

Does Aid Delivery Matter? The Role of Aid Delivery Mechanisms  
in Punishing Recipients, Credibly Signaling to Recipients, and  
Influencing Public Opinion

By  
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Submitted to the graduate degree program in Political Science and the Graduate Faculty of the  
University of Kansas in partial fulfillment of the requirements for the degree of Doctor of  
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Date Approved: 4 December 2020

## Abstract

Foreign aid decision making involves multiple stages, including decisions about which countries to allocate aid to and how to deliver that aid to those recipients. While aid allocation has been studied extensively, foreign aid delivery mechanisms remain underexplored. I investigate three research questions related to foreign aid delivery. Drawing on insights from principal-agent relationships, I first explore how donor governments choose to bypass poorly governed recipients and argue that donor aid agencies prefer channeling aid through donor-based NGOs. In my second article, I similarly rely on insights from principal-agent relationships and argue that donor aid agencies channel some, but not all aid money directly to strategically important recipient governments. Third, I examine whether aid delivery influences public opinion in the United States and find that information suggesting that aid is channeled through NGOs increases support for aid. To test my hypotheses, I construct a dataset, organized in directed dyads and spanning the years 2005 to 2018, housing ODA commitments pulled from the OECD's Creditor Reporting System (CRS) database, and I conduct a survey experiment built using Qualtrics and administered via Amazon Mechanical Turk. Together, these findings affirm that donor aid agencies make different delivery decisions under different circumstances, and information about aid delivery influences public support for U.S. foreign aid.

## Acknowledgments

I am incredibly grateful to my chair, Dr. Mariya Omelicheva, for her support and guidance.

Thank you for the long hours you spent reviewing my work, providing feedback, and mentoring me during what has been such a busy time in your life. I especially appreciate your patience with me as I worked through pregnancy and early motherhood. It took me time to adjust to working as a new mom, and I will always be grateful for your advice and example.

I am also grateful to my entire dissertation committee. Thank you to Dr. Nazli Avdan for your feedback and encouragement. Thank you to Dr. Clayton Webb for the hours you spent helping design my survey experiment and work through my data and analysis. Thank you to Dr. Mark Joslyn for your early advising and for directing me towards the path that led me here. Thank you to Dr. Ebenezer Obadare for offering another perspective on my research.

To the Department of Political Science at the University of Kansas—thank you for creating such a wonderful place for me to develop professionally. Thank you especially to Dr. Mark Joslyn and Dr. Nazli Avdan for your work as Graduate Director; I so appreciate the teaching and learning opportunities you provided me. Thank you to Linda Pickerel and Megan Wilson. Your advice and guidance over the years has been invaluable. Thank you also to my fellow graduate students, especially Patrick Gauding and Rachel Finnell. Thank you for your friendship and your thoughts as I ran ideas past you.

Thank you to my incredible parents, David and Kirsten Rawson. You have taught me since day one that I could accomplish anything I put my mind to, and I would not be here without it. Your constant support, guidance, example, and love have brought me here and shaped the person that I am. Thank you for instilling in me a love for learning and for inspiring

me to work hard. Thank you also for the countless hours you spent watching Emma so I had uninterrupted time to work.

Thank you to an endless number of loved ones. Thank you to my siblings, Nicole Casper and Rylan Rawson, for checking in with me often and offering encouragement. Thank you to Ken and Ruth Ann Tidwell, for your constant support and for driving out to help with Emma so I could work. Thank you also to my many friends and amazing babysitters. It truly takes a village.

Lastly, I am so grateful to my own little family. Thank you to my wonderful husband Chad for pushing me to apply to graduate school and for being my biggest cheerleader. Despite your own heavy workload with medical school and residency, you are always willing to listen, offer encouragement, and help me think through how best to tackle my own to-do list. Thank you also to our sweet daughter Emma for the joy you bring into my life. You are my greatest motivation. I hope to create a home for you that inspires and illustrates that anything is possible.

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## Introduction

With over \$3 trillion allocated globally in net Official Development Assistance (ODA)<sup>1</sup> between 1950 and 2019 and an almost \$19 billion increase in annual net ODA commitments over the last decade, (Organization for Economic Cooperation and Development “Net ODA from DAC Countries from 1950 to 2019”), foreign aid has long been the focus of many political science and economics scholars. Much research explores the factors that influence foreign aid allocation (e.g. Alesina and Dollar 2000; Chong and Gradstein 2008; Fuchs, Dreher, and Nunnenkamp 2014; Lumsdaine 1993) as well as public opinion regarding foreign aid in donor countries such as the United States (e.g. Gilens 2001; Hurst, Tidwell, and Hawkins 2017; Milner and Tingley 2010; Milner and Tingley 2011). One area in which foreign aid remains underexplored, however, is that of foreign aid delivery mechanisms. How do donor governments choose to channel aid to recipient countries? What influences that decision, and what are the consequences of aid delivery decisions? How, for example, do aid delivery mechanisms influence public opinion on foreign aid?

These research questions are important because aid delivery is a significant part of the larger foreign aid decision making process. All donors must decide not only where to send aid money, but also how to deliver the money to those recipients. As donor countries spend billions of dollars on aid every year, it is crucial to understand how governments and their aid agencies reach these decisions and what the ramifications of these decisions are. Additionally, as scholars

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<sup>1</sup> Official Development Assistance “is defined as government aid designed to promote the economic development and welfare of developing countries” (Organization for Economic Cooperation and Development “Net ODA”). In addition to development being the main objective, aid must also meet two other criteria to be classified as ODA: include a grant element of at least 25% and be provided to a recipient from the list of ODA-eligible recipient countries published by the OECD (Organization for Economic Cooperation and Development “Net ODA”).

have demonstrated that public opinion can influence government aid decision making (Heinrich, Kobayashi, and Bryant 2016; Milner and Tingley 2010; Milner and Tingley 2011), it is important to understand how the public forms their opinions about foreign aid. A better understanding of how the public arrives at their opinions as well as what influences their opinions is necessary for those who would like to influence aid policy.

As previous scholarship has noted, foreign aid provides an example of principal-agent relationships (Gent et al 2013; see also Martens et al 2002). The foreign aid allocation, delivery, and implementation process involves several different actors, many of whom serve as principals and agents in different capacities. As outlined by Martens (2002a; 2002c), the foreign aid principal-agent chain begins with donor country taxpayers and governments, who make decisions about aid allocation but leave the details of aid delivery to their aid agencies. Aid agencies then often make decisions about aid delivery but leave the details of aid implementation to their contracting partners—whether a recipient country government, a non-governmental organization (NGO), or other actor. These contracting partners then act as principals to the recipient country government and citizens. An understanding of the incentives that each of these aid actors has and the behavior that results is crucial to understanding the causes and consequences of aid delivery decisions.

Donor government aid agencies have many delivery channel options available to them. As categorized by the OECD's CRS database, foreign aid may be channeled through public sector institutions, NGOs, public-private partnerships, multilateral organizations, universities, colleges or other teaching institutions, research institutes or think-tanks, and private sector institutions. Many of these delivery channels are also subcategorized, so that aid delivered via a public sector institution may make use of a recipient government or a third-party government, for

example. In the case of NGOs, aid may be delivered via an international NGO, an NGO based in the donor country, or an NGO based in a recipient country. Interestingly, donor governments choose to allocate aid via multiple delivery channels. For instance, in 2016, 36.07% of US aid was delivered via public sector institutions, 23.69% was delivered via NGOs, and 21.57% via multilateral organizations (Organization for Economic Cooperation and Development “Creditor Reporting System”). Scholars have recently started to explore the dynamics of these decisions. Dietrich (2013) argues that donor governments bypass recipient governments with poor governance records by choosing to channel aid not to the recipient government directly, but through one of the other non-state options available. Similarly, Dietrich and Murdie (2017) demonstrate that the same happens to recipient governments with poor human rights records.

Research on aid delivery may also have ramifications for the study of public opinion and foreign aid, as scholars have demonstrated that public opinion regarding foreign aid in the United States is low in part because of a perception that aid is lost to corruption (Hurst, Tidwell, and Hawkins 2017). However, if donor governments really do bypass recipient governments with poor governance records, as Dietrich (2013) suggests, then public opinion regarding foreign aid in the United States may be higher if citizens understood this reality. My research seeks to extend scholarship on aid delivery broadly, by adding to Dietrich’s (2013) research regarding the donor decision to bypass, investigating another factor that may influence aid delivery, and exploring whether information on aid delivery influences public opinion regarding U.S. foreign aid.

My first article explores how donor aid agencies bypass poorly governed recipient countries’ governments. Dietrich (2013) uses a dichotomous conceptualization of aid delivery—studying whether aid is channeled directly to the recipient government or through any of the

other available non-state channels in the face of poor governance. While this finding is important, I expect that aid delivery decisions are even more nuanced in cases of poor recipient governance. Consistent with previous research on principal-agent relationships (Martens et al 2002), I expect that aid delivery decisions are shaped by the varying preferences and incentives of the actors along the aid chain. Donor governments, for instance, utilize foreign aid as a tool of foreign policy and are often motivated by broad goals like security or economic prosperity (US Department of State and US Agency for International Development). Aid agencies, on the other hand, are concerned with implementing aid projects in ways that are acceptable to donor governments and simplifying their own workload (Seabright 2002). As a result, there are advantages for aid agencies to choose to deliver aid through NGOs, as NGOs are often focused on single issues, which makes their efforts easier for aid agencies to monitor. Additionally, previous scholarship suggests that NGOs based in donor countries may be particularly advantageous choices, as NGOs that are embedded in the same socio-political network may be especially susceptible to aid agency pressure (Martens 2002c). I argue that this is especially important in cases of poor recipient country governance. If aid is lost to corruption or other government inefficiencies, then it cannot advance the goals of aid agencies or their principals. As a result, when delivering aid to poorly governed recipients, I expect that aid agencies will prefer to channel aid through donor-based NGOs. To test this argument, I assemble a dataset, organized in directed dyads and spanning the years 2005 to 2018, housing ODA commitments pulled from the OECD's CRS database (Organization for Economic Cooperation and Development "Creditor Reporting System").

My second article investigates how donor aid agencies credibly signal their willingness to suspend aid when necessary to strategically important recipient countries. The preferences of

donor governments and aid agencies are likely to diverge in cases of recipient country strategic importance. As noted by previous scholarship, donors tend to give more aid to their allies (Alesina and Dollar 2000) and their important trade (Younas 2008) or security (Brown and Grävinghölt 2016) partners. Additionally, donors give aid in order to prevent problems elsewhere in the world from spilling over into their own countries (Bermeo 2017), and the Group of 7 (G7) donors even give more aid in hopes of securing access to oil (Couharde et al 2020). Pursuing these strategic goals may be so important to donor governments that they are likely to prefer continuing aid regardless of conditions in the recipient country (Swedlund 2017). When recipient country conditions—for example, political transgressions such as corruption scandals or election fraud—reflect poorly on the aid agency though, aid agencies are likely to suspend aid regardless of strategic importance (Swedlund 2017). As aid agencies are more likely to suspend aid when it is delivered directly to recipient governments, aid agencies can use direct budget support to credibly threaten the suspension of aid to strategically important recipients (Swedlund 2017). I therefore expect that aid agencies will deliver at least some aid directly to strategically important recipients in order to credibly signal their willingness to suspend aid should a significant political transgression occur. However, aid agencies simultaneously prefer to implement aid projects in ways that are acceptable to donor governments and simplify their own workload, which makes them likely to prioritize channeling aid through NGOs (Martens 2002c). As a result, I argue that as recipients grow more strategically important to donors, donor governments will be more likely to channel some, but not all, aid directly to the recipient country government. To evaluate this argument, I assemble a dataset, organized in directed dyads and spanning the years 2005 to 2018, housing ODA commitments pulled from the OECD's CRS



database (Organization for Economic Cooperation and Development “Creditor Reporting System”).

My third article explores the link between aid delivery and public opinion regarding US foreign aid. As mentioned, scholars have demonstrated that one reason behind negative opinions of foreign aid in the United States is the perception that foreign aid is lost to corruption (Hurst, Tidwell, and Hawkins 2017). However, scholars have demonstrated that donor governments bypass poorly governed recipient countries by keeping foreign aid out of government hands altogether (Dietrich 2013). In fact, Acht, Mahmoud, and Thiele (2015) find that “corrupt governments do not receive more state-to-state aid” (Acht, Mahmoud, and Thiele 2015, 20). Does information about the channel of aid delivery influence support for foreign aid? I expect that public opinion regarding foreign aid will improve if individuals are presented with information suggesting that aid is delivered via non-state actors instead of directly to governments. To test this hypothesis, I conduct a survey experiment, built using Qualtrics and administered via Amazon Mechanical Turk.

Such a research agenda has ramifications for scholars and politicians alike. My first article contributes to the aid delivery literature by demonstrating how the incentives of aid agencies influence their delivery decisions, consistent with principal-agent theory. This is important to understand, as certain decisions (e.g. delivery) may stem from aid agency preferences rather than the preferences of government officials. Additionally, I explore the nuances of the aid delivery decision when recipients are poorly governed. This accounts for additional variance in terms of how aid agencies choose to deliver aid that previous research has left unexplained. In my second article, I further explore how aid agency preferences may diverge from donor government preferences and influence aid delivery decisions. I also

investigate how the strategic importance of the recipient country may influence aid delivery, which is important given the securitization of aid. My third article focuses on public opinion and demonstrates how information on aid delivery can influence support for foreign aid, particularly in the United States where support for foreign aid is low (Riddell 2007) and fears regarding aid being lost to corruption are high (Hurst, Tidwell, and Hawkins 2017). This particular research question also has significance for politicians and other officials involved in the aid bureaucracy, as a better understanding of what drives support for foreign aid in the United States and an increased knowledge of how to influence that support is of key importance to those wishing for increased levels of aid.

Importantly, I focus on Official Development Assistance (ODA) throughout all three articles. Official Development Assistance “is defined as government aid designed to promote the economic development and welfare of developing countries” (Organization for Economic Cooperation and Development “Net ODA”). In addition to development being the main objective, aid must also meet two other criteria to be classified as ODA: include a grant element of at least 25% and be provided to a recipient from the list of ODA-eligible recipient countries published by the OECD (Organization for Economic Cooperation and Development “Net ODA”). As aid must have development as its main objective to qualify as ODA, ODA excludes military aid. It is also important to note that ODA must include a grant element, as mentioned, but may include loans provided the grant threshold is met. Throughout my articles, I assume this definition of ODA when discussing aid, and the datasets I employ house ODA commitments.

## **Article 1: How Donor Aid Agencies Choose to Bypass: Recipient Country Governance and Donor Decisions to Utilize Donor-based NGOs**

Between 1950 and 2019, over \$3 trillion was allocated globally in net official development assistance (Organization for Economic Cooperation and Development “Net ODA from DAC Countries from 1950 to 2019”). The United States, the world’s most generous donor in terms of total aid, committed over \$30 billion to foreign aid in 2015 alone, and some donor governments—Norway and Sweden, for example—give over 1 percent of their gross national income to foreign aid (Myers 2016), which is quite substantial considering that money is not spent on a country’s own citizens. Such an international environment has prompted many political science and economics researchers to examine how donor governments choose to allocate foreign aid. To name a few, over the years, scholars have demonstrated the influence of colonial ties (Alesina and Dollar 2000; Carnegie and Marinov 2017; Lumsdaine 1993), political alliances (Alesina and Dollar 2000), security concerns (Brown and Grävingsholt 2016), corruption (Alesina and Weder 2002; Chong and Gradstein 2008), democratization (Alesina and Dollar 2000; Lumsdaine 1993), government ideology (Greene and Licht 2018), participation in the international system (Swiss 2017), human rights practices (Cingranelli and Pasquarello 1985), trade relationships (Younas 2008), income (Lumsdaine 1993; Chong and Gradstein 2008), income inequality (Chong and Gradstein 2008), economic crises (Heinrich, Kobayashi, and Bryant 2016), infant mortality (Trumbull and Wall 1994), population (Trumbull and Wall 1994), oil endowments (Couharde et al 2020), and terrorist activity (Boutton and Carter 2014) on the allocation of foreign aid. More recently, scholars have also started exploring how foreign aid is delivered from a donor country to a recipient country (Acht, Mahmoud, and Thiele 2015; Dietrich 2013; Dietrich and Murdie 2017). Specifically, scholars have demonstrated that donor

countries bypass recipient governments with poor governance (Dietrich 2013) or human rights records (Dietrich and Murdie 2017) by delivering aid through non-state actors instead of delivering aid directly to the offending recipient government. This research groups all non-state actors—multilateral organizations, NGOs, public-private partnerships, teaching and research institutions, private sector institutions, and others—into one category, so that donor decisions to bypass a recipient government may still utilize many different aid delivery channels. What influences how donors decide between all of these non-state channels?

Broadly, I argue that aid delivery decisions are part of a larger aid chain and are shaped by the varying incentives of different actors along the chain, consistent with principal-agent theory. The foreign aid chain begins with donor country taxpayers and government officials, who make decisions about aid allocation but delegate the details of aid delivery and implementation to donor aid agencies. These aid agencies then often delegate further to implementing partners, such as NGOs, public-private partnerships, or other actors. As is typical of principal-agent relationships, each of these actors has their own set of preferences and incentives. Donor governments, for instance, utilize foreign aid as a tool of foreign policy and are often motivated by broad goals like security or economic prosperity (US Department of State and US Agency for International Development). Aid agencies, on the other hand, are concerned with implementing aid projects in ways that are acceptable to donor governments and simplifying their own workload (Seabright 2002). As a result, there are advantages for aid agencies to choose to deliver aid through NGOs, as NGOs are often focused on single issues, which makes their efforts easier for aid agencies to monitor. NGOs may also be susceptible to aid agency pressure because of their dependence on aid agency funding contracts (Martens 2002c). Additionally, previous scholarship suggests that NGOs based in donor countries may be

particularly advantageous choices, as NGOs that are embedded in the same socio-political network may be especially susceptible to aid agency pressure (Martens 2002c). I argue that this is especially important in cases of poor recipient country governance. If aid is lost to corruption or other government inefficiencies, then it cannot advance the goals of aid agencies or their principals. As a result, when delivering aid to poorly governed recipients, I expect that aid agencies will prefer to channel aid through donor-based NGOs.

To evaluate this argument, I compile a dataset, organized in directed dyads and spanning the years 2005 to 2018, housing foreign aid commitments pulled from the OECD's CRS database (Organization for Economic Cooperation and Development "Creditor Reporting System"). I employ Heckman Probit, Random Effects Logit, Rare Events Logit, and ordinary Logit models to conduct my analysis.

The rest of my paper proceeds as follows. I first discuss the relevant scholarship on recipient country governance, aid allocation, and aid delivery. I then outline my own theory regarding donor decisions to bypass poorly governed recipient countries by way of donor-based NGOs. Next, I detail the design of my project, the data I compile, and the methodology I employ. I then analyze the results and conclude.

### Review of Existing Literature

The literature relevant to my research can be divided into two groups. The first discusses recipient country governance and aid allocation, and the second explores recipient country governance and aid delivery.

#### **Recipient Country Governance and Aid Allocation**

Scholars have suggested several different factors—including colonial ties (Alesina and Dollar 2000), political alliances (Alesina and Dollar 2000), terrorist activity (Boutton and Carter 2014),

and many others—that influence aid allocation. Among this list are a series of variables related to recipient country governance. First, recipient countries that democratize receive more aid (Alesina and Dollar 2000; Lumsdaine 1993). In this sense, countries whose government institutions are becoming more democratic receive more aid. Recipient countries with good governance also receive more aid (In'airat 2014; Weiler, Klock, and Dornan 2018). In'airat (2014) specifically finds that recipient governments that protect civil liberties, maintain political stability, and control corruption receive more aid. More narrowly, Weiler, Klock, and Dornan (2018) similarly find that countries with better governance and a capacity to adapt receive more climate change adaptation aid. In short, countries that are better governed tend to receive more aid.

Much of the literature surrounding recipient country governance revolves around corruption—the influence of which has been much debated. Many scholars have suggested that more corrupt countries receive more foreign aid (Alesina and Weder 2002; Easterly and Williamson 2011; Easterly and Pfutze 2008). However, others suggest that different donors behave differently. For instance, Alesina and Weder (2002) note that while Scandinavian donors “do reward less corrupt receivers” (Alesina and Weder 2002, 1136), the United States “seems to pay no attention to quality of government of receiving countries” (Alesina and Weder 2002, 1136). Thus, although the relationship between corruption and aid allocation may be more complex, it appears that at least some donor countries tend to allocate more aid to governments that are better able to control corruption.

### **Recipient Country Governance and Aid Delivery**

Recently, scholars have also started to explore how recipient country governance influences aid delivery (Acht, Mahmoud, and Thiele 2015; Dietrich 2013; Winters and Martinez 2015).

Dietrich (2013) argues that donor countries choose to deliver aid indirectly—that is, through an NGO, a multilateral organization, a public-private partnership, or similar non-state channel—when the recipient country is poorly governed. In this sense, donor countries bypass poorly governed countries by delivering aid to those countries via non-government channels. Acht, Mahmoud, and Thiele (2015) affirm these results, suggesting that while “corrupt governments do not receive more state-to-state aid” (Acht, Mahmoud, and Thiele 2015, 20), corrupt governments still do receive aid through other channels. However, each of these articles simply suggests that when delivering aid to poorly governed recipient countries, donor governments choose any of several delivery channels that keep aid out of the hands of the recipient government. Which channel is it that donor governments are most likely to use?

#### Recipient Country Governance and How Donors Choose to Bypass the Poorly Governed

As previous scholarship has noted, foreign aid provides an example of principal-agent relationships (Gent et al 2013; see also Martens et al 2002). The foreign aid allocation, delivery, and implementation process involves several different actors, many of whom serve as principals and agents in different capacities. As outlined by Martens (2002a; 2002c), the foreign aid principal-agent chain begins with donor country taxpayers, who delegate aid decision making to their elected representatives. These representatives make decisions about how aid money will be allocated, but delegate many of the details, such as decisions about aid delivery, to aid agencies. Aid agencies then decide how the aid project will be implemented, usually through contracting with another entity—whether a recipient government agency, NGO, or other actor. This implementing body then also should “ensure that the benefits reach a wider recipient country population” (Martens 2002c, 179). In short, donor country taxpayers are principals to their elected representatives, who act as principals to aid agencies, who act as principals to aid

contractors, who act as principals to the recipient country's citizens and government. Although this aid chain is typical of most bilateral aid, there are of course other variants (e.g. sometimes the aid agency implements aid directly, etc.). As is typical of principal-agent relationships, each actor in the aid chain possesses different information and has their own set of incentives and goals. I am interested in aid delivery and therefore focus on those actors primarily involved in delivery decisions—aid agencies (who make aid delivery decisions), their principals (donor governments), and their agents (the implementing organizations they contract with).

As mentioned, each of these actors likely has different goals. First, donor governments use foreign aid as an instrument to help carry out their broader foreign policy goals. For instance, the Joint Strategic Plan for fiscal years 2018-2022 issued by the US Department of State and US Agency for International Development (USAID) identifies four main goals: protect America's security at home and abroad, renew America's competitive advantage for sustained economic growth and job creation, promote American leadership through balanced engagement, and ensure effectiveness and accountability to the American taxpayer (US Department of State and US Agency of International Development). In short, donor governments are concerned with things like security and economic prosperity, and they use foreign aid to try to help them meet those goals.

Aid agencies, on the other hand, are tasked with implementing aid programs that donor governments decide on, but they also have their own set of goals. As detailed by other scholars (Martens 2002a; Seabright 2002), aid is unique in that its primary beneficiaries are not also its sponsors. Donor country taxpayers and governments sponsor aid, but those aid projects directly primarily benefit individuals in other countries, not the donor taxpayers and governments themselves. As it is difficult to evaluate whether "the agency is doing the things that the



supposed beneficiaries need” (Seabright 2002, 35), and “there is frequently no obvious mechanism for transmitting the beneficiaries’ view of the process to the sponsors” (Seabright 2002, 35), sponsors instead “rely on various [other] indicators of [aid agency] performance” (Seabright 2002, 35). This results in an “input-bias” (Seabright 2002, 65) where aid agencies “concentrate more on input-related tasks (budgets, contracts, personnel) than on output-related tasks where ‘success’ is relatively difficult to demonstrate” (Seabright 2002, 65). In other words, aid agencies are likely to focus more attention on implementing aid projects in a way that is acceptable to donor governments—through selecting “projects for ease of monitoring rather than overall contribution to beneficiary welfare” (Seabright 2002, 66), as an example—than they are on meeting specific donor government goals or optimizing the outcome of aid projects.

The organizations that aid agencies contract with to deliver aid and carry out aid projects have their own set of preferences, as well. There are several different types of organizations that aid agencies may contract with; the contractor for any one aid project may be an NGO, a public-private partnership, or a teaching/research organization, as examples. These contractors have their own goals that may include profit or accountability to other private donors or stakeholders, depending on the nature of the organization. Additionally, they are concerned with cultivating a reputation that ensures they continue to receive contracts from the aid agency. This leads these contractors to “temper their critical remarks” and not “reveal precise and controversial information” (Martens 2002b, 166). In other words, contractors similarly “show a tendency towards input-bias...and will not seek to reveal results that could have an unsettling effect on [their] market” (Martens 2002b, 167) or the likelihood of receiving future aid contracts.

Given the contrasting goals of the multiple principals and agents involved in aid delivery, aid agencies have incentives to use certain aid channels more than others. As mentioned

previously, there are several delivery channels that donor governments can choose from when allocating foreign aid. As classified by the OECD CRS database, aid may be delivered through public sector institutions; NGOs; public-private partnerships; multilateral organizations; university, college or other teaching institution, research institute or think-tank; or private sector institution, as previously mentioned (Organization for Economic Cooperation and Development “Creditor Reporting System”). Utilizing NGOs may be particularly advantageous for aid agencies, as argued by Martens (2002c). As many NGOs are issue-specific and their members “usually hold a fairly similar set of preferences regarding the issue that the NGO intends to promote” (Martens 2002c, 185), aid agencies can simplify their efforts to carry out multiple development goals by unbundling “these objectives and select[ing] issue-specific NGOs to implement them as separate contracts” (Martens 2002c, 186). When this happens, “there is little need for monitoring by the official aid agency” (Martens 2002c, 186), as the “NGOs can be expected to pursue the issues vigorously..., because the preferences of their members are in line with the project objectives” (Martens 2002c, 186). Additionally, “the fact that most NGOs are financially dependent on contracts with the aid agency enables the agency to exercise some degree of control over NGO behaviour” (Martens 2002c, 187). This is similar to the argument made by Cooley and Ron (2002), who suggest that NGOs must compete for funds from donor governments, which makes NGOs more likely to give donor governments what they want.

