Buying blue helmets: Foreign aid & the construction of UN peacekeeping missions

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Abstract

The evolving nature and proliferation of UN peacekeeping operations in the post-Cold War period has been well-documented. A number of country-specific, supply-side motivations have been proposed by peacekeeping scholars to explain states' voluntary participation in these operations. Chief among these is the profit that supposedly accrues to contributing states from UN personnel reimbursements. However, we argue that the increasing demand for personnel and the rising costs of participation that began in the 1990s have rendered existing financial explanations less compelling. To account for this, we argue that wealthy UN member states pressure potential contributing countries by using foreign aid as both a carrot and stick. We uncover strong empirical evidence that OECD donors strategically allocate foreign aid to ensure that these missions continue to be staffed and maintained, particularly during the post-Cold War period. Theoretically, we advance the scholarly understanding of international organizations by illuminating an extra-organizational strategy by which IOs facilitate multilateral cooperation.

Introduction

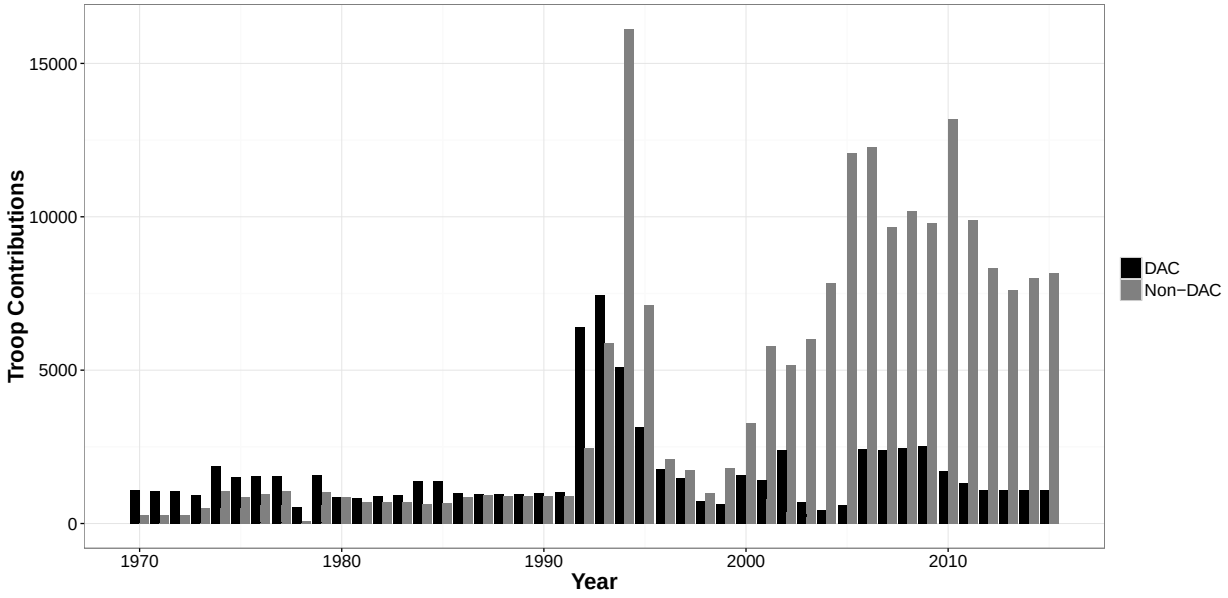
One of the more recently established UN peacekeeping missions, the United Nations Mission in South Sudan (UNMISS) was organized in an effort to bring stability to the newly-independent but war-torn country. According to the most recent UN documents issued in March 2017, the mission currently consists of 1,417 police, 170 observers and experts, and 11,070 troops, contributed on a voluntary basis (as with any peacekeeping mission) by UN member states. Not surprisingly, neighboring countries with ties to the new country and obvious interests in its stability, such as Kenya and Ethiopia, were among the main contributors. More curious were the relatively large contributions from far-flung countries such as Bangladesh (740 troops); Cambodia (70 troops); Mongolia (814 troops); Nepal (1,500 troops); and Ghana (700 troops).

By contrast, consider the United States, which possesses, by far, the most powerful military and the most expansive security interests in the world. As of March 2017, the sum total of US contributions to UN peacekeeping operations worldwide was 78, of which 36 were non-combat personnel. Such is also the case for other militarily powerful countries. Canada and Australia have committed 20 and 22 troops, respectively, while Arab Gulf states—all of which boast strong militaries—only commit personnel on rare occasions.

This discrepancy between industrialized and developing countries has been well-documented by peacekeeping scholars (Khanna, Sandler and Shimizu, 1998; Bellamy and Williams, 2009; Lebovic, 2010; Bove and Elia, 2011; Gaibulloev et al., 2015). We also know that UN missions have dramatically increased in number, scope, and ambition beginning in the early 1990s, and that this division of labor has become even more stark over that time frame (see Figure 1). The United Nations' annual peacekeeping budget rose from $230 million to $3.6 billion from 1987 to 1994, and forces deployed in UN PKOs grew from 10,000 to over 70,000. UN mandates also became more aggressive after 1990, often sending peacekeepers

to active conflict zones, sometimes with explicit mandates to use force (Hultman, Kathman and Shannon, 2014*a*). Kofi Annan candidly described the UN's new role in 1997: "Our job is to intervene: to prevent conflict where we can, to put a stop to it when it has broken out, or—when neither of those things is possible—to contain it and prevent it from spreading." (Doyle and Sambanis, 2006).

Figure 1: UN peacekeeping troop contributions



Peacekeeping scholars have suggested several, country-specific, supply-side motivations to explain such diverse participation, chief among them the financial motive stemming from the stipend reimbursements that contributing governments receive directly from the UN in exchange for their personnel contributions. We argue that the private benefits commonly cited as motivations are in fact insufficient to explain the level of personnel contribution that we have witnessed from developing countries. In fact, as we discuss, the costs associated with deployment, along with the out-dated UN reimbursement system and the leverage held by contributing countries, would lead us to expect far less participation than we actually observe. In 2011, former Secretary-General Ban-ki Moon lamented that "securing the required

resources and troops [for UN peacekeeping] has consumed much of my energy. I have been begging leaders to make resources available to us." (quoted in Bellamy and Williams, 2012). This speaks to the reluctance of many states to offer their own personnel as participants in UN missions. Thus, the question remains: How does the United Nations, as an institution, elicit such robust personnel contributions—on a voluntary basis—from so many states with little or no discernible security interests in a given conflict? Moreover, what prevents contributing countries from defecting when participation becomes too costly due to personnel fatalities? This question of how UN missions are assembled, staffed, and maintained takes on added significance in light of recent findings that larger missions are more effective at protecting civilians and establishing peace (Hultman, Kathman and Shannon, 2014*b*).

Drawing on existing public goods and burden-sharing arguments, we take a political economy approach to explain how UN member states coordinate outside the institutional auspices of the organization to assemble peacekeeping missions. Specifically, we demonstrate that the wealthiest UN member states—members of the OECD—have strategically used foreign aid as a tool of persuasion and a selective incentive to generate manpower for UN peacekeeping operations. Using a sample of non-DAC countries from 1971 to 2015, we present three sets of empirical findings. First, we find that aid is a strong predictor of the size of recipient states' personnel contribution. Second, we find that donors strategically and disproportionately target so-called "token" contributors with higher levels of aid in an effort to persuade them to become major contributors. Finally, contributors that suffer casualties in UN missions are found to receive increased aid as compensation to prevent them from defecting from missions to which they have committed. Moreover, we find that all of these effects have become stronger since the end of the Cold War—when demand for manpower became most acute—thus lending further support to our argument.

In addition to our empirical findings, this paper also makes two broad theoretical contributions. First, we challenge a common view within the foreign aid literature that aid

is primarily driven by the selfish motivations of donor states. To the contrary, our findings suggest that OECD donors can coordinate to provide aid in a way that helps ensure the uninterrupted provision of a *global public good*. We also contribute to the scholarly understanding of international organizations, and specifically, the manner in which individual members of IOs can coordinate outside the organization itself in order to overcome inefficiencies within it. By questioning the extent to which the UN, as an institution, is responsible for assembling the personnel for these operations, we raise the possibility that the UN has become partially reliant on bilateral tools of pressure to carry out arguably its most crucial task. In this way, we take the reverse view of Abbott and Snidal (1998), and ask why and how IOs sometimes leverage extra-organizational bilateral relationships to facilitate multilateral cooperation and address inefficiencies within the organization itself.

In the next section, we proceed through an overview of the current state of knowledge regarding motivations for peacekeeping contributions and foreign aid allocation. We then present hypotheses, followed by a discussion of the research design we use to evaluate these hypotheses. After presenting our empirical results and robustness tests, we conclude with a discussion of implications and possibilities for further inquiry.

How are UN peacekeeping missions staffed?

UN peacekeeping missions, along with the mandates and maximum number of personnel to be deployed for each mission, are established by the five permanent members of the UN security council. The costs of the missions are covered by individual member states, each of whom are assigned a small percentage of the annual peacekeeping budget according to the Scale of Assessments (Coleman 2014; see Table 1, left panel). In practice, about ten countries cover more than 80% of the peacekeeping budget (Gaibulloev et al., 2015). Once these missions are established and the required level of manpower is decided upon, the actual

process of assembling the coalition allegedly falls under the purview of the UN Department of Peacekeeping Operations. Personnel contributions are voluntary on the part of individual countries, and each potential contributor decides 1) whether to contribute any personnel at all; 2) what type of personnel to contribute (police, observers, or combat troops); and 3) how many of each to contribute.

