Latter-day Saints

In this section, we describe the Church's missionary program and show that it does approximate the ideal RCT. We then detail the process for assigning volunteers to locations around the world, which provides variation in place exposure that is plausibly independent of prior social attitudes conditional on the information available at the time of assignment.

2.2.1 The Mission Program

The Church's missionary program assigns 18- to 25-year-old, unpaid volunteers to locations all around the world.[3] These volunteers typically stay for 1.5 to 2 years and participate

[2]For example, while norms might change which attitudes individuals perceive as appropriate with minimal changes in actions, institutions could affect stated attitudes if individuals attribute institutional efficacy to more closely associated groups, but the larger effects of these perceptions likely play out in actions like promoting similar institutions through voting or volunteering.

[3]Although volunteers pay some of their expenses, the Church averages and subsidizes costs. This means that the volunteers pay a standard amount based on where they come from rather than where they are assigned to (this way someone assigned to live in Tokyo pays the same amount as someone assigned to live in the Dominican Republic despite cost of living differences). Those who cannot pay the flat fee are provided for by local donations or general church funds.

daily in personal, authentic interactions with the communities where they are assigned. Though volunteers' experiences differ across locations, they share much of the same overall big-picture and day-to-day structure. The primary purposes of the program include proselytizing, strengthening church members globally, providing community service, and the personal development of volunteers.

The missionary program has been running for more than a century and in 2025, over 74,000 young, full-time missionaries volunteer in 450 different locations (called "missions") across the world. This wide variation in location assignments provides for vastly different experiences and is precisely the feature of this program that so closely approximates the ideal RCT. Young missionaries are drawn from the membership of the Church. Among practicing church members we estimate that approximately 75-85% of young men and 45-50% of young women volunteer as missionaries.[4] Participation is considered a responsibility for young men—who serve for 24 months—and is optional for young women—who serve for 18. The young volunteers in each mission are organized under a few full-time adult volunteers who oversee mission logistics and training.[5]

Despite regional differences, the overall administrative structure of the experience is very similar. Prospective volunteers submit mission applications 1–5 months before their availability to serve and typically receive their location assignments within 2–4 weeks. Missionary service begins with 2–9 weeks of standardized training, religious study, and language learning. Thereafter, volunteers go to their assigned missions, (which can vary in size from part of a metro-area to multiple countries). Once at their assigned location, missionaries where they are paired up with another, more experienced volunteer and assigned to serve a local congregation. Over the course of their service, volunteers rotate through different locations and pairs within the mission every few months but generally do not leave the mission location. At the conclusion of their service, volunteers are required to return to their hometowns of origin.

Missionary service is intensely interpersonal and involved with local communities. Typical daily activities include talking to people in the community about the Church and Christianity, teaching individuals in their homes, visiting with members of the local congregation, attending local church meetings and meetings with other missionaries, participating in religious and language study and preparing lessons, and taking part in formal and informal community service.[6] An important aspect of this program is that volunteers are given the

[4]Based on statistics published by the Church, there are roughly 30,000 missionaries out of an estimated 130,000-150,000 nominal members of any given age. Combining that with the fact that in recent years 35% of young missionaries are women and that roughly one third of nominal members are actively practicing, this yields 76-86% for men and 44-50% for women (if 50% of members are women).

[5]Including housing, travel, visas, etc.

[6]Although these activities constitute most of what missionaries will do anywhere in the world, the specific

explicit commission to interact with as many people as possible, to get to know them, and seek to develop love and understanding for them. As such missionaries' experiences will often be particularly salient and authentic (relative to a typical person living or working in the area). Volunteers frequently build lasting relationships with those whom they meet while serving and stay connected even after returning home. This structure provides the ideal opportunity to understand the relative importance of contact and social environment in place effects.

2.2.2 Mission Location Assignment

Our identification hinges on the quasi-experimental assignment of volunteer missionaries to service areas. Specifically, to explore the causal impact of place on a person's social attitudes and actions, location assignment must be conditionally independent of the unobserved determinants of these outcomes (such as baseline characteristics and attitudes). This conditional independence is plausible in our setting because volunteers are assigned to specific, well-delineated locations following a standardized, well-understood process. There is precedent for using this variation, as several studies have done to explore different questions (Pope, 2008; Crawfurd, 2021; Berinsky et al., 2022).

Individuals who want to volunteer as missionaries participate in a standardized application and assignment process. Prospective volunteers begin by filling out an application. While the specific questions have changed over time, this application has generally included availability dates for service and information on basic demographics, church participation, education, language learning, family situations, and information from general medical check-ups. Applicants interview with local ecclesiastical leaders who know the volunteer personally. These interviews are standardized and are intended to accomplish at least three purposes: (1) determine whether the person is living church standards, (2) understand whether applicants' physical and mental health are sufficient for the rigors of volunteering, and (3) elicit a commitment from the volunteer to go wherever they are ultimately assigned. These local leaders may make comments on the application and send them in to church headquarters, but importantly, neither the volunteer nor the ecclesiastical leaders can make requests or recommendations for specific (types of) service area.

Mission location assignment also follows a well-understood process. High-ranking Church leaders make mission assignments based on application information and the needs of each mission. The leader making the assignment begins by reviewing a digital list of staffing needs in mission locations across the world as well as the volunteer's picture and application information. Assignments are made based on thoughtful consideration of that information,

mix of activities varies greatly by location.

including constraints like when the volunteer is available and whether any moderately serious mental- or physical-health challenges limit possible locations. Because these twelve senior church leaders have many other responsibilities, we estimate they only have 1–3 minutes to make each assignment decision.[7] Volunteers are then told their location assignments, start date, and basic information about preparing to serve. Because members of the Church view mission assignments a manifestation of divine intent and because prospective missionaries preemptively commit to accepting any assignment, there is extremely low attrition of volunteers after recept of the assignment, so there is little concern of differential attrition based on social views.

In Section 4 we demonstrate the conditional independence of assignment. We document how application characteristics affect assignment decisions and present evidence that church leaders seem to be making the matches based on mission and volunteer characteristics based on openings. Furthermore, we show that conditional on the information in the application, mission assignments are not correlated with volunteers' baseline characteristics not available from the mission application. As such, we will condition on the information set available at assignment in our analyses and consider location assignments independent of the unobserved determinants of social attitudes and related actions.

3. Data on Volunteers and Locations

This section outlines both the data gathered from volunteers via survey, which includes outcomes and background information on volunteers, and data on the locations where volunteers can be assigned.

3.1 Survey

Our primary data for this project are collected using an original survey. The survey, sample frame, and mode of administration were all designed after extensive piloting from 2021–2023 (see Appendix B.1 for details). This section discusses sampling, survey design, and selection into participation.

3.1.1 Sampling and Survey Administration

Identifying former volunteer missionaries to recruit for any survey presents a significant challenge. Although the Church maintains administrative records about mission assignment, it

[7] Over this time period the Church averaged roughly 70,000 volunteer missionaries serving at any given time, implying 700–800 applications per week. Each week 2–4 of these leaders spend 4–6 hours making mission assignments (Jones, 2001), which gives them at most about 3 minutes per volunteer.

does not collect data about social attitudes or share confidential data with external researchers. Instead of directly recruiting former volunteers, we identified a larger population with a high share of volunteers: former students of Brigham Young University (BYU). BYU is owned and operated by the Church, and most students are practicing members. We estimate that about 50% of former BYU students volunteered as missionaries, providing a sample frame with a high hit rate for former volunteers.

To identify former volunteers, we contacted former students using publicly available contact information. In 2021 we collected public directory information on 400,321 former students at BYU. The sample also includes students who enrolled at BYU as undergraduates or graduate students, including those who did not complete any degree. Although not all directory information was public (individuals may request to not be listed), we benchmark coverage among recipients of undergraduate degrees against annual IPEDs counts and find cohort-coverage rates ranging between 80–95% of students with undergraduate and graduate degrees from BYU.

We then recruited participants via email using publicly available email addresses we were able to scrape or verify online. We collected contact information for 131,358 of these former students using social media, online employee listings, and online white pages. After setting aside a hold-out sample, we contacted 111,950 former BYU students through Qualtrics between November 2023 and March 2024. Individualized emails explained the survey and concluded with an embedded screening question asking whether each person had volunteered as a missionary as a young adult. If individuals had not completed the survey one and two weeks after the original email, we sent short follow-up emails.

This recruiting approach generated a strong response rate among former missionaries. Of the 111,950 emails sent, Qualtrics reported that emails landed or were opened for 74,626 (67%) of the individuals—32,586 (43%) of whom answered the screening question. Of those who answered the screening question, 18,321 former BYU students said they had served a mission as a young adult and consented to take the survey. Given our estimate that 50% of our sample frame was eligible to participate, this constitutes a roughly 33% response rate to sent emails and a 49% response rate to opened emails. We consider this rate to be very high given that respondents were *not* paid for participation in the survey.

This sample design has several advantages relative to prior work exploiting this same setting. These previous studies have used convenience sampling from Facebook groups, (Crawfurd, 2021), administrative data on about a fourth of incoming freshman from the 2005 graduation cohort (Pope, 2008), or (at the time) current BYU students who responded to a study invitation via email then participated in a survey immediately before and after their volunteering (Berinsky et al., 2022). The first advantage of our study design is it allows

us to speak to selection into the ultimate survey sample and into survey completion since we can measure characteristics of the near universe of living BYU alumni. Another advantage is that we have the ability to explore long-term impacts, as our survey respondents completed their volunteering between 10 and 50 years prior to their participation in our study.

3.1.2 Survey Instrument

After consenting to participate respondents answered six main blocks of questions. The median time to completion was 25 minutes and 13% of individuals who began the survey did not complete it.

Retrospective Mission Information. The first block of the survey was about mission assignment. First, we asked individuals what location they were assigned to, what language they were assigned to learn (if any), and when their service began and concluded. Then individuals retrospectively reported the information included in their mission applications including gender; education and work experience (high school GPA and college applications/enrollment decisions); experience and interest in traveling out of the country; interest, experience, and aptitude for learning a language; leadership experience; activity in the Church; previous family mission assignments; and whether there were any medical conditions flagged in the application process. The block concluded by eliciting baseline characteristics not included on mission applications such as childhood zipcode, parental education and employment, and subjective assessments of the underlying motivations for choosing to volunteer.

Contemporaneous Life Outcomes. The second block of questions was the shortest. Because there were individuals in pilot surveys who choose to attrit as soon as they saw questions related to race, we asked our key behavioral questions first. These questions included current zipcode of residence, marital status, number of children, and current attachment to the Church. We are also in the process of linking our survey responses to voting registration and donation records for additional behavioral outcomes.

Stated Attitudes. The third block of questions focused on stated attitudes toward underrepresented minorities, political partisans, and mothers working outside of the home. We measured all stated attitudes using the standard "feelings thermometer" from 0-100 as used in the American National Election Studies and the General Social Survey. We asked for feelings toward Black, Latino, and White individuals; Republicans, Democrats, and Political Independents; and Mothers Pursuing Careers, Mothers Pursuing Education, and Stay-at-Home Mothers. To avoid anchoring effects we randomized the order of the three domains and of the groups within each domain at the individual level. Appendix Figure A.1 presents the prompt and user experience for the feelings thermometer questions.

Related Actions. After measuring stated attitudes, we asked individuals three sets of questions about actions related to their social attitudes. First, we asked individuals whether they had participated in various activities in the last five years. The activities included (1) reading a book or listening to a podcast (about race, gender norms, or Republican/Democratic policies), (2) donating or volunteering (for a social justice cause or a Republican/Democratic political cause), (3) voting in a national election (for a minority, female, or Republican/Democratic candidate), and (4) protesting police violence or masking/vaccine mandates.

Second, to measure actions related toward working women we also asked how respondents (and spouses for married respondents) allocate between working for pay, housework, dependent care, and leisure. We adapted this activity from Deryugina et al. (2021).

Third, the block of related actions also included a real-stakes donation activity. We adapted this activity from Exley (2020) and allow participants to choose between donations of different sizes to different charitable organizations. Each respondent indicates whether they would prefer a donation of a given amount (any, \$0.25, \$0.50, \$1.00, or nothing) to a given nonprofit relative to a \$0.50 donation to the American Red Cross. The alternative organizations were the National Association for the Advancement of Colored People (NAACP), the National Partnership for Women and Families, the Republican party, the Democratic party, and the Church. Appendix Figure A.2 presents the prompt and user experience for the donation activity.

Mechanisms. The fifth block of survey questions aimed to clarify the channels through which effects operate. As such, we elicit respondents own perceptions about whether and how volunteering changed their attitudes toward other groups of people. We also asked about specific experiences during their service like how they spent their time; what their interactions with others were like; whether they had conversations about race, politics, or gender; and to what extent they felt like related institutions functioned better or worse in their mission locations relative to at home.

Other Demographics. The survey concludes with some additional demographics, like race, education, household income, political orientation, and retrospective perception of parents' political orientation.

3.1.3 Sample Validation and Description

A core concern to the validity of any results from the survey is which individuals chose to participate. We use the survey data to discuss three related sets of results that could affect the interpretation of the results: selection into participation, selective attrition, and external validity. In addition to this evidence of data quality, we also describe the characteristics of

our core analytical sample.

The two biggest threats to internal validity are selective participation and selective attrition based on mission assignments. The core concern here is if assignment to certain places affect both social attitudes and pro-social actions (like the willingness to complete a uncompensated survey), then estimated effects will be contaminated by sample selection bias. We conduct two exercises to address these concerns.

For sample selection, we compare the distribution of assigned locations among our respondents to the distribution in Berinsky et al. (2022) and find very little evidence of selection into participation based on mission assignment. Because mission assignments Berinsky et al. (2022) are observed before exposure to the places, they provide a ground truth to which we compare our survey responses. Appendix Figure A.3 depicts the two distributions of assignments (restricting our sample to the 10 years surrounding their sample period). Visually the two distributions track each other quite closely. Although Latin America and Europe are slightly overrepresented in our survey,[8] we find no appreciable differences in the underlying distribution of mission characteristics.

We also find no evidence of selective attrition. In the full sample, the survey completion rate is 87.7%. Appendix Figure A.4 depicts the point of attrition for individuals who do not complete the survey. We find that 45% of attrition occurs during the mission assignment and application block of the survey. Because this is before individuals are asked any questions about social attitudes, we have very little concern about selective attrition at this step. Another 20% of attrition occurs during the self-reported actions block, apparently because respondents realized the survey would be longer than anticipated. Overall neither the decision to attrit nor the point of attrition in the survey are related with any observable mission characteristics.

We also conduct two exercises to consider external validity within the sample frame. First, we show that the emails collected and surveys received were broadly representative of population in the broader sampling frame. Appendix Table A.2 uses directory characteristics of former students to predict whether we would find publicly available contact information, whether the email would land/ be opened, and whether the individual would answer the screening question. Because there are nearly half a million observations, we do find statistically significant differences across groups, but overall most differences are not economically meaningful. For example, women were about 0.004 (-0.026/-0.06) more likely to start the survey (have publicly available contact information/open our recruiting email) than men. We find similar sized differences in selection by major and census region. The largest differences

[8]We omit the numbers from Chile and the Netherlands (locations mentioned in the recruiting email), which are significantly overrepresented in our survey.

were by cohort and degree completion. Because coverage is the best and most consistent for graduates between 1970–2015, our main analytical sample focuses on these cohorts. We are also more likely to find contact information for graduates than students who did not complete a degree.