Aid agencies must also take other realities into consideration when making aid delivery decisions. For instance, many donors give aid to recipients that are poorly governed and/or corrupt (Acht, Mahmoud, and Thiele 2015). In these cases, aid agencies are likely concerned with a broader goal (e.g. enhancing security, enhancing a trade relationship, etc.) as dictated by the donor government, but aid agencies also must consider the likelihood that their aid money is

lost to corruption. If aid money is lost to corruption and/or other government inefficiencies, then it may not advance the interests of the donors. As a result, I expect that aid agencies make different decisions regarding aid delivery when the recipient country in question is poorly governed. This is consistent with previous research, as Dietrich (2013) demonstrates that donor governments do in fact channel aid to poorly governed states through non-state actors rather than directly to the recipient government.

Importantly, Dietrich (2013) conceptualizes the decision to bypass poorly governed recipient governments as a dichotomous one capturing whether aid is channeled directly to the recipient government or not. Dietrich and Murdie (2017) also treat this decision to bypass as dichotomous. I expect that when delivering aid to poorly governed recipient countries, aid agencies choose to not only bypass the recipient government, but also to select a channel of delivery that provides the greatest chance that aid agency goals are met. Broadly, I argue that aid agencies prefer NGOs, for reasons outlined above and detailed by Martens (2002c). Specifically, I argue that aid agencies will prefer NGOs that are based in the donor country. When aiding corrupt recipients, broader aid agency objectives cannot be met if the aid is not implemented effectively, so I expect that aid agencies prioritize effectiveness. Although donor-based NGOs are admittedly not under the direct control of the donor government or aid agencies, the fact that donor governments provide NGOs with money gives the donors some amount of power (Martens 2002c). Importantly, other non-state delivery channels, such as international organizations and private companies, still receive money from donor governments, similarly granting the donor an element of power over the deliverers. However, I assume that international organizations and private companies have additional sources of income that allow them a greater measure of independence from donors not available to donor-based NGOs. Additionally, aid agencies that

choose to contract with NGOs that are “embedded in wider socio-political networks in their home country” (Martens 2002c) may be better able to “exercise political pressure” (Martens 2002c) over the NGOs through their shared affiliations. As a result, I hypothesize the following:

*Hypothesis: When bypassing poorly governed recipient countries, donor aid agencies will channel more aid through NGOs based in the donor country.*

#### Design & Methodology

To test this hypothesis, I assemble a dataset, organized in directed dyads and spanning the years 2005 to 2018, housing foreign aid commitments. My dependent variable captures whether aid committed by OECD/DAC member states is channeled through donor-based NGOs and is constructed from data available in the OECD’s CRS database (Organization for Economic Cooperation and Development “Creditor Reporting System”). This dataset is organized by aid project and includes information on the monetary commitment and channel of delivery, as reported by the CRS of the OECD. The CRS reports whether the aid flow for any one aid project was channeled through a public sector institution; an NGO; a Public-Private Partnership (PPP); a multilateral organization; a teaching institution, research institute, or think tank; a private sector institution; or another entity altogether. Many of these categories are further subdivided, which allows me to differentiate between NGOs based in donor countries or elsewhere. I use the aid commitment and channel variables to calculate the amount of aid channeled through donor-based NGOs from each donor to each recipient annually. I then use this data (and a variable that totals the annual aid from each donor to each recipient across all channels) to calculate the proportion of aid channeled through donor-based NGOs for each dyad year. Although I could use this proportion variable as my dependent variable, channeling aid through a donor NGO appears to be relatively rare. Specifically, of the 126,528 annual dyadic aid commitments in my dataset,

only 8,875 utilize the donor NGO channel of delivery. This number only becomes smaller as I introduce independent variables with missingness resulting from data availability, which complicates analysis. As a result, I employ a binary dependent variable, created by dichotomizing the proportion of donor NGO aid variable. This approach is similar to one of the methods employed by Dietrich (2013) and provides me 126,528 observations (117, 653 zeros and 8,875 ones) on which to run my analysis.

### **Explanatory Variable**

To evaluate my hypothesis, I need a measure of recipient country governance. The World Bank gathers information on governance in their Worldwide Governance Indicators project, which houses data on country governance across six different dimensions—control of corruption, government effectiveness, political stability and absence of violence/terrorism, rule of law, regulatory quality, and voice and accountability. I construct an index of these six dimensions, as Dietrich (2013) does, and use this index as my explanatory variable. Data is pulled from the Quality of Government Standard Time-Series Dataset (Teorell et al 2020). Higher values on each of these variables correspond to better governance, so I expect that the likelihood that aid is channeled through donor NGOs will decrease as my recipient country governance index increases.

### **Control Variables**

I also include a series of control variables. I first include a variable capturing a recipient government's human rights record, as Dietrich and Murdie (2017) argue that donor governments bypass recipient governments with poor human rights records. This variable (*ffp\_hr*) also comes from the Quality of Government Standard Time-Series Dataset (Teorell et al 2020). Importantly, this variable captures human rights violations, and therefore higher values correspond to more

human rights violations. As I am not aware of any other studies that analyze factors influencing aid delivery, I also include several control variables that have been demonstrated to influence aid allocation. First, I include a variable capturing colonial status. This variable is dichotomous and represents whether the recipient government is a former colony of the donor government.

Although I am not aware of a dyadic colonial dataset that already exists, other scholars have created datasets that include this data. I pull my colony variable from the replication data for Dietrich's (2013) article that is available on her website (Dietrich) and expand it to include the years 2013-2018. As she describes in her article, this colony data was initially pulled from the CIA World Factbook (Dietrich 2013). Next, I include a measure of alliances, which is coded as a 1 if the dyad was party to a defensive alliance in the current year and 0 if otherwise. This data comes from the Correlates of War data project Formal Alliances v4.1 (Gibler 2009). To capture dyadic trade flows, I make use of the Correlates of War International Trade, 1870-2014 (v4.0) dataset (Barbieri and Keshk 2016; Barbieri, Keshk, and Pollins 2009) and sum exports from donor to recipient and imports from recipient to donor in the given year. I employ World Bank GDP per capita data to create a GDP per capita variable (World Bank), as it has been demonstrated that wealthier countries give more foreign aid (Chong and Gradstein 2008; Fuchs, Dreher, and Nunnenkamp 2014). Recipient countries that are democracies have been shown to receive more foreign aid (Alesina and Dollar 2000; Lumsdaine 1993), so I include recipient Polity IV scores (Center for Systemic Peace) to measure democracy. Polity IV scores range from -10 to 10, with higher scores representing more democracy. I also include a variable housing recipient GDP per capita data, pulled from the World Bank (World Bank), as poorer countries tend to receive more aid (Lumsdaine 1993). I lastly include a recipient country population variable to account for the population bias of foreign aid, as recipient countries with

lower populations have been demonstrated to receive more aid (Trumbull and Wall 1994; Wall 1992). This data comes from the World Bank (World Bank).

I report descriptive statistics for each of these variables in Table 1 and the correlations between each of my explanatory and control variables in Table 2. Both of these tables were created with the `asdoc` Stata program, written by Shah (2018). As illustrated in Table 2, there is a strong correlation between recipient country governance and human rights records and between recipient country democracy and human rights records. This suggests that the analysis I employ may suffer from problems of multicollinearity. Each of these variables is an important predictor of aid allocation and/or delivery, as discussed above, and including each is therefore necessary for my analysis. However, to demonstrate that the presence of multicollinearity is not impacting the significance of my results, I include a table in Appendix A that runs additional models without each of these offending variables. My results maintain statistical significance across all of these models.

Table 1: Descriptive Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
Binary Donor NGO	126528	.07	.255	0	1
Recipient Governance Index	152590	-2.999	3.821	-14.696	9.834
Recipient Human Rights	103234	6.799	1.723	1	10
Recipient GDP per Capita	319007	2589.145	4398.504	70.803	93777.109
Recipient Democracy	296130	.05	6.651	-10	10
Recipient Population	371186	34637190	1.358e+08	5822	1.393e+09
Donor GDP per Capita	246785	22966.136	19176.046	269.888	178845.63
Former Colony	418094	.191	.393	0	1
Defense Pact	418094	.01	.101	0	1
Imports + Exports	166637	635.136	7351.866	0	655808.25

Table 2: Correlation Matrix

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1) Recipient Governance Index	1.000								
(2) Recipient Human Rights	-0.808	1.000							
(3) Recipient GDP per Capita	0.471	-0.336	1.000						
(4) Recipient Democracy	0.474	-0.629	-0.004	1.000					
(5) Recipient Population	0.015	0.071	-0.035	-0.032	1.000				
(6) Donor GDP per Capita	0.032	-0.026	0.062	0.015	-0.018	1.000			
(7) Former Colony	-0.005	-0.025	-0.020	0.088	-0.028	0.399	1.000		
(8) Defense Pact	0.035	-0.047	0.047	0.030	-0.019	-0.011	-0.027	1.000	
(9) Imports + Exports	0.050	0.019	0.101	-0.052	0.315	0.015	-0.037	0.076	1.000

I primarily employ Heckman Probit models to test my hypotheses, as aid delivery decisions can be characterized as a two-stage sample selection process (Heckman 1979). In the first stage, donors decide which recipient countries to commit aid to, and in the second stage, donors decide how to deliver the aid to those recipients. I also run Random Effects Logit, Rare Events Logit, and Logit models as robustness checks. As Plümper and Troeger (2019) point out, fixed effects models are more biased than ordinary least squares (OLS) and random effects models in the presence of dynamic misspecification, which is hard (if not impossible) to eliminate. Although random effects models are still poor estimators of time series cross section (TSCS) data (Plümper and Troeger 2019), I do run Random Effects Logit models as one way to test the robustness of my results to different model specifications. I additionally employ Rare Events Logit (King and Zeng 2001a; King and Zeng 2001b; King and Zeng 2002; Tomz, King, and Zeng 1999), which applies statistical corrections for rare events data that may suffer from small sample problems. I also utilize ordinary logit models with cubic polynomial duration variables (Beck, Katz, and Tucker 1998; Carter and Signorino 2010), as binary TSCS data is the same as grouped duration data, making this method appropriate. I run each of my models both



with and without these duration variables to provide further evidence of the robustness of my results, as well. I discuss these results and additional robustness checks in the section that follows.

### Analysis

My Heckman Probit results are available in Table 3 and Table 4. As mentioned earlier, the donor delivery decision is a two-stage selection process (Heckman 1979), as donors must first decide where to allocate aid before deciding how to deliver aid to those recipients. Model 1 includes only my main explanatory variable and the full selection model. In Models 2-4, I add in a series of control variables. Specifically, I add the control variables specific to the recipient country in Model 2, the control variables specific to the donor country in Model 3, and the control variables specific to the dyad in Model 4. As Model 4 features the lowest Akaike Information Criterion (AIC) value so far and a Bayesian Information Criterion (BIC) only slightly higher than Model 3, I treat Model 4 as my baseline model and repeat it as Model 5 in Table 4 for ease of comparison. Model 6 repeats Model 5 with the addition of the  $t$ ,  $t^2$ , and  $t^3$  cubic polynomial spline variables recommended by Carter and Signorino (2010). Model 7 employs a different measure of recipient country governance to demonstrate the robustness of my explanatory variable. Following Dietrich (2013), in addition to the governance index I primarily employ that includes data on all six of the World Bank World Governance Indicators, I also construct an index of the four World Bank World Governance Indicators that specifically concern the state's economic institutions (i.e. Control of Corruption, Government Effectiveness, Rule of Law, and Regulatory Quality). This variable similarly utilizes the World Bank World Governance Indicators available in the Quality of Government Standard Time-Series Dataset (Teorell et al 2020) and is a subset of my baseline governance quality index variable. Model 8

Table 3: Heckman Probit Models of Donor NGO Delivery and Recipient Governance

	(1) Heckman Probit	(2) Heckman Probit	(3) Heckman Probit	(4) Heckman Probit
<b>Donor NGO</b>				
Recipient Governance Index	-0.0143*** (0.003)	-0.0228*** (0.005)	-0.0277*** (0.005)	-0.0270*** (0.005)
Recipient Human Rights		0.00287 (0.011)	0.00710 (0.012)	0.0128 (0.012)
Recipient GDP Per capita		0.00000144 (0.000)	-0.0000109*** (0.000)	-0.0000208*** (0.000)
Recipient Democracy		0.0108*** (0.002)	0.0170*** (0.002)	0.0183*** (0.002)
Recipient Population		-9.44e-11* (0.000)	1.31e-12 (0.000)	4.14e-11 (0.000)
Donor GDP Per capita			0.0000131*** (0.000)	0.0000173*** (0.000)
Former Colony				0.245*** (0.047)
Defense Pact				0.0984 (0.067)
Imports + Exports				0.00000143** (0.000)
Constant	-0.491*** (0.017)	-0.579*** (0.074)	-1.489*** (0.095)	-2.067*** (0.142)
<b>Select</b>				
Recipient Human Rights	0.0291*** (0.007)	0.0252*** (0.007)	0.0245*** (0.007)	0.0241*** (0.007)
Recipient GDP Per capita	-0.0000495*** (0.000)	-0.0000499*** (0.000)	-0.0000503*** (0.000)	-0.0000503*** (0.000)
Recipient Democracy	0.0130*** (0.002)	0.0108*** (0.002)	0.0105*** (0.002)	0.0105*** (0.002)
Recipient Population	1.08e-10** (0.000)	1.30e-10*** (0.000)	1.21e-10*** (0.000)	1.20e-10** (0.000)
Donor GDP Per capita	0.0000278*** (0.000)	0.0000278*** (0.000)	0.0000268*** (0.000)	0.0000269*** (0.000)
Former Colony	0.847*** (0.016)	0.849*** (0.017)	0.920*** (0.017)	0.919*** (0.017)
Defense Pact	0.222*** (0.048)	0.218*** (0.048)	0.239*** (0.050)	0.243*** (0.050)

Imports + Exports	0.0000209*** (0.000)	0.0000210*** (0.000)	0.0000221*** (0.000)	0.0000222*** (0.000)
Constant	-1.208*** (0.053)	-1.176*** (0.054)	-1.154*** (0.055)	-1.152*** (0.055)
/				
athrho	-0.811*** (0.025)	-0.797*** (0.026)	-0.314*** (0.037)	0.129 (0.111)
AIC	60403.7	60372.7	59947.4	59924.3
BIC	60498.0	60492.8	60076.1	60078.7

Standard errors in parentheses

\*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

Table 4: Heckman Probit Models of Donor NGO Delivery and Recipient Governance

	(5) Heckman Probit	(6) Heckman Probit	(7) Heckman Probit	(8) Heckman Probit
<b>Donor NGO</b>				
Recipient Governance Index	-0.0270*** (0.005)	-0.0113** (0.005)		-0.0248*** (0.004)
Recipient Econ Governance Index			-0.0329*** (0.007)	
Recipient Human Rights	0.0128 (0.012)	0.0301** (0.012)	0.0260** (0.011)	0.00152 (0.009)
Recipient GDP Per capita	-0.0000208*** (0.000)	-0.0000355*** (0.000)	-0.0000203*** (0.000)	-0.0000132*** (0.000)
Recipient Democracy	0.0183*** (0.002)	0.0162*** (0.002)	0.0181*** (0.002)	0.0112*** (0.002)
Recipient Population	4.14e-11 (0.000)	1.15e-10** (0.000)	5.54e-11 (0.000)	6.14e-11 (0.000)
Donor GDP Per capita	0.0000173*** (0.000)	0.0000188*** (0.000)	0.0000173*** (0.000)	0.0000139*** (0.000)
Former Colony	0.245*** (0.047)	0.460*** (0.022)	0.242*** (0.047)	0.108*** (0.038)
Defense Pact	0.0984 (0.067)	0.279*** (0.064)	0.105 (0.067)	
Any Alliance				0.0755 (0.061)
Imports + Exports	0.00000143** (0.000)	0.00000244*** (0.000)	0.00000141** (0.000)	
Shared PTA				0.215*** (0.017)
Duration		-0.0961*** (0.008)		
Duration <sup>2</sup>		0.0502*** (0.006)		
Duration <sup>3</sup>		-0.00789*** (0.001)		
Constant	-2.067*** (0.142)	-2.219*** (0.091)	-2.139*** (0.138)	-1.566*** (0.133)
<b>Select</b>				
Recipient Human Rights	0.0241*** (0.007)	0.0507*** (0.008)	0.0241*** (0.007)	0.0261*** (0.005)

Recipient GDP Per capita	-0.0000503*** (0.000)	-0.0000388*** (0.000)	-0.0000503*** (0.000)	-0.0000452*** (0.000)
Recipient Democracy	0.0105*** (0.002)	0.0156*** (0.002)	0.0105*** (0.002)	0.00890*** (0.001)
Recipient Population	1.20e-10** (0.000)	1.68e-10*** (0.000)	1.20e-10** (0.000)	5.05e-10*** (0.000)
Donor GDP Per capita	0.0000269*** (0.000)	0.0000209*** (0.000)	0.0000269*** (0.000)	0.0000199*** (0.000)
Former Colony	0.919*** (0.017)	0.584*** (0.021)	0.919*** (0.017)	0.683*** (0.014)
COW Defense Pact	0.243*** (0.050)	0.202*** (0.060)	0.243*** (0.050)	
Any Alliance				-0.0851** (0.041)
Imports + Exports	0.0000222*** (0.000)	0.0000128*** (0.000)	0.0000222*** (0.000)	
Shared PTA				0.0562*** (0.012)
Duration		0.673*** (0.010)		
Duration <sup>2</sup>		-0.446*** (0.011)		
Duration <sup>3</sup>		0.0827*** (0.003)		
Constant	-1.152*** (0.055)	-1.723*** (0.064)	-1.152*** (0.055)	-0.697*** (0.043)
/ athrho	0.129 (0.111)	1.182*** (0.156)	0.125 (0.111)	-0.370*** (0.090)
AIC	59924.3	44968.9	59925.0	95147.0
BIC	60078.7	45174.8	60079.4	95308.2

Standard errors in parentheses

\*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

provides a robustness check for two of my control variables. I first include a binary measure of whether the dyad is party to any alliance (defensive, neutrality, non-aggression, or entente), as reported by the Correlates of War data project Formal Alliances v4.1 (Gibler 2009), instead of my baseline measure that only includes defensive alliances. Additionally, I include a variable

that captures whether the dyad is party to a preferential trade agreement (PTA). This data comes from the Design of International Trade Agreements database (Dür, Baccini, and Elsig 2014). Results across Models 1-8 are all statistically significant at the 95% level or higher and in the expected direction. Substantively, this means that donor countries do channel aid through donor-based NGOs when sending aid to poorly governed recipient countries, consistent with my hypothesis.

I report several robustness checks across Table 5 and Table 6. In Table 5, I report Random Effects Logit models both with (in Model 10) and without cubic polynomial duration variables (in Model 9) and Rare Events Logit (or Relogit) models both with (in Model 12) and without cubic polynomial duration variables (in Model 11). As mentioned, I include Random Effects Logit because although a poor estimator for TSCS data, Random Effects models do not suffer from as much bias as Fixed Effects models (Plümper and Troeger 2019). I also include Rare Events Logit models to account for any small sample problems I may have as a result of studying a rare event (King and Zeng 2001a; King and Zeng 2001b; King and Zeng 2002; Tomz, King, and Zeng 1999). In Table 6, I report ordinary Logit regression results, both with (in Model 14) and without cubic polynomial duration variables (in Model 13). In Models 10, 12, and 14, the cubic polynomial duration variables I include are  $t$ ,  $t^2$ , and  $t^3$ , consistent with the approach detailed by Carter and Signorino (2010). My explanatory variable, recipient country governance, is statistically significant at the 95% level or higher and in the expected direction across all of these models, again confirming my hypothesis.

Table 5: Robustness Checks of Donor NGO Delivery and Recipient Country Governance

	(9) Random Effects Logit	(10) Random Effects Logit	(11) Relogit	(12) Relogit
<b>Main</b>				
Recipient Governance Index	-0.0573*** (0.018)	-0.0333** (0.016)	-0.0487*** (0.010)	-0.0233** (0.010)
Recipient Human Rights	0.0683* (0.038)	0.0542 (0.034)	0.0157 (0.022)	0.0288 (0.023)
Recipient GDP Per capita	0.00000180 (0.000)	-0.0000367*** (0.000)	-0.0000324*** (0.000)	-0.0000465*** (0.000)
Recipient Democracy	0.0436*** (0.008)	0.0297*** (0.007)	0.0309*** (0.004)	0.0225*** (0.004)
Recipient Population	1.29e-10 (0.000)	7.77e-11 (0.000)	4.98e-11 (0.000)	8.42e-11 (0.000)
Donor GDP Per capita	0.0000460*** (0.000)	0.0000344*** (0.000)	0.0000274*** (0.000)	0.0000226*** (0.000)
Former Colony	0.350*** (0.083)	0.489*** (0.067)	0.355*** (0.037)	0.510*** (0.039)
Defense Pact	-0.106 (0.199)	0.201 (0.181)	0.159 (0.114)	0.380*** (0.122)
Imports + Exports	0.00000385* (0.000)	0.00000344* (0.000)	0.00000219** (0.000)	0.00000242** (0.000)
Duration		-0.320*** (0.016)		-0.407*** (0.015)
Duration <sup>2</sup>		0.176*** (0.013)		0.228*** (0.012)
Duration <sup>3</sup>		-0.0267*** (0.003)		-0.0364*** (0.002)
Constant	-5.345*** (0.280)	-3.570*** (0.252)	-3.235*** (0.151)	-2.092*** (0.159)
/				
Insig2u	1.012*** (0.059)	0.363*** (0.072)		
AIC	18712.0	17998.4	.	.
BIC	18792.1	18102.6	.	.

Standard errors in parentheses

\*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

Table 6: Robustness Checks of Donor NGO Delivery and Recipient Country Governance

	(13) Logit	(14) Logit	(15) Heckman Probit	(16) Heckman Probit
<b>Main</b>				
Recipient Governance Index	-0.0487*** (0.009)	-0.0233** (0.010)	-0.0281*** (0.008)	-0.0313*** (0.006)
Recipient Human Rights	0.0157 (0.022)	0.0288 (0.023)	-0.0746*** (0.019)	-0.0278** (0.014)
Recipient GDP Per capita	-0.0000325*** (0.000)	-0.0000466*** (0.000)	-0.00000467 (0.000)	-0.0000149*** (0.000)
Recipient Democracy	0.0310*** (0.004)	0.0226*** (0.004)	-0.00262 (0.004)	0.0137*** (0.003)
Recipient Population	4.79e-11 (0.000)	8.21e-11 (0.000)	-7.61e-10*** (0.000)	-2.84e-11 (0.000)
Donor GDP Per capita	0.0000274*** (0.000)	0.0000226*** (0.000)	0.0000185*** (0.000)	0.0000182*** (0.000)
Former Colony	0.355*** (0.037)	0.511*** (0.039)	0.228*** (0.032)	0.363*** (0.027)
Defense Pact	0.156 (0.115)	0.377*** (0.123)	-0.627*** (0.220)	-0.276*** (0.102)
Imports + Exports	0.00000213** (0.000)	0.00000240** (0.000)	-0.0000487*** (0.000)	-0.0000137*** (0.000)
Duration		-0.407*** (0.014)		
Duration <sup>2</sup>		0.228*** (0.011)		
Duration <sup>3</sup>		-0.0364*** (0.002)		
Constant	-3.236*** (0.152)	-2.093*** (0.161)	-2.446*** (0.128)	-2.471*** (0.101)
<b>Select</b>				
Recipient Human Rights			0.0223*** (0.007)	0.0224*** (0.007)
Recipient GDP Per capita			-0.0000503*** (0.000)	-0.0000501*** (0.000)
Recipient Democracy			0.0101*** (0.002)	0.0102*** (0.002)
Recipient Population			1.23e-10*** (0.000)	1.26e-10*** (0.000)



Donor GDP Per capita			0.0000270*** (0.000)	0.0000270*** (0.000)
Former Colony			0.919*** (0.017)	0.918*** (0.017)
Defense Pact			0.241*** (0.050)	0.240*** (0.050)
Imports + Exports			0.0000222*** (0.000)	0.0000222*** (0.000)
Constant			-1.142*** (0.055)	-1.144*** (0.055)
/				
athrho			0.846*** (0.301)	0.856*** (0.278)
AIC	20920.6	18800.6	46455.4	52671.3
BIC	20992.7	18896.7	46609.7	52825.7

Standard errors in parentheses

\*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

In addition to demonstrating the robustness of my results to various variable measurements and model specifications, I also estimate two models to illustrate the robustness of my results to different assumptions about the donor decision making process. My baseline model incorporates a dichotomous dependent variable which captures whether any aid was channeled to donor NGOs or not. Do the results change if I instead look at whether donor countries channel the majority or even all of the aid to one country through donor-based NGOs? Model 15 utilizes a dichotomous dependent variable capturing whether all aid in any one dyad year was channeled through donor NGOs, and Model 16 utilizes a dichotomous dependent variable capturing whether the majority of aid in any one dyad year was channeled through donor NGOs. My findings hold across both of these models, as well. Donor governments channel more aid through donor-based NGOs when they are allocating aid to poorly governed recipient countries. As illustrated, this finding is robust to different variable measurements, model specifications, and assumptions about the donor decision making process. I include additional permutations of these models in Table 17, Table 18, Table 19, Table 20, Table 21, and

Table 22 in Appendix A. I also include Table 23, which includes four additional models that address multicollinearity concerns as already mentioned. Although I lose statistical significance in one Random Effects Logit model, I maintain statistical significance in the expected direction at the 90% level or higher across all other permutations.

I next will discuss the results for each control variable across Table 3, Table 4, Table 5, and Table 6. Importantly, I am not aware of other studies that explain when aid is specifically channeled through donor-based NGOs. Dietrich and Murdie (2017) argue that aid is channeled through non-state actors when the recipient has poor human rights practices, but based on my analysis, donors do not appear more or less likely to use donor-based NGOs in these cases. Donors must therefore be more likely to make use of other non-state channels when allocating aid to human rights abusers. The population of the recipient country and whether or not the dyad is party to an alliance (defensive or otherwise) do not appear to influence the decision to channel through donor-based NGOs either. Donors do appear more likely to channel aid through donor-based NGOs, however, when allocating aid to poor countries, democracies, former colonies, and important trade partners. Specifically, as recipient GDP per capita increases, donors are less likely to channel aid through donor NGOs. As recipient countries become more democratic, donors are more likely to utilize the donor NGO channel. When donors give aid to former colonies, compared to states that are not former colonies, donors are more likely to channel aid through donor-based NGOs. Additionally, as total trade increases (with a couple of exceptions in Table 6) or when the dyad shares a preferential trade agreement (PTA), the donor is more likely to use the donor NGO aid channel.

