

HUMAN RIGHTS AND THE STRATEGIC USE OF US FOREIGN FOOD AID

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How does respect for human rights affect the disbursement of food aid by US foreign policymakers? Scholars analyzing foreign aid generally look at only total economic aid, military aid or a combination of both. However, for a more nuanced understanding of human rights as a determinant of foreign aid, the discrete foreign aid programs must be examined. By disentangling component-programs from total aid, this analysis demonstrates how human rights influence policymakers by allowing them to distribute food aid to human rights abusing countries. Consequently, policymakers can promote strategic objectives with food aid, while legally restricted from distributing other aid. The primary theoretical argument, which links increasing human rights abuse with increasing food aid, is supported by results from a Heckman model. This procedure models the two-stage decision-making process where foreign policymakers first, select countries for aid and then, distribute aid to those selected.

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# CHAPTER 1

## INTRODUCTION

### 1.1-Research Question

If US policymakers want to alleviate hunger abroad they must allocate food aid to those countries with the most need. However, another option exists for US foreign policymakers; they can use food aid as a foreign policy tool to further strategic interests, which in turn may divert this vital resource away from those who need it most. Scholars researching the determinants of food aid have concluded that the disbursement of food aid, although driven in large part by humanitarian concern, is used to help further the strategic interests of the US and support domestic agricultural interests (e.g., Ball and Johnson 1996; Barrett 2001; Diven 2001; 2006; Neumayer 2005; Wallerstein 1980). What these researchers have not asked is why food aid is used in this way, especially if other, perhaps more powerful economic development tools are at the disposal of US foreign policymakers.

The primary US agency responsible for the distributive process of foreign aid, United States Agency for Aid and Development, officially states two broad goals in the context of all aid, stating that "US foreign assistance has always had the twofold purpose of furthering America's foreign policy interests in expanding democracy and free markets while improving the lives of the citizens of the developing world ... USAID works around the world to achieve these goals" (USAID 2006). However, the specific legislation also prohibits US aid from countries that violate internationally recognized human rights, unless the aid directly goes to help people in need (The Committee on

International Relations and The Committee on Foreign Relations 2006). If this law restricts the use of many of the discrete foreign aid programs from being distributed to countries with poor human rights practices then food aid may be one of the few options available to US foreign policymakers as they craft aid packages for certain states. Similarly, foreign aid options are often legally restricted from being used when US policymakers impose sanctions on other countries. Again, as with the human rights provision in the foreign aid law, if sanctions restrict the use of certain aid programs then food aid may be used as an alternative aid program by US foreign policymakers. Although this aid is intended to alleviate suffering the resources provided by this aid often benefit the governments themselves, either through the distributional rights of the aid or more simply by the freeing of government resources for other programs.

Human rights scholars who study foreign aid have also concluded that human rights matter, at least some of the time, as foreign policymakers distribute economic and military aid.<sup>1</sup> However, scholars working in this literature have not yet unpacked these aid programs in order to determine which programs are affected by US legal restrictions concerning human rights and which others are not affected by this law. Food aid, a component part of total economic aid, is well-suited for an analysis of foreign policy decision-making because of the legal ability of policymakers to allocate this type of aid to human rights abusing countries while their ability to allocate other types of aid is restricted. Therefore, this analysis of food aid and human rights not only

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<sup>1</sup> For discussions concerning the development of this literature see Poe (1990; 1991a) and Neumayer (2003a) and see Poe (2004) for a discussion of the human rights literature in general.

adds to these two distinct literatures but it also helps to integrate the findings of the two.<sup>2</sup> Accordingly, I answer the following research question:

*How does respect for human rights affect the disbursement of food aid by US foreign policymakers?*

Answering this question will provide a more theoretically guided analysis of other discrete foreign assistance programs and the manner in which the US law affects decision-making regarding each specific aid program. An analysis of food aid will provide a more nuanced understanding of what constrains foreign aid decision-making because this specific program has a clear theoretical relationship with human rights, which is grounded in the language of US foreign aid legislation, as well as sanctions. Before more thoroughly presenting the previous research on human rights and food aid and then next the decision-making theory that links these concepts together, it is important to first briefly present an historical overview of US foreign aid and food aid specifically.

## 1.2-History of US Foreign Aid and Food Aid

“USAID's history goes back to the Marshall Plan reconstruction of Europe after World War Two and the Truman Administration's Point Four Program. In 1961, President John F. Kennedy signed the Foreign Assistance Act into law and created by executive order USAID. Since that time, USAID has been the principal US agency to

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<sup>2</sup> Zinnes (1976) distinguishes between additive and integrative cumulation where the first is achieved when a study adds to an existing set of knowledge and the second is achieved when a study ties together findings from multiple research veins.

extend assistance to countries recovering from disaster, trying to escape poverty, and engaging in democratic reforms” (USAID 2006).

Even in the beginning, the Marshall plan was supported for a variety of reasons, which included not only humanitarian and economic concerns, but also, and perhaps the crucial factor for Congressional support, the looming security threat that the Cold War represented. As US foreign aid policy evolved, decision-makers eventually crafted Public law 480 (PL-480) in 1954, which authorized the use of food aid as a development and emergency aid tool. PL-480 was enacted partly because of the large surplus of food that the US had produced after the end of the World War II. This surplus was used by US foreign policymakers to alleviate “severe food shortages and famines, particularly in South Asia”, an area particularly vulnerable to the threat of Communism at the time (Ball and Johnson 1996: 516).

US food aid was originally under the budgetary control of the US Department of Agriculture and, after the passage of the Foreign Assistance Act, policymakers in the USAID began managing the distribution of the aid (Lancaster 2006). However, the actual decision-making control for PL-480 was shared through an “interagency group made up of the Department of Agriculture, the Department of State, Treasury Department, USAID and the Office of Management and Budget (OMB)” (Lancaster 2006: 74). The actual seat of decision-making authority for food aid and foreign aid in general continued to change throughout the last few decades. “In the 1990s the interagency group was disbanded and both the allocation and management of the humanitarian and development-oriented elements of this program were” relocated

almost entirely to USAID (Lancaster 2006: 74). However, USAID still consults with the other agencies, especially the Department of Agriculture and Department of State, as they distribute food aid.

More specifically, food aid is currently distributed under the authorization of five separate programs, authorized by the legislative programs of PL-480 and Section 416(b). Section 416(b) currently maintains the Commodity Credit Corporation Food for Progress program, and until recently, Food for Education was also funded under this section; however, in fiscal year 2004 it became a separate appropriation account known as the McGovern Dole Global Food for Education program. "All Food Aid is funded by the US Department of Agriculture (USDA). PL-480 Title I programs are funded and implemented by USDA. PL-480 Titles II and III programs are funded by USDA and implemented by USAID" (USAID 2006). The Title I program allows recipient countries to purchase US agricultural products with food aid loans, which must later be repaid. The Title II program provides bilateral food aid through transactions facilitated by relief agencies and the UN World Food Program. The Title III program offers relief through several mechanisms, which include the barter of food aid and debt relief of Title I loans (Ball and Johnson 1996).

In addition to establishing USAID, the Foreign Assistance Act of 1961 under Section 116 specified that US foreign aid could not be distributed to countries that engage "in a consistent pattern of gross violations of internationally recognized human rights" (Committee on International Relations and Committee on Foreign Relations 2006: 73). Congress further strengthened this provision in the 1970s with passage of

additional laws, which made the human rights provisions of the 1961 law binding, and by exercising greater oversight over the executive branch's distribution of foreign aid (Cingranelli and Pasquarello 1985; Forsythe 1987). While the ability of Congress to effectively oversee the vast and complex decision-making organization within USAID is questionable (e.g., Forsythe 1987; Ruttan 1993); the law however, has seemingly been effective in limiting the ability of USAID decision-makers when they distribute aid to certain countries some of the time. The observation that US decision-makers adhere to the human rights provisions of the Foreign Assistance Act at least some of the time is indeed, one of the primary contributions of the human rights/foreign aid literature discussed much more in-depth in the following chapters. However, many aid options exist for policymakers to choose from when crafting aid packages. Policymakers may be able to substitute certain types of aid for countries with poor human rights records or sanctions. I discuss this argument more thoroughly in Chapter 3.

### 1.3-The Shape of Things to Come

I organize my research efforts as follows: First I present the literature that examines the role that human rights (as well as US strategic interests and humanitarian objectives) play in the formation of foreign aid decisions and link this work with literature that specifically examines food aid. Next I discuss theoretically the role that human rights and sanctions play in the decision-making environment of US foreign policymakers as they select and allocate food aid abroad. Throughout the discussion I present the hypotheses that correspond to each theoretical section. Next, I present the

research design and the specific methodological considerations relevant to statistically testing the theory. Finally, I present the empirical results and then discuss the implications of the findings.

Overall, the research effort that this thesis represents contributes to the literature on human rights, foreign aid and food aid specifically in several ways. It is the first to consider how human rights and sanctions affect the allocation of food aid. It is also one of the few to disaggregate total economic aid into one of its component parts in order to better understand the relationship of human rights and a specific aid program: food aid. Finally, this thesis extends the analysis of food aid through the year 2001, allowing for the consideration of the entire period between the end of the Cold War and the events of September 11, 2001 (in addition to analyzing food aid during a portion of the Cold War). I begin then with a presentation of what previous research on human rights and foreign aid has accomplished and the way in which I add to this body of work.

## CHAPTER 2

### PREVIOUS RESEARCH

Scholars continue to devote considerable attention to the level of respect for human rights in potential recipient countries, which are considered for US foreign aid (in addition to other determinants), and its effect on the decision-making process that US foreign policymakers must undertake when crafting packages of economic aid, military aid or a combination of both types (e.g., Apodaca and Stohl 1999; Blanton 1994; Cingranelli and Pasquarello 1985; Knack 2004; Lai 2003; McCormick and Mitchell 1988; Meernik and Poe 1996; Meernik, Kruger and Poe 1998; Neumayer 2003b; Poe 1991b; 1992; Poe and Meernik 1995). These studies focus primarily on the total amount of all aid programs (aggregated aid) that each country receives annually as their dependent variable. However, by focusing this current analysis of the determinants that drive the allocation process of one specific aid program (food aid). I provide a more nuanced understanding of the role that human rights play in constraining the decision-making process of US foreign aid distribution. Future research can then utilize my findings and approach to analyze other individual (disaggregated) aid programs.

Other scholars working outside this literature have devoted considerable attention to the US allocation of food aid specifically (e.g., Ball and Johnson 1996; Barrett 2001; 2002; Barrett and Heisey 2002; Barrett, Mohapatra and Snyder 1999; Diven 2001; 2006; Neumayer 2005; Uvin 1992; Wallensteen 1976; Wallerstein 1980). This literature, the “record of congressional debate on food aid policy [and] the

language of the legislation itself ... all point to four principle objectives that have been pursued with food aid: the disposal of surplus US agricultural commodities, the promotion of American geopolitical interests, the provision of humanitarian and development assistance, and the development of potential commercial markets for American agricultural products" (Ball and Johnson 1996: 516). These scholars however, have not yet considered the role that human rights play in influencing the decision-making environment in which US foreign policymakers distribute food aid.

In this research project I link these two previously discrete research avenues together in order to better understand the role that human rights play in informing US foreign policymakers as they render their decisions by looking specifically at food aid, one component part of total economic aid. I also add to this literature by considering how sanctions affect the food aid distribution process. Before presenting an actor based decision-making theory of food aid distribution I will present what these two research avenues have accomplished to date and specifically how this current research project both adds to and integrates the two together.

## 2.1-Foreign Policy Analysis

Scholars of international relations and foreign policy more specifically have been interested for some time in the influence of humanitarian objectives or moral criteria on the decision-making and behaviors of states (e.g., Donnelly 1982; Finnemore and Sikkink 1998; Kennan 1954; Morgenthau 1978; Van Dyke 1972). Humanitarian objectives increasingly make up one set of policy interests and are an important

normative force that influences the policy decision-making environment, especially with the ending of the Cold War (e.g., Apodaca and Stohl 1999; Rosenblum and Salehyan 2004).

Over the past three decades, beginning with the seminal work of Lars Schoultz (1981), scholars have sought to test the link between the stated importance of human rights by the US government and the actual US policy behavior. The work of Schoultz (1981) itself builds off earlier foreign aid research that, although not yet interested in human rights, attempted to understand the strategic and humanitarian determinants of US economic aid through multivariate analyses (Davenport 1969; Kato 1969; Kaplan 1975; McKinlay and Little 1977; Wittkopf 1972). In spite of the initial ground that this group of researchers made the early work that examined the influence of human rights on foreign aid used less sophisticated bivariate correlation analyses (Carleton and Stohl 1985; 1987; Schoultz 1981; Stohl, Carleton and Johnson 1984) and were later subject to serious criticism (e.g., Poe 1990; Poe 1991a).

Cingranelli and Pasquarello (1985) were the first researchers to test the relationship of human rights on the use of foreign aid, both economic and military, by US policymakers with a fully specified model. They were also the first to theorize a two-stage decision-making process based on interviews conducted with a number of US foreign policymakers. The theory suggests that policymakers first select countries to receive aid before then allocating the aid to the pool of chosen recipients. This framework continues to inform the development of foreign policy research despite the criticism leveled at the results of the Cingranelli and Pasquarello (1985) study for

dropping certain cases that, had they been included, would have substantially changed the conclusions rendered by the two researchers (McCormick and Mitchell 1988).

