Missionaries and the Birth of International Development*

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Abstract

The United States used to be the world's leading provider of foreign aid. Was it merely an instrument of statecraft, or did it also reflect civil society preferences? This paper studies this question through the Student Volunteer Movement, the largest American Protestant missionary movement of its era. To isolate missionary exposure, I use denominations' exposure to the movement's unexpected 1886–87 campaign, recentered on YMCA networks, as an instrument. I find that missionary exposure increased congressional support for major foreign aid bills between 1945 and 1989, the period in which the modern aid regime and its domestic foundations were built. The effect follows the movement's quasi-random timing variation closely: it is driven by YMCA exposure already in place just before 1886 and is absent for YMCA exposure accumulated only afterward. I then trace the social infrastructure through which this exposure persisted and diffused into postwar politics. Missionary-linked denominations organized foreign aid advocacy in their own name, and legislators from exposed areas described aid in cooperative and developmental terms. Exposed places continued to produce more Peace Corps volunteers and overseas-aid nonprofits, extending this orientation beyond Congress. Individual-level evidence shows that missionaries generated knowledge of non-Western societies, visible in publications and WWII expert roles. Missionary exposure predicted greater foreign aid support precisely where

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it produced more of this expertise, whose value rose during the postwar era of decolonization and international development.

1. Introduction

This paper investigates the historical origins of domestic support for U.S. foreign aid. Is foreign aid simply a tool of geopolitical strategy, or does its political support also reflect preferences rooted in civil society? Modern foreign aid took durable form only after World War II, as part of a broader wave of international cooperation aimed at global development and sustained by the belief that richer countries should help raise living standards elsewhere (Myrdal, 1970; Sen, 1999; Duflo & Banerjee, 2011). The United States led this effort (Qian, 2015), making development assistance a central pillar of postwar U.S. global strategy (Nye, 2015) and shaping the development agenda in low-income countries (Bendavid *et al.*, 2012; Galiani *et al.*, 2017; Kremer *et al.*, 2021; Pritchett, 2022; Shastry & Tortorice, 2025; Nicolini & Sabatini, 2026).

Despite its importance, the domestic origins of foreign aid remain ambiguous. One view sees aid primarily as a top-down instrument of statecraft, used by foreign policy elites to advance geopolitical interests (Morgenthau, 1962). On this account, aid has little independent social foundation and becomes vulnerable whenever strategic priorities shift. A second view holds that the political foundations of foreign aid also reflect a broader humanitarian internationalism—a commitment to poverty alleviation and human development that can sustain support for aid even when immediate geopolitical gains are unclear (Lumsdaine, 1993). While both perspectives capture important facets of foreign aid, existing empirical work has found much stronger evidence for the strategic view than for the humanitarian one (Alesina & Dollar, 2000; Qian, 2015). The dismantling of the U.S. Agency for International Development in 2025 has renewed the question of whether foreign aid rests only on state priorities or also on deeper social foundations.

This paper tests a longstanding hypothesis, associated with Lumsdaine (1993), that support for U.S. foreign aid cannot be understood solely through geopolitics but also has deeper social foundations in civil society. Building on Hollinger (2018), who highlights the role of Protestant foreign missionaries in shaping American internationalism in the early twentieth century, I use historical variation in exposure to the Student Volunteer Movement to study its influence on the subsequent political support for U.S. foreign aid.

Foreign missions provide a compelling setting because missionaries maintained unusually sustained contact with non-European societies at a time when official diplomatic and commercial ties remained limited. Their experience became especially valuable after World War II, when decolonization placed poverty and development at the center of U.S. foreign

policy (Brown, 1907; Hocking, 1932; Gold, 2002; Bays & Widmer, 2009; Hollinger, 2018). A contemporary observer described this reverse influence as a "missions boomerang" that had come back to "smite the imperialism of the white nations, as well as to confound the churches" (Gallagher, 1946, p. 56).

To study this question, I compile a novel dataset from archival records of the Student Volunteer Movement (1886–1964), which represented about 75 percent of all American missionaries during this period (Hodges, 2017, p. 48). The data contain biographical records of 12,265 missionaries and 24,841 applicants who did not ultimately serve abroad, all from Protestant denominations.

Because missionary influence spread through denominations rather than remaining within a missionary's home congregation, I measure missionary exposure using a denomination-level shift-share design, where the "shift" is missionaries per denomination members and the "share" is each denomination's membership in a congressional district.

To isolate plausibly exogenous variation in missionary exposure, I instrument missionary activity with denomination-specific exposure to the Student Volunteer Movement's 1886–87 recruiting tours. The instrument exploits cross-denominational spillovers induced by the tours while controlling for the pre-existing YMCA network that determined the tours' locations.

Three pieces of evidence support a causal interpretation. First, the movement arose abruptly in 1886 with the aim of religious conversion, not the schools, hospitals, and development work that missions took up only decades later (Hollinger, 2018, p. 9); which denominations its recruiters first reached is therefore plausibly orthogonal to later preferences over foreign aid. Second, I exploit sharp timing variation in the YMCA network. Exposure built from chapters in place by 1884, before the movement, predicts both missionary recruitment and later aid support, while exposure from the compositionally similar 1889 network predicts neither, tying the effect to the movement's sudden arrival rather than to an internationalism already latent in the YMCA's footprint. Third, in a placebo test the instrument does not predict the 1882 Chinese Exclusion vote, providing a pre-treatment political balance check. It also does not predict later prewar isolationist votes.

Using this instrumental variable approach, I find that congressmen representing denominations with greater exposure to missionaries were more likely to support foreign aid legislation during 1945-1989. The fully controlled IV estimate is 0.20-0.33 percentage points per additional missionary per million church members. At the mean exposure in the fully controlled estimation sample, a 10 percent reduction in missionaries would lower pro-aid voting by about 3 percentage points. The post-1991 estimates are small and not statisti-

cally significant. This temporal pattern locates the political effect in the period when the aid regime and its legislative coalition were being built. The evidence below shows that the preferences carried by this coalition were cooperative and developmental and that they persisted in civic activity after their effect on roll-call voting had weakened.

I then address three remaining questions: why missionary exposure affected aid votes, whether the effect reflected a durable preference rather than Cold War politics, and how missionary activity translated into legislative behavior decades later.

First, I examine the mechanism. Missionary-linked denominations advocated for foreign aid in congressional hearings and joined postwar institutions such as Church World Service, and representatives from more exposed areas described aid in more cooperative, developmental, and agency-oriented terms.

Second, I show that the underlying preference persisted and diffused beyond the wartime and Cold War legislative coalition. Missionary exposure predicts more Peace Corps volunteers from 1961 to 2000 and more overseas aid nonprofits in the 2000s.

Third, I identify an information channel linking missionary exposure to postwar foreign-aid votes. Missionaries who produced knowledge about non-Western societies predict aid support more strongly than missionary presence alone. To distinguish expertise generated through overseas service from the prior selection of knowledgeable applicants, I compare missionaries with individuals from the same applicant pipeline who never served abroad. Overseas service increased publications and dissertations on foreign societies and placed missionaries and their children in institutions such as the Smithsonian and the OSS. These forms of expertise became increasingly valuable as World War II and decolonization expanded the demand for knowledge of the non-Western world. Consistent with this mechanism, missionary exposure produced stronger support for foreign aid precisely where it generated more such expertise.

Related literature. This paper contributes to several strands of economics literature. First, it speaks to the political economy of foreign aid. Policy outcomes can be explained by the interaction of voter preferences (demand) and politicians' incentives (supply). Preference-based explanations play a large role in studies of domestic redistribution and trade or immigration policy, but much less is known about whether domestic preferences shape foreign aid. Existing research has primarily studied foreign aid as a problem of cross-country allocation, asking why donor governments provide aid to some recipient countries rather than others (Eisensee & Strömberg, 2007; Alesina & Dollar, 2000; Kuziemko & Werker, 2006; Faye & Niehaus, 2012; Nunn & Qian, 2014; Budjan & Fuchs, 2021). This perspective has naturally emphasized supply-side explanations based on governments' strategic

and political incentives.

An important exception is Lumsdaine (1993), who argues that the postwar foreign aid regime cannot be understood solely in terms of donor interests and emphasizes the role of humanitarian values and domestic political preferences. Subsequent work provides further evidence that religiosity, moral beliefs, and other individual-level characteristics are associated with support for foreign aid (Milner & Tingley, 2010; Paxton & Knack, 2012; Heinrich, 2013; Kertzer *et al.*, 2014; Kertzer & Zeitzoff, 2017; Enke *et al.*, 2023). Much of this evidence, however, is correlational or focuses on stated attitudes, leaving open whether such preferences can meaningfully affect high-stakes policy outcomes. I address this question using a historical natural experiment. I show that civil-society mobilization generated persistent differences in exposure to the developing world and that these differences subsequently shaped congressional support for foreign aid during the formation of the postwar U.S. aid regime. The paper therefore provides evidence that domestic moral and religious constituencies can affect not only attitudes toward foreign policy, but also national policy choices.

Second, the paper speaks to work on foreign exposure, return migration, and the diffusion of political ideas. Existing studies show that foreign education, labor migration, and overseas political experience can transmit norms and institutions across borders (Spilimbergo, 2009; Barsbai *et al.*, 2017; Rapoport *et al.*, 2020; Jha & Wilkinson, 2023; Ottinger & Rosenberger, 2023; Kung & Wang, 2025). My setting instead follows missionaries returning from poorer and non-Western societies and links their experience to a donor-country constituency for policies directed abroad. It also speaks to work on leaders, influential individuals, and elite networks in political economy (Jones & Olken, 2005; Besley *et al.*, 2011; Yao & Zhang, 2015; Dippel & Heblich, 2021; Wang, 2021; Bai *et al.*, 2023; Cagé *et al.*, 2023; Carreri & Payson, 2024; Boudreau *et al.*, 2025; Ferrara *et al.*, 2025; Ottinger & Voigtländer, 2025; Easterly & Pennings, 2025; Ash *et al.*, 2026).

Third, this study contributes to the literature on foreign missions and economic development (Nunn, 2010; Woodberry, 2012; Bai & Kung, 2015; Wantchekon *et al.*, 2015; Cagé & Rueda, 2016; Waldinger, 2017; Valencia Caicedo, 2019; Becker & Won, 2021; Calvi *et al.*, 2022; Izumi *et al.*, 2023; Becker & Won, 2024; Brown, 2024; Sola, 2024) and to research on religion as a source of economically consequential beliefs and institutions (McCleary & Barro, 2006; Becker *et al.*, 2024; Bentzen *et al.*, 2026). Most of this literature studies the consequences of missions for destination societies. I examine the reverse direction: how overseas missions changed the beliefs and political behavior of people in the sending country.

Two recent studies provide individual-level evidence for such a channel. Exploiting the

quasi-random assignment of Latter-day Saint missionaries across destinations, Crawfurd (2021) finds that assignment to poorer regions affects subsequent interest in global development and charitable behavior. Using a related research design, Berinsky *et al.* (2023) shows that missionaries exposed to social environments with greater opportunities for immigrant contact subsequently adopt more favorable immigration attitudes. These studies demonstrate that missionary service can causally reshape the political and social preferences of the individuals who serve abroad. I study whether this overseas exposure scaled through religious organizations into a durable domestic constituency capable of changing national foreign policy. In doing so, the paper connects historical accounts of American missionaries' influence on U.S. engagement with the non-Western world (Gallagher, 1946; Gold, 2002; Tyrrell, 2010; Hollinger, 2018; Turek, 2020; Conroy-Krutz, 2024) to causal evidence on the political consequences of missionary mobilization.

2. Background

2.1 Foreign missions and American knowledge of non-European societies

In the early twentieth century, Protestant foreign missions were deeply embedded in the colleges, YMCA networks, mission boards, publishing circuits, and voluntary associations that shaped mainstream U.S. civic life, making them capable of converting overseas religious activity into a domestic constituency. Other missions were important but less central to this institutional pathway. Latter-day Saint missions accounted for 12.2 percent of American missionaries in the 1916 Census, yet only negligible shares of mission schools, students, and philanthropic institutions abroad (Hunt & Bliss, 1919, p. 96). Catholic foreign missions were also substantial, but the Census does not report comparable Catholic institutional counts, underscoring that Catholic foreign work was not organized through the same denominational and college-based categories. The distinction is consistent with the observation that conversionary Protestantism had a distinctive institutional footprint through education, printing, voluntary organization, and civil society (Woodberry, 2012).

The largest such movement was the Student Volunteer Movement (1886-1964), originating from a local YMCA conference in 1886 (Beahm, 1941; Ramsey, 1988). By 1920, it had attracted approximately 48,000 volunteers, with 12,000 ultimately serving abroad, representing about 75 percent of American missionaries overseas at that time (Hodges, 2017, p. 48). Figure 1 shows that the annual number of volunteers who sailed abroad rose steadily from the 1890s and reached its peak in the early 1920s before declining sharply over the following decades. World War I and internal controversy within the SVM over whether

social welfare or religious conversion should take priority both contributed to the long-run decline in applications to the movement (Showalter, 1990; Parker, 1994; Hollinger, 2018).

Interactions with local communities gradually led many missionaries to prioritize education and medicine over religious conversion. This reorientation was partly pragmatic because indigenous populations often showed little interest in Christianity, while schools and hospitals received greater approval (Ramsey, 1988, p. 89). Missionaries increasingly served as teachers, doctors, nurses, agricultural experts, and architects rather than pastors. But the change also reflected a critical reassessment of the premises of the missionary enterprise itself. Drawing on her experience in Persia, Mary Schauffler Platt argued that missions should be understood as friendship and cooperation rather than tutelage. Americans should relinquish influence and allow indigenous people to lead their own societies (Hollinger, 2018, p. 65). Such views remained contested, but the interdenominational Hocking report represents an influential effort, after decades of internal debate, to consolidate this turn toward social welfare and a less paternalistic relationship with local communities (Hocking, 1932).

As priorities evolved, many missionaries began to engage deeply with local development challenges, moving beyond their original religious goals. Some pursued advanced studies in related fields, further broadening their expertise. John Lossing Buck, an agricultural missionary in China, wrote a dissertation on the Chinese rural economy and went on to work as an agricultural economist for the UN Food and Agriculture Organization. His wife, Pearl Buck, grew up in China as the daughter of missionaries and drew on that experience for *The Good Earth*, her Pulitzer Prize–winning novel depicting the lives of Chinese peasant farmers. She later received the Nobel Prize in Literature. She was also widely known for her philanthropic work, which included advocacy for racial equality and the adoption of mixed-race children. These missionaries produced scholarly works on a wide range of topics including agricultural development, nursing practices, medicine, psychology, geography, international relations, and the histories of their host countries (Laubach, 1925; Higginbottom, 1926; Wilson, 1926; Earle, 1929; Buck, 1930; Cressey, 1930; Manchester, 1931; Wright, 1941; Landon, 1943; Haring, 1946; Wiser & Wiser, 1971).

World War II and the subsequent waves of decolonization positioned many missionaries as key authorities when the U.S. government began navigating global affairs. Missionaries were among the few experts on non-European regions, and their insights were highly valued, as demonstrated by their substantial contributions to the war effort. Before the Japanese attack on Pearl Harbor, the U.S. government had underestimated Japan's military capabilities and the likelihood of war. Stanley Hornbeck, a special adviser to the Secretary of State, believed as late as November 1941 that Japan would back down in response to a U.S. trade

embargo (Wohlstetter, 1962, pp. 264-65). General Douglas MacArthur even suggested that the pilots involved in the attack must have been white mercenaries, doubting Japan's ability to execute such an operation (Andrew, 2018, p. 636).

In contrast, those with missionary connections in China or Japan recognized the growing threat of Japanese militarism and expressed concerns about potential conflict before World War II. Edwin Reischauer, a missionary's son and later a professor of Asian Studies, proposed a Japanese language training program in 1940, believing war with Japan was likely and the U.S. was unprepared (Japan Society of Boston, 2022). Ernest Price, a former missionary in China and political scientist, warned of conflict after observing Japan's puppet state in China (Price, 1935). Walter Judd, a former medical missionary in China and later a U.S. congressman, delivered 1,400 speeches across 46 states between 1938 and 1940, warning of the growing threat from Japan and the dangers of an isolationist foreign policy (Gao & Osburn Jr, 2016).

When the need arose for a better understanding of Japan and the Asia-Pacific region, very few individuals in the U.S. had relevant regional knowledge. It required understanding "the Communist Party of India and the puppet regime in Nanking, inflation in Burma and guerrillas in the Philippines, trade routes in the Congo basin and rival cliques in the Japanese Army." (Katz, 1989) When the U.S. government assembled a small group of individuals with actual knowledge of these areas, many were missionaries or their children. They held key positions in intelligence agencies and the State Department (Reynolds, 2005; Packard, 2010; Hollinger, 2018; Price, 2016; Thomas, 2016; Sutton, 2019). Their knowledge and networks were relevant even to people without direct connections to missionaries. John Fairbank, a prominent American historian of China, relied extensively on missionary networks during his research in China and later while working for the Office of Strategic Services (OSS) during World War II (Fairbank, 1983). Hollinger (2018, p.233) observes that academics who had been missionaries or were raised as missionary children were among the leading authorities on non-Western countries until the mid-1960s.

2.2 Foreign missions and the emergence of U.S. foreign aid

During the latter half of the twentieth century, the U.S. increased its spending on foreign aid. Although U.S. foreign aid as a share of GDP is not higher than that of many other advanced economies, the country remained the largest donor in absolute terms (Qian, 2015). Foreign aid reached its peak at 3 percent of U.S. GDP during the Marshall Plan era, and throughout subsequent decades of the Cold War, its share fluctuated between 1 percent and slightly below 0.5 percent (Ingram, 2024).

Foreign aid accounts for a large portion of the budget in many developing countries. By the 1980s, net foreign aid had surpassed net foreign direct investment from multinational corporations as the primary financial flow from advanced countries to the developing world (Lumsdaine, 1993, p.105). In some recipient countries, foreign aid accounted for over 10 percent of GDP (World Bank, 2005).

Support for foreign aid in advanced economies, particularly in the post-World War II period, was rooted in both political and cultural factors. Lumsdaine (1993) argues that in Scandinavian countries, the labor unions' internationalist doctrine, which emphasized political equality, was closely linked to support for foreign aid. Meanwhile, in the United States, Christianity played a prominent role in shaping foreign aid, emphasizing values of compassion and charity.

The U.S. foreign aid initiative was not entirely novel; by the time the Point Four Program was launched in 1949, American missionaries had long been active in low-income countries. Missionaries had established schools, hospitals, social service centers, and demonstration farms (Maddox, 1956; Curti, 1963; Bremner, 1988; Curtis, 2018; Turek, 2020).

Missionaries influenced public opinion in the U.S. through extensive public outreach. Hundreds of missionaries who had served in China alone gave an estimated 30,000 speeches annually in colleges, churches, and community gatherings, reaching millions of Americans (Reed, 1983, p. 127). Their efforts sparked an interest in international humanitarian work. By 1920, about 5 percent of American college students were learning about foreign missions, even without intending to become missionaries (Ramsey, 1988, p. 71). Henry Luce's essay, "The American Century" (1941), offers one prominent example of missionary-linked internationalism entering mass public argument. Luce, himself the son of Presbyterian missionaries in China, called on the United States to act as "the Good Samaritan of the entire world," urging that "for every dollar we spend on armaments, we should spend at least a dime in a gigantic effort to feed the world" (Luce, 1941). Similarly, Walter Judd, a former missionary and later a Republican congressman, became a key figure in promoting foreign aid (Gao & Osburn Jr, 2016; Turek, 2024). By the mid-1950s, religious organizations had become prominent advocates for foreign aid, bringing organized constituencies into congressional debate (Turek, 2024; US Congress House Committee on Foreign Affairs, 1957).

Critics of foreign aid, including Barry Goldwater, questioned whether aid served U.S. strategic interests. He asked: "Has the Foreign Aid program... contribut[ed] toward winning the Cold War?... [T]his test... is the only one under which the Foreign Aid program can be justified... Increasingly, our foreign aid goes not to our friends, but to professed neutrals

and even to professed enemies...Is American aid likely to make these nations less pro-Communist? Has it?" (Goldwater, 1960) Goldwater's question implies a perception that aid was being used for reasons other than straightforward geopolitics. This view is echoed by Heritage Foundation (2023), who note that "U.S. foreign aid is too often disconnected from the strategy and practice of U.S. foreign policy." While they did not claim to know those motives with certainty, this line of critique raises the question of whether the U.S. foreign aid program rested at least in part on considerations beyond raw strategic calculus.

3. Data

Student Volunteer Movement records. The paper's core dataset is manually constructed from a historical archive housed at the Yale Divinity Library. The Student Volunteer Movement tracked all individuals who volunteered for missionary work. For this study, I scanned and digitized individual-level records scattered across several repositories in the archive. The dataset includes personal information such as individual names, birth years, states and towns of residence, destination countries, and religious denominations, with varying levels of detail depending on available records. The dataset covers Protestant denominations only; Catholics, Latter-day Saints, and Jewish congregations are not included.

The digitization process yielded data on 12,265 missionaries and 24,841 applicants who did not ultimately serve as missionaries. This dataset includes notable figures introduced in the background section, such as Henry W. Luce, Walter Judd, and John Lossing Buck. Table B.16 shows that denomination information is available for 9,755 of the 12,265 missionaries in the sample. As Appendix B.1 explains, denominational coverage is more complete for the pre-1922 period, when data were organized in table format, than for the later period, when the SVM was tapering off and missionaries were instead identified from individual application records rather than tabulated lists. For more details on the digitization process, see Appendix B.1.

Congressional votes. Data on roll-call voting by U.S. congressmen are sourced from VoteView (Poole & Rosenthal, 2000). To assemble the list of foreign aid legislation, I draw on three complementary sources. First, I identify all foreign aid legislation in the Comparative Agendas Project,[1] using the filter `pap_subtopic=1901 (foreign aid)` and retaining only conference adoption votes or final passage votes. The salience of these bills varies considerably: some are routine budget authorizations, while others are highly contested.

[1] https://www.comparativeagendas.net/project/us

Second, to capture more substantively important legislation, I compile a broader set of major foreign aid bills drawing on Oxfam (2009), which reviews U.S. foreign aid programs and lists major acts enacted between 1946 and 2008. The Oxfam report itself builds on legal research by Dechert LLP (2008). Third, I focus on the final roll-call votes for five landmark pieces of legislation that expanded foreign aid: the Marshall Plan (1948), the Point Four Program (1949), the Mutual Security Act (1951), the funding authorization for the International Development Association (1960),[2] and the Foreign Assistance Act (1961), which was followed by the establishment of the U.S. Agency for International Development (USAID). These key bills were identified through Lumsdaine (1993) and Stathis (2014).[3]

I exclude congressmen who did not participate in a given vote, as non-participation was most commonly due to travel and scheduling constraints rather than strategic considerations. Taking the union of the three sources yields 96 foreign aid bills spanning 1946 to 2017, of which 28 come from the Oxfam list.

As placebo outcome variables, I also examine congressional votes on foreign policies related to support for isolationism, including the Chinese Exclusion Act (1882), the McKinley Tariff Act (1890), and the Immigration Act (1891). I also examine congressional support for isolationist foreign policy before World War II by analyzing votes on the Immigration Act of 1924 (the Johnson-Reed Act), the Neutrality Acts of 1936, 1937, and 1939, and the Lend-Lease Act of 1941.

Census of Religious Bodies. The number of church members of each Protestant denomination in each county is gathered from the Census of Religious Bodies (1890). These data are combined with standard county-level data from the National Historical Geographic Information System (NHGIS). I link 47 Protestant denominations to the Census of Religious Bodies (1890) to create a variable that captures county-level exposure to missionaries. The 1890 census is regarded as exceptionally high quality (Finke, 1989).

Travel secretaries and YMCA chapters. To construct the instrumental variable, I use the routes of the Student Volunteer Movement's travel secretaries in 1886 and 1887.

[2]The International Development Association provides additional funding for developing countries within the World Bank.

[3]Although Europe was not the main geographic field of American Protestant missions, I include the Marshall Plan because the outcome is intended to capture a broader internationalist orientation toward overseas assistance, rather than sympathy only for particular mission fields. This interpretation is consistent with the careers of figures who connected missionary experience or missionary-family backgrounds to postwar internationalism. Walter H. Judd, a former medical missionary in China and later a member of Congress, was an important supporter of postwar internationalist programs, including the Truman Doctrine, the Marshall Plan, NATO, and technical assistance. Harry Bayard Price provides another example: born in China to missionary parents, he later served as a Marshall Plan administrator, interviewed George C. Marshall, and wrote an early account of the program, *The Marshall Plan and Its Meaning* (Price & Foulke, 1952; Price, 1955; Find a Grave, 2021).

The places visited by travel secretaries are listed in issues of *Missionary Review of the World* published from February through June 1887. The February 1887 edition includes locations visited in the preceding months. The denominational affiliations of colleges visited by travel secretaries were obtained from Xiong & Zhao (2023) and cross-referenced with the predominant denominations of college students recorded in the Student Volunteer Movement archives.

Travel secretaries set their routes in coordination with local YMCA chapters. I recover the locations of YMCA chapters in 1881, 1884, and 1889 from *Intercollegian* magazine, whose microfilmed records are available at the New York Public Library.

Denominational support for foreign aid in congressional testimony. I identify denominations supporting foreign aid programs from congressional hearings (US Congress House Committee on Foreign Affairs, 1957, p.196). Harper Sibley, Chairman of the Department of Church World Service of the National Council of Churches, testified at the hearings, emphasizing that denominations affiliated with the Church World Service had been actively involved in private aid distribution to developing nations. He reported that over 35 million individuals participated in these efforts, which resulted in $110 million in aid disbursements between 1946 and 1956.

Foreign aid speech content. To characterize how members of Congress justified foreign aid, I construct a speech-level dataset from congressional speeches that discuss foreign aid. I exclude purely procedural or parliamentary remarks and retain only substantive discussions of aid. I then use a large language model to classify each speech into a set of pre-specified framing categories, such as support for aid expansion versus reduction, cooperative versus militant internationalism, recipient suffering versus recipient agency, short-run crisis versus long-run development, U.S. economic versus security interest, and moral duty versus human dignity. The model is used as a structured coding tool rather than for open-ended interpretation: it assigns labels based on the underlying rhetorical content of each speech, allowing consistent classification across historical periods despite changes in vocabulary. I then aggregate these speech-level classifications to the congressman–Congress term level for the main analysis. Full prompt wording, coding rules, and output structure are reported in Appendix Section A.8.

Other geographic controls. To count the number of college students in each county, I use Xiong & Zhao (2023). To construct standard county-level controls, I use county-level censuses from the National Historical Geographic Information System (NHGIS) and individual-level census data (Ruggles *et al.*, 2010). County market-access data come from Donaldson & Hornbeck (2016) and Hornbeck & Rotemberg (2021); I use market access in

1900. Agricultural land suitability is from Ramankutty *et al.* (2002). I transform county-level data into congressional-district-level data following the population-weighting method in Ferrara *et al.* (2024).

Individual census. To measure the socioeconomic backgrounds of individual missionaries, I link data on missionaries and volunteers to U.S. individual-level census records from 1900 and 1910. I follow Abramitzky *et al.* (2021) to implement an automated iterative linkage procedure.

Publication output. To estimate the effects on the understanding of foreign cultures, I use two distinct bibliometric datasets to measure knowledge output. First, I collect graduate dissertation data from ProQuest Dissertations Theses. I match individuals to this dataset using first name, middle initial, and last name. Second, I gather data from OpenAlex, which provides publication data on books, academic journals, and conference proceedings. For this dataset, I match on exact names for publications between 1880 and 1945. Based on dissertation or publication titles, I classify output as foreign-related if the title includes foreign country or region names. The list of keywords used for this classification is provided in Appendix B.3.

Regional expertise during World War II. I quantify the policy relevance of knowledge output in the context of World War II, when the U.S. government attempted to understand the Asia-Pacific region (Hollinger, 2018; Sutton, 2019).

I use two data sources to compile a list of individuals involved in foreign intelligence during World War II. First, I use the roster of world specialists from the Ethnographic Board (Bennett, 1947), a branch of the Smithsonian Institution that served during World War II as a clearinghouse for intelligence agencies in the U.S. military and the State Department. The Ethnographic Board consulted universities, academic societies, industries, and missionary churches to compile a roster of individuals knowledgeable about foreign countries, especially non-European areas. These rosters were sent to the Office of Strategic Services, the Board of Economic Warfare, the War Department, the Navy Department, the State Department, and many other intelligence agencies. I collected and digitized these data from the Smithsonian Institution Archives in Washington, D.C.

Apart from the Smithsonian roster, I use the Office of Strategic Services (OSS) roster, which is available online (see Appendix B.2). A limitation of this record is that it primarily provides only the individual's name. In some instances, an army serial number is included, but this is limited to a subset of the individuals listed. Some individuals on the roster served in European countries or held roles unrelated to intelligence work, such as typists or drivers. While visiting the National Archives is an option in principle, it was infeasible in practice

due to the large number of individuals (23,980) included in this roster. For the purposes of this paper, I restrict my sample to those who can also be identified in the OpenAlex foreign publication data. The intersection of these two datasets provides a list of social scientists specializing in non-European areas within the OSS.

Wikipedia biographies. To place missionaries within the broader landscape of foreign expertise—which also included academics and journalists without a missionary background—I use biographical data from Wikipedia (Laouenan *et al.*, 2022). I first limit the sample to individuals who were active in the United States. I then narrow it down to those born between 1880 and 1925 and who passed away after 1940, focusing on those who might have contributed to intelligence services during World War II. To determine the missionary background of each individual, I use an automated Python script to scan Wikipedia biographies for the term 'missionar*.' This process identifies individuals who were missionaries, missionary children, or who attended missionary schools during their childhood. I then manually verify each case to confirm whether the individual was indeed a missionary or a missionary child and to identify the country where they served or were born. For the outcome variable, I conduct a similar keyword search for terms such as 'Second World War,' 'World War II,' and keywords related to intelligence or language work. A comprehensive list of these keywords is provided in Appendix B.4.

Peace Corps volunteers. As a measure of support for international development in the long run, I use the number of Peace Corps volunteers in each county. Through a Freedom of Information Act request, I obtained data on 159,246 Peace Corps volunteers across U.S. ZIP codes from 1961 to 2000. I map these data to the county level using ZIP-code coordinates; 135,255 volunteers have ZIP-code information.

Overseas aid NGOs. I count the number of U.S.-based nonprofit organizations engaged in overseas aid in each county using data from the National Center for Charitable Statistics. To focus on nonprofits involved in international philanthropy, I restrict the sample to organizations whose IRS activity code is Q (International, Foreign Affairs, and National Security).

Geographical data. To construct a crosswalk from town and city names to counties, I use the Geographic Names Information System (GNIS) from the U.S. Geological Survey and Berkes *et al.* (2023).

4. Effects on congressional support for foreign aid

4.1 Empirical framework

This section examines whether missionary exposure increased congressional support for foreign aid in the post-World War II period. When modeling congressional vote choice in a representative democracy, a researcher can focus either on the effect of constituents' preferences or on the preferences of politicians themselves. This paper focuses on the role of constituents because the goal is to capture the societal impact of missionary exposure on support for foreign aid, which is broader than geopolitical interests alone. To this end, I measure denomination-level variation in exposure and trace its influence on congressional votes.

Constituent-level regressions face well-known challenges because politicians often pursue agendas that diverge from, or override, the preferences of their constituents (Levitt, 1996; Mian *et al.*, 2010; McGuirk *et al.*, 2023). To address this concern, I include politician-level controls and party fixed effects. More importantly, I then present a range of evidence on the channels of influence, showing that the estimated effect operates through constituents rather than through politicians directly in Section 5.

With those considerations in mind, I estimate the impact of missionary exposure on support for foreign aid using the following equation:

$$aid_c = \beta Exposure_c + \mathbf{X_c'}\gamma + \varepsilon_c \tag{1}$$

where c denotes a congressional district. The outcome variable aid_c is an indicator for pro-foreign aid vote. The vector $\mathbf{X_c}$ includes controls to adjust for confounding variables. The error term ε_c is clustered by state. When there are multiple bills within one congressional term, the unit of analysis is congressional district-bill.