Although not many studies explore aid delivery decisions, many do explore aid allocation decisions. The first stage of my Heckman Probit models estimates the aid allocation decision,

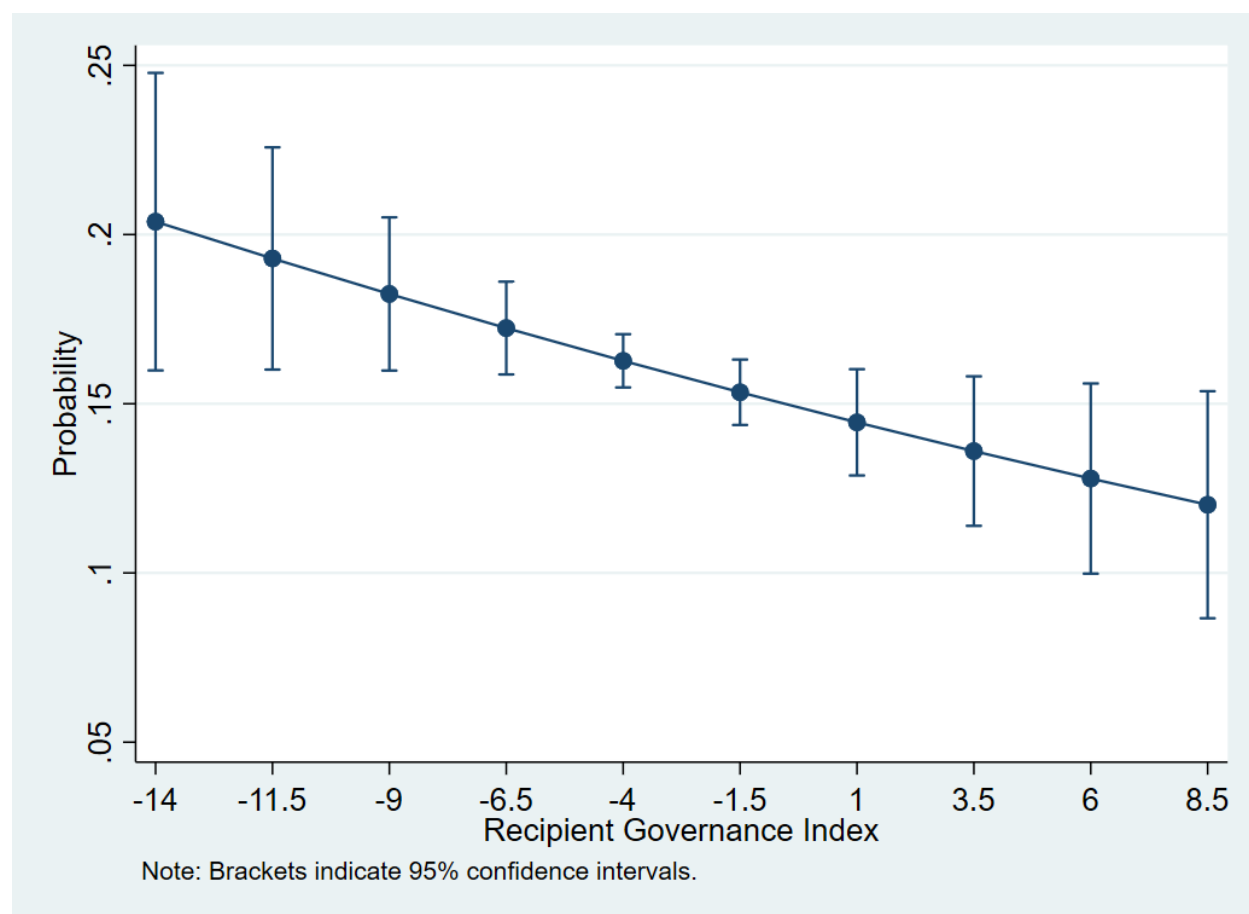
and I include a series of control variables in my models that are influential in the aid allocation literature, as already discussed. With one exception, these control variables are statistically significant and in the expected direction. Importantly, my population control variable appears to have the opposite effect in my models as Trumbull and Wall (1994) find in their analysis. Trumbull and Wall (1994) argue that a population bias exists, such that donors give more aid to countries that have smaller populations, so they can maximize the impact of their money. I instead find that as a country's population increases, they are more likely to receive aid. However, Trumbull and Wall (1994) utilize a continuous measure of aid as their dependent variable, while mine is binary. As a result, Trumbull and Wall (1994) find that donors give more aid to countries with smaller populations, while I find that donors are more likely to give aid at all as population increases, which is not inconsistent with their research. Additionally, my results suggest that recipients receive more aid as their human rights violations increase. Although this is contrary to Cingranelli and Pasquarello (1985), it is perhaps not surprising considering aid is often given strategically, and donors might pay less attention to human rights in these cases. The significance and direction of my other control variables are largely as expected. As a country's GDP per capita increases, they are less likely to receive aid, as suggested by Lumsdaine (1993). As countries democratize, they are more likely to receive aid, consistent with previous research as well (Alesina and Dollar 2000; Lumsdaine 1993). I also find that countries with higher per capita GDPs are more likely to give aid, as demonstrated by Chong and Gradstein (2008). Former colonies are more likely to receive aid, as are defensive allies, consistent with Alesina and Dollar (2000). Importantly, the general alliance variable I utilize as a robustness check in several models seems to be insignificant or even have the opposite effect. I expect this is because other types of alliances (e.g. an entente) included in the

Correlates of War dataset (Gibler 2009) involve a drastically different level of commitment and therefore might not have the same effect on aid allocation. Lastly, countries that trade more with the donor or are members of the same PTA as the donor are more likely to receive aid, which is also consistent with previous scholarship (Younas 2008).

To demonstrate these results substantively, I also include marginal effects for Model 10, as this model features the lowest AIC and BIC values across Table 3, Table 4, Table 5, and Table 6 and therefore best fits the data. Model 10 is a Random Effects Logit model that includes all baseline controls and the cubic polynomial duration variables suggested by Carter and Signorino (2010). As discussed earlier, the governance index I use as my explanatory variable includes the six dimensions of the World Bank World Governance Indicators, which I pull from the Quality of Government Standard Time-Series Dataset (Teorell et al 2020). The World Bank's World Governance Indicators project scores countries annually on six different dimensions—control of corruption, government effectiveness, political stability and absence of violence/terrorism, rule of law, regulatory quality, and voice and accountability. The estimates for each indicator are normally distributed around zero with a standard deviation of one such that “virtually all scores lie between -2.5 and 2.5, with higher scores corresponding to better outcomes” (Teorell et al 2020). I then add all six indicators together to construct my index, as already mentioned. The recipient countries included in my dataset have scores ranging from -14.696 to +9.834. A country like Somalia receives a score of -14, while a country like Singapore receives a score of +9. Other countries that score particularly poorly (i.e. in the bottom 5%, with scores less than -9.372) include Afghanistan, the Central African Republic, Libya, South Sudan, Syria, and Venezuela. Other countries that score particularly well (i.e. in the top 5%, with scores greater than 3.911) include Antigua and Barbuda, Botswana, Chile, Israel, and Samoa.

The marginal effects for Model 10 are included in Figure 1. Importantly, the predicted probability that aid is channeled through donor-based NGOs decreases as recipient country governance increases, which is consistent with my hypothesis and the results already discussed. Substantively, aid is 8 percentage points more likely to be channeled through a donor-based NGO when it is allocated to a poorly governed country (e.g. Somalia) than to a well governed country (e.g. Singapore).

Figure 1: Predicted Probability that Aid is Channeled through Donor-based NGOs



## Discussion

In conclusion, donors channel more aid through donor-based NGOs when allocating aid to poorly governed recipient countries. This finding is statistically significant in the expected

direction and robust to various variable measurements, model specifications, and assumptions about the donor decision making process. These results also imply a broader theme—that donors utilize different delivery channels to advance different goals. This is an important finding, especially given the relative lack of research concerning aid delivery when compared to the aid allocation literature.

There are many opportunities for future research. First, how do donors utilize other delivery channels? What other goals or considerations might donors have when allocating foreign aid, and how can the different delivery channels help them to pursue those goals? Which delivery channels are most useful for certain types of goals or considerations? Additionally, future research could explore the ramifications of these delivery decisions. For example, how does the use of one delivery channel when compared to others influence support for foreign aid in the donor and/or recipient countries? How does the use of one delivery channel when compared to others influence the donor-recipient relationship? How might different delivery channels influence the effectiveness of aid under various circumstances? Additionally, previous scholarship suggests that “in the aftermath of competitive electoral victories, [recipient country] governments often take new legal steps to limit [NGO] funding” (Dupuy, Ron, and Prakash 2016, 299). This begs the question: if donor aid agencies channel aid through donor-based NGOs to bypass poorly governed recipient countries, what happens in the aftermath of competitive elections, or after five or ten years of this aid delivery behavior? Do aid agencies react by delivering aid through other channels when NGOs are restricted, or are aid commitments lowered? What other variables might influence whether NGOs are restricted and how aid agencies react?

It is important to also note the weaknesses of this research. As mentioned earlier and detailed in Appendix A, I lose statistical significance in one Random Effects Logit model utilized as a robustness check. Although Random Effects models are poor estimators of time-series cross-section (TSCS) data (Plümper and Troeger 2019), these results may suggest other weaknesses of my data. Specifically, this result occurs in a model testing an alternative specification of the dependent variable. The first variation I test captures whether donors allocate all aid money in any one dyad year through donor-based NGOs, and the second captures whether donors allocate the majority of aid money in any one dyad year through donor-based NGOs. Are these assumptions of the donor decision making process not realistic, or only realistic under a certain set of circumstances? Future research could explore these ideas, as well. Regardless however, my results are confirmed across the vast majority of the models I run and my argument therefore stands: donors channel more aid through donor-based NGOs when allocating aid to poorly governed recipient countries.

## **Article 2: How Donor Aid Agencies Credibly Signal: Recipient Country Strategic Importance and Donor Decisions to Deliver Aid Directly**

Between 1950 and 2019, over \$3 trillion was allocated globally in net official development assistance (Organization for Economic Cooperation and Development “Net ODA from DAC Countries from 1950 to 2019”). The United States, the world’s most generous donor in terms of total aid, committed over \$30 billion to foreign aid in 2015 alone, and some donor governments—Norway and Sweden, for example—give over 1 percent of their gross national income to foreign aid (Myers 2016), which is quite substantial considering that money is not spent on a country’s own citizens. Such an international environment has prompted many political science and economics researchers to examine how donor governments choose to allocate foreign aid. To name a few, over the years, scholars have demonstrated the influence of colonial ties (Alesina and Dollar 2000; Carnegie and Marinov 2017; Lumsdaine 1993), political alliances (Alesina and Dollar 2000), security concerns (Brown and Grävingholt 2016), corruption (Alesina and Weder 2002; Chong and Gradstein 2008), democratization (Alesina and Dollar 2000; Lumsdaine 1993), government ideology (Greene and Licht 2018), participation in the international system (Swiss 2017), human rights practices (Cingranelli and Pasquarello 1985), trade relationships (Younas 2008), income (Lumsdaine 1993; Chong and Gradstein 2008), income inequality (Chong and Gradstein 2008), economic crises (Heinrich, Kobayashi, and Bryant 2016), infant mortality (Trumbull and Wall 1994), population (Trumbull and Wall 1994), oil endowments (Couharde et al 2020), and terrorist activity (Boutton and Carter 2014) on the allocation of foreign aid. More recently, scholars have also started exploring how foreign aid is delivered from a donor country to a recipient country (Acht, Mahmoud, and Thiele 2015; Dietrich 2013; Dietrich and Murdie 2017). Specifically, scholars have demonstrated that donor



countries bypass recipient governments with poor governance (Dietrich 2013) or human rights records (Dietrich and Murdie 2017) by delivering aid through non-state actors instead of delivering aid directly to the offending recipient government. What other recipient country characteristics might influence aid delivery? More specifically, how does the strategic importance of recipient countries influence aid delivery?

Broadly, I argue that aid delivery decisions are part of a larger decision-making chain and are shaped by the varying incentives of different actors participating in different stages of the decision-making process. To theorize the relationships among the different actors in the decision-making chain as well as their incentives, this paper applies principal-agent (PA) theory. For simplicity, one can identify three decision-making levels and three types of the relationship in this process. First, the voting population of the country (the principal) delegates important policy-making prerogatives, including those pertaining to foreign aid, to the key executive officer and the government that he constitutes, as well as to the elected parliamentarians who often have the power of the purse. The executive and the legislature make important decisions concerning where foreign aid will be allocated and in which amounts, but delegate the details of aid delivery and implementation to donor aid agencies (Martens 2002a; 2002c). These aid agencies then often delegate further to implementing partners, such as NGOs, public-private partnerships, or other actors. As is typical of principal-agent relationships, each of these actors has their own set of preferences and incentives (Martens 2002a; 2002c).

When delivering aid to strategically important recipient countries, the preferences of donor governments and their aid agencies are particularly likely to differ. As noted by previous scholarship, donors give more aid to countries that are somehow strategically important—whether to shore up alliances (Alesina and Dollar 2000), to strengthen trade (Younas 2008) or

security partnerships (Brown and Grävinghölt), to prevent problems elsewhere in the world from spilling over into their own countries (Bermeo 2017), or to secure access to oil (Couharde et al 2020). Pursuing these strategic goals may be so important to donor governments that they are likely to prefer continuing aid regardless of conditions in the recipient country (Swedlund 2017). When recipient country conditions—for example, political transgressions such as corruption scandals or election fraud—reflect poorly on the aid agency, aid agencies are likely to prefer suspending aid regardless of strategic importance or the preferences of the donor government (Swedlund 2017). As Swedlund (2017) argues, aid agencies are more likely to suspend aid in response to a political transgression when aid is delivered directly to recipient governments, as government scandal in these cases may directly implicate aid funds (Swedlund 2017). I expect that aid agencies anticipate that their preferences may diverge from donor government preferences when there are political transgressions in strategically important recipient countries, and as a result, aid agencies proactively choose to deliver aid directly to strategically important recipients so they are more likely to be able to suspend aid in the future if needed. In other words, aid agencies deliver aid directly to strategically important recipient countries in order to credibly signal their willingness to suspend aid in the future should a sufficiently severe political transgression occur. However, I do not expect that aid agencies deliver all aid to strategically important recipients directly, as aid agencies simultaneously have incentives to simplify their own workload (Martens 2002c). As NGOs are often singularly-focused, they are uniquely simple for aid agencies to monitor, which results in aid agency preferences towards channeling aid through NGOs (Martens 2002c). As a result, I hypothesize that donor governments will be more likely to channel some, but not all, aid directly to strategically important recipients.

To test this hypothesis, I compile a dataset, organized in directed dyads and spanning the years 2005 to 2018, housing foreign aid commitments pulled from the OECD's CRS database (Organization for Economic Cooperation and Development "Creditor Reporting System"). I employ Heckman Probit, Random Effects Logit, Rare Events Logit, and ordinary Logit models to conduct my analysis.

The rest of my paper proceeds as follows. I first discuss the relevant scholarship on foreign aid allocation. I next outline my own theory regarding recipient country strategic importance and foreign aid delivery. I then outline the design of my project, the data I compile, and the methodology I employ. I then analyze the results and conclude.

#### Review of Existing Literature

The section of literature most relevant to my research discusses how foreign aid is allocated.

#### **How Foreign Aid is Allocated**

As mentioned, scholars have demonstrated the influence of many factors on foreign aid allocation. First, many foreign aid allocation decisions depend on conditions in the donor country. Chong and Gradstein (2008) and Fuchs, Dreher, and Nunnenkamp (2014) argue that foreign aid spending increases as per capita Gross Domestic Product (GDP) of the donor state increases. Simply put, wealthier countries give more foreign aid. Chong and Gradstein (2008) also note the negative influence of income inequality on foreign aid. As the divide between the wealthy and the poor grows in a donor country, less money is committed to international aid. Corruption in donor governments also decreases foreign aid spending (Chong and Gradstein 2008). Lumsdaine (1993) discusses the influence of a moral vision in foreign aid spending decisions, and Fuchs et al (2014) posit that foreign aid spending increases when donor countries create independent aid agencies. It has also been demonstrated that foreign aid spending

increases as citizen satisfaction with the donor government increases (Chong and Gradstein 2008).

Importantly, donor countries also take cues from other donor countries when allocating foreign aid. Mosley (1985) notes that the “aid-giving process...has become...less of an individualistic and more of a social process” (Mosley 1985, 377). With the creation of the Development Assistance Committee (DAC) of the OECD, among other international organizations focused on international development, donor aid allocation decisions are often scrutinized internationally. As a result, there may well be “substantial complementarities...between the policy of one aid donor and the policies of OECD aid donors as a group” (Mosley 1985, 377-378). On the other hand, Fuchs et al (2014) also find evidence of free-riding, as the aid effort of an individual donor decreases “with the average aid effort of all other DAC donors” (Fuchs et al 2014, 181). As a result, there is significant evidence that donor countries pay attention to the aid allocation decisions of other donors and adjust their own allocations accordingly.

There is also evidence that different donor countries pursue different decision-making calculi when allocating foreign aid. Scandinavian countries and Australia, for instance, “seem to give more to less corrupt governments” (Alesina and Weder 2002, 1133), while “the United States appears to favor democracies, but seems to pay no attention to quality of government of receiving countries” (Alesina and Weder 2002, 1136). In fact, “corruption is positively related with aid received from the United States” (Alesina and Weder 2002, 1127). Alesina and Weder (2002) posit that “the reason why Scandinavian donors and Australia can better discriminate is that they did not have colonies and are free from specific political pressures” (Alesina and Weder 2002, 1127) related to colonial ties. The influence of dyadic colonial ties in aid allocation has

also been independently demonstrated (Alesina and Dollar 2000; Fuchs et al 2014; Lumsdaine 1993).

There also are a series of variables specific to the recipient country that influence aid allocation. Recipient countries with lower incomes (Lumsdaine 1993) and higher infant mortality rates (Trumbull and Wall 1994) receive more foreign aid—evidence that donor countries do consider the needs of recipient countries when allocating aid. Additionally, recipient countries that democratize receive more aid (Alesina and Dollar 2000; Lumsdaine 1993), as do countries with better political/civil rights records (Trumbull and Wall 1994) and human rights records (Cingranelli and Pasquarello 1985). There is also evidence of a population bias, as donor countries give more aid to recipient countries that have smaller populations, because “donors prefer to spend their limited ODA budgets where they can have their greatest impact per person” (Trumbull and Wall 1994, 876), as originally posited by Wall (1992).

The strategic importance of recipient countries also influences aid allocation. First, donor governments give more aid to their political allies (Alesina and Dollar 2000) and their important trade partners (Alesina and Dollar 2000; Fuchs et al 2014; Tingley 2010; Younas 2008). In the post-Cold War era, foreign aid has also increasingly been linked to security (Brown and Grävingholt 2016). Donors give more aid to countries that are important allies in the war on terror, for example, or to minimize spillover from failed or fragile states (Bermeo 2017; Brown and Grävingholt 2016). G7 donors even give aid in order to secure access to oil (Couharde et al 2020). Thus, the strategic importance of a recipient country influences aid allocation. How does recipient country strategic importance influence aid delivery?

## **How Recipient Country Strategic Importance Influences Aid Delivery**

As previous scholarship has noted, foreign aid provides an example of principal-agent relationships (Gent et al 2013; see also Martens et al 2002). The foreign aid allocation, delivery, and implementation process involves several different actors, many of whom serve as principals and agents in different capacities. As outlined by Martens (2002a; 2002c), the foreign aid principal-agent chain begins with donor country taxpayers, who delegate aid decision making to their elected representatives. These representatives make decisions about how aid money will be allocated, but delegate many of the details, such as decisions about aid delivery, to aid agencies. Aid agencies then decide how the aid project will be implemented, usually through contracting with another entity—whether a recipient government agency, NGO, or other actor. This implementing body then also should “ensure that the benefits reach a wider recipient country population” (Martens 2002c, 179). In short, donor country taxpayers are principals to their elected representatives, who act as principals to aid agencies, who act as principals to aid contractors, who act as principals to the recipient country’s citizens and government. Although this aid chain is typical of most bilateral aid, there are of course other variants (e.g. sometimes the aid agency implements aid directly, etc.). As is typical of principal-agent relationships, each actor in the aid chain possesses different information and has their own set of incentives and goals. I am interested in aid delivery and therefore focus on those actors primarily involved in delivery decisions—aid agencies (who make aid delivery decisions), their principals (donor governments), and their agents (the implementing organizations they contract with).

As mentioned, each of these actors likely has different goals. First, donor governments use foreign aid as an instrument to help carry out their broader foreign policy goals. For instance, the Joint Strategic Plan for fiscal years 2018-2022 issued by the US Department of

State and US Agency for International Development (USAID) identifies four main goals: protect America's security at home and abroad, renew America's competitive advantage for sustained economic growth and job creation, promote American leadership through balanced engagement, and ensure effectiveness and accountability to the American taxpayer (US Department of State and US Agency of International Development). In short, donor governments are concerned with things like security and economic prosperity, and they use foreign aid to try to help them meet those goals.

Aid agencies, on the other hand, are tasked with implementing aid programs that donor governments decide on, but they also have their own set of goals. As detailed by other scholars (Martens 2002a; Seabright 2002), aid is unique in that its primary beneficiaries are not also its sponsors. Donor country taxpayers and governments sponsor aid, but those aid projects primarily benefit individuals in other countries, not the donor taxpayers and governments themselves. As it is difficult to evaluate whether "the agency is doing the things that the supposed beneficiaries need" (Seabright 2002, 35), and "there is frequently no obvious mechanism for transmitting the beneficiaries' view of the process to the sponsors" (Seabright 2002, 35), sponsors instead "rely on various [other] indicators of [aid agency] performance" (Seabright 2002, 35). This results in an "input-bias" (Seabright 2002, 65) where aid agencies "concentrate more on input-related tasks (budgets, contracts, personnel) than on output-related tasks where 'success' is relatively difficult to demonstrate" (Seabright 2002, 65). In other words, aid agencies are likely to focus more attention on implementing aid projects in a way that is acceptable to donor governments—through selecting "projects for ease of monitoring rather than overall contribution to beneficiary welfare" (Seabright 2002, 66), as an example—than they are on meeting specific donor government goals or optimizing the outcome of aid projects.

The organizations that aid agencies contract with to deliver aid and carry out aid projects have their own set of preferences, as well. There are several different types of organizations that aid agencies may contract with; the contractor for any one aid project may be an NGO, a public-private partnership, or a teaching/research organization, as examples. These contractors have their own goals that may include profit or accountability to other private donors or stakeholders, depending on the nature of the organization. Additionally, they are concerned with cultivating a reputation that ensures they continue to receive contracts from the aid agency. This leads these contractors to “temper their critical remarks” and not “reveal precise and controversial information” (Martens 2002b, 166). In other words, contractors similarly “show a tendency towards input-bias...and will not seek to reveal results that could have an unsettling effect on [their] market” (Martens 2002b, 167) or the likelihood of receiving future aid contracts.

Given the contrasting goals of the multiple principals and agents involved in aid delivery, aid agencies have incentives to use certain aid channels more than others. As mentioned previously, there are several delivery channels that donor governments can choose from when allocating foreign aid. As classified by the OECD CRS database, aid may be delivered through public sector institutions; NGOs; public-private partnerships; multilateral organizations; university, college or other teaching institution, research institute or think-tank; or private sector institution, as previously mentioned (Organization for Economic Cooperation and Development “Creditor Reporting System”). I argue that aid agencies prefer delivery through public sector institutions—specifically, recipient government institutions—in cases of recipient country strategic importance. As mentioned previously, there is “considerable evidence that the pattern of aid giving is dictated by political and strategic considerations” (Alesina and Dollar 2000, 33). For instance, donors give more aid to their allies (Alesina and Dollar 2000) and important trade



partners (Younas 2008). Additionally, in the post-Cold War period, foreign aid allocation has increasingly been linked to security concerns (Brown and Grävingholt 2016). Aid to these strategically important recipients may be so important to donor governments that they are likely to prefer continuing aid regardless of conditions in the recipient country (Swedlund 2017). However, some recipient country conditions—for example, political transgressions such as corruption scandals or election fraud—may reflect poorly on the aid agency involved and therefore incentivize them to suspend aid regardless of strategic importance (Swedlund 2017).

As Swedlund (2017) argues, there are several conditions under which aid agency institutional incentives may supersede the strategic considerations of the donor government. First, aid agencies are more likely to suspend aid when the recipient country transgression somehow threatens the aid portfolio (e.g. the loss of aid funds) (Swedlund 2017). Additionally, aid agencies are more likely to suspend aid in response to a political transgression when aid is delivered directly to recipient governments, and as a result, government scandal may directly implicate aid funds (Swedlund 2017). Swedlund (2017) also argues that aid agencies will be more likely to suspend aid in response to political transgression when there are fewer domestic veto players. This is important, as not all aid agencies are able to suspend aid without input from other government actors, and the preferences of those actors will matter as well.

I expect that these institutional incentives influence the delivery decisions that aid agencies make. As Swedlund (2017) notes, direct budget support is particularly problematic because it provides the recipient government the most control over the funds. Rather than aiding another implementing actor or otherwise “walling off funds in self-standing project accounts” (Swedlund 2017, 462), donors are directly aiding the transgressing government, which reflects particularly poorly on the aid agencies, implicates them in the transgression, and creates

incentives for them to suspend aid (Swedlund 2017). I expect that aid agencies anticipate that their preferences may diverge from donor government preferences when there are political transgressions in recipient countries that are strategically important. As a result, I argue that aid agencies proactively choose to deliver aid directly to strategically important recipient countries so they are more likely to be able suspend aid in the future if needed. In other words, aid agencies deliver aid directly to strategically important recipient countries in order to credibly signal their willingness to suspend aid in the future should a sufficiently severe political transgression occur.

