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

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Abstract

We study how volunteering in different cultural environments shapes individuals' long-term views and behaviors using variation from the location assignments of volunteer missionaries for the Church of Jesus Christ of Latter-day Saints. Administering an original survey to former volunteers, we find large effects of exposure to different places on long-run attitudes and behavior. For example, we find evidence that exposure to places with high Black or Latino populations engenders positive sentiment towards these groups and induces behaviors like residing in more diverse zip codes and supporting social justice causes. Additionally, we find that exposure to locations with more conservative politics improves sentiment towards Republicans and reduces donations to Democratic causes. We find no effects on attitudes about gender roles. Mechanism analyses suggest that whereas racial attitudes are moved by contact, political attitudes seem to be affected through social learning; furthermore, it seems that the effects are particularly pronounced for volunteers assigned to places that differ significantly from their upbringing. Ultimately our results suggest that people's views and behaviors change in the long run via exposure to distinct place characteristics and experiences.

Key Words: place exposure, social and political attitudes

JEL Codes: J15, J16, P16

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1 Introduction

Young adulthood is a critical time for preference and identity formation, as many youth explore their role as increasingly independent behavioral agents. With this in mind, many organizations provide formative opportunities for young adults to travel, work, study, and volunteer in new places. These opportunities drive interesting development for young individuals. For example, social attitudes, labor market outcomes, and migration are strongly affected by horizon-expanding experiences like college enrollment (Malamud and Wozniak, 2012); study abroad programs (Oosterbeek and Webbink, 2011; Parev and Waldinger, 2011; Di Pietro, 2012); national, religious, and humanitarian service (Mo and Conn, 2018; Berinsky et al., 2022); and military service (Card and Cardoso, 2012; Ertola Navajas et al., 2022). Interestingly, there is growing evidence that in addition to the extensive-margin effects of these programs, exposure to different types of places has notable effects on a variety of outcomes like social attitudes about national identity (e.g. Bazzi et al., 2019; Bagues and Roth, 2023; Okunogbe, forthcoming).¹ Despite this growing understanding that these experiences in new locations matter, much less is understood about what types of experiences contribute to these changing economic preference and for whom. This paper aims to study the formation of attitudes towards under-represented minorities, mothers who work outside of the home, and political out-partisans and changes in behaviors related to these attitudes.

In particular, we explore the extent to which prolonged exposure to different places has long-run effects on young adults' attitudes and behaviors. Estimating these geographically specific treatment effects is challenging, however, individuals intentionally choose to live and work in different locations. We address this difficulty by exploiting a large scale natural experiment for volunteer missionaries for the Church of Jesus Christ of Latter-day Saints (the Church). These 18-25 year old volunteers are assigned to locations around the world without regard to their preferences and serve in their assigned location for 1.5-2 years. Assignments are made by senior leaders who do not know the volunteer personally and are intended to staff volunteer locations around the world. We collect the information available to those leaders at the time of assignment and condition on this information in our analysis. We also show strong conditional balance across location assignments on characteristics not available to the leaders making the assignment.

Though this setting provides an excellent opportunity to study how prolonged exposure to different places impacts young adult's views and behaviors in the long run, identifying a sample of past volunteer missionaries is challenging. To solve this issue, we sample from a population that is highly likely to have participated in this volunteering in the past:

¹Complementing the literature on place effects on economic outcomes.

alumni of Brigham Young University (BYU), a university affiliated with the Church of Jesus Christ of Latter-day Saints. We deploy an original survey to BYU alumni and identify past volunteers of all ages. Our survey elicits information on where each person served, their baseline characteristics, and their present views and behaviors pertaining to race, politics, and gender roles. This survey was designed using data from multiple pilots. Due to various administrative delays, we are still in process of collecting the full data for the project. We currently have 912 responses from our first wave of data collection. Moving forward we will collect data from more than 20,000 additional individuals, which will add significantly more precision and enable even more detailed analysis.

To understand the impact of exposure to different locations, we consider separately the influence of exposure to three different characteristics: for each possible location assignment. we collect the demographic makeup of residents (hereafter 'demographics'), the average social attitudes held by those residents ('attitudes'), and the prevailing public and private institutions/policies ('institutions'). We collect relevant features relating to race, gender roles, and politics. For example, when considering traits of each place related to race, the demographic characteristics we collect include the racial/ethnic makeup in the area, the attitudes include measures of implicit bias and stereotypes towards people of color held by residents, and the institutions include wage, employment, and education gaps between racial/ethnic groups. This information comes from a variety of sources, including census data, existing surveys relating to attitudes, country specific data, and academic research. We also digitized maps for each of the 600 possible location assignments over time to aggregate these data to the mission location level. Using these detailed data on each place combined with our survey data containing individual outcomes we estimate the impact of exposure to the demographics, average social attitudes, and institutions in the volunteer's assigned location on their attitudes and behaviors.

We find large impacts of exposure to different locations on a person's attitudes and behaviors in the long term. In particular, we find that assignment to places with a high fraction of Black or Latin American people increases positive sentiment towards those groups by about 5 percent. Furthermore, volunteers assigned to these places also change their actions related to race after returning from their mission, including choosing to live in more racially/ethnically diverse areas, volunteering or donating to social justice causes, voting for minority candidates, and engaging in learning about race/racism. They increase the number of these activities they participate in by 11 percent. We do not find any impact on racial attitudes or related behaviors driven by the average attitudes or institutions of a location after controlling for demographics. We also find evidence that these effects are driven by having a more positive and personal experience with local residents, with volunteers assigned to places with a high fraction of Black or Latino people reporting that they found the people more kind, felt that residents were more receptive to their message, and spent more time visiting those residents in their homes.

When considering political views and actions, we find that volunteers assigned to places with more conservative views report feeling about 14 percent more positive sentiment towards Republicans and are 27 percent more likely to identify as conservative. We see no changes for those assigned to more rural, older, and less educated areas around the world. We do, however, see increased engagement in learning about politics via reading books and listening to podcasts for those assigned to places with smaller governments. These results are larger for those who grew up in more liberal areas. In contrast to the results on race, these impacts are driven by the attitudes and institutions rather than the demographic characteristics in their assigned location. This is also reflected by the reported experience of the volunteers assigned to these locations: they do not report a more positive experience with the people they interacted with during their volunteering (if anything they report a more negative experience), but are instead more likely to have observed and talked about social issues while volunteering.

When we explore the attitudes and behaviors of respondents relating to gender roles, we see no significant differences across volunteers assigned to places with different demographics, attitudes, and institutions relating to gender. These outcomes are underpowered with our current sample, but with the coming increase in our survey sample we will have power to detect more modest effects in this domain. The one significant result we current show is when we consider only those whose mother did not work outside of the home during their upbringing. For this group we see that being assigned to less socially conservative places increases both positive sentiment towards working moms and feminists as well as engagement in behaviors reflecting less traditional gender norms (such as the husband being the primary cook in the household). This, together with the heterogeneity from our results on politics, suggests that volunteers whose assignment is substantially different from their childhood experiences undergo larger changes.

Our paper relates most closely to a set of papers that study the impact of relocation on immigration views (Berinsky et al., 2022) and national integration (Bazzi et al., 2019; Bagues and Roth, 2023; Okunogbe, forthcoming). The most closely related paper to ours is Berinsky et al. $(2022)^2$, which explores the same context as ours — that of Latter-day Saint missionaries — to examine the impact of contact with immigrants on immigration attitudes. They survey BYU students planning to serve a mission before they are assigned to any location then follow up directly after their volunteering. They find that missionaries

 $^{^{2}}$ Crawfurd (2021) studies a similar question using a convenience sample.

assigned to places with a higher likelihood of interacting with immigrants express more proimmigrant attitudes. They also provide strong evidence that location assignments in this missionary program are conditionally independent of prior social views. We build on their study in several ways. First, since our survey respondents finished their missionary service 10-40 years ago, we are able to study the long run effects of exposure to different places. Second, we explore impacts not only on attitudes, but also on related behaviors. Third, we extend the analysis to multiple social attitudes beyond immigration, including race, gender, and politics. Fourth, we collect detailed data on the demographics, average attitudes, and institutions in each possible location assignment as well as information about each volunteer's experience during their mission. This allows us to expand our understanding of how exposure to different places impacts outcomes beyond just contact with others. We consider broadly how a variety of characteristics of each location impact a person's outcomes.

Other closely related studies use random variation in youth service in Nigeria (Okunogbe, forthcoming), military service in Spain (Bagues and Roth, 2023), and population resettlement in Indonesia (Bazzi et al., 2019) to explore the short and long run impacts of intergroup exposure on national integration. Conceptually, in our study a person today who decided to participate in the volunteer missionary program we study would have 411 different independent treatments where they could be assigned. With this broad variation and the detailed data we collected on each possible location assignment, we add to these studies by considering how exposure to different types of places impacts attitudes and behavior beyond just intergroup contact as well as expanding to outcomes beyond national integration. We also show that a person's background characteristics play an important role in shaping the changes they experience.

We also speak to the broader literature on 'contact theory', first proposed by Allport (1954), where interaction with individuals from different groups can reduce prejudice towards those groups. 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, Mayer and Puller, 2011; Carrell, Hoekstra and West, 2019), assignment across schools (Rao, 2019; Kaplan, Spenkuch and Tuttle, 2019; Billings, Chyn and Haggag, 2021), sports teams (Lowe, 2020; Mousa, 2020), or military assignments (Schindler and Westcott, 2021; Dahl, Kotsadam and Rooth, 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 piece of a bigger picture when considering the impact of exposure to different places. We find that attitudes of residents with similar demographic characteristics and prevailing local institutions also play an important role in changing a person's views and behavior.

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, Rothstein and Yi, 2023), consumers preferences (Bronnenberg, Dubé and Gentzkow, 2012), and medical spending and mortality (e.g., Finkelstein, Gentzkow and Williams, 2016). We have two main contributions to this literature. First, because location assignment is independent in our setting, we are able to estimate place effects without relying on a movers design. Second, our results represent some of the first causal evidence of place effects on social attitudes.

The rest of the paper is organized as follows. Section 2 describes the institutional context, followed by a discussion of the data in Section 3. Thereafter we describe the empirical strategy in Section 4 and the results in Section 5. We conclude in Section 6.