Another criticism of these studies was leveled by Lebovic, who stressed that total foreign aid is “a crude aggregate and studies err when they indiscriminately treat it as a single entity and fail to consider differences in the purposes and impact of the aid programs involved” (1988: 118).

For his study, Lebovic (1988) disaggregates US foreign aid by breaking up USAID programs into three dependent variables: overall assistance, economic assistance and military assistance, where each is made up of four author selected subprograms from the USAID program list. Despite the novel disaggregation of foreign aid subprograms into categories, Lebovic still utilizes similar dependent variables to those measured in other previous and subsequent research.

Most research that followed, continued to analyze the influence of human rights on the distribution of only the aggregate of total economic aid (e.g., Poe 1992; Poe and Sirirangsi 1993; 1994), military aid (e.g., Poe 1991b; Poe and Meernik 1995) or the combination or total of the both (e.g., Apodaca and Stohl 1999; Blanton 1994; Lai 2003; Meernik and Poe 1996; Meernik, Krueger and Poe 1998; Neumayer 2003b; Poe, Pilatovsky, Miller and Ogundele 1994). Few examples exist within the current literature that look for causal linkages between a discrete aid program and factors from that specific program’s recipient countries, which include human rights. Recent research conducted by Blanton (1999; 2000; 2005) is an exception to this trend however. Blanton specifically seeks to determine if a recipient country’s respect for human rights

affects US arms transfers specifically, a more discrete form of aid. Through more nuanced analyses such as these (including the present research endeavor) scholars may begin to better understand why respect for human rights sometimes appear to affect decision-making and why at other times, it appears as if it does not. With a greater understanding of one individual aid program garnered from the results of this thesis, future research will be better able to account for the foreign policy behavior of decision-makers working with other aid programs. Food aid is a perfect candidate for this treatment because of the lack of legal restrictions placed upon the use of this type of aid as compared with other aid programs. I present a more thorough discussion of the foreign policy legislation that constrains policymakers' behavior in the theory section of this piece.

## 2.2-Previous Methods of Inquiry

As the human rights literature developed so to did the sophistication of the methods by which the researchers analyzed the empirical linkage between human rights and foreign aid. Although it was Cingranelli and Pasquarello (1985) who first put forth the two-stage decision-making process it was Poe and Meernik (1995), informed by the work of Heckman (1976; 1979), who first methodologically accounted for the link between the two stages. Since the publication of this study, further foreign aid research has largely adopted the method presented by these two authors (e.g., Apodaca and Stohl 1999; Blanton 2000; 2005; Bueno de Mesquita and Smith 2007; Lai 2003; Meernik, Kruger and Poe 1998).

The foreign aid literature examining the determinants of food aid allocation developed largely independent of the research on human rights and its effect on foreign aid. Some researchers studying the international foreign aid environment found early on that, for US foreign policymakers, need drives food aid (e.g., Shaughnessy 1977) while others supported the conclusion that interests drive aid (e.g., Sorenson 1979). Despite these early disagreements however, this literature continues to develop with most scholars now agreeing that humanitarian need and interests both play a part in the decision-making process of US policymakers (e.g., Ball and Johnson 1996; Neumayer 2005; Shapouri and Missiaen 1990; Travis 1995; Zahariadis, Travis and Ward 2000). Also, domestic economic actors, especially those involved in the economics of food (e.g., production, transportation, storage), have considerable interest in the use of food aid by the US government (e.g., Barrett 1998; Diven 2001).

The food aid literature did draw upon a few of the developments attributable to scholars working in the human rights literature; for example, Zahariadis, Travis and Ward (2000) were the first food aid researchers to adopt the two-stage aid approach for analyzing foreign aid, first put forth by Cingranelli and Pasquarello (1985). Neumayer (2005) also adopted this approach for his analysis of whether donor interest biases the allocation of food aid across countries in the 1990s (see also Barrett and Heisey 2002). Other food aid researchers were informed by the work conducted on foreign aid by Poe, Meernik and their co-authors, specifically relating to the strategic interest variables of the Cold War, military aid and troop deployments.

What none of these researchers, working in either literature, have yet to consider, is the role that human rights and sanctions play in legally constraining the available foreign aid options so that food aid remains one of the only options available for policymakers to use with certain countries. In the next section I present an actor based decision-making theory that accounts for the role that human rights play in the decision-making environment of US foreign policymakers as they select and allocate food aid to countries abroad.<sup>3</sup>

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<sup>3</sup> While this theory does not provide agent specific assumptions and corresponding hypotheses, it does ground itself within the context of the individual foreign policymaker in order to better conceptualize, and thus theoretically understand, the foreign aid distribution process. Currently, an agent oriented analysis of the use of human rights as a determinant for aid is outside the scope of this paper. However, future research should endeavor to provide such an understanding, because the "actor-specific theory of FPA provides the theoretical micro-foundations upon which actor-general IR theory may be grounded as a social science enterprise" (Hudson 2005:21).

## CHAPTER 3

### THEORY AND HYPOTHESES

In order to build a theory of food aid distribution it is first necessary to discuss the type of decision-making environment in which US foreign policymakers render decisions. Sprout and Sprout (1957; 1965; 1968; 1969) define decision-makers as imbedded within a political environment, or *milieu*.<sup>4</sup> The *milieu* first, defines the opportunities that are available to the actor and second, affects the probabilities that they will choose particular options over others. For these policymakers, the opportunities or list of “menu options” differ between the two decisions that must be made as part of the food aid distribution process (Russett 1972: 112-113; see also, Russett and Starr 1985: 19-25; Most and Starr 1989: 28-34 and 134; Poe 2004: 17-19). During the first stage, the decision makers’ options include the choice of selecting or not selecting a country to receive food aid followed by the second stage of allocating an amount of total food aid to those countries selected. Accordingly, given that a set of two policy decisions must be made before food aid can be distributed, it is essential to theoretically distinguish between two distinct, yet interrelated decision-making processes conducted by US foreign policymakers. Cingranelli and Pasquarello were the first scholars to suggest a two step foreign aid decision making process after conducting interviews with relevant foreign policymakers, which included; “members of congressional committees, committee staff members, occupants of pertinent roles in

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<sup>4</sup> Sprout and Sprout "define the general concept of 'milieu' to include all phenomena (excepting only the envired unit's own hereditary factors) to which the envired unit's activities may be related" (1957: 311). For the purposes of this study the envired unit or actor is the US foreign policy decision-maker charged with distributing food aid to other countries within the international system.

the Agency for International Development and the Department of State—many of whom stressed that decisions concerning US foreign assistance were made in two stages. In the initial stage, US policymakers performed a function analogous to ‘gatekeeping’; some countries were systematically excluded from the recipient pool, while others were passed on to the second stage of the decision process. In the second stage policymakers interacted to decide the level of assistance to be provided” (1985: 540).<sup>5</sup>

Previous inquiries into the determinants of the selection of foreign aid recipients and allocation of that aid have considered the same set of factors at both stages of the distribution process. Arguably, this is because most of these previous research efforts analyzed large aggregate totals of US foreign aid focusing on total economic aid (Poe 1991a; 1992; Poe and Sirirangsi 1993, 1994), total military aid (Poe 1991b; Poe and Meernik 1995) or some combination or total of both (Apodaca and Stohl 1999; Blanton 1994; Carleton and Stohl 1985; 1987; Cingranelli and Pasquarello 1985; Lai 2003; Lebovic 1988; McCormick and Mitchell 1988; Meernik and Poe 1996; Meernik, Krueger and Poe 1998; Neumayer 2005; Poe, Pilatovsky, Miller and Ogundele 1994; Schoultz 1981; Stohl, Carleton and Johnson 1984).

This aggregate focus makes it difficult for researchers to differentiate between the relevant factors in both stages. As a consequence of this choice, researchers are forced to posit one general theory that encompasses both stages of the process and

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<sup>5</sup> These authors were subsequently followed by a host of other scholars who adopted the two-stage approach in their analyses of foreign aid (e.g., Apodaca and Stohl 1999; Blanton 2000; 2005; Bueno de Mesquita and Smith 2007; Lai 2003; Meernik, Krueger and Poe 1998; Meernik and Poe 1996; Poe 1991b; 1992; Poe and Meernik 1995; Poe and Sirirangsi 1994; Roper and Barria 2007).

then model both stages with the same factors present.<sup>6</sup> However, the analysis of only food aid, a component part of total economic aid, allows for a more nuanced approach to theorizing and modeling the two stage process.

Food shortages are caused, in large part, by the instability of a country's domestic food production capabilities and also by the inability to purchase supplementary food stocks from abroad (e.g., Barrett 2001; Barrett and Heisey 2002). The distribution of food aid is consequently intended to help mitigate this shortage by providing food to countries unable to provide enough to their own populations; "indeed, the United States provided 63.3% of the World Food Programme's \$1.9 billion budget in 2001, nearly ten times the donations of the second largest contributor, the European commission" (WFP 2001, as quoted in Barrett and Heisey 2002: 479).

The selection of food aid recipients during the first stage is, I argue, a process where US foreign policymakers rule out the most wealthy, economically developed countries; so that they can in turn, allocate food aid during the second stage of the decision making process to countries experiencing at least some degree of food shortage. Once the food aid recipients are selected or, conversely (and perhaps more accurately), once countries with no need for food aid are not selected, the strategic use of food aid will become a much more important component during the second stage of the process when specific amounts of aid can be tailored to meet a variety of US foreign policy goals in addition to the normative goal of humanitarian relief.

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<sup>6</sup> Some recent work conducted by Blanton (2000; 2005) seeks to determine if a recipient country's respect for human rights affects US arms transfers, a discrete foreign aid program; however, these analyses do not differentiate theoretically between the two stages of the decision making process, other than to emphasize the existence of the two stage decision-making process.

At both stages of the process, US foreign policymakers are charged with applying laws relating to humanitarian criteria that restrict the distribution of certain types of aid to countries with poor records of respecting the human rights of the citizenry. However, US foreign policymakers have the option of distributing certain types of aid to repressive countries if that aid is designed to directly assist needy populations.<sup>7</sup> Because of the presence of the 1961 Foreign Assistance Act, US foreign policymakers have their opportunities or list of menu options restricted based upon the human rights conditions in each individual country. Regardless of the human rights conditions on the ground however, the “needy persons” provision keeps some aid options open for use by policymakers. Also, countries that are sanctioned by US policymakers are ineligible for many types of other economic aid programs and military programs. Again, food aid is one option that should remain available to policymakers allocating aid to these particular countries because no sanction program explicitly blocks the use of food aid.

The existence of this provision is of particular theoretical importance in the allocation stage of the aid distribution process because foreign policymakers have the latitude to legally allocate food aid to a selected recipient country even if that country’s government has a poor record of respecting the human rights of its citizens. With this aid option available for use, policymakers may strategically allocate additional amounts

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<sup>7</sup> According to Section 116 of the Foreign Assistance Act of 1961 economic assistance cannot be provided to “any country which engages in a consistent pattern of gross violations of internationally recognized human rights, including torture or cruel, inhuman, or degrading treatment or punishment, prolonged detention without charges, causing the disappearance of persons by the abduction and clandestine detention of those persons, or other flagrant denial of the right to life, liberty, and the security of person, unless such assistance will directly benefit the needy people in such country” (Committee on International Relations and Committee on Foreign Relations 2006: 73). For a more complete discussion of this law and other laws relating to US foreign assistance see Forsythe (1987; 1988; 1995).

of food aid to countries with the worst human rights records because they are legally restricted from using other economic aid packages. As a consequence of this latitude available to policymakers when allocating food aid, countries with poor human rights should receive greater amounts of food aid when compared with other countries with better human rights practices, even when taking need based criteria and other strategic considerations into account. Similarly, countries that are sanctioned by the US should also receive greater amounts of food aid because many of the other economic aid programs and military aid programs are not available for policymakers to use with these countries.

In the following two subsections I first identify the relevant factors from the decision maker's *milieu* that are necessary for the selection of a pool of food aid recipients and then in the second subsection, identify the relevant factors for the allocation of food aid to the recipients selected in the first stage. Throughout the discussion, I present corresponding hypotheses of the US food aid distribution process. Operationalizations of the data necessary to empirically test each hypothesis are presented immediately after each hypothesis.

### 3.1-Selecting Food Aid Recipients

Before the food aid allocation process can begin US foreign policymakers must select an appropriate pool of recipient countries where the food aid has the potential to effectively achieve its humanitarian objective of relieving hunger. Out of many competing factors that exist for policymakers within their decision-making environment

(*milieu*) only some will be relevant during the first stage of the food aid distribution process while others will only be relevant during the second stage. Of course some of the information available in the policymaking *milieu* will have a part to play during both stages. Thus, I expect that the following determinants influence the decision-making environment of policymakers as they select recipient countries during the first stage of the process.