Examining the evolution of UN peacekeeping operations over time, and particularly since the end of the Cold War, reveals three striking patterns, each of which has been well-documented in the peacekeeping literature. First, the number of peacekeeping missions has increased substantially. This is likely due to the sharp uptick in the occurrence of civil wars in the initial post-Cold War years, which in turn resulted in a surge of large and ambitious peacekeeping missions.

Second, as Figure 1 suggests, the number of countries contributing troops has increased dramatically. Bellamy, Williams and Griffin (2004) note that between 1988 and 1994, forty-one countries participated in peacekeeping missions for the first time. This has been accompanied by a corresponding decrease in the relative burden carried by Western countries in terms of manpower contributed to these missions. While wealthier countries with powerful and professionalized militaries do contribute small numbers of personnel (and most of the funding, see the left panel of Table 1), poorer states, such as Bangladesh, Ghana, and Tanzania are regular contributors of large numbers of troops, and it is typically these troops who do most of the heavy fighting (see Table 1, right panel). These are the countries responsible for nearly all of the increase in the diversity of countries participating (see for example Bobrow and Boyer (1997); Lebovic (2004); Bove and Elia (2011), and Figure 1).

Finally, as mentioned above, the scope and mandate of the average mission has become more ambitious. Rather than being tasked with merely upholding peace agreements, policing demilitarized zones, or managing post-conflict elections, a majority of recent UN peacekeeping operations have been deployed to active conflict zones (Bellamy, Williams and Griffin,

Table 1: Budget vs personnel contributions

Percent of UNPKO budget paid		**Total Personnel, 1990–2015**	
United States	28.4	Pakistan	161,222
Japan	10.8	Bangladesh	141,557
France	7.2	India	122,506
Germany	7.1	Nigeria	61,895
United Kingdom	6.7	Nepal	58,546
China	6.6	Ethiopia	53,146
Italy	4.4	Ghana	52,301
Russia	3.1	Egypt	38,471
Canada	2.9	France	37,388
Spain	2.9	Uruguay	36,691

2004). Hultman, Kathman and Shannon (2014*a*) noted the unprecedented 2013 UN Security Council decision to deploy a contingent of 3,000 troops tasked specifically with using force against rebels in the Democratic Republic of Congo. Thus, over the past 20 years, the UN has increasingly asked peacekeepers to do things that they often do not have the resources or experience to accomplish.

Why do states contribute peacekeepers?

In the simplest terms, peacekeeping is the private provision of a global, nonexcludable public good in the form of greater stability and peace (Bove and Elia, 2011). This public good can be enjoyed by all states, regardless of whether they contributed to its provision, and there is no way to exclude non-contributors from enjoying these public benefits. However, this stylized understanding of the peacekeeping process fails to explain why states with no direct interest in the conflict would incur costs by voluntarily contributing their own personnel to serve as peacekeepers.

Early peacekeeping literature therefore suggested that peacekeeping participation is bet-

ter understood as a "joint product model" (Khanna, Sandler and Shimizu, 1998), or the provision of an impure public good (Bobrow and Boyer, 1997). Here, the provision of the public good also produces, as a positive externality, idiosyncratic, private benefits that accrue specifically to those who help provide it. If peacekeeping were a pure public good—that is, if no private benefits accrued to participants—each state's self interest would ensure that it was either under-provided or not provided at all (e.g., Olson (1971)). Therefore, the very existence of collective action in the form of peacekeeping must mean that participants are enjoying private benefits associated with participating and contributing their own personnel. Indeed, according to Neack (1995) and others, states mostly participate for selfish reasons, namely to increase their own prestige and earn reputations as regional powers. This helps explain the massive post-Cold War increase in participation by relatively poor countries with limited security interests. In fact, Bobrow and Boyer (1997) explain that the pursuit of private gain can, when tied to the provision of a public good, result in the over-provision of that good.

Peacekeeping scholars have outlined a number of other private benefits that supposedly help explain what motivates states to participate in these missions. As mentioned above, many states believe that by actively participation in UN operations, they will establish a reputation for themselves as a responsible "global citizen" and/or a regional power broker. Alternatively, they may simply "feel good" about participating. It is certainly true that South Asian states take pride in their role as peacekeeping participants and consider it a signal of their commitment to international peace (Axe, 2010; Zaman and Biswas, 2013). Khanna, Sandler and Shimizu (1998) mention the possibility that states contribute as part of a path to gain membership in NATO or the European Union. Other countries may see the training their troops receive as beneficial, or may strategically select troublesome units to send overseas (Hesse, 2015). Recently, Kathman and Melin (2017) show that states increase their UN contributions in the wake of failed coup attempts, although this tendency diminishes

over time. These authors also show that states involved in interstate rivalries are more likely to contribute troops, supposedly for the training they will receive. Training for soldiers is thus another commonly-cited incentive to explain why states contribute their own troops. Finally, countries in which a UN peacekeeping mission is occurring can benefit privately from the restoration of regional stability, giving them an obvious incentive to contribute to the mission (Bobrow and Boyer, 1997). Bove and Elia (2011) also focus on the country- and region-specific security gains that motivate contributions to UN and other multilateral peacekeeping initiatives.

However, the factor scholars most frequently point to as a private benefit is the salary reimbursement that personnel-contributing governments receive. In order to incentivize member states to contribute personnel to UN PKOs, the UN in 1974 established a system to finance these missions and reimburse contributing governments for the salaries of the deployed personnel, funds for which are drawn from the UN peacekeeping budget discussed above. The governments of contributing countries pay their personnel as they normally would, and then are reimbursed according to the UN base rate of $1,028 per soldier per month.[1]

During the massive expansion in peacekeeping missions in the 1990s, the conventional wisdom was that troops in contributing states could profit handsomely under the original monthly stipend (Thakur, 1984; Krishnasamy, 2003; Bellamy and Williams, 2013*b*). As calculated by Gaibulloev et al. (2015) using this compensation rate, each country's military expenditure and UN budget contribution, the top personnel contributors are, in theory, able to reap modest profits: Bangladesh, $7,783 per person; Ghana, $6,781; India, $2,550; Nepal, $10,444; Nigeria, $2,137; Pakistan, $8,919; Senegal, $2,765.[2]

[1] In 2014, this base rate was raised for the first time in more than 20 years to $1,332 per soldier per month, effective beginning in 2015 (United Nations, 2014).

[2] This stipend reimbursement rate explains why we see relatively few personnel contributions from highly industrialized states. Soldiers in these countries are much more expensive per capita (Caverley, 2014). Canada, France, Italy, and the United States each spend well over $100,000 per year per soldier, and thus

We note several things about this stipend. First, for most countries, this level of compensation is quite small relative to the sizes of national economies, the demand for peacekeepers, and the costs involved in contributing. The total amount earned by Pakistan, consistently a top contributor, is approximately $220 million annually. This may seem significant, but relative to Pakistan's $60 billion in foreign debt, it is a relative drop in the ocean. It also pales in comparison to the other sources of nontax revenue that Pakistan receives (averages of $11 billion in remittances, $4 billion in foreign aid), and thus is not seen as a significant motivation (Malik, 2013). The same holds for other top contributors. Furthermore, as we discuss below, the reimbursement process is cumbersome, with reimbursements often arriving many years late.

Second, the stipend has not changed since the early 1990s, around the time when the second (and current) peacekeeping "boom" began and demand skyrocketed.[3] Thus, even if it was rational for states to contribute peacekeepers at that time, it makes less sense now from a strictly economic perspective, given the dramatic increase in demand for peacekeepers and relative decline in the value of reimbursements. For instance, in terms of local purchasing power, the UN personnel reimbursement rate shrank by 45.8% for India between 2002 and 2012, and by 30.6%, 59%, 37.3%, 48.4%, 56.1%, and 44.1% for Bangladesh, Ethiopia, Jordan, Nepal, Nigeria, and Pakistan, respectively (Coleman, 2014, 15).

In fact, the UN conducted a survey of personnel contributing countries in 2014 which concluded that, among participating countries, the actual average monthly cost of deployment was $1,536 per person. However, this only included costs that are usually reimbursed

the $12,336 per soldier-year UN stipend would not come close to matching the home-country salaries of personnel from wealthier countries. Given the vast disparity between the personnel costs in these two sets of countries, it is no surprise that wealthy countries are reluctant to offer their own personnel as peacekeepers. France made news recently by deploying drones in place of troops as part of its personnel contribution to MINUSCA, the UN mission in the Central African Republic (RFI, 2017).

[3]Compensation rates prior to 1992 were adjusted consistently to reflect inflation and cost-of-living increases. Incidentally, richer countries still made up the bulk of peacekeeping contingents during this time, something that has not gone unnoticed among the poor countries who contribute troops under the new reimbursement system (Malik, 2013).

by the UN. Other costs, such as pre-deployment medical attention and readiness, equipment, and training, the purchase of equipment, are not eligible for reimbursement, since they are incurred before deployment. When these are taken into account, the deployment cost per person rises to $1,762 (Coleman, 2014). Even under the post-2014 reimbursement regime ($1,332 per month), the stipend would still fall well short of total deployment costs.

Given this, and the fact that the UN is asking peacekeepers to carry out increasingly aggressive mandates in more hostile environments, it is financially less attractive than ever to contribute. Yet, we are seeing a greater proportion of poor countries doing so. Contributing countries have been outspoken about this. For India, compensation was at one time a motivating factor, but its impact has diminished significantly, particularly as pay in the Indian military has increased. Pakistan has complained that "while expenditure and remunerations for other UN activities are adjusted to inflation and cost-of-living considerations, the peacekeepers are expected to work for fixed and archaic rates" (Malik, 2013). The UN representative from Fiji, another consistent contributing country, claimed "It is completely unreasonable that the UN system expects troop contributing countries to subsidize the UN peacekeeping budget through an outdated and inadequate troop cost reimbursement rate which national pay scales have long since overtaken" (Fijian Government, 2014).