Importantly, I do not expect aid agencies to directly channel all aid to strategically important recipient governments. Although they have specific incentives with respect to strategically important recipients, aid agencies simultaneously have other, more general incentives to simplify their own workload and keep donor government officials happy (Martens 2002c). In these cases, utilizing NGOs may be particularly advantageous for aid agencies (Martens 2002c). As many NGOs are issue-specific and their members “usually hold a fairly similar set of preferences regarding the issue that the NGO intends to promote” (Martens 2002c, 185), aid agencies can simplify their efforts to carry out multiple development goals by unbundling “these objectives and select[ing] issue-specific NGOs to implement them as separate contracts” (Martens 2002c, 186). When this happens, “there is little need for monitoring by the official aid agency” (Martens 2002c, 186), as the “NGOs can be expected to pursue the issues vigorously..., because the preferences of their members are in line with the project objectives” (Martens 2002c, 186). Additionally, “the fact that most NGOs are financially dependent on contracts with the aid agency enables the agency to exercise some degree of control over NGO behaviour” (Martens 2002c, 187). This is similar to the argument made by Cooley and Ron

(2002), who suggest that NGOs must compete for funds from donor governments, which makes NGOs more likely to give donor governments what they want. Thus, while donor aid agencies prefer to channel some aid directly to strategically important recipient governments in order to credibly threaten aid suspensions when necessary, aid agencies are also likely to prefer to channel some aid through NGOs in order to simplify their own workload and satisfy donor government officials. Additionally, if donor aid agencies already have working relationships with other implementing partners—whether NGOs or otherwise—that operate within the recipient country, they may be able to even more credibly signal their willingness to suspend aid if needed, as the costs of channeling aid other ways are minimized. As a result, I hypothesize the following:

*Hypothesis: When allocating aid to strategically important recipient countries, donor aid agencies will channel some, but not all, aid directly to the recipient government.*

#### Design & Methodology

To test this hypothesis, I assemble a dataset, organized in directed dyads and spanning the years 2005 to 2018, housing foreign aid commitments. My dependent variable captures whether aid committed by OECD/DAC member states is channeled directly to recipient governments and is constructed from data available in the OECD’s CRS database (Organization for Economic Cooperation and Development “Creditor Reporting System”). This dataset is organized by aid project and includes information on the monetary commitment and channel of delivery, as reported by the CRS of the OECD. The CRS reports whether the aid flow for any one aid project was channeled through a public sector institution; an NGO; a Public-Private Partnership (PPP); a multilateral organization; a teaching institution, research institute, or think tank; a private sector institution; or another entity altogether. Many of these categories are further subdivided, which

allows me to differentiate between recipient government institutions and donor or third-party government institutions. I use the aid commitment and channel variables to calculate the amount of aid channeled directly to the recipient government from each donor to each recipient annually. I then use this new variable to calculate the proportion of aid channeled directly for each dyad year. Although I could use this proportion variable as my dependent variable, channeling aid directly to a recipient government appears to be relatively rare. Specifically, of the 126,528 annual dyadic aid commitments in my dataset, only 5,050 utilize the recipient government channel. This number only becomes smaller as I introduce independent variables with missingness resulting from data availability, which complicates analysis. As a result, I employ a binary dependent variable, created by dichotomizing the proportion of aid channeled directly to the recipient government variable. This approach is similar to one of the methods employed by Dietrich (2013) and provides me 126,528 observations (121,478 zeros and 5,050 ones) on which to run my analysis.

### **Explanatory Variable**

To test my hypothesis, I need a measure of the strategic importance of recipient countries. Admittedly, I could employ variables housing information about dyadic alliances and trade relationships. However, dyadic variables capturing alliance and trade relationships are often dichotomous (e.g. whether the dyad is party to an alliance or not), which may ignore some variance in strategic importance. Additionally, institutions are sticky (Ikenberry 1998-1999), so dichotomous measures of whether a recipient is an ally or preferred trade partner may not sufficiently capture the strength of the dyadic relationship. As a result, I construct a variable that sums all aid from each donor to each recipient from 1973 to 2018. This measure of cumulative aid serves as my explanatory variable and is pulled from aid commitment data reported by the

OECD (Organization for Economic Cooperation and Development “Creditor Reporting System”). Broadly, I expect that the likelihood that aid is channeled directly to the recipient government will increase as the cumulative aid variable increases.

### **Control Variables**

I also include a battery of control variables. First, to account for Dietrich’s (2013) finding that donor governments bypass recipient governments with poor governance records, I include data from the World Bank Worldwide Governance Indicators project, which houses data on country governance on six different dimensions—control of corruption, government effectiveness, political stability and absence of violence/terrorism, rule of law, regulatory quality, and voice and accountability. I construct an index of these six dimensions, as Dietrich (2013) does, and use this index as my explanatory variable. Data is pulled from the Quality of Government Standard Time-Series Dataset (Teorell et al 2020). I next include a variable that summarizes a recipient government’s human rights record, as Dietrich and Murdie (2017) demonstrate that donors also bypass recipient governments with poor human rights practices. This variable (*ffp\_hr*) also comes from the Quality of Government Standard Time-Series Dataset (Teorell et al 2020). Importantly, this variable captures human rights violations, and therefore higher values correspond to more human rights violations. As I am not aware of any other studies that analyze factors influencing aid delivery, I also include several control variables that have been demonstrated to influence aid allocation. First, I include a variable capturing colonial status. This variable is dichotomous and represents whether the recipient government is a former colony of the donor government. Although I am not aware of a dyadic colonial dataset that already exists, other scholars have created datasets that include this data. I pull my colony variable from the replication data for Dietrich’s (2013) article that is available on her website (Dietrich) and

expand it to include the years 2013-2018. As she describes in her article, this colony data was initially pulled from the CIA World Factbook (Dietrich 2013). Next, I include a measure of alliances, which is coded as a 1 if the dyad was party to a defensive alliance in the current year and 0 if otherwise. This data comes from the Correlates of War data project Formal Alliances v4.1 (Gibler 2009). To capture dyadic trade flows, I make use of the Correlates of War International Trade, 1870-2014 (v4.0) dataset (Barbieri and Keshk 2016; Barbieri, Keshk, and Pollins 2009) and sum exports from donor to recipient and imports from recipient to donor in the given year. I employ World Bank GDP per capita data to create a GDP per capita variable (World Bank), as it has been demonstrated that wealthier countries give more foreign aid (Chong and Gradstein 2008; Fuchs, Dreher, and Nunnenkamp 2014). Recipient countries that are democracies have been shown to receive more foreign aid (Alesina and Dollar 2000; Lumsdaine 1993), so I include recipient Polity IV scores (Center for Systemic Peace) to measure democracy. Polity IV scores range from -10 to 10, with higher scores corresponding to more democracy. I next include a variable housing recipient GDP per capita data, pulled from the World Bank (World Bank), as poorer countries tend to receive more aid (Lumsdaine 1993). I also include a recipient country population variable to account for the population bias of foreign aid, as recipient countries with lower populations have been demonstrated to receive more aid (Trumbull and Wall 1994; Wall 1992). This data comes from the World Bank (World Bank).

I report descriptive statistics for each of these variables in Table 7 and the correlations between each of my explanatory and control variables in Table 8. Both of these tables were created with the `asdoc` Stata program, written by Shah (2018). As illustrated in Table 8, there is a strong correlation between recipient country governance and human rights records and between recipient country democracy and human rights records. This suggests that the analysis I employ

may suffer from problems of multicollinearity. Each of these variables is an important predictor of aid allocation and/or delivery, as discussed above, and including each is therefore necessary for my analysis. However, to demonstrate that the presence of multicollinearity is not impacting the significance of my results, I include a table in Appendix B that runs additional models without each of these offending variables. My results maintain statistical significance across all of these models.

Table 7: Descriptive Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
Binary Recipient Govt	126528	.04	.196	0	1
Cumulative Aid	418094	388.262	2414.591	0	115290.29
Recipient Governance Index	152392	-2.987	3.815	-14.696	9.834
Recipient Human Rights	102954	6.793	1.72	1	10
Recipient GDP per Capita	319007	2589.145	4398.504	70.803	93777.109
Recipient Democracy	296130	.05	6.651	-10	10
Recipient Population	371186	34637190	1.358e+08	5822	1.393e+09
Donor GDP per Capita	246785	22966.136	19176.046	269.888	178845.63
Former Colony	418094	.191	.393	0	1
Defense Pact	418094	.01	.101	0	1
Imports + Exports	166637	635.136	7351.866	0	655808.25

I primarily employ Heckman Probit models to test my hypotheses, as aid delivery decisions can be characterized as a two-stage sample selection process (Heckman 1979). In the first stage, donors decide which recipient countries to commit aid to, and in the second stage, donors decide how to deliver the aid to those recipients. I also run Random Effects Logit, Rare Events Logit, and ordinary Logit models as robustness checks. As Plümper and Troeger (2019) point out, fixed effects models are more biased than ordinary least squares (OLS) and random effects models in the presence of dynamic misspecification, which is hard (if not impossible) to eliminate. Although random effects models are still poor estimators of time series cross section

Table 8: Correlation Matrix

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
(1) Cumulative Aid	1.000									
(2) Recipient Governance Index	-0.020	1.000								
(3) Recipient Human Rights	0.039	-0.808	1.000							
(4) Recipient GDP per Capita	-0.053	0.471	-0.338	1.000						
(5) Recipient Democracy	0.002	0.473	-0.630	-0.003	1.000					
(6) Recipient Population	0.151	0.015	0.071	-0.035	-0.033	1.000				
(7) Donor GDP per Capita	0.064	0.032	-0.026	0.063	0.015	-0.018	1.000			
(8) Former Colony	0.123	-0.002	-0.028	-0.018	0.090	-0.029	0.398	1.000		
(9) Defense Pact	0.049	0.036	-0.048	0.048	0.031	-0.019	-0.011	-0.026	1.000	
(10) Imports + Exports	0.219	0.049	0.019	0.100	-0.052	0.315	0.015	-0.036	0.077	1.000



(TSCS) data (Plümper and Troeger 2019), I do run Random Effects Logit models as one way to test the robustness of my results to different model specifications. I additionally employ Rare Events Logit (King and Zeng 2001a; King and Zeng 2001b; King and Zeng 2002; Tomz, King, and Zeng 1999), which applies statistical corrections for rare events data that may suffer from small sample problems. I also utilize ordinary logit models with cubic polynomial duration variables (Beck, Katz, and Tucker 1998; Carter and Signorino 2010), as binary TSCS data is the same as grouped duration data, making this method appropriate. I run each of my models both with and without these duration variables to provide further evidence of the robustness of my results, as well. I discuss these results and additional robustness checks in the section that follows.

### Analysis

My Heckman Probit results are available in Table 9 and Table 10. As mentioned earlier, the donor delivery decision is a two-stage selection process (Heckman 1979), as donors must first decide where to allocate aid before deciding how to deliver aid to those recipients. Model 1 includes only my main explanatory variable and the full selection model. In Models 2-4, I add in a series of control variables. Specifically, I add the control variables specific to the recipient country in Model 2, the control variables specific to the donor country in Model 3, and the control variables specific to the dyad in Model 4. As Model 4 features the lowest Akaike Information Criterion (AIC) and Bayesian Information Criterion (BIC) values so far, I treat Model 4 as my baseline model and repeat it as Model 5 in Table 10 for ease of comparison. Model 6 repeats Model 5 with the addition of the  $t$ ,  $t^2$ , and  $t^3$  cubic polynomial spline variables recommended by Carter and Signorino (2010). Model 6 also substitutes the Heckman Twostep estimator for the Heckman Probit model used in Model 5 for the sake of model convergence.

Model 7 returns to the Heckman Probit estimator and employs a different measure of recipient country strategic importance to demonstrate the robustness of my explanatory variable. In addition to calculating the sum of aid committed by each donor to each recipient from 1973 to 2018, I also calculate the average aid committed by each donor to each recipient from 1973 to 2018 and use this measure as the explanatory variable in Model 7. This data is similarly pulled from aid commitment data reported by the OECD (Organization for Economic Cooperation and Development “Creditor Reporting System”). Model 8 provides a robustness check for three of my control variables. Following Dietrich (2013), I first construct an index of the four World Bank World Governance Indicators that concern the state’s economic institutions (i.e. Control of Corruption, Government Effectiveness, Rule of Law, and Regulatory Quality). This variable similarly utilizes the World Bank World Governance Indicators available in the Quality of Government Standard Time-Series Dataset (Teorell et al 2020) and is a subset of my baseline governance quality index variable. I next include a binary measure of whether the dyad is party to any alliance (defensive, neutrality, non-aggression, or entente), as reported by the Correlates of War data project Formal Alliances v4.1 (Gibler 2009), instead of my baseline measure that includes only defensive alliances. Additionally, I include a variable that captures whether the dyad is party to a preferential trade agreement (PTA) instead of my baseline measure that sums imports and exports. This data comes from the Design of International Trade Agreements database (Dür, Baccini, and Elsig 2014). Results across Models 1-8 are all in the expected direction and statistically significant at the 99% level or higher. Substantively, this means that donor countries do channel aid directly to the recipient government when sending aid to strategically important recipient countries, consistent with my hypothesis.

Table 9: Heckman Probit Models of Recipient Government Delivery and Recipient Country Strategic Importance

	(1) Heckman Probit	(2) Heckman Probit	(3) Heckman Probit	(4) Heckman Probit
<b>Recipient Govt</b>				
Cumulative Aid	0.0000378*** (0.000)	0.0000430*** (0.000)	0.0000418*** (0.000)	0.0000262*** (0.000)
Recipient Governance Index		0.0194** (0.008)	0.0189** (0.008)	-0.00981** (0.004)
Recipient Human Rights		0.00219 (0.020)	0.000932 (0.020)	-0.0413*** (0.009)
Recipient GDP per Capita		-0.00000511 (0.000)	-0.00000326 (0.000)	0.0000469*** (0.000)
Recipient Democracy		-0.000231 (0.004)	-0.000876 (0.004)	-0.00834*** (0.002)
Recipient Population		-4.22e-10*** (0.000)	-4.35e-10*** (0.000)	-2.57e-10*** (0.000)
Donor GDP per Capita			-0.00000221* (0.000)	-0.0000233*** (0.000)
Former Colony				-0.836*** (0.017)
Defense Pact				-0.326*** (0.050)
Imports + Exports				-0.0000118*** (0.000)
Constant	-1.788*** (0.030)	-1.701*** (0.135)	-1.549*** (0.156)	1.119*** (0.064)
<b>Select</b>				
Recipient Governance Index	0.0138*** (0.004)	0.0136*** (0.004)	0.0135*** (0.004)	0.0128*** (0.004)
Recipient Human Rights	0.0456*** (0.009)	0.0456*** (0.009)	0.0456*** (0.009)	0.0464*** (0.009)
Recipient GDP per Capita	-0.0000529*** (0.000)	-0.0000528*** (0.000)	-0.0000528*** (0.000)	-0.0000504*** (0.000)
Recipient Democracy	0.00988*** (0.002)	0.00989*** (0.002)	0.00991*** (0.002)	0.00972*** (0.002)
Recipient Population	1.02e-10** (0.000)	1.05e-10** (0.000)	1.05e-10** (0.000)	1.59e-10*** (0.000)
Donor GDP per Capita	0.0000269*** (0.000)	0.0000269*** (0.000)	0.0000270*** (0.000)	0.0000270*** (0.000)

Former Colony	0.918*** (0.017)	0.917*** (0.017)	0.916*** (0.017)	0.900*** (0.017)
Defense Pact	0.258*** (0.050)	0.258*** (0.050)	0.256*** (0.050)	0.312*** (0.050)
Imports + Exports	0.0000219*** (0.000)	0.0000219*** (0.000)	0.0000219*** (0.000)	0.0000165*** (0.000)
Constant	-1.243*** (0.061)	-1.244*** (0.061)	-1.245*** (0.061)	-1.258*** (0.061)
/				
athrho	-0.123*** (0.043)	-0.132*** (0.045)	-0.204*** (0.057)	-3.734*** (0.248)
AIC	45605.6	45585.3	45583.6	45511.6
BIC	45708.5	45722.5	45729.4	45683.1

Standard errors in parentheses

\*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

Table 10: Heckman Probit Models of Recipient Government Delivery and Recipient Country Strategic Importance

	(5) Heckman Probit	(6) Heckman Twostep	(7) Heckman Probit	(8) Heckman Probit
<b>Recipient Government</b>				
Cumulative Aid	0.0000262*** (0.000)	0.00000718*** (0.000)		0.0000341*** (0.000)
Average Aid			0.000872*** (0.000)	
Recipient Governance Index	-0.00981** (0.004)	0.00215*** (0.001)	-0.00951** (0.004)	
Recipient Econ Governance Index				-0.0311*** (0.004)
Recipient Human Rights	-0.0413*** (0.009)	0.00153 (0.002)	-0.0418*** (0.009)	-0.0590*** (0.006)
Recipient GDP per Capita	0.0000469*** (0.000)	-0.00000122*** (0.000)	0.0000464*** (0.000)	0.0000448*** (0.000)
Recipient Democracy	-0.00834*** (0.002)	0.0000963 (0.000)	-0.00828*** (0.002)	-0.00764*** (0.001)
Recipient Population	-2.57e-10*** (0.000)	-1.99e-11*** (0.000)	-2.53e-10*** (0.000)	-4.92e-10*** (0.000)
Donor GDP per Capita	-0.0000233*** (0.000)	0.000000427*** (0.000)	-0.0000232*** (0.000)	-0.0000188*** (0.000)
Former Colony	-0.836*** (0.017)	0.0181*** (0.003)	-0.829*** (0.017)	-0.609*** (0.014)
Defense Pact	-0.326*** (0.050)	-0.0157* (0.008)	-0.336*** (0.050)	
Any Alliance				0.0198 (0.042)
Imports + Exports	-0.0000118*** (0.000)	5.95e-08 (0.000)	-0.0000113*** (0.000)	
Shared PTA				-0.109*** (0.013)
Duration		-0.0123*** (0.002)		
Duration <sup>2</sup>		0.00677*** (0.001)		
Duration <sup>3</sup>		-0.00104***		

		(0.000)		
Constant	1.119*** (0.064)	0.0367*** (0.013)	1.114*** (0.064)	0.874*** (0.045)
<b>Select</b>				
Recipient Governance Index	0.0128*** (0.004)	-0.00272 (0.005)	0.0127*** (0.004)	
Recipient Econ Governance Index				0.0388*** (0.004)
Recipient Human Rights	0.0464*** (0.009)	0.0205* (0.012)	0.0465*** (0.009)	0.0617*** (0.006)
Recipient GDP per Capita	-0.0000504*** (0.000)	-0.0000277*** (0.000)	-0.0000503*** (0.000)	-0.0000502*** (0.000)
Recipient Democracy	0.00972*** (0.002)	0.00758*** (0.002)	0.00975*** (0.002)	0.00875*** (0.001)
Recipient Population	1.59e-10*** (0.000)	6.49e-11 (0.000)	1.54e-10*** (0.000)	4.70e-10*** (0.000)
Donor GDP per Capita	0.0000270*** (0.000)	0.0000129*** (0.000)	0.0000271*** (0.000)	0.0000201*** (0.000)
Former Colony	0.900*** (0.017)	0.366*** (0.024)	0.899*** (0.017)	0.681*** (0.014)
Defense Pact	0.312*** (0.050)	0.0270 (0.072)	0.303*** (0.050)	
Any Alliance				-0.0411 (0.041)
Imports + Exports	0.0000165*** (0.000)	0.00000898*** (0.000)	0.0000165*** (0.000)	
Shared PTA				0.0648*** (0.012)
Duration		0.660*** (0.009)		
Duration <sup>2</sup>		-0.396*** (0.009)		
Duration <sup>3</sup>		0.0683*** (0.002)		
Constant	-1.258*** (0.061)	-1.493*** (0.080)	-1.260*** (0.061)	-0.846*** (0.044)
/				
athrho	-3.734*** (0.248)		-3.644*** (0.231)	-3.531*** (0.231)

/mills lambda		0.0388*** (0.007)		
aic	45511.6	.	45523.2	74718.6
bic	45683.1	.	45694.7	74897.6

Standard errors in parentheses

\*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

I report several robustness checks across Table 11 and Table 12. In Table 11, I report Random Effects Logit models both with (in Model 10) and without cubic polynomial duration variables (in Model 9) and Rare Events Logit (or Relogit) models both with (in Model 12) and without cubic polynomial duration variables (in Model 11). As mentioned, I include Random Effects Logit because although a poor estimator for TSCS data, Random Effects models do not suffer from as much bias as Fixed Effects models (Plümper and Troeger 2019). I also include Rare Events Logit models to account for any small sample problems I may have as a result of studying a rare event (King and Zeng 2001a; King and Zeng 2001b; King and Zeng 2002; Tomz, King, and Zeng 1999). In Table 12, I report ordinary Logit regression results, both with (in Model 14) and without cubic polynomial duration variables (in Model 13). In Models 10, 12, and 14, the cubic polynomial duration variables I include are  $t$ ,  $t^2$ , and  $t^3$ , consistent with the approach detailed by Carter and Signorino (2010). My explanatory variable, recipient country governance, is in the expected direction and statistically significant at the 99% level or higher across all of these models, again confirming my hypothesis.

In addition to demonstrating the robustness of my results to various variable measurements and model specifications, I also estimate two models to test the nuance of my hypothesis. Again, I expect that donor aid agencies will be more likely to channel some, but not all aid directly to the recipient government when allocating aid to strategically important countries. Models 1-14 incorporate a dichotomous dependent variable which captures whether

any aid was channeled directly to recipient governments. I also test whether donor aid agencies channel all or a majority of the aid to strategically important countries directly to the recipient government. Model 15 utilizes a dichotomous dependent variable capturing whether all aid in any one dyad year was channeled through donor NGOs, and Model 16 utilizes a dichotomous dependent variable capturing whether the majority of aid in any one dyad year was channeled directly to the recipient government. Notably, when I utilize these alternative dependent variables, the sign on my explanatory variable changes from positive to negative, consistent with my hypothesis. Donor aid agencies are more likely to channel some aid directly to the recipient government when allocating aid to strategically important countries, but they are less likely to utilize the recipient government channel for the majority or all of the aid to these recipients. As illustrated, this finding is robust to different variable measurements and model specifications. I include twenty-four additional permutations of Models 15 and 16, which utilize the dependent variables capturing whether the majority or all aid is channeled directly to the recipient government, in Table 24, Table 25, Table 26, Table 27, Table 28, and Table 29 in Appendix B. I also include Table 30, which includes four additional models that address multicollinearity concerns as already mentioned. Although I lose statistical significance in five of these models (Models 18, 19, 27, 34, and 35), I maintain statistical significance in the expected direction at the 95% level or higher across all other permutations.



Table 11: Robustness Checks of Recipient Government Delivery and Recipient Country Strategic Importance

	(9) Random Effects Logit	(10) Random Effects Logit	(11) Relogit	(12) Relogit
<b>Main</b>				
Cumulative Aid	0.000181*** (0.000)	0.000141*** (0.000)	0.0000790*** (0.000)	0.0000712*** (0.000)
Recipient Governance Index	0.00389 (0.040)	0.0505 (0.037)	0.0449** (0.020)	0.0618*** (0.020)
Recipient Human Rights	0.00597 (0.084)	0.0586 (0.080)	0.00937 (0.047)	0.0540 (0.047)
Recipient GDP per Capita	0.0000994*** (0.000)	0.0000254 (0.000)	-0.0000192 (0.000)	-0.0000298** (0.000)
Recipient Democracy	0.0389** (0.019)	0.0187 (0.017)	0.00340 (0.008)	0.00338 (0.008)
Recipient Population	-9.81e-10 (0.000)	-9.32e-10* (0.000)	-1.00e-09*** (0.000)	-8.66e-10*** (0.000)
Donor GDP per Capita	0.0000239*** (0.000)	0.0000164*** (0.000)	0.000000371 (0.000)	0.00000731*** (0.000)
Former Colony	-0.140 (0.193)	0.256 (0.169)	0.0631 (0.076)	0.399*** (0.086)
Defense Pact	-0.986** (0.494)	-0.616 (0.469)	-0.736** (0.331)	-0.525 (0.336)
Imports + Exports	0.00000220 (0.000)	0.00000220 (0.000)	0.00000253 (0.000)	0.00000268 (0.000)
Duration		-0.346*** (0.038)		-0.585*** (0.029)
Duration <sup>2</sup>		0.137*** (0.027)		0.324*** (0.021)
Duration <sup>3</sup>		-0.0130*** (0.005)		-0.0482*** (0.004)
Constant	-7.666*** (0.757)	-5.634*** (0.627)	-3.258*** (0.311)	-2.488*** (0.309)
/				
Insig2u	2.057*** (0.146)	1.682*** (0.124)		
aic	5520.2	5195.7	.	.
bic	5616.4	5315.9	.	.

Standard errors in parentheses

\*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

Table 12: Robustness Checks of Recipient Government Delivery and Recipient Country Strategic Importance

	(13) Logit	(14) Logit	(15) Heckman Probit	(16) Heckman Probit
<b>Main</b>				
Cumulative Aid	0.0000795*** (0.000)	0.0000718*** (0.000)	-0.0000393** (0.000)	-0.000591*** (0.000)
Recipient Governance Index	0.0449** (0.019)	0.0619*** (0.020)	-0.0131*** (0.004)	-0.0314*** (0.006)
Recipient Human Rights	0.00926 (0.046)	0.0539 (0.047)	-0.0416*** (0.009)	-0.0277* (0.015)
Recipient GDP per Capita	-0.0000195 (0.000)	-0.0000302** (0.000)	0.0000516*** (0.000)	-0.0000263*** (0.000)
Recipient Democracy	0.00350 (0.009)	0.00344 (0.009)	-0.00841*** (0.002)	0.0145*** (0.003)
Recipient Population	-1.03e-09*** (0.000)	-8.90e-10*** (0.000)	-1.96e-10** (0.000)	4.96e-11 (0.000)
Donor GDP per Capita	0.000000321 (0.000)	0.00000728*** (0.000)	-0.0000260*** (0.000)	0.0000164*** (0.000)
Former Colony	0.0633 (0.077)	0.400*** (0.083)	-0.938*** (0.019)	0.384*** (0.043)
Defense Pact	-0.782** (0.325)	-0.572* (0.329)	-0.254*** (0.052)	-0.0832 (0.105)
Imports + Exports	0.00000209 (0.000)	0.00000235 (0.000)	-0.0000254*** (0.000)	-0.000000116 (0.000)
Duration		-0.586*** (0.028)		
Duration <sup>2</sup>		0.325*** (0.020)		
Duration <sup>3</sup>		-0.0483*** (0.004)		
Constant	-3.258*** (0.317)	-2.487*** (0.322)	1.200*** (0.065)	-2.175*** (0.139)
<b>Select</b>				
Recipient Governance Index			0.0136*** (0.004)	0.0132*** (0.004)
Recipient Human Rights			0.0460*** (0.009)	0.0436*** (0.009)
Recipient GDP per Capita			-0.0000527***	-0.0000527***

			(0.000)	(0.000)
Recipient Democracy			0.00995*** (0.002)	0.00971*** (0.002)
Recipient Population			1.06e-10** (0.000)	1.12e-10** (0.000)
Donor GDP per Capita			0.0000270*** (0.000)	0.0000269*** (0.000)
Former Colony			0.918*** (0.017)	0.918*** (0.017)
Defense Pact			0.259*** (0.050)	0.262*** (0.050)
Imports + Exports			0.0000218*** (0.000)	0.0000217*** (0.000)
Constant			-1.250*** (0.061)	-1.232*** (0.062)
/				
athrho			-4.907*** (0.666)	0.420*** (0.158)
aic	6636.5	5871.1	39989.6	52056.7
bic	6716.6	5975.2	40161.1	52228.3

Standard errors in parentheses

\*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

I next will discuss the results for each control variable across Table 9, Table 10, Table 11, and Table 12. Importantly, I am not aware of other studies that explain when aid is specifically channeled directly to recipient governments. As noted, previous research does identify two scenarios in which donor agencies are likely to channel aid through non-state actors—notably, in cases of poor recipient country governance (Dietrich 2013) and poor recipient country human rights records (Dietrich 2017). My results are consistent with this research. The statistical significance and direction of my recipient country governance variable varies across Models 1-16, which may be somewhat surprising given that Dietrich (2013) argues that donors utilize non-state channels in cases of poor recipient country governance, but there are more than just two delivery channels available to donors. The effect of recipient country governance on donors’

utilization of recipient government channel may be unclear because donors are using other channels in these cases, consistent with Dietrich (2013). It may also be that there is some type of interaction effect between recipient country governance and recipient country strategic importance, which could be a productive avenue for future research. The same is true of the effect of recipient country human rights on donors' use of the recipient country channel. Although the coefficient on my recipient country human rights variable is negative and statistically significant across most models, this is not necessarily inconsistent with Dietrich and Murdie's (2017) findings, as there are more than just two delivery channels available to donors. The GDP per capita of the donor and recipient countries and dyadic colonial or trade relationships do not appear to influence the decision to channel directly to recipient governments. However, recipient country democracy, recipient country population, and dyadic alliance relationships do appear to influence donor decisions to channel aid directly to recipient governments. Specifically, as recipient countries democratize, donors are less likely to channel aid directly to recipient governments. This is an interesting finding, as one could argue that democracies are more strategically important to donors and therefore should receive more aid channeled directly. However, it may be that aid agencies see democratizing recipients differently for some reason, which might be a productive avenue for future research. Additionally, as recipient countries become more populous, donors are less likely to utilize the recipient government channel. When donors give aid to their allies, donors are less likely to channel aid through recipient governments.