### 3.1.1-Low Food Production

Humanitarian aid seems certain to be motivated for some individuals, even within the bureaucracy, by charity and a broad desire to improve humanitarian conditions abroad. When a humanitarian need for subsistence level aid exists within a country, this information will enter US foreign policymakers' decision-making environment. With this information US foreign policymakers should respond, in part, based on the normative goal of alleviating human suffering abroad by selecting countries that meet this criterion for food aid. Some scholars have noted this normative influence of human rights on US policy behavior in general (e.g., Apodaca and Stohl 1999; Finnemore and Sikkink 1998; Rosenblum and Salehyan 2004).

If normative humanitarian goals exist within the US foreign policymakers' *milieu* and also drive the use of food aid as a foreign policy tool, at least in part, then policymakers need some instrument with which to approximate the relative subsistence level of humanitarian need that exists for this type of aid in potential recipient countries. When a country can produce enough food for itself the US will have little

humanitarian reason to allocate food aid to that country. The normative goal of alleviating human suffering abroad is best achieved in countries that have difficulty producing enough food for their own use. Thus, policymakers will select recipient countries for the allocation of food aid that produce relatively little food (e.g., Ball and Johnson 1996; Barrett 2001; Diven 2001; Neumayer 2005; Tuman and Ayoub 2004).

This leads to the derivation of the following testable hypothesis:

*Hypothesis 1a: US foreign policymakers are more likely to select a potential recipient country for food aid if food production in that country is low, ceteris paribus.*

Cereal production provides US policymakers with the ability to determine the need for food aid in potential recipient countries abroad and has been utilized by scholars in several quantitative analyses of food aid distribution (e.g., Diven 2001; Neumayer 2005). “Cereal production refers to crops harvested for dry grain only. Cereal crops harvested for hay or harvested green for food, feed, or silage and those used for grazing are excluded” (World Development data pages 2006). Cereal production is measured by first converting the amount of cereal produced by a country from metric tons into kilograms, a number more appropriate for gauging individual usage. This variable is lagged one year in order to simulate availability of this information for policymakers (e.g., Blanton 2005). Finally, the natural log of this measure is used in order to decrease the effects of outliers and conform to the linearity assumption of the statistical model (Greene 2000: 214). Data on the level of cereal production are taken from the World Development Indicators (World Development data

pages 2006). To ensure that the results are robust a non-log transformed version is also used in an alternative model.

### 3.1.2-Food Production Decrease

Humanitarian need for subsistence level aid also exists when the food production in a potential recipient country is drastically diminished by some calamitous event such as drought, flood, pestilence or conflict. These events will enter the decision-making environment and policymakers will react with the provision of aid, which will likely include food aid. A country that produced enough food domestically for its population in one year might have great need for food aid if one of these events occurs in the following year; thus, I derive the following hypothesis for testing:

*Hypothesis 1b: US foreign policymakers are more likely to select a potential recipient country for food aid as food production in that country decreases, ceteris paribus.*

To approximate the effect of some calamitous event on a country such as; drought, flood, pestilence, conflict, refugee movement or some other event the *change* ( $\Delta$ ) in food production is used. Cereal production change takes the value of cereal production for each year (time  $t$ ) and subtracts the cereal production value from the previous year (time  $t-1$ ). This variable is also lagged one year in order to simulate availability of this information for policymakers (e.g., Blanton 2005). As with the low food production variable, the natural log of this measure is used (Greene 2000: 214). Again, the non-log transformed version is used in an alternative model to ensure that the results are robust.

### 3.1.3-Gross Domestic Product Per Capita

In addition to lack of production capacity another source of information relevant to US foreign policymakers is the relative ability of individuals within a country to purchase food in the marketplace. If the population has a relatively moderate income its members should be able to purchase food products from both imported and domestic sources. This information should be accessible within the policymakers' *milieu* and should be utilized in concert with the other need based criteria. This information allows decision-makers to gauge the relative individual income of citizens in each potential recipient country; accordingly, I will test the following hypothesis:

*Hypothesis 1c: US foreign policymakers are more likely to select a potential recipient country for food aid as the Gross Domestic Product Per Capita in that country decreases, ceteris paribus.*

Data on Gross Domestic Product Per Capita are also taken from the World Development Indicators (World Development data pages 2006). This variable is lagged one year in order to simulate availability of this information for policymakers (e.g., Blanton 2005). The natural log of this measure is used to decrease the effects of outliers and conform to the linearity assumption of the statistical model (Greene 2000: 214; see also Neumayer 2003b; 2005).

### 3.1.4-Domestic Interests

With the ability to determine the necessary conditions for subsistence level humanitarian need, US foreign policymakers must also consider domestic level economic self-interests when selecting potential recipient countries, since most of the

actual food aid sent abroad is produced domestically. Economic considerations are surely present within the decision-making environment and enter into the food aid allocation process, as the interests of US domestic producers permeate policymakers' decision-making environment.

Food aid is beneficial to US exporters—especially exporters of food—because it decreases the available supply of food in more profitable markets. This in turn drives up the price of the exporters' goods and also creates potential new markets for domestic producers' food products where the food aid is sent abroad (Ball and Johnson 1996; Barrett 2001; Barrett and Heisey 2002; Diven 2001; 2006; Neumayer 2005; Uvin 1992). Domestic food producers are highly adept at lobbying the US government to support their interests; thus, US foreign policymakers are aware of the economic benefits and domestic interests within their decision-making environment as they select recipient countries for food aid (Diven 2001; 2006). Also, domestic economic interests, especially those involved in the economics of food (e.g., production, transportation, storage), have considerable interest in the use of food aid by the US government (e.g., Barrett 1998; Diven 2001). Concurrently, domestic interests support food aid as a foreign policy goal, perhaps not even recognizing its nature as a foreign policy tool. “[I]n the US [food aid] is the only form of aid that consistently scores positive in opinion polls ... This might partially be because food aid seems almost costless to the taxpayer” (Singer, 1987: 331-332). Additional economic information also enters the decision-making environment of US foreign policymakers.

The promotion and successful maintenance of foreign markets for US goods is a clear strategic interest for US exporters in addition to maintaining the economic wellbeing and status quo between its minor as well as its major economic partners. If food aid helps to support and stimulate growth of a smaller foreign market then it is within the scope of US economic interests to select countries for such aid. The US and its economic producers, who export to a recipient country, are interested in a stable growing economy in that country receiving food aid (e.g., Cathie 1989; Ball and Richards 1996; Diven 2001; Diven 2006). Meernik, Krueger and Poe (1998) also argue that foreign aid is targeted at states that are economically open, or are active trade partners with the US, although they find no evidence of this relationship. Their analysis, while not specifically looking at food aid per se does lend support to the theory that food aid, like total economic aid, is a strategic-economic tool for US foreign policymakers. If food aid helps to support a smaller foreign market for US goods and keeps it from becoming destabilized then it is in the strategic economic interests of the US and its exporters to provide such aid to a country with requisite humanitarian need for food aid.<sup>8</sup> Thus, I test the hypothesis:

*Hypothesis 1d: US foreign policymakers are more likely to select a potential recipient country for food aid as the level of exports from the US to that country increases, ceteris paribus.*

Exports from the US are used to gauge the relative importance and visibility of domestic interests and their influence within US foreign policymakers' decision-making

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<sup>8</sup> For example, one "explanation of how food aid can contribute to economic development is that by increasing the supply and decreasing the price of staple commodities, or wage goods, food aid can help a country escape a Ricardian bottleneck and stimulate development in the industrial sector" (Cathie 1989: 176-195, as quoted by Ball and Johnson 1996: 535)

environment (e.g., Ball and Johnson 1996; Barrett 2001; Barrett and Heisey 2002; Diven 2001; Neumayer 2005). To consistently compare monetary amounts as they inflate over time I have converted the trade data into constant \$US (2004), and have taken the natural log of this measure to decrease the effects of outliers and conform to the linearity assumption of the statistical model (Greene 2000: 214; see also Neumayer 2003b; 2005).<sup>9</sup>

### 3.1.5-Other Aid Packages

Additional menu options exist for US foreign policymakers as they select countries for aid packages. For example, security interests play a critical role in US foreign food aid policy. Realist scholars (e.g., Morgenthau 1962; Wallenstein 1976; Waltz 1979) stress the importance of states' security concerns in foreign policy decision-making and, despite the end of the cold war, military aid remains an important gauge of US strategic interests, especially regarding foreign aid use (e.g., Lai 2003; Meernik, Krueger and Poe 1998; Poe and Meernik 1995). Military aid indicates a clear strategic interest for the US. Foreign policymakers have no desire to endanger US military interests or stand by while civil unrest, possibly mitigated by access to subsistence level resources, helps in maintaining the general military interests of the US in a recipient country. Military aid and all forms of economic aid are important menu options for US policymakers. Moreover, the information that these programs represent in the decision-

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<sup>9</sup> To convert (inflate or deflate) dollars I utilized the Chain-type Price Index from the US Department of Commerce (2006).

making environment may influence the selection of food aid recipients, all else equal.

To test these two propositions I pose the following hypotheses:

*Hypothesis 1e: US foreign policymakers are more likely to select a food aid recipient country if that country received US military aid during the previous year, ceteris paribus.*

*Hypothesis 1f: US foreign policymakers are more likely to select a food aid recipient country if that country received any other type of economic aid (other than food aid) during the previous year, ceteris paribus.*

Data available on other aid packages are used to create two variables, one measuring total US military aid and the other measuring the total of all other economic aid (other than food aid) that a recipient country receives.<sup>10</sup> These two variables are lagged since policymakers will access information on the allocation totals for all aid programs from the previous year as they select food aid recipients and allocate that aid. The natural log of these measures is also used (Greene 2000). Foreign aid program information and data are available from USAID (2006).

### 3.2-The Allocation of Food Aid

After the recipient countries are selected, US foreign policymakers are left with the task of allocating the available food aid to those countries. Thus, the decision-making environment for policymakers changes in the second stage so that the opportunities or list of menu options differs from the menu options available in the selection stage. As a consequence of this change, the information used by policymakers when they determine how much food aid to allocate to each country,

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<sup>10</sup> All other economic aid is calculated by subtracting food aid from the total economic aid value.

while similar, is arguably different from the information that informs the policymakers' choice in the first stage. This difference exists because during this stage (as opposed to the first stage where the ability to augment food aid allotments does not exist), the strategic use of food aid becomes a much more important consideration to policymakers as they allocate specific amounts of aid in order to meet a variety of US foreign policy goals in addition to the normative goal of humanitarian relief.

Once the policymakers have selected the food aid recipients they must next determine the amount of food aid needed by each country. In order to make this determination, several important determinants from the decision-makers' *milieu* must be taken into consideration at the same time that the strategic objectives can be assessed. These determinants include the size of the country, the food production capacity of that country, any events that have drastically changed food production capacity and how much food aid was allocated by the US in the previous year. As foreign policymakers account for these need-based factors during the allocation stage the amounts can also be augmented and tailored for strategic purposes. These humanitarian based considerations lead to several derivable hypotheses.

### 3.2.1-Population

Policymakers will allocate more aid to countries with larger populations relative to smaller populations, all else equal, simply because a greater number of individuals within a large country will be affected by food shortages than individuals within a small country (e.g., Diven 2001; Lai 2003; Neumayer 2005; Poe and Sirirangsi 1994; Tuman

and Ayoub 2004). Also, and more importantly, large countries are much more visible relative to smaller countries within the policymakers' decision-making environment.

Accordingly, I will test the following hypothesis:

*Hypothesis 2a: US foreign policymakers will allocate more food aid to recipient counties with larger populations, ceteris paribus.*

Data on population are available from the World Bank (World Development data pages 2006). This variable is lagged one year in order to simulate availability of this information for policymakers (e.g., Blanton 2005). In addition, the natural log of this measure is also used to lessen the impact of outliers (Greene 2000).

### 3.2.2-Low Food Production

The selection of recipient countries for allocation of US food aid indicates that the level of food production in such countries is relatively low when compared to all countries. Again, this information is available within the policymakers' *milieu*. However, the level of food production may still assist policymakers as they seek to determine the appropriate amount of assistance that a recipient country requires. The level of food production still varies among the recipient states; thus, policymakers are likely to allocate more food aid to countries with a total food production capacity that is relatively lower when compared with that of other food aid recipient countries (e.g., Diven 2001; Neumayer 2005; Tuman and Ayoub 2004). Therefore, I test the following hypothesis:

*Hypothesis 2b: US foreign policymakers will allocate more food aid to recipient countries with low food production, ceteris paribus.*<sup>11</sup>

### 3.2.3-Food Production Decrease

While many of the selected countries need food aid each year others may experience some form of disaster, either natural or manmade, that dramatically reduces food production capacity. Again, this information is available within the policymakers' *milieu*. Countries that experience such an event and, consequently, experience a substantial reduction in food production will receive a greater allocation of food aid than countries that do not experience a change in total food production capacity. Because of this relationship, I will test the subsequent hypothesis:

*Hypothesis 2c: US foreign policymakers will allocate more food aid to a recipient country as food production in that country decreases, ceteris paribus.*<sup>12</sup>

### 3.2.4-Previous Food Aid

The policy decisions from the previous year are a salient part of decision-making environment for the current year. "Administrative inertia and chronic need lead to considerable momentum in food aid flows. Indeed, last year's food aid receipt volume proves the single best predictor of this year's food aid flows" (Barrett and Heisey 2002: 486; see also Lai 2003). This inclusion of the previous year's food aid total also serves the methodological purpose of accounting for serial correlation, which may exist within

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<sup>11</sup> This hypothesis is tested using the same variable used to test food production decrease in the selection stage of the analysis.