2 Institutional Context: Missions in the Church of Jesus Christ of Latter-day Saints

In this section, we describe the details of the missionary program for the Church of Jesus Christ of Latter-day Saints, both in general and for individual volunteers on a day-to-day basis. We also detail the process of how volunteers are assigned to locations around the world.

2.1 The Mission Program

The missionary program for the Church of Jesus Christ of Latter-day Saints is a global program where 18-25 year old members of the church volunteer to participate. While there are many different goals in sending volunteers around the world in this way, some of the primary purposes of the program include proselytizing, strengthening current church members globally, providing experience for the participating volunteers, and participating in community service generally. Participation is considered obligatory for men but is optional for women. This program has been operating for decades and has grown substantially over time. At the start of the 20th century, there only around 800 missionaries at any one time who were assigned to 20 different possible locations. This has grown significantly over time. To-day there are over 60,000 full-time missionaries and 411 different mission locations covering most countries in the world.

Though the volunteers pay their own way, the church has averaged and centralized all costs. This means that the volunteers pay a flat, standard fee regardless of where they are assigned. For example, someone assigned to live in Tokyo for two years pays the same amount as someone assigned to live in the Dominican Republic, even though travel and living costs are starkly different across those locations. Each location has a local organization provided by the Church that sees to all logistics and infrastructure for the volunteers, including housing, travel, living stipend, administrative support, visas, and most other legal/financial considerations. Each of these local organizations are colloquially called 'missions'. People who wish to volunteer but cannot afford the flat fee are provided for by local congregation donations and general church funds.

A church member who wants to volunteer fills out an application with their local congregation leaders and is then assigned specific service dates and a location by senior church leaders at church headquarters. More details on this assignment are given below, but importantly volunteers and the local leaders familiar with those volunteers do not get to choose or request where in the world the volunteer will be assigned. When they begin their volunteering these individuals receive 2-9 weeks of language training³ and religious study. Thereafter, they are sent to their assigned location, where they engage in a variety of activities daily. Though the specific mix of activities varies greatly depending on the assigned location, volunteers across the world primarily spend their time engaging with the communities where they are assigned. In particular, they visit members of the local congregation, attend church meetings, talk to people in the community about the church and Christianity, participate in religious study, and take part in formal and informal community service. Volunteers stay for a maximum of 24 months, after which time they are required to return to their hometown.

An important aspect of this program is that volunteers are sent to their areas with the explicit commission to interact with as many people as possible, to get to know them, and seek to develop love and understanding for them. This is particularly interesting because it means that for most volunteers, the interactions with other people in these areas will be particularly salient and authentic relative to a typical person living and working in the area. This also commonly leads to lasting relationships and communication between the volunteers and those people they met during their time volunteering.

2.2 Mission Location Assignment

Volunteers are assigned to one specific geographic location for the duration of their service. The size of this location varies from part of a city to multiple countries, depending primarily on the size of the local church congregations. Furthermore, volunteers do not leave the boundaries of their assigned location during their service.

Our identification hinges crucially on the quasi-random assignment of volunteer mission-

 $^{^{3}}$ Since volunteers can be assigned nearly anywhere globally, they are also assigned to learn the language of the people living in their assigned location.

aries to service areas. Specifically, to explore the causal impact of place on a person's social attitudes and behavioral outcomes, location assignment must be conditionally independent of baseline characteristics. There is precedent for using this variation, as several studies have done to explore different questions (Pope, 2008; Crawfurd, 2021; Berinsky et al., 2022).

When an individual decides to participate in this volunteer service, they initiate the process by filling out an online application. This application includes information on basic demographics, church participation, education, language learning, family living situation, and health. They then go through a set of interviews with local ecclesiastical leaders who know the volunteer personally as well as a set of general medical check-ups. These interviews are standardized and are intended to accomplish two specific things: (1) determine whether the person is living church standards, (2) understand if the person's physical and mental health are sufficient for this type of volunteering, and (3) elicit a commitment from the volunteer to go wherever they are ultimately assigned. Importantly, during the application process neither the volunteer nor the ecclesiastical leaders that personally interview the volunteer make a request or recommendation for service area.⁴

After successful completion of these interviews, the local leaders submit the full application to church headquarters, where one of twelve senior church leaders makes the location assignment. This is only one of the many responsibilities these leaders have. When they do spend time assigning service areas, they are given a picture of the volunteer as well as the information from their application. Leaders then personally make decisions on where to send each volunteer based on thoughtful consideration of the individual's information and the need to fill available vacancies in locations around the world. Staffing missions around the world is one of the primary considerations when assigning volunteers. Volunteers are roughly equally distributed across mission locations and can be assigned anywhere in the world. Once these assignments are made, they are communicated back to the volunteers with a start date and basic information about preparing, leaving, and the location. Importantly, there is extremely low attrition of volunteers after reception of the assignment, so there is little concern of differential attrition based on social views. This is in part because of strong cultural norms and in part because the volunteers commit to serve wherever they are assigned.

Over the last 10 years, the Church has averaged roughly 70,000 volunteer missionaries serving at a time. Given this number, a back of the envelope calculation⁵ suggests that if

⁴The one exception is that missionaries with serious mental or physical health challenges are more likely to be assigned to missions inside of their home country to have access to needed care.

⁵Specifically, average # assignments to make weekly = 70,000/(average # weeks volunteered), where average # weeks volunteered is 104 for men and 78 for women (the Church recommendation is 2 years volunteering for men and 1.5 years for women). Women comprise roughly 24% of the volunteer workforce,

these general leaders of the Church spent 5 minutes per application, they would collectively spend around 60 hours per week making these assignments. Stated information from the Church also suggests that only 2-4 of these leaders handle this task each week, so they would be spending 15-30 hours per week on these assignments. Given the responsibilities of these leaders, it is unlikely they are spending so much time solely on volunteer missionary location assignments, so they are likely spending less than 5 minutes per application.

Additionally, since these leaders do not know the volunteers personally, we collect on the information available to them about the individual volunteers at the time of assignment and condition on this information in our analysis. Taken altogether, since assignments are made to fill available slots in mission locations around the world by senior leaders on a tight timetable and since we condition on all information available to those leaders at the time of assignment, location assignments are plausibly exogenous with respect to social attitudes and related behavioral outcomes.

3 Gathering Data on Locations and Volunteers

Our primary data for this project are collected using an original survey instrument. The survey, sample frame, and mode of administration were all designed after extensive piloting from August 2021-July 2023 (see Appendix B for details). This section discusses our data collection, outlines the survey instrument, and gives a description of the data used for analysis. All surveys were administered via email using the survey platform Qualtrics.

3.1 Survey Administration

Identifying and contacting former volunteer missionaries presents a significant challenge. The Church of Jesus Christ of Latter-day Saints does not historically collaborate with researchers, and our discussions with them yielded the same result. To circumvent this problem, we sample from a population that is highly likely to have participated in this program: alumni from BYU. We estimate that just over 50 percent of BYU alumni historically served missions, providing a sample frame with a high hit rate for former volunteers.

We identified these individuals by collecting information on over 400,000 living BYU alumni. Data from the Integrated Postsecondary Education Data System suggests that this represents 85-95 percent of alumni from BYU (depending on the year) who graduated before 2016. Since our coverage of alumni drops off substantially after 2016, we limit our sample to those who started their volunteering during or before 2010 (two years for volunteering, four years to graduate BYU). From these 400,000 alumni, we were able to successfully scrape

so average # weeks volunteered = 0.76*104 + 0.24*78 = 97.76

contact information for about 150,000 of these alumni from social media, online employee listings, and online white pages.

Due to several administrative delays, we are still in the process of collecting the full data for our project. For the first wave of data collection we contacted a random sample of 10,000 of these individuals. Ultimately, about half of our emails were actually viewed by potentially participants, who responded at a rate of 55 percent. Once we limited our sample to people who served missions before 2010 and after 1980 (our treatment data are much lower quality prior to 1980), we ended with responses from 912 former volunteers. About 16 percent of participants did not complete the full survey, though the majority of those who did not complete the survey answered most of our outcome questions.

We are in the process of surveying the remaining individuals, which will increase our sample size to over 20,000. These data will substantially increase the precision of our current estimates and allow us to perform more in-depth analysis.

The survey was designed and administered online using the survey platform Qualtrics. The survey lasted about 20 minutes for respondents and consisted of a set of questions about each individual's mission, demographics, background, and outcomes. Participants were not compensated for participation in the survey.

3.2 Survey Instrument

Our survey instrument has several main components. A crucial element of our identification strategy is collecting information on mission location assignment, timing, and information available to church leaders when making location assignments. The first part of our survey elicits this information from participants. In particular, the mission application filled out by volunteers prior to their service includes information on the applicant's basic demographics, church participation, family living situation, education experience, participation in extracurricular activities, and health. We collect this information from participants to ensure that we can condition on this information in our analysis.

The survey then follows by collecting information on outcomes. These include stated attitudes, behaviors, and a donation activity similar to those designed by Exley (2020). For each of these outcomes, we focus on three different domains: race, gender roles, and political conservatism. In every case the survey outcomes from each domain are interspersed and where needed the order of questions is randomized. First, our stated attitudes are measured using a standard feelings thermometer such as those used in the American National Election Studies and the General Social Survey. We take the instructions directly from these sources with a few small modifications to fit them to our setting. Specifically, participants were given 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." The groups they were asked to rate were Black people, White people, and Latino people; Republicans and Democrats; and feminists, stay-at-home moms, and mothers who work because they want to, all using a graphic slider (see Figure 1). We randomized the order of the outcome domains and the order of each group within the domain.





In addition to the feelings thermometers, we collected information about behaviors related to each of our outcome domains. For behaviors related to race we ask whether the person has read a book or listened to a podcast about race, donated or volunteered for social justice causes, voted for a minority candidate, and if they protested police violence. We also use census data to determine the racial/ethnic makeup of their current zip code of residence. For behaviors relating to gender we ask whether the person has read a book or listened to a podcast about gender, if the woman in their household works, if the man is responsible for cooking, and if the man is responsible for cleaning.⁶ For conservatism we ask political leaning, whether they participated in a protest against mask mandates, engaged in learning about politics, and donated/volunteered for political causes. We also measure the Republican vote share in their current zip code.