Although few studies explore aid delivery decisions, many explore aid allocation decisions. The first stage of my Heckman Probit models estimates the aid allocation decision, and I include a series of controls in my models that are influential in the aid allocation literature,

as already discussed. With one exception, these control variables are statistically significant and in the expected direction. Importantly, my population control variable appears to have the opposite effect in my models as Trumbull and Wall (1994) find in their analysis. Trumbull and Wall (1994) argue that a population bias exists, such that donors give more aid to countries that have smaller populations, so they can maximize the impact of their money. However, Trumbull and Wall (1994) utilize a continuous measure of aid as their dependent variable, while mine is binary. As a result, Trumbull and Wall (1994) find that donors give more aid to countries with smaller populations, while I find that donors are more likely to give aid at all as population increases, which is not inconsistent with their research. Additionally, my results suggest that recipients receive more aid as their human rights violations increase. Although this is contrary to Cingranelli and Pasquarello (1985), it is perhaps not surprising considering aid is often given strategically. The direction and statistical significance of my other control variables are also as expected. As a country's GDP per capita increases, they are less likely to receive aid, as suggested by Lumsdaine (1993). As countries democratize, they are more likely to receive aid, consistent with previous research as well (Alesina and Dollar 2000; Lumsdaine 1993). I also find that countries with higher per capita GDPs are more likely to give aid, as demonstrated by Chong and Gradstein (2008). Former colonies are more likely to receive aid, as are defensive allies, consistent with Alesina and Dollar (2000). Importantly, the general alliance variable I utilize as a robustness check in several models is insignificant. I expect this is because other types of alliances (e.g. an entente) included in the Correlates of War dataset (Gibler 2009) involve a drastically different level of commitment and therefore might not have the same effect on aid allocation. Lastly, countries that trade more with the donor or are members of the same

PTA as the donor are more likely to receive aid, which is also consistent with previous scholarship (Younas 2008).

To demonstrate these results substantively, I also include predicted probabilities for Model 10, as this model features the lowest AIC and BIC values across Table 9, Table 10, Table 11, and Table 12 and therefore best fits the data. Model 10 is a Random Effects Logit model that includes all baseline controls and the cubic polynomial duration variables suggested by Carter and Signorino (2010). As discussed earlier, the cumulative aid measure I use as my explanatory variable sums all aid commitments (in millions of US dollars) from each donor to each recipient during the years 1973 to 2018, as reported by the OECD (Organization for Economic Cooperation and Development). The recipient countries included in my dataset have cumulative aid values ranging from 0 to 54,130.76. Dyads with low cumulative aid totals (i.e. in the bottom 5%, with values less than 0.349) include the Czech Republic and Tanzania, Greece and Togo, and Kuwait and Honduras. Dyads with high cumulative aid totals (i.e. in the top 5%, with values greater than 3026) include Australia and India, France and Pakistan, and the United States and Egypt.

The predicted probabilities for Model 10 are included in Figure 2. Importantly, the predicted probability that aid is channeled directly to recipient governments increases as recipient country strategic importance increases, which is consistent with my hypothesis and the results already discussed. Substantively, donors are 63 percentage points more likely to channel aid directly to recipient governments when the recipient is strategically important (e.g. France and Pakistan) than when the recipient is strategically unimportant (e.g. Greece and Togo).

I also include the predicted probabilities for Model 15, as it is the alternative dependent variable model with the lowest AIC/BIC values across Table 9, Table 10, Table 11, and Table

12. Model 15 is a Heckman Probit model with the dependent variable capturing whether all aid is channeled directly to the recipient government. The predicted probabilities for Model 15 are included in Figure 3. Consistent with the results already discussed, the probability that donors channel aid directly to recipient governments decreases as the recipient grows in strategic importance. Although the highest values (i.e. beyond the 99<sup>th</sup> percentile) of cumulative aid lose statistical significance, it is important to note that the vast majority of the cumulative aid scale is within the range of statistical significance. As a result, donors are 25 percentage points more likely to channel all aid directly to the recipient government in cases of low recipient strategic importance (e.g. Greece and Togo) when compared to cases of high strategic importance (e.g. France and Pakistan). The predicted probabilities presented in Figure 2 and Figure 3 again

Figure 2: Predicted Probability that Aid is Channeled Directly to Recipient Governments

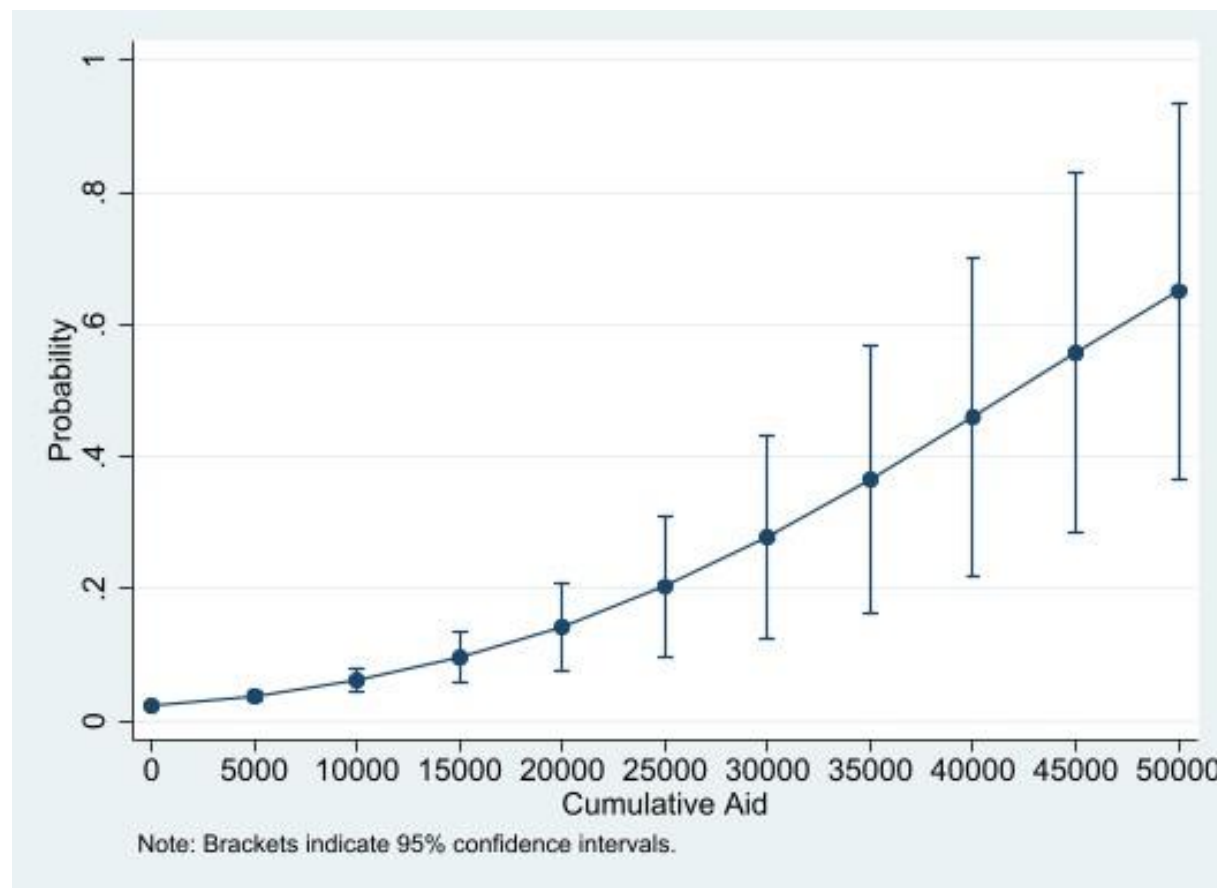
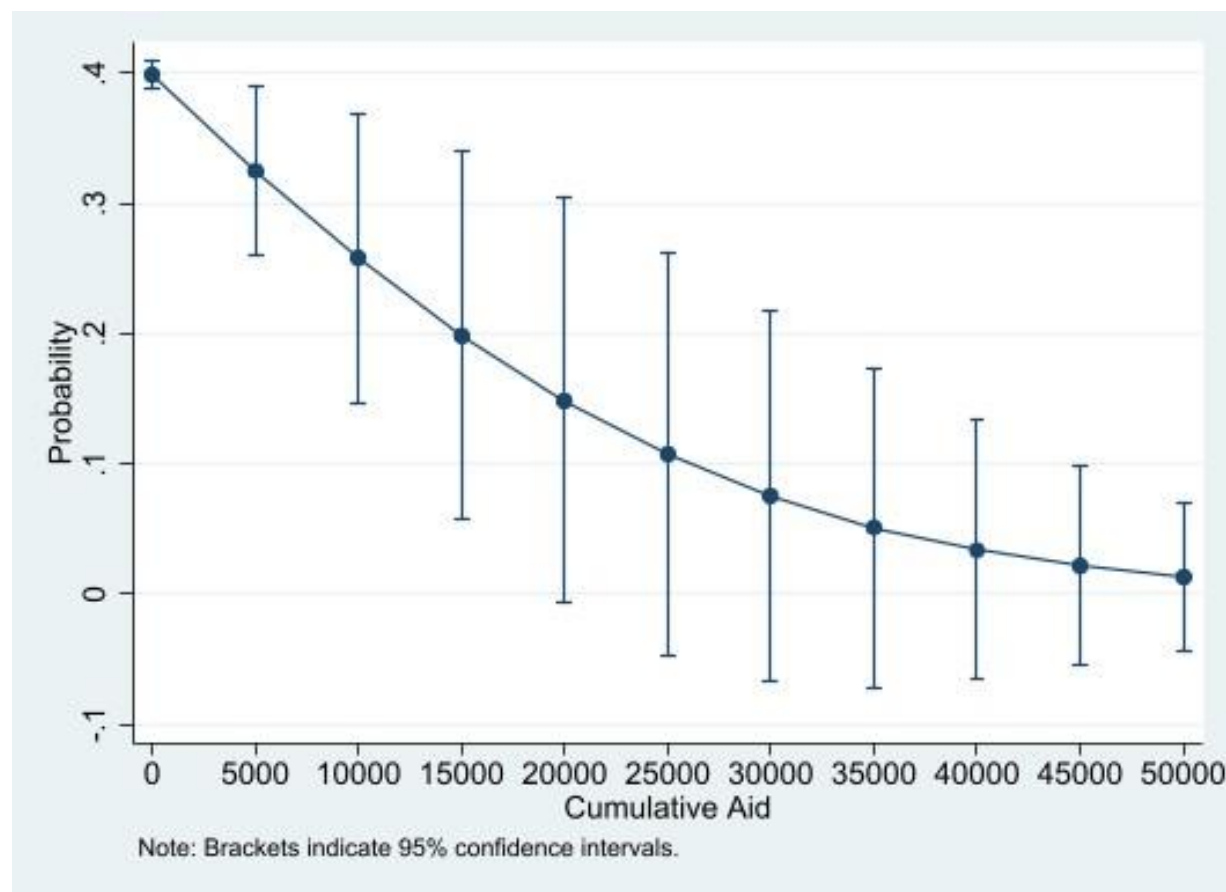


Figure 3: Predicted Probabilities that All Aid is Channeled Directly to Recipient Governments



confirm my hypothesis and the results already discussed.

### Discussion

In conclusion, donors channel some, but not all aid directly to strategically important recipient governments. This finding is statistically significant in the expected direction and robust to various variable measurements and model specifications. These results also imply a broader theme—that donors utilize different delivery channels to advance different goals. This is an important finding, especially given the relative lack of research concerning aid delivery when compared to the aid allocation literature.

There are many opportunities for future research. First, how do donors utilize other delivery channels? What other goals or considerations might donors have when allocating



foreign aid, and how can the different delivery channels help them to pursue those goals? Which delivery channels are most useful for certain types of goals or considerations? Additionally, future research could explore the ramifications of these delivery decisions. For example, how does the use of one delivery channel when compared to others influence support for foreign aid in the donor and/or recipient countries? How does the use of one delivery channel when compared to others influence the donor-recipient relationship? How might different delivery channels influence the effectiveness of aid under various circumstances? Lastly, it also may be productive to explore the relationship between recipient country strategic importance and recipient country governance. One reason why donor aid agencies do not directly deliver all aid to strategically important recipient countries may be that many of these recipients are corrupt. How does recipient country governance influence aid delivery to strategically important recipients?

It is important to also note the weaknesses of this research. As mentioned earlier, five of the twenty-eight models included in Appendix B are not statistically significant. Although the models in Appendix B include both alternative dependent variables—capturing whether all or the majority of aid is channeled directly to recipient governments—I only lose statistical significance in the models that include the variable measuring whether all aid is channeled directly. Why might this be? What is different about the decision to directly channel all aid, instead of the majority of aid, to a recipient that is not captured by these models? Future research could more fully explore the dynamics of this decision. Regardless however, my results are confirmed across the majority of the models I run and my argument therefore stands: donors channel some, but not all aid directly to strategically important recipient countries.

### **Article 3: Do Aid Delivery Mechanisms Matter? Perceptions of Corruption and Support for US Foreign Aid**

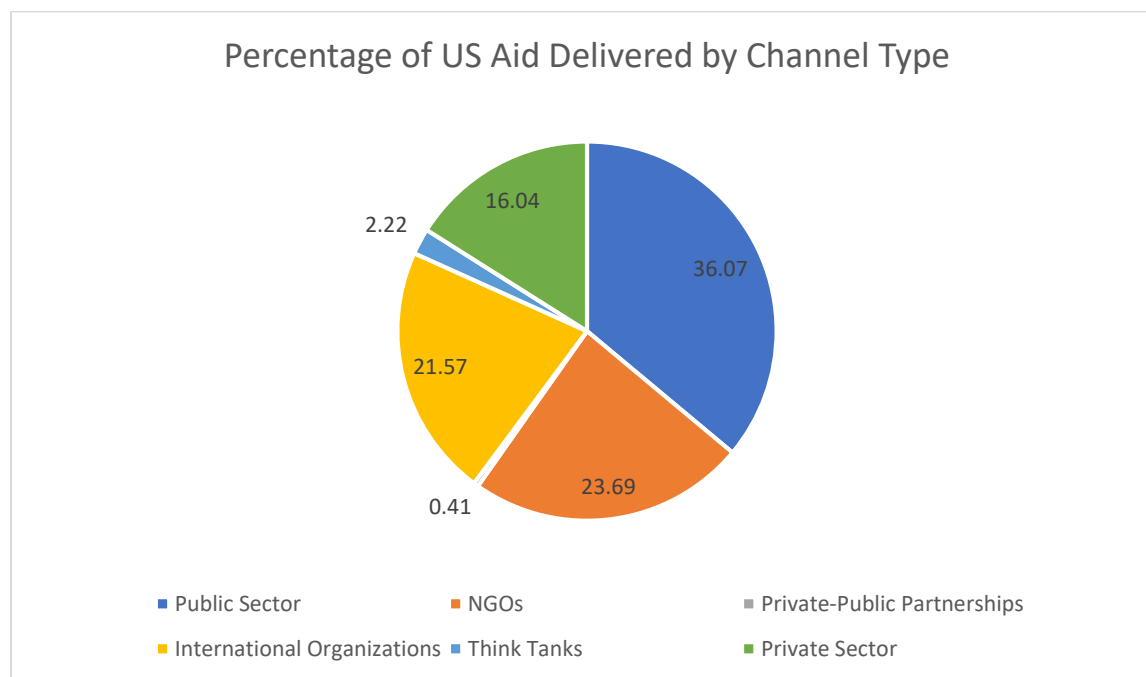
Although public support for foreign aid in many Western aid donor countries is high, public support for foreign aid in the United States is surprisingly low (Riddell 2007). Recent data suggests that while the median support among European countries for increasing “foreign aid to developing countries” is 53% (Stokes, Wike, and Poushter 2016), only 48% of Americans support increasing “assistance to needy in the world” (“Public Uncertain, Divided Over America’s Place in the World: Growing Support for Increased Defense Spending”). Although support for increasing aid in the United States is higher than some European countries (e.g. Greece at 28 percent or Hungary at 30 percent), support in other European countries is much higher than that of the United States (e.g. Sweden at 61 percent, Germany at 67 percent, or Spain at 83%) (Stokes, Wike, and Poushter 2016). Interestingly, Americans are also notoriously misinformed when it comes to foreign aid. Most estimate foreign aid spending to comprise over twenty percent of the US federal budget, when the actual figure is somewhere around one percent, and many are not even sure what constitutes foreign aid (Williamson 2018). However, scholars have demonstrated that as Americans are presented with correct information regarding foreign aid, their support for it increases (Gilens 2001; Hurst, Tidwell, and Hawkins 2017).

In a recent study exploring what arguments most influence support for US foreign aid, Hurst, Tidwell, and Hawkins (2017) find that support for aid decreases dramatically when individuals are presented with information suggesting that aid money is lost to corruption. In fact, a 2016 Kaiser Foundation Poll finds that 79 percent of Americans see corruption as a major barrier to advancing global health (DiJulio, Norton, and Brodie 2016). However, much aid money is actually not lost to corruption, as foreign aid is often channeled away from corrupt

recipient governments and instead towards non-state actors in order to prevent this (Acht, Mahmoud, and Thiele 2015; Dietrich 2013). In fact, only 36.07% of the United States' aid commitments in 2016 were channeled directly to the recipient government, as summarized in Figure 4 (Organization for Economic Cooperation and Development "Creditor Reporting System"). The United States channels most of its aid through NGOs, international organizations, or other non-state actors (although, of course, aid channeled to these actors may still be lost to corruption). Scholars have confirmed that this decision to channel aid through non-state actors is specifically to bypass corrupt governments (Acht, Mahmoud, and Thiele 2015; Dietrich 2013). Acht, Mahmoud, and Thiele (2015) find that "corrupt governments do not receive more state-to-state aid," and Dietrich (2013) finds that donor governments bypass recipient governments with poor governance records by channeling aid money through NGOs or other non-state actors. Does providing information about the channel of aid delivery increase support for US foreign aid? More specifically, do individuals support foreign aid more when they are presented with information suggesting that foreign aid is not channeled directly to corrupt governments, but instead through non-state actors?

I argue that support for U.S. foreign aid will increase when individuals are presented with arguments suggesting that foreign aid to corrupt countries is channeled through non-state actors. To test this argument, I conduct a survey experiment, built using Qualtrics software and administered through Amazon Mechanical Turk. Again, I expect that the idea that foreign aid channeled to corrupt countries is often channeled through non-state actors will increase support for foreign aid.

Figure 4: US Foreign Aid Delivery Channels, 2016

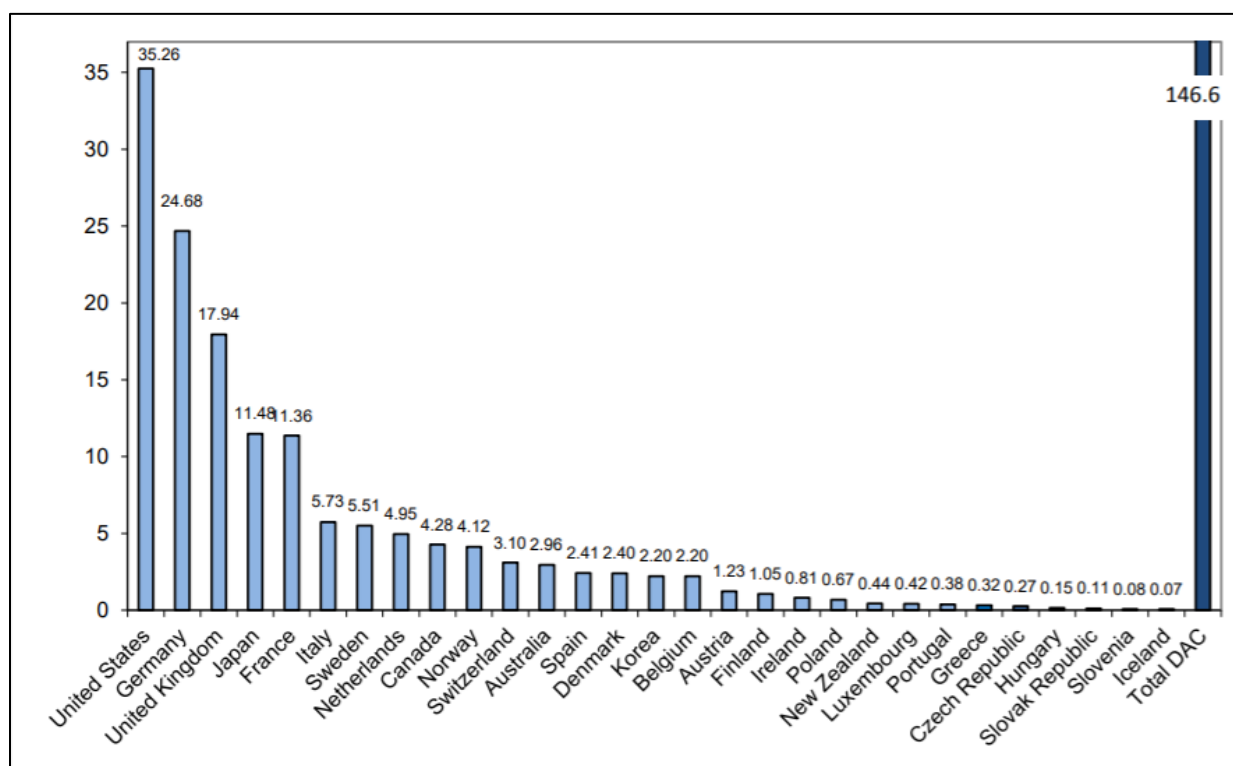


Such a research agenda is significant because public support for US foreign aid is low. The United States has long been the largest donor, in terms of dollars committed, of ODA (Organization for Economic Cooperation and Development “Net ODA”). For instance, in 2017, the United States committed \$35.26 billion in ODA, which far exceeds the ODA provided by all other OECD/DAC members, as presented in Figure 5 (Organization for Economic Cooperation and Development Complete Data Tables, 2017). However, public support for US foreign aid remains low (Riddell 2007; Williamson 2018), and President Trump has repeatedly sought deep cuts to foreign aid (Tremblay-Boire 2017). As misinformation regarding foreign aid seems to be at least one of the reasons behind low public support for aid (Gilens 2001), correcting this misinformation may be one way to increase support for foreign aid and thus prevent Congress from passing steep cuts to the foreign aid budget. As the argument that aid is lost to corruption decreases support for foreign aid (Hurst, Tidwell, and Hawkins 2017), my study highlighting

ways to correct that misconception is relevant. The development community can utilize this argument—that US foreign aid is not lost to corruption, and the US channels most of its aid through non-state actors—in public campaigns to increase support for foreign aid and place additional pressure on Congress and President Trump to maintain foreign aid budgets, or at least not cut them so steeply. Additionally, this research is relevant to scholars of foreign aid, public opinion, aid delivery, and framing effects.

The rest of this article proceeds as follows. I first discuss relevant scholarship regarding public opinion and US foreign aid, factors influencing public support of US foreign aid, and foreign aid delivery and corruption. Next, I detail my theory regarding support for foreign aid, aid delivery, and public opinion, and in the section that follows, I outline my experiment design. I then discuss my data analysis and conclude.

Figure 5: Net ODA Provided by OECD/DAC Member Countries, 2017 (in billions USD)



## Review of Existing Literature

The relevant literature on US foreign aid can be divided into three groups. The first section of literature suggests that US public opinion influences foreign aid policy. The next section highlights the factors that influence public support for US foreign aid, and the final section suggests that recipient country corruption influences donor delivery decisions.

### **Public Opinion and US Foreign Aid**

Although early scholars of public opinion maintained that public attitudes were volatile and incoherent (Almond 1950; see Holsti 1992 for review), and thus unlikely to influence foreign policy, more recent scholarship has been more optimistic regarding the stability of public opinion (Caspary 1970; Hurwitz and Peffley 1987; Page and Shapiro 1983) and its influence on foreign policy (Foyle 2004; Knecht and Weatherford 2006). With respect to foreign aid, Caddel (2012) argues that while many American voters do not pay much attention to foreign aid and which countries receive it, there are important groups that care a lot about how foreign aid is allocated by account. For instance, “Americans farmers who are paid to provide aid commodities, American shipping companies who provide logistics, and the contractors who are paid to execute the aid programs” (Caddel 2012, 10) all have financial interests in which U.S. foreign aid accounts receive aid funds. Additionally, scholars have demonstrated that public opinion influences members of Congress’ voting behavior (Milner and Tingley 2010; 2011), that there is a “close congruence” between public opinion and elite opinion on foreign aid (Milner and Tingley 2013a, 296), and that during times of economic crisis, when public support for foreign aid falls, foreign aid spending also decreases (Heinrich, Kobayashi, and Bryant 2016).