We also compare our sample of missionaries to other groups to explore external validity beyond the sample frame. Former missionaries are a population with unusually high baseline religiosity and civic commitment, and as such their attitudes and treatment effects may not be representative of typical young adults. Using data from the 2020 and 2024 ANES, we find that Latter-day Saints are much more prosocial but also slightly more conservative attitudes toward racial minorities compared to the overall US population. For example, they are nearly twice as likely to spend time volunteering, and express 0.2 standard deviation higher trust in others. At the same time, they also score 0.2–0.3 standard deviations higher on indices of questions measuring racial resentment and concern with immigration. Latter-day Saints also seem to report higher feelings thermometer scores towards other groups, conditional on their stated attitudes. Although the missionary population seems to be slightly different, it is also scientifically interesting. Whereas many other papers exploring the effects of formative experiences on social attitudes study populations like young adults at elite universities (e.g., Carrell et al., 2019) or applicants for Teach for America (e.g., Mo and Conn, 2018), our sample is predominantly white, conservative, and Christian—characteristics typically associated with very different baseline social attitudes. This sampling distinction is a pathbreaking extension to the current evidentiary base, and whether these differences will amplify or attenuate the effects of exposure to new places is an empirical question.

With these considerations in mind, we restrict our main analysis sample to 15,647 former volunteers who began their missionary service between 1970–2010 . Appendix Tables A.3 and A.4 describe the characteristics of these volunteers before volunteering and now, separated by which decade they started their volunteering. Our sample includes about 20% women over time and is predominantly white. A decreasing fraction attended some college before leaving to complete their volunteering, and three quarters report having grown up with Republican parents. About a third spoke another language at the time of application. Currently, most former volunteers are married with children, over 85% completed a Bachelor's Degree and over 50% of the total completed a graduate degree. A majority of the former volunteers are Republicans, but the share of Democrats increases across cohorts to just under one fourth in the 2000-2010 cohort. Nearly 85% of respondents report actively participating in The Church of Jesus Christ of Latter-day Saints.

3.2 Data on Mission Locations

We collect data on mission location from a variety of administrative sources. We first describe the data and sources then show the actual variation experienced by volunteers in our sample.

3.2.1 Location Characteristics

The wide variation in assigned location characteristics provides the treatment variation necessary to parse the differing channels for place effects. Conceptually speaking, a volunteer who was assigned to a location today would have 450 different possible "treatments" since, in principle, they could be assigned to any one of the possible mission locations around the world. Though each location is a bundle treatment, we target three characteristics to understand the differing channels for place effects: Black or Latin American population shares, expenditure per capita, and the Gender Equality Index from the United Nations Development Programme (UNDP) Human Development Reports. The population shares provide a natural measure to explore the contact channel, whereas expenditure per capita and the Gender Equality Index provide two measures allowing a contrast of intergroup contact and social environment.

Since treatment assignment is at the mission level, data are required at that level as well. Mission locations are defined by clearly specified set of boundaries and range in size from part of a metro-area to multiple countries. Volunteers assigned to a location stay within those boundaries for the entire duration of their service, though they do move within a mission. We only measure treatment characteristics as the average aggregated to the mission level, meaning that treatment effects are measured with error and can be interpreted as intent-to-treat. Practically, we aggregate the data to the mission level by digitizing and geo-tagging maps for each location over time.[9] Within the US, all data is measured at the mission-year level, but outside of the US we aggregate to the country-year level.

Though straightforward within the United States, collecting data on race and ethnicity across the world is challenging and can be fraught. For mission locations within the United States, data on the number of Black and Hispanic[10] residents over time is used directly from the Census Bureau's Population Estimates Program. This gives yearly estimates of the Black, Hispanic, and total population in each county that we aggregate to the mission-year level. We primarily lean on data collection from the United Nations Statistics and Population Divisions as well as data from national censuses across the globe for information about the ethnic makeup of individuals in each country. Though race is a fraught social construct, for

[9] Mission boundaries are relatively stable but can and do change over time.

[10] We acknowledge the difference between 'Hispanic' and 'Latin American' individuals, but for purposes of our analysis combine the two under the heading 'Latin American.'

consistency and comparability across countries we then categorized these data using a US Census definition[11] to get a fraction of 'Black' residents and 'Latin American' residents in each country. This categorization of ethnicities was done both by hand and using a Large Language Model (LLM) to ensure maximal consistency. Discrepancies between these two methods were then adjudicated one-by-one by a separate person from the original classifier.

We focus on Black and Latin American population shares around the world primarily because this is a natural dimension for contact to reduce prejudice; these groups are in the minority in the US and often experience relatively high levels of prejudice.[12] Additionally, there is wide variation across the world in exposure to these two groups. Some mission locations have all or nearly all of the residents who are part of one of these groups, while other missions have no residents in these groups. This provides ideal variation to explore contact as a channel for place effects.

In contrast to population shares, political affiliations, institutions, policies, and ideas provide no consistent, worldwide measure that we can use to explore place effects operating through either interpersonal contact or exposure to social environment. Not every country even has the same type of governmental system, much less the same platforms for political parties or implementation of policies. These things are also more difficult to measure, even when they are conceptually similar across countries. To circumvent these difficulties we measure government expenditure per capita as a proxy for political and institutional environment. While no single measure can fully capture political attitudes or institutions across highly diverse national settings, expenditure per capita reflects an important and readily comparable dimension of governance: the scale of state activity. In practice, higher expenditure coincides with more expansive government social safety nets, greater public provision, and policy environments that are more consistent with left-leaning political preferences and individuals. This provides a meaningful, measurable way to explore impacts on political attitudes and actions that may operate either through either contact with individuals of different political leanings or exposure to different political environments. Expenditure per capita is measured yearly within the United States using public information from Federal budgets and the Census Bureau State and Local Government Finances summaries. For international data we compile information on GDP per capita from the World Bank and expenditure (as a percent of GDP) from the International Monetary Fund.

[11]The US Census definition of 'Black or African American' is "A person having origins in any of the Black racial groups of Africa." and the definition of 'Hispanic or Latino' is "A person of Cuban, Mexican, Puerto Rican, South or Central American, or other Spanish culture or origin regardless of race."

[12]We also considered including Muslims or Arab individuals, but since the countries with the largest share of these individuals do not accept Christian missionaries, we did not ultimately target population shares of these groups.

When considering attitudes towards working women, we use the Gender Inequality Index, which is a composite index created by the United Nations Development Programme (UNDP) Human Development Reports. This index combines the following information at the country level: maternal mortality ratio, adolescent birth rate, share of parliamentary seats held by each sex, population with at least some secondary education, and labor force participation rate. It is intended to reflect "gender-based disadvantage in three dimensions—reproductive health, empowerment and the labour market ... It shows the loss in potential human development due to inequality between female and male achievements in these dimensions" United Nations Development Programme (2022). The index ranges between 0 and 1, with 0 meaning that women and men fare equally and 1 mean that one gender does as poorly as possible in all dimensions. We recode this index by subtracting it from 1 so that higher numbers reflect more equality. Since these data are only available at the national level, we collect data on each component of the index for counties in the US and generate the index at that level within the US. This ultimately provides a clean measure of only the social environment with regard to gender norms and equality since we should not expect contact theory to operate in this domain.

In addition to these features of mission locations around the world, we also construct 'experience' characteristics of mission locations using our survey data. We focus on three experiences: how kind people were to you, whether you were able to observe different institutions, and whether you discussed different issues with residents. We construct these as leave-one-out measures of place characteristics, so they will be untainted by an individual's own experience. For example, we can think of a person going to a place with a high kindness measure as going to a place where everyone else found the residents to be very kind. The kindness index consists of how kind residents are, how receptive they were to missionaries, and how much time was typically spent in people's homes. This index gives a clear measure of the positive or negative valence of a person's interaction with local residents. The institutions index is comprised of whether volunteers felt treatment of different racial, ethnic, or gender groups in the workplace was better and whether political parties worked together better in their assigned mission location. The discussion index indicates that the volunteers discussed gender roles, race/racism, and politics during their service.

3.2.2 Treatment Variation

Our ability to identify place effects and distinguish among potential channels depends on the extent to which volunteers in our sample are exposed to meaningfully different types of places. Figure 1 shows the variation in the percent of residents that are Latino or Black, the per-capita expenditure, and the Gender Inequality Index in each area plotted against

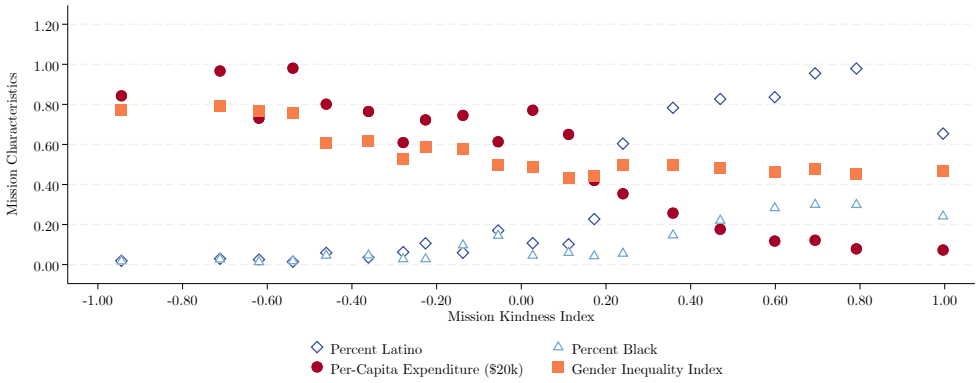
the experience characteristics of each location derived from the survey. Note two empirical patterns from this figure that produce clear predictions in our setting.

First, Panel (a) reveals that the social valence of volunteers' interactions is systematically related to the kinds of places to which they are assigned. The kindness index has a strong negative relationship with expenditure per capita and the Gender Inequality Index and a strong positive relationship with the percent of residents who are Latino. Mission locations with the lowest levels of kindness have virtually no Latin American residents, average spending around $20,000 per capita, and have the highest levels of gender equality (0.8) on the index. Those with the highest levels of kindness exhibit the opposite: low spending, relatively low gender equality (though the slope is much flatter than expenditure), and many Latin American residents. There is a small but positive slope between kindness and the percent of Black residents in an area. The predictions from our conceptual framework suggest that to the extent that interpersonal contact matters, we should expect positive contact effects towards Latin American and Black individuals in places with high shares of those groups since the valence of those interactions is positive with the high levels of kindness. The negative valence of interactions in high expenditure locations, however, should lead us to expect negative impact on affect towards left-leaning individuals.

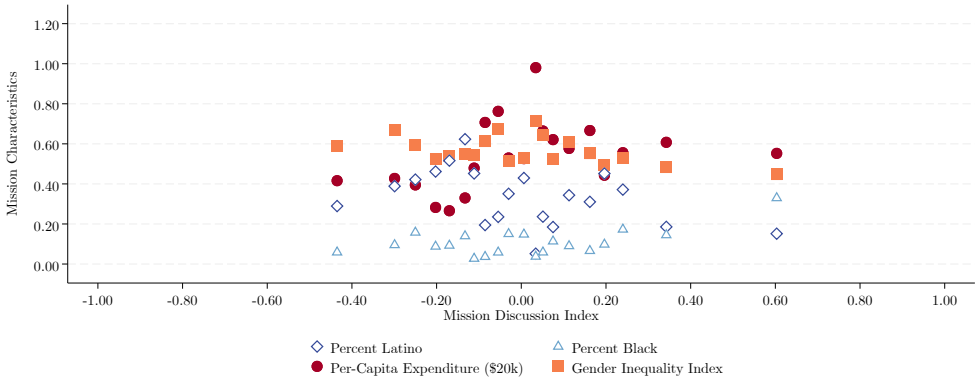
Second, proxies for exposure to the broader social environment are most strongly associated with expenditure per capita rather than local demographic composition. Panels (b) suggests that volunteers in high expenditure locations are more likely to talk about social issues, but the remaining characteristics exhibit no clear relationship. Furthermore, Panel (c) shows a clear positive relationship between observed institution quality and expenditure in a location. This relationship with discussions and positive institutional quality predicts positive place effects on attitudes and actions related to expenditure in places with higher expenditure. Additionally, the small positive relationship between institution quality and the Gender Inequality Index would also predict positive place effects. By contrast, the weak relationships with percent Latino and percent Black suggest less reason to expect place effects here due to social environment.

Importantly, these characteristics give independent and broad variation across potential mission locations. Appendix Table A.1 gives the full set of correlations between each of the location characteristics. The population shares are negatively but imperfectly correlated with expenditure per capita and the Gender Inequality Index, with the highest correlation being -0.628 between percent Latino and expenditure. Gender Inequality has a 0.360 correlation with expenditure. These meaningful but low correlations demonstrate that the variation we are using across the 450 mission locations exhibits meaningful differences; these measures are not picking up the same underlying characteristic. Appendix Table A.1 also shows the

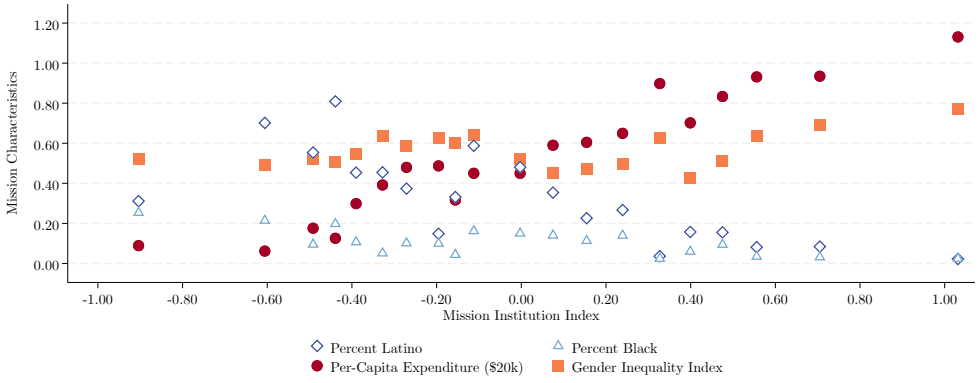
Figure 1. Differences in Mission Characteristics Provide Rich Variation



(a) Perceived Kindness



(b) Discussions of Social Issues



(c) Institutional Quality

Note: This figure depicts the relationship between objective mission characteristics and survey-based measures related to mechanisms of contact, persuasion, and institutions. Each panel depicts the Latino population share, the Black population share, local expenditure-per-capita, and gender equality over 20 assignment-weighted vigintiles of mission-average indices. An index about the kindness and receptiveness is in Panel (a), an index about discussing social issues is in Panel (b), and an index of perceived institutional quality is in Panel (c).

total variation in each of these characteristics: locations cover the full range of population shares, spending ranging from just under $20 per capita to $56,560 per capita, and Gender Inequality Ranging from very little equality (0.096) to near complete equality (0.953).