Missionaries traveled across states to deliver speeches at local churches, and their publications influenced college students studying missions in different states. To capture their influence through churches across space, I construct a shift-share variable to define $Exposure_c$ at the county or congressional district level. I count the number of missionaries from each denomination in the Student Volunteer Movement records and link each denomination to the 47 denominations in the Census of Religious Bodies (1890). $Exposure_c$ is defined as follows.

$$Exposure_c = \sum_o \left(\frac{POP_{co}}{POP_c}\right)\left(\frac{M_o}{POP_o}\right) \tag{2}$$

In this variable, o represents a Protestant denomination (e.g., Southern Baptist). POP_o indicates the number of church members from denomination o, and POP_{co} indicates the number of members of denomination o in county c and POP_c indicates county population. M_o indicates the number of missionaries in denomination o. $Exposure_c$ captures denominational exposure to missionaries $\left(\frac{M_o}{POP_o}\right)$ interacted with the denomination's share in each county $\left(\frac{POP_{co}}{POP_c}\right)$.

Control variables. $\mathbf{X_c}$ includes other variables to account for potential confounders. The control variables are classified into core controls, baseline YMCA exposure (explained in the next subsection), political controls, religious controls, and socioeconomic controls. Core controls include the share of all 47 denominations involved in the Student Volunteer Movement, evangelical Protestant and mainline Protestant shares, latitude, longitude, state fixed effects, and bill or Congress fixed effects in stacked specifications. Political controls include legislators' ideological conservatism, measured by the first dimension of DW-NOMINATE, and Republican Party fixed effects. These controls help distinguish constituency-based support for foreign aid from legislators' own ideological and partisan incentives (Levitt, 1996; Mian *et al.*, 2010). Religious controls include the shares of Catholics, Orthodox Jews, and Mormons. Socioeconomic controls include log population, urbanization rate, occupational income score, agricultural land suitability, market access, literacy rate, and the shares of college students, manufacturing workers, Northern and Western European immigrants, Eastern and Southern European immigrants, non-European immigrants, and African Americans. These controls address the possibility that missionary exposure partly reflects broader differences in local development, education, settlement patterns, and immigrant backgrounds, which were often related to denominational composition (Putnam & Campbell, 2012, p. 265).

4.2 Instrumental variable strategy

The allocation of missionaries across denominations (M_o) is not random. The number of missionaries from each denomination reflects not only the effect of exposure to foreign missions but also various other denominational characteristics. This self-selection into foreign missions could correlate with support for foreign aid through channels other than direct missionary exposure. In fact, individual-level balance checks (Table A.11) using census data show that volunteers for missionary work tend to be more religious, better educated, from affluent families, and predominantly white.

The sign of the resulting bias is ambiguous. It could be upward if more educated,

wealthy, or internationally connected denominations both attracted missionaries and were already more supportive of foreign aid. But it could also be downward: missionary volunteers came disproportionately from theologically and politically conservative backgrounds (Ramsey, 1988, p. 110) and could be skeptical of secular humanitarian programs that lacked a religious purpose, an attitude that shades into broader isolationism. Because the direction is unclear a priori, I isolate the variation in missionary supply that was driven by the movement's recruitment campaign rather than by denominational characteristics.

Student Volunteer Movement. To isolate the effect of foreign missions from other denominational characteristics, I construct a push factor based on the travel locations of the initial promoters of the Student Volunteer Movement. Previous research indicates that travel secretaries, who promoted opportunities to serve as missionaries on college campuses, played a crucial role in recruitment (Beahm, 1941; Ramsey, 1988; Parker, 1994; Gold, 2002). Early volunteers inspired later ones, and missionaries maintained ties with colleges and seminaries to encourage further enlistment (Ramsey, 1988, pp. 55–66).

The Student Volunteer Movement began by accident. At an 1886 YMCA Bible-study conference in Mount Hermon, Massachusetts, a foreign mission recruiter, initially seeking only a few volunteers, gave a speech that unexpectedly inspired 100 attendees to volunteer, sparking a large-scale missionary movement (Kelleher, 1974, p. 20). This initial surge of enthusiasm was not something YMCA leaders had planned or anticipated. Nor was its subsequent expansion a smooth or centrally orchestrated campaign. The recruitment effort was severely understaffed. Although YMCA leaders initially planned to send four travel secretaries, three withdrew due to other obligations. Only after one additional secretary was recruited did two secretaries ultimately carry out the 1886–87 campaign under time pressure (Kelleher, 1974, p. 34)(Ramsey, 1988, p. 11). Routes were arranged in coordination with existing local YMCA chapters (Beahm, 1941; Ramsey, 1988), so the campaign's reach was shaped by pre-existing YMCA infrastructure and logistical constraints.[4] Moreover, in the 1880s and 1890s the dominant motivation for foreign missions was rapid religious conversion, not the long-term institution-building, such as schools and hospitals, that later

[4]Historical record suggests that travel secretaries were not simply sent to places where missionary interest already existed. Ramsey (1988, p. 11) notes that organizers compared the "proposed tour" to the journeys of the original apostles and early missionaries, suggesting that they expected the tours to build missionary commitment. The word "proposed" also points to practical constraints: travel secretaries could not visit every college, church, or community, and their routes had to reflect time, distance, transportation, and local arrangements. Although I have not found the proposed itineraries from the Yale Divinity School library, this evidence suggests that the organizers of the Student Volunteer Movement believed that YMCA exposure captured both purposeful missionary outreach and the limits of where that outreach could realistically be carried out.

came to resemble development work (Hollinger, 2018, p. 9); the modern concept of global development did not yet exist. Within the SVM itself, the debate over whether social welfare or religious conversion should take priority was further intensified by the reverberations of the modernist–fundamentalist controversy (Hollinger, 2018, p.59). Figure 2 shows the counties visited by travel secretaries and those with YMCA chapters between 1881 and 1890.

The instrument rests on the following idea. A denomination counts as exposed when, during the 1886–87 campaign, the travel secretaries visited a college belonging to a different denomination in the same county. The identifying assumption is that, conditional on YMCA exposure and observable county characteristics, denominations more heavily reached by these indirect visits differ in their later support for foreign aid only through the missionary recruitment the visits set in motion. A central threat is selection into the networks reached by the travel secretaries. A separate exclusion concern is that the recruitment campaign may have influenced later political attitudes through channels other than the missionaries it recruited. In the language of Borusyak & Hull (2020), the concern is non-random exposure to a quasi-random shock. Two features of the construction address it.

The first feature is that the instrument uses only indirect exposure. Travel secretaries visited small denominational colleges they expected to be receptive (Ramsey, 1988, p. 12), so direct exposure may itself be selected. I therefore drop the denomination whose college was actually visited and measure exposure only for the other denominations in the same county. If the secretaries visited Princeton, affiliated with the Northern Presbyterians, every denomination in that county except the Northern Presbyterians is coded as exposed. Their exposure is a byproduct of geographic proximity, spreading through local newspapers and peer interaction.

The second feature is that I recenter on the network that generated the visits in the first place. Because routes were arranged through existing local YMCA chapters, I control for a parallel measure of exposure to counties that had YMCA chapters but no travel-secretary visit. Conditional on this YMCA footprint, the residual variation reflects which YMCA-connected places the two understaffed secretaries happened to reach, not which communities were already more internationally minded.

A third, complementary check exploits the movement's unforeseeable 1886 launch (Kelleher, 1974, p. 27). Only YMCA chapters already in place by 1884 could have shaped the secretaries' routes, so exposure to pre-1886 chapters should predict recruitment and later aid support, while exposure to chapters founded by 1889 should predict neither, even though the two sets of YMCA towns are otherwise alike. This is the pattern I find, and I develop

the test below (Table 5).

Instrumental variable construction. The denomination-level instrument is population-weighted exposure to travel-secretary visits:

$$Travel_o = \sum_{c \notin j(o)} POP_{co}\, \mathbf{1}[Travel_c] \tag{3}$$

where $Travel_c$ equals one for counties visited by travel secretaries in 1886–87, and $j(o)$ denotes the set of counties in which denomination o has an institutional affiliation with a visited college. The exclusion $c \notin j(o)$ implements the leave-out design described above: a denomination's instrument reflects only indirect exposure, through visits to colleges affiliated with other denominations in the same county. The instrument is constructed using the 47 denominations that participated in the Student Volunteer Movement, so that the results are not driven by denominations unrelated to foreign missions.

When the outcome variables are defined at the congressional district level, denomination-level exposure is mapped onto geography through the same shift-share structure as the endogenous variable:

$$TravelExposure_c = \sum_o \left(\frac{POP_{co}}{POP_c}\right)\left(\frac{Travel_o}{POP_o}\right). \tag{4}$$

The shift-share structure reflects the fact that exposure operated through denominational networks rather than local geography alone. When a denomination was exposed to travel secretaries in one location, the influence spread to its members nationwide through denominational conferences, church bulletins, and college networks.

First stage. Table 1 presents the first-stage regression results at the denominational level, with the number of missionaries per denomination as the dependent variable. The independent variable of interest is the exposure to travel secretaries, $Travel_o$. Column (1) demonstrates that a 1,000-person increase in the exposed population correlates with 9 additional missionaries per denomination. Columns (2) and (3) incorporate additional controls, including the number of members in each denomination, an indicator for evangelical denominations, and per capita church property. Column (4) includes the control for the baseline YMCA exposure, which is constructed from counties with YMCA chapters but without visits from travel secretaries.

Validity of the instrument. Selection into outward-looking networks would threaten the interpretation of the IV as the causal effect of missionary exposure, even if it remained consistent with a broader role for religious civil society. The empirical tests therefore focus on distinguishing the missionary-recruitment channel from pre-existing internationalism.

I assess the identifying assumption using three pieces of evidence: balance in the underlying county-level sources of variation, balance in the constructed congressional-district exposure measures, and placebo political outcomes before the emergence of the modern foreign aid regime.

Figure 3 first examines the county-level sources of variation. Panel (a) compares counties visited by travel secretaries during the 1886–87 campaign with counties that had YMCA chapters but no travel-secretary visit. The visited counties were not a random cross-section of the country. They were more connected to the organizational and social settings through which the campaign operated: YMCA networks, colleges, and more urbanized communities. Relative to YMCA counties without a visit, visited counties had more college students and higher manufacturing employment, and they were somewhat more urbanized. Panel (b) shows a similar exercise for YMCA openings in 1884 and 1889. The two sets of YMCA openings are broadly similar across most county characteristics, though they too reflect the urban and organizational geography of the YMCA. These patterns are consistent with the historical account of the campaign as a student-oriented recruitment effort organized through existing YMCA infrastructure, rather than a deliberate canvass of places predisposed toward overseas engagement.

Figure A.1 repeats the balance exercise for the actual exposure measures used in the congressional analysis. This second exercise is important because the instrument is not simply an indicator for whether a county was visited. It is a denominational exposure measure mapped into congressional districts and congressional terms. Panel (a) compares travel exposure with baseline YMCA exposure, while Panel (b) compares exposure to YMCA openings in 1884 and 1889. The exposure-level balance is not perfectly flat. Travel exposure is correlated with several socioeconomic characteristics, including urbanization, manufacturing employment, occupational income, immigrant composition, and population. This pattern again suggests that the identifying variation is partly shaped by the organizational geography of the YMCA and the social geography of student recruitment. For this reason, the main specifications control for baseline YMCA exposure, political characteristics, religious composition, and socioeconomic covariates.

The key question is whether these observable differences in covariates also reflect a pre-existing tendency toward internationalist foreign policy preferences. I examine this possibil-

ity using congressional votes before 1945, prior to the emergence of the modern foreign aid regime. As placebo outcomes, Table 2 reports estimates for votes on immigration and trade between 1882 and 1924—including the Chinese Exclusion Act of 1882, the McKinley Tariff of 1890, and the Immigration Act of 1924—as well as votes on neutrality and Lend-Lease between 1935 and 1941, including the Neutrality Acts of 1935 and 1937, the 1939 repeal vote, and the 1941 Lend-Lease Act. I code these votes so that higher values indicate a more isolationist position.

Across these outcomes, I find no robust relationship between exposure to travel secretaries and isolationist voting. The one positive OLS association, in the early immigration-and-trade panel, is absorbed once baseline YMCA exposure and additional controls are included, and the IV estimates are small, statistically insignificant, and unstable in sign across specifications. Figure A.2 reports the results from bill-specific regressions of isolationist votes on missionary exposure; the estimates are centered around zero with no clear time trend. This placebo exercise suggests that missionary exposure did not mechanically predict a generic form of internationalism before World War II. Its effect on foreign policy voting appears specific to the postwar foreign aid regime.

4.3 Results on legislative support for foreign aid

Bill-specific regressions. I begin with bill-specific estimates to show how the relationship between missionary exposure and foreign aid support evolved over the legislative history of the aid regime. Foreign aid was built through a sequence of votes rather than a single policy decision, and the political meaning of those votes changed over time.

I estimate the baseline IV specification separately for each individual foreign aid bill. For each bill, the dependent variable is whether a member of Congress voted in favor of the bill, and the key explanatory variable is missionary exposure, instrumented by travel-secretary exposure and recentered on baseline YMCA exposure. The specification includes the share of SVM denominations, mainline denominations, and evangelical denominations, party affiliation, the first dimension of DW-NOMINATE, latitude, longitude, and state fixed effects. Standard errors are clustered by state.

Figure 4 plots the estimated missionary exposure coefficient from each bill-specific regression. Each blue circle represents one bill, with the starting year of the corresponding Congress on the horizontal axis and the estimated coefficient on the vertical axis; the vertical bars are 95% confidence intervals. Bills voted on within the same Congress are offset slightly along the horizontal axis to reduce overlap. The solid line summarizes the pattern in coefficient size over time.

The figure shows that the positive effect of missionary exposure is concentrated in the period when the modern U.S. foreign aid regime was being built. During the early postwar and Cold War years, the estimated effects are frequently positive and often statistically meaningful. After the end of the Cold War, however, the relationship becomes much weaker, with estimates clustering closer to zero and sometimes turning negative. The only negative and statistically significant bill-specific estimate is for the Freedom From Religious Persecution Act, introduced in the 105th Congress. Unlike most other foreign aid votes in the sample, this bill did not primarily concern the expansion or authorization of aid. It created a monitoring mechanism for religious persecution abroad and authorized sanctions against offending countries, including restrictions on U.S. and multilateral assistance.

The disappearance of the roll-call effect admits two interpretations. One is that the underlying preference weakened, or was confined to aid only when competing against communism. The other is that the external environment changed, leaving little room for the preference to matter even if it persisted.

On the first account, missionary exposure may have captured a Cold War fusionist coalition, akin to the postwar conservative synthesis associated with National Review, in which religious traditionalism, anti-communism, and support for U.S. global leadership reinforced one another, rather than a stable pro-aid constituency. Soviet collapse would then have removed part of the geopolitical logic sustaining bipartisan aid support. A related possibility is partisan realignment: Buccione & Knight (2024) document evangelical voters shifting sharply from Carter in 1976 to Reagan in 1980, mobilized by the Moral Majority, which reoriented evangelical political identity toward the religious right and domestic priorities. These are the same denominations driving the largest effects in Table 6, discussed later.

Yet other evidence may point toward the second interpretation. The preference persisted, but the post-Cold War roll-call record offered fewer opportunities to observe it. Panel (b) of Figure 4 shows that the average support for foreign aid bills rises after the Cold War, mechanically leaving less cross-district disagreement for missionary exposure to explain. Lancaster (2008, p.44) describes the 1990s as a period when the end of the Cold War weakened one rationale for aid, budget pressure made it politically vulnerable, and its future looked uncertain before a later revival. Roll-call votes in this period are thus a less direct measure of the constituency I study, and the post-Cold War null may reflect the absence of similarly consequential bills rather than the disappearance of the underlying preference, a question I return to in the mechanisms section later to explore whether the preferences captured in the regression results are simply hawkish anticommunism and whether it persisted after 1990.

Pooled regressions and effect size. I next examine whether the main result is robust to alternative samples and richer controls. Table 3 splits the sample into the Cold War and post-Cold War periods. Panel A shows that missionary exposure has a positive and statistically significant effect on support for foreign aid during 1945–1989. The magnitude decreases as I add baseline YMCA exposure, political controls, religious controls, and socioeconomic controls. In contrast, Panel B shows that the post-Cold War estimate is small, negative, and statistically insignificant. In the most demanding specification, reported in column (7), one additional missionary per million church members increases the probability that a representative votes in favor of foreign aid by 0.20 percentage points during 1945–1989. Table 4 restricts the analysis to landmark foreign aid bills, using two external classifications: Oxfam and CQ Press. The estimates remain positive and statistically significant in both samples and are larger for the CQ Press landmark bills. This suggests that the main result reflects support for substantively important foreign aid legislation, rather than minor or procedural votes.

The estimated effects are also economically meaningful. At the district level, a one-standard-deviation increase in missionary exposure raises the probability that a member of Congress votes in favor of foreign aid by roughly 5–15 percentage points. A natural question is whether an effect of this size is plausible for a constituency characteristic. I therefore report several benchmarks to provide reference magnitudes.

I first compare the estimate with constituency-level predictors of foreign aid voting from Milner & Tingley (2010). Although their study focuses on descriptive determinants of foreign aid voting rather than causal effects, its advantage is the breadth of constituency covariates it reports. This makes it a useful baseline for comparing relative effect sizes. The original study estimates probit models for congressional votes on foreign economic aid between 1979 and 2003. For comparability, I use the authors' replication data to estimate linear probability models in which the dependent variable is an indicator for a pro-aid vote multiplied by 100. Appendix Table A.6 reports the results. In the multivariate specification, a one-standard-deviation increase in the share of high-skill workers is associated with a 4.40 percentage-point increase in support for foreign aid; bank PAC contributions predict a 6.03 percentage-point increase; labor PAC contributions predict a 20.80 percentage-point increase; and foreign-born population share predicts a 2.34 percentage-point increase.

Effects of similar size also appear outside the foreign aid setting. Tabellini (2020) finds that an interquartile increase in immigrant presence made members of Congress 10 percentage points more likely to support the National Origins Act, while Mian *et al.* (2010) finds that a one-standard-deviation increase in local mortgage-default rates raised support

for the American Housing Rescue and Foreclosure Prevention Act by 13 percentage points. Taken together, these benchmarks place the missionary effect alongside constituency-level forces that prior research has identified as important determinants of congressional voting.

A complementary way to interpret the placebo tests in Table 2 is to ask how large an effect they could have ruled out. A null result is informative only if the design is adequately powered. I therefore compute the minimum detectable effect implied by the placebo standard errors (Duflo *et al.*, 2007). For a two-sided test at the 5% level with 80% power, the MDE is approximately 2.80 times the standard error, since $z_{0.975} + z_{0.80} = 1.96 + 0.84 = 2.80$. In the fully controlled placebo specifications in column (7), clustered standard errors of roughly 0.07–0.09 imply an MDE of about 0.20–0.25 percentage points per additional missionary per million church members—comparable to the main foreign aid estimates. The placebo tests are therefore precise enough that, had missionary exposure shifted isolationist voting as strongly as it shifted foreign aid voting, they would have detected such an effect with at least 80% probability. The near-zero placebo point estimates thus reflect a tightly bounded null result.

Temporal decomposition of the YMCA exposure. The baseline IV strategy uses denomination-level exposure to travel secretaries after controlling for exposure to YMCA chapters in counties not visited by travel secretaries. As discussed previously, whether a denomination is more or less exposed to travel secretaries conditional on YMCA exposure is plausibly random. To highlight the quasi-randomness of travel-secretary exposure after recentering on YMCA exposure, I use the differential timing of YMCA exposure. Counties acquired YMCA chapters at different times: some before 1881, others by 1884, and others by 1889. Since the Student Volunteer Movement began unexpectedly in 1886, YMCA exposure already in place by 1884 could affect the routes of the first travel secretaries, while chapters appearing by 1889 should not have shaped the initial recruitment campaign. If the estimates simply reflected stable denominational internationalism, later YMCA exposure should predict similar outcomes. Panel (b) of Figure 3 demonstrates that counties with YMCA chapters in 1884 and 1889 are similar across a range of characteristics. By comparing YMCA exposure before and after the start of the Student Volunteer Movement, I show that the effect is specific to exposure in place before the movement began.

To capture this variation in exposure, I construct a measure of denominational YMCA exposure at different time points:

$$YMCA_{o\tau} = \sum_{c} POP_{co} \mathbf{1}[YMCA_{c\tau}] \tag{5}$$

where $YMCA_{c\tau}$ equals one for counties that had YMCA chapters in year τ. I construct three different measures of YMCA exposure at the denomination level: exposure up to 1881, new exposure in 1884, and new exposure in 1889. The denominational exposure to YMCA at different points in time is then mapped onto congressional districts using a shift-share structure, as outlined in Equation 4.

Table 5 presents the results. Columns (1)-(4) show first-stage regressions for travel exposure at the denomination level, while the remaining columns report reduced-form relationships with pro-aid votes at the congressional district-bill level. Aggregate YMCA exposure strongly predicts both travel exposure and pro-aid voting: the coefficient is 0.38 in the first stage and 13.96 in the full-sample reduced form, both statistically significant at the 1 percent level.

The subsequent columns split this aggregate measure by the timing of YMCA chapter openings. In the first stage, the pre-SVM components predict travel exposure while the post-SVM component does not. YMCA exposure measured by 1881 and new exposure in 1884 have positive coefficients ranging from 0.58 to 1.33 across the decompositions, whereas the 1889 coefficient is small, negative or near zero, and never statistically significant. The equality tests in these first-stage columns reject equal effects across timing categories.

The reduced-form estimates show a similar but less uniform timing pattern. Earlier YMCA exposure predicts pro-aid votes more consistently than YMCA exposure in 1889: the 1889 coefficient is never positive and statistically significant, and it is often negative. Some reduced-form equality tests are imprecise, especially in the landmark subsamples, so the timing evidence should be read as supportive rather than definitive. The pattern nevertheless fits the interpretation that YMCA exposure matters because it helped channel travel-secretary recruitment into the early Student Volunteer Movement, not because all YMCA exposure mechanically predicts later foreign aid politics.

Table A.4 shows placebo results similar to Table 2. If anything, early YMCA exposure is related to higher likelihood of isolationist voting, but the estimated coefficient is imprecise and close to zero.

Persuasion rate. I next express the magnitude as the share of legislators not otherwise predicted to support foreign aid whose votes are associated with a specified change in missionary supply. This is not a conventional persuasion rate because missionary exposure is an intensity index rather than the share of legislators receiving a discrete message. It is instead a conversion benchmark for a stated counterfactual (DellaVigna & Gentzkow, 2010).

I hold district denominational shares fixed and reduce every denomination's missionary

count proportionally. Column (7) of Table 3 gives an IV coefficient of 0.2 percentage points per additional missionary per million church members. Mean exposure in that estimation sample is 150.13 and mean support is 61.56 percent. A 25 percent reduction in missionary supply therefore lowers predicted support by

$$\Delta v = 0.2 \times 150.13 \times 0.25 = 7.5$$

percentage points, yielding counterfactual support of $v_0 = 54.17$ percent. Conditional on casting a vote, the persuasion rate is

$$f^*(0.25) = \frac{\Delta v}{100 - v_0} = \frac{7.5}{100 - 54.17} = 0.16.$$

Thus, relative to a counterfactual with 25 percent fewer missionaries, the estimated increase in support is equivalent to converting about 16 percent of legislators who otherwise would not have supported foreign aid. The corresponding benchmarks are 7 percent for a 10 percent reduction and 28 percent for a 50 percent reduction. These magnitudes are broadly comparable to persuasion effects reported in the political economy literature. For example, the persuasion rate of Fox News availability on Republican voting is estimated at 12 percent (DellaVigna & Kaplan, 2007), while exposure to Father Coughlin's radio broadcasts implies a persuasion rate of 28 percent (Wang, 2021). Other studies report larger effects, including roughly 50 percent for Fox News exposure rather than availability (Martin & Yurukoglu, 2017), 66 percent for anti-Putin television stations (Enikolopov *et al.*, 2011), and 79 percent for classroom evolution education (Arold, 2024). Overall, the estimated effects in this paper fall within the broad range of persuasion rates documented in the literature, although these quantities should be interpreted as scale benchmarks rather than directly compared because they depend on the chosen supply contrast and extrapolate a linear IV estimate.

OLS-IV gap. The gap between the OLS and IV estimates is informative about the nature of the treatment effect. Across the main specifications, OLS estimates are small or negative, while IV estimates are positive. One interpretation is that OLS is downward biased because denominations more likely to send missionaries may have been more conservative and therefore less supportive of foreign aid absent missionary exposure. One possible explanation is that OLS is downward biased because denominations more likely to send missionaries may also have been more conservative and therefore less supportive of foreign aid absent missionary exposure. This interpretation aligns with Ramsey (1988, p.86), who discusses the tension between Anglo-Saxon ethnocentrism and the egalitarian belief that all

humans deserve respect during the early period of foreign missions.

Appendix Table A.2 examines this interpretation more directly using the decomposition proposed by Ishimaru (2024). The method separates the IV–OLS gap into differences in the weights that the two estimators place on observed covariates, differences in their weights across levels of missionary exposure, and differences in the marginal effects identified by IV and OLS. In the full 1945–1989 sample, the IV–OLS gap is 0.213. The covariate-weight component is only 0.009 and statistically insignificant, and the treatment-level-weight component is 0.020. The marginal-effect component accounts for the remaining 0.183, or about 86 percent of the total gap. The Oxfam landmark-bill sample yields an even sharper pattern. The marginal-effect component is 0.193, essentially the entire 0.195 IV–OLS gap, while the two weighting components are small. The CQ Press decomposition is considerably less precise. Its covariate-weight and marginal-effect components are large, offsetting, and individually insignificant, although the treatment-level component is positive and precisely estimated.

Thus, in the full and Oxfam samples, the IV–OLS difference is not primarily explained by IV and OLS emphasizing observably different districts or different parts of the missionary-exposure distribution. Instead, most of the gap is attributable to differences in the marginal effects recovered by the two estimators. This pattern is consistent with OLS endogeneity, treatment-effect heterogeneity, or both, but the decomposition itself does not distinguish among these mechanisms. The imprecise CQ Press estimates likewise caution against drawing strong conclusions for every subsample.

I provide suggestive evidence for this interpretation by decomposing missionary exposure into evangelical and mainline Protestant exposure. If the OLS–IV gap partly reflects conservative selection or heterogeneous marginal effects, the gap should be larger for evangelical denominations, which were more theologically and politically conservative. Table 6 is consistent with this prediction. The OLS estimates for evangelical missionary exposure are negative or close to zero across samples. By contrast, the IV estimates are substantially larger for evangelical missionaries than for mainline missionaries. In the full sample, the joint split-IV specification gives estimates of 0.25 for mainline missionaries and 2.09 for evangelical missionaries. The corresponding estimates are 0.25 and 2.02 in the Oxfam landmark-bill sample, and 0.35 and 1.97 in the CQ Press landmark-bill sample.

These split estimates should be interpreted cautiously. Several specifications involving evangelical exposure, especially the joint mainline-evangelical IV specifications, have weak first stages according to the KP statistic. For this reason, I also report Anderson–Rubin weak-IV p-values, which remain valid under weak identification. In the evangelical-only

IV specifications, the Anderson–Rubin tests reject the null in all three samples, while the joint split-IV estimates should be read more cautiously because the two sources of exposure are less precisely separately identified. I therefore view Table 6 as suggestive evidence on heterogeneity, rather than as a set of fully powered causal estimates by denomination type.

Still, the pattern supports the broader interpretation that missionary exposure did not simply proxy for pre-existing liberal internationalism. If anything, the largest IV effects appear among denominations for which baseline ideological tendencies may have been less favorable to foreign aid. This interpretation is consistent with historical accounts that many Student Volunteer Movement missionaries were theologically and socially conservative (Ramsey, 1988, p.110), while missionary contact with foreign societies could also lead some Protestants to reevaluate racial hierarchy and develop more outward-facing civic commitments (Gallagher, 1946; Gold, 2002; Hollinger, 2018).

Robustness. I account for different sources of dependence in standard errors following recent econometrics literature in Table A.7 and A.8. As a baseline, I cluster standard errors by state to allow arbitrary correlation within states. Shock-level standard errors follow Borusyak *et al.* (2022), who show that shift-share designs can be represented equivalently as shock-level regressions when identification comes from quasi-random shocks. The Adao *et al.* (2019) correction accounts for the fact that shift-share instruments mechanically induce correlation across locations with similar exposure shares, which can otherwise lead to over-rejection. Following their diagnostic logic, I re-run the reduced-form specification with randomly generated shifts interacted with denominational shares (Figure A.3). Across 1,000 placebo draws the simulated instrument rejects the null at the 5% level in 76 cases (7.6%) and at the 1% level in 20 cases (2.0%). This is mild over-rejection well below the levels Adao *et al.* (2019) document for conventional inference in shift-share designs, and it obtains in a specification with only the core and YMCA controls, before the fuller control set is added. Because the main tables report Adao *et al.* (2019)-corrected standard errors wherever the exposure matrix is small enough to estimate them, this residual over-rejection does not threaten the reported inference. In addition, Conley standard errors allow residual correlation to decay flexibly with varying geographic distance.

As an additional check on cross-district dependence, I implement a thresholding-multiple-outcomes (TMO) procedure in the spirit of DellaVigna *et al.* (2025). The procedure uses roll-call votes from outside the 1945–1989 target period to estimate which pairs of congressional districts have correlated residual voting behavior, and then allows the variance of the main coefficient to include covariance terms only for that selected set of pairs. The resulting standard errors are smaller than the state-clustered ones. State clustering per-

mits arbitrary correlation among all districts within a state, whereas the TMO correction retains only a sparse set of strongly related pairs. Unlike conventional spatial corrections that impose dependence based on geographic boundaries or distance, the TMO procedure learns the relevant dependence structure directly from auxiliary outcomes, allowing dependence to reflect empirical patterns of congressional voting rather than arbitrary geographic proximity (Conley, 1999; Müller & Watson, 2024; DellaVigna *et al.*, 2025). In the preferred reduced-form specification the selected correlation threshold is about 0.67 and only about 0.1% of district pairs are retained, so the correction reflects a limited set of strongly related districts rather than broad within-state dependence. I describe the construction and supporting diagnostics in Appendix A.11.

Lastly, Figure A.5 re-estimates the regression excluding one denomination at a time to assess whether the results are driven by a single denomination, and Figure A.6 does the same excluding one state at a time.

5. Additional evidence

Having established that missionary exposure increased congressional support for foreign aid, a careful reader might still raise three questions. First, roll-call votes alone do not reveal why legislators supported aid. The estimated effect could reflect hawkish anti-communism rather than a genuine commitment to international development. Second, the weakening of the relationship after the Cold War could indicate that missionary exposure mattered only for a temporary geopolitical coalition, rather than reflecting a durable preference. Third, the baseline analysis links missionary exposure measured across denominations and congressional districts to legislative votes many decades later, leaving open how the intervening social and informational mechanisms operated. This section addresses these questions in turn. I first examine the rationale and organizational basis of support for aid, then trace whether the underlying preference persisted beyond the Cold War, and finally bridge the historical and geographic gap by tracing how missionary experience generated and transmitted knowledge about non-Western societies.

5.1 The role of mission boards in congressional debate

5.1.1 Denominational support for development aid in congressional testimony

In this section, I use congressional testimony as narrative evidence (Romer & Romer, 1989). The question is whether denominations with deep overseas mission infrastructure appeared as organized participants in the postwar debate over foreign aid, and whether they articu-

lated a rationale for aid that went beyond Cold War strategy.

I focus on the 1957 hearings on the Mutual Security Act, a central moment in the postwar debate over whether to continue, restructure, or scale back U.S. foreign aid (US Congress House Committee on Foreign Affairs, 1957). Congress invited religious organizations to testify, and over three days the record fills with statements from religious witnesses, the great majority of whom argued for an expanded nonmilitary aid program. The testimony is informative for three reasons.

First, the witnesses spoke not as private moralists but as representatives of organized religious constituencies. Charles Boyles and Florence Fray identified the United Christian Youth Movement as "the cooperative expression of the youth movements of 27 denominations serving some 10 million young people in the churches of this country" (US Congress House Committee on Foreign Affairs, 1957, p. 249). Bishop Angus Dun testified "as a representative of the Protestant Episcopal Church" at the request of its presiding bishop, and Rabbi Abraham J. Feldman appeared as president of the Synagogue Council of America, presenting the views of its constituent rabbinic and congregational associations (US Congress House Committee on Foreign Affairs, 1957, pp. 124, 147). These were institutional statements offered to Congress as evidence of organized religious preference.

Second, the witnesses tied that domestic political voice directly to overseas mission infrastructure. The National Council of Churches, the umbrella body for the major Protestant denominations, grounded its competence to speak on foreign aid in a "Division of Foreign Missions. . . made up of 70 boards and agencies, which maintain a missionary force of over 10,000 workers in over 50 countries" (US Congress House Committee on Foreign Affairs, 1957, p. 114). Fray likewise reported that churches associated with her organization had invested roughly "$55 million" in overseas operations during 1956 and that "[h]undreds of thousands" of young people had regular "contacts with returned missionaries each year" (US Congress House Committee on Foreign Affairs, 1957, pp. 249–250, 255). The hearing record therefore links the denominations' foreign aid advocacy to the same overseas networks measured in the historical data.