### **Factors Influencing Support for Foreign Aid**

There are a series of variables that have been demonstrated to influence support for foreign aid. First, attitudes towards foreign aid are influenced by many individual-level variables. More ideologically conservative individuals, for example, support foreign aid less than ideologically liberal individuals do (Milner and Tingley 2010; 2011). Additionally, those who attend church more often (Paxton and Knack 2011) or believe that the poor can escape poverty (Paxton and Knack 2011) support foreign aid more. Trust is also significant; as individuals' trust in others (Bayram 2017; Paxton and Knack 2011) and institutions (Paxton and Knack 2011) grows, they support foreign aid more. Individuals that are more aware of international affairs (Paxton and Knack 2011) or that find themselves more on the internationalist side of the internationalist-isolationist spectrum (Prather 2014) are also more supportive of foreign aid.

Other factors related to donor or recipient countries have also been shown to influence support for foreign aid. First, the distributional consequences of foreign aid policies for congressional districts influences that district's support for foreign aid (Milner and Tingley 2010; 2011). Put succinctly, individuals who stand to benefit economically from foreign aid support foreign aid more. In addition, as individuals perceive recipient countries to be corrupt, support for foreign aid falls, although this effect is mediated by beliefs about a government's moral duty to the poor, the role of aid in improving recipient country governance, and the strategic benefits aid provides to the donor country (Bauhr, Charron, and Nasiritousi 2013). Similarly, support for foreign aid falls when the recipient country is perceived as a "nasty" regime, although this effect can also be mediated as the donor country engages more with the recipient country (Heinrich and Kobayashi 2018).

In addition, public support for foreign aid changes as arguments regarding foreign aid are varied and as individuals are presented with information correcting misperceptions about aid (Gilens 2001; Hurst, Tidwell, and Hawkins 2017). Broadly, how an argument is framed has also been demonstrated to influence public opinion (Druckman 2001a; Druckman 2001b; Nelson, Oxley, and Clawson 1997).

### **Corruption and Aid Delivery**

Scholars have recently started to study how donors choose to deliver aid to certain types of recipients. Winters and Martinez (2015) argue that “bilateral donors substitute programmatic aid for technical assistance and project aid in well-governed countries” (Winters and Martinez 2015, 516). Additionally, donor governments may channel less aid through multilateral institutions as domestic public opinion diverges from the aid preferences of the multilateral institution (Milner and Tingley 2013b). Most relevant to this article, donor countries channel more aid through non-state actors (e.g. NGOs, multilateral institutions) when recipient governments have weak institutions (Acht, Mahmoud, and Thiele 2015) or poor governance (Dietrich 2013) or human rights records (Dietrich and Murdie 2017).

The idea that donor governments bypass recipient governments with poor governance records (Dietrich 2013) or weak institutions (Winters and Martinez 2015) has significant ramifications for the study of aid allocation and corruption. Many scholars have suggested that more corrupt countries receive more foreign aid (Alesina and Weder 2002; Easterly and Williamson 2011; Easterly and Pfutze 2008). Additionally, donor governments do not seem to react to changes in recipient countries; as recipient countries grow more corrupt, donor governments continue to give the same amount of foreign aid (Easterly and Williamson 2011; Easterly and Pfutze 2008). In other words, “any changes in aid shares to corrupt countries are



mainly due to changes in country classification, not to any responses from the donors” (Easterly and Williamson 2011, 1946). The United States seems to be particularly guilty of aiding corrupt countries. Alesina and Weder (2002) argue that “there is no evidence that less corrupt governments receive more foreign aid” (Alesina and Weder 2002, 1136) but point out differences between different donor countries; while Scandinavian donors “do reward less corrupt receivers” (Alesina and Weder 2002, 1136), the United States “seems to pay no attention to quality of government of receiving countries” (Alesina and Weder 2002, 1136). It is in this context that research exploring how foreign aid is channeled to corrupt recipients is particularly interesting, as Acht, Mahmoud, and Thiele (2015) argue, in their article title itself, that “corrupt governments do not receive more state-to-state aid” (Acht, Mahmoud, and Thiele 2015, 20). Thus, while donor governments may give more aid to corrupt countries, they appear to channel it through non-state actors to bypass the corrupt recipient government. In fact, the United States channels only a minority of aid directly to the recipient country government (Tremblay-Boire 2017). In 2016, for example, the United States only channeled 36% of its ODA through the public sector; instead, over 60% of American ODA was channeled through NGOs, international organizations, or the private sector (Organization for Economic Cooperation and Development “Creditor Reporting System”). Thus, while “it’s impossible to argue that corrupt governments never squander U.S. foreign aid[,]...it is important to understand that most aid never enters the coffers of these corrupt governments in the first place” (Tremblay-Boire 2017). As public opinion in the United States is negatively affected by the idea that aid is lost to corruption (Hurst, Tidwell, and Hawkins 2017), does support for foreign aid increase when Americans are made aware that much of this aid stays out of the hands of corrupt politicians altogether?

### Corruption, Aid Delivery, and Public Opinion

In this study, I assume that individuals have bounded rationality. While individuals fail stricter definitions of rationality, such as Downs' (1957) conceptualization of decision making in the context of complete information, I instead argue that while individuals may behave in loosely rational ways, they often do not have complete information and are limited in their processing capabilities. As a result, I assume that individuals are cognitive misers (Fiske and Taylor 2017) and rely upon heuristics or shortcuts when making decisions. One of these shortcuts is the availability heuristic (Tversky and Kahneman 1973), whereby individuals make decisions based on what most easily comes to their minds. In this sense, individuals are susceptible to information campaigns and/or media appeals, as anything memorable from these campaigns may come to mind at the point of decision making and then influence the decision. This is often manifest as a framing effect.

Druckman (2001b) identifies a frame as “the terms used to refer to the words, images, phrases, and presentation style that a speaker uses when relaying information to another” (Druckman 2001b, 227). As individuals are presented with various frames, their thoughts and attitudes towards the subject at hand may change, in what Druckman (2001b) refers to as a framing effect. In other words, a framing effect occurs “when (often small) changes in the presentation of an issue or an event produce (sometimes large) changes of opinion” (Chong and Druckman 2007, 104). With respect to foreign aid, Hurst, Tidwell, and Hawkins (2017) find evidence that several key arguments regarding foreign aid—the cost of foreign aid, the need for foreign aid, and the potential for aid to be lost to corruption—influence public support for foreign aid. Additionally, providing Americans with information influences their attitudes towards foreign aid; Gilens (2001) argues that support for foreign aid increases when individuals

are correctly informed as to the size of the foreign aid budget. Thus, what information is presented to individuals influences their opinion of the issue at hand, although these effects may be moderated by an individual's political knowledge (Brewer 2003; Haider-Markel and Joslyn 2001), their predispositions towards a particular opinion (Haider-Markel and Joslyn 2001), and/or the credibility of the framing source (Druckman 2001a), among other factors (for full review, see Chong and Druckman 2007).

Broadly, these authors suggest that providing individuals with additional, accurate information regarding foreign aid influences support for foreign aid, and they identify key arguments that are the most influential in moving opinion (Gilens 2001; Hurst, Tidwell, and Hawkins 2017). Admittedly, some arguments move public opinion more than others, as Hurst, Tidwell, and Hawkins (2017) demonstrate, but the fact remains that because support for foreign aid is so low (Riddell 2007) and misconceptions abound (Williamson 2018), individuals are particularly susceptible to framing effects when presented with information on foreign aid. In this environment, it is increasingly important for politicians and aid agencies concerned with the size of the aid budget to ensure that the public has enough accurate information regarding foreign aid. While Gilens (2001) demonstrates that correcting misperceptions about the cost of aid influences support, and Hurst, Tidwell, and Hawkins (2017) demonstrate that individuals are particularly fearful that aid is lost to corruption, it remains to be seen whether showing individuals that aid is, in fact, typically not lost to corruption influences their support for foreign aid.

In light of this research, I argue that public support for U.S. aid spending will change as the public learns that much of the aid given to corrupt countries is actually channeled through non-state actors that I presume to be independent of the recipient government. As mentioned,

scholars have demonstrated that “corrupt governments do not receive more state-to-state aid” (Acht, Mahmoud, and Thiele 2015, 20), as aid given to corrupt governments is channeled through NGOs, international organizations, or other non-state actors (Dietrich 2013). As arguments suggesting that foreign aid money is lost to corruption decrease public support for foreign aid (Hurst, Tidwell, and Hawkins 2017), I expect that explaining that this is not necessarily the case will increase support for foreign aid. Consistent with Hurst, Tidwell, and Hawkins (2017), I assume that support for U.S. foreign aid will decrease when respondents are shown arguments suggesting that foreign aid is lost to corruption. I then hypothesize that:

*Hypothesis: Support for foreign aid will increase when respondents are shown arguments suggesting that U.S. foreign aid is allocated to corrupt countries through non-state actors.*

### Experiment Design

To test this argument, I conducted a survey experiment, built using Qualtrics software and administered through Amazon Mechanical Turk. My sample includes 886 respondents, who are US citizens and residents that are at least eighteen years of age. This sample provides me with between 171 and 191 respondents per condition. Respondents were randomly assigned to one of five conditions. The survey was designed to take less than ten minutes to complete and respondents were reimbursed \$0.40 for completing the survey. My dependent variable, support for foreign aid, is based on a survey question gauging how strongly respondents approve of US foreign aid. It is ordinal and includes four points, ranging from disapproving strongly to approving strongly, with higher values corresponding to more approval of aid.

### Conditions

As mentioned, respondents received one of five conditions. Four of these conditions were treatments, and the fifth condition acted as a control. In each of the treatments, respondents were

shown a brief, simulated news story about the leader of Comoros, a country that respondents are told receives US foreign aid. In each treatment, the story includes information about the Comoran president either being arrested on charges of corruption or cleared of corruption charges against him. Additionally, each treatment also includes information about whether US aid to that country is delivered directly to the Comoran government or through an NGO that operates in the country. In short, I vary information about recipient country corruption and channel of aid delivery in each of these treatments. The full text of the news stories I use in each treatment is available in Appendix C. After being presented with the news story, respondents were asked their support of US foreign aid. In the control condition, respondents did not see any news stories or other information before being asked their support for foreign aid.

### **Demographic Questions**

After respondents received a condition and were asked for their opinions regarding US foreign aid, I asked a series of demographic variables. These include sex, race, age, education, income, church attendance, beliefs about poverty, and trust in others. Sex is dichotomous and coded as a 1 for females. Although I asked respondents to choose their race from a list of options, I collapse this variable so that it is also dichotomous and coded as a 1 for white. Age records the respondent's age in years. Education and income are both ordinal and increase with higher levels of education or income. Church attendance is coded so that higher values correspond to more church attendance. Beliefs about poverty is dichotomous and coded as a 1 for those who believe people are poor because society treats them unfairly (as opposed to laziness). Trust in others is also dichotomous and coded as a 1 for those who believe most people can be trusted (as opposed to those who believe you cannot be too careful). I also asked a series of questions about politics, including partisanship, political ideology, awareness of politics, and a battery of

questions intended to gauge political knowledge. Partisanship is a 9-point variable ranging from identifying strongly as a Republican to identifying strongly as a Democrat, with higher values corresponding to stronger identification with the Democratic Party. Political ideology is a 7-point scale, ranging from identifying as a strong conservative to identifying as a strong liberal, with higher values corresponding to stronger identification as a liberal. Awareness of politics is a 5-point scale and increases with more awareness. My measure of political knowledge is an index comprising responses to four questions about politics. Higher values on this scale correspond to more political knowledge. I expect that support for foreign aid will be higher among women, non-whites, older individuals, more highly educated individuals, and higher income earners. Consistent with Paxton and Knack (2011), I also expect that the ideologically liberal, those who attend church more, those that believe the poor can escape poverty, those that trust others and institutions more, and those that are more aware of international affairs will support foreign aid more. Exact survey wording for all dependent and independent variables is included in Appendix D.

### Data & Analysis

I launched my survey on February 18, 2020 and collected all responses within twelve hours. I collected 1162 responses in total, but was left with 886 responses after dropping those that did not complete the survey, failed the attention check question, or opted to withdraw. The number of responses per condition varies from 171 to 191. To test my hypothesis, I run difference of means tests, ordered logit regressions, and OLS regressions, reported in Table 13, Table 14, Table 15, and Table 16.

My unpaired, unequal difference of means test results are reported in Table 13. Here, I compare respondents' approval of US foreign across treatments. Specifically, I compare the

corrupt aid recipient/recipient government channel condition to the corrupt aid recipient/NGO channel condition. Mean aid approval is higher for those who receive the corrupt aid recipient/NGO channel condition, and the difference is statistically significant at the 95% level, as evident in Table 13. This confirms my hypothesis that approval of aid is higher when aid to corrupt countries is channeled through NGOs.

Table 13: Difference of Means Test Comparing Aid Approval Across Channels

	b	se	t
Aid Approval	-.2071262	.0959388	-2.158941
<i>N</i>	351		

My ordered logit regression results are reported in Table 14. As mentioned, the aid approval variable is ordinal and consists of four parts, with higher values corresponding to more approval of aid. Model 1 regresses aid approval on a dichotomous channel of delivery variable, which is coded as a 1 for the NGO channel. Model 2 adds a dichotomous corruption variable, coded as a 1 if the aid recipient country is corrupt. Model 3 adds several demographic variables. Model 4 adds several other factors demonstrated to influence aid preferences by Paxton and Knack (2011). Model 5 switches the political ideology variable for political party. Aid approval is in the expected direction and statistically significant at the 95% level or higher across Models 1-5, confirming my hypothesis that support for US foreign aid is higher when aid is delivered through NGOs. All other variables are in the expected directions. Although I do not include the ordered logit output for each cut of my ordinal dependent variables here, it is included for Table 14 in Appendix E.

Table 14: Ordered Logistic Regression of Aid Approval and Channel of Delivery

	(1) Aid Approval	(2) Aid Approval	(3) Aid Approval	(4) Aid Approval	(5) Aid Approval
<b>Aid Approval</b>					
NGO	0.287** (0.140)	0.290** (0.140)	0.417*** (0.144)	0.404*** (0.146)	0.418*** (0.148)
Corruption		-0.163 (0.140)	-0.0916 (0.143)	-0.104 (0.145)	-0.121 (0.147)
Female			0.237* (0.143)	0.246* (0.147)	0.197 (0.150)
White			-0.290* (0.176)	-0.284 (0.182)	-0.194 (0.186)
Age			0.000713 (0.00580)	-0.00258 (0.00625)	-0.00522 (0.00629)
Education			0.0926 (0.0584)	0.0627 (0.0606)	0.0516 (0.0610)
Income			0.00236 (0.0245)	-0.00665 (0.0250)	-0.00381 (0.0253)
Awareness of Politics				0.208*** (0.0769)	0.218*** (0.0786)
Political Knowledge				-0.0406 (0.0827)	-0.0641 (0.0834)
Political Ideology			0.370*** (0.0444)	0.336*** (0.0521)	
Party					0.209*** (0.0321)
Religious Attendance				0.126*** (0.0359)	0.115*** (0.0357)
Trust				0.533*** (0.149)	0.580*** (0.150)
Poverty Beliefs				0.600*** (0.173)	0.602*** (0.174)
<i>AIC</i>	1755.0	1755.7	1669.3	1621.5	1570.9
<i>BIC</i>	1773.2	1778.4	1719.2	1694.0	1643.0



Observations	693	693	690	687	668
Standard errors in parentheses					
* $p < 0.10$ , ** $p < 0.05$ , *** $p < 0.01$					

I also test my hypothesis using OLS regression, as reported in Table 15. The model specifications here largely mirror those in Table 14. Model 6 regresses aid approval on the dichotomous channel of delivery variable. Model 7 adds the dichotomous aid recipient corruption variable. Model 8 adds several demographic variables. Model 9 adds several other factors demonstrated to influence aid preferences by Paxton and Knack (2011). Model 10 switches the political ideology variable for political party. Model 11 introduces an interaction term between the NGO and corruption variables, so I can specifically examine levels of aid approval when aid is channeled through an NGO to a corrupt regime. As with the ordered logit regressions, aid approval across Models 6-10 is in the expected direction and statistically significant at the 95% level or higher. Although my variables of interest appear statistically insignificant in Model 11, I calculate the marginal effect of the channel of delivery on aid approval as corruption varies in Figure 6. While the marginal effect of the NGO channel on aid approval is insignificant when aid is allocated to non-corrupt countries, the marginal effect is statistically significant when aid is allocated to corrupt countries. Results across Models 6-10 again confirm my hypothesis that support for US foreign aid is higher when aid is delivered through NGOs, and the results from Model 11 confirm that support for US foreign aid to corrupt countries is higher when the aid is delivered through NGOs. Across models 6-11, all other variables are in the expected directions.

In addition to asking whether respondents approve of US foreign aid, I included additional questions to try to gauge respondent support for foreign aid in other ways. Specifically, I also asked respondents how favorably they evaluate US foreign aid using an 11-

Table 15: OLS Regression of Aid Approval and Channel of Delivery

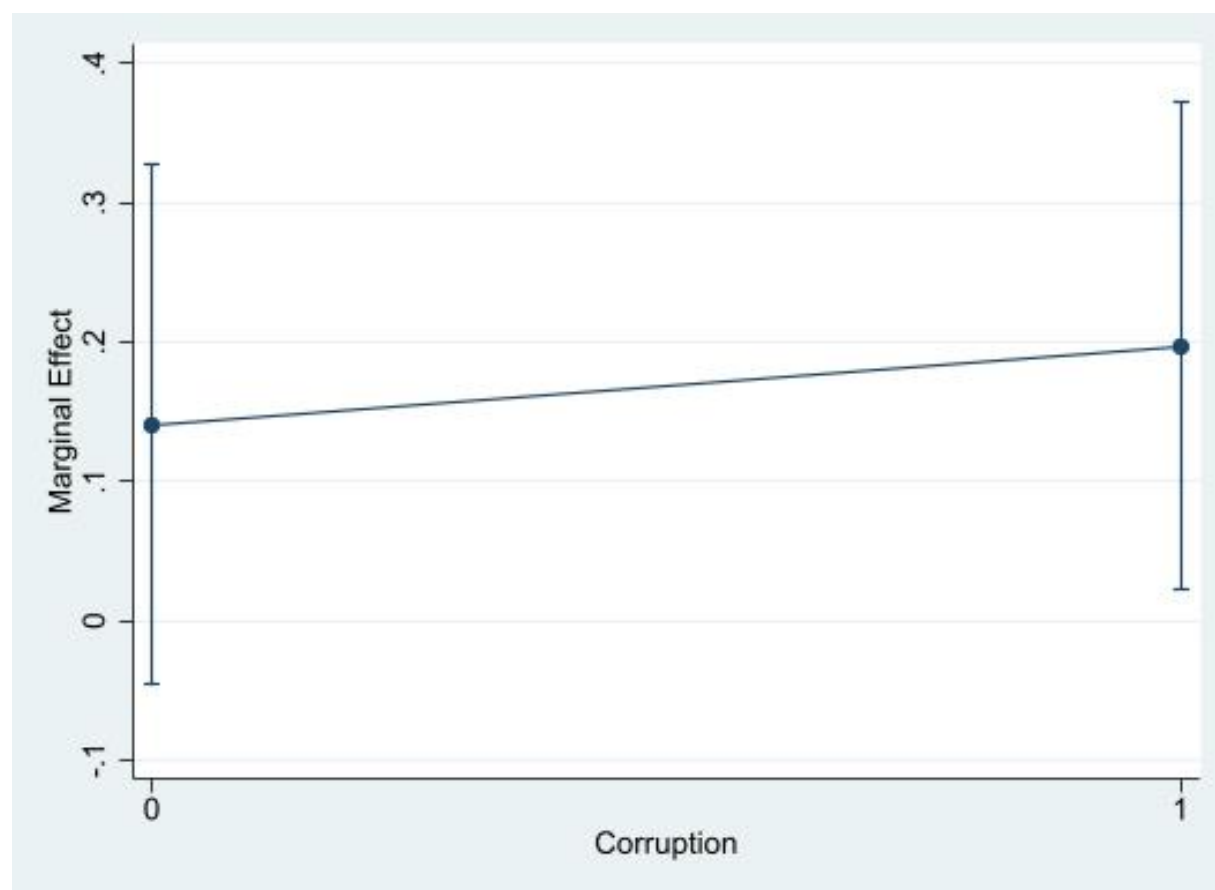
	(6) Aid Approval	(7) Aid Approval	(8) Aid Approval	(9) Aid Approval	(10) Aid Approval	(11) Aid Approval
NGO	0.156** (0.0692)	0.157** (0.0693)	0.195*** (0.0664)	0.172*** (0.0645)	0.169*** (0.0652)	
Corruption		-0.0638 (0.0692)	-0.0410 (0.0657)	-0.0522 (0.0642)	-0.0574 (0.0643)	
Female			0.123* (0.0659)	0.131** (0.0628)	0.117* (0.0635)	0.116* (0.0635)
White			-0.137* (0.0788)	-0.122 (0.0801)	-0.0875 (0.0813)	-0.0880 (0.0814)
Age			-0.0000125 (0.00259)	-0.00164 (0.00267)	-0.00242 (0.00261)	-0.00242 (0.00261)
Education			0.0440 (0.0273)	0.0283 (0.0272)	0.0236 (0.0273)	0.0238 (0.0273)
Income			0.000616 (0.0113)	-0.000272 (0.0113)	0.000347 (0.0114)	0.000375 (0.0114)
Awareness of Politics				0.0649* (0.0340)	0.0641* (0.0341)	0.0638* (0.0341)
Political Knowledge				-0.00194 (0.0386)	-0.00977 (0.0381)	-0.00942 (0.0381)
Political Ideology			0.159*** (0.0201)	0.131*** (0.0245)		
Party					0.0827*** (0.0145)	0.0824*** (0.0146)
Religious Attendance				0.0505*** (0.0158)	0.0479*** (0.0155)	0.0480*** (0.0156)
Trust				0.236*** (0.0660)	0.254*** (0.0658)	0.254*** (0.0658)
Poverty Beliefs				0.297*** (0.0806)	0.295*** (0.0791)	0.296*** (0.0794)
NGO=0						0 (.)
NGO=1						0.141 (0.0949)
Corruption=0						0 (.)

Corruption=1						-0.0860 (0.0967)
NGO=0 *						0
Corruption=0						(.)
NGO=0 *						0
Corruption=1						(.)
NGO=1 *						0
Corruption=0						(.)
NGO=1 *						0.0564
Corruption=1						(0.130)
Constant	2.761*** (0.0513)	2.793*** (0.0619)	1.780*** (0.199)	1.022*** (0.220)	1.205*** (0.218)	1.219*** (0.218)
<i>AIC</i>	1838.9	1840.0	1760.8	1717.2	1658.8	1660.6
<i>BIC</i>	1848.0	1853.6	1801.6	1780.6	1721.9	1728.2
Observations	693	693	690	687	668	668

Standard errors in parentheses

\*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

Figure 6: Average Marginal Effects of the NGO Channel on Aid Approval



point scale, with higher values corresponding to more favorable evaluations. I also included a question about aid spending, consistent with other scholars' survey measures of support for foreign aid (Gilens 2001; Hurst, Tidwell, and Hawkins 2017). This question asked whether respondents think the US government should spend more, less, or about the same on foreign aid, and I coded it so that higher values correspond to more support for aid. I also asked a follow-up question of those who answered "about the same," probing if they lean towards increasing or decreasing aid spending. This allows me to create a 4-part aid spending variable as well, with higher values similarly corresponding to more support for aid. I employ these questions as alternative dependent variables to check the robustness of the aid approval measure of support for foreign aid. These results are reported in Table 16, which employs ordered logit regression. Model 12 is the same as Model 5 in Table 14. I chose this model to compare other dependent variables to as the fit is best, as indicated by the Akaike Information Criterion (AIC). Model 13 switches the aid approval dependent variable for the aid favorability dependent variable. Model 14 instead utilizes the 3-part aid spending dependent variable, and Model 15 utilizes the 4-part aid spending dependent variable. These models similarly confirm my hypothesis that support for US foreign aid increases when aid is channeled through NGOs. Notably, the NGO variable is only significant at the 90% level in models 14 and 15. I expect this is due to respondent assumptions of foreign aid spending, as my sample greatly overestimates the size of the US foreign aid budget (the average respondent estimates over 20% of the US federal budget is spent on foreign aid). As a result, it may be that respondents think aid spending is already too high, so information about the channel of delivery does not move opinions on aid spending as much as their approval of aid or evaluations of the favorability of aid. However, the aid spending variables still demonstrate my hypothesis. The other variables included in these models are in

the expected directions, as well. Although I do not include the ordered logit output for each cut of my ordinal dependent variables here, it is included for Table 16 in Appendix E.

Table 16: Ordered Logistic Regression of Aid Support DVs and Channel of Delivery

	(12) Aid Approval	(13) Aid Favor	(14) Aid Spending (3- part)	(15) Aid Spending (4- part)
<b>Main</b>				
NGO	0.418*** (0.148)	0.319** (0.137)	0.284* (0.156)	0.280* (0.151)
Corruption	-0.121 (0.147)	0.272** (0.137)	-0.460*** (0.156)	-0.401*** (0.151)
Female	0.197 (0.150)	0.223 (0.140)	-0.191 (0.159)	-0.201 (0.153)
White	-0.194 (0.186)	0.0290 (0.172)	0.0148 (0.192)	-0.00519 (0.186)
Age	-0.00522 (0.00629)	0.00484 (0.00592)	-0.0108 (0.00682)	-0.0113* (0.00657)
Education	0.0516 (0.0610)	0.0834 (0.0563)	0.0999 (0.0638)	0.124** (0.0622)
Income	-0.00381 (0.0253)	-0.0195 (0.0239)	-0.0550** (0.0272)	-0.0523** (0.0265)
Awareness of Politics	0.218*** (0.0786)	0.178** (0.0732)	0.217** (0.0863)	0.263*** (0.0836)
Political Knowledge	-0.0641 (0.0834)	-0.00290 (0.0773)	-0.0992 (0.0891)	-0.115 (0.0865)
Party	0.209*** (0.0321)	0.192*** (0.0290)	0.177*** (0.0335)	0.193*** (0.0328)
Religious Attendance	0.115*** (0.0357)	0.0357 (0.0330)	0.0705* (0.0374)	0.0760** (0.0362)
Trust	0.580*** (0.150)	0.500*** (0.140)	0.521*** (0.158)	0.592*** (0.154)
Poverty Beliefs	0.602*** (0.174)	0.796*** (0.160)	0.468** (0.185)	0.492*** (0.182)
<i>AIC</i>	1570.9	2968.9	1233.5	1568.0
<i>BIC</i>	1643.0	3072.5	1301.0	1640.1
Observations	668	669	669	669

Standard errors in parentheses

\*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

## Discussion

In conclusion, information suggesting that aid is delivered by NGOs instead of directly to the recipient government increases support for US foreign aid. This finding is statistically significant and robust to various model and dependent variable specifications. These results suggest one mechanism of increasing public support for foreign aid may be simply informing Americans of the delivery decisions that aid officials make. As discussed, support for US foreign aid is low (Riddell 2007), and this study suggests one way that support could be increased. As the US government at least at times enacts foreign policy in response to public opinion (Foyle 2004; Heinrich, Kobayashi, and Bryant 2016; Knecht and Weatherford 2006; Milner and Tingley 2010; Milner and Tingley 2011; Milner and Tingley 2013a), increased public support for aid may also lead to increased aid budgets.