Our last outcome for each domain was an incentivized donation activity in the spirit of Exley (2020). The participants were given the following instructions: "The following

 $^{^{6}\}mathrm{About}$ 89 percent of our sample are currently married. For those who are not, we pose hypothetical questions about family responsibilities.

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 \$500 to these organizations based on the answers you and other participants give." The organizations on the right included organizations relevant to our outcome domains, namely the National Association for the Advancement of Colored People (NAACP), the National Partnership for Women and Families, the Republican party, and the Democratic party. We also included the Church of Jesus Christ of Latter-day Saints. Figure 2 gives an example of what participants were shown and some hypothetical choices.

Figure 2: Donation Activity Example

Please indicate which you would prefer in each row. Hover over the organization on the right to see the description.

50 cents to	50 cents to
The Red Cross	The Church of Jesus Christ of Latter-day Saints
The Red Cross	The Republican Party
The Red Cross	The Democratic Party
The Red Cross	The National Partnership for Women and Families
The Red Cross	The National Association for the Advancement of Colored People (NAACP)

Once participants indicated their choice between the Red Cross and the other organizations, we asked if they would change their mind (whichever direction they indicated) if we doubled the amount to the organization they did not choose. If they still did not switch, we asked if there were any amount at which they would be willing to switch their choice.

The other primary purpose of the survey was to allow us to understand channels through

which effects operate, so the last portion of our survey instrument collects information on the volunteers experience on their mission (i.e. how they spent their time, what their interactions with others were like, etc.), and how their mission assignment impacted the ways they receive or perceive information currently.

3.3 Information about Mission Locations

The survey and administrative data discussed above provide important data on outcomes and on the information available to those making location assignments needed for identification. However, these still do not provide needed information about our 'treatments' - the characteristics of mission assignment locations. Conceptually speaking, a volunteer who was assigned to a location today would have 411 different possible treatments since, in principle, they could be assigned to any one of the possible mission locations around the world. Each location comes with a bundle of characteristics, underscoring the fact that these are all separate treatments in themselves. Additionally, our volunteers are assigned over the course of 30 years, so the treatment bundle for each location is also potentially different depending on when a person volunteered.

To collect information on the characteristics of each location, we digitized and geotagged maps for each mission over time. This allowed us to aggregate demographic information and data on attitudes for each mission to the mission level. Demographic information came from census data for countries around the world. These items include the fraction of people who were Black or Latin American around the world as a measure of what would impact attitudes towards Black or Latino people. Then we take the and average family size, fraction urban, and fraction with a Bachelor's degree as the relevant demographic measure for gender. Lastly we use average age, fraction rural, and fraction with education less than college for politics.

We measure average attitudes in each mission location using the World Values Survey, the General Social Survey (GSS), and Project Implicit. These include things like 'Black-White', 'Light Skin-Dark Skin', 'Gender Career', and 'President Popularity' implicit association tests⁷; feelings thermometers towards Black people, Republicans, feminists; and direct questions about attitudes such as asking whether children suffer when the mother works outside of the home or if the person would be uncomfortable with a neighbor of a different race. Many of these surveys have low precision at fine geography, so we aggregate the attitudes over time at the county level within the US and at the country level outside of the US. This gives us a ranking over missions based on the attitudes that we then extend back in time.

⁷These are meant to be measures of implicit preference over groups. In our case we use them to measure implicit preference against people of color, women in careers, and Democrat Presidents.

This requires the assumption that the rank order of missions over time is stable with respect to their racial and gender attitudes. Political attitudes are measured using vote share for the Republican party in presidential elections over time within the US and using the liberal democracy index⁸ as a measure of social and economic conservatism worldwide.

Our measure of institutions for race include wage, employment, and labor force participation gaps within the US and education gaps between the most and least advantaged ethnic groups worldwide. For gender we use the gender inequality index from the Human Development Reports and information on wage, employment, and labor force participation gaps. Our political institution is the amount of government spending per capita.

3.4 Sample Description

Our current sample from the first wave of data collection contains responses from 912 former volunteers whose service spanned 1980-2010. Table 1 gives the pre-mission characteristics of those volunteers separated by which decade they started their volunteering.

Our sample includes about 20% women over time and is predominantly white. An increasing fraction attended some college before leaving to complete their volunteering, and three quarters report having grown up with Republican parents. A small fraction of individuals reported a serious medical condition on their application to volunteer, about a third spoke another language at the time of application, and most completed a four year religious course (called 'Seminary') during high school as well as participating in extracurricular activities. Many respondents had opportunities for leadership in high school activities and in their Church participation.

Considering our respondent's current characteristics, shown in Table 2, we see that most are married with children, over 80% 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 over one fourth in the 2000-2010 cohort. Nearly all respondents report being participating members of the Church of Jesus Christ of Latter-day Saints.

4 Empirical Strategy: The Conditional Independence of Location Assignments

Using the plausibly exogenous location assignments, we can contrast volunteer missionaries assigned to different locations to compare their outcomes. Since we have many different

 $^{^{8}} https://ourworldindata.org/grapher/liberal-democracy-index$

	1980-1990	1990-2000	2000-2010
Female	0.19	0.24	0.22
	(0.39)	(0.43)	(0.41)
White	0.94	0.91	0.90
	(0.25)	(0.28)	(0.30)
Black	0.00	0.00	0.01
	0.00	0.00	(0.11)
Asian	0.00	0.02	0.04
	0.00	(0.14)	(0.20)
Hispanic	0.02	0.04	0.06
	(0.15)	(0.20)	(0.24)
Reported Medical Conditions	0.02	0.06	0.08
	(0.14)	(0.23)	(0.28)
Spoke Language	0.21	0.22	0.30
	(0.40)	(0.42)	(0.46)
Graduated Seminary	0.82	0.89	0.91
	(0.39)	(0.31)	(0.29)
Participated in HS Extracurriculars	0.88	0.90	0.87
	(0.32)	(0.29)	(0.33)
Leadership Opportunities in HS	0.48	0.63	0.61
	(0.50)	(0.48)	(0.49)
Leadership Opportunities in Church	0.72	0.72	0.70
	(0.45)	(0.45)	(0.46)
Some College Before	0.69	0.81	0.80
	(0.46)	(0.39)	(0.4)
Parents Republican	0.74	0.72	0.74
	(0.44)	(0.45)	(0.44)
Parents Democrat	0.06	0.05	0.06
	(0.25)	(0.22)	(0.25)
Observations	195	336	381

 Table 1: Sample Baseline Characteristics

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

individual outcomes for each domain, we combine each relevant outcome measure into an index measure. For stated attitudes we make a standardized index for each, e.g. stated racial attitudes. Our measure of behavioral outcomes is the sum of the number of relevant behaviors. For donations, we take each decision in our survey that the participant faced/could have faced (i.e. donate to Red Cross at any amount, donate when Red Cross is double, donate when equal to Red Cross, donate when organization is double, donate at any amount to organization) and we took the sum of each decision they made towards the organization. This means a person with a score of 5 would always donate to the organization and a person with a score of 0 would never donate, etc.

With these outcomes in mind, our estimating equation is the following:

	1980-1990	1990-2000	2000-2010
Married	0.90	0.91	0.87
	(0.30)	(0.29)	(0.34)
Divorced	0.04	0.02	0.02
	(0.19)	(0.14)	(0.15)
Number of Children	4.14	4.16	3.27
	(1.89)	(1.66)	(1.48)
Bachelor's Degree	0.30	0.27	0.30
	(0.46)	(0.45)	(0.46)
Graduate Degree	0.54	0.56	0.52
	(0.50)	(0.50)	(0.5)
Income<\$150k	0.47	0.51	0.37
	(0.50)	(0.50)	(0.48)
Republican	0.68	0.56	0.47
	(0.47)	(0.50)	(0.50)
Democrat	0.18	0.20	0.28
	(0.38)	(0.40)	(0.45)
Active in Church	0.98	0.98	0.95
	(0.14)	(0.14)	(0.22)
Observations	195	336	381

 Table 2: Sample Current Characteristics

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

$$y_{i,t}^{d} = \beta_0 + \beta_1 Demographics_{j(i,t)}^{d} + \beta_2 Attitudes_{j(i,t)}^{d} + \beta_3 Institutions_{j(i,t)}^{d} + X_{i,t}' \delta + \gamma_{c(t)} + u_i$$
(1)

where $y_{i,t}^d$ is the outcome index for domain $d \in \{race, gender, politics\}$ for individual *i* who started their mission in year *t*. Each individual is assigned to mission location j(i, t). Location characteristics for each domain *d* are included by combining individual measures from each category of demographics, attitudes, and institutions into a standardized, covariance weighted index to provide one measure of each. We then include indicators $Demographics_{j(i,t)}^d$, $Attitudes_{j(i,t)}^d$, and $Institutions_{j(i,t)}^d$ for assigned location j(i, t) being in the top quartile of standardized indices for outcome domain *d* in year *t*.

We include a vector, X_i , of mission application controls including willingness to be assigned outside of home country, whether any health conditions were flagged in the application, whether they graduated from seminary for the church,⁹ whether they participated in extracurricular activities in high school, whether they performed well academically in high school, if they had leadership opportunities in their local church congregation and/or high

 $^{^{9}}$ This is a four year bible study class for high school students sponsored by the Church, nearly all teenagers in the Church participate, but not all graduate.

school activities, whether they were willing to learn a language on their mission, their gender, pre-mission educational attainment, whether they spoke another language prior to assignment, frequency of church participation during high school, and indicators for languages they spoke proficiently prior to their mission service. These are the relevant items available to the senior church leader at the time they made the location assignment for the volunteer. We also include indicators $\gamma_{c(t)}$ for the decade in which the volunteer started their mission. All standard errors are clustered at the mission level.

4.1 Assignment across Locations and Baseline Balance

Identification depends on whether baseline social attitudes are truly independent of location assignment conditional on the information available to leaders when making the assignment. Speaking to this question first requires understanding how the available information is used in deciding where to assign volunteers. Figure 3 shows key information from the volunteer application and how it is used in making location assignments.