Third, the denominational support visible in the hearings is not reducible to a single motive. Geopolitical rationales were plainly part of how the religious constituency made its case: witnesses granted that aid was "essential in the struggle between Communist tyranny and freedom" and rehearsed the familiar cases in which postwar aid had kept countries out of the Soviet orbit (US Congress House Committee on Foreign Affairs, 1957, p. 151). The witnesses did not pretend the Cold War was irrelevant to their cause.

Yet the witnesses rejected the Cold War as a sufficient rationale. The National Council

of Churches argued that economic and social needs should take precedence over political and military considerations (US Congress House Committee on Foreign Affairs, 1957, pp. 150–151). Rabbi Feldman distinguished national survival from "humanity and unselfish moral obligation," grounding aid in the equal dignity of persons rather than a merely utilitarian benevolence (US Congress House Committee on Foreign Affairs, 1957, pp. 125–126). The United Christian Youth Movement expressed the same universalism in explicitly theological language, holding that "[a]ssistance and concern for the two-thirds of the people of the world who live with daily physical need is not an option for us but an imperative of our faith" (US Congress House Committee on Foreign Affairs, 1957, p. 251). It paired that unconditional obligation with a diagnosis of why strategically tied aid had failed on its own terms: "[c]losely tied through all these years to a system of military pacts and political alliances, the good that we would do has become suspect and has often seemed to lend itself more to serving as an instrument of our narrow self-interest than a true concern for the people we supposedly set out to assist" (US Congress House Committee on Foreign Affairs, 1957, p. 251). Assistance instead arose from concern for "all God's children," and aid programs should be "seen as good in their own right" rather than used as instruments against communism or as leverage in military alliances. Because instrumental aid threatened recipients' self-respect and national dignity, it favored administration independent of the State and Defense Departments and expanded multilateral cooperation (US Congress House Committee on Foreign Affairs, 1957, pp. 256–257). Catholic and Episcopal witnesses made parallel claims, insisting that aid remained important independently of the Communist threat and rejecting missions designed to make Asia serve American security (US Congress House Committee on Foreign Affairs, 1957, pp. 132, 148).

Read together, these witnesses identify an organized religious constituency for foreign aid whose preferences were dual. It accepted the Cold War context, but resisted a purely strategic framing and pressed instead for a cooperative, developmental, and recipient-centered conception of aid. This characterization implies a specific, testable channel. If the support for foreign aid documented in the previous section was driven in part by an organized humanitarian-developmental constituency, and not only by Cold War strategy, then denominations with greater historical investment in the overseas mission enterprise should be the ones most likely to show up in postwar international relief and development institutions. The remainder of this subsection tests that prediction at the denomination level.

To measure a denomination's involvement in postwar development work, I use the list of denominations associated with the Church World Service that appears in the hearing record (US Congress House Committee on Foreign Affairs, 1957, p. 196). By 1957, some

denominations from 1890 had consolidated into larger groups. I aggregate these into a single observation, reducing the sample size from 47 to 40. The independent variables include the number of missionaries, YMCA exposure in 1884 and 1889, the number of denomination members, church property per capita, and a dummy for evangelical denominations. The results are presented in Table 7.

Columns (1)–(2) show the regression of the outcome variable on the number of missionaries, controlling for other factors. The OLS estimates imply that sending 100 more missionaries is associated with a 4.50- or 4.02-percentage-point higher probability that a denomination was involved in the Church World Service. The IV estimates are larger, about 15 percentage points per 100 missionaries, but they are imprecisely estimated. The coefficient is significant at the 10 percent level without the full control set and is not conventionally significant after all controls are included. The weak-IV diagnostics reinforce the need for caution, with KP F-statistics below conventional thresholds. At the same time, the Anderson–Rubin weak-IV confidence intervals exclude zero, and the reduced-form estimates on travel exposure are positive and significant at conventional levels. I therefore interpret Table 7 as supportive evidence for the denominational-advocacy channel.

5.1.2 Congressional speech on aid

A natural next step is to ask whether legislators from districts with greater missionary exposure talked about foreign aid in the language their religious constituents were using, or in the more conventional strategic account. I examine congressional speech as a window into the rationales legislators invoked for foreign aid.

I use a large language model (`gpt-4o-mini-2024-07-18`) to classify the content of each speech into a set of substantive framing categories, including aid expansion versus aid reduction, cooperative versus militant internationalism, recipient suffering versus recipient agency, short-run crisis versus long-run development, economic versus security interest, and moral duty versus human dignity (Lumsdaine, 1993; Turek, 2024; Kertzer *et al.*, 2014; Easterly, 2025; Thomas *et al.*, 2025). The model maps speech text into pre-specified categories using a structured prompt, allowing me to measure how legislators framed foreign aid at scale. Appendix Section A.8 provides the implementation details, output schema, and full prompt.

Figure 5 summarizes how the language of foreign aid in congressional speech changes over time. The broad pattern is not simply that foreign aid becomes more or less popular, but that the way it is justified changes. Over time, speeches become more likely to frame foreign aid in terms of aid expansion, cooperative internationalism, recipient agency, and especially

long-run development, while rhetoric centered on aid reduction declines. The figure also suggests a gradual movement away from describing recipients primarily as passive sufferers and toward describing them as actors with agency. Likewise, cooperative language becomes more common over time relative to more militant internationalist framing, although the latter remains important throughout the period. At the same time, the figure also shows that strategic and security-based language remains prominent, and in some periods it clearly exceeds explicitly economic language. Similarly, human dignity and moral duty both rise over time, but they tend to move together rather than replacing one another entirely.

Before comparing how legislators frame foreign aid, I test whether missionary exposure affects the extensive margin, measured by whether a district's representative gives any substantive foreign-aid speech during a Congress. Appendix Table A.5 reports both OLS and IV estimates. In the preferred full-control IV specification, a one-standard-deviation increase in missionary exposure changes the probability of speaking by 0.29 percentage points (standard error 4.61); the baseline IV estimate is −4.23 percentage points (standard error 5.87). Neither estimate is statistically distinguishable from zero, while the corresponding first-stage statistics exceed 45. I therefore find no evidence that missionary exposure changes whether representatives discuss foreign aid at all. The analysis that follows conditions on speaking and examines how representatives frame foreign aid when they discuss it.

Figure 6 turns from aggregate trends to these cross-sectional differences across legislators. The unit of analysis is a legislator–Congressional term. For each frame, I construct an indicator equal to one if the legislator uses that frame in at least one substantive foreign aid speech during that Congress. The sample is restricted to legislator–Congress terms in which the legislator speaks about foreign aid, excluding purely procedural remarks. I then estimate separate linear probability models of the following form:

$$Y_{ikt} = \alpha_k + \beta_k \,\text{Exposure}_i + X_{it}'\Gamma + \delta_t + \varepsilon_{ikt},$$

where Y_{ikt} is an indicator for whether legislator i in Congress t uses frame k, Exposure_i is standardized to have mean zero and standard deviation one, X_{it} denotes additional controls, and δ_t captures Congress fixed effects. Figure 6 reports the estimated coefficients β_k and confidence intervals across framing outcomes. All regressions are estimated using IV. The sample consists of 12,386 congressional district–term observations. The first-stage F-statistic exceeds 40 in every specification. Baseline controls include all variables listed in the model, excluding socioeconomic controls. The additional controls shown in the figure correspond to the socioeconomic controls reported in the main results table.

The coefficient plot shows that greater missionary exposure increased the probability of

framing foreign aid in terms of expansion, cooperative internationalism, recipient agency, and long-run development. It reduced emphasis on aid reduction, recipient suffering, militant internationalism, and security interest. The coefficient on aid reduction is not statistically significant at conventional levels, and the other estimates also vary in precision, but their directions form a consistent pattern. Missionary exposure predicts cooperative and agency-oriented language rather than generalized hawkishness, consistent with the agency-oriented tradition documented above.

The contrast underlying these coefficients is present in the speeches, including among legislators of the same party. Representative Gerald R. Ford (R–MI), speaking in the 92nd Congress on the anniversary of the Organization of American States, framed U.S.–Latin American relations through cooperative internationalism and recipient agency: "We are, in a word, partners. ... No longer do we dominate our Latin American friends. We offer them ideas and assistance, but we want them to steer their own destinies." Representative Horace Seely-Brown Jr. (R–CT), defending a similar authorization in the 87th Congress, framed it in the opposite register, as "another step forward" in "our cold war strategy," justified because "a mutual security program is essential in order to win the cold war." And Representative Ginny Brown-Waite (R–FL) illustrates the retrenchment register, opposing the 108th Congress's foreign operations bill because funds should instead go to "Americans who need healthcare here at home." All three are Republicans, which suggests that the differences captured by Figure 6 are differences in conceptual vocabulary rather than party label: conditional on speaking about foreign aid, missionary-exposed legislators are systematically more likely to sound like Ford and less like Seely-Brown or Brown-Waite.

5.2 Persistence and diffusion into secular development service

The post-Cold War decline in the estimated influence of missionary exposure on congressional voting reflects the waning legislative influence of the coalition that helped establish the postwar aid regime, but it need not imply that the underlying preferences themselves disappeared. To distinguish durable civic orientations from legislative coalitions, I examine two outcomes outside electoral politics: Peace Corps volunteering and participation in U.S.-based nonprofits engaged in overseas development. These outcomes capture voluntary, organizational, and long-run engagement with international development rather than support for a particular policy or legislative coalition.

An important alternative interpretation is that support for foreign aid merely reflected support for Christian missionary institutions. Under this view, missionary exposure should not extend beyond religious organizations. A competing hypothesis is that overseas missions

fostered a broader orientation toward foreign peoples and international development that carried over into secular civic institutions. The empirical question is therefore whether the preferences generated by missionary activity remained confined to religious organizations or generalized to wider forms of public service.

The Peace Corps provides a useful setting for this test. Although it was a secular federal program, it shared several defining features with the missionary enterprise: sending mostly young Americans abroad, emphasizing service and development, and relying on sustained engagement with foreign communities. John F. Kennedy himself described Peace Corps volunteers as carrying forward the constructive work of religious missionaries in developing countries (Leamer, 2005, p.337).

I also examine the number of U.S.-based charities involved in overseas aid. Foreign aid is not only a matter of government-to-government transfers. Much of American international engagement has operated through private organizations and voluntary associations. These organizations therefore provide another way to observe whether missionary exposure translated into a broader institutional ecology of international development.

The results are presented in Table 8. While the OLS estimates become less precise after the inclusion of additional controls, the IV estimates remain positive and statistically significant. To address the skewed distribution of Peace Corps volunteers, I use the inverse hyperbolic sine transformation. The fully controlled IV estimate of 0.58 implies that a one-standard-deviation increase in missionary exposure is associated with about 80 percent more Peace Corps volunteers between 1961 and 2000. The corresponding NGO estimate is 8.09, implying roughly eight additional charitable organizations involved in overseas aid per thousand people. These findings suggest that the missionary effect was not limited to congressional votes or explicitly religious institutions.

5.3 The information channel from foreign experience to knowledge production

5.3.1 Missionary knowledge production and support for foreign aid

The estimates in Tables 3 and 4 assign equal informational weight to every returned missionary and yield an OLS coefficient on overall missionary exposure close to zero. Yet missionaries differed substantially in how extensively their overseas experience was converted into knowledge that circulated at home. Some published books, journal articles, and essays in the religious or secular press; others communicated through denominational bulletins, regional conferences, and alumni networks. These informal channels cannot be observed systematically, and formal publication is necessarily an incomplete measure of diffusion. It nevertheless provides a scalable proxy for whether missionaries converted field

experience into visible and durable knowledge about foreign societies. If information transmission contributed to the aggregate relationship documented above, foreign-aid support should be stronger among denominations whose missionaries were more active in producing such knowledge.

To examine this possibility, I match missionaries from each denomination to publications concerning the non-European world and construct a denomination-level count of publishing missionaries using OpenAlex (Priem *et al.*, 2022), which covers academic articles, conference proceedings, and books. I then re-estimate the shift-share specification in Equation 1, using exposure to publishing missionaries as the regressor of interest and controlling for total missionary exposure. Conditional on the total number of missionaries, the publishing-missionary coefficient therefore captures whether aid support was stronger where a larger share of missionaries translated overseas service into formal knowledge production.

Table 9 reports the results. Column (1) shows that a one-per-million increase in exposure to publishing missionaries is associated with a 0.83-percentage-point higher probability of a yea vote on a foreign-aid bill, significant at the 10 percent level. When total missionary exposure is included in column (2), the publishing-missionary coefficient rises to 1.77 percentage points and is significant at the 5 percent level, whereas the coefficient on total missionary exposure is small, negative, and statistically insignificant. The estimate for Oxfam landmark bills in column (3) is positive but imprecise. The CQ Press landmark-bill estimate in column (4) is larger—3.11 percentage points—and statistically significant at the 5 percent level. Across specifications, the legislative relationship is therefore strongest among denominations whose missionaries were active producers of knowledge, although the estimates are not equally precise across the two definitions of landmark legislation.

These estimates warrant greater caution than the main results. Publication is itself an outcome and may reflect both the intensity of missionaries' foreign engagement and unobserved characteristics of their denominations. The exclusion restriction supporting the main shift-share estimates therefore does not extend automatically to this refined measure. I interpret the results as descriptive evidence of heterogeneity rather than as a causal effect of publication. Their value is in showing that the aggregate relationship is concentrated among denominations whose missionaries more visibly translated overseas experience into knowledge that circulated in the United States.

5.3.2 Foreign missions and knowledge production

The district-level results suggest that missionary exposure increased support for foreign aid partly through the production of knowledge about the non-European world. But inferring

individual change from these aggregate relationships would create an ecological inference problem. Did missionary service itself generate this knowledge, or did mission boards simply select individuals and denominations already likely to produce foreign expertise? And was this expertise relevant outside religious networks when the United States faced new demands to understand Asia, Africa, and Latin America?

I address these questions using individual-level data on missionary applicants. The key comparison is between individuals who became missionaries and applicants who seriously considered missionary service but ultimately did not go abroad. It does not identify every link from missionary activity to district-level voting, but it directly tests the contact-to-knowledge step that the aggregate design must otherwise infer. It also places an observable intermediate outcome between the initial missionary movement and postwar politics. I examine whether overseas service increased foreign-subject publications, graduate dissertations, and inclusion in secular expert institutions such as the OSS and the Smithsonian roster.

These results also help explain why the political effect appears most clearly after World War II. As demand grew for Americans who could speak foreign languages, navigate local institutions, and interpret cultural norms, former missionaries were among the few citizens with that human capital. The evidence from the OSS and Smithsonian rosters documented below is suggestive on this margin.

To estimate the impact of foreign missions on knowledge production, I estimate the following equation:

$$y_i = \theta Mission_i + \mathbf{X_i'}\rho + \varepsilon_i \tag{6}$$

where y_i captures a knowledge-related outcome, including publication output, graduate dissertations on foreign countries, or inclusion in foreign intelligence and expert rosters during World War II. X_i is a vector of individual characteristics.

$Mission_i$ is a dummy equal to one for missionaries and zero for individuals who volunteered to be missionaries but did not eventually become one. The estimated coefficient θ captures the effect of missionary service under the identifying assumption that non-serving applicants provide a plausible counterfactual for those who ultimately went abroad. The process of becoming a missionary began with individuals signing a declaration card, followed by filling out application blanks. The control group in this study consists of those who completed the application, indicating serious interest in missionary work. This group therefore offers a useful comparison: they were not casual observers, but individuals who had entered the missionary pipeline before ultimately taking a different path. An exam-

ple is Kenneth Lee Pike (1912–2000), who initially applied to become a missionary but was rejected, and later became a renowned linguist and anthropologist studying Indigenous languages in Mexico (Pike, 2015).

Several factors contributed to volunteers not ultimately becoming missionaries despite initial applications. First, the Student Volunteer Movement faced significant organizational challenges in maintaining contact with applicants, especially as students changed residences after graduation or relocation (Ramsey, 1988, p.67); (Student Volunteer Movement, 1891, p.36). Second, budget constraints limited missionary placements. The Movement relied heavily on volunteers and a small donor base, and some applicants had to wait years for opportunities (Parker, 1994, p.111). Third, as time passed, some applicants pursued alternative careers, including ministries in city churches (Ramsey, 1988, p.57). Fourth, idiosyncratic factors such as parental opposition, responsibilities toward aging parents, health issues, and tuition concerns also prevented some applicants from serving abroad (Parker, 1994, p.180). Previous research has also treated this group of applicants as comparable to those who became missionaries (Ramsey, 1988, p.65).

The impact of foreign missions may be overestimated if mission boards selected applicants who were already knowledgeable about foreign countries or who would have become foreign area experts regardless of their missionary experience. However, missionary selection appears to have been based primarily on religiosity rather than prior interest in world affairs or foreign cultures. As one contemporary account emphasized, "The boards do not commission mere physicians or school-teachers, but missionaries... [which should be] above everything else a spiritual guide" (Brown, 1907, p.77). Applicants often had limited knowledge about their destinations and were motivated primarily by religious devotion when applying (Ramsey, 1988, p.148). Missionaries were sometimes described as having a "blank slate" mindset because of their limited understanding of non-European countries before beginning their work (Bays & Widmer, 2009, p.17). Those who showed interest in foreign countries without strong religious commitment could be screened out by mission boards (Student Volunteer Movement, 1891, p.54). Since religiosity was the main selection criterion, missionaries and non-serving applicants likely came from broadly similar backgrounds and had comparable prior interest in foreign countries.

To evaluate the plausibility of the identifying assumption, I compare missionaries with volunteers who did not ultimately become missionaries. I match archival records to 1900 or 1910 individual-level census data using names, birth years, and addresses, employing the iterative census linkage method (Abramitzky *et al.*, 2021). The analysis compares volunteers to the general population, and missionaries to non-missionary volunteers, controlling for

birth year, census year (1900 and 1910), gender, and county fixed effects. I restrict the sample to individuals younger than twenty. As shown in Appendix A.15, the probability of being matched in the census is higher for volunteers who did not eventually become missionaries. This is because missionaries who sailed abroad were not enumerated in the census during their service years. However, the difference in matching probability disappears when the sample is restricted to individuals born after 1890, as the census enumeration occurred before they became missionaries, during the period when they were still living with their parents.

Panel (a) of Figure 7 shows the differences between missionaries and non-missionaries under various specifications. I take the average of the 1900 and 1910 covariates when an individual is matched to both censuses. Hollow circles represent the raw difference after controlling only for birth year and female fixed effects. The results indicate that missionaries and volunteers differ in terms of whether their parents had religious occupations, foreign-born status, parents' foreign-born status, city population, and farm household status. As shown in Table A.11, these differences decrease when county fixed effects are included, but differences remain in parents' religious occupations, parents' immigrant status, and farm household status. The filled diamonds present differences after reweighting the control group so that the means and variances of parents' religious occupations, parents' foreign-born status, foreign-born status, city population, and farm household status are equal across groups, following Hainmueller (2012). The results indicate that variables not directly targeted by entropy balancing remain well balanced after reweighting.

Panel (b) of Figure 7 presents the estimated effect on knowledge output with and without controlling for county or denomination fixed effects, as well as inverse probability-weighted estimates based on entropy balancing. Table 10 presents regression results from Equation 6, with unadjusted estimates (without birth year and gender controls) and those with controls for birth year, gender, county, and denomination fixed effects. The results indicate that the estimated coefficients remain consistent across all specifications.

The probability of writing about foreign subjects in the control group is 0.7 percent, while the estimated effects of missionary experience range from 2.4 to 3 percentage points. These estimates imply predicted probabilities of approximately 3.1 to 3.7 percent, or about 4.4 to 5.3 times the control-group probability. The analysis reveals a 0.6 percentage point increase in the probability of missionaries writing graduate dissertations about foreign countries, with no effect on other topics. This suggests that missionary experience specifically enhanced knowledge production about foreign countries, rather than increasing overall graduate school attendance. These findings suggest that foreign missions contributed to increased knowledge

production about foreign countries without significantly influencing the overall likelihood of becoming authors or attending graduate school.

5.3.3 Missionary expertise relative to other prominent experts

The comparison above contrasts missionaries with non-serving applicants who entered the missionary pipeline but did not go abroad, isolating the effect of missionary service itself. This design, however, does not speak to how missionaries stood out within the broader landscape of foreign expertise, which also included academics and journalists who acquired regional knowledge through other channels. To highlight the potential impact of missionaries among the most consequential producers of foreign knowledge, I additionally compare them against other prominent individuals using biographical data from Wikipedia (Laouenan *et al.*, 2022). The outcome is an indicator for whether an individual served as an intelligence or language expert during World War II, and the regressor of interest is an indicator for whether an individual was a missionary or a child of missionaries.

Table 11 reports the results. Having a missionary background—being a missionary or their child—is associated with about a 7-percentage-point higher probability of serving in an intelligence or language role during World War II relative to other prominent individuals in Wikipedia. The coefficients become substantially larger when the sample is narrowed to individuals whose names can be matched to publications about foreign countries in OpenAlex (Column 3) or to the Smithsonian roster (Column 4). The Column 4 estimate is based on only seven individuals with a missionary background and should therefore be interpreted as fragile. Even within these already-selected groups of foreign area experts, those with a missionary background were more likely to be drawn into government intelligence work. This pattern complements the comparison with non-serving applicants. Missionaries not only produced more foreign knowledge than their otherwise-similar peers, but also stood out among the nation's prominent foreign experts at the moment American global engagement expanded.

6. Conclusion

This paper shows that Protestant foreign missions helped create a domestic constituency for international assistance, highlighting the role of civil society in shaping U.S. development policy and public attitudes. Using archival records from the Student Volunteer Movement and congressional roll-call votes, I exploit variation in missionary exposure generated by indirect exposure to the movement's travel secretaries, recentered on predetermined YMCA networks. I find that missionary exposure increased congressional support for major foreign

aid bills during 1945–1989, when the modern aid regime and its legislative coalition were being built. The voting effect weakens after the Cold War, but the preferences formed through missionary exposure remain visible elsewhere. Missionary-linked denominations organized advocacy for aid, exposed legislators framed aid in cooperative and developmental terms, and exposed counties later supplied more Peace Corps volunteers and overseas-aid nonprofits. These civic outcomes extend beyond a particular roll-call coalition, and the nonprofit evidence extends beyond the Cold War itself. The effect is strongest where missionaries produced observable knowledge about non-Western societies. Individual-level comparisons with non-serving applicants indicate that overseas service itself generated this knowledge, identifying a key step in the aggregate mechanism and bridging the temporal gap between missionary exposure and postwar policy.

These findings challenge the view that postwar American internationalism was solely an elite project designed from above. Instead, they suggest that the expansion of U.S. engagement abroad was rooted, at least in part, in grassroots internationalist projects. Aid's present vulnerability therefore does not imply that foreign aid never had a democratic base. Recent survey evidence suggests that many Americans remain supportive of foreign aid, particularly when it is described in concrete terms such as humanitarian relief, disease prevention, disaster response, and global health (Rockefeller Foundation, 2026).

The paper does not imply that foreign aid is politically secure, or that an older religious constituency for it can simply be revived. The support documented here grew from a particular historical configuration: overseas missionary experience, dense denominational institutions, and a mid-century mainline civic internationalism that made distant lives politically salient to American voters and legislators. That configuration has since fragmented. The mainline-evangelical divide and the broader secularization of American life have thinned the networks through which these preferences once traveled (Hollinger, 2022). This transformation also underscores a broader point about religion and politics. American Protestantism has long contained both intellectual and anti-intellectual currents (Hofstadter, 1966), and religion more generally can operate as a political double-edged sword, sustaining obligations to distant others in some contexts while reinforcing boundaries and exclusionary mobilization in others (Putnam & Campbell, 2012; Colussi *et al.*, 2024). Recent evidence on Pentecostal political influence in Brazil similarly cautions against assuming that religious mobilization necessarily produces cosmopolitan or developmental commitments (Sola, 2024). The mechanism that helps explain how foreign aid became politically possible therefore also indicates where it is fragile.

The question for the future is thus whether analogous forms of foreign experience can

generate a self-sustaining political constituency under very different historical conditions. The form of international interaction that missionaries pioneered, ground-level exposure to foreign societies paired with a claim on what it obliges at home, did not remain confined to religious institutions; it diffused into a range of secular domains over the twentieth century. Peace Corps volunteers, development economists, aid workers, journalists, students, and NGO professionals may perform parts of this translating function today. But their political significance depends on whether such experiences remain connected to durable civic institutions. Whether development cooperation proves durable over the long run may therefore depend not only on strategic interests or elite commitment, but also on whether societies continue to generate institutions that expose citizens to foreign societies, cultivate knowledge about distant others, and translate those experiences into domestic political demand. Protestant missions performed this function during much of the twentieth century. Whether analogous institutions can do so in the decades ahead remains an open question.

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Table 1: First-stage relationship between travel exposure and missionary recruitment

	(1)	(2)	(3)	(4)
	DV: Number of missionaries			
	Mean DV: 207.55			
Travel exposure (thousand)	9.51***	7.97***	7.63***	6.55**
	(1.20)	(2.35)	(2.25)	(2.72)
YMCA without travel (thousand)				0.00
				(0.00)
Members (thousand)		0.18	0.21	
		(0.20)	(0.20)	
D(Evangelical)			-10.10	
			(54.45)	
Church property per capita (std)			20.13	
			(60.85)	
Observations	47	47	47	47
R-squared	0.76	0.76	0.77	0.78
p[Travel exposure=YMCA]				0.02

Notes: The unit of observation is a Protestant denomination with at least one Student Volunteer Movement volunteer. The table reports regressions of the number of missionaries from each denomination on exposure to the Student Volunteer Movement travel secretaries. Column (4) recenters travel exposure on baseline YMCA exposure by controlling for denominational exposure to YMCA chapters in counties not visited by travel secretaries. Missionary counts come from the Student Volunteer Movement records. Evangelical indicates whether a denomination is evangelical (Steensland *et al.*, 2000). Church property and denominational membership come from the 1890 Census of Religious Bodies. Robust standard errors are reported in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Table 2: Missionary exposure and pre-1945 isolationist votes

DV: D[Isolationist vote]×100	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Panel A: Immigration and trade, 1882-1924						
Exposure to missionaries (per million)	0.17***	0.03	0.14	0.14	-0.13	-0.09	-0.08
	(0.05)	(0.04)	(0.12)	(0.09)	(0.10)	(0.09)	(0.09)
Estimation method	OLS	OLS	IV	IV	IV	IV	IV
Mean outcome	48.10	48.13	48.10	48.10	48.13	48.13	48.13
Observations	1339	1338	1339	1339	1338	1338	1338
R-squared	0.35	0.43	0.35	0.35	0.43	0.43	0.44
AR weak IV [p-value]			0.28	0.19	0.21	0.29	0.39
KP F-stat			11.43	38.93	36.43	48.82	25.35
	Panel B: Neutrality and Lend Lease, 1935-1941						
Exposure to missionaries (per million)	0.04	-0.05	0.19	0.12	0.02	0.00	0.08
	(0.03)	(0.04)	(0.12)	(0.08)	(0.13)	(0.10)	(0.07)
Estimation method	OLS	OLS	IV	IV	IV	IV	IV
Mean outcome	64.44	64.44	64.44	64.44	64.44	64.44	64.44
Observations	1704	1704	1704	1704	1704	1704	1704
R-squared	0.33	0.42	0.32	0.33	0.42	0.42	0.43
AR weak IV [p-value]			0.07	0.11	0.88	0.96	0.25
KP F-stat			9.84	38.91	38.12	37.65	24.99
Core controls	Y	Y	Y	Y	Y	Y	Y
Baseline YMCA		Y		Y	Y	Y	Y
Political controls		Y			Y	Y	Y
Religious controls		Y				Y	Y
Socioeconomic controls							Y

Note: Unit of analysis is a congressional district-bill. The dependent variable equals 100 if the legislator cast a vote in the isolationist direction (yea on the Chinese Exclusion Act, McKinley Tariff, 1924 Immigration Act, and 1935/1937 Neutrality Acts; nay on the 1939 Neutrality Act repeal and the 1941 Lend-Lease Act) and 0 otherwise. Regressions of isolationist votes on exposure to missionaries (instrumented by exposure to travel secretaries in IV columns). The set of controls used in each column is identical across Panels A and B, shown once at the bottom of the table. Core controls include the share of denominations involved in the Student Volunteer Movement, evangelical Protestants, mainline Protestants, latitude, longitude, state fixed effects, and bill fixed effects. Baseline YMCA exposure is denominational exposure to YMCA chapters in counties with YMCA chapters and without travel secretaries' visit. Political controls include DW-NOMINATE score (first dimension) and Republican Party fixed effects. Religious controls include the shares of Catholics, Orthodox Jews, and Mormons. Socioeconomic controls include log population, urbanization rate, occupational income score, agricultural land suitability, market access, literacy rate, and the shares of college students, manufacturing workers, Northern and Western European immigrants, Eastern and Southern European immigrants, non-European immigrants, and African Americans. Robust standard errors clustered by state in parentheses. *** $p<0.01$, ** $p<0.05$, * $p<0.1$

Table 3: Congressional votes on foreign aid legislation, by period

DV: D[Foreign aid vote]×100	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Panel A: Congressional votes, 1945-1989						
Exposure to missionaries (per million)	-0.04*	0.02	0.50**	0.42**	0.29***	0.25***	0.20**
	(0.02)	(0.03)	(0.23)	(0.18)	(0.11)	(0.08)	(0.08)
Estimation method	OLS	OLS	IV	IV	IV	IV	IV
Mean outcome	61.56	61.56	61.56	61.56	61.56	61.56	61.56
Observations	31541	31541	31541	31541	31541	31541	31541
R-squared	0.19	0.31	0.07	0.11	0.29	0.29	0.31
AR weak IV [p-value]			0.00	0.00	0.00	0.00	0.00
KP F-stat			10.25	10.96	11.91	49.65	43.26
	Panel B: Congressional votes, 1991-2017						
Exposure to missionaries (per million)	-0.01	-0.01	0.09	0.08	-0.01	0.04	-0.07
	(0.02)	(0.02)	(0.06)	(0.05)	(0.05)	(0.04)	(0.04)
Estimation method	OLS	OLS	IV	IV	IV	IV	IV
Mean outcome	81.10	81.10	81.10	81.10	81.10	81.10	81.10
Observations	7975	7975	7975	7975	7975	7975	7975
R-squared	0.15	0.18	0.15	0.15	0.18	0.18	0.18
AR weak IV [p-value]			0.04	0.05	0.91	0.28	0.13
KP F-stat			7.27	7.58	8.35	34.61	31.20
Core controls	Y	Y	Y	Y	Y	Y	Y
Baseline YMCA		Y		Y	Y	Y	Y
Political controls		Y			Y	Y	Y
Religious controls		Y				Y	Y
Socioeconomic controls							Y

Note: Unit of analysis is a congressional district-bill. Regressions of votes in favor of foreign aid on exposure to missionaries (instrumented by exposure to travel secretaries in IV columns). The set of controls used in each column is identical across Panels A and B, shown once at the bottom of the table. Core controls include the share of denominations involved in the Student Volunteer Movement, evangelical Protestants, mainline Protestants, latitude, longitude, state fixed effects, and bill fixed effects. Baseline YMCA exposure is denominational exposure to YMCA chapters in counties with YMCA chapters and without travel secretaries' visit. Political controls include DW-NOMINATE score (first dimension) and Republican Party fixed effects. Religious controls include the shares of Catholics, Orthodox Jews, and Mormons. Socioeconomic controls include log population, urbanization rate, occupational income score, agricultural land suitability, market access, literacy rate, and the shares of college students, manufacturing workers, Northern and Western European immigrants, Eastern and Southern European immigrants, non-European immigrants, and African Americans. Robust standard errors clustered by state in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Table 4: Congressional votes on landmark foreign aid legislation, 1945–1989