<sup>12</sup> This hypothesis is tested using the same variable used to test food production decrease in the selection stage of the analysis.

country panels, as well as capturing the potential effects of other factors within the decision-making environment not explicitly accounted for by the theory (Beck and Katz 1995). Thus, the more food aid a country received in the previous year the more food aid that country will receive in the current year, all else equal. Accordingly it is necessary that I test this relationship and propose the following hypothesis:

*Hypothesis 2d: US foreign policymakers will allocate more food aid to a recipient country that received a greater amount of food aid in the previous year, ceteris paribus.*

This variable is a lagged version of the dependent variable that is used in the allocation stage of the analysis. The use of a lagged dependent variable in the allocation stage equation is consistent with foreign aid literature and is theoretically appropriate because “[o]nce a state gets a certain allocation of aid, future allocations are likely to be based on the previous years’ allocation” (Lai 2003: 112; see also Apodaca and Stohl 1999). The natural log of this measure is also used (Greene 2000). I also run the model with a lagged version of the non-log transformed dependent variable, which does not substantively alter the results.

As the need-based determinants relevant to the US foreign policymakers’ decision-making environment, which are necessary for the allocation of the appropriate amount of food aid, are taken into account, policymakers can also augment the allocated amount with additional food aid for strategic purposes. As argued earlier, this augmentation takes place because other aid options may not be viable or legally available to foreign policymakers when crafting aid packages for certain countries. These strategic based considerations are also relevant to the decision-makers’ *milieu*

and consequently influences aid allocations. The theoretical explanations of these strategic considerations lead to several derivable hypotheses; specifically regarding human rights and sanctions most importantly for the purposes of this study.

### 3.2.5-Human Rights

As described earlier, a country where the government violates the personal integrity rights of its citizens is legally ineligible for most types of US foreign assistance unless the aid is used to assist the needy people of that country. Consequently, this information is readily available within the decision-making environment. With the option of food aid legally available for use, US foreign policymakers may strategically allocate additional amounts of food aid to countries with the worst human rights records because they are legally restricted from using other types of aid, all else equal. With these legal restrictions in place, US policymakers may use food aid as a substitute when other aid options are not available for countries with poor respect for human rights.

Thus, even when taking need based criteria and other strategic considerations into account, countries with poor human rights should receive greater amounts of food aid when compared with other countries with better human rights practices because US policymakers have the menu option of food aid available for use with these countries.

This leads to the derivation of the following hypothesis:

*Hypothesis 2e: US foreign policymakers will allocate more food aid to a recipient country with poor human rights practices than to a recipient country with good human rights practices, ceteris paribus.*

This relationship is further scrutinized as it relates to the substitution of food aid for other aid programs. I am arguing that when US foreign policymakers are legally restricted from using certain aid programs for countries with poor human rights that they will use food aid as a substitute. This relationship implies that as human rights abuse in a country increase the US should stop allocating other forms of economic aid and military aid; thus, allocating greater amounts of food aid, all else equal. These interactive relationships are hypothesized as follows:

*Hypothesis 2f: US foreign policymakers will allocate more food aid to a recipient country as the level of human rights abuse increases and the level of all other economic aid programs decreases, ceteris paribus.*

*Hypothesis 2g: US foreign policymakers will allocate more food aid to a recipient country as the level of human rights abuse increases and the level of military aid programs decreases, ceteris paribus.*

When choosing from the various human rights measures (see also Cingranelli and Richards 1999; and Lopez and Stohl 1992) it is theoretically necessary to utilize the information most likely integrated into the decision-maker's milieu. The information on human rights most likely drawn upon from the decision-making environment by US government officials are the *Country Reports on Human Rights Practices* issued annually by the US Department of State. These documents are a comprehensive set of reports that cite government violations of the individual citizens' human rights. Scholars studying human rights, beginning with Michael Stohl and his co-authors, coded these reports based upon a set of standards on the content published in the US State Department Reports (e.g., Gibney and Stohl 1988; Stohl and Carleton 1985). Amnesty International and Freedom House also report on the human rights conditions in most

countries each year. It is likely that the information from these other sources are also available in the policymakers' milieu; however, policymakers are more apt to utilize the content of the State Department reports, especially if the alternative reports offer a different picture than those produced by the State Department.<sup>13</sup>

The Political Terror Scale (PTS) organizes the information from the reports into a five category ordinal scale, where a 1 identifies countries under a secure rule of law, where physical integrity violations like imprisonment, torture, murder and execution do not occur (e.g., Lithuania). Countries placed in category five are those in which such abuses are a common part of life, affecting all segments of the population (e.g., Sudan), and categories 2 through 4 represent gradations between these two extremes.

The categories are based on the original wording from Gastil (1981) where:

Level 1: Countries under a secure rule of law, people are not imprisoned for their view, and torture is rare or exceptional. Political murders are extremely rare.

Level 2: There is a limited amount of imprisonment for nonviolent political activity. However, few persons are affected, torture and beatings are exceptional. Political murder is rare.

Level 3: There is extensive political imprisonment, or a recent history of such imprisonment. Execution or other political murders and brutality may be common. Unlimited detention, with or without a trial, for political views is accepted.

Level 4: The practices of level 3 are expanded to larger numbers. Murders, disappearances, and torture are a common part of life. In spite of its generality, on this level terror affects those who interest themselves in politics or ideas.

Level 5: The terrors of level 4 have been expanded to the whole population. The leaders of these societies place no limits on the means or thoroughness with which they pursue personal or ideological goals.

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<sup>13</sup> See Poe, Carey and Vazquez (2001) for a detailed discussion concerning how the human rights "pictures", which the State Department and Amnesty International reports create, vary over time and how they eventually begin to converge.

The Political Terror Scale data are updated annually by and currently made available on Mark Gibney's website (1980-2005). To extend this data from 1976 through 1980 I have utilized the data made available in the replication file of Poe, Rost and Carey (2006). For an in-depth discussion and treatment of these two scales see Gibney and Dalton (1996), Poe and Tate (1994) and Poe, Tate and Keith (1999).

### 3.2.6-Domestic Interests

As with the selection stage, US foreign policymakers are influenced by economic producers who export to recipient countries and who have an interest in a stable growing economy in the markets where they invest. Countries receiving food aid are especially important economically to food producers (e.g., Cathie 1989; Ball and Richards 1996; Diven 2001; Diven 2006). Indeed as many food aid scholars note, "US food aid serves primarily domestic agricultural interests and, episodically, US foreign policy objectives" in their critique of the actual effectiveness of food aid at achieving the normative goal of alleviating suffering abroad (Barrett 2002; Ruttan 1993; Diven 2001 as quoted in Barrett and Heisey 2002: 478). Consequently, as domestic producers interest in a country increases, US foreign policymakers are more apt to allocate greater amounts of food aid than when allocating aid to countries without such a relationship, all else equal.

*Hypothesis 2h: US foreign policymakers will allocate more food aid to a recipient country as the economic relationship between US exporters and that country increases, ceteris paribus.*<sup>14</sup>

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<sup>14</sup> This hypothesis is tested with the same domestic interests variable introduced earlier in the selection stage.

### 3.2.7-Other Aid Packages

As when selecting countries to receive food aid foreign policymakers again must consider the other aid options when rendering their decisions. Again, countries that have been allocated military aid in the past are perhaps more likely than other countries to receive food aid in the future, all else equal. Similarly, countries that have been allocated military aid and other economic aid programs in the past are likely to provide policymakers with additional information as they allocate food aid. Again, this relationship is especially important as it interacts with the level of human rights abuse in a country, which, as argued, limits the use of these other aid programs. Thus, I propose the following two hypotheses:

*Hypothesis 2i: US foreign policymakers will consider the level of US military aid allocated to a recipient country in the previous year as they allocate food aid in the present year, ceteris paribus.*

*Hypothesis 2j: US foreign policymakers will consider the level of all other economic aid allocated to a recipient country in the previous year as they allocate food aid in the present year, ceteris paribus.<sup>15</sup>*

### 3.2.8-US Military Presence

The presence of the US military in a country indicates a clear strategic interest for the US with that country (e.g., Lai 2003; Meernik, Kruger and Poe 1998; Poe 1992). This presence is an important part of the policymakers' *milieu* and, moreover, even with the end of the Cold War, the US still maintains significant strategic military deployments abroad (e.g., Lai 2003; Meernik, Kruger and Poe 1998; Tuman and Ayoub 2004). Most

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<sup>15</sup> These two hypotheses are tested with the same aid variable introduced earlier in the selection stage.

US military deployments exist over extended periods of time and the US has no interest in seeing a starving population in close proximity to its military establishment in a country, which could endanger the US personnel and mission if the population becomes unstable due to simple lack of food. US foreign policymakers and the military deployed abroad have incentives to maintain a positive relationship with at least some segments of the population of a country where troops are stationed. If providing food aid facilitates this relationship the US will do so.

Governments which allow the US to use their territory for long term military deployment may also seek assistance themselves, which could include humanitarian food aid for their citizens. This assistance could be utilized to keep the population more passive and content than a potentially starved population, especially if the recipient state is more authoritarian than democratic. A client or other authoritarian state may even use food aid as a political weapon to maintain control within its own domestic sphere.<sup>16</sup> Regardless of the multiple dimensions that a substantial US military presence signifies, it will strongly increase a potential recipient country's chance of selection for food aid and the amount allocated.

*Hypothesis 2k: US foreign policymakers will allocate more food aid to a recipient country if that country hosts the US military, ceteris paribus.*

Data on US military deployments overseas are located through the Department of Defense (2007). This variable is measured 1 for countries with 100 or more US

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<sup>16</sup> Some commentators have noted that during "the 1960's the largest share of US food aid went to Vietnam, South Korea, Cambodia, and Taiwan, leading many critics to label PL480 'Food for War' rather than 'Food for Peace'" (Moore-Lappé and Collins 1977 as cited by Uvin 1992: 297; see also Wallensteen).

military personnel stationed within the country and 0 otherwise (e.g., Apodaca and Stohl 1999; Lai 2003; Meernik, Kruger and Poe 1998; Poe 1992).

### 3.2.9-Sanctions

In addition to identifying countries that maintain a positive economic or military relationship with the US, it is also important for foreign policymakers to identify countries that maintain a negative relationship with the US (e.g., Rosenblum and Salehyan 2004). Information on sanctions are available to US foreign policymakers within their decision-making environment and thus provide a clear US foreign policy position towards a potential recipient country (e.g., Rosenblum and Salehyan 2004). The question for policymakers then, is whether or not the existence of a sanction program indicates a need for food aid by a targeted country's citizens or whether its existence prohibits policymakers from allocating food aid to a sanctioned state.

Theoretically, it is likely that foreign policymakers will allocate additional amounts of food aid to sanctioned countries for reasons similar to why countries with poor respect for human rights receive additional food aid, all else equal. Once sanctions are in place policymakers have fewer aid options available to allocate to sanctioned countries because of the restrictions that sanctions impose. However, food aid remains a viable option for allocation by policymakers because it is not a form of aid that sanctions restrict and it may help alleviate human suffering within the target country.

Moreover, humanitarian interests should become a much more prominent part of the policymakers decision-making environment when US policymakers place sanctions

on to a country. First, sanctions are primarily economic tools or constraints with economic ramifications intended to constrain the government or members of the governing elite of the offending country (for a discussion on economic sanctions see Baldwin and Pape 1998; see also Rosenblum and Salehyan 2004). Sanctions generally target trade between the recipient country and the US with specific requirements for that country to fulfill before trade will resume. When sanctions exist, a humanitarian need for food aid has the potential to develop and the US should willingly respond to this humanitarian need. If sanctions hamper the ability of a country to buy food abroad then they may also greatly impede the ability of a country to feed its population.

Second, starving a population under a repressive government's control does not serve any interest of the US, especially if it hopes to win support from the citizens of the target country for a pro-US government sometime in the future. In addition to responding to the humanitarian need of the target country's citizens, the US must take into consideration its international reputation if it applies sanctions. Humanitarian food aid may also help blunt a negative international response concerning the decision by the US to use sanctions.

If the US wishes other countries to also sanction a specific country then providing food aid to the needy population may lessen any misgivings from other countries that participate in the sanction program. While sanctions are in place US foreign policymakers have a far greater incentive to provide humanitarian subsistence relief to the citizens of sanctioned countries while the US government waits on reform or submission from the target country's government. Finally, as with the level of

respect of human rights of a country, sanctioned governments are ineligible for many types of US foreign aid, which in turn restricts the menu options available to foreign policymakers within the decision-making environment. Again, US foreign policymakers may strategically allocate additional amounts of food aid to countries sanctioned by the US because they are legally restricted (by existence of the sanction program itself) from using other types of aid.

*Hypothesis 2l: US foreign policymakers will allocate more food aid to a recipient country with US sanctions imposed upon it than to a country without sanctions, ceteris paribus.*

Data on US sanction programs are taken from the Institute of International Economics (2003) and are coded 1 for each country that is the target of US sanctions in a given year between 1977 and 2001 (e.g., Cuba 1977-2001, Lebanon 1984-1997 and Sudan 1986-2001). All other countries not the target of US sanctions in a given year are coded 0. This coding scheme is consistent with previous research (Rosenblum and Salehyan 2004).