Finally, due partly to the global financial crisis, but also to bureaucratic inefficiencies within the UN, reimbursements are often slow to arrive, if they arrive at all (Malik, 2013; Coleman, 2014). For instance, Pakistan never received $50 million in reimbursements for the year 2000, and Bangladesh received its reimbursement three years late (Krishnasamy, 2002; Bellamy and Williams, 2013*a*).

These are only material costs, but a commitment to peacekeeping entails other costs as well. Leaders in contributing states are sensitive to the costs of sending their own personnel abroad to fight and possibly die in conflicts whose outcome means little to the public (Gartner, 2008). Even if these troops are not killed, these contributions entail significant

opportunity costs, as there are fewer personnel to protect the contributing state against foreign or domestic threats. Thus, governments in contributing states suffer potentially severe political costs as well. This is particularly true in democracies, and has been shown to play a role in UN peacekeeping specifically (Gledhill and Duursma, 2017). There is also a degree of resentment building among contributing countries in response to the heavier burden that their personnel are forced to bear, and the growing gap between the roles played by Western troops and troops from poorer countries (Bellamy and Williams, 2012).

We argue that financial gain from personnel reimbursements—probably the most prevalent factor in the extant literature on peacekeeping motivations—is in fact much less significant as a motivation than commonly thought. Even under the assumption that it was at one time a major driving factor behind participation in early UNPKOs, the discussion above makes the case that it has played an increasingly minor role over the past 20 years due to the increased demand for peacekeepers, rising costs of deployment relative to the static stipend rate, and the decrepit reimbursement process. As a result, we believe that for most countries, the benefits to UNPKO participation outweigh the costs, and thus are insufficient to explain why participation rates remain at high levels. If the benefits of contributing were so lucrative, programs such as the UN 2009 New Horizon Initiative—designed to secure and diversify personnel contributions from member states—would not be necessary.

In the next section, we discuss the use of foreign aid by individual wealthy UN member states as a supplementary financial incentive—and potential sanction—in order to recruit manpower from low-income countries.

The role of foreign aid

The main takeaway from the discussion above is that peacekeeping is costly, both politically and financially, and is becoming increasingly so. Large groups face a collective action prob-

lem when attempting to provide a public good unless individual members receive selective incentives to contribute (Olson, 1971). The staffing of peacekeeping operations in many ways represents the ultimate collective action problem. Contributing toward the outcome has the potential to be quite costly for any given participant, and most states who participate will enjoy, at most, a minuscule slice of the public good that, in the end, will only be provided if the peacekeeping operation is highly effective. To reiterate, participation is voluntary and the UN has no institutional mechanism to penalize non-participation. The puzzle here is that smaller states whose stake in the outcomes of PKOs is relatively small are choosing not to free-ride, but rather are participating with gusto by contributing their own personnel, and at similar rates over time, even as costs increase. Given that the United Nations also lacks institutional mechanisms to provide selective incentives on a state-by-state basis (beyond the flat-rate personnel stipend), we argue that the use of bilateral aid allocation as both a carrot and stick provides an answer to this puzzle.

States allocate foreign aid for a variety of reasons, not the least of which is the delegation of security-related tasks to other, smaller countries. Crudely, aid is a bribe meant to persuade a country to alter its policies in some way favorable to the donor, and to compensate it for the financial, political, material, and other costs associated with doing so (see for example (Morgenthau, 1962; Bueno de Mesquita and Smith, 2007; Vreeland, 2011), among many others). Paradoxically, the states which have the strongest incentives to provide peacekeeping also have compelling reasons not to contribute their own troops, for reasons outlined above.

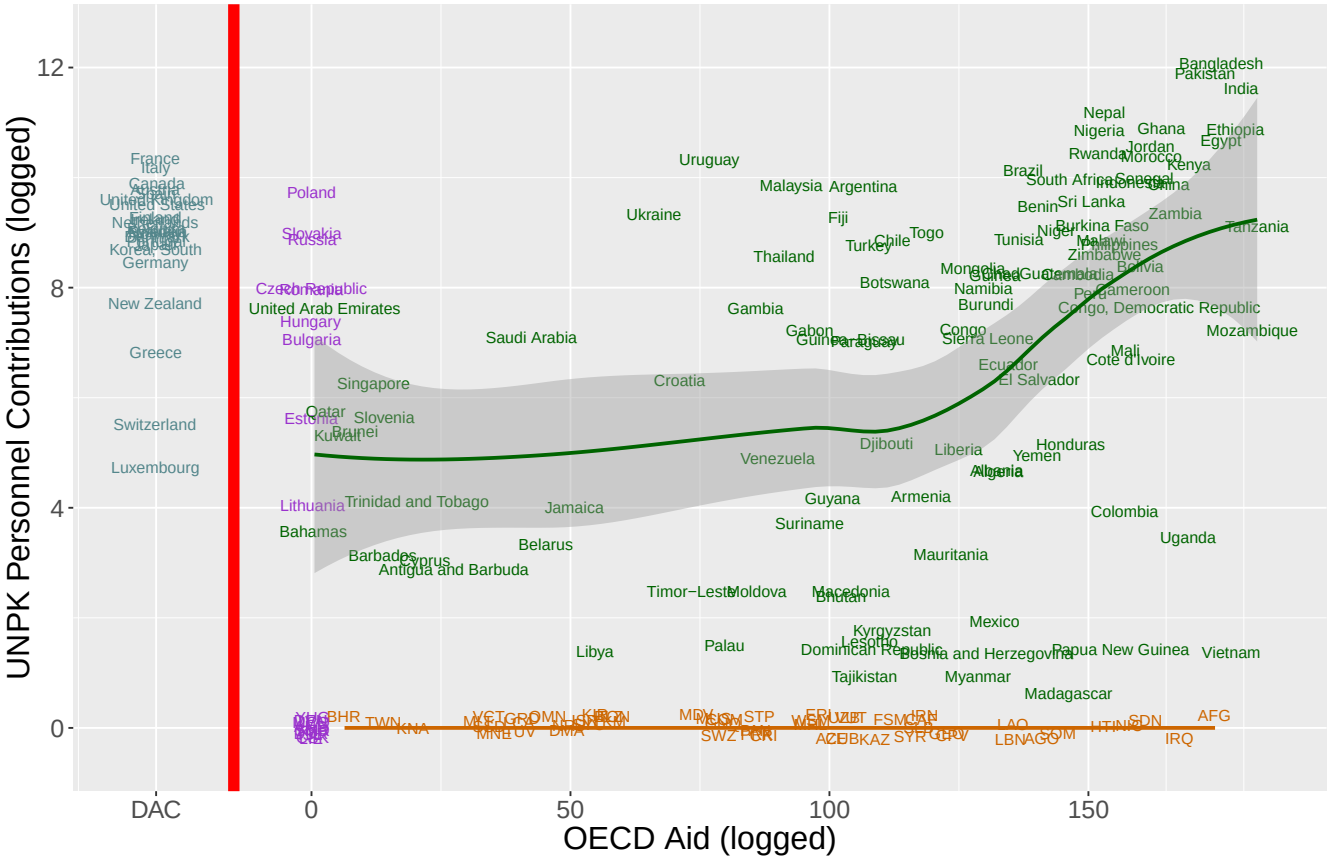
States wishing to maintain the necessary quantity and quality of PKO personnel must therefore make it as financially attractive as possible for other member states to contribute. Yet as mentioned earlier, the United Nations, as an institution, lacks the means to do so. We argue that interested UN member states wield foreign aid as both a carrot and a stick to help secure contributions from other member states, and that in fact these contributions may not be driven solely by contributor motivations, as most previous research has argued.

For instance, Burundi and Uganda committed troops to the UN/AU mission in Somalia in order ensure that aid flows were uninterrupted (Hesse, 2015). However, because demand for peacekeepers is high, low-income contributing states also hold significant leverage to bargain for concessions from wealthy sponsoring states. As discussed above, no institutional penalty exists for non-participation, and major powers have strong incentives to staff these missions in a timely manner and with as many quality personnel as possible. Henke (2016) highlights this leverage in her case study of UNAMID, in which participating countries literally presented Western diplomats with lists of demands in exchange for their promises to contribute troops. Thus, even if we assumed that contributing countries incurred no costs for deployment, they could still bargain for financial concessions from sponsoring countries.

The fact that donors allocate foreign aid, at least in part, with the expectation of policy concessions from the recipient has reached the status of conventional wisdom within the foreign policy literature (i.e., (Morgenthau, 1962; Bueno de Mesquita and Smith, 2009), among many others).[4] However, one of the commonly-cited difficulties among scholars of aid effectiveness is the inability of donors to directly observe policy implementation or effort exerted by the recipients. This poses problems for issues such as economic reform or counterterrorism, in which recipient actions are often unobservable. This information asymmetry hinders the ability of donors to place conditions on aid: a donor cannot credibly threaten to withdraw aid for non-compliance if it cannot be readily distinguished from compliance. The absence of credible conditions, according to a number of scholars, is the primary reason for the ineffectiveness of aid (Easterly, 2002; Collier and Dollar, 2002). Peacekeeping is unique in that donors can completely and reliably observe the desired policy outcome. Thus, by not contributing, or by under-contributing, recipient states may be jeopardizing their aid flows.

[4]From Morgenthau (1962): "[T]raditional military aid can be understood as a division of labor between two allies who pool their resources, one supplying money, matériel, and training, the other providing primarily manpower."