DV: D[Foreign aid vote]×100	(1)	(2)	(3)	(4)	(5)	(6)	(7)
			Panel A: Oxfam landmark bills				
Exposure to missionaries (per million)	-0.02	0.03	0.48**	0.40**	0.28***	0.24***	0.19**
	(0.02)	(0.03)	(0.20)	(0.17)	(0.10)	(0.08)	(0.08)
Estimation method	OLS	OLS	IV	IV	IV	IV	IV
Mean outcome	66.15	66.15	66.15	66.15	66.15	66.15	66.15
Observations	9232	9232	9232	9232	9232	9232	9232
R-squared	0.16	0.25	0.05	0.09	0.22	0.23	0.24
AR weak IV [p-value]			0.00	0.00	0.00	0.00	0.00
KP F-stat			10.13	10.98	12.21	46.75	41.90
			Panel B: CQ Press landmark bills				
Exposure to missionaries (per million)	-0.03	0.07	0.57*	0.42**	0.54***	0.48**	0.33**
	(0.03)	(0.05)	(0.29)	(0.19)	(0.19)	(0.19)	(0.16)
Estimation method	OLS	OLS	IV	IV	IV	IV	IV
Mean outcome	68.62	68.62	68.62	68.62	68.62	68.62	68.62
Observations	1947	1947	1947	1947	1947	1947	1947
R-squared	0.21	0.36	0.06	0.15	0.28	0.30	0.36
AR weak IV [p-value]			0.00	0.00	0.00	0.00	0.01
KP F-stat			10.60	35.67	36.10	39.13	27.27
Core controls	Y	Y	Y	Y	Y	Y	Y
Baseline YMCA		Y		Y	Y	Y	Y
Political controls		Y			Y	Y	Y
Religious controls		Y				Y	Y
Socioeconomic controls							Y

Note: Unit of analysis is a congressional district-bill. Regressions of votes in favor of foreign aid on exposure to missionaries (instrumented by exposure to travel secretaries in IV columns). The set of controls used in each column is identical across Panels A and B, shown once at the bottom of the table. Core controls include the share of denominations involved in the Student Volunteer Movement, evangelical Protestants, mainline Protestants, latitude, longitude, state fixed effects, and bill fixed effects. Baseline YMCA exposure is denominational exposure to YMCA chapters in counties with YMCA chapters and without travel secretaries' visit. Political controls include DW-NOMINATE score (first dimension) and Republican Party fixed effects. Religious controls include the shares of Catholics, Orthodox Jews, and Mormons. Socioeconomic controls include log population, urbanization rate, occupational income score, agricultural land suitability, market access, literacy rate, and the shares of college students, manufacturing workers, Northern and Western European immigrants, Eastern and Southern European immigrants, non-European immigrants, and African Americans. Robust standard errors clustered by state in parentheses. *** $p<0.01$, ** $p<0.05$, * $p<0.1$

Table 5: Timing of YMCA exposure: First-stage and reduced-form estimates, 1945–1989

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Panel A: First stage (denomination) and reduced form (full sample, 1945-1989)							
	DV: Travel exposure				D(Pro foreign aid vote)×100			
YMCA exposure	0.38***				13.96***			
	(0.02)				(4.38)			
YMCA 1881		0.58*	1.04***			17.64***	11.75***	
		(0.30)	(0.24)			(4.61)	(4.01)	
YMCA 1884		0.83***		1.33***		-2.19		6.86*
		(0.22)		(0.19)		(5.44)		(3.66)
YMCA 1889		-0.22	-0.09	0.01		-0.66	-3.24	-1.04
		(0.22)	(0.25)	(0.18)		(3.80)	(3.82)	(4.18)
Observations	47	47	47	47	31541	31541	31541	31541
R-squared	0.92	0.96	0.93	0.94	0.20	0.20	0.33	0.33
p[Equal coef.]		0.00	0.02	0.00		0.03	0.05	0.30
Core controls					Y	Y	Y	Y
Additional controls							Y	Y
	Panel B: Reduced form on landmark subsamples (1945-1989)							
	DV: D(Pro foreign aid vote)×100, Oxfam				DV: D(Pro foreign aid vote)×100, CQ Press			
YMCA exposure	13.11***				15.33**			
	(3.65)				(6.10)			
YMCA 1881		12.85***	11.28**			18.07	17.81**	
		(4.06)	(4.42)			(11.60)	(8.22)	
YMCA 1884		2.23		8.50**		3.77		16.45***
		(3.65)		(3.27)		(7.83)		(4.91)
YMCA 1889		-1.82	-3.55	-2.53		-5.47	-7.92	-7.63
		(4.10)	(4.70)	(4.30)		(10.14)	(7.27)	(5.38)
Observations	9232	9232	9232	9232	1947	1947	1947	1947
R-squared	0.16	0.16	0.26	0.26	0.21	0.21	0.39	0.39
p[Equal coef.]		0.16	0.10	0.14		0.53	0.08	0.01
Core controls	Y	Y	Y	Y	Y	Y	Y	Y
Additional controls			Y	Y			Y	Y

Note: Unit of analysis is a denomination in Panel A Columns (1)-(4) and a congressional district-bill elsewhere. The dependent variable in district-level columns equals 100 if the legislator voted in favor of foreign aid and 0 otherwise, covering votes in Congresses 79-101 (1945-1989). Panel B restricts to landmark foreign aid bills: Columns (1)-(4) use the Oxfam classification and Columns (5)-(8) use the CQ Press classification. Core controls include state and bill fixed effects. Additional controls refer to all controls listed in Table 3. YMCA exposure is constructed from the denominational composition of counties with local YMCA chapters between 1881 and 1889. Columns using the three-way and two-way decompositions split YMCA exposure into: before 1881 (YMCA 1881), 1881-1884 (YMCA 1884), and 1884-1889 (YMCA 1889). Robust standard errors in parentheses (clustered by state in district-level columns). *** p<0.01, ** p<0.05, * p<0.1

Table 6: Effects on foreign aid voting by denominational tradition, 1945–1989

DV: D(Pro foreign aid vote)×100	(1)	(2)	(3)	(4)	(5)	(6)
			Panel A: Full sample, 1945-1989			
Mainline missionaries (per million)	-0.00	0.00			-0.01	0.25
	(0.02)	(0.03)			(0.02)	(0.17)
Evangelical missionaries (per million)			-0.06	2.05	-0.06	2.09*
			(0.05)	(1.36)	(0.05)	(1.27)
Observations	31541	31541	31541	31541	31541	31541
R-squared	0.32	0.32	0.32	0.01	0.32	-0.00
AR weak IV [p-value]		0.87		0.00		
KP F-stat		53.78		1.74		0.99
			Panel B: Oxfam landmark bills			
Mainline missionaries (per million)	-0.00	0.01			-0.00	0.25*
	(0.02)	(0.03)			(0.02)	(0.14)
Evangelical missionaries (per million)			-0.01	1.97*	-0.01	2.02*
			(0.05)	(1.18)	(0.05)	(1.12)
Observations	9232	9232	9232	9232	9232	9232
R-squared	0.26	0.26	0.26	-0.03	0.26	-0.05
AR weak IV [p-value]		0.85		0.00		
KP F-stat		50.42		1.95		1.10
			Panel C: CQ Press landmark bills			
Mainline missionaries (per million)	0.06*	0.04			0.06*	0.35**
	(0.03)	(0.05)			(0.03)	(0.17)
Evangelical missionaries (per million)			-0.05	1.72**	-0.04	1.97**
			(0.09)	(0.87)	(0.09)	(0.90)
Observations	1947	1947	1947	1947	1947	1947
R-squared	0.39	0.39	0.39	0.12	0.39	0.04
AR weak IV [p-value]		0.48		0.02		
KP F-stat		71.01		5.81		3.00
Estimation method	OLS	IV	OLS	IV	OLS	IV
Core controls	Y	Y	Y	Y	Y	Y
Baseline controls	Y	Y	Y	Y	Y	Y
Religious controls	Y	Y	Y	Y	Y	Y

Note: Unit of analysis is a congressional district-bill. The dependent variable equals 100 if the legislator voted in favor of foreign aid and 0 otherwise. Regressions of pro-foreign aid votes on the exposure to missionaries, with IV columns instrumenting missionary exposure by exposure to travel secretaries. Missionary exposure and its instrument are each decomposed into two categories based on whether the denomination is classified as evangelical. Panel A uses all votes on foreign aid in Congresses 79-101 (1945-1989). Panel B restricts to Oxfam landmark foreign aid bills; Panel C restricts to CQ Press landmark bills. Core controls include church share, latitude, longitude, DW-NOMINATE first dimension, Republican indicator, baseline YCMA exposure, and mainline and evangelical Protestant shares. Baseline controls include immigrant shares, urban share, log population, Black share, manufacturing share, college students, occupational score, land suitability, and literacy. Religious controls include the shares of Catholics, Mormons, and Jews. Robust standard errors clustered by state in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Table 7: Missionary history and denominational support for foreign aid

	(1)	(2)	(3)	(4)	(5)	(6)
	DV: D(Church World Service)×100					
	Mean DV: 50					
Estimation method	OLS	OLS	IV	IV	RF	RF
Missionaries (hundred)	4.50**	4.02*	15.20*	15.09		
	(1.74)	(2.05)	(8.54)	(10.41)		
AR weak IV 95 percent confidence interval			[6.8,48.7]	[4.8,55.9]		
Travel exposure (thousand)					0.76***	0.58**
					(0.25)	(0.28)
YMCA without travel (thousand)						-0.16
						(0.18)
Members (thousand)	-0.01	-0.01	-0.09	-0.09	-0.04**	
	(0.02)	(0.02)	(0.06)	(0.07)	(0.02)	
D(Evangelical)		-36.68**		-37.88**	-33.72*	
		(17.26)		(17.31)	(17.67)	
Church property per capita (std)		-3.06		-11.89	-4.64	
		(9.61)		(10.99)	(9.06)	
Observations	40	40	40	40	40	40
R-squared	0.12	0.24	-0.20	-0.08	0.27	0.14
p[Travel exposure=YMCA]						0.11
KP F-stat			3.16	2.64		

Notes: The unit of observation is a Protestant denomination with at least one Student Volunteer Movement volunteer. The table reports regressions of an indicator for participation in Church World Service on the number of missionaries from each denomination. Denominations consolidated by 1957 are combined into one observation. Missionary counts come from the Student Volunteer Movement records. Evangelical indicates whether a denomination is evangelical (Steensland *et al.*, 2000). Church property and denominational membership come from the 1890 Census of Religious Bodies. Robust standard errors are reported in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Table 8: Missionary exposure, Peace Corps service, and overseas aid nonprofits

	(1)	(2)	(3)	(4)	(5)
	DV: Peace Corps volunteers				
Exposure to missionaries (std)	0.19**	0.23***	0.65**	0.53*	0.58***
	(0.08)	(0.08)	(0.25)	(0.29)	(0.18)
Observations	2,808	2,808	2,808	2,808	2,785
KP F-stat			20.23	19.37	18.43
AR weak IV [p-value]			0.00	0.05	0.00
R-squared	0.56	0.58	0.55	0.57	0.63
	(6)	(7)	(8)	(9)	(10)
	DV: Overseas aid NGOs per thousand				
Exposure to missionaries (std)	4.03*	4.09	9.62***	11.41**	8.09***
	(2.38)	(2.58)	(3.08)	(4.57)	(2.36)
Observations	2,808	2,808	2,808	2,808	2,785
KP F-stat			20.23	19.37	18.43
AR weak IV [p-value]			0.00	0.01	0.00
R-squared	0.04	0.04	0.03	0.03	0.06
Estimation method	OLS	OLS	IV	IV	IV
Baseline controls	Y	Y	Y	Y	Y
Religious controls		Y		Y	Y
Socioeconomic controls					Y

Note: Unit of analysis is a county. Regressions of the number of Peace Corps volunteers (inverse hyperbolic sine) or the number of overseas aid nongovernmental organizations per thousand on the exposure to missionaries instrumented by the exposure to travel secretaries during 1886-87. Baseline controls include log population, latitude, longitude, the share of denominations involved in the Student Volunteer Movement, baseline YMCA exposure, and state fixed effects. Religious controls include the shares of evangelical Protestants, mainline Protestants, Catholics, Orthodox Jews, and Mormons. Socioeconomic controls include urbanization rate, occupational income score, agricultural land suitability, market access, literacy rate, and the shares of college students, manufacturing workers, Northern and Western European immigrants, Eastern and Southern European immigrants, non-European immigrants, and African Americans. Robust standard errors clustered by state in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Table 9: Missionary knowledge production and congressional support for foreign aid

	(1)	(2)	(3)	(4)
	DV: Yea vote on foreign aid bill (×100)			
Exposure to publishing missionaries (per million)	0.83*	1.77**	0.82	3.11**
	(0.48)	(0.73)	(0.86)	(1.45)
Exposure to all missionaries (per million)		-0.06	-0.01	-0.06
		(0.04)	(0.05)	(0.07)
Sample	All bills	All bills	Oxfam landmark bills	CQ Press landmark bills
Core controls	Y	Y	Y	Y
Religious controls	Y	Y	Y	Y
State FE	Y	Y	Y	Y
Bill FE	Y	Y	Y	Y
Observations	31,541	31,541	9,232	1,947
R-squared	0.315	0.316	0.251	0.366

Note: Unit of analysis is a legislator–bill roll-call vote on a foreign aid appropriations or authorization bill, Congresses 79–101 (1945–1989). The dependent variable is an indicator ×100 for a yea vote. *Exposure to publishing missionaries* is constructed analogously to the missionary-exposure measure in Equation 1, replacing each denomination's total missionary count with its count of missionaries matched to publications about non-European countries in OpenAlex. Both exposure measures are scaled per million church members and are included jointly in columns (2)–(4). Columns (3) and (4) restrict the sample to Oxfam landmark bills and CQ Press landmark bills, respectively. Core controls, religious controls, state fixed effects, and bill fixed effects are included throughout. Standard errors clustered by state in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Table 10: Missionary service and knowledge production

Outcome:	Grad. dissertation foreign subjects		Grad. dissertation nonforeign subjects	
(dummy×100)	(1)	(2)	(3)	(4)
Mission	0.64***	0.95***	-0.32*	0.31
	(0.08)	(0.12)	(0.16)	(0.22)
Control outcome mean:	0.13	0.13	2.46	2.46
Observations	37,106	29,380	37,106	29,380
R-squared	0.00	0.07	0.00	0.08
controls		Yes		Yes
Outcome:	Author foreign subjects		Author nonforeign subjects	
(dummy×100)	(5)	(6)	(7)	(8)
Mission	2.37***	3.04***	-0.73***	-0.06
	(0.16)	(0.22)	(0.26)	(0.34)
Control outcome mean:	0.7	0.7	6.35	6.35
Observations	37,106	29,380	37,106	29,380
R-squared	0.01	0.09	0.00	0.08
controls		Yes		Yes
Outcome:	Smithsonian Institution roster		Office of Strategic Services	
(dummy×100)	(9)	(10)	(11)	(12)
Mission	1.00***	1.21***	0.11***	0.14***
	(0.09)	(0.13)	(0.04)	(0.05)
Control outcome mean:	0.07	0.07	0.05	0.05
Observations	37,106	29,380	37,106	29,380
R-squared	0.01	0.07	0.00	0.08
controls		Yes		Yes

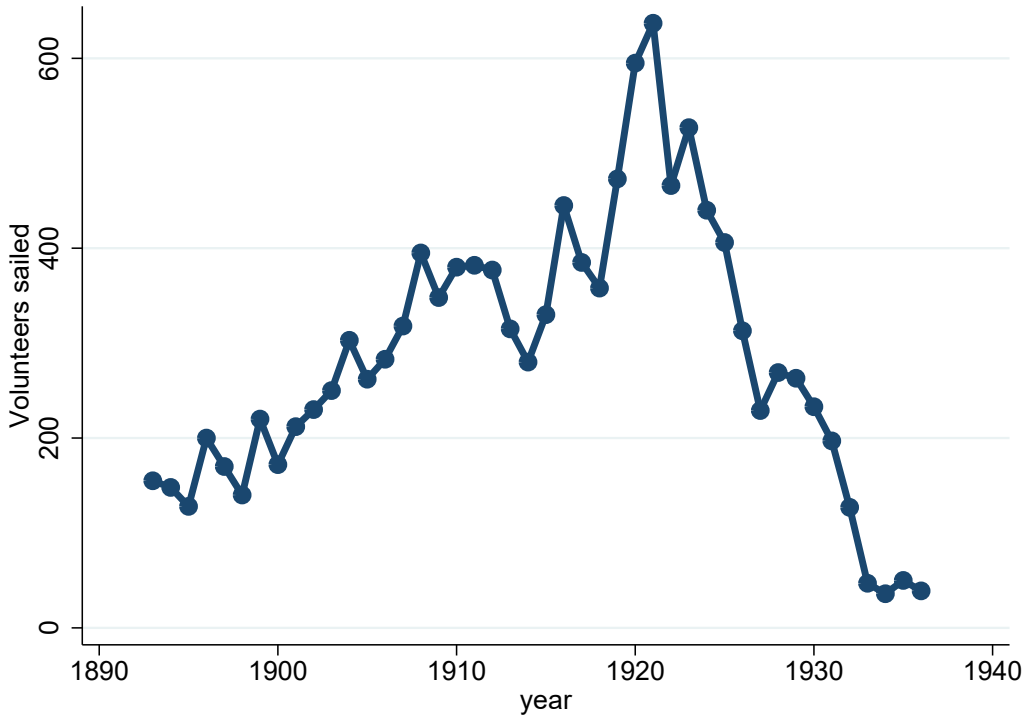
Notes: The unit of observation is an individual, and the sample consists of Student Volunteer Movement volunteers. The table reports regressions of indicators for non-European regional expertise on an indicator for missionary service. Outcomes in columns (1)–(4) indicate a match to the ProQuest Dissertations & Theses database, while columns (5)–(8) indicate a match to OpenAlex publications about foreign subjects. Columns (9) and (10) indicate a match to the Smithsonian roster (Bennett, 1947). Columns (11) and (12) indicate a match to both the Office of Strategic Services roster and OpenAlex publications about foreign subjects. Odd-numbered columns report raw differences; even-numbered columns control for birth year, gender, county, and denomination fixed effects. Robust standard errors clustered by county are reported in parentheses. *** $p<0.01$, ** $p<0.05$, * $p<0.1$

Table 11: Missionary backgrounds and regional expertise during World War II

	(1)	(2)	(3)	(4)
DV: dummy×100	Intelligence or language experts during World War II			
missionaries or children	7.33***	7.03***	15.63***	63.15***
	(1.37)	(1.39)	(4.78)	(13.71)
Control outcome mean	3.00	3.00	4.31	7.80
Missionaries	489	489	70	7
Observations	74,966	74,966	4,474	148
birth cohort FE		Y	Y	Y
female FE		Y	Y	Y
occupation FE		Y	Y	Y
pub. foreign			Y	
Smithsonian roster				Y
R-squared	0.00	0.02	0.01	0.23

Notes: The unit of observation is an individual. The table reports regressions of an indicator for service as an intelligence or language expert during World War II on indicators for a missionary background. "Missionary or child" equals one for missionaries and children of missionaries. The sample is restricted to people with a Wikipedia biography who were active in the United States, born between 1880 and 1925, and alive after 1945. Column (3) restricts the sample to individuals matched to publications about foreign subjects; column (4) restricts it to individuals matched to the Smithsonian Institution roster. Occupations come from Laouenan *et al.* (2022). Robust standard errors are reported in parentheses. *** p<0.01, ** p<0.05, * p<0.1

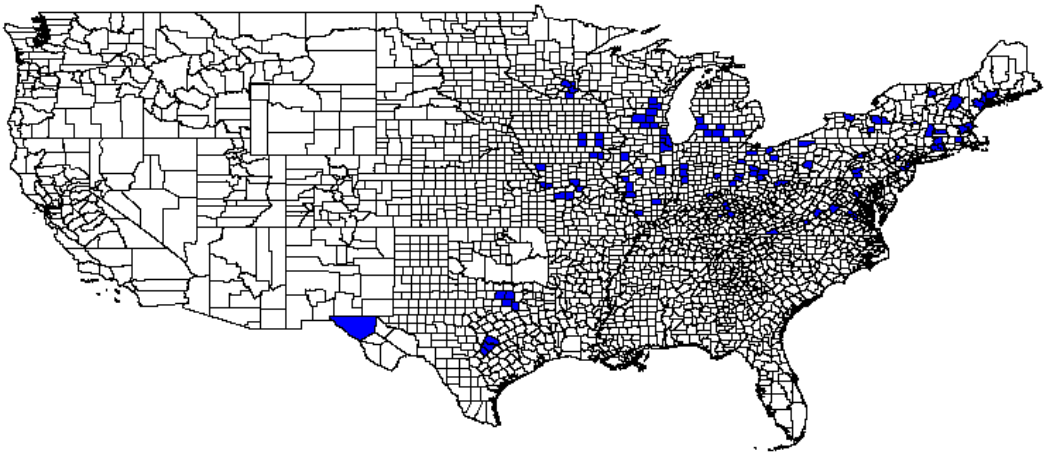
Figure 1: Student Volunteer Movement missionaries sailing abroad, by year



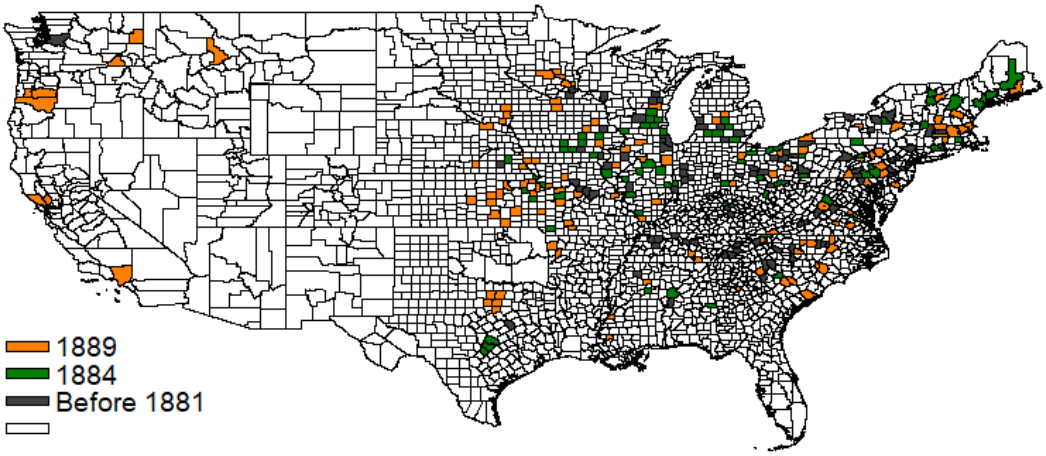
Notes: The figure plots the annual number of Student Volunteer Movement volunteers who sailed abroad. Values for 1893–1919 are digitized from Figure 2 in Parker (1994, p. 173); values for 1920–1940 come from the "Volunteers Sailed" column of Beahm (1941, p. 234, Table 11).

Figure 2: YMCA chapters and travel secretaries

(a) Travel secretaries



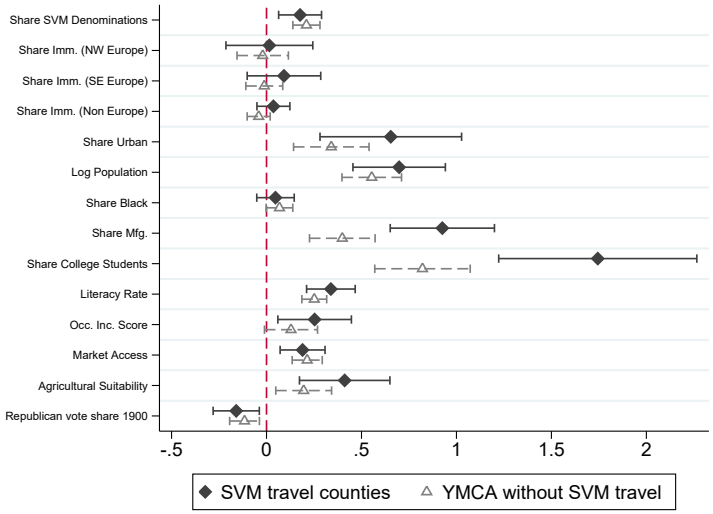
(b) YMCA chapters, 1881-1890



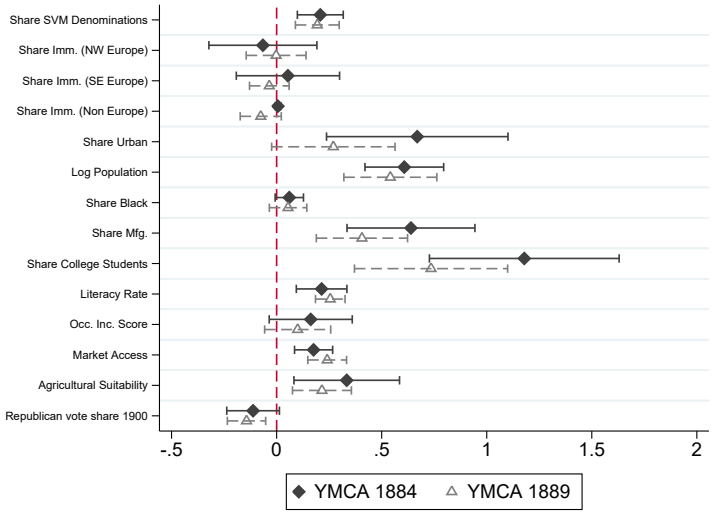
Notes: Panel (a) shows the locations visited by travel secretaries. Panel (b) shows the spatial expansion of local YMCA chapters between 1881 and 1890. Travel itineraries are constructed from the February–June 1887 issues of *Missionary Review of the World* (Beahm, 1941, p. 80). Data on local YMCA chapters come from issues of *Intercollegian* published between 1881 and 1890.

Figure 3: Covariate balance around travel routes and YMCA expansion

(a) Travel secretaries' routes



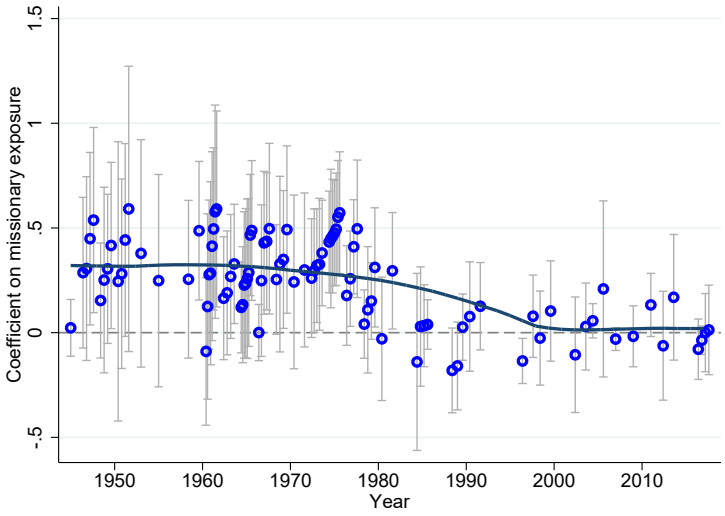
(b) YMCA openings in 1884 and 1889



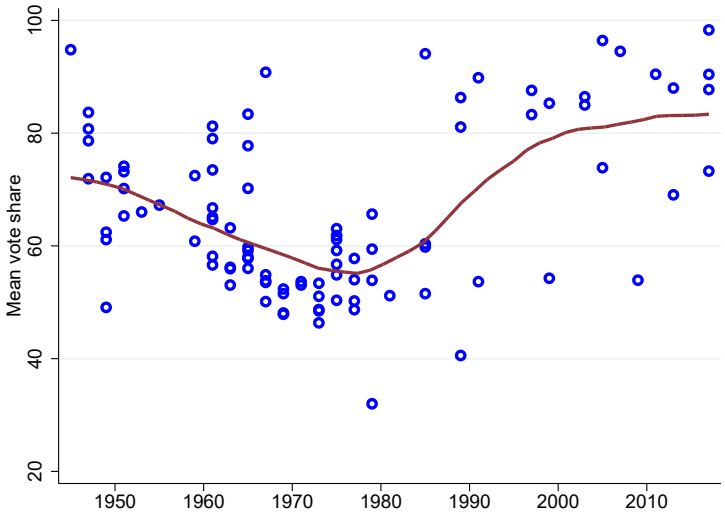
Note: The unit of analysis is the county. All covariates and comparison variables are standardized to have a mean of zero and a standard deviation of one. Panel (a) reports coefficients from regressions of county covariates on indicators for counties visited by travel secretaries during 1886–87 and counties with YMCA chapters that did not receive a travel-secretary visit. Panel (b) reports coefficients from regressions of county covariates on indicators for counties with YMCA openings in 1884 and counties with YMCA openings in 1889. Both panels include state fixed effects. Error bars indicate 95 percent confidence intervals, and standard errors are clustered at the state level.

Figure 4: Missionary exposure and support for foreign aid bills, 1945–2017

(a) IV coefficient from regressions of aid support on missionary exposure



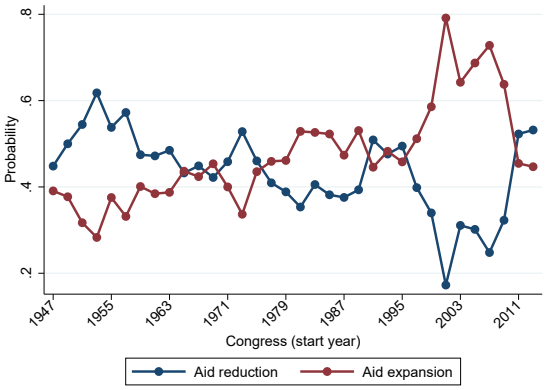
(b) Mean vote share



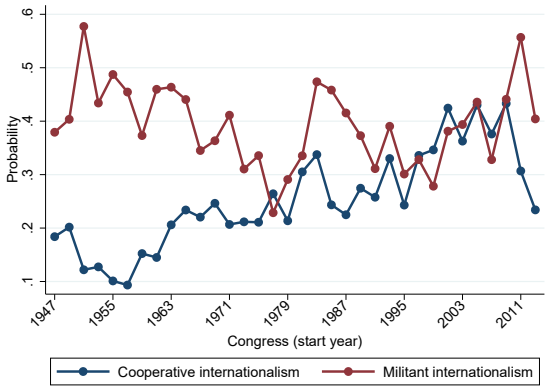
Notes: Panel (a) reports the estimated coefficients from bill-specific IV regressions of an indicator for voting in favor of each foreign aid bill on missionary exposure, with vertical bars showing 95% confidence intervals. Missionary exposure is instrumented by exposure to the initial Student Volunteer Movement travel secretaries. Controls include baseline YMCA exposure, the shares of Student Volunteer Movement, mainline Protestant, and evangelical Protestant denominations, Republican affiliation, DW-NOMINATE score, latitude, longitude, and state fixed effects. Standard errors are clustered by state. Bills voted on within the same Congress are offset slightly along the horizontal axis to reduce overlap. Panel (b) plots the mean vote share in favor of each bill. In both panels each point represents one bill, the horizontal axis gives the starting year of the corresponding Congress, and the solid line is a local polynomial fit.