4. The Conditional Independence of Mission Assignment

With data collected about mission location assignments and attitudes and actions later in life, we can begin to consider the long-term effects of experiences in new places on preferences and social attitudes. Because identification depends on the validity of this natural experiment, this section empirically examines the assignment of volunteers to quantify how information on applications seem to be used and to assess the plausibility of conditional independence between location assignments and the unobserved determinants of social attitudes.

4.1 Mission Application Information Influences Assignments

We first use our retrospective data about mission applications to quantify how available information affects location assignments. To do this we run regressions that use application information to predict certain kinds of mission assignments. Specifically, we estimate

$$\text{Assignment}_i = \gamma_1 X_i^{\text{app}} + u_{1,i} \tag{1}$$

Because there are over 500 unique missions assignments in our data, we define Assignment_i is an aggregated indicator for assignment to one of four types of missions: English-speaking missions in the US, English-speaking missions abroad, foreign-speaking missions in the US, and foreign-speaking missions abroad. In addition to application-year and month fixed effects, we include four main sets of application information in this regression in X_i. Each is reported in Panel (a) of Figure 2. The first set of variables relate to language preparedness, including intermediate proficiency in any language besides English (and indicators for each language), interest in learning a language, ability to learn a language, and high-school GPA. Second, we include information related to international travel including willingness to leave country, previous experience traveling abroad, whether immediate family members have served international missions, completion of church teaching curriculum (required for ministerial certificates in some countries), and whether the individual reported and location-limiting medical conditions on the application. The third set are demographics, including gender, church participation, work experience, and education at the time of application. Finally, we include leadership experiences in high school or in the Church.

As seen in Figure 2 language information is strongly predictive of mission assignment.

The figure reports the change in probability of each type of assignment based on each piece of information. Speaking a language, ability to speak a language, and each high school GPA point increase the probability of a foreign-speaking international assignment by 5–10 percentage points. Even more importantly, self-reported interest in learning a language increases the odds by 24 percentage points (37%). Interest and ability both also have small effects in levels on assignment to a foreign speaking mission within the United States, but because these assignments are less common, it represents a 24–29% increase. In Appendix Figure A.5 we further disaggregated missions and show that intermediate proficiency in the ten most common languages listed on mission applications (Spanish, French, Portuguese, German, Italian, Russian, Mandarin, Japanese, Korean, and ASL) has a 25–55 percentage point effect on assignment to a mission speaking the listed language. These same pieces of language information reduce the probability of assignment to English speaking missions in the US and abroad.

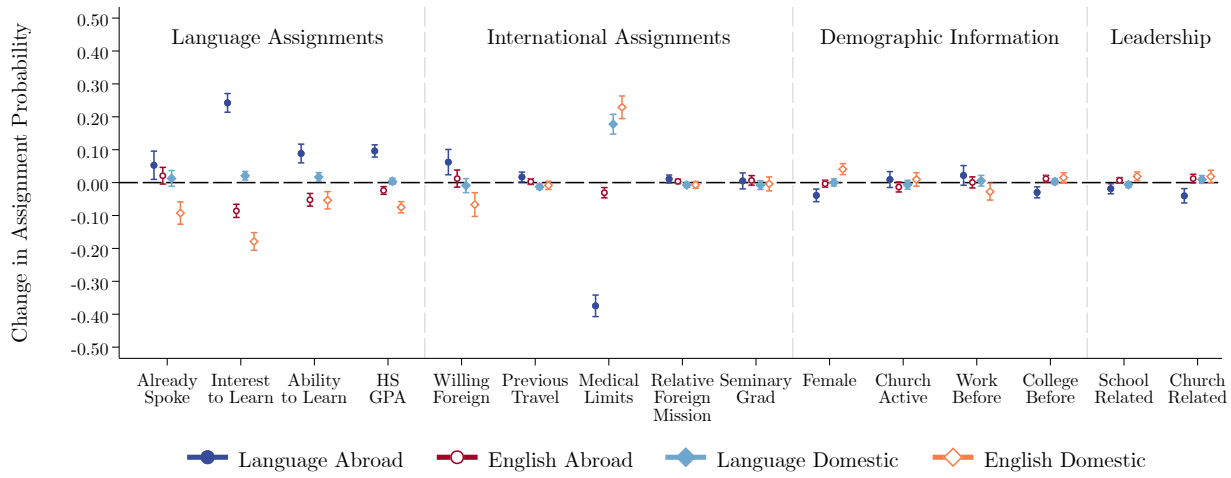
Certain information about international travel is also extremely predictive of assignments. The most dramatic evidence of this is pre-existing medical conditions, which decrease international assignments by 40-57% while increasing domestic English assignments by 114% and domestic language by 247%. Self-reported willingness to leave the country is also important especially for foreign-speaking missions abroad and for domestic English-speaking missions. Previous travel and family member assignments have small but statistically marginal effects international assignments, again noting that because there are relatively few English speaking missions outside of the United States, these small effects represent relatively larger percent changes.

Other information from the mission application seems less influential on mission assignment. Most demographics have relatively small and statistically insignificant predictive power. Both women and people with previous college experience are slightly more likely to receive domestic English assignments rather than foreign-speaking assignments abroad, but the differences are much more modest than nearly all of the language and travel variables. Leadership also has null or small negative effects. It is perhaps unsurprising that leadership experience is fairly unrelated with mission assignment as, from a staffing perspective, Church leaders likely want a roughly uniform distribution of potential leaders across mission locations.

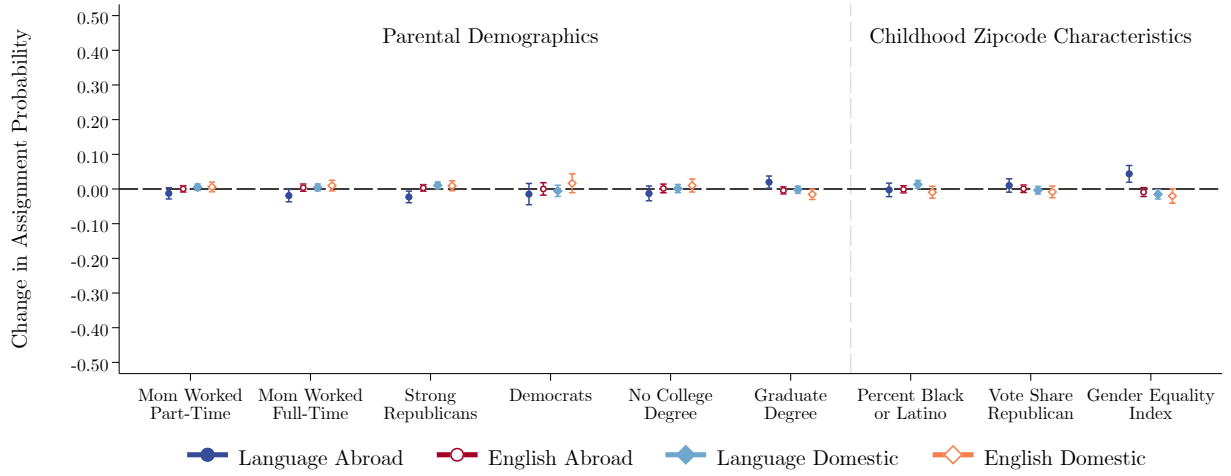
4.2 Mission Assignments are Unrelated with other Baseline Information

With an understanding of how application information influences location decisions, we also consider whether baseline characteristics that were not reported on the mission application are conditionally balanced across locations. To do this, we extend the regressions in Equation

Figure 2. Mission Assignment is Conditionally Independent



(a) Application Information



(b) "Unobserved" Baseline Characteristics

Note: This figure depicts how mission assignment probabilities change with baseline information about prospective missionaries. Panel (a) uses information available on the mission application to predict assignments to four types of missions: English-speaking missions in the US, English-speaking missions abroad, foreign-speaking missions in the US, and foreign-speaking missions abroad. Panel (b) predicts the same outcomes but using other variables that are not included on the mission

1 by including additional unobserved characteristics, X_i^{o}:

$$\text{Assignment}_i = \gamma_1 X_i^{\text{app}} + \gamma_2 X_i^{\text{o}} + u_{1,i} \tag{2}$$

We specifically include maternal employment (part-time or full-time versus stay at home), parental political leaning (strong Republican or independent/Democrat/strong Democrat versus Republican), parental education (no college degree or graduate/professional degree versus bachelors degree), and childhood zipcode characteristics (share Black or Latino, Republican voteshare, and Gender Equality Index above sample mean). We chose to elicit these characteristics because they are strongly related with baseline social attitudes. The key intuition from this comparison is that conditional on the application seen by leaders making assignments, these other characteristics should not be predictive of mission assignments; in other words γ_2 should be approximately zero.

Panel (b) of Figure 2 shows that these baseline characteristics are generally balanced across assignments. Shown on the same scale as Panel (a) the effects are small and nearly uniform with a standard deviation 6.2 times smaller than the effects in Panel (a). Although a handful of the estimates are statistically or marginally significant, they are almost uniformly smaller than the significant estimates in Panel (a) and are generally not significant more often than we would expect by chance.[13] With this information, we can rule out even relatively small changes in assignment probabilities related to these baseline characteristics. Mission assignments are not meaningfully correlated with the unobserved predictors of social attitudes.

5. Preliminary Results

5.1 Does Mission Assignment Affect Long-Term Outcomes?

Using the plausibly exogenous location assignments, we compare volunteer's outcomes based on mission assignment focusing on the causal effects of being assigned to a mission with certain characteristics. To do this we estimate treatment effects of the form:

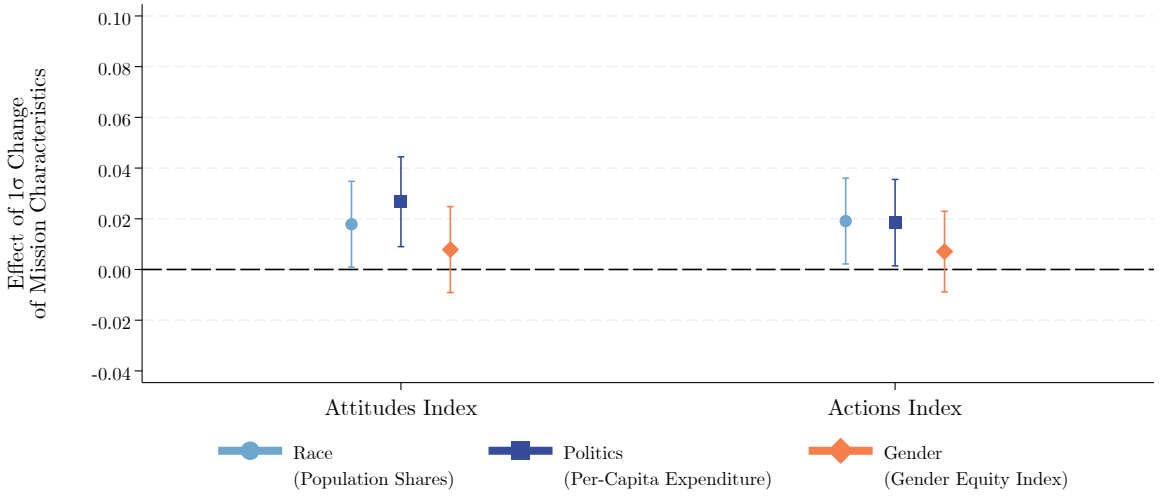
$$y_i = \tau \text{PlaceCharacteristic}_{m(i),t} + \beta X_i + e_i \tag{3}$$

where τ is the causal effect of being assigned to a place with more of the given characteristic. As in other papers that follow this approach (e.g., Chetty and Hendren, 2018b), this exercise

[13] Formally, only the effect of living in a zipcode with above-average gender equity index on foreign speaking assignment abroad has a Benjamini et al. (2006) sharpened q-value less than 0.10.

does not describe the causal effect of increasing the characteristic by one unit, but rather the effect of being assigned to a place with a higher value of the characteristic (and everything that comes with it). We report preliminary results using three main characteristics. We measure whether demographic shares (Latino + Black) affect attitudes about race, whether government size (measured in per-capita expenditure) affects attitudes about political partisans, and whether local social attitudes about gender equity affect attitudes related to gender roles.

Figure 3. Mission Characteristics Shape Attitudes and Actions



Notes: This figure depicts our estimates of the effect of a one standard deviaion change in mission characteristics on attitudes and actions related to race, politics, and gender. Coefficients come from estimating equation 3 with controls for reported medical conditions, race, graduation from seminary, participation in extracurriculars in high school, leadership opportunities in high school and church, whether they spoke a language pre-mission, which languages they spoke pre-mission, whether they attended some college pre-mission, their participation level in the Church pre-mission, their sex, and fixed effects for decade of service. Robust 95% confidence intervals accompany each estimate. The attitudes and actions index is an inverse covariance weighted index as described in the text. 'Population Shares' refers to the fraction of the residents in the mission location who were Black or Latino, 'Per-Capita Expenditure' is the the amount of government spending per person in the mission location, and 'Gender Equity Index' is the relevant measure for the mission location from the Human Development Reports.

Because the survey presented us with many outcomes of interest, we aggregate our outcomes into two main objects of interest for each domain. First, we create an attitudes index based on the pre-specified items in the feelings thermometer: Latino and Black people for race, Republicans and Democrats for politics (with Republicans reverse coded), and moms at work and moms at school for gender. The indices for actions aim to capture, voting and donation behavior, geographical and marital sorting, and personal identity. For race this index includes voting for a minority, the NAACP donation score, the percent Black and per-

cent Latino in respondents' current zipcode, and marrying a minority spouse. For politics the action index includes voting for each party, party donation scores, the vote share for each party in respondents' current zipcode, and personal identity as partisans or strong partisans (with Republicans outcomes reverse coded). Finally for gender, the index includes voting for a woman, NPWF donation score, gender equity of adult zipcode, and whether the wife (for married couples) works, has a graduate degree, and served a mission. Figure 3 presents the main results and Figure 4 presents disaggregated results for each outcome.

Stated Attitudes. The first series shows how place characteristics changes in stated attitudes measured with feelings thermometers. We find appreciable effects on attitudes towards about race and political party, but not about women. These effects show that a 1 standard deviation change in Black + Latino share changes attitudes towards minorities by about 0.02 standard deviations, and a 1 standard deviation change in per-capita expenditure moves political attitudes toward Democrats by about 0.03. These changes are fairly large. For context, a similar exposure to a one-standard deviation change in neighborhood quality for two years would produce roughly a 0.012 standard deviation change in economic mobility (Chetty and Hendren, 2018b).[14] Our effects are twice this size. The persistence of these effects on attitudes contrasts starkly with other—primarily contact-based—interventions that show rapid fade out. Our average respondent concluded their missionary service more than 30 years ago but still reveal significant effects.

In equilibrium these changes contribute to former missionaries tending to have warmer attitudes toward Latinos even than to White people and imply a roughly in a 0.04 standard deviation reduction in affective polarization (the reported gap in feelings toward Republicans versus Democrats). Attitudes towards women are not affected. Although an F-test of mission fixed effects shows that mission assignment generates dispersion in attitudes towards Black people and certain mothers, that variance does not seem to load on demographics or on local gender equity.