Considering whether an individual is assigned to the US or to a mission outside of the US, we find several notable things. First, women are more likely to be assigned to the US. This finding is consistent with Berinsky et al. (2022), who report the same when considering mission assignments. Second, those who attended some college before their mission are more likely to be assigned to a foreign location. Last, the most prominent item is that if someone reports a significant medical condition on their application they are much more likely to be assigned within the US. This is a fact that is explicitly acknowledged by the church, with the reasoning that those individuals need careful access to sufficient medical care.

Those who are assigned to speak a language outside of English on their mission are more likely to have spoken a language beforehand with conversation proficiency, reported being more willing to learn a language on their application, and were more likely to graduate seminary, the four year bible study program from the church. This last item is likely due to the fact that some countries (notably Brazil, which has the largest population of LDS missionaries outside of the US) require a four year theological degree for any foreign proselyting missionaries, which requirement seminary fulfills.

Digging into the language spoken beforehand, Panel (b) of Figure 3 demonstrates convincingly that conversational proficiency in a foreign language prior to applying to volunteer strongly increases the likelihood that a person is assigned to speak that language on their mission.

With an understanding of how key items are used in making location decisions, we can turn out attention to whether other baseline characteristics that were unavailable at the time of assignment are balanced across locations conditional on the application information.



Figure 3: Mission Application Information Shapes Mission Assignments

(a) Application Info Assignment to US/Foreign or English/Other Language



(b) Impact of Language Spoken Before Mission on Language Assignment

Panel a of Figure 4 shows that these baseline characteristics are strongly balanced across US versus foreign assignments and English speaking versus foreign language speaking assignments. Importantly, these items are likely strongly correlated with baseline attitudes: parental education, whether the volunteer's mother worked during their upbringing, how Republican their childhood zip code was, and how many Black and Hispanic people were in their childhood zip code all should be strongly correlated with the attitudes that we investigate. We go further in panel b and show that these characteristics are also balanced across different types of mission characteristics, including the fraction of Black or Latin American residents in the area, the average support for working women among residents, and the vote share Republican for mission assignments within the US.



Figure 4: Mission Characteristics Are Unrelated with Other Baseline Characteristics

(a) Conditional Balance on Foreign Missions and Language Learning



(b) Conditional Balance on Mission Characteristics

Altogether, this shows the importance of key information in making assignments. Additionally, we find that baseline characteristics that were likely to be correlated with baseline social attitudes are very balanced across different types of missions conditional on application characteristics.

5 Mission Assignments Shape Social Attitudes Later in Life

We outline our main results in this section from the initial wave of data collection. The coming increase in sample size will substantially improve power and enable more detailed analysis. We first show geographic patterns in our stated outcomes, then we discuss the results from our main analysis, after which we discuss heterogeneity and mechanisms.

5.1 Regional Patterns in Stated Outcomes

To first get a sense of the variation in outcomes for assignments across the world, we explore the average stated attitudes for each of our domains. We subdivided regions roughly based on number of volunteers assigned to each from our sample and on sensible geographic divides. These patterns are shown in Figure 5. These maps show the raw averages of the stated attitudes index for volunteers assigned to each indicated region. In our sample we have no missionaries assigned to Northern Africa, the Middle East, Central Asian Countries, China, and North Korea. Many of these countries do not allow proselytizing Christian missionaries, so the Church of Jesus Christ of Latter-day Saints does not send volunteer missionaries to these areas.

In panel (a) we see the raw variation in stated racial attitudes around the world, and the patterns are quite striking. Volunteers assigned to the global south and the Southern United States report 0.07-0.29 standard deviations higher positive sentiment towards Black and Latino individuals than the average for respondents in our sample.

For politics we see in panel (b) that the only assignments around the world that increase positive sentiment towards Republicans are those assigned to states in the Mountain Census Division and the Southern Census Region (most of which tend to be the most conservative states) and those assigned to Australia. All other locations show a reduction in positive sentiment towards Republicans, lead by sub-Saharan Africa, Eastern Europe, Scandinavia, East Asia, and Central America.

Panel (c) shows broadly positive sentiment towards stay-at-home moms, working moms, and feminists, with sub-Saharan Africa and South/Southeast Asia showing the highest sentiment. Otherwise there is little variation around the world in these attitudes.

These results highlight one of the unique strengths of our setting. Most other studies exploring related questions relied on variation from people moving or assignment to places with limited differences (e.g. different majority ethnic groups). Conceptually, in our study a person today who decided to participate in the volunteer missionary program we study would have 411 different independent treatments where they could be assigned. This provides an opportunity to understand the different characteristics and experiences from the varied locations that drive the differences we observe in the long-term outcomes of volunteers assigned around the world.



Figure 5: Geographic Distribution of Stated Attitudes

(a) Under-Represented Minorities



(b) Republicans



(c) Women Outside of the Home

Notes: Coefficients are the unconditional average of the standardized stated attitudes index for each outcome domain.

5.2 Attitudes towards Under-Represented Minorities and Related Behaviors

The regional patterns in the stated outcomes provide interesting insight into the impacts of exposure to different geographic areas, and we now estimate equation (1) for each individual outcome for the survey to more clearly understand the effects of exposure to different types of places. In each of the tables including individual survey items in this and the following two sections we present the Benjamini, Krieger and Yekutieli (2006) sharpened two-stage q-values in brackets to account for the fact that we are testing multiple hypotheses (see also Anderson, 2008). We use this procedure to adjust our p-values within each outcome domain (race, gender, and politics) for each treatment arm (demographics, attitudes, and institutions).

We show the stated outcomes for Race in Table 3 and the behavioral outcomes for Race in Table 4.

	FT Black	Ft Black >50	FT Latino	FT Latino>50	FT White	FT White> 50
Frac Black/Latino	0.038^{**}	0.068^{**}	0.044^{**}	0.042^{*}	0.03**	0.059^{**}
	[0.042]	[0.042]	[0.026]	[0.082]	[0.050]	[0.042]
FT Black/Latino	-0.001	0.008	0.007	0.011	0.008	0.005
	[1.000]	[1.000]	[1.000]	[1.000]	[1.000]	[1.000]
Wage Gap Index	0.011	0.075	-0.001	0.027	0.032	0.099
	[1.000]	[0.749]	[1.000]	[1.000]	[0.749]	[0.258]
Control Means:						
	0.836	0.867	0.849	0.899	0.828	0.866
Observations	736	736	753	753	731	731

Table 3: Individual Stated Outcomes for Race

Notes: * p<0.1, ** p<0.05, *** p<0.01. Benjamini, Krieger and Yekutieli (2006) sharpened two-stage q-values in brackets. Estimates in each column reflect estimates from equation (1), which includes 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, whether they attended some college pre-mission, their participation level in the church pre-mission, their sex, and fixed effects for decade of service. Each outcome with 'FT ...' is the number reported by the respondent on the corresponding feelings thermometer (FT). Each outcome with 'FT ... >50' is an indicator for if the respondent put 50 or higher on the corresponding feelings thermometer, indicating that they feel warmly towards the group. 'Frac Black/Latino' is the indicator for the assigned mission location being in the top quartile of Black and Latin American residents, 'FT Black/Latino' is the indicator for the assigned mission location being in the top quartile of feelings thermometer towards those groups, and 'Wage gap index' is the indicator for being in the top quartile of the wage, employment, labor force, and education gaps index between the most and least advantaged ethnic groups.

We see no movement for assignment to places with more equitable racial attitudes or

institutions in rows 2 and 3, but we see strong impacts of being assigned to places with more Black or Latino people. The results on stated attitudes found in Table 3 are interesting for several reasons. First, we see strong increases in all feelings thermometer (FT) measures (both levels and probability of being above 50, i.e. saying they feel 'warm' towards the group), including the thermometer relating to White people. In our sample, about 80 percent of respondents answered precisely the same number across racial/ethnic groups. We anticipated that this could be an issue, so randomized the order in which the respondents would encounter the groups for the thermometers. This allows us to still understand the impact on the level of the thermometers, and we see a large and statistically significant increase in stated warmth towards these groups for those assigned to locations with more Black or Latino people. Second, we see not only an overall increase in the level, but also an increase in the likelihood of feeling at all warm towards the group (responses of < 50 indicate that the respondent felt cool/cold towards the group). In some sense this suggests both an extensive margin response (moving from cold to warm) and an intensive margin response (increasing the overall positive sentiment).

	Read Book on Race	Listen to Podcast on Race	Donate to Social Justice	Volunteer for Social Justice	Vote for Minority	Protest Police	Zip Code Diversity	Donate to NAACP
Frac Black/Latino	0.087**	0.035	0.079^{*}	-0.009	0.042*	0.08**	0.027**	0.227
	[0.050]	[0.167]	[0.059]	[0.256]	[0.096]	[0.026]	[0.042]	[0.106]
FT Black/Latino	-0.026	-0.053	-0.023	-0.075	0.01	-0.002	0.015	0.205
	[1.000]	[1.000]	[1.000]	[1.000]	[1.000]	[1.000]	[1.000]	[1.000]
Wage Gap Index	-0.029	-0.001	0.037	0.06	0.026	-0.041	-0.019	-0.005
	[1.000]	[1.000]	[1.000]	[1.000]	[1.000]	[0.749]	[0.749]	[1.000]
Control Means:								
	0.423	0.357	0.246	0.174	0.861	0.062	0.124	1.815
Observations	841	841	839	895	815	824	820	745

Table 4: Individual Behavioral Outcomes Race

Notes: * p<0.1, ** p<0.05, *** p<0.01. Benjamini, Krieger and Yekutieli (2006) sharpened two-stage q-values in brackets. Estimates in each column reflect estimates from equation (1), which includes 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, whether they attended some college pre-mission, their participation level in the church pre-mission, their sex, and fixed effects for decade of service. 'Frac Black/Latino' is the indicator for the assigned mission location being in the top quartile of Black and Latin American residents, 'FT Black/Latino' is the indicator for the assigned mission being in the top quartile of feelings thermometer towards those groups, and 'Wage gap index' is the indicator for being in the top quartile of the wage, employment, labor force, and education gaps index between the most and least advantaged ethnic group.