This relationship also implies that US policymakers should stop allocating or decrease other forms of economic aid and military aid for countries with US sanctions and as a consequence allocate greater amounts of food aid as a substitute, all else equal. These interactive relationships are hypothesized as follows:

*Hypothesis 2m: US foreign policymakers will allocate more food aid to a recipient country as the level of human rights abuse increases and the level of all other economic aid programs decreases, ceteris paribus.*

*Hypothesis 2n: US foreign policymakers will allocate more food aid to a recipient country as the level of human rights abuse increases and the level of military aid programs decreases, ceteris paribus.*

### 3.3-Summary of Theory and Hypotheses

The selection of food aid recipients during the first stage is a process where US foreign policymakers select countries in need of food aid or select out the most wealthy, economically developed countries; so that they can then allocate food aid during the second stage of the decision-making process to countries experiencing at least some degree of food shortage. Once countries with no need for food aid are selected out of the recipient pool the strategic use of food aid becomes much more important.

As part of the aid distribution process, US foreign policymakers are charged with applying laws relating to humanitarian criteria that restrict the distribution of certain types of aid to countries with poor records of respecting the human rights of the citizenry. To reiterate however, US foreign policymakers have the option of distributing certain types of aid to repressive countries if that aid is designed to directly assist needy populations. Because of the presence of the 1961 Foreign Assistance Act, US foreign policymakers have their opportunities or list of menu options restricted based upon the human rights conditions in each individual country. Food aid remains an available part of the menu of options because of the "needy persons" provision. Similarly, countries that are sanctioned by US policymakers are ineligible for many types of other economic aid programs and military programs. Again, food aid is an option that should remain available to policymakers allocating aid to these particular countries.

As a consequence of the latitude available to policymakers when allocating food aid, countries with poor human rights and sanctions imposed upon them should receive greater amounts of food aid when compared with other countries with better human

rights practices and countries without sanctions. These relationships should exist even when taking need based criteria and other strategic considerations into account. In the following chapter I present the research design and estimation techniques used to empirically test this theory.

## CHAPTER 4

### RESEARCH DESIGN AND METHOD

In the following sections I present the cases used for the analysis, operationalizations and data source of the dependent variable food aid and the model used to test the food aid selection and allocation process.

#### 4.1-Case Selection

To test my hypotheses, I employ a pooled cross-sectional time series design with *country-year* as the unit of analysis for all countries from 1977-2001.<sup>17</sup> No country-year is arbitrarily excluded from the analysis because, as the theory explains, decision-makers first consider all countries for selection and then allocate aid to the selected pool of recipient countries. In the allocation stage of the analysis, only countries that actually receive food aid are used and all other cases are censored. Also, after the end of the Cold War many new countries entered into the international system, as a consequence of this fact, there are many more cases in the latter half of my sample. For this reason, and because the time period of my analysis during the Cold War (1977-1991) and after (1992-2001) are qualitatively different in terms of the international environment in which policymakers are embedded, I run separate analyses on each of the two time periods. The results for the 1992-2001 time period are presented in Model 1 below in the analysis section and the results for the 1977-1991 time period are presented in Model 2. This choice also allows for the direct comparison of the post Cold

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<sup>17</sup> All countries included in this study are listed in the Appendix.

War results of this study with those of other food aid research conducted over a similar time period (e.g., Neumayer 2005).

#### 4.2-Dependent Variable Food Aid

In order to test the theoretical relationships presented above the dependent variable, US food aid, must first be defined and operationalized. Food aid is currently distributed under the authorization of five separate programs, which are comprised of the current legislative programs of PL-480 and Section 416(b). Section 416(b) currently maintains the Commodity Credit Corporation Food for Progress program, and until recently, Food for Education was also funded under this section; however, in fiscal year 2004 it became a separate appropriation account known as the McGovern Dole Global Food for Education program. All foreign aid program information and Data are available from USAID, which either funds or implements all US food aid programs (USAID 2006).

The Commodity Credit Corporation Food for Progress, Title I, Title II, Title III, and the McGovern Dole Global Food for Education are totaled together and used as one dependent food aid variable. USAID (2006) publishes food aid in constant 2004 \$US. In order to consistently compare all monetary amounts to the dependent variable food aid I have converted all other monetary amounts into constant 2004 \$US. To convert (inflate or deflate) dollars I utilized the Chain-type Price Index available from the Bureau of Economic Analysis (US Department of Commerce 2006). I do not break up food aid into its subcomponents at this time because the Committee on International Relations and Committee on Foreign Relations (2006) offers no distinction between the

various food aid programs that US policymakers can reference when allocating aid based on the “needy persons” provision.

The dependent variable food aid takes on a different functional form for each stage of the analysis, a dichotomous form for the selection stage and a non-log transformed form for the allocation stage. These forms are discussed in more detail when the estimation technique is introduced in the next section.

Recent research on foreign aid utilizes alternative functional forms of the dependent aid variable that each study employs. For example Palmer, Wohlander and Morgan (2002) and Lai (2003) take the natural log of their aid measure, while Blanton (2005), Meernik, Kruger and Poe (1998), Neumayer (2003b; 2005) and Tuman and Ayoub (2004) utilize the non-log transformed version of each of their aid measures. I specifically follow the use of the non-log transformed measure of food aid that Neumayer employs in his 2005 study of food aid allocation for the allocation stage of my analysis, so as to best compare the results of my analysis with that of his. To ensure that the results estimated using the non-log transformed food aid measure are robust I also estimate the model using the natural log of the dependent variable food aid. These alternative results are presented in the appendix together with the results from the non-log transformed model. In the next section I discuss in detail the method used to estimate the two-staged food aid distribution process.

#### 4.3-Method

As consistent with previous foreign aid literature (e.g., Apodaca and Stohl 1999;

Blanton 2000; 2005; Bueno de Mesquita and Smith 2007; Meernik, Kruger and Poe 1998; Poe and Meernik 1995), I utilize a two-staged Heckman selection model in order to test for first, policymakers' determination of which countries need food aid assistance and then second, how much food aid assistance those same policymakers allocate to the selected countries (Heckman 1976; 1979).

The Heckman model represents the two-stage selection process, while controlling for selection bias in the equation of the second step.<sup>18</sup> A selection bias term is computed from the predicted probabilities from the first stage maximum likelihood equation. The bias term or Mills lambda ratio is then used as an independent variable in the second stage O.L.S. (Ordinary Least Squares) equation. This two-stage statistical procedure is necessary because of the non-random selection of food aid recipients from the pool of all countries, which results in the correlation of the error terms in both the selection and allocation stage. "Under these circumstances, the error term in the second equation will not likely have the expected value of zero and least-squares estimations of the uncensored observations may produce biased and inconsistent estimates in the second equation" (Blanton 2005: 657). The Heckman model allows for the error term in the two equations to correlate by normalizing the mean of the allocation stage error to zero. In this way, consistent estimates are produced by the O.L.S. regression in the second stage.

To estimate both stages of the Heckman model, the dependent variable takes two forms; therefore, food aid, is measured dichotomously in the first stage (selection,

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<sup>18</sup> The Heckman model I utilize is available in Stata 9.0.

i.e. yes or no) and in thousands of constant 2004 \$US during the second stage (allocation, i.e. total amount).<sup>19</sup> I use two-step efficient standard errors to control for panel heteroscedasticity. To control for the contemporaneous correlation of residuals, I utilize cubic splines and a counter variable in the selection equation of the model, as prescribed by Beck, Katz and Tucker (1998), and a lagged dependent variable in the allocation equation of the model. This approach is most consistent methodologically with the recent analysis of foreign aid conducted by Lai because the "inclusion of a lag appropriately deals with autocorrelation by dynamically modeling the autocorrelated process as an independent variable" (2003: 112). This approach is also consistent methodologically with the foreign policy decision-making theory described above.

Beck and Katz (1995) have also persuasively argued for the use of O.L.S. regression with the inclusion of panel-corrected standard errors in analyses of panel data; however, as Blanton (2005: 658) points out "their work focused on a continuous" (non-log transformed) dependent variable and the two-stage model analyzes a continuous (non-log transformed) dependent variable only during the second stage equation, with the first stage using a dichotomous dependent variable. Because "little is known about the properties of standard errors when a Heckman model is applied to panel data", I will utilize the Heckman two-step efficient estimators in order to estimate the two equations and robust standard errors as a final robustness check (Blanton 2005: 658).

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<sup>19</sup> The primary functional form of the dependent variable in the second stage equation is non-log transformed (continuous) version. However, to both assuage criticism of this functional form and to ensure the robustness of the results, a logged version of the dependent variable will also be used in the second stage equation. These results are available in the appendix section.

Finally, in order to correctly specify the Heckman selection model at least one independent variable must be different in either the selection or allocation stage of the model. This requirement is easily achieved, as the theory suggests that different factors are at work during the two stages of the food aid distribution process. In the next chapter I present information concerning the overall fit of the model, empirical results and finally, discussion and conclusion.

## CHAPTER 5

### ANALYSIS OF RESULTS

In this chapter I present information on the explanatory power of the model after which I discuss the results of the analysis. The results discussed in the two primary models displayed in Table 1 are generated from the allocation and selection equation below. The other results are based on variations in these two equations. I also discuss two illustrative cases to help better conceptualize the statistical results. I conclude this section with a brief presentation of results from a series of robustness tests.

$$\begin{aligned} \text{Food Aid (US \$1K 2004)} = a & + \beta_1 \ln \text{Food Aid (US \$1K 2004)}_{t-1} \\ & + \beta_2 \ln \text{Cereal Production (kilograms)} \\ & + \beta_3 \ln \text{Cereal Production } (\Delta) \\ & + \beta_4 \ln \text{US Exports (US \$1K 2004)}_{t-1} \\ & + \beta_5 \text{US Sanctions} \\ & + \beta_6 \text{US Troops} \\ & + \beta_7 \text{Human Rights (PTS State Dept)}_{t-1} \\ & + \beta_8 \ln \text{Population}_{t-1} \\ & + \beta_9 \ln \text{other Econ Aid (US \$1K 2004)}_{t-1} \\ & + \beta_{10} \ln \text{US Military Aid (US \$1K 2004)}_{t-1} \\ & + \beta_{11} \text{Mills Lambda Ratio} \\ & + \epsilon \end{aligned}$$

$$\begin{aligned} \text{Pr (Food Aid} > 0) = a & + \alpha_1 \ln \text{Food Aid (US \$1K 2004)}_{t-1} \\ & + \alpha_2 \ln \text{Cereal Production (kilograms)} \\ & + \alpha_3 \ln \text{Cereal Production } (\Delta) \\ & + \alpha_4 \text{GDP per capita (US \$1K 2004)}_{t-1} \\ & + \alpha_5 \ln \text{US Exports (US \$1K 2004)}_{t-1} \\ & + \alpha_6 \ln \text{other Econ Aid (US \$1K 2004)}_{t-1} \\ & + \alpha_7 \ln \text{US Military Aid (US \$1K 2004)}_{t-1} \\ & + \alpha_8 \text{counter} \\ & + \alpha_9 \text{spline 1} \\ & + \alpha_{10} \text{spline 2} \\ & + \alpha_{11} \text{spline 3} \\ & + \epsilon \end{aligned}$$

## 5.1-Fit of the Models

The Heckman model overall is quite successful at predicting both the first and second stage of the food aid selection and allocation process for the models in Table 1. The statistically significant mills lambda coefficient in each of the models indicates that the two stages are indeed interrelated and thus, the Heckman two-step selection model is the appropriate estimation technique. Also, the statistically significant chi-squared statistics in each of the models indicate that the each model, as a whole, accurately explains the aid distribution process.

Finally, the percent reduction of error statistic indicates that the model does better at successfully predicting selection or non-selection into the food aid recipient pool when compared to simply predicting the modal mean; i.e., always selecting a country to receive food aid (Hagle and Mitchell 1992). The percent reduction of error statistic is calculated by first subtracting the percent in the modal category from the percent correctly predicted and then dividing this number by the value obtained by subtracting the percent in the modal category from 100. This final value is then multiplied by 100 to produce the percent reduction of error statistic; which for Model 1 is 99.47-percent and for Model 2 is 87.66-percent. Both of the high values indicate that the models for both time periods are quite good at predicting the selection of recipient countries.

In the following table, Model 1 tests all of the hypotheses except for the hypothesized interactive effects for the 1992-2001 post Cold War time period. Model 2 tests the same hypotheses for the 1977-1991 Cold War time period. The hypothesized

interactive effects are tested individually in order to avoid issues of multicollinearity in the model. The results of these tests are discussed later in this chapter. For now, I discuss the results located in Table 1.