Figure 5: Evolution in the framing of foreign aid in congressional speech

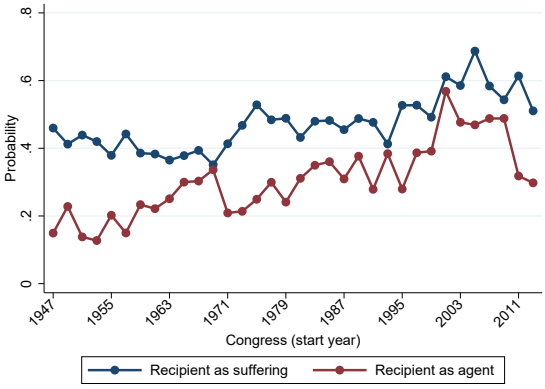
(a) Aid expansion vs. aid reduction



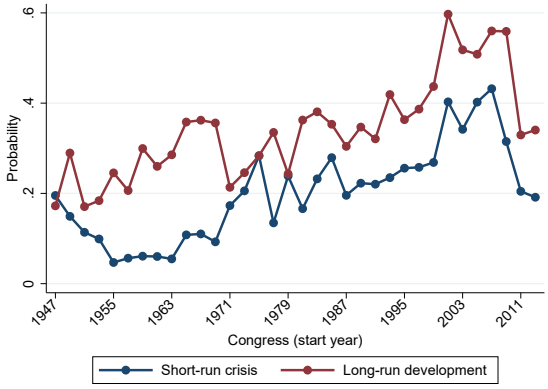
(b) Cooperative vs. militant internationalism



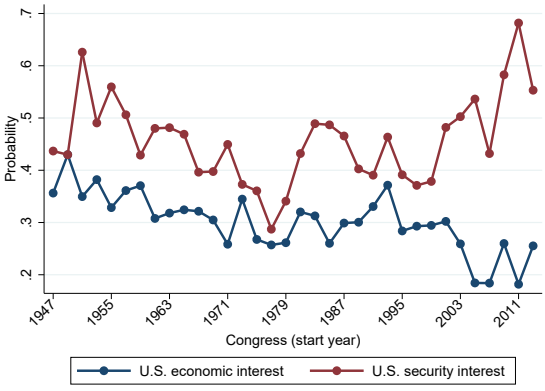
(c) Recipient as suffering vs. agent



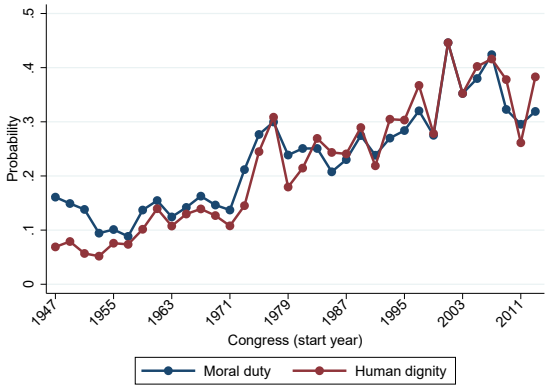
(d) Short-run crisis vs. long-run development



(e) U.S. economic vs. security interest

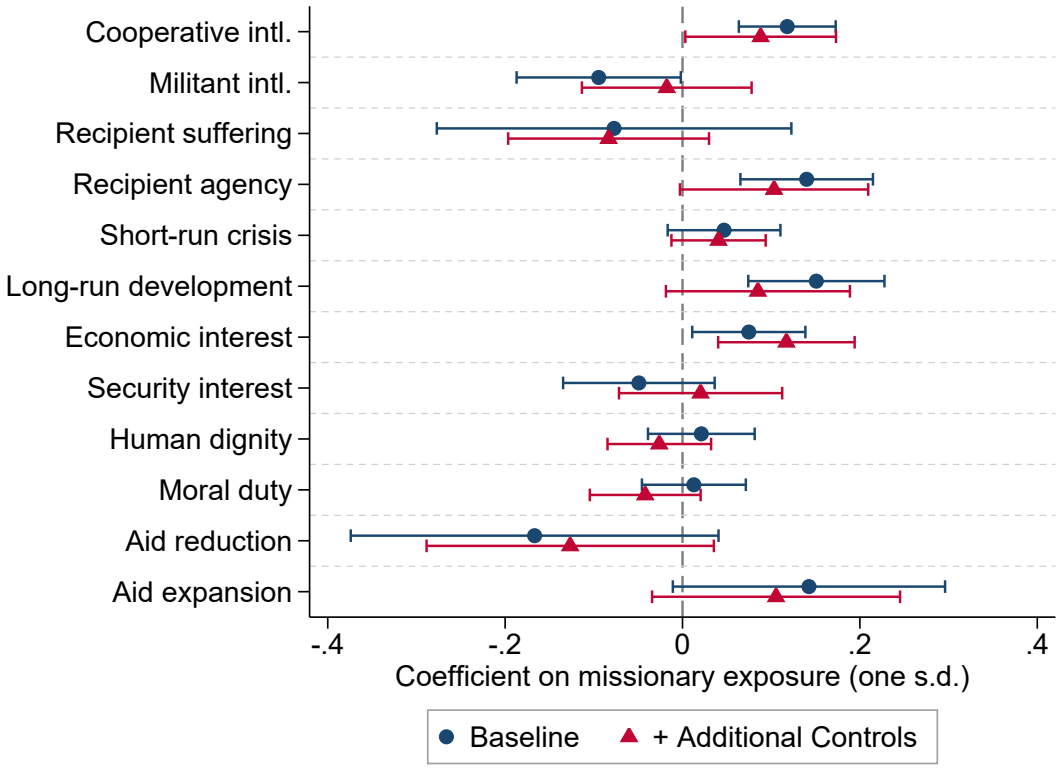


(f) Moral duty or human dignity



Notes: The unit of observation is a representative–Congress term. Within each Congress, the sample is restricted to substantive speeches about foreign aid. A large language model classifies each speech by rhetorical frame, and the figure plots the Congress-level mean of each indicator from the 80th through the 113th Congress. The horizontal axis gives the starting year of each Congress, and the vertical axis gives the estimated probability. Error bars show 95 percent confidence intervals.

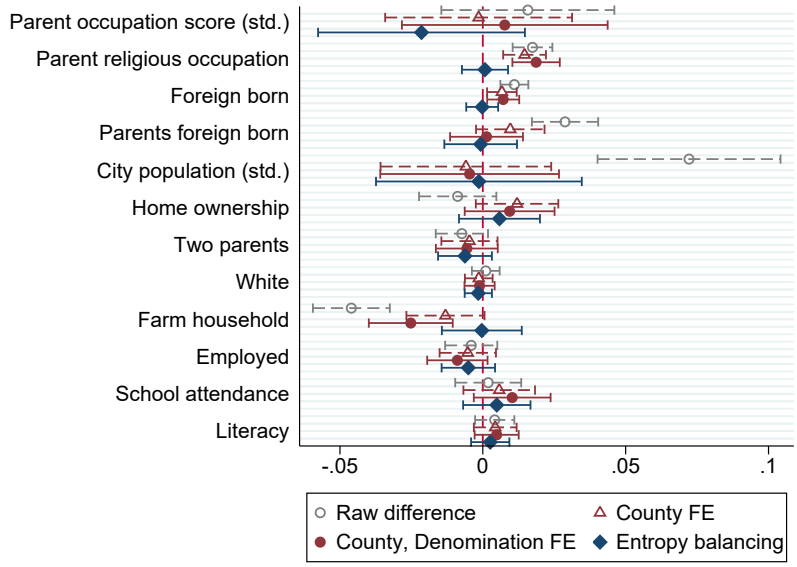
Figure 6: Missionary exposure and the framing of foreign aid in congressional speech



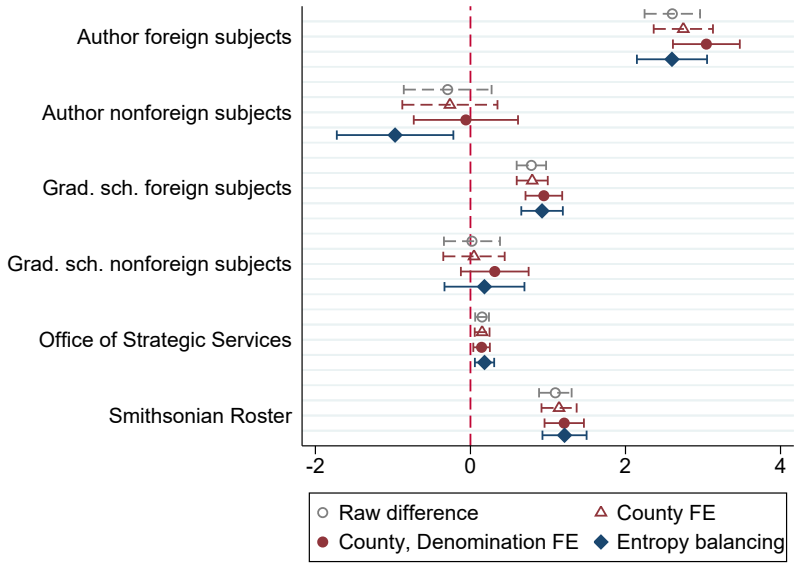
Notes: The unit of observation is a representative–Congress term. The sample is restricted to representatives with at least one substantive speech on foreign aid during that Congress. Each point reports the IV coefficient from a separate regression of the indicated speech-frame outcome on missionary exposure, standardized to have mean zero and standard deviation one. Missionary exposure is instrumented by exposure to the initial Student Volunteer Movement travel secretaries. All specifications include state and Congress fixed effects. Baseline controls include church share, baseline YMCA exposure, DW-NOMINATE score, Republican affiliation, and religious composition. Additional controls include the socioeconomic covariates used in the main analysis. Error bars show 95 percent confidence intervals based on standard errors clustered by state.

Figure 7: Missionary selection and individual-level outcomes

(a) Covariate balance

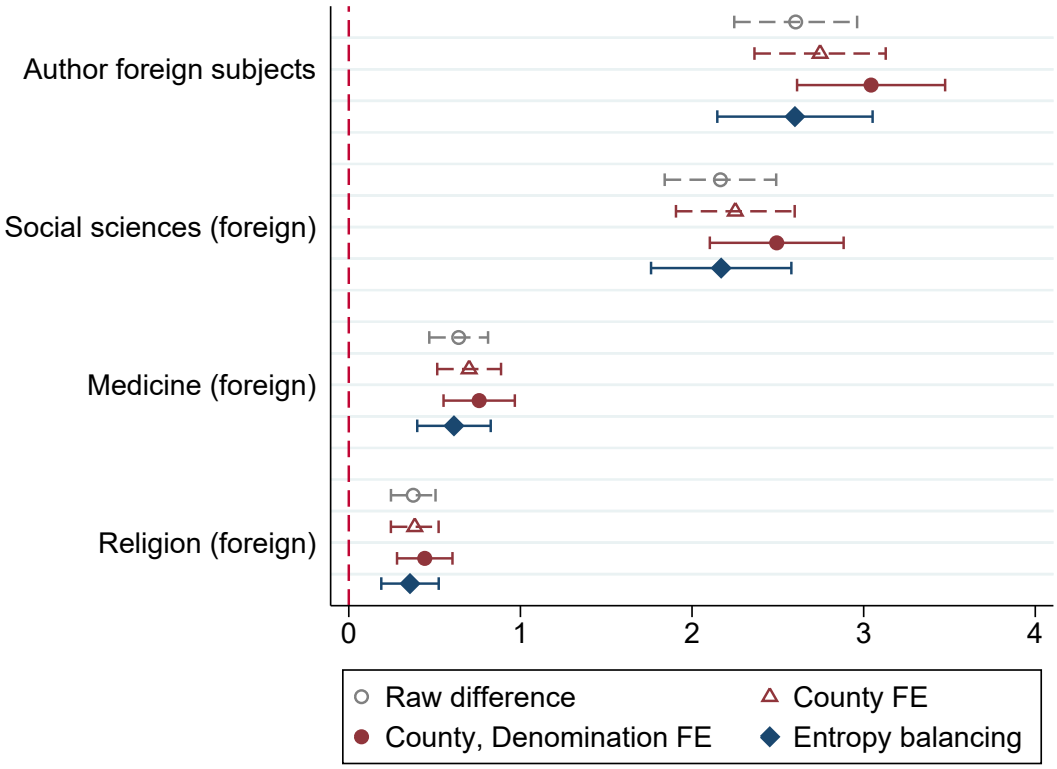


(b) Effects of missionary experience on knowledge output



Note: Raw difference indicates the difference between missionaries and volunteers, controlling for birth year and female fixed effects. The hollow triangle additionally controls for county fixed effects, while the filled circle adds controls for denomination fixed effects. The filled diamond represents differences after reweighting the control group using entropy balancing, where indicators such as parents' religious occupation, foreign-born status, parents' foreign-born status, and farm household status, as well as continuous variables such as city population, birth year, and the female indicator, are weighted to have equal means and variances, following Hainmueller (2012). Indicators in Panel (a) are scaled to one, while those in Panel (b) are scaled to one hundred. The control group means for each variable are 0.7, 0.13, 6.35, 2.46, 0.05, and 0.07, respectively. Error bars indicate 95 percent confidence intervals based on robust standard errors.

Figure 8: Effects of missionary service on publications, by field



Note: The figure presents results from Equation 6 across different concepts. Error bars indicate 95 percent confidence intervals. Foreign-related publications were classified as social science if they included any of the following terms: agriculture, demography, development, economics, history, political science, or sociology. A publication was categorized under medicine and nursing if it included terms such as bacteria, immunology, medicine, nursing, pathology, or virology. Publications were classified as religion if they included terms related to religion, Christianity, or theology.

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A. Additional results

A.1 Descriptive statistics

Table A.1 reports summary statistics for the main foreign aid voting sample used in the analysis.

The religious-composition measures come from the 1890 Census of Religious Bodies, an enumeration regarded as unusually reliable among historical data on American religious participation (Finke, 1989). The census recorded formal church communicants or members rather than the broader population of religious adherents. The resulting shares may therefore exclude children and others associated with a denomination who had not attained formal membership, and should be interpreted as the share of formally recorded members rather than the total population affiliated with each religious tradition.

Table A.1: Descriptive statistics for the main foreign aid voting sample

Variable	Mean	SD	P25	Median	P75	N
Vote in favor of foreign aid (%)	61.56	48.65	0.00	100.00	100.00	31,541
Missionary exposure per million church members	150.13	78.23	90.01	138.29	211.18	31,541
Travel-secretary exposure (standardized)	0.02	1.02	-0.72	-0.02	0.62	31,541
Population in SVM denominations (%)	16.92	6.79	12.48	16.85	21.23	31,541
Mainline Protestant share (%)	14.83	6.22	10.57	14.87	18.53	31,541
Evangelical Protestant share (%)	5.45	6.64	0.81	2.91	7.53	31,541
Catholic share (%)	10.92	9.69	3.06	8.75	17.08	31,541
Mormon share (%)	0.34	4.01	0.00	0.00	0.00	31,541
Jewish share (%)	0.26	0.52	0.00	0.07	0.31	31,541
Republican representative (%)	40.61	49.11	0.00	0.00	100.00	31,541
DW-NOMINATE score	-0.06	0.33	-0.35	-0.10	0.23	31,541
Urban population share (%)	29.38	35.24	0.00	12.25	60.18	31,541
Black population share (%)	10.52	16.89	0.76	1.73	10.99	31,541
Manufacturing employment share (%)	0.56	0.51	0.15	0.39	0.77	31,541
College-student share (%)	0.16	0.22	0.00	0.08	0.25	31,541
Literacy rate (%)	88.50	10.75	86.38	93.35	95.22	31,541
Log population	11.75	1.06	11.37	12.07	12.42	31,541

Notes: The unit of observation is a congressional district–bill. The sample is the fully controlled IV estimation sample in column (7), Panel A of Table 3, covering Congresses 79–101 (1945–1989). Missionary exposure is the district-level shift-share measure constructed from missionaries per denomination and local denominational membership. Travel-secretary exposure is the standardized instrument. Shares and indicator means are reported in percentage points.

A.2 Decomposition of the IV–OLS coefficient gap

Table A.2 decomposes the difference between the IV and OLS estimates following Ishimaru (2024). The covariate-weight component captures differences in the weights placed on observed district characteristics; the treatment-level component captures differences in the weights placed on different levels of missionary exposure; and the marginal-effect component captures the difference between the marginal effects identified by IV and OLS. The three components sum to the IV–OLS gap up to rounding.

Table A.2: Decomposition of the IV–OLS coefficient gap

	1945–1989	Oxfam bills	CQ Press bills
OLS coefficient	-0.016	-0.002	0.037
	(0.021)	(0.022)	(0.033)
IV coefficient	0.197**	0.193**	0.333**
	(0.082)	(0.079)	(0.162)
IV minus OLS	0.213***	0.195***	0.297*
	(0.073)	(0.067)	(0.155)
Covariate-weight difference	0.009	-0.007	-0.665
	(0.037)	(0.032)	(0.743)
Treatment-level-weight difference	0.020***	0.009	0.045***
	(0.008)	(0.007)	(0.014)
Marginal-effect difference	0.183***	0.193***	0.916
	(0.058)	(0.061)	(0.804)

Notes. The dependent variable is support for foreign aid multiplied by 100. Missionary exposure is measured per million. Each column uses the full-control specification from the main table, state and bill fixed effects, and standard errors clustered by state. Following Ishimaru (2024), a quadratic and cubic series in missionary exposure permits nonlinearity, and marginal effects may vary with observed controls. The three decomposition rows sum to the IV–OLS gap up to rounding. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$.

A.3 List of landmark legislation on foreign aid

Table A.3: Landmark foreign aid legislation

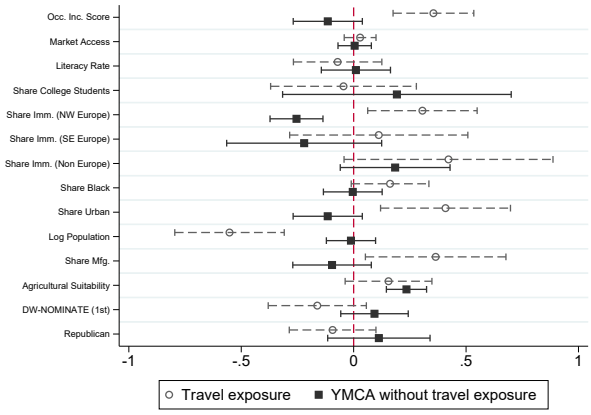
Congress	Roll No.	Date	Bill No.	Act name
79	47	1945-06-07	HR3314	Bretton Woods Agreements Act
80	109	1948-04-02	S2202	Marshall Plan†
81	190	1950-05-23	HR7797	Point Four Program†
82	153	1952-06-05	HR7005	Mutual Security Act†
86	55	1959-07-27	HR7072	Inter-American Development Bank
86	159	1960-06-29	HR11001	International Development Association
87	87	1961-08-31	S1983	Foreign Assistance Act of 1961
87	108	1961-09-21	HR7500	Peace Corps Act
87	140	1962-04-03	HR10700	Peace Corps Act
89	208	1966-02-09	HR12563	Asian Development Bank
90	419	1968-09-10	HR15681	Arms Export Control Act
91	169	1969-12-19	HR14580	Foreign Assistance Act of 1969
94	563	1975-12-09	HR9005	International Development and Food Assistance Act of 1975
94	820	1976-05-20	HR9721	African Development Fund Act
94	930	1976-06-22	HR13680	International Security Assistance and Arms Export Control Act of 1976
95	116	1977-04-06	HR5262	International Financial Institutions Act of 1977
96	510	1979-10-16	HR3173	International Security Assistance Act of 1979
96	944	1980-06-05	HR6942	International Security and Development Cooperation Act of 1980
97	104	1981-06-26	HR3982	African Development Bank
97	348	1981-12-16	HR4559	International Security and Development Cooperation Act of 1981
99	25	1985-03-06	HR1096	African Famine Relief and Recovery Act of 1985
99	249	1985-07-31	S960	International Security and Development Cooperation Act of 1985
101	348	1989-11-16	HR3402	Support for East European Democracy Act of 1989
102	876	1992-10-03	S2532	Freedom for Russia & Emerging Eurasian Democracies & Open Markets Support Act of 1992
105	693	1998-03-19	HR2870	Tropical Forest Conservation Act
105	783	1998-05-14	HR2431	Freedom from Religious Persecution Act
106	305	1999-07-16	HR434	African Growth and Opportunity Act
106	1124	2000-10-06	HR3244	Trafficking Victims Protection Act
108	157	2003-05-01	HR1298	United States Leadership Against HIV/AIDS, Tuberculosis, and Malaria Act
109	524	2005-10-18	HR1409	Assistance for Orphans and Other Vulnerable Children in Developing Countries Act of 2005
109	570	2005-11-07	HR1973	Senator Paul Simon Water for the Poor Act

Note: The table lists 31 landmark foreign aid bills used in the analysis. Bills marked with † are not in Oxfam (2009); they are added from CQ Press landmark legislation on foreign aid, after consulting Lumsdaine (1993). All other bills are from (Oxfam, 2009). Each row corresponds to a House roll-call vote.

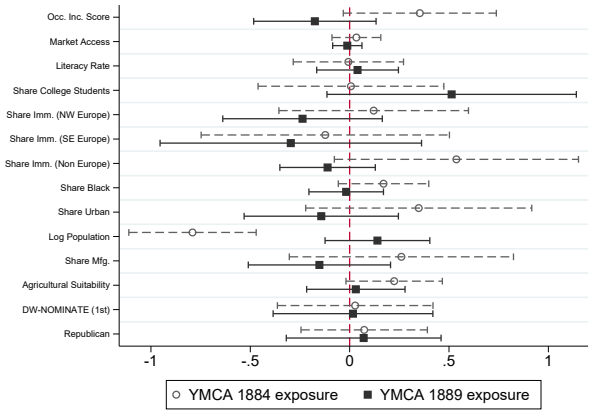
A.4 Balance in exposure to the instrumental variables

Figure A.1: Covariate balance in instrumental-variable exposure

(a) Travel exposure and baseline YMCA exposure



(b) YMCA exposure in 1884 and 1889



Note: The unit of analysis is a congressional district by congressional term. The voting data are collapsed to one observation per congressional district and Congress, using Congresses 79–101. All covariates and exposure measures are standardized to have a mean of zero and a standard deviation of one. Panel (a) reports coefficients from regressions of congressional-district covariates on travel exposure and baseline YMCA exposure. Panel (b) reports coefficients from regressions of congressional-district covariates on exposure to YMCA openings in 1884 and exposure to YMCA openings in 1889. All regressions include state fixed effects, Congress fixed effects, and the share of missionary denominations. Error bars indicate 95 percent confidence intervals, and standard errors are clustered at the state level.

A.5 Temporal decomposition of YMCA exposure: Placebo results

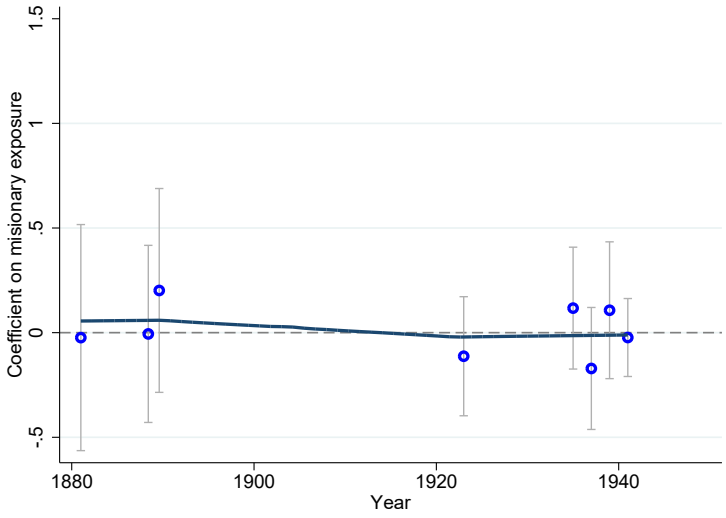
Table A.4: YMCA exposure timing and placebo foreign policy votes, pre-1945

DV: D[Isolationist vote]×100	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Immigration and trade, 1882-1924				Neutrality and Lend-Lease, 1935-1941			
YMCA exposure	2.66				5.48*			
	(8.09)				(2.96)			
YMCA 1881		-8.29	-1.44			-4.92	6.00	
		(5.69)	(4.04)			(5.02)	(4.62)	
YMCA 1884		6.19		-4.58		14.51***		5.48
		(6.49)		(3.32)		(4.62)		(3.42)
YMCA 1889		4.42	6.47	8.02		-4.91	-2.43	-2.24
		(7.98)	(6.10)	(5.56)		(2.96)	(3.46)	(3.65)
Observations	1339	1339	1338	1338	1704	1704	1704	1704
R-squared	0.34	0.34	0.44	0.44	0.33	0.33	0.43	0.43
p[Equal coef.]		0.33	0.42	0.12		0.00	0.21	0.14
Core controls	Y	Y	Y	Y	Y	Y	Y	Y
Additional controls			Y	Y			Y	Y

Note: Unit of analysis is a congressional district-bill. The dependent variable equals 100 if the legislator cast a vote in the isolationist direction and 0 otherwise, matching the placebo outcome in Table 2. Columns (1)-(4) use the immigration and trade placebo bills from 1882-1924; Columns (5)-(8) use the Neutrality and Lend-Lease placebo bills from 1935-1941. YMCA exposure is constructed from the denominational composition of counties with local YMCA chapters between 1881 and 1889. Columns using the three-way and two-way decompositions split YMCA exposure into: before 1881 (YMCA 1881), 1881-1884 (YMCA 1884), and 1884-1889 (YMCA 1889). Core controls include state and bill fixed effects. Additional controls refer to all controls listed in Table 3. Robust standard errors clustered by state in parentheses. *** p<0.01, ** p<0.05, * p<0.1

A.6 Bill-specific regressions of isolationist votes, pre-1945 placebo

Figure A.2: Missionary exposure and pre-1945 isolationist votes: Bill-specific placebo estimates



Notes: The figure reports the estimated coefficients from bill-specific IV regressions of an indicator for voting in the isolationist direction on missionary exposure, with vertical bars showing 95% confidence intervals. The isolationist outcome equals one for a yea vote on the Chinese Exclusion Act, McKinley Tariff, 1924 Immigration Act, and 1935 and 1937 Neutrality Acts, and for a nay vote on the 1939 Neutrality Act repeal and the 1941 Lend-Lease Act. Missionary exposure is instrumented by exposure to the initial Student Volunteer Movement travel secretaries. Controls include baseline YMCA exposure, the shares of Student Volunteer Movement, mainline Protestant, and evangelical Protestant denominations, Republican affiliation, DW-NOMINATE score, latitude, longitude, and state fixed effects. Standard errors are clustered by state. Bills voted on within the same Congress are offset slightly along the horizontal axis to reduce overlap. Each point represents one bill, the horizontal axis gives the starting year of the corresponding Congress, and the solid line is a local polynomial fit.

A.7 Missionary exposure and the extensive margin of foreign-aid speech

Table A.5 tests whether missionary exposure predicts whether a district's representative gives any substantive foreign-aid speech during a Congress. This extensive-margin test precedes the conditional framing analysis in Figure 6.

Table A.5: Missionary exposure and speaking about foreign aid

Dependent variable, any foreign-aid speech ×100	(1)	(2)	(3)	(4)
Missionary exposure (one s.d.)	1.77	2.90	-4.23	0.29
	(2.19)	(1.79)	(5.87)	(4.61)
Estimation method	OLS	OLS	IV	IV
Controls	Baseline	Full	Baseline	Full
Mean outcome	30.24	30.24	30.24	30.24
District–Congress observations	14,625	14,625	14,625	14,625
KP F-stat			45.83	45.18
State fixed effects	Y	Y	Y	Y
Congress fixed effects	Y	Y	Y	Y

Notes. The unit of observation is a congressional district–Congress. The dependent variable equals 100 if at least one speech in the classified corpus is about foreign aid and zero otherwise. Thus coefficients are percentage-point changes for a one-standard-deviation increase in missionary exposure. Columns (1)–(2) are OLS; columns (3)–(4) instrument missionary exposure with exposure to travel secretaries. Baseline controls match the directional speech analysis; full controls additionally include socioeconomic covariates. Rare replacement-member records within a district–Congress are averaged before estimation. Standard errors are clustered by state.

A.8 LLM classification procedure and prompt

Candidate speeches and preprocessing. I begin with the congressional speech corpus for Congresses 80–114 (1947–2017). I retain speeches containing at least one of four case-insensitive phrases: "foreign aid," "foreign assistance," "development assistance," or "development aid." This screen yields 41,108 candidate speeches. To keep long speeches within a common input length while preserving the relevant context, I locate mentions of foreign-aid programs and institutions using a broader dictionary that includes terms such as USAID, the Peace Corps, the Marshall Plan, the World Bank, mutual security, military assistance, and humanitarian assistance. I extract a 900-character window on each side of the first 30 matches, merge overlapping windows, and cap the combined text at 12,000 characters.

Model and classification procedure. I classify the candidate speeches with the dated `gpt-4o-mini-2024-07-18` model snapshot through the OpenAI Batch API. The temperature is set to zero and the maximum output length to 400 tokens. The API enforces a strict JSON schema: all classification fields are required, no additional fields are permitted, and every substantive classification is binary. The model first distinguishes substantive foreign-aid discussions from procedural or domestic-only remarks. For speeches that fail this gate, all framing indicators are set to zero. Of the 41,108 candidate speeches, 28,067 pass the substantive foreign-aid gate. I aggregate the speech-level indicators to the legislator–Congress level by coding a frame as one if the legislator uses it in at least one substantive foreign-aid speech during that Congress. The regressions in Figure 6 use the resulting 12,386 legislator–Congress observations with at least one substantive foreign-aid speech.

Structured output. The required output contains the three gate indicators, two overall-stance indicators, thirteen rhetorical-feature indicators, and a free-text notes field used for auditing. Each speech is coded on the following binary fields, grouped by theme:

- **Relevance and scope:** is_foreign_aid_speech, is_procedural_only, is_domestic_only
- **Stance:** supports_aid_expansion, supports_aid_reduction
- **Justification frames:** mentions_moral_duty, mentions_human_dignity, mentions_us_security_interest, mentions_us_economic_interest, mentions_long_run_development, mentions_short_run_crisis, mentions_principles_or_world_order
- **Recipient framing:** mentions_recipient_as_agent, mentions_recipient_as_suffering

- **Internationalist orientation:** mentions_multilateral_institutions, mentions_militant_internationalism, mentions_cooperative_internationalism, mentions_specific_programs_or_dollars

Full LLM Prompt for Foreign Aid Speech Classification

System Prompt

```
You classify U.S. congressional speeches about foreign aid
based on RHETORICAL FRAMING | not keywords.

IMPORTANT: Congressional language varies dramatically across eras.
1950s speeches may say "backward nations" or "underdeveloped peoples";
2000s speeches may say "developing countries" or "fragile states."
Classify based on the UNDERLYING CONCEPT, not period-specific vocabulary.


STEP 1 | GATE (choose ONE path):


A) Procedural/parliamentary only (motions, votes, scheduling)
B) Domestic-only policy (no foreign dimension)
C) Substantive foreign aid discussion

If A or B → is_foreign_aid_speech = 0, ALL other flags = 0. STOP.
If C → proceed to Step 2.


STEP 2 | OVERALL STANCE


supports_aid_expansion / supports_aid_reduction:
Judge the speaker's OVERALL NET STANCE toward foreign aid in this speech.

* A speaker may criticize a specific program while supporting aid in general → expansion.
* A speaker may praise one program while arguing to cut the overall budget → reduction.
* If genuinely mixed with no clear lean, mark both 0.


STEP 3 | RHETORICAL FEATURES


Mark 1 if the IDEA is clearly present in meaning, even if wording differs.

mentions_moral_duty:
Aid framed as ethical, humanitarian, or religious obligation.

mentions_human_dignity:
Universal human rights, equality of peoples, inherent worth of all people.

mentions_us_security_interest:
Containment, Cold War competition, military alliances, strategic stability,
preventing communism/terrorism, protecting American safety.

mentions_us_economic_interest:
```

```
Trade expansion, opening markets, protecting American jobs or exports,
economic return from aid spending.

mentions_long_run_development:
Institution building, modernization, education, agricultural improvement,
infrastructure, capacity building, self-sufficiency.

mentions_short_run_crisis:
Emergency relief, famine, natural disaster, refugee crisis, war aftermath.

mentions_principles_or_world_order:
Global norms, international law, world stability, rules-based order,
collective security frameworks.

mentions_recipient_as_agent:
Foreign peoples/governments as partners, active builders, self-governing,
capable of directing their own development.

mentions_recipient_as_suffering:
Foreign peoples mainly as victims, helpless, starving, in need of rescue.

mentions_multilateral_institutions:
UN, World Bank, IMF, regional development banks, NATO (in aid context).

mentions_militant_internationalism (Wittkopf 1990):
Foreign aid framed as a tool of GEOPOLITICAL STRUGGLE or IDEOLOGICAL
COMPETITION. Key markers:
* Aid as a weapon against adversaries (Soviet Union, China, terrorism)
* Strategic alliance building through aid
* Aid to prevent countries from "falling" to hostile powers
* National strength projection through foreign assistance
* Linking aid to military/defense posture
Note: mere mention of security does NOT automatically qualify.
The speech must frame aid as part of an active geopolitical contest.

mentions_cooperative_internationalism (Wittkopf 1990):
Foreign aid framed as SHARED GLOBAL COOPERATION and MUTUAL BENEFIT.
Key markers:
* Multilateral partnership and burden-sharing
* Global problems requiring collective solutions
* Interdependence of nations
* Aid as building international community/goodwill
* Emphasis on diplomacy, negotiation, peaceful cooperation
Note: mere mention of the UN does NOT automatically qualify.
The speech must frame aid as collaborative international effort.

IMPORTANT: Militant and cooperative internationalism are NOT mutually
exclusive. A speech can contain BOTH framings simultaneously.

mentions_specific_programs_or_dollars:
Names a specific aid program, bill, dollar amount, or appropriation figure.
```