Figure 2: Patterns of OECD aid and troop contribution



An additional manpower issue faced by the United Nations recently is that many of the troops offered by participating states are poorly trained and incompetent. The more dangerous and complex missions undertaken recently by the United Nations entail tasks that are often far beyond the capabilities of regular infantry soldiers. While the UN needs higher-quality, better-trained personnel and specialists, the standard reimbursement rate typically covers only low-ranking soldiers, leaving states with little incentive to sacrifice better-quality, higher-paid personnel (Bellamy and Williams, 2013*a*). Indeed, the preparation of African forces to participate in UN and AU peacekeeping operations is of the primary rationales behind US military training programs (Hesse, 2015). It is not uncommon for donors to provide aid to help recipients comply with other types of international agreements as well (Urpelainen, 2010).

Both sets of states benefit from this division of labor. Western states, and members of the UNSC in particular, seek to provide peacekeeping to maintain global stability and, more generally, the legitimacy of the UN as an institution through which they can exert their influence. On the other hand, small and/or poor states seek to procure resources to benefit themselves and their domestic coalitions. In other words, wealthy states are willing to trade resources for policy, while poor states offer policy concessions in exchange for badly needed resources (Bueno de Mesquita and Smith, 2007; Licht, 2010). Western countries can therefore leverage the allocation of foreign aid as a tool of persuasion to encourage participation in UN operations.

We consider our framework to be an extension of the joint product model mentioned above. We do not disagree that the provision of peacekeeping leads to country-specific, private benefits for those who participate in the missions; this is undeniable and likely does explain why many states became participants, particularly in the early days of peacekeeping. However, we do question how much value contributing states actually see in some of these benefits, especially as both demand for peacekeepers and costs of deployment have grown over the past two decades. Contributing states have a significant bargaining leverage vis-à-vis the United Nations when deciding whether or not to contribute, and we feel that this has been overlooked in previous arguments about peacekeeping. In the joint product/impure public good model discussed above, the country-specific private gain is produced *along with* the public good as part of the same process (Bobrow and Boyer, 1997; Khanna, Sandler and Shimizu, 1998). Our model differs slightly in that both the public good and the often-discussed private benefits would be under-produced without the use of foreign aid as a selective incentive to facilitate the peacekeeping process in the first place.

This perspective calls into question extent to which many of these personnel contributions are completely voluntary, and thus sheds light on an extra-organizational mechanism through which the UN can sanction its members for not taking some action that is osten-

sibly voluntary. This argument holds implications for our understanding of international organizations more broadly, and specifically, the manner in which individual members of IOs can coordinate outside the organization in order to accomplish the goals of the organization itself. We outline our hypotheses and research design in the following section.

Hypotheses and research design

We argue that because wealthy donor countries are predominantly democratic, casualty-averse, and maintain expensive personnel, they will seek to coerce poorer states into supplying manpower for UN peacekeeping missions by exploiting their comparative advantage in wealth. Poor states find this division of labor advantageous as well, as they receive generous financial assistance, training and equipment for their troops. Therefore, we expect levels of western foreign aid received to lead to greater and more frequent contributions to UN peacekeeping operations. However, a state's contribution is the outcome of two discrete decisions: the decision to contribute and the size of the contribution. We follow previous studies on peacekeeping contribution (e.g., Bove and Elia, 2011) and construct two separate hypotheses to model this two-stage decision process:

Hypothesis 1. *As level of DAC aid increases, the likelihood of contributing personnel to UN peacekeeping missions increases.*

Hypothesis 2. *As the level of DAC aid increases, the number of personnel committed to UN peacekeeping missions increases.*

While wealthy states have incentives to provide peacekeeping, they also have incentives to avoid casualties. Thus, when pressuring member states to contribute, the pressures will be primarily geared towards the contribution of combat personnel, who are most at risk during these operations. Non-combat personnel, such as observers and police, incur less risk.

Furthermore, maintaining combat troops is significantly more expensive than maintaining non-combat forces, and so the need to compensate the contributing country is greater.

Hypothesis 3. *The effect of aid is stronger for troop deployments than for non-combat personnel*

Peacekeeping operations have proliferated since the end of the Cold War, and the demand for personnel has increased accordingly. Thus, securing the necessary numbers for each mission will require stronger external pressures from Western states.

Hypothesis 4. *Aid will have no effect on personnel contributions during the Cold War*

We also believe that sponsoring states will use aid to persuade so-called "token contributors"—states that contribute between 1 and 40 troops to UN missions but have not yet made the decision to become major contributors. Bellamy and Williams (2013*a*) cite tokenism as one of the primary factors that inhibits sufficient UN manpower recruitment. Therefore, if our theory about aid as a tool of persuasion is correct, we should see aid disproportionately targeted to these countries as a way to elicit future contributions.

Hypothesis 5. *Token troop contributors in year $t-1$ will receive more aid in year t than either non-contributors or major contributors.*

Finally, we further argue that states incurring large numbers of casualties in UN peacekeeping operations will require additional compensation. Casualties during military actions—particularly those in which no tangible national interest is at stake—are financially and politically costly for a government (Gartner, 2008). Accordingly, suffering casualties may lead a contributing state to become discouraged and cease participating in future UN missions. Therefore, the states responsible for staffing these missions will wish to avoid losing these states' contributions, and should respond to casualties with *ex post* foreign aid as compensation.

Hypothesis 6. *In post-Cold War years, a country will receive more aid in year t as the number of its personnel killed in UNPKOs in year $t-1$ increases*

The unit of analysis for this study is the non-Development Assistance Committee (DAC) country-year between 1971 and 2015.[5] We exclude DAC states because the argument applies only to the effect of aid on non-DAC countries.[6] With respect to country-year aggregation, our theory explains general levels of contribution rather than mission-specific levels, which can be affected by a number of idiosyncratic, conflict-specific factors.

Data for the total number of personnel contributions to UN peacekeeping missions for 1990 through 2015 were obtained from the IPI Peacekeeping Database (Perry and Smith, 2013; International Peace Institute, 2017). To aggregate the monthly contribution levels to annual contributions, we follow Gaibulloev et al. (2015) and use the average of all months for which a state contributed. Data for 1971 to 1989 are original, and were collected by the authors from official UN source documents.[7] Here, each document has been coded up to the latest calendar month available for each mission annually.[8] Two different dependent variables were constructed: *Total troops* and *Total non-combat personnel*. The latter figure consists of military police and observers, personnel who are deployed on the ground but do not engage in hostilities and generally face lower levels of risk. The sum of Troops and Non-combat personnel is equal to the total UNPKO personnel contribution.

In the first empirical analysis, the primary independent variable is total foreign aid received from DAC donors. We do not differentiate between types of aid (e.g., agricultural aid, health aid), since aid programs—and their effectiveness as inducements—are tailored to the

[5]DAC member states are Australia, Austria, Belgium, Canada, Czech Republic (2013-), Denmark, Finland (1975-), France, Germany, Greece (1999-), Iceland (2013-), Ireland, Japan, Italy, Luxembourg (1992-), Netherlands, New Zealand (1973-), Norway, Poland (2013-), Portugal, South Korea (2010-), Slovak Republic (2013-), Slovenia (2013-), Spain (1991-), Sweden, Switzerland, United Kingdom, United States.

[6]The interpretation of the results is the same when DAC states are included.

[7]The documents were obtained using the UN's Official Documents System Search, available at `http://www.un.org/en/documents/ods/`.

[8]For example, if November and December contributions are available, we used December levels.

needs of each individual country, and aid is fungible (Feyzioglu, Swaroop and Zhu, 1998); any type of aid can be used as leverage.[9]

To account for the possibility that democracies may be more likely to contribute to these operations (Lebovic, 2004), we include a democracy indicator equal to 1 if the combined Polity score is greater than 6 (Marshall, Gurr and Jaggers, 2016). GDP (constant 2000 US dollars) and population data are taken from the World Development Indicators.[10] A dummy variable for contiguity to a peacekeeping operation has also been coded. A state-year is classified as contiguous if it shares a land border or a maritime border of 400 miles or less with a state where a peacekeeping operation is present (Stinnett et al., 2002).

We also construct a count of the total number of peacekeeping missions ongoing in a given year to account for the opportunity to contribute. Gaibulloev et al. (2015) argue that increasing numbers of operations should *increase* the overall country supply, while Bove and Elia (2011) argue that increasing operations should *decrease* the operational-level supply (lower likelihood of contributing and size of contribution per operation) due to troop constraints.[11] Finally, we include an annual count of the total number of peacekeeping missions to which a state has contributed personnel over the previous five years. For example, if a state has participated in two peacekeeping operations in each of the past five years, this variable will take a value of 10. This variable accounts for institutional inertia of participation, as well as the fact that participation in UN operations entails training and experience for the troops involved. The interoperability of a country's personnel that accrues over repeated missions is a valuable asset for future operations, and should increase the likelihood and attractiveness of contributions from that country.

As specified in our theory, states decide both (1) whether to contribute, and (2) the size of

[9]The aid data were taken from the OECD website and includes all Official Development Assistance given to a state from any DAC source.

[10]WDI data pulled using the WDI library in R (Arel-Bundock, 2013).

[11]Both these arguments may be true, since the unit of analysis differs.

the contribution. We use the hurdle model to estimate the effect of aid on each of these two decisions (King, 1989). This technique models the occurrence of zeros and the count process separately. Unlike zero-inflated models, it assumes that the zeros are purely structural (Cameron and Trivedi, 2013), which is to say they are the result of a state's decision not to contribute. Given the need for peacekeeping contributions, and the precedent of both poor and wealthy states of different cultures and ethnicities contributing alongside one another, we believe this is an appropriate assumption.

Findings

Our findings are reported in Table 2. As mentioned above, the nature of UN peacekeeping has changed since the end of the Cold War, and even more dramatically so since the late 1990s. For this reason, we present results of models estimated using the full sample (1971-2015), the post-Cold War period (1990-2015), and the post-2000 period. Variables for aid, GDP, population, democracy, and past contributions are all lagged one year to account for the fact that decisions to contribute occur prior to the documented contribution of personnel.