A major concern with the results on stated attitudes is whether these reflect the respondent's actual feelings or something else, for example just learning to say more equitable things but not actually changing any core beliefs. The results in Table 4 suggest that this is not the case. We again see little impact for the attitudes and institutions exposure, but strong impacts of exposure to different demographic characteristics on several different behaviors. Those assigned to locations with more Black or Latino people are 8.7 percentage points more likely to read a book on race, 7.9 percentage points more likely to donate to social justice, 4.2 percentage points more likely to vote for a minority candidate, and 8 percentage points more likely to protest police violence. Additionally, those living in the US (98 percent of our sample) currently live in zip codes that have 2.7 percent more Black or Hispanic people. These results show a strong pattern of change both in how individuals talk about race and in how they subsequently act in their lives.

To increase power with our smaller initial sample, we also aggregate our stated attitudes into a standardized, covariance weighted index and our behavioral attitudes by summing the number of the behaviors they reported participating in. We report these results in Appendix Table A.1. In particular, for those assigned to locations around the world where they interact with more Black or Latino individuals we see a significant 0.228 standard deviation increase in their stated warmth towards Black and Latino people. Not only this, but we also see that they engage in 0.466 more behaviors. This represents a 18.5 percent increase over those assigned elsewhere in the world.

While we see strong results when considering the racial/ethnic makeup of the places where people were assigned, we see only small and insignificant coefficients on assignments to places that were in the top quartile of equitable racial attitudes. This is also true considering assignments to places with lower racial wage/employment gaps, where each of the coefficients are small and insignificant.

5.3 Attitudes towards Political Partisans and Related Behaviors

We turn our attention to stated political outcomes in Table 5 and find impacts of being assigned to a place with more conservative views on the feelings thermometers towards Republicans. Interestingly, we do not see the same benchmarking behavior that we observed with stated attitudes towards different racial and ethnic groups: we see a large increase in positive sentiment towards Republicans, but no change towards Democrats.

The behavioral outcomes for politics are even more interesting in Table 6. While we do not observe any impacts for being assigned to older, more rural, less educated areas, we do see changes for those assigned to places with more conservative attitudes as well as for those assigned to places with smaller governments. These two exposures also impact a different set of outcomes: exposure to a place with conservative attitudes increases the likelihood of

	FT Republicans	Ft Republicans>50	FT Democrats	FT Democrats>50
Rural Index	-0.056	-0.084	-0.029	0.012
	[0.557]	[0.584]	[0.972]	[1]
Av Support Republican	0.076^{**}	0.089^{*}	0.002	-0.039
	[0.036]	[0.100]	[0.648]	[0.406]
Gov Size	0.006	0.046	-0.02	0.013
	[1.000]	[1.000]	[1.000]	[1.000]
Control Means:				
	0.548	0.544	0.512	0.439
Observations	740	740	735	735

Table 5: Individual Stated Outcomes for Politics

Notes: * p<0.1, ** p<0.05, *** p<0.01. Benjamini, Krieger and Yekutieli (2006) sharpened two-stage q-values in brackets. Estimates in each column reflect estimates from equation (1), which includes 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, whether they attended some college pre-mission, their participation level in the church pre-mission, their sex, and fixed effects for decade of service. Each outcome with 'FT ...' is the number reported by the respondent on the corresponding feelings thermometer (FT). Each outcome with 'FT ... >50' is an indicator for if the respondent put 50 or higher on the corresponding feelings thermometer, indicating that they feel warmly towards the group. 'Rural Index' is an indicator for being in the top quartile of our index measuring rurality, average age, and fraction with less education than college, 'Av Support Republican' is an indicator for being in the top quartile of Government spending per capita.

donating to conservative political causes¹⁰ by 8.5 percentage points and the likelihood of self-identifying as conservative by 11.9 percentage points. These individuals also choose to donate less to the Democratic Party in the incentivized donation activity. Those assigned to locations with smaller governments are much more likely to engage in learning about politics, i.e. 9 percentage points more likely to read a book and 9.4 percentage points more likely to listen to a podcast about politics.

When again aggregate these individual outcomes into indices and report the results in Appendix Table A.2. We find, if anything, a negative impact on positive sentiment towards conservatism for those assigned to more rural, less educated, older areas, though the coefficients are noisy. When assigned to areas with higher Republican vote share or more conservative attitudes generally we do see some movement. In particular, those assigned to these locations express 0.173 standard deviations more positive sentiment towards Republi-

¹⁰We inferred the political valence of donations, volunteering, and learning by using the reported political leaning of the respondent.

	Read Book	Listen to	Donate to	Volunteer for	Identify as	Protest	Donate to	Donate to
	on Politics	Podcast on Politics	Politics	Politics	Conservative	Mask Mandates	GOP	Democrats
Rural Index	-0.008	-0.001	-0.01	-0.04	-0.041	0.013	0.106	0.153
	[1.000]	[1.000]	[1.000]	[1.000]	[1.000]	[1.000]	[1.000]	[0.585]
Av Support Republican	0.053	0.036	0.085^{*}	0.047	0.119^{**}	0.029	-0.072	-0.18^{*}
	[0.203]	[0.370]	[0.056]	[0.406]	[0.036]	[0.203]	[0.406]	[0.100]
Gov Size	0.09**	0.094^{**}	0.037	0.042	0.057	0.015	0.063	0.001
	[0.049]	[0.049]	[1.000]	[1.000]	[1.000]	[1.000]	[1.000]	[1.000]
Control Means:								
	0.204	0.182	0.171	0.052	0.445	0.051	0.528	0.346
Observations	760	760	760	760	654	660	820	745

Table 6: Individual Behavioral Outcomes Politics

Notes: * p<0.1, ** p<0.05, *** p<0.01. Benjamini, Krieger and Yekutieli (2006) sharpened two-stage q-values in brackets. Estimates in each column reflect estimates from equation (1), which includes 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, whether they attended some college pre-mission, their participation level in the church pre-mission, their sex, and fixed effects for decade of service. 'Rural Index' is an indicator for being in the top quartile of our index measuring rurality, average age, and fraction with less education than college, 'Av Support Republican' is an indicator for being in the top quartile of Government spending per capita.

cans and engage in 0.402 more behaviors related to conservative attitudes. This latter result is a 20 percent increase over those assigned to places with less conservative attitudes. In the last row of Appendix Table A.2 we see a similar increase in behaviors reflecting conservative attitudes for those assigned to places with smaller governments, namely a 0.352 increase (17 percent increase).

5.4 Attitudes towards Women in the Workplace and Related Behaviors

With our current sample size, we are fundamentally underpowered against our gender outcomes. This will improve with the coming increase in responses. These estimates are presented in Tables 7 and 8 and we see very little movement. In our sample, assignments to more socially conservative places, places with more equitable gender attitudes on average, and those with more equitable institutions show little difference on their stated warmth towards stay-at-home moms, working moms, and feminists. They also are not more or less likely to engage in learning about gender or to have differential household responsibilities, i.e. the husband responsible for childcare and/or cleaning and the wife working full-time.

Even with the individual items aggregated, Appendix Table A.3 shows no clear patterns for assignment to locations that are less socially conservative, have less traditional gender norms, or that have more equitable policies and institutions with regard to gender.

	FT Working Moms	FT Working Moms>50	FT Feminists	FT Feminists>50
Urban Index	0.031	0.04	0.008	-0.005
	[1.000]	[1.000]	[1.000]	[1.000]
Av Support Working Women	0.005	0.033	0.028	0.034
	[1.000]	[1.000]	[1.000]	[1.000]
Gender Ineq Index	0.014	0.000	0.005	0.01
	[1.000]	[1.000]	[1.000]	[1.000]
Control Means:				
	0.804	0.860	0.563	0.516
Observations	712	712	710	710

Table 7: Individual Stated Outcomes for Gender

Notes: * p<0.1, ** p<0.05, *** p<0.01. Benjamini, Krieger and Yekutieli (2006) sharpened two-stage q-values in brackets. Estimates in each column reflect estimates from equation (1), which includes 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, whether they attended some college pre-mission, their participation level in the church pre-mission, their sex, and fixed effects for decade of service. Each outcome with 'FT ...' is the number reported by the respondent on the corresponding feelings thermometer (FT). Each outcome with 'FT ... >50' is an indicator for if the respondent put 50 or higher on the corresponding feelings thermometer, indicating that they feel warmly towards the group. 'Urban Index' is an indicator for being in the top quartile of the index of urbanicity, family size, and fraction with a Bachelor's degree, 'Av Support Working Women' is an indicator for being in the top quartile of support for working women, and 'Gender Ineq Index' is an indicator for being in the top quartile of gender wage gaps and the gender inequality index.

6 Behavioral Mechanisms and Implications

Our results provide insight into how different types of attitudes are influenced via exposure to unique characteristics of places and through different experiences. In particular, we find large impacts of exposure to places with different demographic characteristics on racial attitudes and related behaviors. In this section we seek to understand what it is about certain locations that catalyze these effects and for whom.

6.1 What Mechanisms Underpin the Observed Effects?

Understanding simply that people change as a result of exposure to the place where they live is important, but to then make normative statements about potential interventions we must understand something about the mechanisms by which these effects arise. To understand these mechanisms, we explore the impact of place through the demographics or the social attitudes of the people in the mission location as well as through the institutions in that place. We then estimate the impact of our various treatment indices on several

	Read Book on Gender	Listen to Podcast on Gender	Husband Resp for Childcare	Husband Resp for Cleaning	Wife Works Full-time	Donate to NPWF
	0.005	0.004	0.012	0.002	0.027	0.045
Urban Index	[1.000]	-0.004 [1.000]	[1.000]	-0.003	-0.037 [1.000]	[1.000]
Av Support Working Women	-0.003	-0.011	-0.056	-0.015	-0.035	-0.036
	[1.000]	[1.000]	[1.000]	[1.000]	[1.000]	[1.000]
Gender Ineq Index	0.012	0.022	-0.006	-0.001	-0.023	0.161
	[1.000]	[1.000]	[1.000]	[1.000]	[1.000]	[1.000]
Control Means:						
	0.317	0.261	0.591	0.648	0.271	2.305
Observations	842	842	842	842	842	699

Table 8: Individual Behavioral Outcomes Gender

Notes: * p<0.1, ** p<0.05, *** p<0.01. Benjamini, Krieger and Yekutieli (2006) sharpened two-stage q-values in brackets. Estimates in each column reflect estimates from equation (1), which includes 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, whether they attended some college pre-mission, their participation level in the church pre-mission, their sex, and fixed effects for decade of service. 'Urban Index' is an indicator for being in the top quartile of the index of urbanicity, family size, and fraction with a Bachelor's degree, 'Av Support Working Women' is an indicator for being in the top quartile of support for working women, and 'Gender Ineq Index' is an indicator for being in the top quartile of gender wage gaps and the gender inequality index.

potential mechanisms. These mechanisms include whether that was a positive experience; how they felt towards the residents in their area; discussing various social issues during their time volunteering; whether they stayed in contact with people from the location after the volunteering; how open they were to change; whether they changed during or after their mission; whether they observed policies, institutions, and issues while volunteering; and whether they are more familiar with church policy on the specific social issues.