Actions. Figure 3 shows that these effects extend beyond stated attitudes to costly actions. For example, assignment to a place with larger government increases engagement with political issues and shifts voters away from the Republican party in both identity and voting (See Figure 4). Assignment to a place with a larger Black and Latino population share changes where volunteers live as adults—leading them to move to more diverse zipcodes—and who they marry—leading them into more interracial marriages. While there is no effect on aggregate, assignment to a place with more gender-equitable attitudes changes marriage and fertility decisions. Specifically, we find that men may marry higher achieving women

[14]Given an annual effect of 0.17 percentile points per year (at p=25) and a mechanical standard deviation of uniform ranks of 29, we get annual effects of 0.006 standard deviations.

(in terms of education and their own mission service). Although not reported in the figure preliminary results suggest that women assigned to more gender-equitable places are actually *more* likely to marry and have children—perhaps because seeing equitable marriages changes their perception of what marriage can be.

5.2 What Mechanisms Cause these Changes?

A powerful advantage of our survey is not just documenting how attitudes and actions change, but also examining why. To do so, we expand our analysis to the mechanism questions to see what happens in missions with certain characteristics.

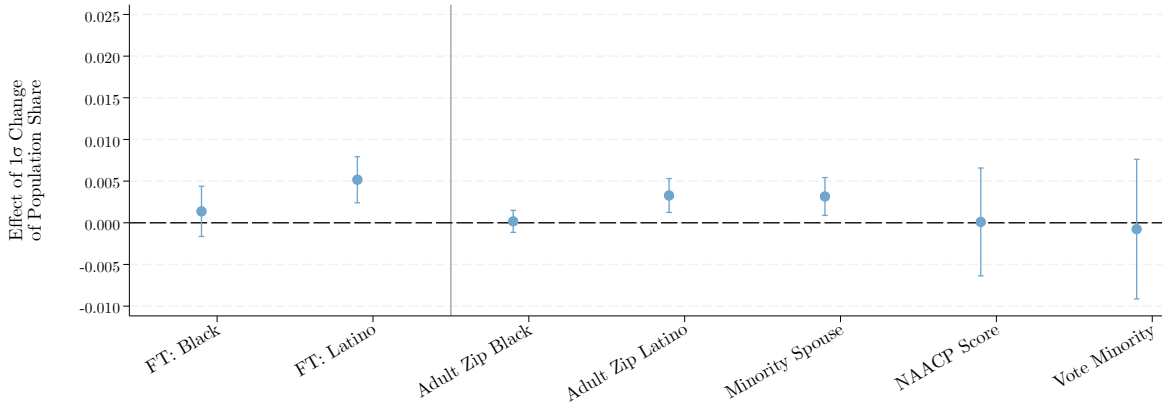
$$\text{Mechanism}_i = \tau \text{PlaceCharacteristic}_{m(i),t} + \beta X_i + e_i \tag{4}$$

we report five mechanism questions. The first two involve individuals' own perceived changes in attitudes, whether their attitudes toward each group changed during their missionary service and whether their attitudes changed afterwards. The other three questions explore why attitudes may have changed. The first of these questions is whether the people in the mission location were kind or hostile (evoking contact); the second is whether the individual engaged in conversations about race, politics, or gender (evoking social learning); the third is whether the individual felt that institutions related to race, political parties, or gender roles worked better in the mission (evoking institutional exposure). Figure 5 reports the results, showing strikingly different patterns across domains.

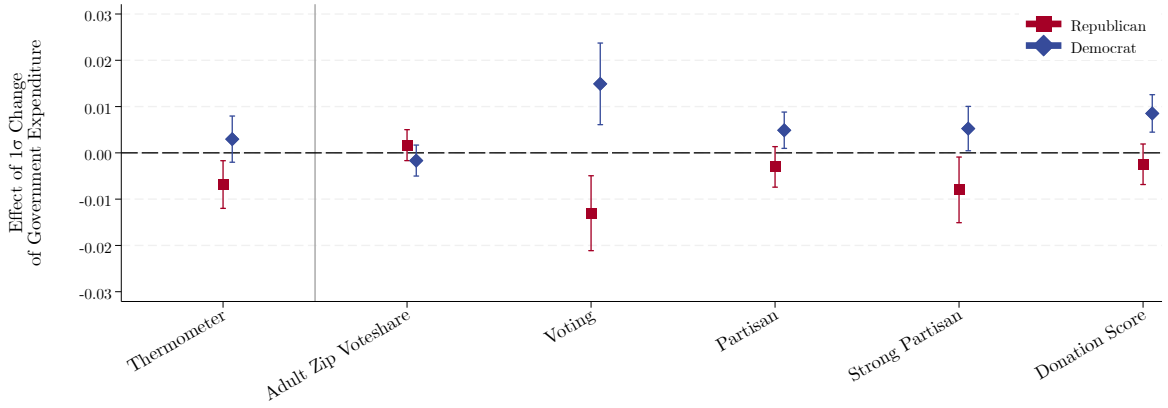
For racial attitudes, we find evidence that is very consistent with contact theory. Contact theory suggests that authentic, positive interactions with members of other groups could improve attitudes toward them. Volunteers assigned to places with larger Black and Latino population shares have more positive interactions with locals. They report more kindness, and (while not in the figure) spend more time teaching, in local's homes, and have high feelings thermometers towards the local people. Also consistent with contact theory, these former volunteers that state that their attitudes towards both groups improved *during* their volunteer service, with no appreciable difference afterward.

Attitudes towards out-partisans tell a completely different story. Volunteers assigned to places with larger government actually have more hostile interactions with the locals. Contact (and group threat) theory would suggest that this should cool attitudes towards Democrats, which is the opposite of what we see. Instead, there is evidence that attitudes improve slightly during missionary service, and then continue to improve afterwards (with no change in attitudes toward Republicans). Missionaries in these missions are also much more likely to discuss political issues while serving and report that political institutions in the

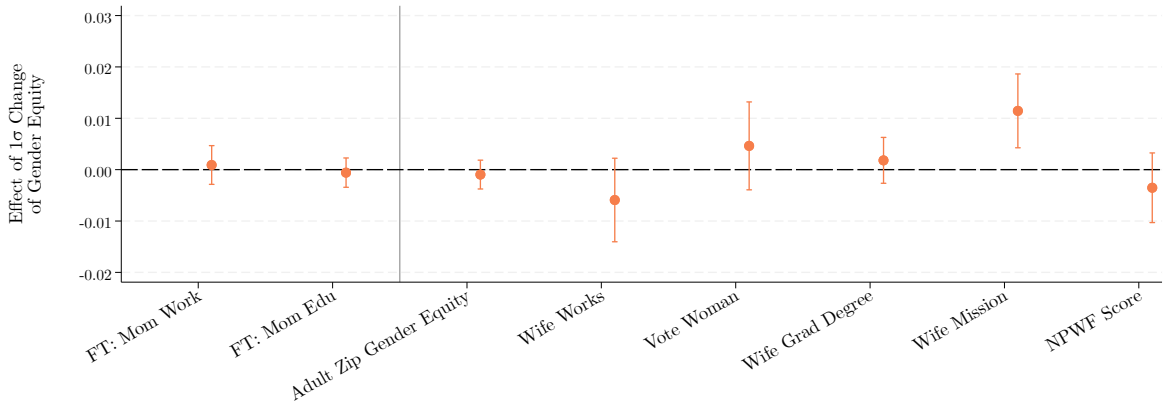
Figure 4. Attitude and Action Index Disaggregation



(a) Race



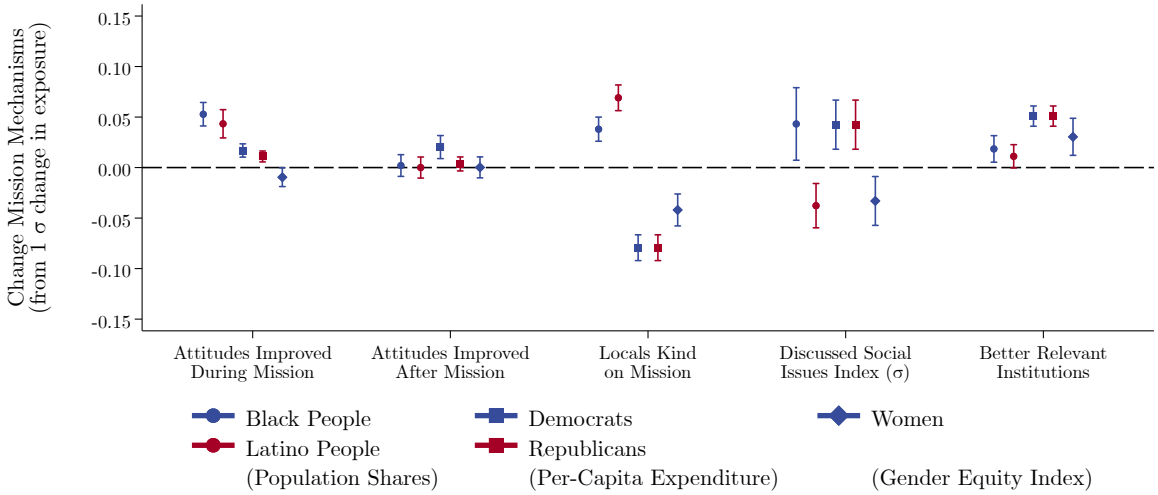
(b) Politics



(c) Gender

Notes: This figure depicts our estimates of the effect of a one standard deviation change in mission characteristics on specific attitudes and actions related to race, politics, and gender. Coefficients come from estimating equation 3 with controls and independent variables as discussed in Figure 3. Robust 95% confidence intervals accompany each estimate.

Figure 5. Mechanisms Highlight Contact and Social Learning



Notes: 95% confidence intervals included for each estimate. Coefficients come from estimating equation 4 with controls for reported medical conditions, race, graduation from seminary, participation in extracurriculars in high school, leadership opportunities in high school and church, whether they spoke a language pre-mission, which languages they spoke pre-mission, whether they attended some college pre-mission, their participation level in the Church pre-mission, their sex, and fixed effects for decade of service. 'Population Shares' refers to the fraction of the residents in the mission location who were Black or Latino (the relevant share is used for each outcome where differentiated), 'Per-Capita Expenditure' is the the amount of government spending per person in the mission location, and 'Gender Equity Index' is the relevant measure for the mission location from the Human Development Reports. The outcomes are, left to right, whether a person's attitudes towards the specified group improved during or after their mission, whether they reported that the residents were kind during their mission, whether they discussed social issues on their mission, and whether the specified institutions worked better on their mission.

mission location function better (compared to their home locations). These patterns point to dynamic social learning as mission experiences continue to shape how individuals interpret information over the course of their lives—something that goes beyond simple contact theory and is more consistent with learning from exposure to the broader social environment.

6. Conclusion

In this paper we have explored the impact of where a person lives on their social views, including both what they say about important issues and their actions. We use the quasi-random assignment of volunteer missionaries for the Church of Jesus Christ of Latter-day Saints to fixed geographic locations to explore the impacts on those volunteer's views on race, gender roles, and politics. We find strong impacts of where a person lives on their views and actions related to politics and race, but find little impact on their views on gender roles. Our main contribution is documenting these effects and showing that while some of them can be rationalized through a contact-theoretic lens, place effects also entail exposure to a broader social environment and the subsequent learning is also critical when considering place effects.

Our work suggests that programs immersing individuals in communities with new demographics, attitudes, and institutions can be powerful tools in mitigating bias towards different groups. On a national level these programs could include national or military service as required in many countries. Additionally, educational institutions could use or expand existing study abroad programs to include service and community integration components. For example, scholarship programs exist for doctors who are willing to relocate to under-served areas. Since racial bias has been found to be prevalent in the medical profession (e.g. Williams and Wyatt, 2015), programs such as these could encourage doctors to become involved in the community and specifically serve, help, and integrate with marginalized individuals in the community in addition to the important service of providing medical care to under-served areas.

References

Alesina, Alberto and Nicola Fuchs-Schündeln (2007) "Good-Bye Lenin (or Not?): The Effect of Communism on People's Preferences," *American Economic Review*, 97 (4), 1507–1528.

Alesina, Alberto and Paola Giuliano (2015) "Culture and Institutions," *Journal of Economic Literature*, 53 (4), 898–944, 10.1257/jel.53.4.898.

Allport, Gordon Willard (1954) *The Nature of Prejudice*: Addison-Wesley Reading, MA.

Bagues, Manuel and Christopher Roth (2023) "Interregional Contact and the Formation of a Shared Identity," *American Economic Journal: Economic Policy*, 15 (3), 322–350.

Baker, Sara, Adalbert Mayer, and Steven L Puller (2011) "Do more Diverse Environments Increase the Diversity of Subsequent Interaction? Evidence from Random Dorm Assignment," *Economics Letters*, 110 (2), 110–112.

Bazzi, Samuel, Arya Gaduh, Alexander D Rothenberg, and Maisy Wong (2019) "Unity in Diversity? How Intergroup Contact Can Foster Nation Building," *American Economic Review*, 109 (11), 3978–4025.

Benjamini, Yoav, Abba M Krieger, and Daniel Yekutieli (2006) "Adaptive Linear Step-Up Procedures That Control the False Discovery Rate," *Biometrika*, 93 (3), 491–507.

Berinsky, Adam, Christopher Karpowitz, Zeyu Chris Peng, Jonathan Rodden, and Cara Wong (2022) "How Social Context Affects Immigration Attitudes," *The Journal of Politics*.

Billings, Stephen B, Eric Chyn, and Kareem Haggag (2021) "The Long-Run Effects of School Racial Diversity on Political Identity," *American Economic Review: Insights*, 3 (3), 267–84.

Blalock, Hubert M (1967) *Toward a Theory of Minority-Group Relations*, 325: New York: Wiley.

Boisjoly, Johanne, Greg J Duncan, Michael Kremer, Dan M Levy, and Jacque Eccles (2006) "Empathy or Antipathy? The Impact of Diversity," *American Economic Review*, 96 (5), 1890–1905.

Bronnenberg, Bart J, Jean-Pierre H Dubé, and Matthew Gentzkow (2012) "The Evolution of Brand Preferences: Evidence from Consumer Migration," *American Economic Review*, 102 (6), 2472–2508.

Brown, Jacob R, Enrico Cantoni, Sahil Chinoy, Martin Koenen, and Vincent Pons (2023) "The Effect of Childhood Environment on Political Behavior: Evidence from Young US Movers, 1992–2021," nber working paper.

Cáceres-Delpiano, Julio, Antoni-Italo De Moragas, Gabriel Facchini, and Ignacio González (2021) "Intergroup Contact and Nation Building: Evidence from Military Service in Spain," *Journal of Public Economics*, 201, 104477.

Card, David, Jesse Rothstein, and Moises Yi (2023) "Location, Location, Location,"Technical report, National Bureau of Economic Research.

Carrell, Scott E, Mark Hoekstra, and James E West (2019) "The Impact of College Diversity on Behavior Toward Minorities," *American Economic Journal: Economic Policy*, 11 (4), 159–82.