Who contributes personnel to UN PKOs?

Findings regarding the initial decision to contribute personnel are shown in the lower panel of Table 2. Aid is not a significant predictor of the decision to contribute in 5 of our 6 models. The exception here is Model 2, which finds a positive and statistically significant relationship between aid and the likelihood of contributing non-combat personnel during the post-2000 period. Thus, we do not find support for Hypothesis 1; DAC aid does not appear to be related to the likelihood of contributing to UN PKOs.

We find that democracies, across all time periods, are more likely to contribute both troops and non-combat personnel. This finding is consistent with Lebovic (2004), whose

study spanned 1993–2001, Perkins and Neumayer (2008), whose range was 1990–2005, and Ward and Dorussen (2016), whose range was 1990–2011. Turning to the other independent variables, we find that GDP has no discernible effect on the likelihood of contributing personnel, while more populous countries are more likely to contribute. The total number of ongoing PKOs increases the likelihood of contributing non-combat personnel (Models 2, 4, 6), but decreases the likelihood of a troop contribution in the post-Cold War periods. Contiguity has no statistically significant effect, while past personnel contributions is positive and significant in all models. This supports the argument that inertia and the interoperability of personnel make continued peacekeeping more likely.

How many do they contribute?

The results of the count models are displayed in the top half of Table 2. These findings support Hypothesis 2, which proposes that as the level of DAC aid increases, the number of contributed personnel increases, and Hypothesis 3, which proposes that the effect of aid is stronger for troops than for non-combat personnel. Specifically, we find that the effect of OECD aid receipts on the number of troops allocated is statistically significant and positive for all time periods (Models 1, 3, 5). On the other hand, aid has no effect on the number of non-combat personnel in any time period (Models 2, 4, 6). This suggests that states are less hesitant to contribute non-combat personnel, and thus require less persuasion than is needed for troops. It also suggests that states are at least somewhat responsive to aid as a financial incentive to increase their contributions. This lends strong support to the intuition behind our argument.

The negative and significant coefficient estimate for *Ongoing PKOs* is also worth discussing. This finding contrasts with that of Gaibulloev et al. (2015), but aligns with Kathman and Melin (2017), who use a zero-inflated count model similar to ours. Substantively, this means that as the number of ongoing PKOs increases, the average country contribution

Table 2: Western aid & recipient troop contributions: Results of a hurdle model

	2000-2015		**1990-2015**		**1971-2015**	
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
DV:	Troops	Non-Combat	Troops	Non-Combat	Troops	Non-Combat
SIZE OF CONTRIBUTION						
Constant	0.34	3.96***	1.14	4.43***	2.54***	4.29***
	(0.97)	(0.46)	(0.84)	(0.44)	(0.74)	(0.44)
$ln(OECD\ aid_{t-1})$	0.18***	−0.00	0.09***	0.01	0.11***	0.01
	(0.03)	(0.01)	(0.03)	(0.01)	(0.03)	(0.01)
$ln(GDP)_{t-1}$	−0.12*	−0.35***	−0.13*	−0.29***	−0.13*	−0.29***
	(0.06)	(0.03)	(0.05)	(0.03)	(0.05)	(0.03)
$ln(population)_{t-1}$	0.42***	0.43***	0.42***	0.42***	0.40***	0.42***
	(0.07)	(0.04)	(0.06)	(0.03)	(0.06)	(0.03)
Ongoing PKOs	−0.00	−0.00	0.02	−0.07***	−0.05***	−0.07***
	(0.03)	(0.01)	(0.02)	(0.01)	(0.01)	(0.01)
Contiguous UNPKO	−0.15	0.36***	−0.11	0.35***	−0.10	0.35***
	(0.13)	(0.06)	(0.11)	(0.05)	(0.11)	(0.05)
Past PKO participation	0.04***	0.06***	0.03***	0.05***	0.03***	0.05***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
$Democracy_{t-1}$	−0.38**	−0.18**	−0.32**	−0.15**	−0.25*	−0.16**
	(0.13)	(0.06)	(0.11)	(0.05)	(0.10)	(0.05)
Log(theta)	−1.10***	0.11*	−1.18***	0.00	−1.20***	−0.00
	(0.06)	(0.04)	(0.06)	(0.04)	(0.06)	(0.04)
LIKELIHOOD OF CONTRIBUTING						
Constant	−4.27***	−5.12***	−5.12***	−5.51***	−7.64***	−7.67***
	(1.05)	(1.06)	(0.71)	(0.76)	(0.62)	(0.71)
$ln(OECD\ aid_{t-1})$	0.08	0.10*	0.05	0.04	0.05	0.05
	(0.04)	(0.05)	(0.03)	(0.03)	(0.03)	(0.03)
$ln(GDP)_{t-1}$	−0.02	−0.08	0.03	−0.03	0.02	−0.01
	(0.07)	(0.07)	(0.05)	(0.05)	(0.04)	(0.05)
$ln(population)_{t-1}$	0.25**	0.20*	0.26***	0.17**	0.25***	0.16**
	(0.08)	(0.08)	(0.06)	(0.06)	(0.05)	(0.06)
Ongoing PKOs	−0.09**	0.09**	−0.11***	0.08***	0.05***	0.17***
	(0.03)	(0.03)	(0.01)	(0.02)	(0.01)	(0.01)
Contiguous UNPKO	−0.25	−0.13	−0.20	0.03	−0.04	0.06
	(0.15)	(0.15)	(0.11)	(0.11)	(0.11)	(0.11)
Past PKO participation	0.14***	0.34***	0.14***	0.29***	0.14***	0.30***
	(0.01)	(0.02)	(0.01)	(0.01)	(0.01)	(0.01)
$Democracy_{t-1}$	0.35**	0.40**	0.41***	0.51***	0.46***	0.54***
	(0.13)	(0.14)	(0.10)	(0.10)	(0.10)	(0.10)
N	2561	2561	3978	3978	5872	5872

Standard errors are in parentheses.
*** indicates significance at $p < 0.001$, ** at $p < 0.01$, and * at $p < 0.05$

becomes smaller. This may suggest that contributing states designate a set number of personnel that they are willing to allocate to UN missions; rather than increase that number as demand grows, they simply spread them out across more missions. This may account for the problem of "tokenism" discussed by (Coleman, 2013) and Bellamy and Williams (2013*a*). Although not a direct test of the salary reimbursements argument, we take this as mixed evidence that is inconsistent with the intuition behind it. If states were motivated by personnel reimbursements, we would not likely see a negative coefficient estimate for this variable.

Table 2 also shows that poorer, more populous states are more likely to contribute both troops and non-combat personnel. Contiguity with an ongoing PKO is positively associated with the size of non-combat personnel contributions, but has no effect on the size of troop contributions. This is perhaps intuitive—neighboring states should want to observe nearby conflict situations, but may do so at lower risk by contributing less diplomatically sensitive non-combat personnel such as observers and police. As with the probability of contributing, past PKO participation has a statistically significant and positive effect on the size of a state's annual contributions.

Finally, while the finding that democracies are more likely to participate in UN PKOs substantiates existing research, we find that the size of their personnel contributions are significantly *smaller* than those of non-democracies. This finding holds across each of our time periods, and for both personnel types. Other recent findings presented by Gledhill and Duursma (2017) have also shown that democracy is no longer a significant predictor of the size of personnel contributions. These findings contradict Lebovic (2004), who shows, based on a 1993-2001 sample, that democracies are more likely to both participate in UNPKOs and contribute larger numbers of troops. Taken together, these findings suggest that democracies are increasingly likely to be token contributors to UN PKOs, participating frequently but in smaller numbers, while less democratic countries do most of the heavy lifting. This finding is

particularly striking because our sample includes only non-DAC countries, meaning that it is not driven by the relatively small personnel contributions of industrialized democracies and NATO countries since the mid 1990s. However, this makes intuitive and theoretical sense; democratic governments are more hesitant to deploy troops overseas, and UN missions have become increasingly complex and dangerous in recent years.

Aid and predicted contributions

The findings reported in Table 2 support Hypothesis 3, which suggests that the effect of aid is stronger for troop deployments than for non-combat personnel. It seems that DAC donor states use foreign aid to incentivize recipient states to contribute to UN PKOs, and to deploy large numbers of troops, but not to staff large numbers non-combat personnel. Figures 3 and 4 further explore this hypothesis by plotting the predicted number of non-combat personnel and troops for the hurdle models as we increase DAC aid over its full range. Democracy is set to its median value, while all other variables are held at their mean.

Figure 3 shows the predicted number of non-combat personnel deployed based on the coefficients in Models 2, 4, and 6 across the full range of aid values. The effect of aid appears to be largest in magnitude in the full sample and during the full post-Cold War sample, and essentially nonexistent during the post-2000 period. Note that the predicted number of non-combat personnel deployed hardly changes at all during any time period, even when aid is increased from its minimum to its maximum value in the data. The largest change occurs in the post-Cold War period, in which the mean predicted number of non-combat personnel is 16 when aid is at its minimum, and 21 at the maximum value. This reflects the insignificance of aid in these models.

The substantive effect of aid on predicted number of deployed troops, shown in Figure 4, is more striking. Recall that in these models, the effect of aid is larger and statistically significant. It is also stronger in the post-Cold War period than in the full sample, and the

magnitude of the effect increases at higher values of aid.

For the post-2000 period, the rate of increase is considerably greater, suggesting that aid is playing a greater role in buying troop contributions in recent years than it did even in the initial post-Cold War peacekeeping "boom." This may be due to the fact that peacekeeping missions have become more dangerous and ambitious recently, but we can only speculate that this is the case. This result also suggests some support for Hypothesis 4, which proposes that aid has no effect on personnel contributions during the Cold War. We now turn to Hypothesis 4 more directly.