We dig into these mechanisms for each of the main results that we find. In each of the following figures we show the reduced form impacts of assignments to the indicated types of places on each of the above items. In Figure 6 (a) we see that those volunteers who are assigned to places with the highest fraction of Black and Latin American residents are much more likely to report the they had a good experience with the residents in their area. They also report being more likely to have observed policies and issues during their volunteering time.



Figure 6: Mechanisms Suggest Positive Interactions and Political Discussions Matter

Notes: This figure reports regressions of these standardized mechanism indices based on Equation 1. 'Good Exp w/ People' kind, receptive, time in people's homes; 'FT Residents' difference in FT at beginning and end of missions, 'Discussed Social Issues' talked about race, politics, or gender roles; 'Exposed to Policy/Issues' observed issues; 'Kept in Contact' still in contact with residents; 'Openness' openness to change; 'Change During' and 'Changed After' changed their mind on issues during or after their mission; and 'Correct Policy' know the church policy on issues.

For our results relating to politics, we find more noisy patterns in Panel (b) and (c) of Figure 6. Volunteers assigned to locations with the most positive feelings towards Republicans report feeling less positively towards residents and report changing less after their mission on their views relating to race, gender roles, and politics. We are a bit underpowered with the current sample, but the largest positive coefficient is on discussing social issues, suggesting that this contributes to the results we find.

Volunteers assigned to places with lower government spending report having a more positive experience with the people, similar to what we found with the results relating to race.

These patterns suggest that the impacts we observe for assignments to different places not only impact different types of people in different ways, but they also occur through different channels. Our impacts on assignments to places with the most Black or Latino individuals seem to be driven by strong, positive experiences with people and observing the institutions and policies more broadly, whereas the impacts we saw on politics are more likely to be driven by discussing political issues with people in their volunteering area.

6.2 Which Volunteers are More Effected by Place?

A major advantage of our setting is that we have the ability to explore what types of people are more or less impacted since we have information on a large set of baseline characteristics for each of our survey participants. With our current sample size we have limited ability to explore detailed heterogeneity, but with the coming sample increase we will include not only the heterogeneity we begin to explore here but also differences on other margins, such as baseline motivation and childhood mobility.

We focus on one dimension of heterogeneity for each domain: how White the respondent's childhood zip code was, whether their mom worked outside of the home during their upbringing, and the Republican vote share in their childhood zip code. We chose each of these dimensions with the thought that what we would expect to matter when exposed to a new place was essentially how different the relevant experience was from what the volunteer was accustomed to. For example, if a person grew up in a home where their mom worked and their parents shared cooking/cleaning/childcare duties equally they are less likely to be moved by exposure to similar attitudes during their mission, whereas someone who comes from a home with very traditional gender roles would be confronted with a very different viewpoint. Figure 7 shows the comparison between each subgroup.

We see suggestive patterns of heterogeneity, which are stronger for our gender and politics results. The patterns for our results on race are much less clear. Figure 7 provides some suggestive evidence that individuals with different backgrounds (i.e. those who grew up in very white versus less white areas) might move more strongly on different types of outcomes. That said, both groups show positive coefficients and the two are not statistically different, so we should be cautious in reading into these possible patterns.



Figure 7: Suggestive Evidence of Heterogeneous Effects

(a) Racial Outcomes by Childhood Zip Code Diversity



Code Political Leaning



(b) Gender Outcomes by Mother Employment During Upbringing



(d) Political Outcomes by Childhood Zip Code Political Leaning

When we consider Figure 7 however, we see differences between those whose mother worked when they were growing up and those whose mother stayed home with them. The full sample for each of these analyses shows essentially null results across the board. However, when considering just those whose mother worked, we are underpowered but see marginally significant impacts on stated attitudes and behavioral outcomes for those assigned to areas with smaller family sizes that are more urban and educated. When we consider those whose mom did not work while they were growing up, we see null effects, or, if anything, negative effects on behaviors.

Lastly, for politics we see that impacts are driven by those who grew up in more leftleaning areas. In Figure 7 we find that impacts are not meaningfully different for those who grew up in more or less Republican areas. However, when considering volunteers assigned to places with smaller governments in Figure 7 we see a small bump in stated attitudes for those who grew up in left-leaning areas as well as a massive impact on their likelihood to engage in conservative behaviors.

Overall these patterns are consistent with the hypothesis that those who are exposed to ideas, people, and institutions that they are not accustomed to are those who change the most. The coming increase in our sample size will enable much more detailed heterogeneity analysis.

7 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 quasirandom 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 race and politics, but find little impact on their views on gender roles. This is the our main contribution. We also add to our knowledge about place effects by showing some evidence that the novelty of the information matters when considering heterogeneity in the results (i.e. if a person is experiencing new things in the new location) and show that these impacts come through contact with others as well as through learning new information.

Though we find strong causal effects of where a person lives, one important limitation is that the sample of participants are predominantly white, conservative, college-educated, and Christian. While this certainly limits the external validity of these results, similar populations in the US often hold less equitable views about race, poverty, and gender (Doherty, Kiley and Asheer, 2019; Perry, Whitehead and Davis, 2019). These white, socially conservative, religious populations are often the focus of concerns about these attitudes and polarization more broadly.

Interestingly, whereas changes in racial attitudes and behaviors seem to be driven primarily by volunteers having a more positive, personal experience with the residents in the assigned mission location. Changes in political attitudes and actions may be more related to political conversations. This suggests that whereas attitudes about race may be strongly influenced by "contact" (Allport, 1954), not all attitudes are. In fact, if anything, volunteers assigned to places with the highest positive views towards Republicans have slightly more negative experiences with the people. Notwithstanding, we find that they are more likely to have discussed social issues with residents in their missions—suggesting an important social learning mechanism as well.

Our work suggests that programs immersing individuals in communities with divergent demographics, attitudes, and institutions can be powerful tools in mitigating bias towards different groups. These types of programs on a national level could include national or military service. 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.

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A Appendix Tables

	Stated Attitudes	Behaviors
Frac Black/Latino	0.228***	0.466***
	(0.087)	(0.166)
FT Black/Latino	0.059	-0.034
	(0.089)	(0.148)
Wage Gap Index	0.105	0.012
	(0.138)	(0.511)
Control Means:		
	-0.005	2.513
Observations	757	757

Table A.1: Aggregate Results for Stated Racial Attitudes and Related Behaviors

Notes: * p<0.1, ** p<0.05, *** p<0.01. Standard errors are in parenthesis. Estimates in each column reflect estimates from equation (1), which includes 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, whether they attended some college pre-mission, their participation level in the church pre-mission, their sex, and fixed effects for decade of service. 'Stated Attitudes' is a standardized index of the respondent's reported feelings thermometer values for Black people, White people, and Latino people. 'Behaviors' is the number of the following actions they reported: read a book on race, listen to a podcast on race, volunteer for social justice, donate to social justice, vote for a minority candidate, protest police violence, fraction Black/Hispanic in current zip code. 'Donations' is a measure of willingness to pay towards the NAACP. 'Frac Black/Latino' is the indicator for the assigned mission location being in the top quartile of Black and Latin American residents, 'FT Black/Latino' is the indicator for the assigned mission being in the top quartile of feelings thermometer towards those groups, and 'Wage gap index' is the indicator for being in the top quartile of the wage, employment, labor force, and education gaps index between the most and least advantaged ethnic group.

	Stated Attitudes	Behaviors
Rural Index	-0.062	-0.054
	(0.086)	(0.158)
Av Support Republican	0.173^{*}	0.402**
	(0.099)	(0.156)
Gov Size	0.072	0.352**
	(0.098)	(0.155)
Control Means:		
	-0.028	2.039
Observations	760	760

Table A.2: Aggregate Results for Stated Political Attitudes and Related Behaviors

Notes: * p<0.1, ** p<0.05, *** p<0.01. Standard errors are in parenthesis. Estimates in each column reflect estimates from equation (1), which includes 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, whether they attended some college pre-mission, their participation level in the church pre-mission, their sex, and fixed effects for decade of service. 'Stated Attitudes' is a standardized index of the respondent's reported feelings thermometer values for Republicans and Democrats (reverse coded). 'Behaviors' is the sum of the number of the following actions they reported: read a book on politics, listen to a podcast on politics, donate to political causes, volunteer for political causes, protest mask mandates, self report that they are a conservative. 'Donations' is a measure of willingness to pay towards the Republican party and the Democratic party (reverse coded). 'Rural Index' is an indicator for being in the top quartile of our index measuring rurality, average age, and fraction with less education than college, 'Av Support Republican' is an indicator for being in the top quartile of Government spending per capita.

	Stated Attitudes	Behaviors
Urban Index	0.121	0.084
	(0.096)	(0.153)
Av Support Working Women	0.082	-0.209*
	(0.085)	(0.121)
Gender Ineq Index	0.043	-0.008
	(0.101)	(0.145)
Control Means:		
	0.009	2.677
Observations	758	758

Table A.3: Results for Gender Attitudes, Behaviors, and Donations to the National Partnership for Women and Families

Notes: * p<0.1, ** p<0.05, *** p<0.01. Standard errors are in parenthesis. Estimates in each column reflect estimates from equation (1), which includes 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, whether they attended some college pre-mission, their participation level in the church pre-mission, their sex, and fixed effects for decade of service. 'Stated Attitudes' is a standardized index of the respondent's reported feelings thermometer values for stay-at-home moms, mothers who work because they choose to, and feminists. 'Behaviors' is the sum of the number of the following actions they reported: read a book on gender, listen to a podcast on gender, husband in household responsible for childcare, husband in household responsible for cooking/cleaning, wife in household works full-time. 'Donations' is a measure of willingness to pay towards the National Partnership for Women and Families. 'Urban Index' is an indicator for being in the top quartile of support for working women, and 'Gender Ineq Index' is an indicator for being in the top quartile of gender wage gaps and the gender inequality index.