User Prompt Template

```
Return structured output only.

Speech:
{speech}
```

A.9 Comparison with existing estimates of foreign aid voting

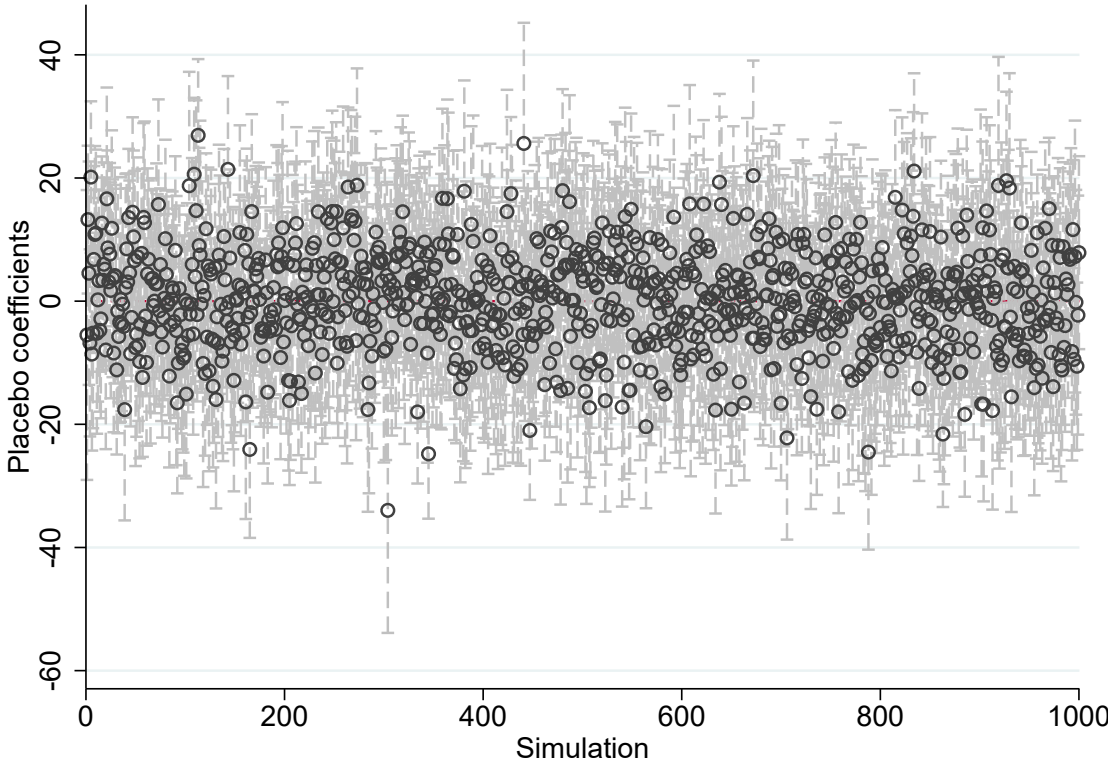
Table A.6: Determinants of high-salience foreign aid votes

Outcome: yea vote (dummy×100)	(1)	(2)
	Bivariate	Multivariate
High-skill workers (%)	2.74***	4.40***
	(0.81)	(0.94)
Bank PAC contributions (%)	5.54***	6.03***
	(0.88)	(0.94)
Corporate PAC contributions (%)	-55.16***	3.86
	(2.36)	(3.24)
Labor PAC contributions (%)	26.20***	20.80***
	(0.69)	(1.20)
Presidential vote, Republican (%)	-18.05***	-8.59***
	(0.62)	(0.96)
Presidential support, same party	8.82***	2.24***
	(0.61)	(0.58)
Market value of agric. production	-8.36***	0.59
	(0.64)	(0.64)
Unemployment rate (%)	9.59***	-0.40
	(0.83)	(1.13)
Change in unemployment, 2-yr avg.	-0.49	1.27
	(1.03)	(0.91)
Log median income	2.64***	0.59
	(0.82)	(1.09)
Foreign-born (%)	13.07***	2.34***
	(0.83)	(0.84)
Black (%)	11.19***	2.15**
	(0.58)	(0.84)
Catholic adherents (%)	13.60***	1.91*
	(0.93)	(1.02)
Jewish adherents (%)	8.66***	-1.26
	(0.85)	(0.87)
Mainline Protestant adherents (%)	-8.35***	-1.17
	(0.98)	(1.06)
Evangelical adherents (%)	-15.12***	-4.64***
	(0.92)	(1.07)
Outcome mean:	51.16	51.16
Observations	5,049	5,049
R-squared		0.34
Region controls	Yes	Yes
Vote fixed effects	Yes	Yes

Note: Unit of analysis is a representative-by-vote observation. The table replicates column (10) of Table 1 in Milner & Tingley (2010) by estimating linear probability model of an indicator for voting in favor of foreign economic aid (multiplied by 100) on the covariates from the full panel specification (Column 10 of the panel models). Column (1) reports bivariate estimates, where each coefficient comes from a separate regression of the outcome on the listed covariate alone; Column (2) reports the multivariate estimate with all covariates entered jointly. All regressions control for region indicators (West, Midwest, South) and vote (bill) fixed effects, and are restricted to high-salience economic-aid votes excluding votes with FEC data problems. For readability, every covariate, including the region control variables, is standardized to mean zero and variance one, so coefficients are percentage-point changes in the probability of a yea vote per one-standard-deviation increase in the covariate; bivariate estimates are computed on the multivariate estimation sample. Robust standard errors are reported in parentheses. *** p<0.01, ** p<0.05, * p<0.1

A.10 Randomly generated shift

Figure A.3: Placebo estimates using randomly generated shifts



Note: The unit of observation is a congressional district–bill. The sample includes all foreign aid votes from 1945 through 1989. The figure reports coefficients and 95 percent confidence intervals from reduced-form regressions of votes in favor of foreign aid on exposure to travel secretaries. The placebo instrument interacts denominational shares of county population with random shifts drawn to have mean zero and variance one. The figure reports the distribution of estimates from 1,000 randomly generated shifts. All regressions include the full set of YMCA and baseline controls in Table 3, and standard errors are clustered by state.

A.11 Alternative standard errors

Table A.7: Robustness to alternative standard errors: IV

DV: D[Foreign aid vote]×100	(1)	(2)	(3)	(4)	(5)
	Panel A: Full foreign aid sample, 1945-1989				
Exposure to missionaries	0.50	0.42	0.29	0.25	0.20
Standard errors:					
Clustered by state	(0.23)	(0.18)	(0.11)	(0.08)	(0.08)
Adao *et al.* (2019)	–	–	–	–	–
Borusyak *et al.* (2022)$^{+}$	(0.41)	(0.31)	(0.17)	(0.12)	(0.12)
Conley (1999) (100km)	(0.21)	(0.14)	(0.08)	(0.06)	(0.07)
Conley (1999) (300km)	(0.16)	(0.14)	(0.10)	(0.08)	(0.09)
Conley (1999) (500km)	(0.02)	(0.12)	(0.09)	(0.07)	(0.09)
DellaVigna *et al.* (2025) TMO	(0.16)	(0.13)	(0.07)	(0.05)	(0.06)
Observations	31,541	31,541	31,541	31,541	31,541
R-squared	0.07	0.11	0.29	0.29	0.31
	Panel B: Oxfam landmark bills				
Exposure to missionaries	0.48	0.40	0.28	0.24	0.19
Standard errors:					
Clustered by state	(0.20)	(0.17)	(0.10)	(0.08)	(0.08)
Adao *et al.* (2019)	(0.21)	(0.16)	(0.10)	(0.07)	(0.07)
Borusyak *et al.* (2022)$^{+}$	(0.36)	(0.27)	(0.15)	(0.10)	(0.12)
Conley (1999) (100km)	(0.21)	(0.15)	(0.09)	(0.07)	(0.07)
Conley (1999) (300km)	(0.18)	(0.15)	(0.10)	(0.08)	(0.10)
Conley (1999) (500km)	(0.05)	(0.12)	(0.09)	(0.08)	(0.10)
DellaVigna *et al.* (2025) TMO	(0.16)	(0.13)	(0.08)	(0.06)	(0.06)
Observations	9,232	9,232	9,232	9,232	9,232
R-squared	0.05	0.09	0.22	0.23	0.24
	Panel C: CQ Press landmark bills				
Exposure to missionaries	0.57	0.42	0.54	0.48	0.33
Standard errors:					
Clustered by state	(0.29)	(0.19)	(0.19)	(0.19)	(0.16)
Adao *et al.* (2019)	(0.33)	(0.18)	(0.22)	(0.19)	(0.15)
Borusyak *et al.* (2022)$^{+}$	(0.49)	(0.26)	(0.26)	(0.23)	(0.20)
Conley (1999) (100km)	(0.34)	(0.15)	(0.16)	(0.16)	(0.15)
Conley (1999) (300km)	(0.23)	(0.14)	(0.16)	(0.17)	(0.15)
Conley (1999) (500km)	–	(0.14)	(0.16)	(0.18)	(0.16)
DellaVigna *et al.* (2025) TMO	(0.23)	(0.14)	(0.14)	(0.14)	(0.13)
Observations	1,947	1,947	1,947	1,947	1,947
R-squared	0.06	0.15	0.28	0.30	0.36
Core controls	Y	Y	Y	Y	Y
Baseline YMCA	N	Y	Y	Y	Y
Political controls	N	N	Y	Y	Y
Religious controls	N	N	N	Y	Y
Socioeconomic controls	N	N	N	N	Y

Note: Unit of analysis is a congressional district-bill. IV regressions of votes in favor of foreign aid on exposure to missionaries, instrumented by travel exposure. The five columns correspond to columns (3)-(7) in Tables 3 and 4; control groups are defined there. Full-sample Adao *et al.* (2019) standard errors are not reported because the matrix-size limit prevented estimation. $^{+}$For Borusyak *et al.* (2022), the unit of analysis is denomination by bill and standard errors are clustered by denomination; the Borusyak regressions use 3,619 denomination-by-bill observations in Panel A, 1,081 in Panel B, and 235 in Panel C. The TMO-style standard errors follow DellaVigna *et al.* (2025); auxiliary residual correlations are estimated using roll-call bills outside the main 1945–1989 target period, from Congresses before 79 and after 101. Standard errors are in parentheses.

Table A.8: Robustness to alternative standard errors: reduced form

DV: D[Foreign aid vote]×100	(1)	(2)	(3)	(4)	(5)
	Panel A: Full foreign aid sample, 1945-1989				
Travel exposure (std.)	11.68	11.49	8.26	10.08	8.28
Standard errors:					
Clustered by state	(2.78)	(2.84)	(2.77)	(2.83)	(2.84)
Adao *et al.* (2019)[#]	–	–	–	–	–
Borusyak *et al.* (2022)[+]	(2.62)	(2.74)	(1.37)	(1.73)	(2.33)
Conley (1999) (100km)	(2.03)	(2.03)	(2.02)	(1.98)	(2.33)
Conley (1999) (300km)	(1.73)	(1.77)	(2.25)	(2.37)	(2.90)
Conley (1999) (500km)	(1.33)	(1.44)	(1.98)	(1.99)	(2.98)
DellaVigna *et al.* (2025) TMO	(1.99)	(1.97)	(1.92)	(1.81)	(2.17)
Observations	31,541	31,541	31,541	31,541	31,541
R-squared	0.20	0.20	0.32	0.32	0.33
	Panel B: Oxfam landmark bills				
Travel exposure (std.)	11.54	11.49	8.31	9.77	8.23
Standard errors:					
Clustered by state	(2.08)	(2.16)	(2.26)	(2.38)	(2.72)
Adao *et al.* (2019)	(1.69)	(1.76)	(1.14)	(1.43)	(1.76)
Borusyak *et al.* (2022)[+]	(2.02)	(2.10)	(1.21)	(1.49)	(2.16)
Conley (1999) (100km)	(1.80)	(1.78)	(1.85)	(1.83)	(2.30)
Conley (1999) (300km)	(1.58)	(1.67)	(2.17)	(2.09)	(3.01)
Conley (1999) (500km)	(0.73)	(0.79)	(1.84)	(1.93)	(3.23)
DellaVigna *et al.* (2025) TMO	(1.75)	(1.77)	(1.72)	(1.77)	(2.20)
Observations	9,232	9,232	9,232	9,232	9,232
R-squared	0.17	0.17	0.25	0.25	0.26
	Panel C: CQ Press landmark bills				
Travel exposure (std.)	17.96	18.09	22.81	21.50	15.72
Standard errors:					
Clustered by state	(6.15)	(6.61)	(5.79)	(6.44)	(5.97)
Adao *et al.* (2019)	(4.33)	(4.48)	(3.71)	(3.84)	(3.93)
Borusyak *et al.* (2022)[+]	(5.62)	(5.92)	(4.24)	(4.51)	(4.95)
Conley (1999) (100km)	(4.72)	(4.86)	(4.74)	(5.01)	(5.37)
Conley (1999) (300km)	(4.21)	(4.36)	(4.91)	(5.43)	(4.39)
Conley (1999) (500km)	(4.14)	(4.37)	(4.71)	(5.50)	(5.23)
DellaVigna *et al.* (2025) TMO	(4.92)	(5.06)	(4.53)	(4.97)	(4.97)
Observations	1,947	1,947	1,947	1,947	1,947
R-squared	0.22	0.22	0.37	0.37	0.39
Core controls	Y	Y	Y	Y	Y
Baseline YMCA	N	Y	Y	Y	Y
Political controls	N	N	Y	Y	Y
Religious controls	N	N	N	Y	Y
Socioeconomic controls	N	N	N	N	Y

Note: Unit of analysis is a congressional district-bill. Reduced-form regressions of votes in favor of foreign aid on standardized travel exposure. The five columns correspond to columns (3)-(7) in Tables 3 and 4; control groups are defined there. [#]Full-sample Adao *et al.* (2019) standard errors are not reported because the matrix-size limit prevented estimation. [+]For Borusyak *et al.* (2022), the unit of analysis is denomination by bill and standard errors are clustered by denomination; the Borusyak regressions use 3,619 denomination-by-bill observations in Panel A, 1,081 in Panel B, and 235 in Panel C. The TMO-style standard errors follow DellaVigna *et al.* (2025); auxiliary residual correlations are estimated using roll-call bills outside the main 1945–1989 target period, from Congresses before 79 and after 101. Standard errors are in parentheses.

TMO standard errors I describe the construction of the thresholding-multiple-outcomes (TMO) standard errors reported in Tables A.7 and A.8 (DellaVigna *et al.*, 2025). The goal is to estimate which congressional districts have correlated residual voting behavior using auxiliary outcomes, and then to let the variance of the main coefficient include covariance terms for the selected district pairs. In the original setting the auxiliary outcomes are external variables; here they are other roll-call votes.

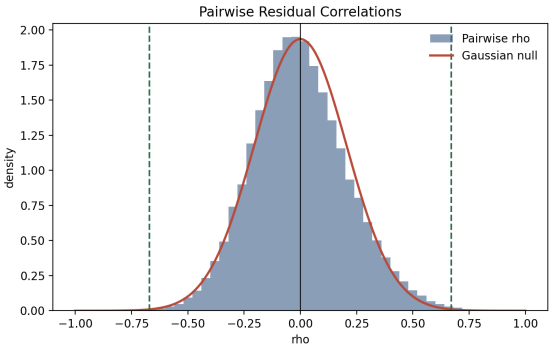
To avoid estimating the dependence structure from the same foreign aid votes used in the main regressions, I estimate the pairwise dependence network from roll-call bills outside the target period, using bills from Congresses before 79 and after 101 and excluding all 1945–1989 foreign aid bills used in the target regression. For each auxiliary bill I residualize the vote outcome using the same treatment, controls, and fixed-effect structure as in the reduced-form specification, standardize the district-level residuals, and compute pairwise correlations across districts. I then fit a mean-zero Gaussian null to the center of the empirical pairwise-correlation distribution and choose the correlation threshold that maximizes the excess empirical tail mass relative to the fitted null, following DellaVigna *et al.* (2025). The TMO standard error adds covariance terms only for district pairs whose auxiliary residual correlation exceeds this selected threshold.

Several diagnostics support reading the exercise as an informative robustness check rather than as evidence of uniformly greater precision. First, the auxiliary sample is cleanly separated from the target period: the preferred auxiliary matrix uses 27 bills (8 before World War II and 19 after the Cold War) and no bills from Congresses 79–101. Second, the Gaussian-null approximation fits the center of the pairwise-correlation distribution reasonably well. Third, the selected threshold is stable: the objective is maximized at a threshold of about 0.67, with a small but positive value, and nearby grid points yield similar objective values, so the choice is not driven by a single isolated grid point. At this threshold only about 0.1% of district pairs are retained. Figure A.4 illustrates two representative diagnostics. Panel (a) plots the empirical distribution of pairwise residual correlations against the fitted mean-zero Gaussian null: the null approximates the center of the distribution closely, and the selected threshold (dashed lines, $|\rho| \approx 0.67$) sits far out in the tails, where the empirical mass begins to exceed the null. Panel (b) plots the resulting TMO standard error relative to the clustered-by-state standard error across candidate thresholds. For low thresholds the ratio swings widely, because many spuriously correlated pairs enter the covariance sum; beyond a threshold of roughly 0.45 it flattens out and settles near 0.77, so the correction is essentially insensitive to the exact threshold in the neighborhood of the selected value. The threshold itself is chosen by the excess-tail objective, but panel

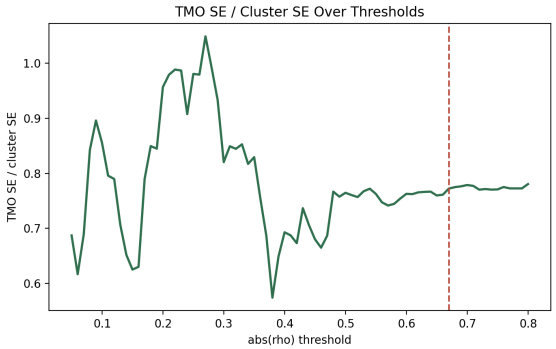
(b) confirms that the reported standard error is not an artifact of that particular choice. Taken together, the diagnostics indicate that the main positive reduced-form pattern is not an artifact of a broad spatial-correlation correction, while also showing that the estimated dependence network is sparse and the excess-tail signal is modest.

Figure A.4: TMO standard errors: representative diagnostics

(a) Pairwise residual correlations



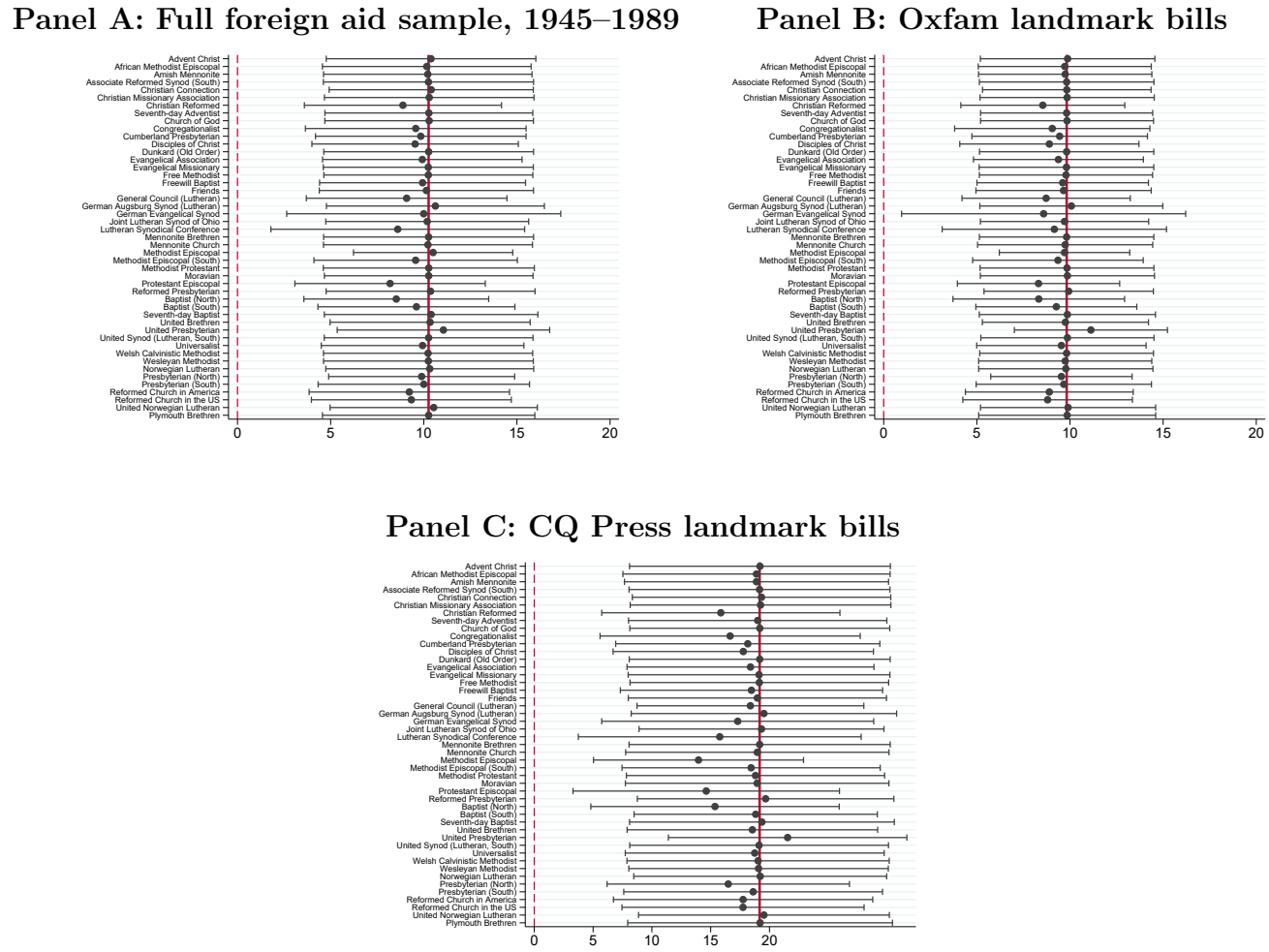
(b) Standard error across thresholds



Note: Representative diagnostics for the DellaVigna *et al.* (2025)-style TMO standard errors on the full foreign aid sample, fully controlled reduced-form specification (column (5), Panel A). Panel (a) plots the empirical distribution of pairwise residual correlations across congressional districts, estimated from the auxiliary roll-call bills outside the 1945–1989 target period, together with the fitted mean-zero Gaussian null; the vertical dashed lines mark the selected correlation threshold ($|\rho| \approx 0.67$). Panel (b) plots the TMO standard error relative to the clustered-by-state standard error as a function of the absolute-correlation threshold; the ratio is volatile at low thresholds but stabilizes near 0.77 beyond a threshold of about 0.45, with the selected threshold (dashed line) lying in the stable region.

A.12 Leave one denomination out

Figure A.5: Leave-one-denomination-out estimates

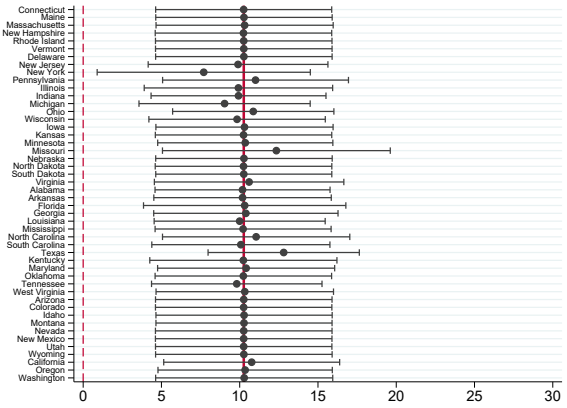


Note: Unit of analysis is a congressional district-bill. Each panel reports reduced-form regressions of votes in favor of foreign aid on standardized travel exposure. Panel A uses the full foreign aid sample, Panel B restricts the sample to Oxfam landmark bills, and Panel C restricts the sample to CQ Press landmark bills. All regressions include the full set of controls and cluster standard errors by state. The solid red line shows the estimate using all 47 denominations. Points show estimates after leaving out one denomination at a time, with 95 percent confidence intervals.

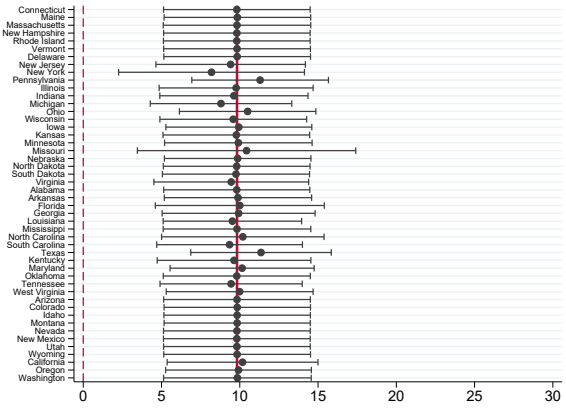
A.13 Leave one state out

Figure A.6: Leave-one-state-out estimates

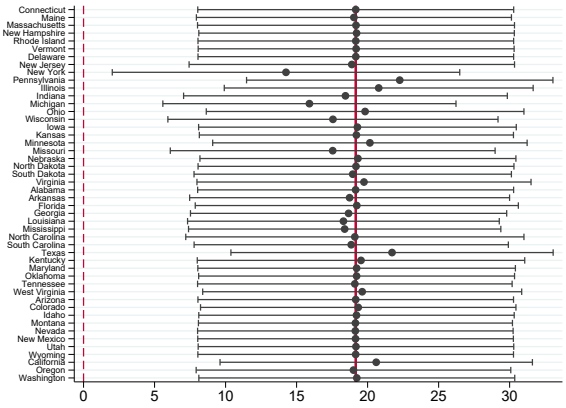
Panel A: Full foreign aid sample, 1945–1989



Panel B: Oxfam landmark bills



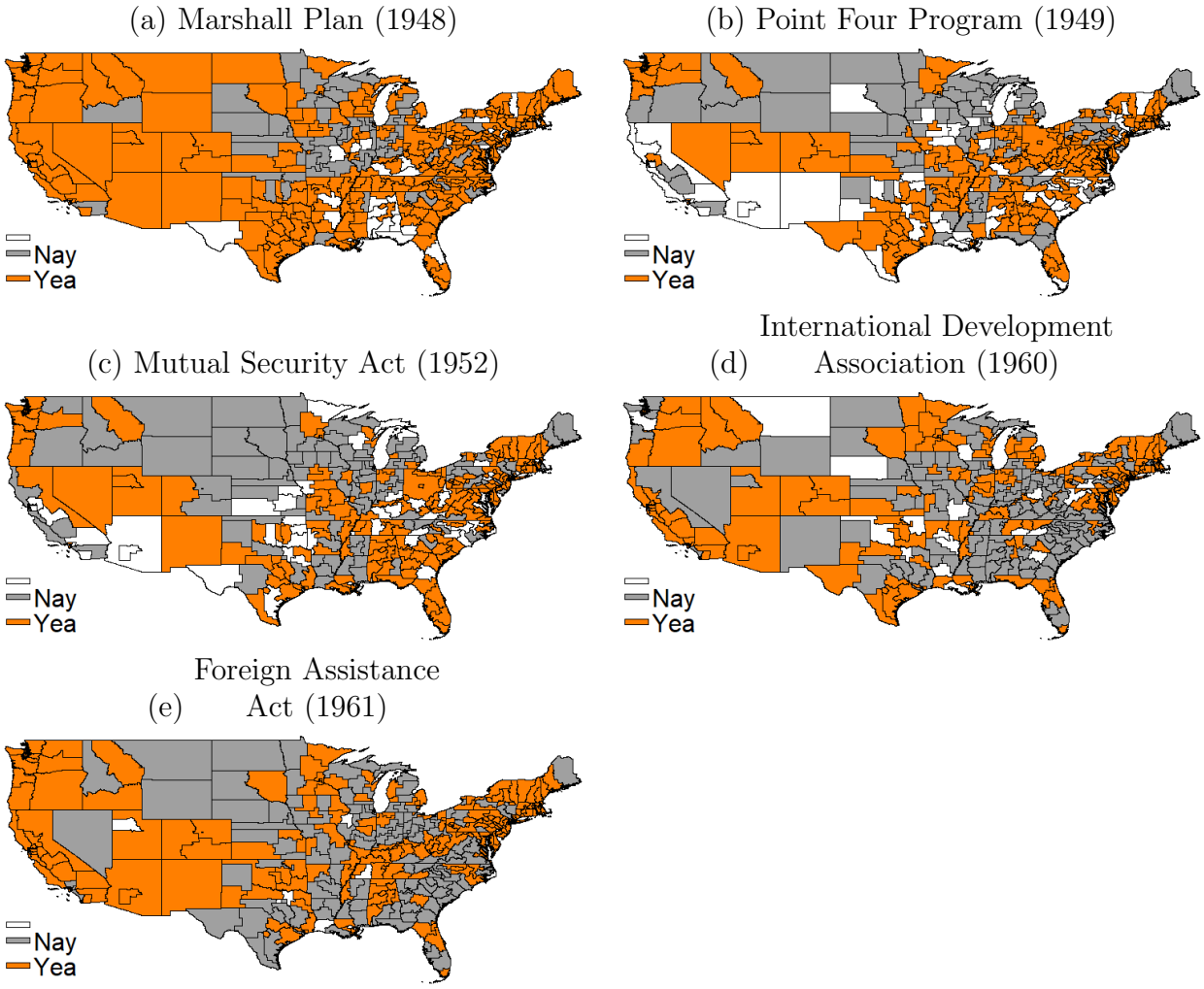
Panel C: CQ Press landmark bills



Note: Unit of analysis is a congressional district-bill. Each panel reports reduced-form regressions of votes in favor of foreign aid on standardized travel exposure. Panel A uses the full foreign aid sample, Panel B restricts the sample to Oxfam landmark bills, and Panel C restricts the sample to CQ Press landmark bills. All regressions include the full set of controls and cluster standard errors by state. The solid red line shows the estimate using all 48 states. Points show estimates after leaving out one state at a time, with 95 percent confidence intervals.

A.14 Congressional voting on foreign aid

Figure A.7: Congressional voting on foreign aid



Note: Congressional voting on key foreign aid legislation. Congressional districts that voted 'Yea' on the passage of foreign aid are highlighted in orange, while those that voted 'Nay' are shown in gray. Districts where no vote was recorded are left blank.

A.15 Census match

I employ an iterative record linking procedure to match archival records to census data (Abramitzky *et al.*, 2021). An individual and a census record are considered matched if they share the same NYSIIS-standardized first and last name, middle initial, address, and have estimated birth years within two years of each other. If only one census observation matches only one archival sample, I consider those records linked and remove them from the pool of possible matches. If the match is not unique, the records are not linked.

I match individuals under forty years old across each census, beginning with the most stringent criteria. I then repeat the procedure, gradually relaxing the matching variables by using less detailed names or geographic identifiers. The matching process follows these steps:

- Match based on first and last names, middle initial, birth year, and county of residence.
- Match based on first and last names, birth year, and county of residence.
- Match based on first and last names, middle initial, birth year, and state of residence (rather than county).
- Match based on first and last names, birth year, and state of residence (rather than county).
- Match based on first and last names, middle initial, and birth year.
- Match based on first and last names and birth year.

The data includes 33,535 individuals with name and birth year information. Of these, 33,478 individuals have birth years after 1858, comprising the sample matched to the 1900 census (40 years of age in 1900 plus two years of allowable gap for census matching). Among them, 28,256 individuals are matched to either the 1900 or 1910 census records, resulting in a census match rate of 84 percent.

The automated linking procedure may result in some false positives. As suggested by Bailey *et al.* (2020), a more unique match can enhance matching accuracy. To improve the reliability of the matches, I further restrict the sample to individuals who are unique within ± 2 years of age (Abramitzky *et al.*, 2021). This refinement yields 22,402 matched individuals, achieving a match rate of 67 percent.

In the baseline matching procedure, I consider an individual matched if there is only one unique combination of name, birth year, and location in both the census record and

the archival sample. For example, a match would be made if there is only one John Smith born in 1897 who lives in Illinois in 1900 in both datasets.

For a more conservative matching approach, I implement additional stringency. In this case, I drop matches if there are similar individuals within a close age range in the same location. For instance, I would drop the match for John Smith born in 1897 in Illinois if there is another John Smith in Illinois born in 1895.

This match rate is at the higher end of the distribution compared to existing studies that match external data to individual census records (Bleemer & Quincy, 2021; Moreira & Pérez, 2022; Aneja & Xu, 2022) or perform census-to-census or census-to-patent matching (Sarada *et al.*, 2019; Abramitzky *et al.*, 2020), which report 20 to 40 percent match rates. This higher rate is presumably due to the Student Volunteer Movement records containing detailed data on county of residence and birth years. Matching procedures that involve more accurate birth years or county of residence allow for more unique matches between external data and census records, resulting in about 57 to 69 percent match rates in such cases (Michelman *et al.*, 2022; Ang & Chinoy, 2023).

For the 1900 census, the match rate is 71 percent, as 32,658 individuals have birth years between 1858 and 1902, and 23,059 individuals were matched. For the 1910 census, the match rate is 72 percent, as 32,484 individuals have birth years between 1868 and 1912, and 23,461 individuals are matched.