Notably, there are limitations of this research. First, as discussed, my results are not as strong when I use the aid spending dependent variables. Although still significant at the 90% level and thus broadly supportive of my hypothesis, these models fell short of the 95% significance level. This is potentially problematic, as approval of aid and/or favorable evaluations of aid mean little if support for aid spending is low. One avenue future research could explore is if the aid spending variables achieve higher significance levels if information about the true cost of aid is somehow incorporated into the treatments. Additionally, a Brookings Institution report casts doubt on the impact that information about delivery channel could have on the American public. Specifically, Schrayner (2017) identifies several factors that influence public support for foreign aid and notes that the messengers, message, leadership, and local voices and platforms matter. In terms of message, she identifies national security, jobs and the economy, and moral leadership as the most influential in swaying support for foreign aid in

the United States (Schrayner 2017). As a result, it is possible that information on delivery channel may not resonate with the public the same way that some of these other messages might. Future research should explore how much weight delivery channel has when compared to these other influential messages, as identified by Schrayner (2017), and examine how different messengers, leadership capacities, and local voices or platforms moderate the influence of information about delivery channel.

Future research could also explore how other channels of delivery influence support for foreign aid. Do Americans support foreign aid more when it is channeled through other non-state actors—for example, international organizations? How does support for foreign aid change when aid is channeled through private-public partnerships? Does public support change depending on the specific channel, for example a certain NGO, or a certain international organization, or a certain private entity cooperating with the government? Additionally, there are likely other factors that influence support for US foreign aid. What are those, and how do those factors compare to channel of delivery? Which factors would be the most efficient use of aid agency resources if USAID were to sponsor an information campaign to raise support? Lastly, what are the most effective ways of conducting such an information campaign? In short, the finding that support for US foreign aid is higher when it is channeled through NGOs may be only one of many ways in which the aid lobby may influence public opinion on aid.

## Conclusion

I have explored three research questions related to the delivery of foreign aid. Drawing on insights from principal-agent relationships, the first investigates how donor governments choose to bypass poorly governed recipients and demonstrates that donor aid agencies prefer channeling aid through donor-based NGOs. This finding is important because it refines previous research. Dietrich (2013) argues that donors choose to bypass poorly governed recipients by channeling aid through non-state actors, and I clarify that donors prefer donor-based NGOs specifically in these circumstances. This research also offers another example of how the varying preferences and incentives of different foreign aid actors influences donor aid behavior, consistent with principal-agent theory (Martens et al 2002).

My second article similarly discusses the varying preferences and incentives of different foreign aid actors and demonstrates that donor aid agencies channel some, but not all aid money directly to strategically important recipient governments. This is especially important given the securitization of aid. As discussed, much aid is linked to strategic or security concerns in some way (Alesina and Dollar 2000; Bermeo 2017; Brown and Grävingholt 2016; Couharde et al 2020; Fuchs et al 2014; Tingley 2010; Younas 2008). My research in this article suggests that aid delivery to strategically important recipient countries differs in important ways from aid to other recipients, which contributes to the securitization literature and also offers another example of how principal-agent relationships influence donor aid behavior. My first and second articles also demonstrate the importance of studying the aid delivery decision making process. As aid allocation decisions are typically made by donor government officials and aid delivery decisions are often made by aid agencies, it is crucial to understand the decision making calculi of both groups to fully understand aid. The preferences and incentives of donor officials are often



different from the preferences and incentives of aid agencies, and this results in aid giving behavior that would not otherwise be understood.

My third article examines whether aid delivery influences public opinion in the United States and finds that information suggesting that aid is channeled through NGOs increases support for aid. This is important, because support for foreign aid in the United States is so low compared to support for aid in many other donor countries (Riddell 2007; Stokes, Wike, and Poushter 2016). Additionally, I also demonstrate that support for aid to corrupt countries increases when respondents are given information suggesting that the aid is channeled through NGOs. This is significant because Americans are particularly concerned that aid is lost to corruption (Hurst, Tidwell, and Hawkins 2017). If politicians, lobbyists, concerned citizens, or even the aid bureaucracy itself are interested in securing higher, more stable aid budgets, then understanding the factors that influence public support for foreign aid is of the utmost importance.

In short, donor aid agencies make different delivery decisions under different circumstances, and information about aid delivery influences public support for U.S. foreign aid. Understanding how and why aid agencies make the delivery decisions that they do and what consequences those decisions have for support for U.S. foreign aid are crucial elements of studying foreign aid.

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### **Appendix A: Article 1 Robustness Checks**

Table 17, Table 18, Table 19, Table 20, Table 21, Table 22, and Table 23 include additional robustness checks of my findings regarding donor-based NGO delivery and recipient country governance, as discussed in Article 1. Table 17 and Table 18 both utilize Random Effects Logit models, while Table 17 employs the dependent variable capturing whether all aid for any one dyad year was channeled through donor-based NGOs and Table 18 employs the dependent variable capturing whether the majority of aid for any one dyad year was channeled through donor-based NGOs. Table 19 and Table 20 utilize Rare Events Logit (or relogit) models, while Table 19 employs the dependent variable capturing whether all aid for any one dyad year was channeled through donor-based NGOs and Table 20 employs the dependent variable capturing whether the majority of aid for any one dyad year was channeled through donor-based NGOs. Table 21 and Table 22 utilize ordinary Logit models, while Table 21 employs the dependent variable capturing whether all aid for any one dyad year was channeled through donor-based NGOs and Table 22 employs the dependent variable capturing whether the majority of aid for any one dyad year was channeled through donor-based NGOs. Table 23 employs the original dependent variable (whether any aid for any one dyad year was channeled through donor NGOs) and utilizes Heckman Probit models while varying the human rights and democracy variables. As evidenced in Table 2, these variables are collinear, and as a result, my models suffer from multicollinearity. Table 23 demonstrates that my results hold even when these variables are altered or removed.

As mentioned in the Analysis section of Article 1, statistical significance at the 90% level or higher in the expected direction is maintained across all models, excepting one Random Effects Logit model (Model 18).

Table 17: Robustness Checks of All Donor NGO Delivery and Recipient Country Governance, Random Effects Logit Models

	(17) Random Effects Logit	(18) Random Effects Logit	(19) Random Effects Logit	(20) Random Effects Logit
<b>All Donor NGO</b>				
Recipient Governance Index	-0.0691* (0.037)	-0.0331 (0.033)		-0.0560* (0.029)
Recipient Econ Governance Index			-0.133*** (0.049)	
Recipient Human Rights	-0.165** (0.079)	-0.156** (0.073)	-0.175** (0.073)	-0.159*** (0.057)
Recipient GDP Per capita	0.0000493** (0.000)	0.00000376 (0.000)	0.0000543** (0.000)	0.0000174 (0.000)
Recipient Democracy	-0.00923 (0.017)	-0.0210 (0.015)	-0.00924 (0.017)	-0.0254* (0.014)
Recipient Population	-1.95e-09** (0.000)	-2.03e-09** (0.000)	-1.83e-09* (0.000)	-2.52e-09*** (0.000)
Donor GDP Per capita	0.0000493*** (0.000)	0.0000375*** (0.000)	0.0000498*** (0.000)	0.0000452*** (0.000)
Former Colony	-0.0898 (0.174)	0.150 (0.146)	-0.109 (0.178)	0.152 (0.154)
Defense Pact	-1.811** (0.883)	-1.524* (0.802)	-1.792** (0.880)	
Any Alliance				-1.038 (0.672)
Imports + Exports	-0.000137*** (0.000)	-0.0000898** (0.000)	-0.000132*** (0.000)	
Shared PTA				0.878*** (0.122)
Duration		-0.454*** (0.042)		
Duration <sup>2</sup>		0.257*** (0.043)		
Duration <sup>3</sup>		-0.0467*** (0.010)		
Constant	-6.902*** (0.585)	-4.634*** (0.534)	-6.977*** (0.585)	-7.118*** (0.447)

/

lnsig2u	2.018*** (0.096)	1.462*** (0.105)	2.033*** (0.106)	1.956*** (0.079)
AIC	6208.3	5860.4	6205.4	9132.2
BIC	6296.5	5972.5	6293.5	9225.4

Standard errors in parentheses

\*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

Table 18: Robustness Checks of Majority Donor NGO Delivery and Recipient Country Governance, Random Effects Logit Models

	(21) Random Effects Logit	(22) Random Effects Logit	(23) Random Effects Logit	(24) Random Effects Logit
<b>Majority Donor NGO</b>				
Recipient Governance Index	-0.0746*** (0.026)	-0.0404* (0.023)		-0.0614*** (0.020)
Recipient Econ Governance Index			-0.126*** (0.034)	
Recipient Human Rights	-0.0398 (0.054)	-0.0351 (0.050)	-0.0352 (0.049)	-0.0664* (0.040)
Recipient GDP Per capita	0.0000362** (0.000)	-0.0000176 (0.000)	0.0000398** (0.000)	0.0000125 (0.000)
Recipient Democracy	0.0308*** (0.012)	0.0181* (0.010)	0.0304*** (0.012)	0.00989 (0.009)
Recipient Population	-3.52e-11 (0.000)	-1.98e-10 (0.000)	4.89e-11 (0.000)	-4.81e-10 (0.000)
Donor GDP Per capita	0.0000446*** (0.000)	0.0000325*** (0.000)	0.0000446*** (0.000)	0.0000407*** (0.000)
Former Colony	0.275** (0.123)	0.505*** (0.101)	0.262** (0.123)	0.621*** (0.111)
Defense Pact	-0.892** (0.366)	-0.451 (0.336)	-0.879** (0.367)	
Any Alliance				-0.911*** (0.296)
Imports + Exports	-0.0000512*** (0.000)	-0.0000305** (0.000)	-0.0000496*** (0.000)	
Shared PTA				0.763*** (0.088)
Duration		-0.434*** (0.026)		
Duration <sup>2</sup>		0.267*** (0.024)		
Duration <sup>3</sup>		-0.0489*** (0.005)		
Constant	-6.153*** (0.400)	-4.069*** (0.362)	-6.229*** (0.387)	-6.213*** (0.309)
/				
Insig2u	1.645*** (0.071)	1.045*** (0.077)	1.642*** (0.071)	1.630*** (0.058)
AIC	11514.3	10818.6	11508.7	16970.7
BIC	11602.5	10922.8	11596.8	17063.9

Standard errors in parentheses

\*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

Table 19: Robustness Checks of All Donor NGO Delivery and Recipient Country Governance, Rare Events Logit Models

	(25) Relogit	(26) Relogit	(27) Relogit	(28) Relogit
Recipient Governance Index	-0.0697*** (0.019)	-0.0414** (0.019)		-0.0596*** (0.014)
Recipient Econ Governance Index			-0.121*** (0.024)	
Recipient Human Rights	-0.197*** (0.043)	-0.206*** (0.044)	-0.200*** (0.038)	-0.165*** (0.034)
Recipient GDP Per capita	0.0000248* (0.000)	0.00000409 (0.000)	0.0000278** (0.000)	-0.00000541 (0.000)
Recipient Democracy	-0.0135* (0.008)	-0.0274*** (0.008)	-0.0142* (0.008)	-0.0126** (0.006)
Recipient Population	-1.41e-09 (0.000)	-1.66e-09* (0.000)	-1.24e-09 (0.000)	-3.07e-09*** (0.000)
Donor GDP Per capita	0.0000312*** (0.000)	0.0000240*** (0.000)	0.0000313*** (0.000)	0.0000343*** (0.000)
Former Colony	0.213*** (0.070)	0.315*** (0.072)	0.204*** (0.070)	0.180*** (0.056)
Defense Pact	-1.274** (0.582)	-1.135* (0.582)	-1.264** (0.585)	
Any Alliance				-1.819*** (0.565)
Imports + Exports	-0.000350 (0.000)	-0.000202 (0.000)	-0.000338 (0.000)	
Shared PTA				0.590*** (0.054)
Duration		-0.536*** (0.043)		
Duration <sup>2</sup>		0.311*** (0.046)		
Duration <sup>3</sup>		-0.0558*** (0.012)		
Constant	-3.584*** (0.284)	-2.070*** (0.291)	-3.635*** (0.261)	-4.170*** (0.218)
AIC	.	.	.	.
BIC	.	.	.	.

Standard errors in parentheses

\*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

Table 20: Robustness Checks of Majority Donor NGO Delivery and Recipient Country Governance, Rare Events Logit Models

	(29) Relogit	(30) Relogit	(31) Relogit	(32) Relogit
Recipient Governance Index	-0.0681*** (0.013)	-0.0394*** (0.013)		-0.0618*** (0.010)
Recipient Econ Governance Index			-0.104*** (0.016)	
Recipient Human Rights	-0.0798*** (0.030)	-0.0766** (0.031)	-0.0657** (0.026)	-0.0814*** (0.022)
Recipient GDP Per capita	-0.00000509 (0.000)	-0.0000231*** (0.000)	-0.00000216 (0.000)	-0.0000274*** (0.000)
Recipient Democracy	0.0228*** (0.005)	0.0120** (0.006)	0.0224*** (0.005)	0.0139*** (0.004)
Recipient Population	3.12e-11 (0.000)	-6.32e-11 (0.000)	9.45e-11 (0.000)	-1.81e-10 (0.000)
Donor GDP Per capita	0.0000276*** (0.000)	0.0000208*** (0.000)	0.0000277*** (0.000)	0.0000289*** (0.000)
Former Colony	0.362*** (0.049)	0.526*** (0.051)	0.354*** (0.049)	0.417*** (0.039)
Defense Pact	-0.700*** (0.226)	-0.554** (0.242)	-0.692*** (0.226)	
Any Alliance				-0.796*** (0.218)
Imports + Exports	-0.0000509*** (0.000)	-0.0000286** (0.000)	-0.0000486*** (0.000)	
Shared PTA				0.558*** (0.037)
Duration		-0.519*** (0.029)		
Duration <sup>2</sup>		0.330*** (0.030)		
Duration <sup>3</sup>		-0.0619*** (0.008)		
Constant	-3.509*** (0.198)	-2.108*** (0.210)	-3.631*** (0.183)	-3.739*** (0.152)
AIC	.	.	.	.
BIC	.	.	.	.

Standard errors in parentheses

\*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

Table 21: Robustness Checks of All Donor NGO Delivery and Recipient Country Governance, Logit Models

	(33) Logit	(34) Logit	(35) Logit	(36) Logit
<b>All Donor NGO</b>				
Recipient Governance Index	-0.0823*** (0.018)	-0.0415** (0.018)		-0.0596*** (0.014)
Recipient Econ Governance Index			-0.129*** (0.023)	
Recipient Human Rights	-0.225*** (0.043)	-0.206*** (0.043)	-0.208*** (0.038)	-0.164*** (0.033)
Recipient GDP Per capita	0.0000332*** (0.000)	0.00000405 (0.000)	0.0000497*** (0.000)	-0.00000555 (0.000)
Recipient Democracy	-0.0138* (0.008)	-0.0273*** (0.008)	-0.0154* (0.008)	-0.0126* (0.007)
Recipient Population	-2.79e-09*** (0.000)	-1.79e-09*** (0.000)	-2.57e-09** (0.000)	-3.16e-09*** (0.000)
Donor GDP Per capita	0.0000294*** (0.000)	0.0000240*** (0.000)	0.0000285*** (0.000)	0.0000343*** (0.000)
Former Colony	0.297*** (0.072)	0.317*** (0.072)	0.276*** (0.071)	0.180*** (0.056)
Defense Pact	-2.334** (0.966)	-1.296** (0.590)	-2.420** (1.064)	
Any Alliance				-1.983*** (0.581)
Imports + Exports	-0.000578*** (0.000)	-0.000208*** (0.000)	-0.000947*** (0.000)	
Shared PTA				0.590*** (0.055)
Duration		-0.539*** (0.037)		
Duration <sup>2</sup>		0.315*** (0.038)		
Duration <sup>3</sup>		-0.0572*** (0.009)		
Constant	-3.386*** (0.287)	-2.072*** (0.292)	-3.440*** (0.268)	-4.173*** (0.224)
AIC	7389.6	6547.8	7356.5	11378.3
BIC	7469.7	6651.9	7436.6	11463.1

Standard errors in parentheses

\*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$



Table 22: Robustness Checks of Majority Donor NGO Delivery and Recipient Country Governance, Logit Models

	(37) Logit	(38) Logit	(39) Logit	(40) Logit
<b>Majority Donor NGO</b>				
Recipient Governance Index	-0.0681*** (0.012)	-0.0394*** (0.013)		-0.0618*** (0.010)
Recipient Econ Governance Index			-0.104*** (0.016)	
Recipient Human Rights	-0.0798*** (0.029)	-0.0767** (0.030)	-0.0657*** (0.025)	-0.0814*** (0.022)
Recipient GDP Per capita	-0.00000515 (0.000)	-0.0000231*** (0.000)	-0.00000222 (0.000)	-0.0000275*** (0.000)
Recipient Democracy	0.0228*** (0.006)	0.0121** (0.006)	0.0225*** (0.006)	0.0140*** (0.005)
Recipient Population	2.54e-11 (0.000)	-6.71e-11 (0.000)	8.89e-11 (0.000)	-1.88e-10 (0.000)
Donor GDP Per capita	0.0000276*** (0.000)	0.0000208*** (0.000)	0.0000277*** (0.000)	0.0000289*** (0.000)
Former Colony	0.363*** (0.049)	0.527*** (0.051)	0.354*** (0.049)	0.417*** (0.039)
Defense Pact	-0.722*** (0.234)	-0.573** (0.242)	-0.713*** (0.234)	
Any Alliance				-0.818*** (0.220)
Imports + Exports	-0.0000522*** (0.000)	-0.0000299*** (0.000)	-0.0000500*** (0.000)	
Shared PTA				0.558*** (0.038)
Duration		-0.520*** (0.022)		
Duration <sup>2</sup>		0.331*** (0.021)		
Duration <sup>3</sup>		-0.0623*** (0.005)		
Constant	-3.510*** (0.197)	-2.108*** (0.208)	-3.633*** (0.184)	-3.741*** (0.156)
AIC	13662.9	11927.3	13647.5	20963.3
BIC	13735.0	12023.4	13719.6	21039.6

Standard errors in parentheses

\*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

Table 23: Multicollinearity Robustness Checks of Donor NGO Delivery and Recipient Country Governance, Heckman Probit Models

	(41) Heckman Probit	(42) Heckman Probit	(43) Heckman Probit	(44) Heckman Probit
<b>Donor NGO</b>				
Recipient Governance Index	-0.0280*** (0.005)	-0.0265*** (0.005)	-0.0310*** (0.004)	-0.0270*** (0.005)
Recipient Human Rights	0.0160 (0.012)	-0.0294*** (0.011)		0.0138 (0.013)
Recipient GDP per Capita	-0.0000176*** (0.000)	-0.0000220*** (0.000)	-0.0000211*** (0.000)	-0.0000211*** (0.000)
Recipient Democracy			0.0171*** (0.002)	0.0183*** (0.002)
Recipient Democracy (Dichotomous)	0.130*** (0.025)			
Recipient Autocracy (Dichotomous)	-0.261*** (0.038)			
Recipient Population	1.06e-10* (0.000)	3.76e-11 (0.000)	4.65e-11 (0.000)	4.25e-11 (0.000)
Donor GDP per Capita	0.0000170*** (0.000)	0.0000162*** (0.000)	0.0000170*** (0.000)	0.0000172*** (0.000)
Former Colony	0.223*** (0.048)	0.220*** (0.047)	0.240*** (0.046)	0.248*** (0.047)
Defense Pact	0.104 (0.066)	0.120* (0.067)	0.0993 (0.067)	0.105 (0.067)
Imports + Exports	0.00000142** (0.000)	0.00000108* (0.000)	0.00000142** (0.000)	0.00000142** (0.000)
Constant	-2.061*** (0.148)	-1.596*** (0.134)	-1.963*** (0.109)	-2.069*** (0.145)
<b>Select</b>				
Recipient Governance Index	0.000235 (0.004)	0.0136*** (0.004)	0.0135*** (0.004)	0.0135*** (0.004)
Recipient Human Rights	0.0369*** (0.008)	0.0454*** (0.009)	0.0450*** (0.009)	0.0452*** (0.009)
Recipient GDP per Capita	-0.0000567*** (0.000)	-0.0000529*** (0.000)	-0.0000528*** (0.000)	-0.0000528*** (0.000)
Recipient Democracy		0.00981*** (0.002)	0.00981*** (0.002)	0.00983*** (0.002)
Recipient Democracy (Dichotomous)	0.154*** (0.017)			

Recipient Autocracy (Dichotomous)	0.0412* (0.024)			
Recipient Population	7.23e-11 (0.000)	1.06e-10** (0.000)	1.06e-10** (0.000)	1.06e-10** (0.000)
Donor GDP per Capita	0.0000256*** (0.000)	0.0000269*** (0.000)	0.0000269*** (0.000)	0.0000269*** (0.000)
Former Colony	0.883*** (0.016)	0.918*** (0.017)	0.919*** (0.017)	0.919*** (0.017)
Defense Pact	0.269*** (0.048)	0.261*** (0.050)	0.262*** (0.050)	0.262*** (0.050)
Imports + Exports	0.0000234*** (0.000)	0.0000218*** (0.000)	0.0000218*** (0.000)	0.0000218*** (0.000)
Constant	-1.215*** (0.054)	-1.241*** (0.062)	-1.239*** (0.061)	-1.241*** (0.061)
/				
athrho	0.0992 (0.112)	0.0117 (0.099)	0.105 (0.106)	0.126 (0.111)
AIC	64527.2	59892.0	59834.0	59834.8
BIC	64708.8	60046.3	59988.4	59997.8

Standard errors in parentheses

\*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

### **Appendix B: Article 2 Robustness Checks**

Table 24, Table 25, Table 26, Table 27, Table 28, Table 29, and Table 30 include additional robustness checks of my findings regarding direct recipient government delivery and recipient country strategic importance, as discussed in Article 2. Table 24 and Table 25 both utilize Random Effects Logit models, while Table 24 employs the dependent variable capturing whether all aid for any one dyad year was channeled directly to recipient governments and Table 25 employs the dependent variable capturing whether the majority of aid for any one dyad year was channeled directly to recipient governments. Table 26 and Table 27 utilize Rare Events Logit (or relogit) models, while Table 26 employs the dependent variable capturing whether all aid for any one dyad year was channeled directly to recipient governments and Table 27 employs the dependent variable capturing whether the majority of aid for any one dyad year was channeled directly to recipient governments. Table 28 and Table 29 utilize ordinary Logit models, while Table 28 employs the dependent variable capturing whether all aid for any one dyad year was channeled directly to recipient governments and Table 29 employs the dependent variable capturing whether the majority of aid for any one dyad year was channeled directly to recipient governments. Table 30 employs the original dependent variable (whether any aid for any one dyad year was channeled directly to recipient governments) and utilizes Heckman Probit models while varying the recipient governance, human rights, and democracy variables. As evidenced in Table 8, these variables are collinear, and as a result, my models suffer from multicollinearity. Table 30 demonstrates that my results hold even when these variables are altered or removed.

As mentioned in the Analysis section of Article 2, statistical significance at the 95% level or higher in the expected direction is maintained across all but five of these models (Models 18, 19, 27, 34, and 35).