B Pilot Surveys

Before running this project at-scale, we ran several waves of a pilot survey to show the viability of the project; explore important outcomes, heterogeneity, and mechanisms; understand possible sample frames for the project; refine and perfect the survey instrument; and work out details for survey administration. Across all waves of the pilot we collected information on mission service, including crucially when and where the person served, and basic demographics.

We ran the first wave of these pilots in August 2021. In this wave we started with a focus on racial attitudes for 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. Before the start of wave 1, we ran a set of field interviews with former full-time volunteers to design the survey to identify the most plausible dimensions of heterogeneity and mechanisms. Through these interviews we zeroed in on parent political leaning, parent education, and the diversity of the childhood hometown as key dimensions of heterogeneity. Furthermore, we identified the following as important possible mechanisms: information about the size of racial disparities (e.g. 'I didn't realize how large income gaps were between Black and White Americans, but now I know differently'), contact with different types of people (e.g. 'I feel more warmly towards people because I have now met them'), contact with people who have different beliefs and attitudes about the world, opening to future learning about race/racism after the duration of the volunteering, and confirmation of prior stereotypes.

With these in hand, we designed a first survey instrument to elicit attitudes about race and racism. The survey was 20-25 minutes long. The sample frame for this survey was gathered using a website called 'Lifey.org' and can be thought of as a convenience sample. When a volunteer participates in this mission service it is common practice for them to keep a record of their experience for friends and family, and many volunteers do this via an online blog. This website has lists of volunteers who have published blogs for every possible mission assignment location since roughly 2010. We took these lists of volunteers, starting with the most and least racially diverse assignment locations within the US and focusing on college age people, then found these volunteers on social media (primarily Facebook and LinkedIn). We subsequently messaged these individuals to elicit their participation in our survey. In the end we collected 497 responses. Unfortunately we were unable to track response rate (because it was unclear who actually received our messages and whether we correctly identified the person we were looking for who participated in this volunteer service) and we had very high attrition (about 30 percent of participants).

Table B.4 shows the characteristics of the sample for pilot wave 1 on average and shows that those characteristics are very balanced across different types of mission assignments. Importantly, this balance holds not only for characteristics available to the mission leaders making location assignments (i.e. demographics, pre-mission experiences, and mission application information), but this also holds for characteristics unobserved by those leaders. These characteristics can be found in the last panel of Table B.4. This is strong evidence that the assignment of volunteers to location is actually independent of the outcomes we care about.

To overcome some of the major pitfalls in wave 1, continue refining the survey instrument, understand response rates, and explore a different sample frame, we ran a second pilot wave. The revised survey was about 10 minutes long and included questions on attitudes towards race/racism, education, immigration, and government spending. We did not collect all of the same detailed information for balance in this sample since the main goals of this pilot were different than the first wave. The sample frame for the first half (waves 2a and 2b) of this wave was a list of Brigham Young University Idaho (BYU-I) Alumni who posted their information publicly to allow networking for students. BYU-I (and Brigham Young University (BYU) in Provo, Utah) are schools owned and operated by the Church of Jesus Christ of Latter-day Saints. As such, a large fraction of students and alumni are members of the church, and about two thirds did this volunteer mission service. For the second half of this wave (waves 2c and 2d), the sample frame was the same used for the at-scale survey, namely BYU alumni. We collected email addresses for these individuals to administer the survey.

The BYU-I alumni in this sample ranged in age from young professionals to retirees, but all graduated from BYU-I. For wave 2a we still limited participation to volunteers assigned to locations within the US, which ultimately garnered us 145 responses. The response rate was very high (78 percent) and attrition was much lower, around 8 percent. We paid these participants \$12 for participation in the 10 minute survey.

For wave 2b, we took the other half of the BYU-I sample (those who were assigned outside of the United States), and sent them the survey comparing response rates if we asked them to participate out of goodwill rather than paying them. This has several advantages over paying participants, including the ability to survey a larger sample of individuals. In this sample we received 114 responses, which reflects a 48 percent response rate¹¹. Attrition was

¹¹There was some ambiguity about how many non-respondents would have been eligible, but we bound response rates between 68-98% for wave 2a and 42-61% for wave 2b based on best or worst case scenarios of eligibility.

even lower in this sample, with about 4 percent of survey takers attriting.

Since the BYU-I sample is a group of people who are very likely to be more responsive to survey requests than the typical person, we turned to the sample of BYU alumni that we collected for the at-scale survey and sent two more waves testing compensation schemes; one offering a lottery incentive (wave 2c) and one asking individuals to participate out of goodwill (wave 2d). Response rates in each were not substantively different, i.e. 29 percent in wave 2c and 26 percent in wave 2d. This assumes that all of our emails were properly received, since we did not track who ultimately read the email as in pilot wave 3.

We also ran several smaller surveys on the online survey marketplace Prolific to test the viability of specific questions. In particular, we went through several iterations of stated attitudes where we compared trust questions across various groups of people with feelings thermometers. We also went through many iterations of the donation activity in Exley (2020). We found that our setting was quite different than that in Exley (2020) since we had a much shorter time to administer the activity, so ultimately settled on a simplified version that participants in our Prolific sample seemed to understand well.

B.1 Pilot Results

B.1.1 Wave 1 Results

Wave 1 of our pilot had three primary goals: (1) establish the viability of our empirical strategy and explore suggestive results, (2) understand possible dimensions for heterogeneity and mechanisms, and (3) start to refine our survey instrument. Initially in this pilot we focused on racial attitudes and limited our analysis to former volunteers who were assigned within the United States. In particular, the primary outcome in this pilot is the commonly used Racial Resentment Index introduced by Kinder, Sanders and Sanders (1996). This is an index of the respondent giving the following answers to four Likert questions:

- (Agree, Strongly Agree) Irish, Italian, Jewish, and many other minorities overcame prejudice and worked their way up. People of color should do the same without any special favors.
- (Disagree, Strongly Disagree) Over the past few years, people of color have gotten less than they deserve.
- (Disagree, Strongly Disagree) Generations of slavery and discrimination have created conditions that make it difficult for people of color to work their way out of the lower class.

• (Agree, Strongly Agree) It's really a matter of some people just not trying hard enough: if people of color would only try harder they could be just as well off as whites.

High values on this index indicate high levels of stated racial resentment: in particular, a value of four would be the highest level of stated resentment and a value of zero would be the lowest. Our primary results from using this outcome can be seen in Tables B.5 and B.6. Our dependent variable in each of these regressions is an indicator for whether the geographic area covered by the mission location has a higher fraction of Black or Hispanic individuals than the national average (13.4 and 18.5 percent respectively). In column 1 in each table we see that relative to an individual assigned to a mission more white than the national average, those assigned to more racially diverse mission locations have a reduction in stated prejudice of -0.187. The mean for volunteers in our sample assigned to more white missions is 0.92, so this is a large reduction (about 20 percent). For comparison, individuals in our sample exhibit slightly less stated racial resentment than the national average measured in the ANES, both overall and for individuals under 30. Our sample is comparable to other Latter-day Saints surveyed for the ANES. Though this measure is somewhat noisy, it is a meaningful impact on stated prejudice and strongly suggestive of a treatment effect.

Perhaps more interestingly, though, this impact exhibits strong heterogeneity along important dimensions. We find no meaningful heterogeneity for men versus women, but the impact is 50 percent larger in magnitude for those individuals who reported that their parents were strongly conservative or for those who grew up in more white zip codes. We also see a very large effect for those with less educated parents, though the sample size is quite small, so should be interpreted cautiously. One important note about these results is that they are virtually identical when including or excluding the controls for the mission application items, providing strong evidence, in addition to the balance, that our identification is working properly.

In addition to possible sample size concerns, there is one very important caveat to this primary analysis. We had quite high attrition for this survey wave (about 30 percent), but for just over half of those who did not complete the survey we still received information on the Racial Resentment Index. In the above reported results, we limited to those who completed the survey. If we run the same analysis on the sample who never finished the survey, the coefficient on being assigned to a more racially diverse mission is large and positive. It is difficult to interpret this number because the mean for the control observations in this group is very low and there is a small sample size, but this suggests that reducing attrition is a key concern for our analysis.

Keeping this caveat in mind, we also explored the impact of being assigned to a more racially diverse mission on a broader set of outcomes, displayed in Table B.7. The additional outcomes in Table B.7 include the Explicit Racial Resentment Index¹², the Implicit Association Test (Greenwald, McGhee and Schwartz, 1998), whether the participant has read a book on race/racism, whether they have voted for a minority candidate, and whether they voted for Biden in 2020.

The results on the Explicit Racial Resentment scale are even stronger than those on the standard scale presented above. Additionally, those assigned to more racially diverse missions exhibit a lower level of implicit bias towards Black people (a positive coefficient on the Implicit Association Test means a lower automatic preference for White people over Black people), are about 12.1 percentage points more likely to read a book on race, are 13.7 percentage points more likely to vote for a minority candidate at any point in time, and are 7.6 percentage points more likely to have voted for Biden in 2020 (though this measure is not statistically different than 0). These are large and meaningful impacts, not only on stated measures of racial attitudes measured in our survey, but also on a few behavioral outcomes.

We also explored how treatment moved each of the proposed mechanisms during this wave. These include 'Belief' - information about the size of racial disparities (e.g. 'I didn't realize how large income gaps were between Black and White Americans, but now I know differently'), 'Contact' - contact with different types of people (e.g. 'I feel more warmly towards people because I have now met them'), 'Softening' - opening to future learning about race/racism after the duration of the volunteering, and 'Confirmation' - confirmation of prior stereotypes.

Table B.8 displays these results. The contact mechanisms, as measured by the fraction of people that the volunteer visited in their homes on a daily basis who were Black or Hispanic, is the only mechanism strongly moved by treatment. Beliefs (measured by their stated beliefs about the magnitude of racial disparities), Softening (measured by future engagement in learning about race/racism), and Confirmation (measured by agreement with a question asking how much they agreed that they realized on their mission that there is a reason for racial stereotypes) are all much smaller and statistically indistinguishable from zero.