Chetty, Raj and Nathaniel Hendren (2018a) "The Impacts of Neighborhoods on Intergenerational Mobility I: Childhood Exposure Effects," *The Quarterly Journal of Economics*, 133 (3), 1107–1162.

——— (2018b) "The Impacts of Neighborhoods on Intergenerational Mobility II: County-Level Estimates," *The Quarterly Journal of Economics*, 133 (3), 1163–1228.

Corno, Lucia, Eliana La Ferrara, and Justine Burns (2022) "Interaction, stereotypes, and performance: Evidence from South Africa," *American Economic Review*, 112 (12), 3848–3875.

Crawfurd, Lee (2021) "Contact and Commitment to Development: Evidence from Quasi-Random Missionary Assignments," *Kyklos*, 74 (1), 3–18.

Dahl, Gordon B, Andreas Kotsadam, and Dan-Olof Rooth (2021) "Does Integration Change Gender Attitudes? The Effect of Randomly Assigning Women to Traditionally Male Teams," *The Quarterly Journal of Economics*, 136 (2), 987–1030.

DellaVigna, Stefano and Matthew Gentzkow (2010) "Persuasion: Empirical Evidence," *Annual Review of Economics*, 2 (1), 643–669, 10.1146/annurev.economics.102308.124309.

Deryugina, Tatyana, Olga Shurchkov, and Jenna Stearns (2021) "COVID-19 disruptions disproportionately affect female academics," *AEA Papers and Proceedings*, 111, 164–168.

Ertola Navajas, Gabriela, Paula A. López Villalba, Martín A. Rossi, and Antonia Vazquez (2022) "The Long-Term Effect of Military Conscription on Personality and Beliefs," *The Review of Economics and Statistics*, 104 (1), 133–141, 10.1162/rest_a_00930.

Exley, Christine L (2020) "Using Charity Performance Metrics as an Excuse not to Give," *Management Science*, 66 (2), 553–563.

Finkelstein, Amy, Matthew Gentzkow, and Heidi Williams (2016) "Sources of Geographic Variation in Health Care: Evidence from Patient Migration," *The Quarterly Journal of Economics*, 131 (4), 1681–1726.

Jones, Barbara Jean (2001) "It's Your Call," *Liahona*.

Krupka, Erin L. and Roberto A. Weber (2013) "Identifying Social Norms Using Coordination Games: Why Does Dictator Game Sharing Vary?" *Journal of the European Economic Association*, 11 (3), 495–524, 10.1111/jeea.12006.

Lowe, Matt (2020) "Types of Contact: A Field Experiment on Collaborative and Adversarial Caste Integration,"Technical report, CESifo Working Paper, Munich.

Malamud, Ofer and Abigail Wozniak (2012) "The Impact of College on Migration: Evidence from the Vietnam Generation," *Journal of Human Resources*, 47 (4), 913–950.

Malmendier, Ulrike and Stefan Nagel (2016) "Learning from Inflation Experiences," *The Quarterly Journal of Economics*, 131 (1), 53–87.

Marmaros, David and Bruce Sacerdote (2006) "How do Friendships Form?," *The Quarterly Journal of Economics*, 121 (1), 79–119.

Mo, Cecilia Hyunjung and Katharine M Conn (2018) "When do the Advantaged see the Disadvantages of Others? A Quasi-Experimental Study of National Service," *American Political Science Review*, 112 (4), 721–741.

Mousa, Salma (2020) "Building Social Cohesion between Christians and Muslims through Soccer in post-ISIS Iraq," *Science*, 369 (6505), 866–870.

Okunogbe, Oyebola Motunrayo (2024) "Does Exposure to Other Ethnic Regions Promote National Integration? Evidence from Nigeria," *American Economic Journal: Applied Economics*.

Pettigrew, Thomas F. and Linda R. Tropp (2006) "A Meta-Analytic Test of Intergroup Contact Theory," *Journal of Personality and Social Psychology*, 90 (5), 751–783, 10.1037/0022-3514.90.5.751.

Pope, Devin G (2008) "Benefits of Bilingualism: Evidence from Mormon Missionaries," *Economics of Education Review*, 27 (2), 234–242.

Rao, Gautam (2019) "Familiarity does not Breed Contempt: Generosity, Discrimination, and Diversity in Delhi Schools," *American Economic Review*, 109 (3), 774–809.

Schindler, David and Mark Westcott (2021) "Shocking Racial Attitudes: Black GIs in Europe," *Review of Economic Studies*.

United Nations Development Programme (2022) "Technical Notes,"Technical report, Human Development Report Office, United Nations Development Programme, `https://hdr.undp.org/sites/default/files/2021-22_HDR/hdr2021-22_technical_notes.pdf`, Accessed 2026-03-25.

Van Laar, Colette, Shana Levin, Stacey Sinclair, and Jim Sidanius (2005) "The Effect of University Roommate Contact on Ethnic Attitudes and Behavior," *Journal of Experimental Social Psychology*, 41 (4), 329–345.

Williams, David R and Ronald Wyatt (2015) "Racial Bias in Health Care and Health: Challenges and Opportunities," *Journal of the American Medical Association*, 314 (6), 555–556.

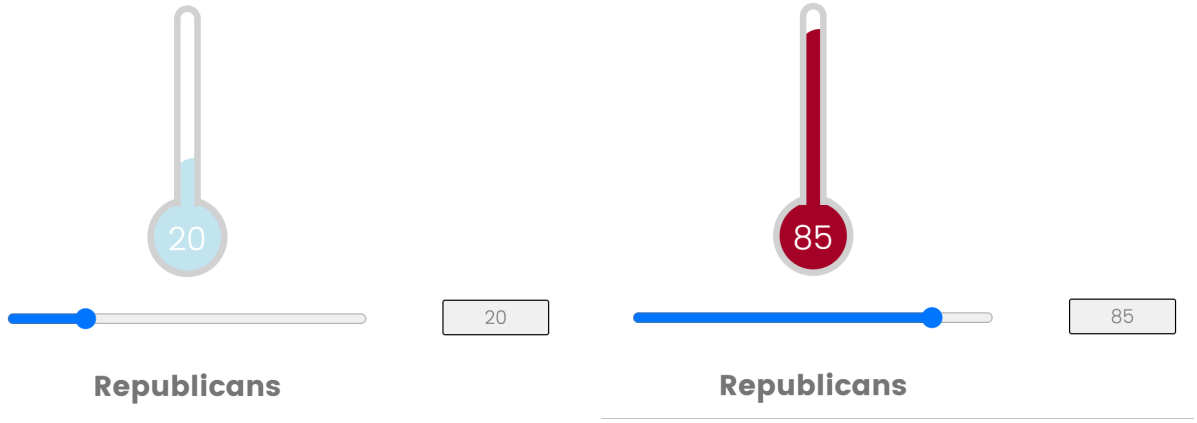
A. Appendix Table and Figures

Table A.1. Correlations Between Place Characteristics

	Percent Black	Percent Latino	Expenditure per Capita ($20k)	Gender Inquality Index	Kindness Index	Discussion Index	Institutions Index
Percent Black	1.000	0.365	-0.299	-0.277	0.224	-0.003	-0.110
Percent Latino	0.365	1.000	-0.628	-0.244	0.396	-0.011	-0.212
Expenditure per Capita ($20k)	-0.299	-0.628	1.000	0.360	-0.374	0.028	0.339
Gender Inequality Index	-0.277	-0.244	0.360	1.000	-0.309	0.007	0.010
Kindness Index	0.224	0.396	-0.374	-0.309	1.000	-0.002	-0.072
Discussion Index	-0.003	-0.011	0.028	0.007	-0.002	1.000	0.007
Institutions Index	-0.110	-0.212	0.339	0.010	-0.072	0.007	1.000
SD	0.211	0.439	0.440	0.213	1.000	1.000	1.000
Min	0.000	0.000	0.001	0.096	-10.158	-15.761	-2.214
Max	1.000	1.000	2.828	0.953	5.240	4.826	4.675

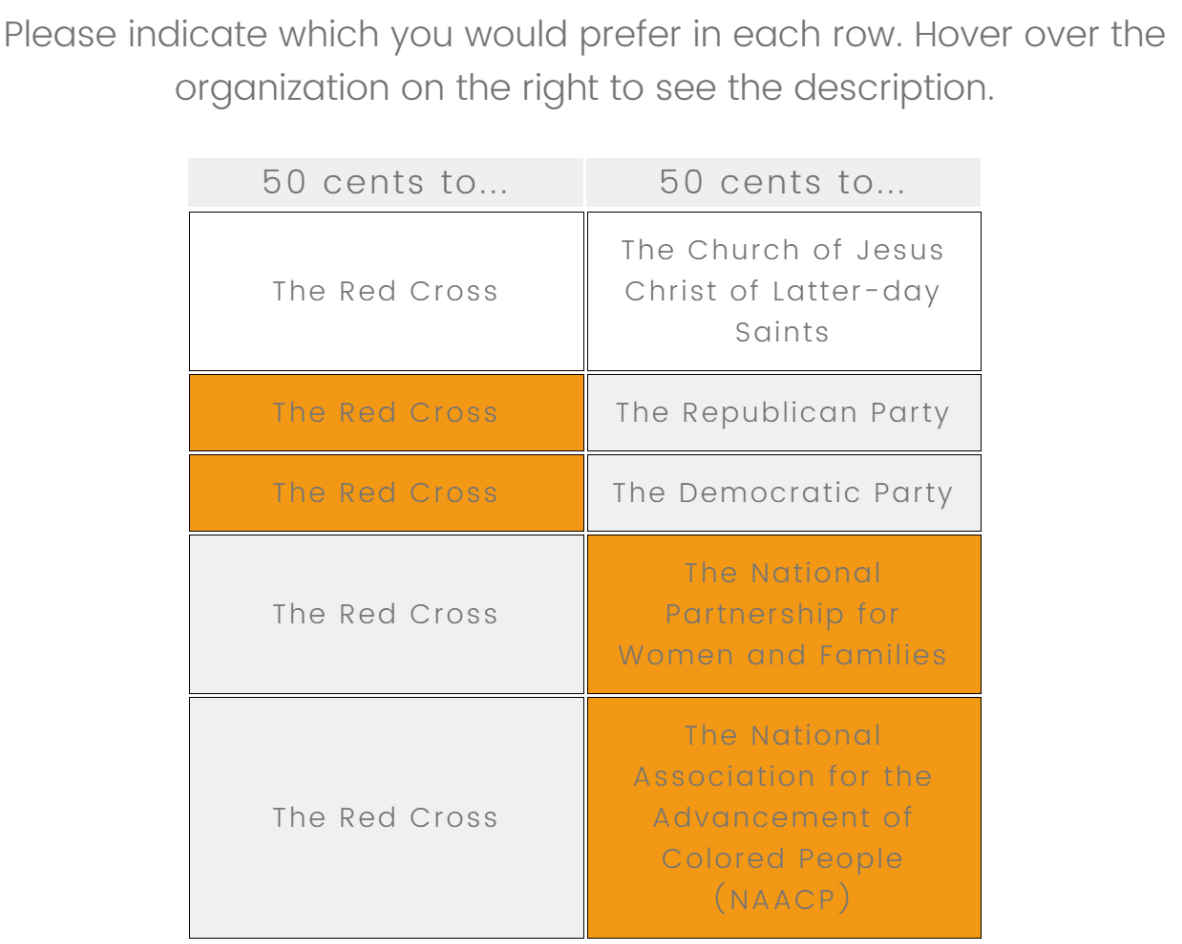
Notes: This table displays the correlation between each row and column as well as the standard deviation, min, and max of each variable at the bottom of the table. Percent Black and Percent Latino are the fraction of residents that are Black or Latino. Expenditure per capita is measured in $20,000's. The Gender Inequality Index with a value of 0 demonstrates maximum inequality for one gender, whereas 1 demonstrates complete equality. The Kindness Index is a standardized index including the fraction of volunteers who felt people were kind, the fraction of volunteers who felt people were receptive, and the fraction of time volunteers spent in people's homes. The discussion index is a standardized index of the fraction of volunteers who discussed race, politics, and gender at least occasionally. The institutions index is the fraction of volunteers who said treatment of gender and racial minorities in the labor force and political cooperation were better in their mission location than at home.

Figure A.1. Feelings Thermometer Example



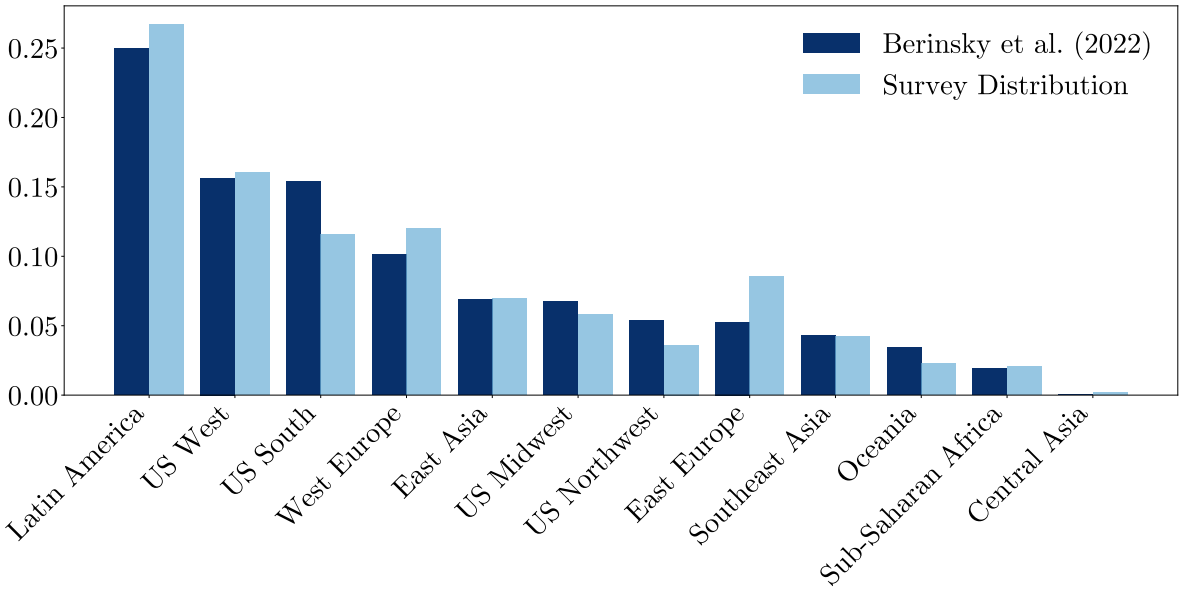
Notes: This figure shows the feelings thermometer graphic respondents interacted with after receiving the following instructions: "Thank you for sharing information about yourself and your mission. Now, we would like to gauge your feelings toward different groups of people using a 'feeling thermometer' rating system. Ratings between 50 degrees and 100 degrees mean that you feel favorable and warm towards the group. Ratings between 0 degrees and 50 degrees mean that you don't feel favorable towards them. You would rate the group at the 50 degree mark if you feel neutral towards them."