Table 24: Robustness Checks of All Recipient Government Delivery and Recipient Country Strategic Importance, Random Effects Logit Models

	(17) Random Effects Logit	(18) Random Effects Logit	(19) Random Effects Logit	(20) Random Effects Logit
<b>All Recipient Govt</b>				
Cumulative Aid	-0.00313** (0.001)	-0.000802 (0.001)		-0.00115** (0.001)
Average Aid			-0.00886 (0.013)	
Recipient Governance Index	0.0640 (0.106)	0.123 (0.086)	0.0678 (0.106)	
Recipient Econ Governance Index				0.105 (0.086)
Recipient Human Rights	0.233 (0.236)	0.306 (0.200)	0.226 (0.236)	0.0821 (0.121)
Recipient GDP per Capita	-0.000101 (0.000)	-0.000135* (0.000)	-0.0000627 (0.000)	-0.000128** (0.000)
Recipient Democracy	0.118** (0.053)	0.102** (0.043)	0.117** (0.053)	0.0471 (0.030)
Recipient Population	-4.31e-09 (0.000)	-4.75e-09 (0.000)	-4.53e-09 (0.000)	-4.64e-10 (0.000)
Donor GDP per Capita	0.00000822 (0.000)	0.0000199** (0.000)	0.00000577 (0.000)	-0.0000249*** (0.000)
Former Colony	-3.917*** (0.857)	-2.668*** (0.539)	-4.237*** (0.710)	-3.649*** (0.597)
Defense Pact	-0.0456 (1.142)	0.403 (1.084)	-0.266 (1.121)	
Any Alliance				-0.452 (0.632)
Imports + Exports	-0.000368 (0.000)	-0.000219 (0.000)	-0.000583 (0.000)	
Shared PTA				-0.911*** (0.299)
Duration		-0.194 (0.156)		
Duration <sup>2</sup>		-0.163 (0.189)		
Duration <sup>3</sup>		0.0457		

		(0.042)		
Constant	-10.74*** (1.769)	-8.197*** (1.631)	-11.13*** (1.753)	-7.533*** (0.963)
/				
lnsig2u	2.677*** (0.195)	1.723*** (0.294)	2.740*** (0.146)	2.656*** (0.117)
aic	886.0	830.3	896.4	2211.3
bic	982.1	950.4	992.5	2313.0

Standard errors in parentheses

\*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

Table 25: Robustness Checks of Majority Recipient Government Delivery and Recipient Country Strategic Importance, Random Effects Logit Models

	(21) Random Effects Logit	(22) Random Effects Logit	(23) Random Effects Logit	(24) Random Effects Logit
<b>Majority Recipient Govt</b>				
Cumulative Aid	-0.00147*** (0.000)	-0.00194*** (0.000)		-0.000806*** (0.000)
Average Aid			-0.0514*** (0.005)	
Recipient Governance Index	-0.0784*** (0.025)	-0.0847*** (0.026)	-0.0818*** (0.025)	
Recipient Econ Governance Index				-0.110*** (0.026)
Recipient Human Rights	-0.0428 (0.053)	-0.0511 (0.054)	-0.0438 (0.053)	-0.0624* (0.036)
Recipient GDP per Capita	0.00000471 (0.000)	-0.00000130 (0.000)	0.00000765 (0.000)	0.00000152 (0.000)
Recipient Democracy	0.0310*** (0.011)	0.0285** (0.012)	0.0307*** (0.011)	0.00695 (0.009)
Recipient Population	1.99e-10 (0.000)	1.03e-10 (0.000)	1.19e-10 (0.000)	3.65e-11 (0.000)
Donor GDP per Capita	0.0000414*** (0.000)	0.0000396*** (0.000)	0.0000412*** (0.000)	0.0000393*** (0.000)
Former Colony	0.472*** (0.118)	0.310** (0.125)	0.408*** (0.118)	0.739*** (0.107)
Defense Pact	-0.556 (0.372)	-0.708* (0.379)	-0.557 (0.376)	
Any Alliance				-0.743** (0.300)
Imports + Exports	-0.0000133 (0.000)	-0.0000163 (0.000)	-0.0000136 (0.000)	
Shared PTA				0.752*** (0.085)
Duration		-0.0000271 (0.026)		
Duration <sup>2</sup>		0.0509*** (0.018)		

Duration <sup>3</sup>		-0.0120*** (0.004)		
Constant	-5.502*** (0.391)	-5.711*** (0.406)	-5.449*** (0.392)	-5.890*** (0.298)
/				
lnsig2u	1.484*** (0.074)	1.587*** (0.076)	1.492*** (0.074)	1.487*** (0.060)
aic	11293.7	11226.5	11303.1	16767.5
bic	11389.8	11346.6	11399.2	16860.7

Standard errors in parentheses

\*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$



Table 26: Robustness Checks of All Recipient Government Delivery and Recipient Country Strategic Importance, Rare Events Logit Models

	(25) Relogit	(26) Relogit	(27) Relogit	(28) Relogit
Cumulative Aid	-0.00206*** (0.000)	-0.000463** (0.000)		-0.000716*** (0.000)
Average Aid			-0.00302 (0.004)	
Recipient Governance Index	0.0671 (0.059)	0.105* (0.060)	0.0707 (0.059)	
Recipient Econ Governance Index				0.0833** (0.041)
Recipient Human Rights	0.0392 (0.153)	0.134 (0.145)	0.0498 (0.153)	0.0956 (0.074)
Recipient GDP per Capita	-0.000143 (0.000)	-0.000168** (0.000)	-0.0000988 (0.000)	-0.000109*** (0.000)
Recipient Democracy	0.0453* (0.024)	0.0604** (0.025)	0.0459** (0.023)	0.0243* (0.014)
Recipient Population	1.44e-09 (0.000)	-1.95e-09 (0.000)	1.59e-09 (0.000)	-6.33e-10 (0.000)
Donor GDP per Capita	0.00000219 (0.000)	0.0000160*** (0.000)	0.000000496 (0.000)	-0.0000158*** (0.000)
Former Colony	-2.646*** (0.414)	-2.279*** (0.430)	-2.764*** (0.412)	-2.544*** (0.290)
Defense Pact	1.063 (0.757)	1.231 (0.790)	0.845 (0.760)	
Any Alliance				1.121** (0.439)
Imports + Exports	-0.000507 (0.000)	-0.000195 (0.000)	-0.000852 (0.001)	
Shared PTA				-0.642*** (0.140)
Duration		-0.397*** (0.116)		
Duration <sup>2</sup>		-0.0947 (0.179)		
Duration <sup>3</sup>		0.0948** (0.046)		

Constant	-4.113*** (1.212)	-4.106*** (1.129)	-4.405*** (1.206)	-3.507*** (0.562)
aic	.	.	.	.
bic	.	.	.	.

Standard errors in parentheses

\*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

Table 27: Robustness Checks of Majority Recipient Government Delivery and Recipient Country Strategic Importance, Rare Events Logit Models

	(29) Relogit	(30) Relogit	(31) Relogit	(32) Relogit
Cumulative Aid	-0.00161*** (0.000)	-0.00166*** (0.000)		-0.00119*** (0.000)
Average Aid			-0.0561*** (0.005)	
Recipient Governance Index	-0.0635*** (0.013)	-0.0662*** (0.013)	-0.0671*** (0.013)	
Recipient Econ Governance Index				-0.0968*** (0.013)
Recipient Human Rights	-0.0682** (0.030)	-0.0730** (0.030)	-0.0731** (0.030)	-0.0724*** (0.020)
Recipient GDP per Capita	-0.0000415*** (0.000)	-0.0000409*** (0.000)	-0.0000398*** (0.000)	-0.0000458*** (0.000)
Recipient Democracy	0.0254*** (0.005)	0.0257*** (0.005)	0.0250*** (0.005)	0.0132*** (0.005)
Recipient Population	1.00e-10 (0.000)	9.65e-11 (0.000)	5.38e-11 (0.000)	2.55e-10** (0.000)
Donor GDP per Capita	0.0000252*** (0.000)	0.0000250*** (0.000)	0.0000252*** (0.000)	0.0000269*** (0.000)
Former Colony	0.529*** (0.050)	0.492*** (0.050)	0.476*** (0.050)	0.562*** (0.042)
Defense Pact	-0.384* (0.233)	-0.467* (0.240)	-0.414* (0.234)	
Any Alliance				-0.277 (0.223)
Imports + Exports	0.000000443 (0.000)	0.000000150 (0.000)	0.000000822 (0.000)	
Shared PTA				0.557*** (0.038)
Duration		0.0297* (0.017)		
Duration <sup>2</sup>		0.00260 (0.013)		
Duration <sup>3</sup>		-0.00316 (0.002)		

Constant	-3.111*** (0.204)	-3.282*** (0.210)	-3.035*** (0.203)	-3.459*** (0.147)
aic	.	.	.	.
bic	.	.	.	.

Standard errors in parentheses

\*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

Table 28: Robustness Checks of All Recipient Government Delivery and Recipient Country Strategic Importance, Logit Models

	(33) Logit	(34) Logit	(35) Logit	(36) Logit
<b>All Recipient Govt</b>				
Cumulative Aid	-0.00220*** (0.001)	-0.000622 (0.000)		-0.000756*** (0.000)
Average Aid			-0.00467 (0.006)	
Recipient Governance Index	0.0633 (0.055)	0.102* (0.056)	0.0667 (0.055)	
Recipient Econ Governance Index				0.0838** (0.040)
Recipient Human Rights	0.0478 (0.134)	0.130 (0.134)	0.0598 (0.134)	0.0960 (0.067)
Recipient GDP per Capita	-0.000144** (0.000)	-0.000173*** (0.000)	-0.000102* (0.000)	-0.000111*** (0.000)
Recipient Democracy	0.0466* (0.027)	0.0613** (0.028)	0.0469* (0.027)	0.0245* (0.015)
Recipient Population	-1.83e-09 (0.000)	-3.86e-09 (0.000)	-1.94e-09 (0.000)	-7.60e-10 (0.000)
Donor GDP per Capita	0.00000182 (0.000)	0.0000157*** (0.000)	0.000000113 (0.000)	-0.0000159*** (0.000)
Former Colony	-2.698*** (0.397)	-2.349*** (0.403)	-2.815*** (0.397)	-2.578*** (0.290)
Defense Pact	0.867 (0.741)	1.128 (0.768)	0.623 (0.734)	
Any Alliance				1.052** (0.428)
Imports + Exports	-0.000580 (0.000)	-0.000317 (0.000)	-0.000912** (0.000)	
Shared PTA				-0.645*** (0.144)
Duration		-0.495*** (0.122)		
Duration <sup>2</sup>		0.132 (0.166)		
Duration <sup>3</sup>		-0.0129 (0.048)		

Constant	-4.150*** (0.983)	-4.028*** (0.973)	-4.439*** (0.981)	-3.509*** (0.513)
aic	1040.0	905.2	1059.5	2726.4
bic	1128.1	1017.4	1147.6	2819.6

Standard errors in parentheses

\*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

Table 29: Robustness Checks of Majority Recipient Government Delivery and Recipient Country Strategic Importance, Logit Models

	(37) Logit	(38) Logit	(39) Logit	(40) Logit
<b>Majority Recipient Govt</b>				
Cumulative Aid	-0.00161*** (0.000)	-0.00166*** (0.000)		-0.00119*** (0.000)
Average Aid			-0.0561*** (0.003)	
Recipient Governance Index	-0.0634*** (0.013)	-0.0662*** (0.013)	-0.0670*** (0.013)	
Recipient Econ Governance Index				-0.0968*** (0.012)
Recipient Human Rights	-0.0678** (0.029)	-0.0726** (0.030)	-0.0728** (0.029)	-0.0724*** (0.020)
Recipient GDP per Capita	-0.0000412*** (0.000)	-0.0000405*** (0.000)	-0.0000395*** (0.000)	-0.0000460*** (0.000)
Recipient Democracy	0.0254*** (0.006)	0.0257*** (0.006)	0.0251*** (0.006)	0.0132*** (0.005)
Recipient Population	1.13e-10 (0.000)	1.10e-10 (0.000)	6.45e-11 (0.000)	2.50e-10** (0.000)
Donor GDP per Capita	0.0000252*** (0.000)	0.0000250*** (0.000)	0.0000252*** (0.000)	0.0000269*** (0.000)
Former Colony	0.529*** (0.050)	0.492*** (0.050)	0.476*** (0.049)	0.563*** (0.040)
Defense Pact	-0.395* (0.236)	-0.478** (0.238)	-0.426* (0.237)	
Any Alliance				-0.298 (0.223)
Imports + Exports	-0.00000318 (0.000)	-0.00000363 (0.000)	-0.00000251 (0.000)	
Shared PTA				0.557*** (0.039)
Duration		0.0296* (0.017)		
Duration <sup>2</sup>		0.00285 (0.012)		
Duration <sup>3</sup>		-0.00323		

		(0.002)		
Constant	-3.115***	-3.286***	-3.038***	-3.460***
	(0.202)	(0.207)	(0.202)	(0.150)
aic	13007.4	12961.7	13033.8	20022.8
bic	13087.5	13065.8	13113.9	20107.5

Standard errors in parentheses

\*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$



Table 30: Multicollinearity Robustness Checks of Recipient Government Delivery and Recipient Country Strategic Importance, Heckman Probit Models

	(41) Heckman Probit	(42) Heckman Probit	(43) Heckman Probit	(44) Heckman Probit
<b>Recipient Govt</b>				
Cumulative Aid	0.0000221*** (0.000)	0.0000313*** (0.000)	0.0000313*** (0.000)	0.0000262*** (0.000)
Recipient Governance Index	0.00279 (0.004)	-0.00117 (0.006)	0.00824* (0.005)	
Recipient Human Rights	-0.0369*** (0.008)	-0.0193 (0.012)		-0.0258*** (0.007)
Recipient GDP per Capita	0.0000517*** (0.000)	0.0000323*** (0.000)	0.0000319*** (0.000)	0.0000455*** (0.000)
Recipient Democracy			-0.00254 (0.002)	-0.00846*** (0.002)
Recipient Democracy (Dichotomous)	-0.167*** (0.017)			
Recipient Autocracy (Dichotomous)	-0.0775*** (0.024)			
Recipient Population	-2.12e-10*** (0.000)	-4.43e-10*** (0.000)	-4.56e-10*** (0.000)	-2.71e-10*** (0.000)
Donor GDP per Capita	-0.0000224*** (0.000)	-0.0000160*** (0.000)	-0.0000159*** (0.000)	-0.0000233*** (0.000)
Former Colony	-0.810*** (0.016)	-0.626*** (0.076)	-0.616*** (0.082)	-0.834*** (0.017)
Defense Pact	-0.329*** (0.047)	-0.404*** (0.080)	-0.394*** (0.081)	-0.325*** (0.050)
Imports + Exports	-0.0000124*** (0.000)	-0.00000515*** (0.000)	-0.00000532*** (0.000)	-0.0000119*** (0.000)
Constant	1.149*** (0.056)	0.271 (0.257)	0.163 (0.268)	1.048*** (0.058)
<b>Select</b>				
Recipient Governance Index	-0.000469 (0.004)	0.0133*** (0.004)	0.0102*** (0.004)	0.00394** (0.002)
Recipient Human Rights	0.0396*** (0.008)	0.0418*** (0.009)	0.0357*** (0.010)	0.0322*** (0.007)
Recipient GDP per Capita	-0.0000540*** (0.000)	-0.0000526*** (0.000)	-0.0000524*** (0.000)	-0.0000492*** (0.000)

Recipient Democracy		0.00828*** (0.002)	0.00901*** (0.002)	0.00984*** (0.002)
Recipient Democracy (Dichotomous)	0.155*** (0.017)			
Recipient Autocracy (Dichotomous)	0.0386* (0.023)			
Recipient Population	1.28e-10*** (0.000)	1.21e-10** (0.000)	1.25e-10*** (0.000)	1.71e-10*** (0.000)
Donor GDP per Capita	0.0000258*** (0.000)	0.0000271*** (0.000)	0.0000271*** (0.000)	0.0000271*** (0.000)
Former Colony	0.864*** (0.016)	0.914*** (0.017)	0.913*** (0.017)	0.899*** (0.017)
Defense Pact	0.313*** (0.047)	0.278*** (0.050)	0.276*** (0.050)	0.309*** (0.050)
Imports + Exports	0.0000175*** (0.000)	0.0000206*** (0.000)	0.0000207*** (0.000)	0.0000167*** (0.000)
Constant	-1.245*** (0.054)	-1.220*** (0.061)	-1.192*** (0.063)	-1.196*** (0.055)
/				
athrho	-3.851*** (0.238)	-1.497*** (0.288)	-1.482*** (0.311)	-3.697*** (0.261)
AIC	49835.7	45534.5	45535.8	45516.0
BIC	50025.9	45697.4	45698.8	45678.9

Standard errors in parentheses

\*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

### Appendix C: Article 3 Experimental Conditions

#### Treatment 1 (corrupt country, recipient government channel)

### **President of US Foreign Aid Recipient, Comoros, Arrested on Charges of Corruption**

President Azali Assoumani of Comoros was arrested earlier this morning on charges of corruption. The police investigator in charge commented that they have discovered new evidence suggesting that Assoumani stole over \$5 million from the Comoran treasury to purchase several luxury sports cars and an oceanfront home for personal use.

The United States gives substantial foreign aid to Comoros and delivers most of this aid money directly to the Comoran government itself.

These allegations of corruption are just the latest of many accusations. Other government officials have also suggested that Assoumani accepted bribes in exchange for awarding contracts for the country's highway improvement program last year.

#### Treatment 2 (corrupt country, non-state channel)

### **President of US Foreign Aid Recipient, Comoros, Arrested on Charges of Corruption**

President Azali Assoumani of Comoros was arrested earlier this morning on charges of corruption. The police investigator in charge commented that they have discovered new evidence suggesting that Assoumani stole over \$5 million from the Comoran treasury to purchase several luxury sports cars and an oceanfront home for personal use.

The United States gives substantial foreign aid to Comoros and delivers most of this aid money through Initiative Development, a non-governmental organization that operates in the country.

These allegations of corruption are just the latest of many accusations. Other government officials have also suggested that Assoumani accepted bribes in exchange for awarding contracts for the country's highway improvement program last year.

#### Treatment 3 (not corrupt country, recipient government channel)

### **President of US Foreign Aid Recipient, Comoros, Cleared of All Corruption Charges**

President Azali Assoumani of Comoros was cleared on all charges of corruption earlier this morning. The police investigator in charge commented that evidence suggesting that Assoumani

had stolen over \$5 million from the Comoran treasury to purchase several luxury sports cars and an oceanfront home for personal use had been fabricated by his political opponents.

The United States gives substantial foreign aid to Comoros and delivers most of this aid money directly to the Comoran government itself.

Other accusations that Assoumani accepted bribes in exchange for awarding contracts for the country's highway improvement program last year have also been discredited.

Treatment 4 (not corrupt country, non-state channel)

### **President of US Foreign Aid Recipient, Comoros, Cleared of All Corruption Charges**

President Azali Assoumani of Comoros was cleared on all charges of corruption earlier this morning. The police investigator in charge commented that evidence suggesting that Assoumani had stolen over \$5 million from the Comoran treasury to purchase several luxury sports cars and an oceanfront home for personal use had been fabricated by his political opponents.

The United States gives substantial foreign aid to Comoros and delivers most of this aid money through Initiative Development, a non-governmental organization that operates in the country.

Other accusations that Assoumani accepted bribes in exchange for awarding contracts for the country's highway improvement program last year have also been discredited.

Control (no information provided; survey advances straight to DV)

### Appendix D: Article 3 Survey Questions

#### *Aid Approval*

**(Part A):** Do you approve or disapprove of the US giving aid to other countries?

- (A) Approve
- (B) Disapprove

**If Part A is (A):** Do you approve strongly?

- (A) Approve strongly
- (B) Approve, but not strongly

**If Part A is (B):** Do you disapprove strongly?

- (A) Disapprove strongly
- (B) Disapprove, but not strongly

#### *Aid Favor*

How favorably would you rate the fact that the US gives foreign aid to other countries?

(Not at all favorable) 0 1 2 3 4 5 6 7 8 9 10 (Very favorable)

#### *Aid Spending*

Do you think the US government should spend more on foreign aid, less, or about the same as it does now?

- (A) more
- (B) less
- (C) about the same

**If (C):** Do you lean towards increasing or decreasing US spending on foreign aid?

- (A) increasing
- (B) decreasing

#### *Sex*

What is your sex?

- (A) male
- (B) female

#### *Race*

How would you describe your race?

- (A) Hispanic or Latino
- (B) Black or African American
- (C) White
- (D) Asian
- (E) Native Hawaiian or Pacific Islander
- (F) American Indian or Alaska Native

*Age*

What is your age?

[a pull-down menu with ages ranging from 18 to 99]

*Education*

What is the highest level of education that you have completed?

- (A) Less than high school degree
- (B) High school/GED
- (C) Some college
- (D) 2-year college degree (Associate's)
- (E) 4-year college degree (BA, BS)
- (F) Master's degree
- (G) Doctoral degree
- (H) Professional degree (JD, MD)

*Income*

What is your income?

- (A) \$14,999 or less
- (B) \$15,000 - \$24,999
- (C) \$25,000 - \$34,999
- (D) \$35,000 - \$44,999
- (E) \$45,000 - \$54,999
- (F) \$55,000 - \$64,999
- (G) \$65,000 - \$74,999
- (H) \$75,000 - \$84,999
- (I) \$85,000 - \$94,999
- (J) \$95,000 - \$104,999
- (K) \$105,000 - \$114,999
- (L) \$115,000 or more

*Political Ideology*

How would you place yourself on this scale?

- (A) Extremely liberal
- (B) Liberal
- (C) Slightly liberal
- (D) Moderate; middle of the road
- (E) Slightly conservative
- (F) Conservative
- (G) Extremely conservative

*Political Party*

Generally speaking, do you usually think of yourself as a Republican, a Democrat, an Independent, or something else?

- (A) Republican
- (B) Democrat
- (C) Independent

(D) Other

**If Part A is (A):** Would you call yourself a strong Republican or a weak Republican?

- (A) A strong Republican
- (B) A weak Republican
- (C) Somewhere between a strong and weak Republican.

**If Part A is (B):** Would you call yourself a strong Democrat or a weak Democrat?

- (A) A strong Democrat
- (B) A weak Democrat
- (C) Somewhere between a strong and weak Democrat.

**If Part A is (C):** Do you think of yourself as closer to the Democratic party or the Republican party?

- (A) Closer to the Republican Party
- (B) Closer to the Democratic Party
- (C) I don't feel closer to either the Republican or Democratic parties.

#### *Awareness of Politics*

How often do you pay attention to what's going on in government and politics?

- (A) Always
- (B) Most of the time
- (C) About half the time
- (D) Some of the time
- (E) Never

#### *Religious Attendance*

Apart from weddings and funerals, about how often do you attend religious services these days?

- (A) More than once a week
- (B) Once a week
- (C) Once a month
- (D) Only on special holy days
- (E) Once a year
- (F) Less often
- (G) Never, practically never

#### *Trust*

Generally speaking, would you say that most people can be trusted or that you can't be too careful in dealing with people?

- (A) most people can be trusted
- (B) you can't be too careful in dealing with people

#### *Poverty Beliefs*

Why, in your opinion, are there people in this country who live in need? Here are two opinions:

- (A) They are poor because of laziness and lack of will power
- (B) They are poor because society treats them unfairly

*Political Knowledge*

What job or political office does Mitch McConnell now hold?

- (A) Senate Majority Leader
- (B) House Minority Leader
- (C) Secretary of the Treasury
- (D) Chairman of the Federal Reserve
- (E) Don't Know / Unsure

Which political party controls the US House of Representatives?

- (A) Republican Party
- (B) Democratic Party
- (C) Don't Know / Unsure

What is NATO?

- (A) North African Trade Organization
- (B) North Asian Trade Organization
- (C) North Atlantic Treaty Organization
- (D) North American Treaty Organization

Where is the United Nations located?

- (A) Moscow, Russia
- (B) Berlin, Germany
- (C) New York City, New York, USA
- (D) London, England



### Appendix E: Full Ordered Logit Regression Output from Article 3

Table 31: Full Table 14 Ordered Logistic Regression of Aid Approval and Channel of Delivery

	(1) Aid Approval	(2) Aid Approval	(3) Aid Approval	(4) Aid Approval	(5) Aid Approval
<b>Aid Approval</b>					
NGO	0.287** (0.140)	0.290** (0.140)	0.417*** (0.144)	0.404*** (0.146)	0.418*** (0.148)
Corruption		-0.163 (0.140)	-0.0916 (0.143)	-0.104 (0.145)	-0.121 (0.147)
Female			0.237* (0.143)	0.246* (0.147)	0.197 (0.150)
White			-0.290* (0.176)	-0.284 (0.182)	-0.194 (0.186)
Age			0.000713 (0.00580)	-0.00258 (0.00625)	-0.00522 (0.00629)
Education			0.0926 (0.0584)	0.0627 (0.0606)	0.0516 (0.0610)
Income			0.00236 (0.0245)	-0.00665 (0.0250)	-0.00381 (0.0253)
Awareness of Politics				0.208*** (0.0769)	0.218*** (0.0786)
Political Knowledge				-0.0406 (0.0827)	-0.0641 (0.0834)
Political Ideology			0.370*** (0.0444)	0.336*** (0.0521)	
Party					0.209*** (0.0321)
Religious Attendance				0.126*** (0.0359)	0.115*** (0.0357)
Trust				0.533*** (0.149)	0.580*** (0.150)
Poverty Beliefs				0.600*** (0.173)	0.602*** (0.174)
/					
cut1	-2.047*** (0.142)	-2.132*** (0.161)	-0.0143 (0.436)	1.733*** (0.536)	1.233** (0.531)
cut2	-0.668***	-0.752***	1.454***	3.266***	2.810***

	(0.108)	(0.130)	(0.434)	(0.539)	(0.533)
cut3	1.260*** (0.116)	1.181*** (0.134)	3.594*** (0.454)	5.530*** (0.569)	5.084*** (0.561)
<i>AIC</i>	1755.0	1755.7	1669.3	1621.5	1570.9
<i>BIC</i>	1773.2	1778.4	1719.2	1694.0	1643.0
Observations	693	693	690	687	668

Standard errors in parentheses

\*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

Table 32: Full Table 16 Ordered Logistic Regression of Aid Support DVs and Channel of Delivery

	(12) Aid Approval	(13) Aid Favor	(14) Aid Spending (3- part)	(15) Aid Spending (4- part)
<b>Main</b>				
NGO	0.418*** (0.148)	0.319** (0.137)	0.284* (0.156)	0.280* (0.151)
Corruption	-0.121 (0.147)	0.272** (0.137)	-0.460*** (0.156)	-0.401*** (0.151)
Female	0.197 (0.150)	0.223 (0.140)	-0.191 (0.159)	-0.201 (0.153)
White	-0.194 (0.186)	0.0290 (0.172)	0.0148 (0.192)	-0.00519 (0.186)
Age	-0.00522 (0.00629)	0.00484 (0.00592)	-0.0108 (0.00682)	-0.0113* (0.00657)
Education	0.0516 (0.0610)	0.0834 (0.0563)	0.0999 (0.0638)	0.124** (0.0622)
Income	-0.00381 (0.0253)	-0.0195 (0.0239)	-0.0550** (0.0272)	-0.0523** (0.0265)
Awareness of Politics	0.218*** (0.0786)	0.178** (0.0732)	0.217** (0.0863)	0.263*** (0.0836)
Political Knowledge	-0.0641 (0.0834)	-0.00290 (0.0773)	-0.0992 (0.0891)	-0.115 (0.0865)
Party	0.209*** (0.0321)	0.192*** (0.0290)	0.177*** (0.0335)	0.193*** (0.0328)
Religious Attendance	0.115*** (0.0357)	0.0357 (0.0330)	0.0705* (0.0374)	0.0760** (0.0362)
Trust	0.580*** (0.150)	0.500*** (0.140)	0.521*** (0.158)	0.592*** (0.154)
Poverty Beliefs	0.602*** (0.174)	0.796*** (0.160)	0.468** (0.185)	0.492*** (0.182)
/				
cut1	1.233** (0.531)	1.195** (0.515)	2.255*** (0.575)	2.646*** (0.561)
cut2	2.810*** (0.533)	1.766*** (0.506)	4.501*** (0.598)	3.767*** (0.571)
cut3	5.084*** (0.561)	2.288*** (0.502)		4.966*** (0.588)
cut4		2.922*** (0.503)		

cut5		3.521*** (0.507)		
cut6		4.218*** (0.514)		
cut7		4.956*** (0.524)		
cut8		5.829*** (0.537)		
cut9		6.439*** (0.545)		
cut10		7.111*** (0.556)		
<hr/>				
<i>AIC</i>	1570.9	2968.9	1233.5	1568.0
<i>BIC</i>	1643.0	3072.5	1301.0	1640.1
Observations	668	669	669	669
<hr/>				

Standard errors in parentheses

\*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$