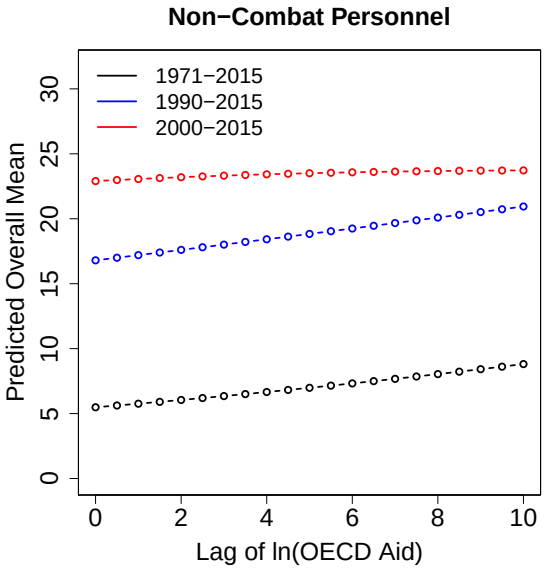


Figure 3: Models 2, 4, 6

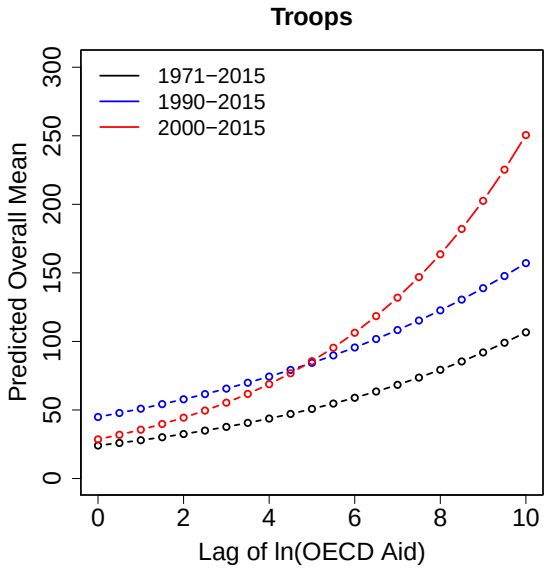


Figure 4: Models 1, 3, 5

Aid and peacekeeping during the Cold War

Hypothesis 4 proposes that aid will have no effect during the Cold War, due to the fact that both demand for personnel and costs of deployment were much lower. To assess this hypothesis, we look at the 2,014 country-years in our sample between 1971 and 1989. Convergence issues due to the limited number of observations force us to omit ongoing PKOs, contiguity,

and past PKO participation as control variables. We also exclude the non-combat personnel model for the same reason. Model 7 in Table 3 shows the results of this limited model on troop deployments. Aid has no statistically significant effect on the likelihood of contributing, and a *negative* and statistically significant effect on the size of the contribution. This provides additional evidence that the role of DAC aid has shifted substantially since the Cold War ended. Aid began playing an important role in staffing these missions only during the post-Cold War surge in peacekeeping, which created an acute demand for peacekeepers from non-OECD countries.

Table 3: Western aid & recipient troop contributions: Results of a hurdle model

DV: Troops, 1971-1989	Model 7
SIZE OF CONTRIBUTION	
Constant	16.74^{***}
	(2.21)
$ln(OECD\ aid_{t-1})$	-0.33^{**}
	(0.11)
$ln(GDP)_{t-1}$	-0.80^{***}
	(0.21)
$ln(population)_{t-1}$	0.60^{**}
	(0.23)
$Democracy_{t-1}$	-0.07
	(0.33)
Log(theta)	-0.22
	(0.15)
LIKELIHOOD OF CONTRIBUTING	
Constant	-6.44^{***}
	(1.48)
$ln(OECD\ aid_{t-1})$	0.03
	(0.07)
$ln(GDP)_{t-1}$	-0.09
	(0.11)
$ln(population)_{t-1}$	0.32^{**}
	(0.12)
$Democracy_{t-1}$	0.73^{**}
	(0.26)
N	2014

Standard errors are in parentheses.
*** indicates $p < 0.001$, ** $p < 0.01$, and * $p < 0.05$

Robustness

As Gaibulloev et al. (2015) point out, the peacekeeping personnel decisions made by any given state do not occur in a vacuum. When making their decisions to contribute to the provision of a public good, each actor should take into account all other actors' contributions, and then make their own contributions accordingly. Thus, the number of peacekeepers contributed to any peacekeeping mission in a given year will be, in part, a function of the number of peacekeepers that other states have agreed to contribute to that mission in that year. The hurdle models shown above allow us to simultaneously estimate both the decisions to participate and how many personnel to contribute, but they assume that each country's decisions are spatially independent of one another, and do not allow us to account for this spillover effect. In this section, we use the spatial model and data preparation process used by Gaibulloev et al. (2015) to assess whether accounting for this spatial endogeneity alters our substantive findings. As shown in Table 4, our findings do not change—aid is positive and statistically significant for troop contributions (Models 8 and 10) and not statistically significant for non-combat personnel (Models 9 and 11).

To estimate the models shown in Table 4, we limit the sample to 1990-2015 and aggregate the data into four roughly equal time periods (1990-1995, 1996-2001, 2002-2008, 2009-2015). This aggregation is necessary for estimation, given the large number of zeros present in the country-year data. To be included, a state must contribute in at least 10 years and be fully present in the data in each of the four time periods. This leaves us with 79 states in the data.[12] *Spillover* is the weighted sum of peacekeepers contributed by other states for the given period. For the spatial model, the dependent variables have been logged. The model was estimated in Matlab using the implementation from Elhorst (2014).

[12]In each aggregated time period, we used the sum total of both types of personnel contributions and ongoing PKOs. We used the mean for aid (results are the same when using the sum), GDP, population, and the median for democracy and contiguity. *PKO participation* is equal to the number of UN peacekeeping missions in which a state participated during a given period.

Table 4: Western aid & recipient troop contributions: Spatial model

	1990–2015			
	Model 8	Model 9	Model 10	Model 11
DV:	Troops	Non-combat	Troops	Non-combat
ln(OECD aid)	0.166*	-0.002	0.254*	0.011
	(2.412)	(0.059)	(2.330)	(0.203)
ln(GDP)	0.015	-0.055	0.398	0.088
	(0.104)	(0.661)	(1.792)	(0.781)
ln(population)	0.278	0.128	-0.058	0.001
	(1.559)	(1.273)	(0.232)	(0.008)
Ongoing PKOs	-0.022**	0.006	-0.021*	0.004
	(2.661)	(0.963)	(2.361)	(0.749)
Contiguous UNPKO	-0.595	0.287	-0.413	0.531*
	(1.923)	(1.646)	(0.979)	(2.480)
Past PKO participation	0.102***	0.073***	0.090***	0.068***
	(13.831)	(17.471)	(9.431)	(14.007)
Democracy	0.271	-0.112	0.495	0.119
	(0.903)	(0.664)	(1.143)	(0.542)
Spillover	-0.021	0.170	0.035	0.221*
	(0.114)	(1.576)	(0.194)	(2.193)
Country fixed effects			✓	✓
N	316	316	316	316

Numbers in parentheses are absolute values of asymptotic t-statistics.
*** indicates significance at $p < 0.001$, ** at $p < 0.01$, and * at $p < 0.05$

The findings reported in 4 provide additional support for Hypotheses 2 and 3. The effect of DAC aid on troop contributions is positive and significant, while the effect of aid on non-combat personnel contributions is not (Models 8 and 9). This finding is robust to the inclusion of country fixed effects in Models 10 and 11.

Interestingly, not all of our findings are robust to this alternate model. The significance of GDP, country population, contiguity, and democracy each disappears. We interpret this as, at the very least, strong evidence suggesting the importance of aid for securing troop commitments in the initial construction of UN peacekeeping operations.

Targeting token contributors

One of our findings above suggests that democracies are more likely to participate in UN missions, but that the size of their contributions is smaller on average. However, the pref-

erence to send smaller contingents to UN missions is not exclusive to democracies. In fact, token contribution (roughly defined as troop contributions of 40 or less) is the *most common* form of peacekeeping participation. Furthermore, the majority of token contributions consist of fewer than ten soldiers. Coleman (2013) notes that the sheer number and variation of types of states that participate in this manner suggests that financial or political constraints alone cannot explain the prevalence of tokenism.

Making very small contributions to a number of missions is a low-cost, convenient way for any state to enhance their prestige, earn a reputation as a frequent contributor, and gain influence within each mission, without incurring too much risk. However, "tokenism" has become so pervasive that Bellamy and Williams (2013*a*) cite it as one of the biggest obstacles to force generation in UN peacekeeping missions, particularly as missions have become more violent and states have become more risk-averse regarding involvement in UN peacekeeping.

In fact, Bellamy and Williams (2013*a*) recommend financial inducements or bribery as a means to persuade states to make the transition from being token contributors to major contributors. This section evaluates the use of aid by wealthy industrialized UN member states to specifically target token contributors. To test this hypothesis, we create a series of binary indicator variables classifying non-contributors, token contributors (1 to 40 troops),[13] and major contributors (more than 40 troops) in order to compare aid allocation to each category. We estimate three OLS regressions—one for each significant time period—in which the natural log of OECD aid is the dependent variable.[14] In addition to the three categories of contributor, other explanatory variables include country population, GDP per capita, infant mortality (taken from (World Bank, 2017)), repression (taken from (Gibney, Cornett and Wood, 2009), available from 1976 onward) and a democracy indicator equal to 1 if the

[13]The "token" classification refers specifically to troop contributions.