Figure A.2. Donation Activity Example



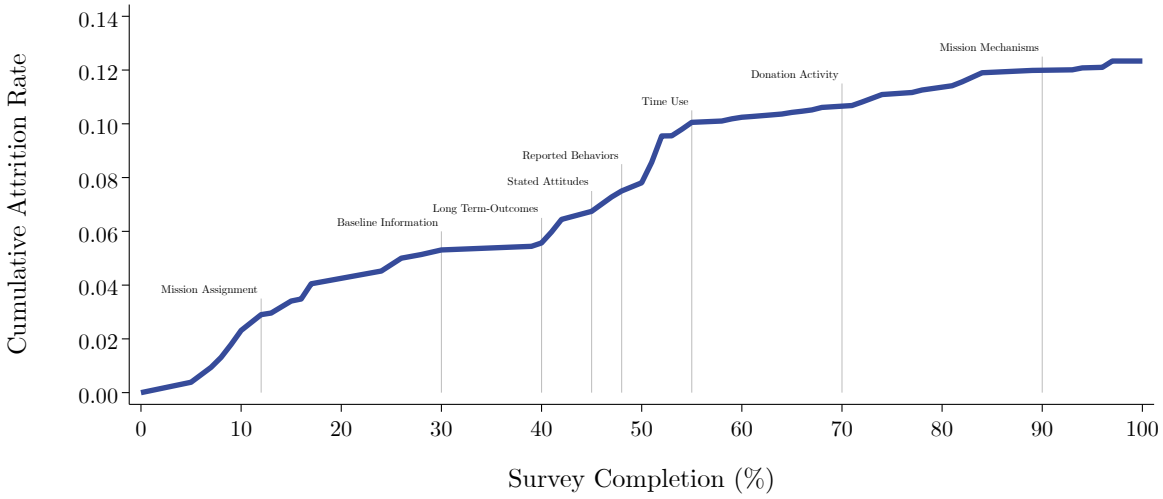
Notes: This figure gives an example of the donation activity respondents answered after receiving the following instructions: "The following questions will present you with a series of choices. You can choose to have us donate 50 cents to the American Red Cross (on the left) or donate 50 cents to a different organization (on the right). When our survey is complete, we will donate $950 to these organizations based on the answers you and other participants give."

Figure A.3. Comparing Mission Assignment Distributions



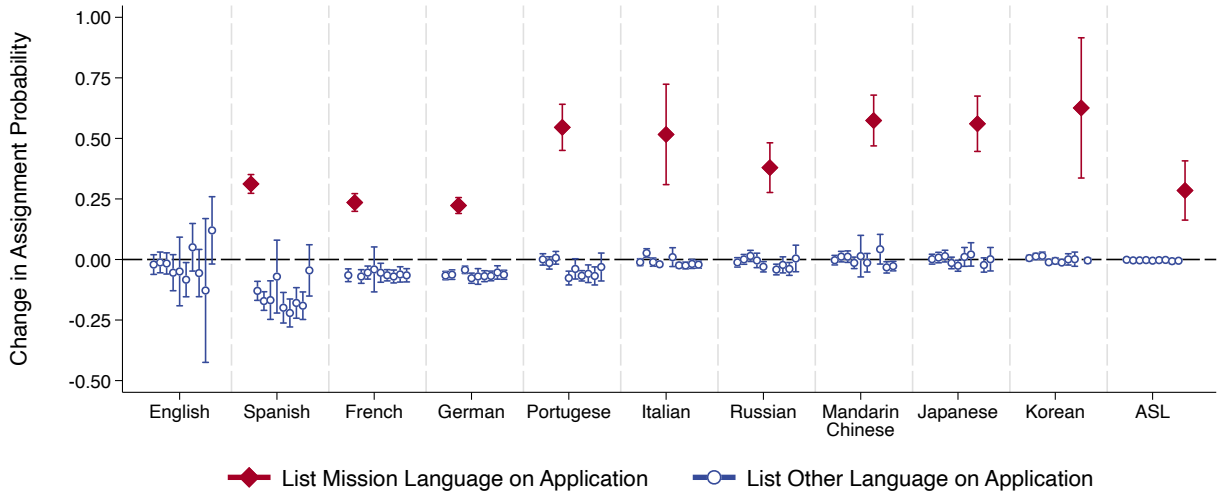
Notes: This figure depicts the distribution of mission assignments from our sample compared to that reported in Berinsky et al. (2022). Sample shares are reported across mission regions. Our sample in this figure is restricted to volunteers who began their service from 2003-2013 to most closely approximate the sample in Berinsky et al. (2022).

Figure A.4. Cumulative Distribution of Attrition Point



Notes: This figure presents the cumulative distribution of attrition over the percent of the survey completed. The total attrition rate is 12.3%. Gray lines along the x-axis denote the point of completion for various blocks of questions. The sample include the full set of 18,369 respondents who screened in and connected to the survey regardless of how far they progressed.

Figure A.5. Language Proficiency Strongly Influences Language Assignment



Note: This figure reports how intermediate proficiency in a foreign language affects mission assignment probabilities. Following Equation 2 we regress assignment to language X on application characteristics including the 10 most common languages listed on mission applications. Large diamond markers report the "on-diagonal" change in probability from speaking a given language on assignment to that language. The smaller hollow circle markers report the "off-diagonal" changes in probability from speaking a different language on assignments.

Table A.2. Sample Selection Characteristics

	Find Contact	Email Lands	Open Email	Start Survey
Female	-0.026	-0.012	-0.006	0.004
	(0.002)	(0.002)	(0.001)	(0.001)
Married	0.016	-0.003	0.013	0.012
	(0.002)	(0.002)	(0.001)	(0.001)
Cohort:				
Before 1950s	-0.107	-0.101	-0.091	-0.036
	(0.005)	(0.004)	(0.003)	(0.002)
1960s	-0.028	-0.031	-0.043	-0.021
	(0.004)	(0.003)	(0.003)	(0.002)
1970s	-0.001	-0.004	-0.012	-0.006
	(0.003)	(0.003)	(0.002)	(0.002)
1990s	0.006	0.012	0.024	0.011
	(0.003)	(0.003)	(0.002)	(0.001)
2000s	0.019	0.04	0.056	0.018
	(0.003)	(0.003)	(0.002)	(0.002)
2010 and After	-0.041	-0.004	0.044	0.006
	(0.003)	(0.003)	(0.002)	(0.002)
Degree:				
Graduate Degree	0.06	0.059	0.058	0.043
	(0.002)	(0.002)	(0.002)	(0.001)
No Degree	-0.057	-0.052	-0.059	-0.035
	(0.002)	(0.002)	(0.002)	(0.001)
Major:				
Arts	0.036	0.035	0.021	0.013
	(0.004)	(0.004)	(0.004)	(0.002)
Education	-0.016	-0.013	-0.019	-0.005
	(0.003)	(0.003)	(0.003)	(0.002)
Health Sciences	-0.008	-0.008	-0.012	0.001
	(0.004)	(0.003)	(0.003)	(0.002)
Humanities	0.006	0.007	0.004	0.017
	(0.003)	(0.003)	(0.003)	(0.002)
Interdisciplinary Studies	0.021	0.018	0.006	0.019
	(0.006)	(0.006)	(0.005)	(0.003)
STEM	-0.004	0.000	-0.003	0.008
	(0.003)	(0.003)	(0.003)	(0.002)
Social Sciences	0.004	0.010	0.006	0.010
	(0.003)	(0.003)	(0.003)	(0.002)
Other	0.005	0.008	0.000	0.006
	(0.003)	(0.003)	(0.002)	(0.002)
Census Division:				
East North Central	-0.005	-0.003	0.000	0.014
	(0.005)	(0.005)	(0.004)	(0.003)
East South Central	0.012	0.012	0.010	0.010
	(0.008)	(0.008)	(0.007)	(0.005)
Middle Atlantic	0.000	0.007	0.009	0.009
	(0.007)	(0.007)	(0.006)	(0.004)
New England	0.016	0.017	0.028	0.024
	(0.009)	(0.008)	(0.008)	(0.006)
Pacific	0.001	0.002	0.004	0.006
	(0.002)	(0.002)	(0.002)	(0.001)
South Atlantic	0.006	0.006	0.006	0.010
	(0.004)	(0.003)	(0.003)	(0.002)
West North Central	0.004	0.006	0.009	0.018
	(0.006)	(0.005)	(0.005)	(0.003)
West South Central	0.001	0.005	0.005	0.007
	(0.004)	(0.004)	(0.003)	(0.002)

Notes: This Table presents tests of selection into each stage of our recruitment process. Each column presents a multivariate regression using directory information as predictors for each outcome. Omitted groups include Bachelor's Degrees, Business Majors, and the Mountain Census Division. The sample comprises 400,000 former students from Brigham Young University with publicly available directory information.

Table A.3. **Sample Baseline Characteristics**

	1970-1979	**1980-1989**	**1990-1999**	**2000-2010**
Female	0.11	0.2	0.27	0.23
White	0.94	0.93	0.93	0.92
Black	0.00	0.00	0.00	0.00
Asian	0.01	0.01	0.02	0.03
Hispanic	0.02	0.02	0.03	0.05
Reported Medical Conditions	0.03	0.03	0.05	0.09
Spoke Language	0.18	0.21	0.26	0.28
Graduated Seminary	0.73	0.82	0.89	0.92
HS GPA	3.39	3.50	3.63	3.71
	(0.50)	(0.46)	(0.42)	(0.39)
Leadership Opportunities in HS	0.48	0.53	0.59	0.62
Leadership Opportunities in Church	0.77	0.84	0.86	0.86
Some College Before	0.40	0.32	0.29	0.24
Parents Republican	0.72	0.79	0.83	0.84
Parents Democrat	0.10	0.08	0.06	0.04
Observations	2662	3202	5077	4706

Notes: Each column gives the means for volunteers who started their volunteering in the given year range. Standard deviations are in parentheses.

Table A.4. **Sample Current Characteristics**

	1970-1979	**1980-1989**	**1990-1999**	**2000-2010**
Married	0.89	0.89	0.87	0.82
Never Married	0.02	0.03	0.04	0.08
Number Children	4.52	4.18	4.04	3.33
	(1.86)	(1.68)	(1.64)	(1.57)
Active in Church	0.91	0.88	0.84	0.76
Bachelor's Degree	0.27	0.3	0.28	0.29
Graduate Degree	0.61	0.6	0.6	0.56
Earn less 50k	0.05	0.02	0.01	0.03
Earn 50-75k	0.08	0.04	0.03	0.05
Earn 75-100k	0.11	0.06	0.06	0.09
Earn 100-150k	0.21	0.18	0.18	0.22
Earn 150-200k	0.13	0.16	0.16	0.16
Earn 200-250k	0.30	0.28	0.27	0.29
Earn more than 250k	0.17	0.28	0.30	0.19
Republican	0.58	0.51	0.39	0.29
Democrat	0.08	0.11	0.14	0.22
Observations	2662	3202	5077	4706

Notes: Each column gives the means for volunteers who started their volunteering in the given year range. Standard deviations are in parentheses.

B. Survey Details

B.1 Survey Design

Before running this project at-scale, we ran multiple rounds of filed interviews, pilot surveys, recruitment experiments, and tests of construct validity to prepare the survey instrument.

Before the conducting these pilots we conducted a series of field interviews with former volunteers to understand how they understood their mission experiences to have affected their social attitudes. These interviews highlighted parent political leaning, parent education, and the diversity of the childhood hometown as possible dimensions of heterogeneity. Furthermore, we identified the possible mechanisms like contact (e.g. 'I feel more warmly towards people because I have now met them'), exposure to local institutions (e.g. 'I didn't realize how large income gaps were between Black and White Americans, but now I know differently'), and contemporaneous learning from people who have different beliefs and attitudes about the world, opening to future learning about social issues after volunteering, and confirmation of prior stereotypes.

Our first pilot ran in August 2021. This survey used a convenience sample of individuals recruited through social media to answer questions focused on racial attitudes among individuals assigned to volunteer within the United States. We focused on this group primarily to allow for cleaner comparisons across mission location assignments. This was intended as a simplification to show viability in a first pass and to explore important heterogeneity and mechanisms. We collected 497 responses with an uncertain response rate (given the social media recruiting) and fairly high attrition (30%). Notwithstanding it's limitations, this first survey did demonstrate balance across different types of mission assignments. It also provided suggestive evidence of changes in both racial and political attitudes and heterogeneity by parental characteristics and childhood zipcode.

To better design our recruitment strategy we ran three waves of a second pilot. This pilot was the first to use BYU alumni as a sample frame (both the main campus and BYU Idaho). This shorter sample did not ask about mission application information and allowed individuals who volunteered in any country to respond. This pilot validated the feasibility of using scraped contact information from online sources to contact former students who were likely to have volunteered as missionaries. It also showed that compensating individuals for participation raised response rates, but that offering a lottery prize or asked for participation without compensation (which were equivalent).

To finalize and validate our survey questions and user experience, we also ran several smaller surveys on the online survey marketplace Prolific. In particular, we validated feelings thermometers with other stated measures of racial attitudes including trust questions

and the racial resentment index among respondents in Utah. We also validated that feelings thermometers and inter-spousal time allocations are strongly associated with a variety of stated attitudes about gender roles. Finally, we used these pilots to sharpen the user experience of the donation activity in Exley (2020), designing an simplified version that participants seemed to understand much better without dedicating time to instrument comprehension.

B.2 Survey Recruitment and Administration

We administered our survey to a sample of BYU alumni from January 2024 to April of 2024. These individuals were identified and contacted in the following way. In 2021, we collected information on 397,665 living BYU alumni from a publicly available alumni directory. Thereafter we set up a consistent and ongoing web scrape that searched social media, public white pages, company websites, and other public web sources to identify contact information for as many alumni as possible. We ran this consistently for over a year, we identified email addresses for 137,680 of these alumni. After setting aside a holding sample of 25,000 (ultimately this became 25,766 as we scraped additional emails), we sent emails to 111,914 individuals across three waves happening a month apart. The first wave went out to 48,786 individuals on January 8th, 2024; the second went out to 48,254 individuals on February 12th, 2024; and the last went out to the remaining 14,910 on March 5th, 2024. We sent it in waves so as to not hit the Academic Brand Limit for UCSD in Qualtrics. For each wave, we sent an initial invite (see Figure B.6), a first follow-up to those who had not yet responded (see Figure B.7), and a second follow-up to remaining non-responders (see Figure B.8). [Add in information about how many emails landed.]

Some of the potential/eventual respondents had questions or concerns before participating and would respond to the email invite. When asked about the purpose of the study, we would ask that the individual respond to the survey before we discussed the study, with the standard IRB assurances that they could remove their data after taking the survey if needed. Though this was offered to everyone, only XX individuals asked to have their data removed in the end.

Figure B.6. Initial Email Invitation

Dear [redacted]

My name is Tanner Eastmond. I'm a BYU alum working on a PhD in economics at the University of California, San Diego. To complete my degree, I am conducting a survey and am reaching out to see if you would be willing to help. The survey takes roughly 20 minutes and explores the social attitudes of returned missionaries - motivated in part by my own mission in the Netherlands.