## 5.2-Human Rights, Sanctions and Food Aid

Before jumping into a discussion of the results of the human rights and sanctions measures it is first necessary to discuss the results that confirm the findings of previous food aid research. The results of the two-stage model displayed in Table 1 support the main findings of previous food aid research. Interests driven by humanitarian need, measured by both the level of food production and the purchasing power of the country's citizens measured by gdp per capita, in addition to US domestic interests, measured by the level of US exports, inform US foreign policymakers during the selection stage of the food aid distribution process (e.g., Barrett and Heisey 2002; Neumayer 2005; Zahariadis, Travis and Ward 2000). The size of each recipient country's population (e.g., Neumayer 2005) and the amount of food aid received in the previous year (e.g., Barrett and Heisey 2002) appear to be the two primary measurement tools that US policymakers utilize as they allocate food aid. These results are strongly supported in each model and in the alternatively specified models discussed in the robustness section of this paper.

The primary theoretical argument of this research is rigorously supported by the results in the 1992-2001 Model. The level of respect for human rights in a recipient country plays a statistically significant role during the allocation stage. The direction of

the relationship indicates that as human rights worsen or as violations of the personal integrity of the individual citizens within a country increase, food aid also increases.

**Table 1—Heckman Two-Step Models**

<b>Allocation Stage Variables</b>	<b>Model 1</b>		<b>Model 2</b>	
	<b>food aid (\$1K)</b>		<b>food aid (\$1K)</b>	
	<b>1992-2001</b>		<b>1977-1991</b>	
	<b>Coef.</b>	<b>Std.Err.</b>	<b>Coef.</b>	<b>Std.Err.</b>
food aid (ln US \$1K 2004) <sub>t-1</sub>	4815.88	(916.72) ***	17245.70	(1053.17) ***
cereal production (ln kilograms)	-1363.18	(1807.09)	169.01	(2165.42)
cereal production (ln Δ)	2353.37	(4917.28)	1355.61	(6493.67)
US exports (ln US \$1K 2004) <sub>t-1</sub>	-51.51	(1489.37)	-1534.80	(1270.79)
US sanctions*	-5508.92	(5761.97)	-1394.07	(5744.27)
US troops > 100*	-4605.21	(4754.44)	41967.30	(6067.03) ***
human rights (PTS State Depart.) <sub>t-1</sub>	7296.89	(2270.14) ***	-6154.72	(2147.78) ***
population (ln) <sub>t-1</sub>	12379.41	(3319.89) ***	16031.79	(3244.13) ***
other econ aid (ln US \$1K 2004) <sub>t-1</sub>	191.06	(383.29)	-520.01	(391.75)
US military aid (ln US \$1K 2004) <sub>t-1</sub>	59.03	(746.31)	-397.09	(582.43)
mills lambda	24895.81	(9121.14) ***	56858.59	(6521.00) ***
constant	-231330.10	(38452.00) ***	-344871.20	(35626.89) ***
<b>Selection Stage Variables</b>	<b>Coef.</b>	<b>Std.Err.</b>	<b>Coef.</b>	<b>Std.Err.</b>
cereal production (ln kilograms)	-0.047	(0.021) **	-0.068	(0.029) **
cereal production (ln Δ)	-0.066	(0.079)	0.259	(0.188)
gdp per capita (ln \$US 2004) <sub>t-1</sub>	-0.549	(0.065) ***	-0.524	(0.077) ***
US exports (ln US \$1K 2004) <sub>t-1</sub>	0.093	(0.032) ***	0.116	(0.041) ***
other econ aid (ln US \$1K 2004) <sub>t-1</sub>	0.019	(0.007) ***	0.051	(0.009) ***
US military aid (ln US \$1K 2004) <sub>t-1</sub>	0.004	(0.015)	0.003	(0.015)
counter	-0.613	(0.055) ***	-1.037	(0.081) ***
spline 1	0.000	(0.001)	-0.023	(0.030)
spline 2	-0.012	(0.002) ***	-0.029	(0.004) ***
spline 3	0.004	(0.002) **	0.054	(0.054)
constant	3.459	(0.338) ***	3.305	(0.434) ***
N		1503		1688
Censored observations		822		851
Uncensored observations		681		837
rho		0.43		0.98
sigma		57444.32		58160.13
wald chi2(15)		158.62 ***		734.61 ***

\*p < 0.10; \*\*p < 0.05; \*\*\*p < 0.01 (2-tailed)  
 (\*) discrete change of dummy variable from 0 to 1  
 ln = natural logarithm  
 PTS (1 best human rights practices -- 5 worst)

Ostensibly, these results seem contrary to Apodaca and Stohl who find that “a country’s human rights performance significantly determined how much [economic] aid that country received” (1999: 195). In other words, countries with good human rights records received more total economic aid. The relationship between respect for human rights and food aid runs in the opposite direction of the relationship between respect for human rights and total economic aid from the Apodaca and Stohl study. This difference strongly supports the theory that food aid, as a foreign policy tool, can be used more freely than other foreign aid programs with countries that have poor human rights records. As Apodaca and Stohl note “US law requires that the government give human rights priority over other foreign policy considerations ... [t]he legislation also allows for lawful digression from the human rights requirements in cases of ‘extraordinary circumstances’ or when the aid will directly help needy people” (1999: 195). It would appear in the case of food aid, that US foreign policymakers are taking full advantage of “lawful digression” by allocating substantially more food aid to countries with poor human rights records.

The human rights coefficient in Model 1 indicates that for each one-point increase on the political terror scale, which measures the violations of the physical integrity of the person, the amount of food aid allocated increases by 7.2 million (constant \$US 2004), all else equal. These results are robust when the dependent variable food aid is transformed into its natural logarithmic form. Thus, the results in Model 1 indicate that countries with severe human rights abuse receive substantially more food aid from the US than countries with a better human rights record. These

results are robust to several alternatively specified models discussed in greater depth below.

The result of the human rights variable during the Cold War time period in Model 2 is statistically significant but the sign is negative, which is the opposite of that predicted by the theory. This result is also not robust when the dependent variable food aid is transformed into its natural logarithmic form. These results indicate that the level of human rights respect may have limited the allocation of food aid to human rights abusers by policymakers during the 1980s; however, another explanation, perhaps more likely, is that the theory does not take into account some dynamic of the Cold War that is absent after 1991. It could be that the presence of a communist country bordering a recipient country could drive the allocation of food aid during this period. More generally over both time periods, it could be that countries in close proximity to sanctioned countries receive more food aid. Model 2 also supports the theory that, at least during the Cold War, the presence of a substantial US military contingent (more than 100 troops) influences the allocation of food aid.

Based on the theory I also expected that US policymakers would allocate more food aid to countries with sanctions imposed upon them by the US than other recipients. However, none of the models during either period support the sanctions hypothesis. Various alternative specifications of the model support this null finding, including the disaggregation of the sanctions list and coding the various sanction types into several sanction categories. In spite of these results, the theory that the presence of sanctions should influence US foreign policymakers when they allocate foreign aid is

quite compelling. It is likely that US foreign policymakers are influenced by sanctions when allocating some other aid program similarly to the way they are influenced by the level of human rights abuse in a country when allocating aid. However, sanctions do appear to play a role when the interactive effect of sanctions and military aid are taken into account. Similarly, the level of human rights and the amount of economic aid a country receives is also an important part of the story. The statistically significant interactive effects are displayed below in Table 2. In order to interpret the sign of the coefficients for the interactive terms, the marginal effects must be calculated. I discuss these results in the next section of the paper.

### 5.3-Interaction Effects

The estimated results for the model with the interaction of sanctions and military aid (Interactive Model 2) are strikingly different from those of the primary 1992-2001 model. These results are also robust for this time period when the dependent variable is transformed into its natural log forms. First, countries that receive no military aid and have US sanctions imposed upon them are allocated substantially less food aid than other countries that do not receive military aid, all else equal. Second, when US policymakers do allocate military aid to countries, the presence or absence of sanctions is associated with drastically different food aid allocation patterns. Statistically, the marginal effect of military aid on the allocation of food aid depends on whether or not sanctions are currently imposed on a country. Table 3 shows the marginal effect of military aid given the presence or absence of sanctions.

**Table 2—Heckman Two-Step Interaction Models (allocation stage only)**

Allocation Stage Variables	Interaction Model 1 food aid (\$1K) 1992-2001		Interaction Model 2 food aid (\$1K) 1992-2001	
	Coef.	Std.Err.	Coef.	Std.Err.
food aid (ln US \$1K 2004) <sub>t-1</sub>	4416.80	(918.05) ***	4681.97	(917.37) ***
cereal production (ln kilograms)	-1713.13	(1793.64)	-1406.97	(1802.51)
cereal production (ln Δ)	2644.23	(4846.52)	2032.71	(4902.76)
US exports (ln US \$1K 2004) <sub>t-1</sub>	-86.83	(1470.84)	132.30	(1487.70)
US sanctions*	-6474.60	(5719.78)	-15938.00	(7981.07) **
US troops > 100*	-5718.42	(4722.25)	-4535.47	(4741.98)
human rights (PTS State Depart.) <sub>t-1</sub>	-5214.67	(4230.18)	7248.67	(2264.25) ***
population (ln) <sub>t-1</sub>	12631.98	(3294.32) ***	12732.43	(3317.35) ***
other econ aid (ln US \$1K 2004) <sub>t-1</sub>	-2367.79	(824.73) ***	232.73	(382.54)
human rights X other econ aid	837.87	(240.45) ***		
US military aid (ln US \$1K 2004) <sub>t-1</sub>	69.55	(734.36)	-820.15	(878.01)
US sanctions X US military aid			2616.54	(1387.50) *
mills lambda	19542.61	(9208.17) **	24048.00	(9114.84) ***
constant	-187951.70	(40102.70) ***	-233254.90	(38369.58) ***
N		1503		1503
Censored observations		822		822
Uncensored observations		681		681
rho		0.35		0.42
sigma		56148.09		57162.96
wald chi2(15)		173.67 ***		162.87 ***

\*p < 0.10; \*\*p < 0.05; \*\*\*p < 0.01 (2-tailed)

(\*) discrete change of dummy variable from 0 to 1

ln = natural logarithm

PTS (1 best human rights practices -- 5 worst)

Selection Model results are the same as those displayed in Table 1

**Table 3—Marginal Effect of Military Aid on Food Aid**

Sanctions	M.E.
0	-820.1509
1	1796.3881

The marginal effect (M.E.) of US military aid on the allocation of Food Aid given the presence or absence of US sanctions.

When sanctions are not imposed increasing military aid is associated with decreases in food aid allocations. A 1-percent increase in military aid results in a decrease in food aid allocation by \$8,200 US dollars. However, the presence of sanctions changes the direction of this relationship, where increasing military aid is associated with increasing food aid allocations. When sanctions are present a 1-percent increase in military aid results in an increase in food aid allocation by \$17,960 US dollars. This interactive relationship seems to suggest that US decision-makers, working in the 1990s, are much more interested in certain strategically important countries and will willingly allocate more food aid to those countries, even when sanctions exist. No such relationship exists during the Cold War from 1977-1991. This null finding is robust to both functional forms of the dependent variable.

The estimated results for the model with the interaction of human rights (PTS) and all other economic aid are similar to those of the primary 1992-2001 model (Interactive Model 1). However, a similar direction change takes place as the level of human rights abuse in a recipient country increases. That is, the marginal effect of all other economic aid programs on the allocation of food aid depends on the level of human rights violations (PTS) in that recipient country.

**Table 4—Marginal Effect of Other Economic Aid on Food Aid**

PTS	M.E.
1	-1529.9139
2	-692.0398
3	145.8343
4	983.7084
5	1821.5825

The marginal effect (M.E.) of all other US economic aid programs on the allocation of Food Aid given the level of human rights violations on the Political Terror Scale (PTS).

Countries with governments that respect the physical integrity rights of the citizenry, as denoted by a PTS score of 1 or 2 receive less food aid as the allocation of all other economic aid programs increases. However, once recipient countries that violate their citizens' human rights, as denoted by a score of 3, 4 or 5 on the PTS scale receive a greater allocation of food aid as the allocation of all other economic aid increases.

The results of these two interactive effects indicate that US policymakers are indeed interested in tailoring the level of food aid for specific countries in order to substitute for other forms of aid depending on the presence of sanctions and level of respect for human rights. To further illustrate this relationship I discuss two cases of interest.

#### 5.4-Descriptive Cases

North Korea receives a large amount of food aid each year, produces relatively little consumable grain and estimates of its gross domestic product per capita are very low. Although North Korea receives relatively few exports from the US it is nonetheless a good candidate of selection for food aid by US decision-makers. The US originally imposed sanctions on North Korea in the 1950s, which remain in effect to this day. Also, the political terror scale generated from the State Department country reports varies at the severe level of the scale between level 4 and level 5 over the time period of this study. However, North Korea is not included in the statistical model because

certain economic information is not available; specifically estimates of its GDP per capita and receipt of US exports.

In addition to North Korea, Pakistan (included in the model) is also of clear strategic interest to the US. Over the past ten year time span the US has provided Pakistan with 388.3 million dollars worth of food aid as part of the overall economic and military aid packages granted to that country each year. North Korea received \$646 million dollars in food aid over the last ten years, almost twice as much as Pakistan. Both countries represent strategic interests, however, only Pakistan maintains a positive economic relationship with the US through trade and a positive security relationship through the presence of US troops.