[14]We did not feel that either Heckman selection or zero-inflated models, approaches commonly used in previous aid allocation literature, would be appropriate here. The sample contains only non-OECD countries, nearly all of whom receive some non-zero amount of aid in every year in the sample, and the results of a Heckman model do not show evidence of non-random selection.

combined Polity score is greater than 6. Each model includes country fixed effects. Results are presented in Table 5.

Table 5: Targeting token contributors: Do token contributors receive more aid?

	1976-1987	1988-1998	1999-2015
Non-contributor$_{t-1}$	-0.075	-0.005	-0.139^{*}
	(0.678)	(0.097)	(0.074)
Major contributor$_{t-1}$	0.397	-0.146	-0.204^{**}
	(0.683)	(0.114)	(0.081)
Token contributor$_{t-1}$	—	—	—
ln(GDP p. c.)$_{t-1}$	-0.801^{**}	-0.585^{**}	-0.499^{**}
	(0.197)	(0.150)	(0.123)
ln(population)$_{t-1}$	3.278^{**}	-1.667^{**}	0.035
	(0.478)	(0.415)	(0.249)
Infant mortality$_{t-1}$	-0.002	-0.004	-0.021^{**}
	(0.005)	(0.005)	(0.003)
Repression$_{t-1}$	-0.098^{**}	-0.088^{**}	0.033
	(0.042)	(0.036)	(0.036)
Democracy$_{t-1}$	0.076	0.396^{**}	0.142
	(0.119)	(0.105)	(0.088)
Constant	-22.019^{**}	34.209^{**}	11.254^{**}
	(6.318)	(4.856)	(3.224)
Country fixed effects	✓	✓	✓
N	1,002	1,535	2,368
Adj. R^2	0.899	0.847	0.872

*p<0.1; **p<0.05

Rows 1-3 contain the estimates for each of each contributor category, with "token" contributors as the reference category, since we are primarily interested in differences in aid allocation between this category and the other two. In the first two models (columns 2 and 3), estimates indicate that token troop contributors do not receive significantly different amounts of aid than either non-contributors or major contributors. However, this changes in the post-1999 subsample. Here, we see that both non-contributors and major contributors receive significantly less aid than token contributors.

This makes sense based on our knowledge of the manner in which UN peacekeeping has evolved. As UN peacekeeping missions have expanded in both number and scope since the late 1990s, the need to generate manpower has become more acute. The countries financing and organizing these missions likely realized that relying upon a handful of countries for the vast majority of peacekeepers was not a sustainable strategy. After all, if one of these countries undergoes a sudden peacekeeping policy shift, ongoing peacekeeping missions would suffer a serious manpower shortage. The need to "broaden the base" of major contributors has thus become a significant priority for the United Nations (Bellamy and Williams, 2012).

Peacekeeping organizers likely believe that tying aid to future contributions will have the biggest marginal impact on troop contributions when allocated this set of participants. Unlike non-contributors, these countries are already participating, but have not yet made the decision to do so in a significant way. Both Coleman (2013) and Bellamy and Williams (2013*a*) speak of the need for a shift in attitudes and policies toward peacekeeping in these countries, and the use of foreign aid to change recipient policies has been well-established by previous research. Moreover, evidence presented by Henke (2016) shows that statesmen from Western countries and the UN itself are personally involved in securing contributions for large UN missions. Leaders that are on the fence about participating will find it more difficult to resist such pressure if an economic aid package is tied to their decision.

Major contributors, on the other hand, should need less prodding to continue participating on a large scale. Their troops are sufficiently trained and inter-operable, the bureaucracy is in place, and they have already internalized the norms and benefits inherent in being a personnel contributor.

We consider this finding to be strong evidence in support of our argument that the UN and its wealthiest member states have recently begun to strategically use bilateral foreign aid as a side-payment as part of their effort to generate manpower to staff UN missions. These provide further evidence of the link between the strategic use of aid as a selective incentive

and UN peacekeeping force generation.

Aid as *ex post* compensation

A final implication of the theory is that countries that participate in more difficult missions should be compensated at higher rates. It is politically costly for any government when its own personnel are killed on a battlefield overseas, particularly in conflicts in which national survival is not directly threatened (Gartner, 2008). Furthermore, UN missions vary widely in terms of the level of risk associated with them. Troops sent to the Central African Republic as active participants in an ongoing violent conflict are surely in greater danger than those sent to Cyprus to monitor a 40 year-old ceasefire. Accordingly, just as they must recruit states to contribute manpower at the outset, the states responsible for sponsoring and assembling these missions have incentive to prevent contributing states that have suffered personnel losses from pulling their remaining personnel out of missions that they deem too costly or dangerous, as the United States did in 1993 after suffering casualties in Somalia (Gordon and Friedman, 1993). This is the intuition behind Hypothesis 6. In order to evaluate this hypothesis, we borrowed data from Henke (2017), which contains information on the number of personnel killed[15] in each UN mission by contributing country, and assembled the data into country-year format. We also distinguish between combat personnel (i.e., troops) and non-combat personnel; the latter category includes observers, police, and other types of staff.

To evaluate hypothesis 6, we employ a set of linear models in which the dependent variable is again the natural log of OECD aid received in year t. Here, our unit of analysis is the non-OECD contributor-year between 1976 and 2014. Our primary independent variable, the natural log of annual fatalities incurred, is lagged one year.[16] We use the same aid-

[15]The data differentiate between personnel killed due to illness, accidents, hostilities, and other causes. For our purposes, we group these categories together as "total personnel killed."

[16]The one-year lag is important theoretically, since Western donor countries will want to act relatively quickly to compensate contributing countries who have lost personnel in order to prevent them from defecting from the missions in which they are participating.

relevant covariates from the previous section. Each model includes country fixed effects, and the models estimated on the full sample include decade fixed effects as well. Results are presented in Table 6.

Table 6: Total personnel fatalities and OECD aid receipts

	1976-1987	1988-2014	2000-2014	1976-2014
$\ln(\text{total fatalities})_{t-1}$	0.020	0.156^{**}	0.085^{*}	0.187^{**}
	(0.121)	(0.043)	(0.048)	(0.043)
$\ln(\text{GDP pc})_{t-1}$	-0.594^{**}	-0.235^{**}	-0.363^{**}	-0.536^{**}
	(0.151)	(0.078)	(0.128)	(0.063)
$\ln(\text{population})_{t-1}$	1.865^{**}	-0.840^{**}	-0.055	-0.176
	(0.334)	(0.179)	(0.263)	(0.143)
$\text{Infant mortality}_{t-1}$	-0.008^{**}	-0.017^{**}	-0.018^{**}	-0.016^{**}
	(0.004)	(0.002)	(0.004)	(0.002)
Repression_{t-1}	-0.078^{**}	-0.011	0.026	-0.112^{**}
	(0.035)	(0.028)	(0.037)	(0.024)
Democracy_{t-1}	0.240^{**}	0.094	0.165^{*}	0.182^{**}
	(0.097)	(0.070)	(0.090)	(0.058)
Constant	-9.291^{**}	16.230^{**}	9.149^{**}	14.806^{**}
	(4.499)	(2.228)	(3.384)	(2.031)
Country fixed effects	✓	✓	✓	✓
Decade fixed effects				✓
N	1,335	3,418	2,216	4,753
Adjusted R^2	0.893	0.826	0.875	0.773

$^{*}p<0.1$; $^{**}p<0.05$

Table 6 contains four estimations, one for the three significant time periods in the data, and a fourth model including the full sample. As expected, the number of personnel fatalities suffered in UN missions is not a significant predictor of OECD aid received during the Cold War. However, this changes after 1990, with the dramatic shift in demand for personnel. In the years following the Cold War, as the number of a given country's personnel killed in UN missions increases, so does the amount of OECD aid it receives. This is true during the post-Cold War period as a whole, after 1999, and throughout the entire 1976-2014 time frame. However, interpreting the substantive meaning of coefficient estimates from a linear model

Table 7: Effects of troop vs non-combat personnel fatalities

	1976-1987		1988-2014		2000-2014		1976-2014	
$\ln(\text{non-combat personnel fatalities})_{t-1}$	0.039		0.342**		0.227**		0.363**	
	(0.565)		(0.064)		(0.065)		(0.066)	
$\ln(\text{troop fatalities})_{t-1}$		0.107		0.034		−0.058		0.080
		(0.139)		(0.050)		(0.057)		(0.050
$\ln(\text{GDP per capita})_{t-1}$	−0.773**	−0.779**	−0.302**	−0.331**	−0.343**	−0.374**	−0.516**	−0.545
	(0.198)	(0.198)	(0.071)	(0.071)	(0.128)	(0.128)	(0.063)	(0.063
$\ln(\text{population})_{t-1}$	3.236**	3.258**	−0.861**	−0.775**	−0.089	−0.022	−0.196	−0.12
	(0.479)	(0.479)	(0.165)	(0.165)	(0.263)	(0.263)	(0.143)	(0.143
$\text{Infant mortality}_{t-1}$	−0.002	−0.002	−0.015**	−0.016**	−0.018**	−0.020**	−0.016**	−0.017
	(0.005)	(0.005)	(0.002)	(0.002)	(0.004)	(0.004)	(0.002)	(0.002
Repression_{t-1}	−0.096**	−0.097**	−0.054**	−0.049*	0.027	0.027	−0.114**	−0.109
	(0.042)	(0.042)	(0.027)	(0.027)	(0.037)	(0.037)	(0.024)	(0.024
Democracy_{t-1}	0.107	0.101	0.121*	0.131*	0.161*	0.165*	0.182**	0.190*
	(0.119)	(0.119)	(0.067)	(0.067)	(0.090)	(0.090)	(0.058)	(0.058
Constant	−22.209**	−22.352**	18.024**	17.615**	9.111**	8.982**	14.631**	14.362
	(6.305)	(6.298)	(2.003)	(2.011)	(3.377)	(3.387)	(2.024)	(2.034
Country fixed effects	✓	✓	✓	✓	✓	✓	✓	✓
Decade fixed effects							✓	✓
N	1,002	1,002	3,750	3,750	2,215	2,215	4,752	4,752
Adj. R^2	0.898	0.898	0.808	0.806	0.876	0.875	0.774	0.772

*p<0.1; **p<0.05

in which both the dependent and independent variables are log-transformed requires a few extra steps. For instance, if we wanted to determine how an increase from 2 to 3 personnel fatalities (a realistic increase, given that there are relatively few fatalities in the data) would change that country's expected amount of aid received, we would calculate $a = log\left(\frac{100+p}{100}\right)$ where p is the percent increase in X, and then take $e^{a\hat{\beta}}$

In this case, given that we are interested in the expected change in aid resulting from a 50% increase in fatalities, the above formula yields a 7.9% increase in expected aid. For a country receiving $76.5 million in aid—the median amount in the data—this represents an increase of $6.04 million in compensation.[17].