To examine whether the census match rate differs by treatment status, I regress an outcome variable indicating whether an individual is matched to either the 1900 or 1910 census on the treatment indicator, controlling for baseline characteristics such as birth year, gender, and county fixed effects. The results are presented in Table A.9.

Panel A displays the results from the baseline matching procedure. I find a notable difference: missionaries were 3.45 percentage points less likely to be matched to census records. This discrepancy is likely attributable to missionaries residing abroad at the time of the census, thus not being enumerated in the U.S. census.

However, when I narrow the sample to individuals born after 1890 (who were younger than twenty at the time of the census survey), this difference disappears. This observation provides an additional rationale for restricting attention to individuals younger than 20 in the balance test presented in Table A.11.

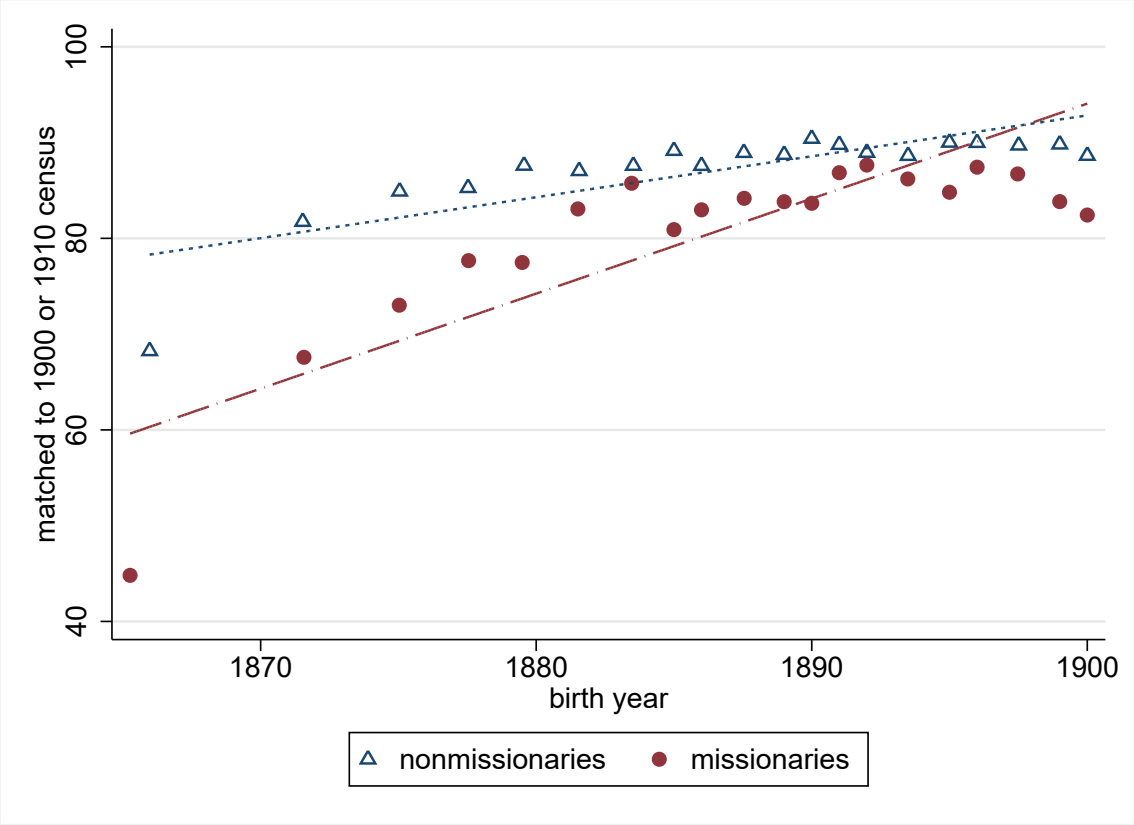
Table A.9: Missionary status and census matching

	(1)	(2)	(3)
DV:	Matched to 1900 or 1910 census		
Panel A: Baseline matching			
Mission	-3.45***	-0.24	-5.20***
	(0.50)	(0.81)	(0.64)
Observations	29,351	11,859	16,854
R-squared	0.10	0.14	0.16
Control outcome mean	87.09	88.55	85.77
Controls	Yes	Yes	Yes
Sample restriction	No	Birth year >1890	Birth year ≤1890
Panel B: Conservative matching			
Mission	-3.65***	0.12	-6.11***
	(0.65)	(1.01)	(0.84)
Observations	29,351	11,859	16,854
R-squared	0.09	0.14	0.13
Control outcome mean	69.65	73.03	66.90
Controls	Yes	Yes	Yes
Sample restriction	No	Birth year >1890	Birth year ≤1890

Notes: The unit of observation is an individual in the Student Volunteer Movement archival records. The dependent variable equals 100 if an individual is matched to the 1900 or 1910 census. The table regresses this indicator on missionary status. Panel A uses the baseline matching procedure described in Section A.15; Panel B restricts the sample to matches unique within ±2 years of age. Controls include birth year, gender, denomination, and county fixed effects. *** p<0.01, ** p<0.05, * p<0.1

A.16 Census match rate by birth year

Figure A.8: Census match rate by birth year



Notes: The figure is a binscatter in which the vertical axis indicates whether an individual is matched to the 1900 or 1910 census and the horizontal axis gives birth year.

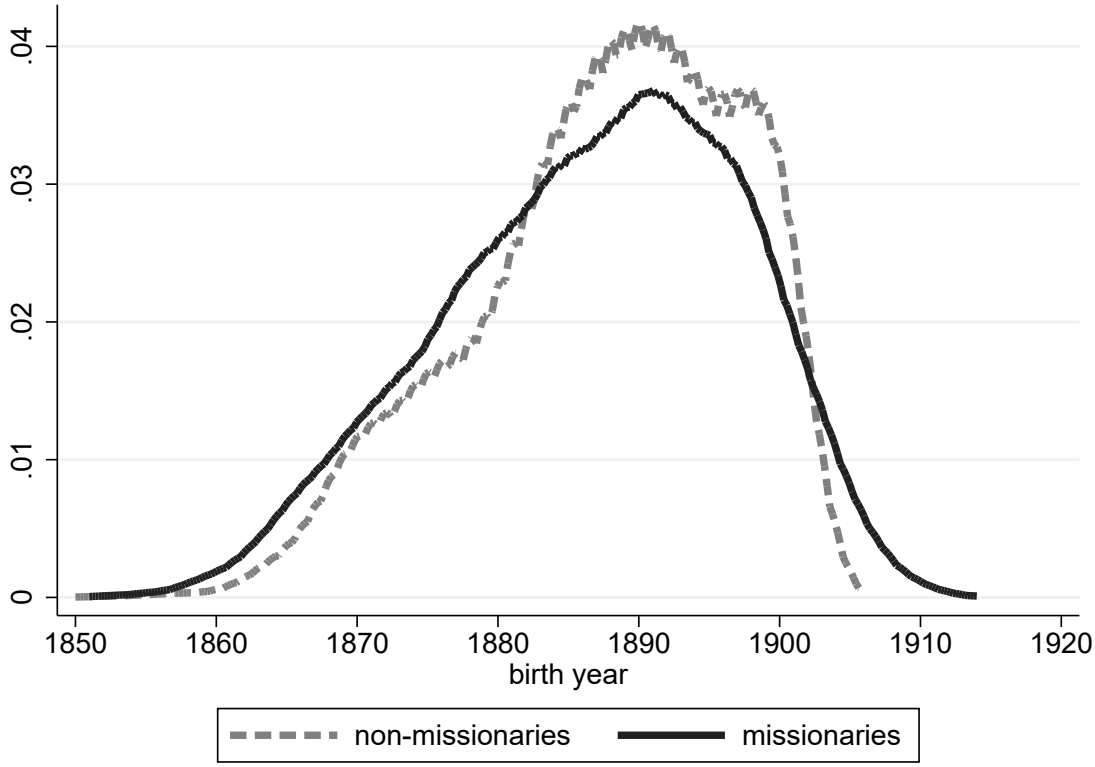
Table A.10: Balance test with a more conservative census match

Variables	(1) diff (s.e.)	(2) control mean	(3) N	(4) age
Parental occ. score ($00)	0.15 (0.23)	20.96	21,419	[0,20]
Parent religious occ.	2.38*** (0.45)	6.13	21,419	[0,20]
Foreign born	0.51** (0.24)	1.64	21,419	[0,20]
Foreign born parents	1.11* (0.63)	17.01	21,419	[0,20]
City pop. (000s)	-1.22 (2.12)	106.61	21,419	[0,20]
Home ownership	1.27 (0.82)	63.21	21,419	[0,20]
Two parents	0.47 (0.46)	90.41	21,419	[0,20]
White	-0.03 (0.19)	98.26	21,419	[0,20]
Farm household	-1.38* (0.78)	39.35	21,419	[0,20]
Employed	-0.01 (0.60)	11.49	11,138	[10,20]
School attendance	-0.20 (0.78)	84.89	11,138	[10,20]
Literacy	-0.33 (0.21)	98.74	11,138	[10,20]

Notes: This table reports the same specifications as Table A.11, restricting the sample to archival-record and census matches that are unique within ±2 years of age to reduce false-positive matches. *** p<0.01, ** p<0.05, * p<0.1

A.17 Demographics of missionaries

Figure A.9: Birth-year distributions of volunteers and missionaries



Notes: The figure plots birth-year densities for missionaries and other Student Volunteer Movement volunteers in the archival records. Ten individuals born before 1850 are excluded for presentation. The sample contains 33,401 volunteers.

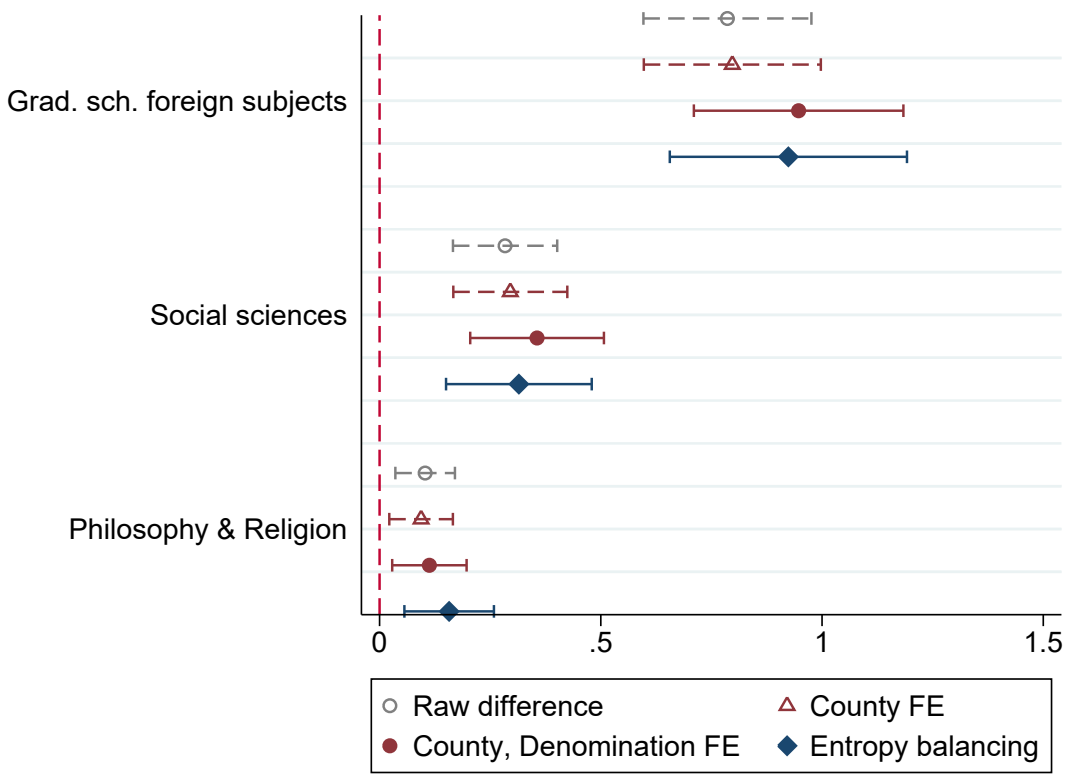
A.18 Individual-level results

Table A.11: Balance checks: volunteers and missionaries

	volunteers – general population			missionaries – volunteers			
	diff (s.e.)	control mean	N	diff (s.e.)	control mean	N	age
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Parental occ. score ($00)	2.10 (0.10)***	18.85	65,816,681	0.01 (0.19)	20.69	27,532	[0,20)
Parent religious occ.	5.54 (0.18)***	0.42	65,816,681	1.86 (0.36)***	5.48	27,532	[0,20)
Foreign born	-1.02 (0.16)***	2.87	65,816,681	0.38 (0.20)*	1.76	27,532	[0,20)
Foreign born parents	-7.76 (0.44)***	25.73	65,816,681	1.13 (0.56)**	18.26	27,532	[0,20)
City pop. (000s)	-3.21 (5.49)	282.05	65,816,681	-0.84 (2.11)	131.22	27,532	[0,20)
Home ownership	8.39 (0.37)***	46.70	65,816,681	1.13 (0.72)	60.45	27,532	[0,20)
Two parents	1.54 (0.21)***	89.57	65,816,681	0.10 (0.41)	90.27	27,532	[0,20)
White	4.95 (0.30)***	87.45	65,816,681	-0.23 (0.21)	97.11	27,532	[0,20)
Farm household	-1.53 (0.36)***	39.60	65,816,681	-0.98 (0.66)	38.98	27,532	[0,20)
Employed	-8.00 (0.29)***	21.41	25,522,632	0.36 (0.55)	12.51	14,084	(10,20)
School attendance	14.65 (0.33)***	64.82	25,522,632	-0.42 (0.76)	82.62	14,084	(10,20)
Literacy	2.33 (0.16)***	92.74	25,522,632	-0.16 (0.20)	98.29	14,084	(10,20)

Notes: The unit of observation is an individual. Column (1) compares the general population with Student Volunteer Movement volunteers, including those who did not become missionaries. Column (4) compares missionaries with other volunteers. Both columns control for census year, birth year, gender, and county fixed effects. Columns (2) and (5) report comparison-group means; columns (3) and (6) report sample sizes. The samples are drawn from archival records matched to the 1900 and 1910 censuses and are restricted to people under age 20 living in family households. All variables except parental occupational score and city population are indicators multiplied by 100. Parental occupational score is the median total income, in hundreds of 1950 dollars, among workers in the parents' occupation. City population is measured in thousands. Robust standard errors clustered by county are reported in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Figure A.10: Effects on foreign-focused dissertations, by field



Note: The figure presents results from Equation 6 across different graduate school subfields. "Social Sciences" refers to graduate dissertation output on foreign subjects within the social sciences. "Philosophy & Religion" captures dissertation output on foreign subjects in philosophy or religion. Error bars indicate 95 percent confidence intervals.

Table A.12: Effects on foreign-focused publications, by field

Outcome:	Grad. dissertation social sciences		Grad. dissertation philosophy & religion	
(dummy×100)	(1)	(2)	(3)	(4)
Mission	0.18*	0.44***	0.09***	0.11***
	(0.10)	(0.14)	(0.03)	(0.04)
Observations	33,733	29,380	33,733	29,380
R-squared	0.00	0.06	0.00	0.05
Control group mean	0.57	0.57	0.01	0.01
Controls		Y		Y
Outcome:	Grad. dissertation STEM		Grad. dissertation language	
(dummy×100)	(5)	(6)	(7)	(8)
Mission	-0.26***	-0.16	-0.07	-0.03
	(0.10)	(0.12)	(0.06)	(0.09)
Observations	33,733	29,380	33,733	29,380
R-squared	0.00	0.07	0.00	0.08
Control group mean	0.81	0.81	0.30	0.30
Controls		Y		Y
Outcome:	Author foreign subjects social sciences		Author foreign subjects medicine & nursing	
(dummy×100)	(9)	(10)	(11)	(12)
Mission	2.01***	2.49***	0.64***	0.76***
	(0.16)	(0.20)	(0.09)	(0.12)
Observations	33,733	29,380	33,733	29,380
R-squared	0.01	0.09	0.00	0.06
Control group mean	0.54	0.54	0.08	0.08
Controls		Y		Y

Notes: The unit of observation is an individual, and the sample consists of Student Volunteer Movement volunteers. The table reports regressions of indicators for publication output on an indicator for missionary service. Odd-numbered columns report raw differences; even-numbered columns control for birth year, gender, county, and denomination fixed effects. Outcome definitions follow the field categories in the column headers and figure notes. Robust standard errors clustered by county are reported in parentheses. *** p<0.01, ** p<0.05, * p<0.1

B. Data appendix

B.1 Student Volunteer Movement records

The Student Volunteer Movement (SVM) records are available at the Yale Divinity School Library in both table and individual application formats.[5] I photographed the following sources:

Series I: Volunteer and Inquirer Forms and Statistics—Statistics and Records

- Box 126: Two volumes recording sailed volunteers alphabetically by name (1886-1926)
- Box 131: Two volumes (1886-1905)
- Oversized boxes 23-25: Statistics by denomination (1905-1922)

These records are available in table formats (See Figure B.11). Box 126 contains a list of missionaries from 1886 to 1926, including individual names, denominations, destination countries, sailing years, and serial numbers. This source comprises 734 images. It does not include information about the universities the individuals attended or their addresses.

Box 131 includes a list of missionaries and volunteers from 1886 to 1905. These records contain names, denominations, addresses, school names, and serial numbers. For missionaries, the address column lists destination country names instead of addresses. I supplemented this information with data from application blanks (which will be explained below). This source consists of 1,458 images.

Oversized boxes 23 to 25 contain lists of missionaries and volunteers from 1905 to 1922. These records include names, denominations, addresses, school names, and serial numbers. This source contains 1,765 images. All records are handwritten. I digitized all available data into table formats.

Series I: Volunteer and Inquirer forms and statistics—Application Blanks

The application blanks are available in individual application format (see Figure B.12). I photographed all available application blanks, totaling 62,693 images. These data include papers from individuals who filled out the application form multiple times. Application blanks began to appear after 1890, so the earliest missionaries and volunteers are missing from this record. The names of the missionaries who sailed before 1890 are all provided in the table-format data described above.

The application blanks cover all available individuals after 1890 and helps identify all

[5] https://archives.yale.edu/repositories/4/resources/250

missionaries who initially appeared in the table data as volunteers but eventually became missionaries.

Due to the historical nature of these handwritten documents, they had to be photographed rather than scanned. Consequently, OCR software such as Transkribus, Amazon Textract, or Microsoft Azure did not perform well. As a result, human research assistants were hired to manually transcribe the data.

Only application forms stamped with 'SAILED' were digitized, indicating that the individual eventually became a missionary. Due to budget constraints, not all application forms were digitized. The drawback of not digitizing applications without the 'SAILED' stamp is the potential loss of some volunteers in the control group, especially those who sailed after 1922, when participation in the movement began to decline.

Additional sources on the list of missionaries

The list of missionaries who sailed between 1901 and 1923 is available in certain issues of *Intercollegian* magazine and several Student Volunteer Convention reports.

- 1901-1905: *Intercollegian* magazine[6]
- 1906-1909: Turner (1910)[7]
- 1910-1913: Turner (1914)[8]
- 1914-1923: Stauffer (1924)[9]

Linking process After photographing and digitizing all archival records, I hired two independent groups of assistants: one group transcribed the data, and the other reviewed it for spelling errors.

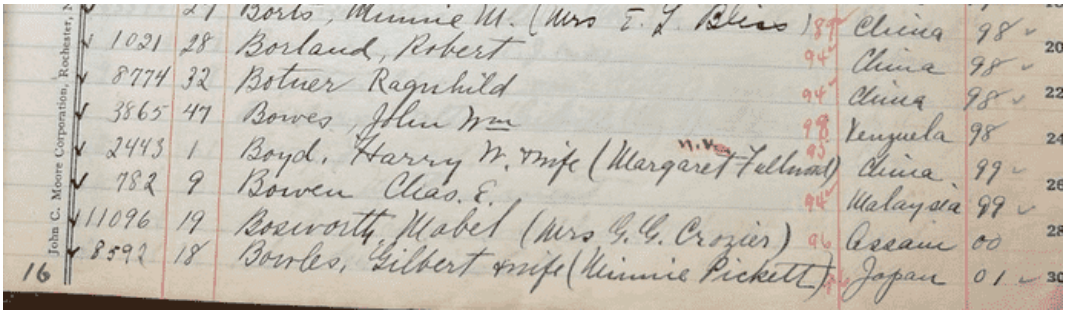
The table format data provides a comprehensive list of individuals who volunteered to be missionaries between 1886 and 1922. However, whether an individual ultimately served as a missionary remains unclear in many cases. For instance, if a volunteer filled out an application in 1920, they are recorded in the table format data; however, they may have become a missionary after the table data was compiled, such as in 1927. To accurately identify those who ultimately served as missionaries, I rely on individual application data, which is available until 1938. This ensures that I do not mistakenly include individuals who volunteered in 1922 but became missionaries later in life.

[6] https://www.nypl.org/research/research-catalog/bib/cb6079643
[7] https://babel.hathitrust.org/cgi/pt?id=uc1.$b53209&seq=537
[8] https://www.nypl.org/research/research-catalog/bib/b13455128
[9] https://babel.hathitrust.org/cgi/pt?id=wu.89065733792&seq=489

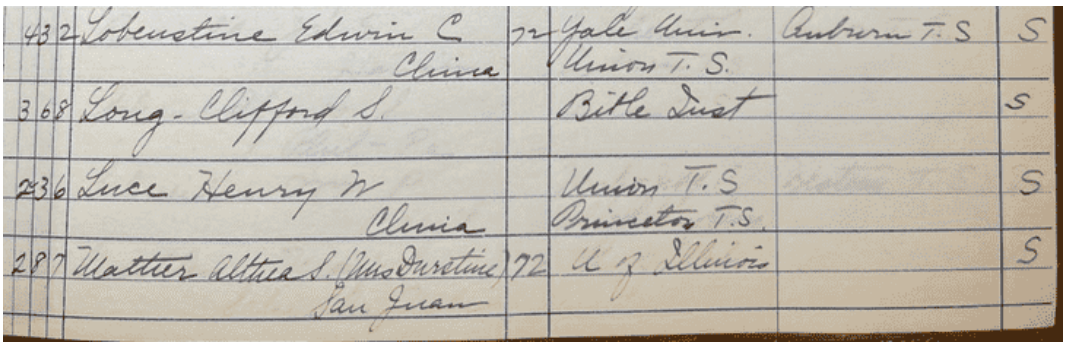
After digitizing all available records, I combine and harmonize the data using Stata's `reclink2` function, supplemented by manual review. To link records across different archives, I use individual names, serial numbers, birth years, and addresses.

Figure B.11: Sample pages from the Student Volunteer Movement records I

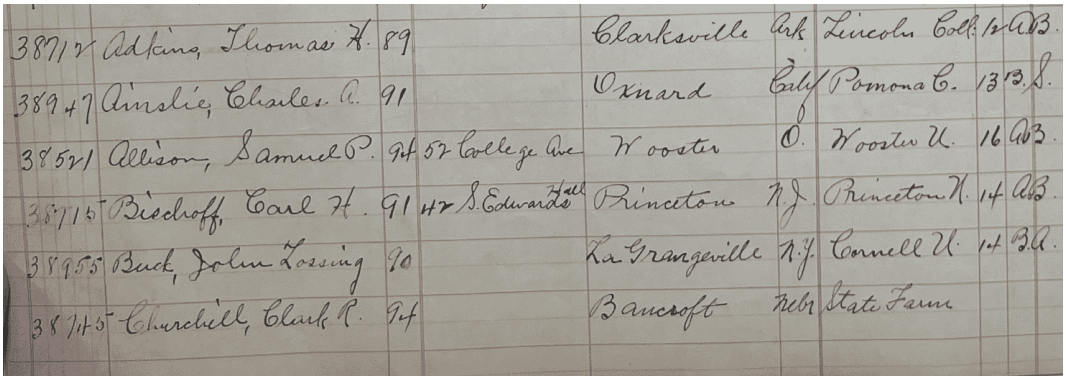
(a) Records on sailed volunteers, 1886-1926



(b) Records on volunteers, 1886-1905



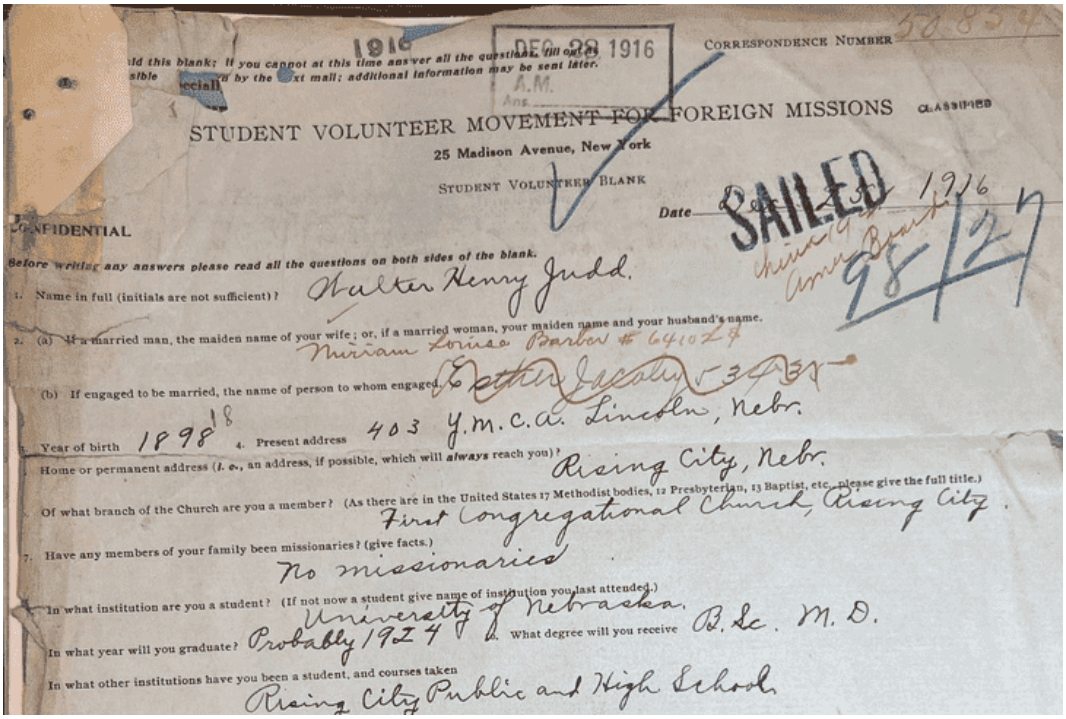
(c) Records on volunteers, 1905-1922



Sources: Yale Divinity School Archives. Student Volunteer Movement for Foreign Missions records. (a) Box 126: Two volumes recording sailed volunteers alphabetically by name (1886-1926) (b) Box 131: Two volumes (1886-1905) (c) Oversized boxes 23-25: Statistics by denomination (1905-1922). The above records show missionaries such as Gilbert Bowles, Henry W. Luce, and John Lossing Buck.

Figure B.12: Sample pages from the Student Volunteer Movement records II

(a) Application paper



Source: Yale Divinity School Archives. Student Volunteer Movement for Foreign Missions records. Series I: Volunteer and Inquirer forms and statistics—Application Blanks. The image above is an application submitted by Walter Judd, who served as a medical missionary and later became a Republican Congressman.

Table B.13: Number of volunteers by state

State	Volunteers	State	Volunteers per million
ILLINOIS	2724	OKLAHOMA	5854.384
OHIO	2624	OREGON	1574.417
PENNSYLVANIA	2609	WASHINGTON	1451.1
NEW YORK	2220	CALIFORNIA	1270.559
IOWA	2126	IDAHO	1232.447
KANSAS	1536	SOUTH DAKOTA	1164.814
CALIFORNIA	1535	IOWA	1111.985
MICHIGAN	1341	COLORADO	1091.708
INDIANA	1338	KANSAS	1076.312
MASSACHUSETTS	1165	NORTH DAKOTA	1034.375
MISSOURI	1152	NEBRASKA	931.1462
NEBRASKA	986	OHIO	714.5355
TEXAS	979	ILLINOIS	711.9054
MINNESOTA	924	MINNESOTA	709.7723
NORTH CAROLINA	820	MICHIGAN	640.4351
VIRGINIA	739	INDIANA	610.289
WISCONSIN	667	SOUTH CAROLINA	555.9663
NEW JERSEY	666	MONTANA	552.365
SOUTH CAROLINA	640	VERMONT	526.4393
GEORGIA	594	MASSACHUSETTS	520.3348
KENTUCKY	532	NORTH CAROLINA	506.8151
TENNESSEE	508	PENNSYLVANIA	496.195
WASHINGTON	507	WYOMING	477.7201
OREGON	494	NEW JERSEY	460.921
COLORADO	450	CONNECTICUT	448.9064
SOUTH DAKOTA	383	VIRGINIA	446.2614
OKLAHOMA	362	TEXAS	437.9288
CONNECTICUT	335	ARIZONA	436.0953
MISSISSIPPI	335	MISSOURI	429.9817
ALABAMA	327	FLORIDA	406.2112
MARYLAND	275	WISCONSIN	395.4045
WEST VIRGINIA	274	NEW YORK	370.1324
ARKANSAS	248	WEST VIRGINIA	359.2058
MAINE	206	DISTRICT OF COLUMBIA	325.5321
NORTH DAKOTA	189	GEORGIA	323.2912
VERMONT	175	MAINE	311.6085
FLORIDA	159	NEW HAMPSHIRE	310.7322
NEW HAMPSHIRE	117	RHODE ISLAND	303.9021
RHODE ISLAND	105	TENNESSEE	287.4087
IDAHO	104	KENTUCKY	286.2316
LOUISIANA	82	MARYLAND	263.8168
DISTRICT OF COLUMBIA	75	MISSISSIPPI	259.7705
MONTANA	73	NEW MEXICO	247.4071
NEW MEXICO	38	ARKANSAS	219.8233
DELAWARE	36	NEVADA	218.5267
WYOMING	29	ALASKA	218.3951
ARIZONA	26	ALABAMA	216.1245
UTAH	24	DELAWARE	213.6587
NEVADA	10	UTAH	115.4373
HAWAII	9	HAWAII	100.0111
ALASKA	7	LOUISIANA	73.30677

Notes: The table reports volunteers by state using the Student Volunteer Movement records. Volunteers include missionaries and applicants who did not become missionaries. Missionaries per million residents are calculated using state population in 1890. State addresses are available for 33,879 of 37,106 volunteers.

Table B.14: Number of missionaries by state

State	Missionaries	State	Missionaries per million
PENNSYLVANIA	976	OKLAHOMA	1261.442
ILLINOIS	940	CALIFORNIA	451.1104
OHIO	930	WASHINGTON	403.5605
NEW YORK	822	IDAHO	379.2143
IOWA	656	KANSAS	346.1575
CALIFORNIA	545	OREGON	344.2045
KANSAS	494	IOWA	343.1149
MASSACHUSETTS	453	SOUTH DAKOTA	334.5417
MICHIGAN	433	NORTH DAKOTA	317.4273
INDIANA	349	NEBRASKA	283.3102
MISSOURI	340	COLORADO	276.5661
MINNESOTA	339	MINNESOTA	260.4035
NEBRASKA	300	OHIO	253.2462
TEXAS	268	ILLINOIS	245.6649
NEW JERSEY	265	MICHIGAN	206.7922
VIRGINIA	256	MASSACHUSETTS	202.3276
WISCONSIN	224	VERMONT	195.5346
NORTH CAROLINA	205	CONNECTICUT	186.2627
SOUTH CAROLINA	177	PENNSYLVANIA	185.6214
KENTUCKY	168	NEW JERSEY	183.3995
GEORGIA	166	INDIANA	159.186
TENNESSEE	152	ALASKA	155.9965
WASHINGTON	141	VIRGINIA	154.5912
CONNECTICUT	139	SOUTH CAROLINA	153.7594
COLORADO	114	NEW YORK	137.049
SOUTH DAKOTA	110	WISCONSIN	132.7895
OREGON	108	DISTRICT OF COLUMBIA	130.2129
ALABAMA	93	MISSOURI	126.9043
MARYLAND	93	NORTH CAROLINA	126.7038
MAINE	80	MONTANA	121.0663
OKLAHOMA	78	MAINE	121.013
WEST VIRGINIA	76	TEXAS	119.8825
MISSISSIPPI	65	WYOMING	115.3118
VERMONT	65	WEST VIRGINIA	99.63372
NORTH DAKOTA	58	NEW HAMPSHIRE	95.60991
ARKANSAS	57	RHODE ISLAND	95.51209
NEW HAMPSHIRE	36	KENTUCKY	90.38891
FLORIDA	34	GEORGIA	90.34736
RHODE ISLAND	33	MARYLAND	89.21805
IDAHO	32	FLORIDA	86.86277
DISTRICT OF COLUMBIA	30	TENNESSEE	85.9963
LOUISIANA	17	ARIZONA	83.86448
MONTANA	16	ALABAMA	61.46659
NEW MEXICO	9	NEW MEXICO	58.59642
WYOMING	7	ARKANSAS	50.5239
UTAH	6	MISSISSIPPI	50.40323
ALASKA	5	HAWAII	44.44938
ARIZONA	5	DELAWARE	29.67482
DELAWARE	5	UTAH	28.85933
HAWAII	4	LOUISIANA	15.19775
NEVADA	0	NEVADA	0

Notes: The table reports missionaries by state using the Student Volunteer Movement records. Missionaries per million residents are calculated using state population in 1890. State addresses are available for 10,974 of 12,265 missionaries.