Obviously, from this example, comparing only the total of all economic aid (i.e., the aggregate total) between these two countries can lead to deceptive results. In the case of Pakistan and North Korea, both have large ten-year totals, \$1547.6 million compared to \$944.2 million, respectively. Comparing only the food aid program out of the total economic aid—25.1 percent for Pakistan and 68.4 percent for North Korea—leads to additional insights about the program parts of foreign economic aid and more specifically who gets food aid and, perhaps more importantly, begins to give reasons as to why. Food aid may simply be a bribe used by US policymakers to help mitigate the often tense security situation in East Asia. Indeed, major commitments for future food aid allocations have been made as part of the recent North Korean nuclear disarmament deal. Food aid is a useful policy tool when other aid options are not available, as with the case of North Korea.

The restrictions that the level of human rights abuse in North Korea impose on foreign policymakers' ability to allocate aid and the strategic interest that the US has with North Korea provides additional support for the theory. The empirical results from the multivariate analysis presented earlier further confirm the validity of the theory. In the following section I further scrutinize the robustness of these results with a series of robustness tests.

#### 5.5-Additional Robustness Checks

Because many previous studies of human rights and foreign aid have modeled both the selection stage and allocation stage equations with the same variables I ran several models with the following variables in the selection stage equation: human rights, sanctions, and US troops. None of these variables were statistically significant in the selection stage of the analysis nor were the percent reduction of error statistics generated from the selection stage model any greater when including these additional measures. These findings lend additional support to the theoretical differentiation of the two-staged food aid distribution process as originally suggested by Cingranelli and Pasquarello (1985).

Many researchers of US foreign aid have also included measures of democracy within their analyses because evidence exists that US foreign policymakers consider the level of democracy when distributing arms assistance (Blanton 2000; 2005) and foreign assistance in general (e.g., Apodaca and Stohl 1999; Knack 2004; Meernik, Krueger and Poe 1998). Moreover, the promotion of democracy is a stated goal of USAID; however,

there are no legal restrictions on food aid for countries that lack democratic institutions. To test the possibility of a relationship between food aid and democracy, I ran models with democracy, measured with the polity IV data (Monty, Jagers and Gurr 2003), included in both the selection and allocation stage equations. The measure for democracy is not statistically significant at any acceptable statistical level when it is included in either the allocation stage equation alone or when it is included in both the selection stage equation and the allocations stage equation.

I also ran several models that included a series of conflict variables (entered into the model one at a time) in order to better determine if the relationship between food aid and human rights is perhaps spurious. The data were taken from the Fearon and Laitin (2003) replication files and included variables measuring for the presence of a civil war, oil exporter, new state, state instability, ethnic fractionalization, and religious fractionalization. None of these variables produced statistically significant results. More importantly the relationship between food aid and human rights was robust in each model. I also ran a model that included a variable measuring the presence of an international conflict in each country (Bennett and Stam 2000). Again the original results maintained their robustness.

As an additional check on the robustness of the results the observations for Israel and Egypt are excluded from several iterations of the model "since they are allocated disproportionate amounts of US aid as a result of the agreement reached between" these two countries brokered by the US in 1979 (Meernik and Poe 1995: 403; see also Meernik, Kruger and Poe 1998; and for additional discussion concerning these

two special cases see Lancaster 2006: 79). These two cases are often excluded from analyses of foreign aid because the two countries receive quite an unusually substantial percentage of the total US foreign aid budget. However, when looking at only food aid these two cases are not such extreme outliers. Moreover, the exclusion of these two cases does not substantively alter the results.

As mentioned in the research design section, most of the explanatory variables entered the Heckman selection and allocation equations are lagged by one year in order to better account for the time at which the information would be available to policymakers. Some researchers have argued for the use of two year lags, which might better approximate the time gap between the event that generates the information and the time when policymakers receive that information (i.e., Poe 1990; 1991b; 1992; Travis and Zahariadis 2002). As an additional robustness, check the two-year lags were also used in several versions of the model with no substantial changes in any of the results occurring.

Finally, in each of the allocation stage equations the natural log version of the dependent variable was used in accordance with the theory that bureaucratic inertia and chronic need allow policymakers to use the previous year's allocation totals to inform their allocation decisions in the current year (e.g., Barrett and Heisey 2002; Lai 2003). To ensure the robustness of the results a non-log transformed version of the lagged dependent variable was also used in the models where the dependent variable itself was the non-log transformed functional form. This alteration neither substantially changed any of the coefficients nor did it decrease the levels of statistical significance of

the results found in Model 1 (1992-2001). However, this alternative specification did change the statistically significant results for the human rights coefficient and the US troops coefficient in Model 2 (1977-1991). These two coefficients are no longer significant with this change and the sign on human rights changes from negative to positive (the theoretically expected direction). Again, these changes may indicate that some Cold War dynamic is missing from the theory for this time period.

I also ran several models with continuous versions of several of the main independent variables (the variable for cereal production, and for change in cereal production) instead to the natural log forms used in the main analysis. The results confirm the robustness of the results in the main model, specifically the relationship between food aid and human rights.

One final methodological issue that may exist when both the dichotomous measure of US sanctions and the PTS measure of human rights are included in the same model is the problem of multicollinearity. Because many US sanction programs have the stated mission of improving a country's respect for human rights, countries with a poor record in this regard may also be sanctioned by the US to improve these conditions, which may indicate that both variables are measuring part of the same condition. However, I checked for this occurrence statistically by using the Klein procedure (Klein 1962), in addition to running models with only one of the two variables in question and found no evidence to support this possibility.<sup>20</sup> I also used the Klein

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<sup>20</sup> The Klein procedure works as follows: first a series of Ordinary Least Square regression models are estimated with each of the explanatory variables taking turns as the dependent variable. The resulting R-squared statistic is recorded, making note that none reach a value greater than 0.50. The results of each of the Klein procedures indicate that low levels of multicollinearity exists within the models as they are

procedure to test for the presence of multicollinearity among all the independent variables specified in the main models of the analysis (Klein and Nakamura 1962, Klein 1962).

In the remaining chapter I conclude with a discussion of the results implications of the findings. I also stress possible avenues for future research.

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currently specified and that "singularities, indeterminacy and nonfinite values" should not affect any of the individual parameter estimates (Klein and Nakamura, 1962: 274).

## CHAPTER 6

### CONCLUSION

The results of the two-stage model clearly show that interests driven by humanitarian need, measured by both the level of food production and the purchasing power of potential recipient states and the domestic interests of the US informs foreign policymakers during the selection stage of the food aid distribution process, while the size of the population, amount of previous aid and the level of human rights abuse within a country influences the amount of food aid allocated during the post-Cold War time period. US foreign policymakers are very much aware that food aid, as a foreign policy tool, can be used more freely than other foreign aid programs with countries that have poor human rights records because of the “needy persons” provision in US foreign aid law. The role of human rights is less certain during the Cold War as the results are less conclusive when compared with the human rights results for the post-Cold War. Also, the presence of a substantial US military contingent (more than 100 troops) influences the allocation of food aid in one version of the Cold War models. When testing for interactive effects the relationship between human rights and all other economic aid is important. Interestingly, the effect of sanctions on food aid allocation manifests itself when the relationship between this policy tool and US military aid is interacted.

The results firmly demonstrate that analysts of foreign policy motivations must take a closer look at the component part of US foreign aid most relevant to the research question. By focusing on one program, research can better understand how

the decision-making environment constrains the menu of options available to policymakers. For the present research endeavor, I decided to specifically focus my analysis on the determinants of US foreign food aid. By focusing on this discrete program I was able to first, theoretically distinguish between the selection and allocation stages of the aid giving process; and second, utilize US human rights law, as it relates to human need, to theorize how policymakers might utilize food aid for countries with poor human rights because other aid options are legally restricted from those countries.

Similarly, foreign aid options are often legally restricted from being used when US policymakers impose sanctions on other countries. Like the human rights findings of this study, the interactive sanction results indicate that US foreign policymakers are critically aware of the relationship that recipient countries maintain with the US and what this relationship means legally to their available foreign aid choices. Thus, US foreign policymakers likely make allocation decisions according to the presence of sanctions as military aid programs are being considered based on the results from the Interactive Models.

More systematic analyses concerning sanctions should seek to determine what other aid programs US foreign policymakers utilize when sanctions are present. Future analyses may also ask if the number of changes amended to a country's sanctions over the life of its imposition on a specific country decreases the allotment of certain US foreign aid programs while increasing other programs over time. Results from these future research topics will add to the growing literature on the strategic use of

sanctions in foreign policy and the influence they have on decision-makers (e.g., Rosenblum and Salehyan 2004).

Finally, seeking out the intricate causal paths of a discrete aid program, food aid, and disentangling the mass of other economic and military aid programs has facilitated a greater understanding of the decision-making process that affects not just food aid but potentially a multiplicity of diverse foreign policy options. Food aid is used strategically by US foreign policymakers to provide aid to countries with poor records of respecting their citizens' human rights because US human rights law restricts other aid options. Future analyses of the determinants of other discrete US foreign aid programs may build off of the theory presented in this paper and the results from the empirical portion of this analysis, which add to the cumulative understanding of US foreign aid decision-making and has begun the process of integrating together results from this field.

Overall, this research effort is the first to consider and find supportive results concerning how human rights and sanctions affect the allocation of food aid. It is also one of the few to disaggregate total economic aid into one of its component parts in order to better analyze the relationship of human rights and food aid. Finally, this thesis extends the analysis of food aid through the year 2001, allowing for the consideration of the entire period between the end of the Cold War and the events of September 11, 2001 (in addition to analyzing food aid during a portion of the Cold War). The results in general add support to the large food aid literature while the

results for human rights and sanctions integrate this literature with the literature on human rights and foreign aid.

APPENDIX A  
ROBUSTNESS TESTS

**Table A.1—Comparison of Dependent Variables for Heckman Two-Step Models (Models 1 and 2)**

	Model 1 food aid (\$1K) 1992-2001		Model 2 food aid (ln \$1K) 1992-2001	
	Coef.	Std.Err.	Coef.	Std.Err.
<b>Allocation Stage Variables</b>				
food aid (ln US \$1K 2004) <sub>t-1</sub>	4815.88	(916.72) ***	0.24	(0.02) ***
cereal production (ln kilograms)	-1363.18	(1807.09)	-0.01	(0.04)
cereal production (ln Δ)	2353.37	(4917.28)	-0.06	(0.12)
US exports (ln US \$1K 2004) <sub>t-1</sub>	-51.51	(1489.37)	0.05	(0.04)
US sanctions*	-5508.92	(5761.97)	-0.01	(0.14)
US troops > 100*	-4605.21	(4754.44)	0.05	(0.11)
human rights (PTS State Depart.) <sub>t-1</sub>	7296.89	(2270.14) ***	0.22	(0.05) ***
population (ln) <sub>t-1</sub>	12379.41	(3319.89) ***	0.23	(0.08) ***
other econ aid (ln US \$1K 2004) <sub>t-1</sub>	191.06	(383.29)	0.00	(0.01)
US military aid (ln US \$1K 2004) <sub>t-1</sub>	59.03	(746.31)	-0.01	(0.02)
mills lambda	24895.81	(9121.14) ***	0.88	(0.21) ***
constant	-231330.10	(38452.00) ***	2.26	(0.91) **
<b>Selection Stage Variables</b>				
cereal production (ln kilograms)	-0.047	(0.021) **	-0.047	(0.021) **
cereal production (ln Δ)	-0.066	(0.079)	-0.066	(0.079)
gdp per capita (ln \$US 2004) <sub>t-1</sub>	-0.549	(0.065) ***	-0.549	(0.065) ***
US exports (ln US \$1K 2004) <sub>t-1</sub>	0.093	(0.032) ***	0.093	(0.032) ***
other econ aid (ln US \$1K 2004) <sub>t-1</sub>	0.019	(0.007) ***	0.019	(0.007) ***
US military aid (ln US \$1K 2004) <sub>t-1</sub>	0.004	(0.015)	0.004	(0.015)
counter	-0.613	(0.055) ***	-0.613	(0.055) ***
spline 1	0.000	(0.001)	0.000	(0.001)
spline 2	-0.012	(0.002) ***	-0.012	(0.002) ***
spline 3	0.004	(0.002) **	0.004	(0.002) **
constant	3.459	(0.338) ***	3.459	(0.338) ***
N		1503		1503
Censored observations		822		822
Uncensored observations		681		681
rho		0.43		0.62
sigma		57444.32		1.42
wald chi2(15)		158.62 ***		318.78 ***
*p < 0.10; **p < 0.05; ***p < 0.01 (2-tailed)				
(*) discrete change of dummy variable from 0 to 1				
ln = natural logarithm				
PTS (1 best human rights practices -- 5 worst)				