Whether or not you served a mission, it would help me if you could answer the question below to indicate your eligibility. We're happy to share survey results with those who respond. Also if I don't hear back from you, I will follow up in a week.

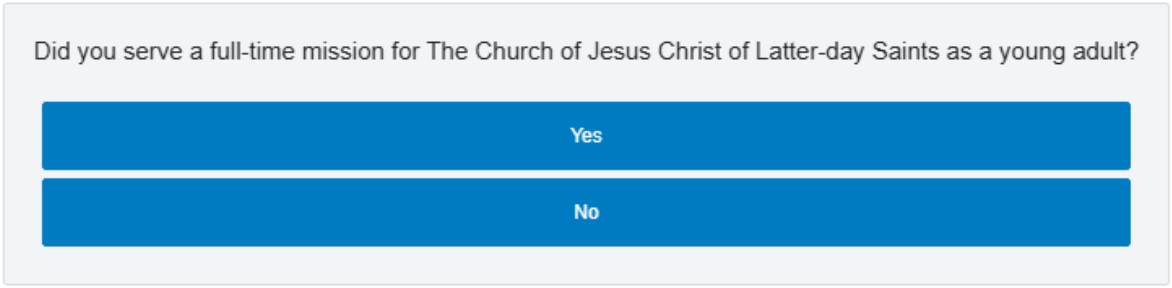
Thank you in advance for your time and help with my research. If you have any questions or need further clarification, you can reach out to me at teastmond@ucsd.edu or my collaborator, Mike Ricks, at mricks4@unl.edu. Mike is also a BYU alum (he served a mission in southern Chile) and is a new professor at the University of Nebraska.

Best regards,
Tanner

Link to my graduate profile: https://economics.ucsd.edu/graduate-program/about/grad-profiles/cohort%202018/Eastmond-Tanner.html

Link to Mike's website: https://michaeldavidricks.com/

The research has been approved by the UCSD Institutional Review Board (808966) to ensure that survey participants' privacy and data are adequately protected.



Follow this link to the Survey:
Take the Survey

Or copy and paste the URL below into your internet browser:
https://ucsd.co1.qualtrics.com/jfe/form/SV_5mqULdzWlLh9PGC?Q_DL=nP03cOKcrE8ZaW3_5mqULdzWlLh9PGC_CGC_aujlh4PcZzM9ZT0&Q_CHL=email

Follow the link to opt out of future emails:
Click here to unsubscribe

Figure B.7. First Email Follow-up

Dear [redacted]

I emailed you last week but did not hear back. I have a good start getting responses for my survey about returned missionaries, but I still need a lot more help. Your response would be greatly appreciated and would move my graduate work forward. Would you be willing to take 20 minutes to fill out the survey?

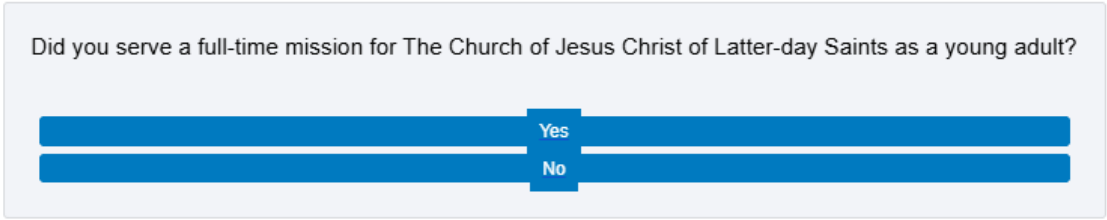
Thanks again for your time and help on this. If you already responded and we are following up unnecessarily, our apologies for the extra email. You can reach out to me at teastmond@ucsd.edu or my collaborator Mike at mricks4@unl.edu if you have any questions or need further clarification.

Best regards,
Tanner

Link to my graduate profile: https://economics.ucsd.edu/graduate-program/about/grad-profiles/cohort%202018/Eastmond-Tanner.html

Link to Mike's website: https://michaeldavidricks.com/

The research has been approved by the UCSD Institutional Review Board (808966) to ensure that survey participants' privacy and data are adequately protected.



Follow this link to the Survey:
Take the Survey

Or copy and paste the URL below into your internet browser:
https://ucsd.co1.qualtrics.com/jfe/form/SV_5mqULdzWILh9PGC?Q_DL=nP03cOKcrE8ZaW3_5mqULdzWILh9PGC_CGC_pYiHMzt7yeJgnOJ&Q_CHL=email

Follow the link to opt out of future emails:
Click here to unsubscribe

Figure B.8. Final Email Follow-up

Dear [redacted]

I wanted to check in one last time to see if you would be willing to help me by responding to my survey about returned missionaries. My graduate work would benefit greatly from your participation if you did serve as a young adult. Would you be willing to take 20 minutes to fill out the survey? If you already responded to me, my apologies for the unnecessary follow up.

Thanks again for your time and help on this. You can reach out to me at teastmond@ucsd.edu or Mike at mricks4@unl.edu if you have any questions or need further clarification.

Best regards,
Tanner

Link to my graduate profile: https://economics.ucsd.edu/graduate-program/about/grad-profiles/cohort%202018/Eastmond-Tanner.html

Link to Mike's website: https://michaeldavidricks.com/

The research has been approved by the UCSD Institutional Review Board (808966) to ensure that survey participants' privacy and data are adequately protected. The information we used to reach out are from a sample of likely or verified BYU alumni collected using publicly available information primarily from social media, online whitepages, company, and personal webpages. Your information was part of this collection effort. Our survey is not affiliated with BYU.

Did you serve a full-time mission for The Church of Jesus Christ of Latter-day Saints as a young adult?

Yes

No

Follow this link to the Survey:
Take the Survey

Or copy and paste the URL below into your internet browser:
https://ucsd.co1.qualtrics.com/jfe/form/SV_5mqULdzWlLh9PGC?Q_DL=ToFj60fj2bfOwKj_5mqULdzWlLh9PGC_CGC_MM7CahSd0SgD2YC&Q_CHL=email

Follow the link to opt out of future emails:
Click here to unsubscribe

B.3 Survey Instrument Text

1. Did you serve a full-time mission for The Church of Jesus Christ of Latter-day Saints as a young adult?

   Yes; No

2. **Displayed only if respondent answered that they did not serve a full-time mission.** Thank you for being willing to participate in our survey. Unfortunately, we are only surveying those who served a mission for The Church of Jesus Christ of Latter-day Saints as a young adult. Based on what you indicated you are not eligible to participate. If you would like to see results of our study once we are finished or would be willing to participate in potential future studies, please indicate below.

3. **Asked only if respondent answered that they did not serve a full-time mission.** Would you like us to periodically share updates about the results of this study?

   Yes; No thank you

4. **Asked only if respondent answered that they did not serve a full-time mission.** Would you be willing to answer a follow-up survey in the future if we reach out again?

   Yes; No thank you

5. Do you consent to participate in this research study?

   Yes, I understand what the study is about and I agree to participate; No, I do not consent

6. **Asked only if respondent answered "No" on the previous question.** By not consenting, you will be unable to continue with the survey. Is this what you intended? (If this is not what you intended, change your answer to the previous question.)

   I do not want to complete the survey

7. **Displayed only if respondent answered that they did not serve a full-time mission.** Thank you very much for your time, we wish you the best.

8. What mission did you serve in? (If you served in multiple, just indicate the mission you were originally assigned to.)

   Respondent required to select a valid mission name from a predefined list

9. What was your assigned mission language?

   English; Spanish; Portuguese; French; Chinese; German; Russian; Arabic; Other, please specify

10. To the best of your recollection, when did you serve your mission?

    Respondent required to select a valid mission start and end month/year from a predefined list.

11. To the best of your recollection, please answer the following questions regarding the information you shared on your mission papers.

    Response options for each item: Yes; No; N/A

    (a) Did you indicate that you were willing to go outside of your home country?

    (b) Did you have any medical conditions (including mental health) or other major considerations that were flagged?

    (c) Did you graduate from seminary?

    (d) Did you serve in a leadership position during high school in an extracurricular activity?

    (e) Did you serve in a ward or stake leadership calling? (e.g. class or quorum presidency, stake youth council)

    (f) Did you speak a language other than English with at least conversational proficiency?

12. Select all of the following regions where you had a parent or grandparent serve a mission before your mission.

    United States/Canada/Greenland;
    Mexico/Central America/Caribbean; South America; Europe/Russia; Africa; Asia;
    Australia/New Zealand/Other Pacific Islands

13. **Asked only if respondent indicated speaking a language other than English.** What languages other than English did you speak with at least conversational proficiency?

    Spanish; Portuguese; French; Chinese; German; Russian; Arabic; Other, please specify

14. To what extent do you agree or disagree with the following statements?

    Response options for each item: Strongly agree; Agree; Neither agree nor disagree; Disagree; Strongly disagree

(a) I felt interested in learning a language.

(b) I felt I would be successful in learning a language.

15. Please answer the following questions regarding yourself before your mission.

(a) Did you live in the United States for most of your childhood?

Yes; No

(b) **Asked only if respondent indicated living in the US for most of their childhood.** In which US zip code did you live for the longest during your childhood?

Respondent required to select a valid US zip code from a predefined list.

(c) **Asked only if respondent indicated living in the US for most of their childhood.** How long did you live in that US zip code?

Less than 3 years; 3–10 years; More than 10 years

(d) **Asked only if respondent indicated not living in the US for most of their childhood.** In what city and country did you live for the longest during your childhood?

Open response

(e) **Asked only if respondent indicated not living in the US for most of their childhood.** How long did you live in that location?

Less than 3 years; 3–10 years; More than 10 years

(f) Which of the following did you experience before your mission?

Response options for each item: Yes; No

i. Traveling outside of the US

ii. Worked for pay outside of the home

iii. Applied to Brigham Young University (BYU)

iv. Attended college

(g) What was your grade point average (GPA) in high school?

Scale: 0 to 4 (in increments of 0.01), with top option 4+

(h) Which of the following describe your college attendance before your mission? (Select all that apply.)

Attended BYU; Attended other university

(i) What is the highest level of schooling at least one of your parents had completed or the highest degree they had received before your mission?

Less than high school; High school graduate or equivalent; Some college, no bachelor's degree; Bachelor's degree; Graduate or professional degree

(j) How often did you attend meetings/activities for The Church of Jesus Christ of Latter-day Saints during high school (including church meetings, activities, temple worship, etc.)?

Multiple times per week; Once a week; Two or three times a month; Several times a year; Never, practically never

(k) What was the typical working situation for each of your parents?

Working full-time; Working part-time; Staying at home; N/A

i. Your father while you were in elementary school
ii. Your father while you were in high school
iii. Your mother while you were in elementary school
iv. Your mother while you were in high school

(l) When you submitted your mission papers, approximately what share of your motivation to serve came from each of the following factors? (Answers automatically scale to 100.)

Enter shares (0–100) that sum to 100:

i. A desire to serve God and share the gospel with others
ii. Wanting to learn and have new experiences
iii. Feelings of religious duty or commitment
iv. Expectations of family, peers, or church leaders
v. Other

16. Please answer the following questions with regard to your current circumstances.

(a) Do you currently live in the United States?

Yes; No

(b) **Asked only if respondent indicated currently living in the US.**In which US zip code do you currently live?

Open response

(c) **Asked only if respondent indicated not currently living in the US.** In what city and country do you currently live?

Open response

(d) How often do you currently attend meetings/activities for The Church of Jesus Christ of Latter-day Saints (including church meetings, activities, temple worship, etc.)?

Multiple times per week; Once a week; Two or three times a month; Several times a year; Never, practically never

(e) What is your gender?

Male; Female; Prefer not to say

(f) Are you currently married, widowed, divorced, separated or never married?

Married; Widowed; Divorced; Separated; Never married; Prefer not to say

(g) **Asked only if respondent is married.** Did your spouse serve a full-time mission for The Church of Jesus Christ of Latter-day Saints?

Yes; No

(h) **Asked only if respondent indicates spouse served.** What mission did your spouse serve in? (If they served in multiple, just indicate the mission they were originally assigned to) *Dropdown menu with type-ahead search; respondent required to select a valid mission name from a predefined list*

(i) How many children have you ever had?

0; 1; 2; 3; 4; 5; 6; 7; 8; 9; 10

17. (Feeling Thermometer introduction. This question refers to "Figure A.1. Feelings Thermometer Example") Thank you for sharing information about yourself and your mission. Now, we would like to gauge your feelings toward various groups of people using a "feeling thermometer" rating system. Ratings between 50 and 100 mean that you feel favorable and warm towards the group. Ratings between 0 and 50 mean that you don't feel favorable towards them. You would rate the group at the 50 mark if you feel neutral towards them.

18. For example, how do you feel towards The Church of Jesus Christ of Latter-day Saints?

    Feeling thermometer: 0–100, with 50 indicating neutral

19. Thank you for sharing! We would like to use the feelings thermometer as above to gauge your feelings towards the following groups of people.

Response for each item was reported on a separate feeling thermometer: 0–100, with 50 indicating neutral

(a) White people

(b) Latino people

(c) Black people

(d) Mothers with children at home pursuing higher education

(e) Mothers with children at home not working and staying at home

(f) Mothers with children at home pursuing a career

(g) Democrats

(h) Republicans

(i) Unaffiliated voters

20. Have you read or listened to a book, podcast, or documentary on the following topics during the last 5 years?

Response options for each item: Book; Podcast or documentary; Both; Neither

(a) Gender roles

(b) Democratic party or politics

(c) Republican party or politics

(d) Race/racism

21. Which of the following political activities have you engaged in during the last 5 years?

Response options for each item: Yes; No; Not sure/don't remember

(a) Voting for a Republican candidate for national office

(b) Voting for a Democratic candidate for national office

(c) Voting for a Black or Latino candidate for national office

(d) Voting for a woman for national office

(e) Protesting against police violence

(f) Protesting against mask/vaccine mandates

22. Which of the following do you donate to in a typical year?

Response options for each item: Yes; No

(a) Republican political campaigns or candidates

(b) Democratic political campaigns or candidates

(c) The Church of Jesus Christ of Latter-day Saints

(d) Social justice initiatives

(e) Other charitable, religious, or nonprofit organizations

23. **Asked only if respondent indicated donating to a one of the aforementioned groups in a typical year.** What percent of your family income do you donate to political, charitable, religious, or other nonprofit organizations in a typical year?

    Scale: 0 to 20

24. Which of the following causes do you volunteer for in a typical month?

    Response options for each item: Yes; No

    (a) Republican political causes

    (b) Democratic political causes

    (c) The Church of Jesus Christ of Latter-day Saints (e.g., callings, ministering, informal service)

    (d) Social justice initiatives

    (e) Other charitable, religious, or nonprofit organizations

25. Approximately how many hours do you spend on the following activities on a typical weekday? (Answers automatically scale to 24.)

    Enter hours for each category (0–24), constrained to sum to 24:

    (a) Working for pay

    (b) Doing housework (e.g. cooking, cleaning, laundry, shopping, repairs, yardwork)

    (c) Caring for dependents

    (d) Worship and volunteering

    (e) Leisure (e.g. exercise, reading, technology, friends)

    (f) Self-care (e.g. hygiene, eating, sleeping)

    (g) Other activities

26. **Asked only if respondent has a spouse/partner, as applicable in the survey.** Approximately how many hours does your spouse spend on the following activities on a typical weekday? (Answers automatically scale to 24.)