Taken together our results from this wave suggest strongly that assignment to different types of locations moves beliefs in a meaningful way. Additionally, it provides important possible dimensions of heterogeneity (parent political leaning, parent education, and diversity of childhood zip code) as well as possible mechanisms (in particular, contact with a variety of different types of people). These results should be interpreted cautiously, given the nature

¹²An index of the following: (Agree, Strongly Agree) "I resent all of the special attention and favors that people of color receive. Other Americans have problems too.", (Agree, Strongly Agree) "I am concerned that the special privileges for people of color place me at an unfair disadvantage, even when I have done nothing to harm them", (Agree, Strongly Agree) "For people of color to succeed, they need to stop using race as an excuse".

of the convenience sample and the high attrition to the survey.

B.1.2 Wave 2 Results

We first present the analogous results to wave 1 for race and racism in this pilot in Table B.9. These estimates again limit to volunteers assigned in the US, but divide the sample by individuals who finished their volunteering after 2006 (younger cohorts) and those who finished in 2006 or earlier (older cohorts). Though the estimates are all quite noisy, these results suggest interesting cross-cohort heterogeneity. In particular, the impact of being assigned to a more racially diverse location flips signs across the cohorts. We also see signs in the opposite direction for reading books on race and voting for minority candidates than we did in wave 1, but these are all statistically indistinguishable from zero.

We examine not only racial attitudes, but also extend our analysis to views on immigration, shown in Table B.10, and views on politics, B.11. For attitudes relating to immigration we limit to volunteers assigned outside of the United States and compare those assigned to developing countries as opposed to developed nations. Broadly speaking, effects are large but quite noisy, suggesting that further analysis is needed to draw any definitive conclusions. Our outcomes in table B.10 are whether the volunteer says their views on immigration were strongly changed during their volunteering, an index of positive views towards immigrants¹³, and whether the individual has volunteered to help refugees. Again, there may be a hint of cross-cohort heterogeneity in these attitudes, but more analysis is warranted.

The last set of attitudes, those concerning politics, compare volunteers assigned to the US across areas that voted Democrat on average in 2016, as opposed to those who voted Republican in 2016. Though younger cohorts are more strongly impacted, both younger and older cohorts are pushed in the same direction; exposure to people with more liberal political leanings moves the volunteers to vote and affiliate more liberally.

Overall the strength in this wave of the pilot was refining and pinpointing many of the survey administration pieces, but also providing suggestive evidence that many social views are moved by living in different types of places, and that they are moved in different ways.

¹³This is an index of the following: (Disagree, Strongly Disagree) "Immigrants and refugees today are a burden on our country because they take our jobs and social benefits", (Agree, Strongly Agree) "The United States should accept more refugees and immigrants than in recent years", (Disagree, Strongly Disagree) "I would prefer to have fewer immigrants and refugees in my community", (Agree, Strongly Agree) "It is unfair to blame immigrants and refugees for crime more than other groups", and (Disagree, Strongly Disagree) "In general I would be happier to see a relative marry a US native than an immigrant or refugee".

	Sample	More	More	Difference:
	Average	White	Minority	Minority-White
Demographics:				
Female	0.400	0.412	0.391	-0.021
			0.440	[p=0.672]
Non-White	0.121	0.124	0.119	-0.004
				[p=0.898]
Pre-mission Experiences:				
Any College	0.595	0.563	0.618	0.055
Longero de Francesco	0.901	0.002	0.000	[p=0.222]
Language Exposure	0.891	0.905	0.882	[p=0.021]
Foreign Travel	0.586	0.579	0.592	0.013
<u> </u>				[p=0.795]
Weekly Church Participation	0.955	0.953	0.956	0.003
				[p=0.886]
Mission Application:				
Willing to go Foreign	0.960	0.965	0.956	-0.009
TT-11- , T T	0.050	0.040	0.001	[p=0.669]
Willing to Learn Language	0.952	0.942	0.961	[0.020]
Family Mission in Region	0.196	0.181	0.209	0.027
				[p=0.503]
Medical Issue Flagged	0.271	0.257	0.282	0.024
				[p=0.598]
Parent Characteristics:				
Less than Bachelors	0.230	0.218	0.239	0.021
~ . ~				[p=0.616]
Graduate School	0.453	0.512	0.412	-0.100
Bepublicans	0 844	0.847	0.842	[p=0.045] -0.005
rtepublicalis	0.044	0.041	0.042	[p=0.896]
Strong Republicans	0.448	0.488	0.419	-0.069
				[p=0.167]
Pro Redistribution	0.114	0.094	0.131	0.038
Zipcode % Black or Hispanic	0.172	0 161	0.180	[p=0.249] 0.019
Enprove 70 Black of Hispanie	0.112	0.101	0.100	[p=0.241]
				[[r 0.211]

Table B.4: Balance in Characteristics Across Different US Missions

Notes: 'More White' refers to volunteers who were assigned to mission locations that have less Black/Hispanic individuals than the national average in the US, whereas 'More Minority' is the converse.

	Full	Sex		Parent Political		Parent Education	
	Sample	Female	Male	Strong Rep	Other	Less than BA	BA +
Minority Rich Mission	-0.187	-0.167	-0.180	-0.279	-0.087	-0.975	-0.001
	(0.132)	(0.168)	(0.203)	(0.219)	(0.159)	(0.340)	(0.143)
Control Means:							
White Mission (Pilot)	0.92	0.75	1.09	1.14	0.72	1.43	0.81
National (ANES)	1.55	1.61	1.50				
Under 30 (ANES)	1.27	1.20	1.35				
Latter-day Saint (ANES)	0.91	0.79	1.04				
Observations	299	155	144	129	168	60	239

Table B.5: Pilot Wave 1 Results using the Racial Resentment Index

Notes: Standard errors in parentheses. 'Minority Rich Mission' indicates assignment to a mission with more Black/Hispanic individuals than the national average in the US. The outcome is the Racial Resentment Index from Kinder, Sanders and Sanders (1996).

	Full Sample	Childhoo Diverse	d Zipcode White	Interracia	al Friendship No	One Caveat
	Sample	Diverse	Willie	105	110	Caveat
Minority Rich Mission	-0.187 (0.132)	-0.039 (0.188)	-0.309 (0.193)	-0.329 (0.161)	-0.145 (0.269)	0.627 (0.291)
Control Means:						
White Mission (Pilot)	0.92	0.94	0.86	0.96	0.93	0.64
National (ANES)	1.55	1.78	1.43			
Under 30 (ANES)	1.27	1.28	1.25			
Latter-day Saint (ANES)	0.92	0.79	0.90			
Observations	299	146	136	192	79	65

Table B.6: Pilot Wave 1 Results using the Racial Resentment Index (cont.)

Notes: Standard errors in parentheses. 'Minority Rich Mission' indicates assignment to a mission with more Black/Hispanic individuals than the national average in the US. The outcome is the Racial Resentment Index from Kinder, Sanders and Sanders (1996).

	Explicit Resentment	Implicit Association	Book on Race	Vote for Minority	Vote for Biden
Minority Rich Mission	-0.203 (0.116)	0.309 (0.176)	0.121 (0.057)	0.137 (0.056)	0.076 (0.058)
Control Means:					
White Mission (Pilot)	0.94	-1.39	0.35	0.57	0.33
Observations	299	266	299	296	282

Table B.7: Additional Outcomes from Pilot Wave 1

Notes: Standard errors in parentheses. 'Minority Rich Mission' indicates assignment to a mission with more Black/Hispanic individuals than the national average in the US.

Table B.8: Impact of Assignment to a Racially Diverse Location on Possible Mechanisms

	Belief	Contact	Softening	Confirmation
Minority Rich Mission	$0.067 \\ (0.065)$	0.514 (0.114)	$0.160 \\ (0.116)$	-0.064 (0.117)

Notes: Standard errors in parentheses. 'Minority Rich Mission' indicates assignment to a mission with more Black/Hispanic individuals than the national average in the US.

	Your	nger Cohor	ts	Older Cohorts			
	Racial	Book on	Vote for	Racial	Book on	Vote for	
	Resentment	Race	Minority	Resentment	Race	Minority	
Minority Rich Mission	-0.242 (0.316)	-0.056 (0.139)	-0.071 (0.134)	$0.664 \\ (0.378)$	-0.056 (0.145)	-0.112 (0.121)	
Control Means:							
White Mission (Pilot)	0.94	0.54	0.63	1.09	0.65	0.80	
Observations	63	63	63	54	54	54	

Table B.9: Pilot 2 Results on Racial Attitudes

Notes: Standard errors in parentheses. 'Minority Rich Mission' indicates assignment to a mission with more Black/Hispanic individuals than the national average in the US. The outcome is the Racial Resentment Index from Kinder, Sanders and Sanders (1996).

		Younger Coh	Older Cohorts			
	Attitudes	Attitudes Positive Volunteer for		Attitudes	Attitudes Positive	
	Changed	Immigrant	Refugees	Changed	Immigrant	Refugees
Developing Country	$0.132 \\ (0.127)$	$0.158 \\ (0.414)$	$\begin{array}{c} 0.073 \\ (0.125) \end{array}$	0.056 (0.133)	$0.192 \\ (0.404)$	-0.172 (0.134)
Control Means:						
White Mission (Pilot)	0.36	2.05	0.32	0.39	2.59	0.55
Observations	59	59	59	56	56	56

Table B.10: Pilot 2 Results on Immigration Attitudes

Notes: Standard errors in parentheses. 'Developing Country' indicates assignment to a mission with in a developing country. The outcome is an index of attitudes towards immigration mirroring the Racial Resentment Index from Kinder, Sanders and Sanders (1996).

	Younger (Cohorts	Older Cohorts		
	Report Vote for		Report	Vote for	
	Republican	Biden	Republican	Biden	
Area Voted Democrat Control Means:	-0.035 (0.128)	0.178 (0.117)	-0.011 (0.129)	0.111 (0.128)	
White Mission (Pilot)	0.59	0.32	0.70	0.31	
Observations	61	63	53	54	

Table B.11: Pilot 2 Results on Political Attitudes

Notes: Standard errors in parentheses. 'Area Voted Democrat' indicates assignment to a mission in the US that voted Democrat on average in the 2016 presidential election.