Table B.15: Number of volunteers by denomination

Denomination	Volunteers	Denomination	Volunteers per million
Methodist Episcopal Church	9547	Dunkard (Old Order)	109499
Presbyterian Church in the United State of America (North)	4927	Christian Missionary Association	26525.2
Regular Baptist (North) Church	4101	Mennonite Church	15809.81
Congregationalist Church	2679	Free Methodist Church	11935.81
Regular Baptist (South) Church	1633	Associate Reformed Synod of the South	8940.125
Presbyterian Church in the United States (Southern)	1291	Christian (Christian Connection) Church	8840.583
Disciples of Christ Church	1142	Reformed Presbyterian Church in the United States (Synod)	8416.872
Christian (Christian Connection) Church	802	United Presbyterian Church	8124.828
United Presbyterian Church	767	Friends (Orthodox) Church	7844.117
Methodist Episcopal Church (South)	688	Presbyterian Church in the United States (Southern)	7232.655
Friends (Orthodox) Church	628	Wesleyan Methodist Connection of America Church	6801.069
United Brethren in Christ Church	601	Presbyterian Church in the United State of America (North)	6309.783
Protestant Episcopal Church	587	Congregationalist Church	5240.672
Lutheran Synodical Conference Church	550	Christian Reformed Church	5212.51
Dunkard (Old Order)	483	Regular Baptist (North) Church	5145.894
Evangelical Association Church	426	Reformed Church in America	4539.099
Reformed Church in America	422	Methodist Episcopal Church	4283.379
Free Methodist Church	270	Seventh-day Adventist	4187.576
Mennonite Church	270	Moravian Church	3331.909
Reformed Church in the United States	207	Evangelical Association Church	3196.207
Freewill Baptist Church	175	United Brethren in Christ Church	2964.973
United Norwegian Lutheran Church of America	164	Mennonite Brethren in Christ	2695.418
Cumberland Presbyterian Church	161	Plymouth Brethren	2554.47
Methodist Protestant Church	127	German Augsburg Synod (Lutheran)	2425.107
Seventh-day Adventist	121	United Synod in the South (Lutheran) Church	2189.177
Wesleyan Methodist Connection of America Church	112	Evangelical Missionary Church	2103.049
German Evangelical Synod of North America Church	95	Freewill Baptist Church	1990.944
Reformed Presbyterian Church in the United States (Synod)	89	Disciples of Christ Church	1790.089
United Synod in the South (Lutheran) Church	82	Lutheran Synodical Conference Church	1541.743
Associate Reformed Synod of the South	76	United Norwegian Lutheran Church of America	1367.886
Christian Reformed Church	65	Church of God	1290.323
Moravian Church	39	Regular Baptist (South) Church	1289.231
Church of God	28	Protestant Episcopal Church	1121.946
General Council (Lutheran) Church	23	Seventh-day Baptist	1093.733
Christian Missionary Association	20	Reformed Church in the United States	1016.115
Norwegian Lutheran Church in America	18	Cumberland Presbyterian Church	983.4403
German Augsburg Synod (Lutheran)	17	Methodist Protestant Church	903.0662
Plymouth Brethren	17	Welsh Calvinistic Methodist Church	864.6439
African Methodist Episcopal Church	12	Methodist Episcopal Church (South)	573.9264
Advent Christian Church	11	German Evangelical Synod of North America Church	506.8505
Welsh Calvinistic Methodist Church	11	Amish Mennonite Church	495.0005
Seventh-day Baptist	10	Advent Christian Church	426.0923
Amish Mennonite Church	5	Norwegian Lutheran Church in America	324.6051
Mennonite Brethren in Christ	3	General Council (Lutheran) Church	70.9338
Evangelical Missionary Church	2	Universalist Church	40.76142
Universalist Church	2	African Methodist Episcopal Church	26.62188
Joint Lutheran Synod of Ohio and Other States Church	1	Joint Lutheran Synod of Ohio and Other States Church	14.41857

Notes: The table reports volunteers by denomination using the Student Volunteer Movement records. The sample is restricted to denominations with at least one volunteer. Volunteers per million members are calculated using the 1890 Census of Religious Bodies. Denominational affiliation is available for 33,507 of 37,106 volunteers.

Table B.16: Number of missionaries by denomination

Denomination	Missionaries	Denomination	Missionaries per million
Methodist Episcopal Church	2520	Dunkard (Old Order)	29698.48
Presbyterian Church in the United State of America (North)	1774	Christian Missionary Association	7957.56
Regular Baptist (North) Church	1088	Mennonite Church	4860.054
Congregationalist Church	922	Reformed Presbyterian Church in the United States (Synod)	3782.864
Presbyterian Church in the United States (Southern)	378	Free Methodist Church	3050.263
Regular Baptist (South) Church	360	Associate Reformed Synod of the South	2940.83
Disciples of Christ Church	296	United Presbyterian Church	2828.33
United Presbyterian Church	267	Christian (Christian Connection) Church	2381.005
Christian (Christian Connection) Church	216	Presbyterian Church in the United State of America (North)	2271.88
Methodist Episcopal Church (South)	193	Friends (Orthodox) Church	2148.389
Protestant Episcopal Church	179	Presbyterian Church in the United States (Southern)	2117.695
Friends (Orthodox) Church	172	Congregationalist Church	1803.621
United Brethren in Christ Church	172	Wesleyan Methodist Connection of America Church	1760.991
Reformed Church in America	161	Reformed Church in America	1731.741
Lutheran Synodical Conference Church	150	Christian Reformed Church	1523.657
Dunkard (Old Order)	131	Regular Baptist (North) Church	1365.212
Evangelical Association Church	112	Seventh-day Adventist	1280.498
Mennonite Church	83	Plymouth Brethren	1202.104
Free Methodist Church	69	Methodist Episcopal Church	1130.629
Reformed Church in the United States	68	Moravian Church	1110.636
United Norwegian Lutheran Church of America	60	United Brethren in Christ Church	848.5446
Freewill Baptist Church	43	Evangelical Association Church	840.3172
Reformed Presbyterian Church in the United States (Synod)	40	Church of God	691.2442
Cumberland Presbyterian Church	38	United Synod in the South (Lutheran) Church	640.7347
Seventh-day Adventist	37	German Augsburg Synod (Lutheran)	570.6134
Wesleyan Methodist Connection of America Church	29	United Norwegian Lutheran Church of America	500.4462
Methodist Protestant Church	27	Freewill Baptist Church	489.2034
German Evangelical Synod of North America Church	27	Disciples of Christ Church	463.9811
Associate Reformed Synod of the South	25	Lutheran Synodical Conference Church	420.4755
United Synod in the South (Lutheran) Church	24	Protestant Episcopal Church	342.1267
Christian Reformed Church	19	Reformed Church in the United States	333.7964
Church of God	15	Amish Mennonite Church	297.0003
Moravian Church	13	Regular Baptist (South) Church	284.2149
General Council (Lutheran) Church	9	Welsh Calvinistic Methodist Church	235.812
Plymouth Brethren	8	Cumberland Presbyterian Church	232.1164
Christian Missionary Association	6	Seventh-day Baptist	218.7466
Advent Christian Church	5	Advent Christian Church	193.6783
German Augsburg Synod (Lutheran)	4	Methodist Protestant Church	191.9904
Norwegian Lutheran Church in America	4	Methodist Episcopal Church (South)	160.9997
Amish Mennonite Church	3	German Evangelical Synod of North America Church	144.0522
Welsh Calvinistic Methodist Church	3	Norwegian Lutheran Church in America	72.13446
Seventh-day Baptist	2	General Council (Lutheran) Church	27.7567
African Methodist Episcopal Church	2	Joint Lutheran Synod of Ohio and Other States Church	14.41857
Joint Lutheran Synod of Ohio and Other States Church	1	African Methodist Episcopal Church	4.43698
Evangelical Missionary Church	0	Evangelical Missionary Church	0
Mennonite Brethren in Christ	0	Mennonite Brethren in Christ	0
Universalist Church	0	Universalist Church	0

Notes: The table reports missionaries by denomination using the Student Volunteer Movement records. The sample is restricted to denominations with at least one volunteer. Missionaries per million members are calculated using the 1890 Census of Religious Bodies. Denominational affiliation is available for 9,755 of 12,265 missionaries.

Table B.17: Most common missionary destinations

destination	count	destination	count
China	2497	Ceylon	19
India	1452	United States	16
Africa	785	Singapore	16
Japan	635	Micronesia	15
South America	492	Palestine	15
Korea	322	Jamaica	13
Mexico	230	Europe	12
Philippines	196	Madagascar	11
Turkey	186	Java	10
Burma	165	Peru	10
Egypt	107	Panama	9
Persia	99	Gabon	8
Syria	84	Italy	7
Brazil	77	Uruguay	7
Cuba	74	Bolivia	7
West Indies	74	Russia	7
Siam	71	France	6
Alaska	70	Sierra Leone	6
Malaysia	55	Tibet	5
Hawaii	53	Cyprus	5
Puerto Rico	52	Belgium	5
Chile	37	Colombia	5
Saudi Arabia	26	Venezuela	5
Laos	23	Bulgaria	5
Argentina	23	Congo	4

Notes: Destination data are available for 8,195 of 12,265 missionaries. The table lists the 50 most common destinations in the Student Volunteer Movement records.

B.2 Variable definitions and sources

B.2.1 Individual data

- Individual-level census data (1900, 1910): Ruggles *et al.* (2010). Sample in the balance test is restricted to children in the household younger than twenty (`relate` variable in the census: Child [301], Adopted child [302], Stepchild [303], Adopted [304], Child-in-law [401], Step child-in-law [402], Grandchild [901], Step grandchild [903], Grandchild-in-law [904])
  - Parental occupation score ($00): Occupational income score (`occscore`) of the household head (`relate`=101).
  - Parent religious occupation: Household head has one of the following two occupations: Clergymen (`occ1950`=9) or Religious workers (`occ1950`=78)
  - Foreign born: `nativity`=5
  - Parent foreign born: Father foreign, mother native (`nativity`=2), Mother foreign, father native (`nativity`=3), Both parents foreign (`nativity`=4)
  - City pop (000)s: `citypop`
  - Home ownership: Owned or being bought (`ownershp=10`)
  - Two parents: Married-couple family household (`hhtype`=1)
  - White: Race: white (`racwht`=2)
  - Farm household: Farm status (`farm`=2)
  - Employed: In the labor force (`labforce`=2)
  - School attendance: In school (`school`=2)
  - Literacy: able to read and write (`lit`=4)
- Publication output
  - Book or article publication: OpenAlex
  - Graduate dissertation: Dissertations - ProQuest accessed through Proquest TDM studio[10]. To reduce false positives, I exclude matches where the gap between the degree year and the birth year of volunteers or missionaries is less than twenty years or more than forty years, ensuring the individual's age at degree completion is between twenty and forty.

[10] https://tdmstudio.proquest.com/home

- Smithsonian roster: Sourced from Smithsonian Institution Archives, Record Unit 87—Ethnogeographic Board (Washington, D.C.). [11] I digitized the following records:
  - Personnel lists of Africa (Installments I-IV)
  - Personnel list of Asia
  - Personnel lists of Oceania (Installments I-VI)
  - Asiatic geographers compiled by George B. Cressey
  - African list 127
  - Partial list of personnel with field experience in Burma
  - American Political Science Association—Political scientists with competence regarding foreign countries
- Office of Strategic Services: Sourced from the National Archives webpage.[12]

B.2.2 Regional data

- County boundary map (1900): National Historical Geographic Information System (NHGIS)
- County & congressional district boundary adjustment: Adjusted by population weight (`m2_weight`). Ferrara *et al.* (2024)
- County population, 1890: National Historical Geographic Information System (NHGIS)—1890 Census: Population, Housing, Agriculture & Manufacturing Data (1890_cPHAM)
- County characteristics, 1900: National Historical Geographic Information System (NHGIS)—1900 Census: Population, Housing, Agriculture & Manufacturing Data (1900_cPHAM) and individual-level census data (IPUMS USA)
  - Urbanization rate: Population in Cities of 25,000 and Over/Total population
  - Share African Americans: (male black Americans+female black Americans)/Total population
  - Occupational income score: Average occupational income score in Ruggles *et al.* (2010) for individuals who are older than fifteen

[11] https://siarchives.si.edu/collections/siris_arc_216694
[12] https://www.archives.gov/files/iwg/declassified-records/rg-226-oss/personnel-database.pdf

  - Literacy rate: Share of individuals older than fifteen who can read and write (`lit=4`)
  - Share of manufacturing workers: Total Number of Salaried Officials, Clerks, etc. in Manufacturing/Total population
  - Northern and Western European immigrants: foreign-born individuals from Australia, Austria, Belgium, Canada (English), Canada (French), Denmark, England, Finland, France, Germany, Holland, Ireland, Luxembourg, Norway, Norway and Denmark, Scotland, Sweden, Switzerland, Wales
  - Eastern and Southern European immigrants: foreign-born individuals from Greece, Hungary, Bohemia, Italy, Poland (not otherwise specified), Poland (Austrian), Poland (German), Poland (other), Poland (Russian), Poland (unknown), Portugal, Romania, Russia, Spain, Turkey
  - Non-European immigrants: foreign-born individuals from Asia (country unspecified), Atlantic Islands, Japan, China, Cuba, Central America (country unspecified), Mexico, Pacific Islands, South America (country unspecified), West Indies, and Asia (except China)
  - County market access, 1900: Hornbeck & Rotemberg (2021)
  - Agricultural land suitability: Ramankutty *et al.* (2002)
  - Number of college students for each county in 1890: Xiong & Zhao (2023)

- Census of Religious Bodies: Association of Religion Data Archives webpage—Data Archives—Categories—U.S. Church Membership Data—County-level data—Statistics of Churches in the United States, County File, 1890
  - Number of evangelical and mainline Protestants: Classify each denomination according to Steensland *et al.* (2000)
  - Catholics: Number of Roman Catholic Church communicants or members (rcathmem)
  - Orthodox Jews: Number of Jewish (Orthodox) communicants or members (jewormem)
  - Mormons: Number of the Church of Jesus Christ of Latter-day Saints communicants or members (latdymem)
  - Church property and members at the denomination level: Value of church property and the number of communicants or members of each denomination is aggregated at the national level.

- Participation in Church World Service (at the denomination level): Sourced from (US Congress House Committee on Foreign Affairs, 1957, p.196)

- Local YMCA chapters: *Intercollegian* magazine. I digitized the records in the following five issues: January 1881, January 1884, November 1884, December 1889, and November 1890. Records are available on microfilm at the New York Public Library.[13] A sample page is shown in Figure B.14.

- Itineraries of the Travel Secretaries: *Missionary Review of the World* magazine from February 1887 to June 1887.[14]

- Congressional voting on foreign aid bills: House of Representatives' Congressional votes were sourced from VoteView (Poole & Rosenthal, 2000).

  - Considered to vote "Yea" if `cast_code` is 1 or 2. Considered to vote "Nay" if `cast_code` is 5 or 6. Considered absent if `cast_code` is 7 or 8.
  - Marshall Plan: 80th Congress, roll number: 109
  - Point Four Program: 81st Congress, roll number: 190
  - Mutual Security Act: 82nd Congress, roll number: 153
  - Participation in International Development Association: 86th Congress, roll number: 159
  - Foreign Assistance Act of 1961: 87th Congress, roll number: 87

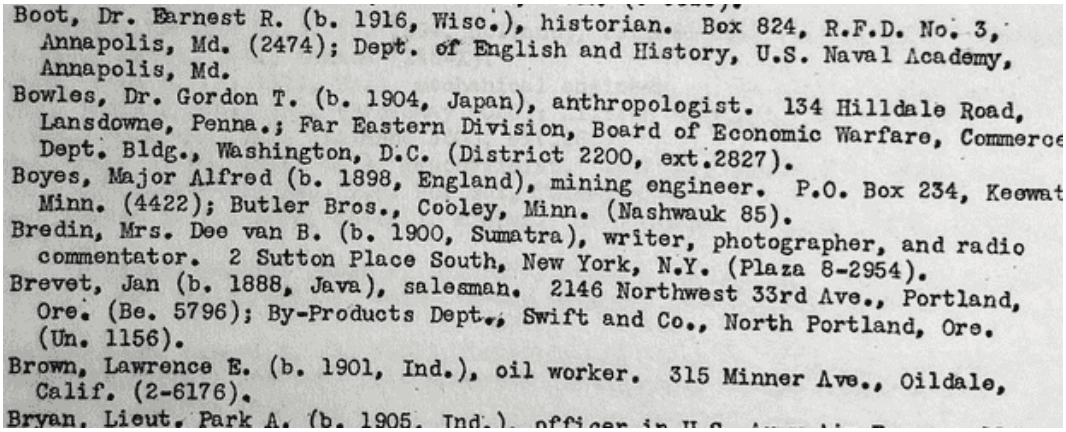
- Peace Corps volunteers: Raw data on the number of volunteers by ZIP code were obtained through a Freedom of Information Act request. ZIP-code coordinates were sourced from the U.S. Census Bureau's 2016 TIGER/Line® Shapefiles for ZIP Code Tabulation Areas, simplemaps.com, and unitedstateszipcodes.org, and were then overlaid on the 1900 county shapefile.

- Number of nonprofits: National Center for Charitable Statistics - Business Master File (BMF): https://urbaninstitute.github.io/nccs/datasets/bmf/. NTEE code Q includes International, Foreign Affairs & National Security: https://urbaninstitute.github.io/nccs-legacy/ntee/ntee.html.

[13] https://www.nypl.org/research/research-catalog/bib/cb6079643
[14] https://onlinebooks.library.upenn.edu/webbin/serial?id=missionrevworld

Figure B.13: Sample records from the Ethnographic Board (Smithsonian Roster)

(a) Personnel list of Oceania—Installment IV



Boot, Dr. Earnest R. (b. 1916, Wisc.), historian. Box 824, R.F.D. No. 3, Annapolis, Md. (2474); Dept. of English and History, U.S. Naval Academy, Annapolis, Md.

Bowles, Dr. Gordon T. (b. 1904, Japan), anthropologist. 134 Hilldale Road, Lansdowne, Penna.; Far Eastern Division, Board of Economic Warfare, Commerce Dept. Bldg., Washington, D.C. (District 2200, ext.2827).

Boyes, Major Alfred (b. 1898, England), mining engineer. P.O. Box 234, Keewat Minn. (4422); Butler Bros., Cooley, Minn. (Nashwauk 85).

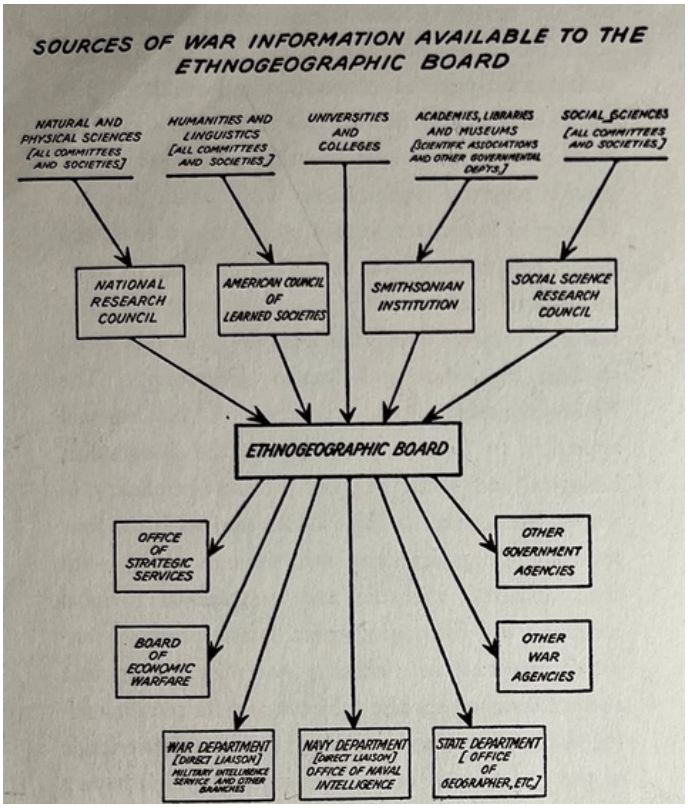
Bredin, Mrs. Dee van B. (b. 1900, Sumatra), writer, photographer, and radio commentator. 2 Sutton Place South, New York, N.Y. (Plaza 8-2954).

Brevet, Jan (b. 1888, Java), salesman. 2146 Northwest 33rd Ave., Portland, Ore. (Be. 5796); By-Products Dept., Swift and Co., North Portland, Ore. (Un. 1156).

Brown, Lawrence E. (b. 1901, Ind.), oil worker. 315 Minner Ave., Oildale, Calif. (2-6176).

Bryan, Lieut. Park A. (b. 1905, Ind.), officer in U.S.

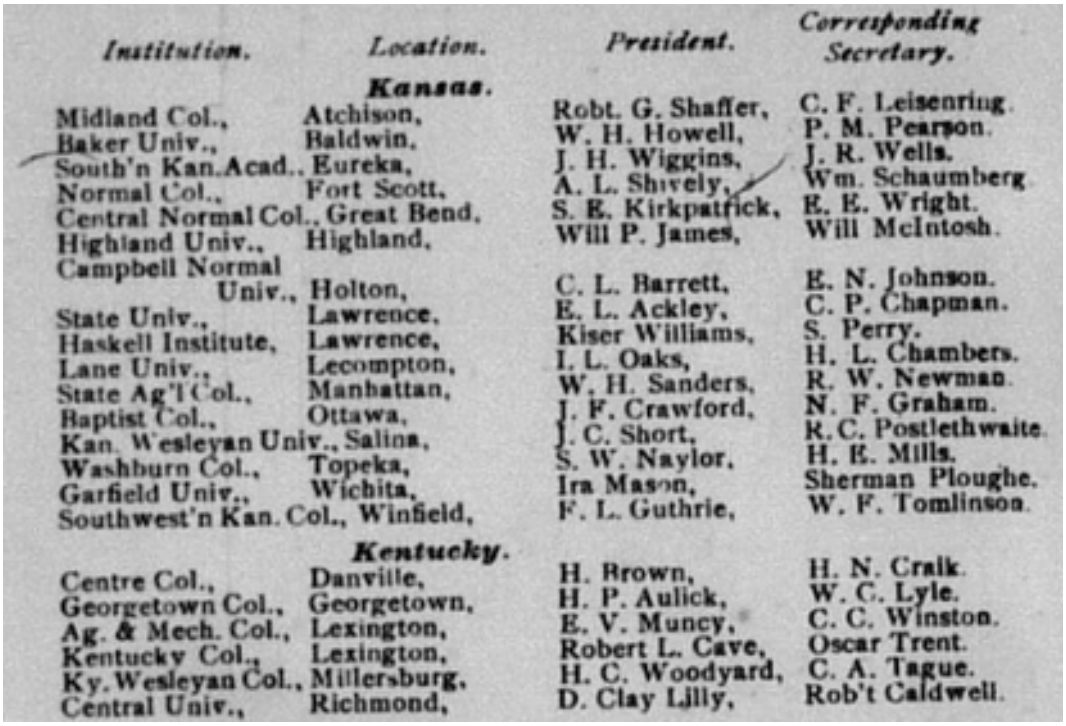
(b) Distribution of Smithsonian roster



Sources: Smithsonian Institution Archives. Figure (a) is a sample page of the Smithsonian roster and Figure (b) is a flow chart explaining how the roster was compiled and distributed.

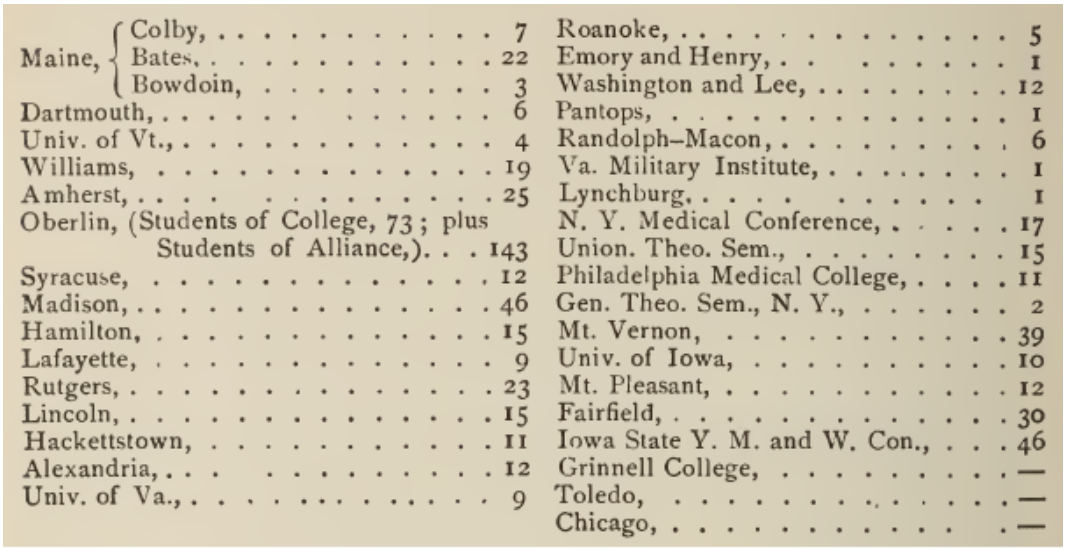
Figure B.14: Sample records on YMCA chapters and SVM travel secretaries

(a) YMCA chapters



Institution.	*Location.*	*President.*	*Corresponding Secretary.*
	Kansas.		
Midland Col.,	Atchison,	Robt. G. Shaffer,	C. F. Leisenring.
Baker Univ.,	Baldwin,	W. H. Howell,	P. M. Pearson.
South'n Kan. Acad.,	Eureka,	J. H. Wiggins,	J. R. Wells.
Normal Col.,	Fort Scott,	A. L. Shively,	Wm. Schaumberg.
Central Normal Col.,	Great Bend,	S. E. Kirkpatrick,	E. E. Wright.
Highland Univ.,	Highland,	Will P. James,	Will McIntosh.
Campbell Normal Univ.,	Holton,	C. L. Barrett,	E. N. Johnson.
State Univ.,	Lawrence,	E. L. Ackley,	C. P. Chapman.
Haskell Institute,	Lawrence,	Kiser Williams,	S. Perry.
Lane Univ.,	Lecompton,	I. L. Oaks,	H. L. Chambers.
State Ag'l Col.,	Manhattan,	W. H. Sanders,	R. W. Newman.
Baptist Col.,	Ottawa,	J. F. Crawford,	N. F. Graham.
Kan. Wesleyan Univ.,	Salina,	J. C. Short,	R. C. Postlethwaite.
Washburn Col.,	Topeka,	S. W. Naylor,	H. E. Mills.
Garfield Univ.,	Wichita,	Ira Mason,	Sherman Ploughe.
Southwest'n Kan. Col.,	Winfield,	F. L. Guthrie,	W. F. Tomlinson.
	Kentucky.		
Centre Col.,	Danville,	H. Brown,	H. N. Craik.
Georgetown Col.,	Georgetown,	H. P. Aulick,	W. C. Lyle.
Ag. & Mech. Col.,	Lexington,	E. V. Muncy,	C. C. Winston.
Kentucky Col.,	Lexington,	Robert L. Cave,	Oscar Trent.
Ky. Wesleyan Col.,	Millersburg,	H. C. Woodyard,	C. A. Tague.
Central Univ.,	Richmond,	D. Clay Lilly,	Rob't Caldwell.

(b) Travel secretaries' itineraries



Maine,	Colby, ... 7	Roanoke, ... 5	
	Bates, ... 22	Emory and Henry, ... 1	
	Bowdoin, ... 3	Washington and Lee, ... 12	
Dartmouth, ... 6		Pantops, ... 1	
Univ. of Vt., ... 4		Randolph–Macon, ... 6	
Williams, ... 19		Va. Military Institute, ... 1	
Amherst, ... 25		Lynchburg, ... 1	
Oberlin, (Students of College, 73; plus Students of Alliance,). . . 143		N. Y. Medical Conference, ... 17	
		Union. Theo. Sem., ... 15	
Syracuse, ... 12		Philadelphia Medical College, ... 11	
Madison, ... 46		Gen. Theo. Sem., N. Y., ... 2	
Hamilton, ... 15		Mt. Vernon, ... 39	
Lafayette, ... 9		Univ. of Iowa, ... 10	
Rutgers, ... 23		Mt. Pleasant, ... 12	
Lincoln, ... 15		Fairfield, ... 30	
Hackettstown, ... 11		Iowa State Y. M. and W. Con., . . . 46	
Alexandria, ... 12		Grinnell College, ... —	
Univ. of Va., ... 9		Toledo, ... —	
		Chicago, ... —	

Sources: (a) *Intercollegian*, December 1889. (b) *Missionary Review of the World*, February 1887.

B.3 Foreign country keywords

To identify publications about foreign countries, I searched for titles that included the following keywords, published between 1880 and 1945: africa, arab, arabia, argentina, asia, assam, brazil, burma, central america, ceylon, chile, china, corea, cuba, east indies, egypt, formosa, india, iran, iraq, japan, kenya, korea, laos, lebanon, malay, malaysia, manchuria, melanesia, mesopotamia, mexico, mongol, ottoman, palestine, persia, peru, philippine, philippines, polynesia, siam, singapore, south america, syria, tibet, turkey, turkish, west indies

B.4 Wikipedia keywords

To identify individuals who served as intelligence or language experts during World War II, I ran an automated Python script for each Wikipedia biography. An individual is classified as a regional expert during World War II if the biography mentions both war-related and intelligence-related terms.

World War II-related terms are 'second world war', 'world war', and 'world war two'. Intelligence-related terms are as follows: office of strategic services, cryptograph, cryptanaly, army specialized, naval intelligence, military intelligence, intelligence officer, signal intelligence, coordinator of information, office of war information, board of economic warfare, foreign service, translat*, and interpre*.

This approach allows for a comparison between missionaries and other influential individuals. It also makes it possible to examine the role of missionaries' children. Although children's outcomes could in principle be studied using census data, missionary children who grew up abroad do not appear in U.S. census records until they return as adults, making them difficult to match. The Wikipedia data provide a practical way to measure outcomes among missionary children and to capture other prominent missionaries outside the Student Volunteer Movement.

References for Appendix

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Abramitzky, Ran, Boustan, Leah, Eriksson, Katherine, Feigenbaum, James, & Pérez, Santiago. 2021. Automated linking of historical data. *Journal of Economic Literature*, **59**(3), 865–918.

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Michelman, Valerie, Price, Joseph, & Zimmerman, Seth D. 2022. Old boys' clubs and upward mobility among the educational elite. *Quarterly Journal of Economics*, **137**(2), 845–909.

Moreira, Diana, & Pérez, Santiago. 2022. *Who Benefits from Meritocracy?* Tech. rept. National Bureau of Economic Research.

Sarada, Sarada, Andrews, Michael J, & Ziebarth, Nicolas L. 2019. Changes in the demographics of American inventors, 1870–1940. *Explorations in Economic History*, **74**, 101275.

Stauffer, Milton Theobald. 1924. *Christian Students and World Problems: Report of the Ninth International Convention of the Student Volunteer Movement for Foreign Missions, Indianapolis, Indiana, December 28, 1923, to January 1, 1924*. Student volunteer movement for foreign missions.

Turner, Fennell P. 1910. *Students and the present missionary crisis ; addresses delivered before the sixth international convention of the student volunteer movement for foreign missions, Rochester, New York, December 29, 1909, to January 2, 1910*. Student volunteer movement for foreign missions.

Turner, Fennell P. 1914. *Students and the world-wide expansion of Christianity; addresses delivered before the seventh international convention of the Student volunteer movement for foreign missions, Kansas City, Missouri, December 31, 1913 to January 4, 1914*. Student volunteer movement for foreign missions.