    Enter hours for each category (0–24), constrained to sum to 24:

    (a) Working for pay

    (b) Doing housework (e.g. cooking, cleaning, laundry, shopping, repairs, yardwork)

    (c) Caring for dependents

    (d) Worship and volunteering

    (e) Leisure (e.g. exercise, reading, technology, friends)

    (f) Self-care (e.g. hygiene, eating, sleeping)

    (g) Other activities

27. Donation activity instructions. This question refers to "Figure A.2. Donation Activity Example" The following questions will present you with a series of choices. You can choose to have us donate 50 cents to the American Red Cross (on the left) or donate 50 cents to a different organization (on the right). When our survey is complete, we will donate $950 to these organizations based on the answers you and other participants give.

28. (Donation choice battery.) For each row below, choose whether to donate 50 cents to the American Red Cross or to a different organization.

    Refer to Figure A.2. Donation Activity Example

29. For organizations you chose over the Red Cross, would you change your mind if we double the amount to the Red Cross? Please re-select your choices below.

    (Refer to Figure A.2. Donation Activity Example, conditional on prior choices.)

30. For organizations you did NOT choose over the Red Cross, would you change your mind if we double the amount to those organizations? Please re-select your choices below.

    (Same organization list as above, conditional on prior choices.)

31. Is there any amount of money at which you would prefer donating to the American Red Cross rather than giving 50 cents to the following organizations?

    Response options for each item: Yes; No

(a) The Republican Party

(b) The NAACP

(c) The Church of Jesus Christ of Latter-day Saints

(d) The Democratic Party

(e) The National Partnership for Women and Families

32. Is there any amount of money at which you would prefer donating to the following organizations rather than giving 50 cents to the American Red Cross?

    Response options for each item: Yes; No

33. (Mechanisms introduction.) We are grateful for the information you have shared to this point. We will continue the survey asking a few questions directly about your mission experience then finish the survey with some final demographic questions.

34. In general, how kind or unkind were the local people to you on your mission (excluding members of the church)?

    Very kind; Kind; Somewhat kind; Neither kind nor unkind; Somewhat unkind; Unkind; Very unkind

35. In general, how would you describe your feelings toward the local people on your mission? Use the same feelings thermometer as before.

    Feeling thermometer: 0–100, with 50 indicating neutral

36. Approximately what fraction of proselyting time on your mission was spent doing the following activities? Consider the hours after morning study before you would return to the apartment for bed. (Answers automatically scale to 100.)

    Enter shares (0–100) that sum to 100:

    (a) Finding new people to teach

    (b) Teaching and visiting people

    (c) Community service

    (d) Transportation

    (e) Eating, resting, and other activities in the apartment

37. In general, how receptive were the local people to your message on your mission?

    Very receptive; Receptive; Somewhat receptive; Neither receptive nor unreceptive; Somewhat unreceptive; Unreceptive; Very unreceptive

38. How often did you discuss the following topics during your mission in lessons, with members, or with other missionaries or mission leaders?

    Never/Virtually never; A few times; Monthly; Weekly; Most days

    (a) Race/racism

    (b) Politics

    (c) Gender roles

39. Indicate whether you feel the following were better in your hometown, in your mission, or equally good/bad in both:

    Better at home; Better in my mission; Equally good/bad in both; Unable to compare, no exposure on my mission

    (a) Political parties working together

    (b) Equal treatment of men and women in the workplace

    (c) Equal treatment of different racial and ethnic groups in the workplace

    (d) Church organization

40. How, if at all, did your feelings towards the following groups or topics change during your mission?

    Improved; Unchanged; Worsened

    (a) Democrats

    (b) Racial or ethnic minorities

    (c) Republicans

    (d) The Church of Jesus Christ of Latter-day Saints

    (e) Mothers working or pursuing education outside the home

41. How, if at all, did your feelings towards the following groups or topics change after your mission?

    Improved; Unchanged; Worsened

    (a) Democrats

    (b) Mothers working or pursuing education outside the home

(c) Republicans

(d) The Church of Jesus Christ of Latter-day Saints

(e) Racial or ethnic minorities

42. Are you of Hispanic, Latino, or Spanish origin?

    Yes; No; Prefer not to say

43. The following is a list of five race categories. You may choose one or more races. Are you:

    American Indian or Alaska Native; Asian; Black or African American; Native Hawaiian or Other Pacific Islander; White; Other; Prefer not to say

44. What is the highest level of schooling you have completed or the highest degree you have received?

    Some college, no degree; Associate's degree; Bachelor's degree; Graduate or professional degree

45. What is your annual household income (before paying taxes), which is the total amount that individuals in your home made within the last year?

    Less than $50,000; $50,000–$74,999; $75,000–$99,999; $100,000–$150,000; $150,000–$200,000; $200,000–$250,000; More than $250,000; Prefer not to answer

46. Below is a seven-point scale on which the political views that people might hold are arranged from strong Democrat to strong Republican. Where would you place yourself on this scale?

    Strong Republican; Republican; Not very strong Republican; Moderate/middle of the road; Not very strong Democrat; Democrat; Strong Democrat; Haven't thought much about it; Prefer not to answer

47. Where would you place your parents on this scale when you were growing up?

    Strong Republican; Republican; Not very strong Republican; Moderate/middle of the road; Not very strong Democrat; Democrat; Strong Democrat; Parents held very different political opinions; Haven't thought much about it; Prefer not to answer

48. Do you feel that this survey was biased?

    Heavy right wing bias; Moderate right wing bias; Slight right wing bias; Unbiased; Slight left wing bias; Moderate left wing bias; Heavy left wing bias

49. Would you like us to periodically share updates about the results of this study?

    Yes; No thank you

50. Would you be willing to answer a follow-up survey in the future if we reach out again?

    Yes; No thank you

51. Thank you for participating in this survey! We are immensely grateful for your time. If there is anything else you would like us to know about your mission experiences, responses, or about our survey, we would love to hear your thoughts.

    Open response

B.4 Survey Variable Definitions

Survey administration variables:
responseid: Qualtrics response identifier.
recipientemail: email address used for survey distribution.
distributionchannel: survey distribution channel.
progress: percent of survey completed.
durationinseconds: time to complete the survey (seconds).

Mission characteristics:
missionloc_raw: self-reported mission served (dropdown mission name).
missionlanguage: self-reported assigned mission language.
missionstartmonth, missionstartyear: mission start month/year.
missionendmonth, missionendyear: mission end month/year.

Mission papers / pre-mission (yes/no module):
willingforeign: willing to serve outside home country (mission papers).
medconditions: medical/mental health/other major considerations flagged (mission papers).
seminarygrad: graduated from seminary (mission papers).
extrashsleader: held a leadership position in a high-school extracurricular activity (mission papers).
churchleader: held a ward or stake leadership calling (e.g., class/quorum presidency, stake youth council) (mission papers).
speaklang: spoke a language other than English with at least conversational proficiency (mission papers).

Family mission exposure (select all that apply):
fam_us_can_green: parent/grandparent served in United States/Canada/Greenland.

fam_mex_ca_car: parent/grandparent served in Mexico/Central America/Caribbean.
fam_sa: parent/grandparent served in South America.
fam_eur_russ: parent/grandparent served in Europe/Russia.
fam_africa: parent/grandparent served in Africa.
fam_asia: parent/grandparent served in Asia.
fam_aus_nz_pi: parent/grandparent served in Australia/New Zealand/Other Pacific Islands.

Language background and language-learning beliefs:
languagepremission: set of indicators for languages spoken with at least conversational proficiency (e.g., Spanish, Portuguese, French, Chinese, German, Russian, Arabic, other).
learnnewlang_int: agreement with "I felt interested in learning a language" (Likert: Strongly agree to Strongly disagree).
learnnewlang_abi: agreement with "I felt I would be successful in learning a language" (Likert: Strongly agree to Strongly disagree).

Childhood location:
uschild: lived in the United States for most of childhood (indicator).
zipcodechild: U.S. zip code lived in the longest during childhood (if uschild=1).
zipcodechildlength: categorical length of time lived in longest childhood zip code.
foreignchild: lived outside the United States for most of childhood (indicator).
citycountry: city and country lived in the longest (childhood or current location module, as applicable).
foreignchildlength: categorical length of time lived in longest non-U.S. childhood location.

Pre-mission experiences and human capital:
outustravel: traveled outside the United States before mission (indicator).
workedpre: worked for pay outside the home before mission (indicator).
applybyupre: applied to BYU before mission (indicator).
attendcolpre: attended college before mission (indicator).
attendbyupre: attended BYU before mission (indicator).
hsgpa_1: self-reported high school GPA (0–4 scale).
nohsparent, hsparent, somecolparent, bachelorparent, graddegreeparent: highest schooling/degree of at least one parent (mutually exclusive categories).

Religious activity (pre and current):
highlyactivepre, activepre, lessactivepre, inactivepre: pre-mission church attendance frequency categories during high school.
highlyactive, active, lessactive, inactive: current church attendance frequency categories.

Motivations to serve (shares summing to 100):
motiexpectations: share attributed to expectations of family/peers/church leaders.
motiservegod: share attributed to desire to serve God and share the gospel.
motinewexperiences: share attributed to wanting to learn/have new experiences.
motiduty: share attributed to religious duty/commitment.
motiother: share attributed to other reasons.

Current location and household:
uscurrent: currently lives in the United States (indicator).
zipcode: current U.S. zip code (if uscurrent=1).
married, widowed, divorced, nevermarried: marital status categories.
spousemission: spouse served a full-time mission (indicator).
spousemissionname: spouse's mission name (dropdown).
numkids_1: number of children (0–10 slider).

Parent work situation (categorical):
dadhomeelem, dadhomehigh, momhomeelem, momhomehigh: parent stayed at home during respondent's elementary school / high school years.
dadpartelem, dadparthigh, mompartelem, momparthigh: parent worked part-time during respondent's elementary school / high school years.
dadfullelem, dadfullhigh, momfullelem, momfullhigh: parent worked full-time during respondent's elementary school / high school years.

Feeling thermometer outcomes (0–100):
thermometer_church: warmth toward the Church of Jesus Christ of Latter-day Saints (0–100).
thermometer_black, thermometer_white, thermometer_latin: warmth toward Black, White, and Hispanic/Latino people (0–100).
thermometer_rep, thermometer_dem, thermometer_ind: warmth toward Republicans, Democrats, and Independents (0–100).
thermometer_momwork, thermometer_momeduc, thermometer_momstay: warmth toward mothers working/pursuing education vs. staying at home (0–100).
thermometer_missbefore, thermometer_missafter: warmth toward missionaries/missionary service (0–100).

Media exposure (binary):
bookrace, podcastrace: consumed book/podcast content related to race in the last 5 years.
bookgender, podcastgender: consumed book/podcast content related to gender in the last 5 years.

bookrep, podcastrep: consumed book/podcast content related to Republicans in the last 5 years.
bookdem, podcastdem: consumed book/podcast content related to Democrats in the last 5 years.

Time use (hours in a typical weekday; auto-scales to 24):
timework, timehousework, timedep, timeworship, timeleisure, timeselfcare, timeother: hours spent in each category (respondent).
timework_spouse, timehousework_spouse, timedep_spouse, timeworship_spouse, timeleisure_spouse, timeselfcare_spouse, timeother_spouse: hours spent in each category (spouse).

Donation activity (experimental choices):
donrep, dondem, donchurch, donsocialjustice, donother: indicator for selecting the listed organization (rather than the American Red Cross) in the donation-choice module.
donationsamount_1: donation-choice amount parameter used in the elicitation task (embedded amount).
donnaacp_always, donnaacp_100_50, donnaacp_50_50, donnaacp_50_100, donnaacp_any: indicators for NAACP preference patterns in donation elicitation.
donnaacp_score: summary index of NAACP donation preference.
dongop_always, dongop_100_50, dongop_50_50, dongop_50_100, dongop_any: indicators for GOP preference patterns in donation elicitation.
dongop_score: summary index of GOP donation preference.
dondem_always, dondem_100_50, dondem_50_50, dondem_50_100, dondem_any: indicators for Democratic Party preference patterns in donation elicitation.
dondem_score: summary index of Democratic Party donation preference.
donnpwf_always, donnpwf_100_50, donnpwf_50_50, donnpwf_50_100, donnpwf_any: indicators for NPWF preference patterns in donation elicitation.
donnpwf_score: summary index of NPWF donation preference.
donchurch_always, donchurch_100_50, donchurch_50_50, donchurch_50_100, donchurch_any: indicators for Church preference patterns in donation elicitation.
donchurch_score: summary index of Church donation preference.

Mechanisms: local receptiveness and mission activity shares:
peoplekind, peopleneutral_kind, peopleunkind: perceived kindness of local people (Very kind to Very unkind).
peoplereceptive, peopleneutral_rec, peopleunreceptive: perceived receptiveness to missionaries' message (Very receptive to Very unreceptive).
timespfinding, timespteaching, timespservice, timesptransp, timespapartment: shares of

proselyting time spent in each activity (auto-scales to 100).

Mission discussion frequency (never/occasionally/often):
discussgendernever, discussgenderocc, discussgenderoften: frequency of discussing gender roles on mission.
discussracenever, discussraceocc, discussraceoften: frequency of discussing race on mission.
discusspoliticsnever, discusspoliticsocc, discusspoliticsoften: frequency of discussing politics on mission.

Comparisons: home vs. mission context:
polcoopbetter, polcoopworse, polcoopsame, polcoopnocomp: political parties cooperate better at home / better in mission / equally / unable to compare.
equalwomenbetter, equalwomenworse, equalwomensame, equalwomennocomp: equal treatment of men and women in the workplace (home better / mission better / equally / unable to compare).
equalracebetter, equalraceworse, equalracesame, equalracenocomp: equal treatment of racial/ethnic groups in the workplace (home better / mission better / equally / unable to compare).
churchorgbetter, churchorgworse, churchorgsame, churchorgnocomp: Church organization works better at home / better in mission / equally / unable to compare.

Perceived change during vs. after mission (improved/unchanged/worsened):
improvedduringgender, worsenedduringgender, improvedaftergender, worsenedaftergender: perceived change in views on gender roles during / after mission.
improvedduringrace, worsenedduringrace, improvedafterrace, worsenedafterrace: perceived change in views about racial/ethnic minorities during / after mission.
improvedduringrep, worsenedduringrep, improvedafterrep, worsenedafterrep: perceived change in views about Republicans during / after mission.
improvedduringdem, worsenedduringdem, improvedafterdem, worsenedafterdem: perceived change in views about Democrats during / after mission.
improvedduringchurch, worsenedduringchurch, improvedafterchurch, worsenedafterchurch: perceived change in views about the Church during / after mission.

Consent and recontact:
updates: opted in to periodically receive updates about study results (indicator).
followup: willing to answer a follow-up survey in the future (indicator).
bias: self-reported concern about potential bias in responses (indicator).