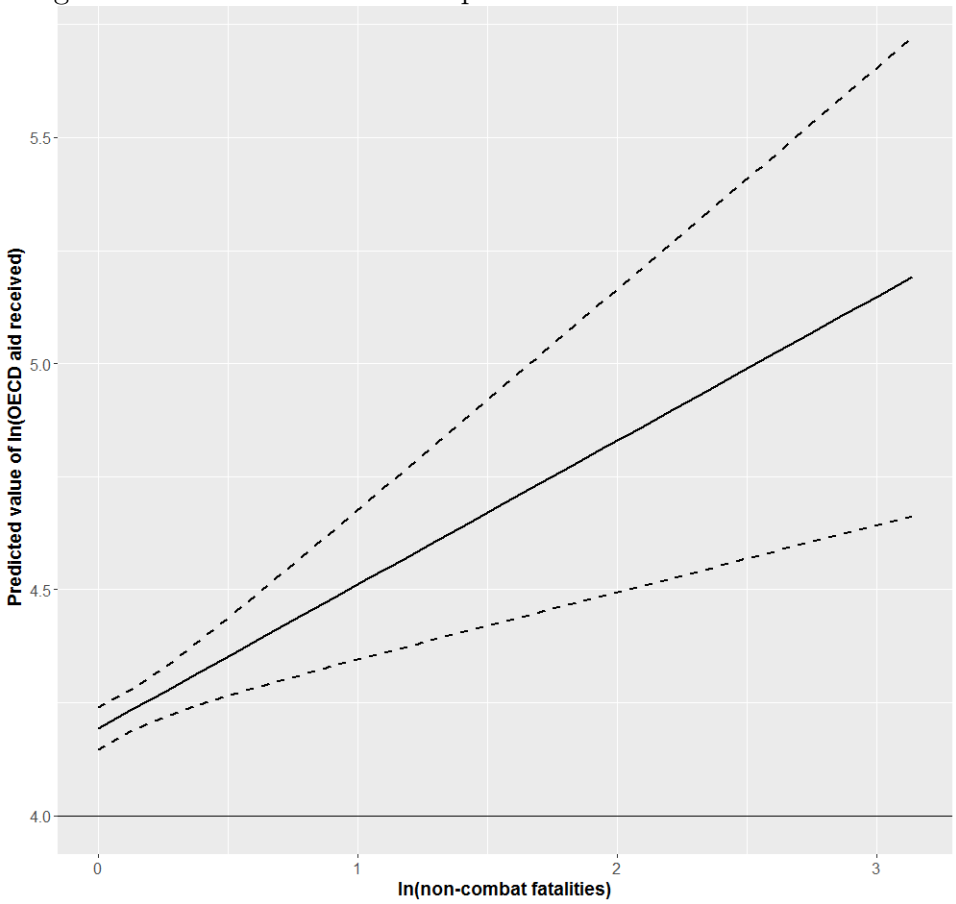
In order to determine whether OECD donors compensate for losses of troops at different rates than for non-combat personnel losses, we further disaggregated the UN fatalities data based on distinctions in Henke (2017) and estimated some additional models, the results of which are presented in Table 7. The table contains two estimations for each time period; one each to determine the effect of troop- and non-combat personnel fatalities endured by countries on aid received by those states from OECD donors. As was true in the troop contribution analyses, personnel fatalities of either type incurred by contributing countries are not significantly related to increases in aid allocation from OECD countries during the Cold War period. However, this changes after the Cold War.

During both post-Cold War periods (1991-2014 and 2000-2014), as well as in the full sample (1976-2014), countries that incur more non-combat personnel fatalities receive significantly more aid from OECD countries the following year. Based on the coefficient estimate from Model 7 and using the formula above, a 50% increase in non-combat personnel deaths yields a 15.9% increase in aid. This the equivalent of a $12.2 million increase above the median case.

By contrast, we find no evidence that troop fatalities are compensated with higher levels

[17]Formulae adapted from Benoit (2011)

Figure 5: Substantive effects of personnel fatalities on aid received



of aid; in fact, estimates for troop fatalities never approach statistical significance in any of the time periods or the full sample. We were initially surprised by this finding, but it may be explained by the fact that donors feel that they have already compensated contributing countries for their troop contributions beforehand. Put differently, it is entirely possible that donor countries had already factored in the risk of troop fatalities when allocating aid during the original recruiting phase. After all, these personnel are more often sent into harm's way during these operations, and thus are in greater danger. In contrast, the death of non-combat personnel may be seen as more unexpected, but no less politically sensitive for the contributing countries, and so compensation is equally warranted.[18]

[18]As robustness checks to ensure that these findings were not driven by a few cases losing large numbers of personnel, we estimated replications of Table 7 using a dichotomized version of both fatalities variables, and, separately, excluding Bangladesh, India, Nepal, Pakistan, and Sri Lanka, each of which receive large

The fact that contributing countries appear to be compensated for personnel fatalities, but only beginning after the Cold War, fits well with our argument. This is further evidence that as the United Nations became more ambitious in the realm of peacekeeping operations and the demand for manpower became more acute, Western countries began to use foreign aid as a tool to alleviate the collective action problem among smaller states, and to overcome financial and institutional problems within the UN. Moreover, the donor countries apparently recognize countries who participate in more violent, costly conflicts, and compensate them for the (non-combat) losses that they incur in an effort to maintain these coalitions of contributing countries. In our view, the fact that combat personnel fatalities do not appear to be compensated *ex post* simply means that the *ex ante* aid received is meant both to incentivize participation and to account for the risk incurred by sending troops to combat zones. Together, our findings go a long way toward explaining why countries continue to participate in increasingly risky and violent UN peacekeeping operations, given the fact that no institutional mechanism exists to compensate countries for losses incurred in the process.

Conclusion

This paper set out to explain why many states with no discernible security interests in conflicts beyond their own borders are nevertheless contributing significant numbers of their own personnel to UN peacekeeping operations. Previous arguments about peacekeeping personnel contributions held that states earn private benefits from contributing personnel. However, we review these benefits and still find them to be insufficient as explanations for why poor countries would continue contributing in the face of continuously rising costs. Given the acute demand for manpower to staff peacekeeping missions, contributing states have significant bargaining leverage, and small reputational benefits and financial compensation

amounts of aid have consistently ranked among the top contributors of personnel to UNPKOs. Results remain substantively the same, and can be found in the appendix.

do not account for such high levels of participation from ostensibly disinterested states.

We argue that as demand of peacekeeping manpower has risen, the UN member states who have the most substantial interest in maintaining global stability—members of the UN Security Council and the globalized economies of Western Europe and East Asia—have coordinated outside the UN to ensure that these missions continue to be adequately staffed. We provide multiple layers of evidence to show that industrialized countries allocate foreign aid systematically and strategically to persuade recipient countries to contribute more manpower to UNPKOs, and to continue participating even when doing so becomes costly.

These findings are significant in both theoretical and practical terms. For scholars who study international organizations, we shed light on one of the methods used by the United Nations to compensate for the rising costs of accomplishing one of its most important tasks. Interestingly, this persuasive mechanism occurs outside the institutional auspices of the UN. It appears to have been effective, as peacekeeping missions continue to be staffed. However, while determining whether aid influences the *quality* of personnel offered by recipients is not possible due to data limitations, pursuing this question would be worthy of future efforts. Also interesting would be applications of our argument to other international organizations and policy areas—to what extent do other IOs attempt to use extra-organizational financial inducements to overcome institutional inefficiencies and accomplish the goals of the organization itself? Whereas Abbott and Snidal (1998) ask how individual states seek to achieve their goals through international institutions, this addresses the opposite question: In what ways can international organizations pursue their own institutional goals using tools of bilateral pressure and inducement.

We also challenge conventional thinking regarding the use of foreign aid. Most scholarship in this area concludes that aid—even development aid—is driven largely by the selfish interests of individual donors. We show that this is overly pessimistic; our findings suggest that Western donors can use aid to help bring about international collective action toward

the provision of a global public good.

This question also has important practical implications for international security. Some scholars have attributed the relative decline of both intra- and inter-state violence over time primarily to the peacekeeping efforts of the United Nations (Goldstein, 2011). Whether or not is accurate is debatable, but recent findings do show that larger UN missions are more effective at protecting civilians and establishing peace (Hultman, Kathman and Shannon, 2014*b*). However, it is clear that with broader and deeper mandates, UN peacekeepers are playing increasingly prominent roles in conflicts around the globe. Therefore, understanding the methods through which these missions are established, staffed, and maintained will be of critical importance to international security in the coming years.

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