**Table A.2—Comparison of Dependent Variables for Heckman Two-Step Models (Models 3 and 4)**

	Model 3 food aid (\$1K) 1977-1991		Model 4 food aid (ln \$1K) 1977-1991	
	Coef.	Std.Err.	Coef.	Std.Err.
<b>Allocation Stage Variables</b>				
food aid (ln US \$1K 2004) <sub>t-1</sub>	17245.70	(1053.17) ***	0.73	(0.04) ***
cereal production (ln kilograms)	169.01	(2165.42)	-0.03	(0.09)
cereal production (ln $\Delta$ )	1355.61	(6493.67)	0.16	(0.27)
US exports (ln US \$1K 2004) <sub>t-1</sub>	-1534.80	(1270.79)	-0.03	(0.05)
US sanctions*	-1394.07	(5744.27)	-0.15	(0.24)
US troops > 100*	41967.30	(6067.03) ***	-0.28	(0.25)
human rights (PTS State Depart.) <sub>t-1</sub>	-6154.72	(2147.78) ***	0.07	(0.09)
population (ln) <sub>t-1</sub>	16031.79	(3244.13) ***	0.21	(0.13)
other econ aid (ln US \$1K 2004) <sub>t-1</sub>	-520.01	(391.75)	0.04	(0.02) **
US military aid (ln US \$1K 2004) <sub>t-1</sub>	-397.09	(582.43)	0.02	(0.02)
mills lambda	56858.59	(6521.00) ***	2.41	(0.26) ***
constant	-344871.20	(35626.89) ***	-1.30	(1.47)
<b>Selection Stage Variables</b>				
	Coef.	Std.Err.	Coef.	Std.Err.
cereal production (ln kilograms)	-0.068	(0.029) **	-0.068	(0.029) **
cereal production (ln $\Delta$ )	0.259	(0.188)	0.259	(0.188)
gdp per capita (ln \$US 2004) <sub>t-1</sub>	-0.524	(0.077) ***	-0.524	(0.077) ***
US exports (ln US \$1K 2004) <sub>t-1</sub>	0.116	(0.041) ***	0.116	(0.041) ***
other econ aid (ln US \$1K 2004) <sub>t-1</sub>	0.051	(0.009) ***	0.051	(0.009) ***
US military aid (ln US \$1K 2004) <sub>t-1</sub>	0.003	(0.015)	0.003	(0.015)
counter	-1.037	(0.081) ***	-1.037	(0.081) ***
spline 1	-0.023	(0.030)	-0.023	(0.030)
spline 2	-0.029	(0.004) ***	-0.029	(0.004) ***
spline 3	0.054	(0.054)	0.054	(0.054)
constant	3.305	(0.434) ***	3.305	(0.434) ***
N		1688		1688
Censored observations		851		851
Uncensored observations		837		837
rho		0.98		1.00
sigma		58160.13		2.41
wald chi2(15)		734.61 ***		499.88 ***
*p < 0.10; **p < 0.05; ***p < 0.01 (2-tailed)				
(*) discrete change of dummy variable from 0 to 1				
ln = natural logarithm				
PTS (1 best human rights practices -- 5 worst)				

APPENDIX B  
CASE SELECTION

**Figure A.1—Countries Selected for Allocation of Food Aid**

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1. Albania	29. Cote d'Ivoire	57. Laos	85. Russia
2. Angola	30. Croatia	58. Lebanon	86. Rwanda
3. Armenia	31. Cyprus	59. Lesotho	87. Senegal
4. Azerbaijan	32. Djibouti	60. Liberia	88. Serbia & Montenegro
5. Bangladesh	33. Dominican Republic	61. Lithuania	89. Sierra Leone
6. Barbados	34. Ecuador	62. Macedonia	90. Slovenia
7. Belarus	35. Egypt	63. Madagascar	91. South Africa
8. Benin	36. El Salvador	64. Malawi	92. Sri Lanka
9. Bhutan	37. Eritrea	65. Malaysia	93. Sudan
10. Bolivia	38. Ethiopia	66. Mali	94. Suriname
11. Bosnia & Herzegovina	39. Gambia, The	67. Mauritania	95. Swaziland
12. Botswana	40. Georgia	68. Mexico	96. Syria
13. Brazil	41. Ghana	69. Moldova	97. Tajikistan
14. Bulgaria	42. Guatemala	70. Mongolia	98. Tanzania
15. Burkina Faso	43. Guinea	71. Morocco	99. Thailand
16. Burundi	44. Guinea-Bissau	72. Mozambique	100. Togo
17. Cambodia	45. Guyana	73. Namibia	101. Trinidad & Tobago
18. Cameroon	46. Haiti	74. Nepal	102. Tunisia
19. Cape Verde	47. Honduras	75. Nicaragua	103. Turkey
20. Central African Republic	48. India	76. Niger	104. Turkmenistan
21. Chad	49. Indonesia	77. Nigeria	105. Uganda
22. Chile	50. Israel	78. Pakistan	106. Ukraine
23. China (P.R.C.)	51. Jamaica	79. Panama	107. Uruguay
24. Colombia	52. Jordan	80. Paraguay	108. Uzbekistan
25. Comoros	53. Kazakhstan	81. Peru	109. Vietnam
26. Congo (Brazzaville)	54. Kenya	82. Philippines	110. Yemen
27. Congo (Kinshasa)	55. Korea, South	83. Poland	111. Zambia
28. Costa Rica	56. Kyrgyzstan	84. Romania	112. Zimbabwe

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Note: Several Countries appear in both the Selected and Non-Selected groups because not all countries receive US food aid each year.

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**Figure A.2—Countries Not Selected for Allocation of Food Aid**

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1. Albania	33. Denmark	65. Libya	97. Senegal
2. Algeria	34. Djibouti	66. Lithuania	98. Serbia & Montenegro
3. Antigua and Barbuda	35. Dominica	67. Macedonia	99. Slovenia
4. Argentina	36. Dominican Republic	68. Malawi	100. Solomon Islands
5. Australia	37. Ecuador	69. Malaysia	101. South Africa
6. Austria	38. Egypt	70. Maldives	102. Spain
7. Azerbaijan	39. El Salvador	71. Mali	103. Sri Lanka
8. Bahamas, The	40. Estonia	72. Malta	104. St. Vincent
9. Bahrain	41. Fiji	73. Mauritius	105. Suriname
10. Barbados	42. Finland	74. Mexico	106. Swaziland
11. Belarus	43. France	75. Mongolia	107. Sweden
12. Belgium	44. Gabon	76. Morocco	108. Switzerland
13. Belize	45. Germany	77. Namibia	109. Syria
14. Botswana	46. Greece	78. Nepal	110. Tanzania
15. Brazil	47. Grenada	79. Netherlands	111. Thailand
16. Bulgaria	48. Guinea	80. New Zealand	112. Togo
17. Burundi	49. Guinea-Bissau	81. Nicaragua	113. Trinidad & Tobago
18. Cambodia	50. Hungary	82. Niger	114. Tunisia
19. Canada	51. Indonesia	83. Nigeria	115. Turkey
20. Central African Republic	52. Iran	84. Norway	116. Turkmenistan
21. Chad	53. Ireland	85. Oman	117. Uganda
22. Chile	54. Israel	86. Pakistan	118. United Arab Emirates
23. China (P.R.C.)	55. Italy	87. Panama	119. United Kingdom
24. Colombia	56. Jamaica	88. Papua New Guinea	120. Uruguay
25. Comoros	57. Japan	89. Paraguay	121. Uzbekistan
26. Congo (Brazzaville)	58. Jordan	90. Philippines	122. Vanuatu
27. Congo (Kinshasa)	59. Kazakhstan	91. Poland	123. Venezuela
28. Costa Rica	60. Korea, South	92. Portugal	124. Vietnam
29. Cote d'Ivoire	61. Kuwait	93. Romania	125. Yemen
30. Croatia	62. Laos	94. Russia	126. Zambia
31. Cyprus	63. Latvia	95. Rwanda	127. Zimbabwe
32. Czech Republic	64. Lebanon	96. Saudi Arabia	

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Note: Several Countries appear in both the Selected and Non-Selected groups because not all countries receive US food aid each year.

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## REFERENCES

- Apodaca, Clair and Michael Stohl. (1999) United States Human Rights Policy and Foreign Assistance. *International Studies Quarterly* 43(1): 185-198.
- Baldwin, David A. and Robert A. Pape. (1998) Evaluating Economic Sanctions. *International Security* 23(2): 189-198.
- Ball, Richard and Christopher Johnson. (1996) Political, Economic, and Humanitarian Motivations for PL 480 Food Aid: Evidence from Africa. *Economic Development and Cultural Change* 44(3): 515-537.
- Barrett, Christopher B. (1998) Food Aid: Is it Development Assistance, Trade Promotion, Both, or Neither? *American Journal of Agricultural Economics* 80(3): 566-571.
- Barrett, Christopher B. (2001) Does Food Aid Stabilize Food Availability? *Economic Development and Cultural Changes* 49(2): 335-349.
- Barrett, Christopher B. (2002) Food security and food assistance programs. In *Handbook of Agricultural Economics*: edited by Gardner, B.L., and Rausser, G.C. Elsevier: Amsterdam.
- Barrett, Christopher B., and Kevin C. Heisey. (2002) How Effectively Does Multilateral Food Aid Respond to Fluctuating Needs? *Food Policy* 27(5-6): 477-491
- Barrett, Christopher B., Sandeep Mohapatra, and Donald L. Snyder. (1999) The Dynamic Effects of US Food Aid. *Economic Inquiry* 37(4): 647-656.
- Beck, Nathaniel and Jonathan N. Katz. (1995) What To Do (and Not To Do) with Time-Series Cross-Section Data. *American Political Science Review* 89(3): 634-647.
- Beck, Nathaniel, Jonathan N. Katz, and Richard M. Tucker. (1998) Taking Time Seriously: Time-Series Cross-Section Analysis with a Binary Dependent Variable. *American Journal of Political Science* 42(4): 1260-88.
- Bennett, Scott, and Allan Stam. (2000). *EUGene: A Conceptual Manual*. *International Interactions* 26: 179-204.
- Blanton, Shannon Lindsey. (1994) Impact of Human Rights on U.S. Foreign Assistance to Latin America. *International Interactions* 19(4): 339-358.
- Blanton, Shannon Lindsey. (1999) Instruments of Security or Tools of Repression? Arms Imports and Human Rights Conditions in Developing Countries. *Journal of Peace Research* 36(2): 233-244.

- Blanton, Shannon Lindsey. (2000) Promoting Human Rights and Democracy in the Developing World: US Rhetoric Versus US Arms Exports. *American Journal of Political Science* 44(1): 123–131.
- Blanton, Shannon Lindsey. (2005) Foreign policy in transition? Human rights, democracy, and US Arms exports. *International Studies Quarterly* 49(4): 647-667.
- Bueno de Mesquita, Bruce and Alastair Smith. (2007) Foreign Aid and Policy Concessions. *Journal of Conflict Resolution* 51(2): 251-284.
- Carleton, David and Michael Stohl. (1985) The Foreign Policy of Human Rights: Rhetoric and Reality from Jimmy Carter to Ronald Reagan. *Human Rights Quarterly* 7(2): 205-229.
- Carleton, David and Michael Stohl. (1987) The Role of Human Rights in U.S. Foreign Assistance Policy: A Critique and Reappraisal. *American Journal of Political Science* 31(4): 1002-1018.
- Cathie, John. (1989) *Food Aid and Industrialization: The Development of the South Korean Economy*. Gower: Brookfield, VT.
- Cingranelli, David and David Richards. (1999) Measuring the Level, Pattern and Sequence of Government Respect for Physical Integrity Rights. *International Studies Quarterly* 43(2): 407-417.
- Committee on International Relations and Committee on Foreign Relations. (2006) Legislation on Foreign Relations Through 2005. Volume I-A of Volumes I–A and I–B. US Government Printing Office: Washington.  
[http://pdf.usaid.gov/pdf\\_docs/PCAAB402.pdf](http://pdf.usaid.gov/pdf_docs/PCAAB402.pdf) (Accessed: December 4, 2006)
- Davenport, Michael. (1969) The Allocation of Foreign Aid: A Cross-section Study. *Indian Economic Review* 16: 458-477.
- Diven, Polly J. (2001) The Domestic Determinants of US Food Aid. *Food Policy* 26(5): 455-474.
- Diven, Polly J. (2006) A Coincidence of Interest: The Hyperpluralism of US Food Aid Policy. *Foreign Policy Analysis* 2(4): 361-384.
- Donnelly, Jack. (1982) Human Rights and Human Dignity: An Analytic Critique of Non-Western Conceptions of Human Rights. *American Political Science Review* 76(2): 303-316.

- Fearon, James D. and David D. Laitin. (2003). Ethnicity, Insurgency, and Civil War. *American Political Science Review* 97(1): 75–90.
- Finnemore, Martha and Kathryn Sikkink. (1998) International Norm Dynamics and Political Change. *International Organization* 52(4): 887-917.
- Forsythe, David P. (1987) Congress and Human Rights in US Foreign Policy: The Fate of General Legislation. *Human Rights Quarterly* 9(3): 382-404
- Forsythe, David P. (1988) *Human Rights and US Foreign Policy: Congress Reconsidered*. University of Florida Press: Gainesville.
- Forsythe, David P. (1995) Human Rights and US Foreign Policy : Two Levels, Two Worlds. *Political Studies* 43(4-Special Issue): 111-130.
- Gastil, Raymond. (1980) *Freedom in the World: Political Rights and Civil Liberties 1980*. New Brunswick, NJ: Transaction Books.
- Gibney, Mark. (1980-2005) The Political Terror Scale.  
<http://www.unca.edu/politicalscience/faculty-staff/gibney.html>.  
 (Accessed 2006, March 3)
- Gibney, Mark, and Matthew Dalton. (1996) The political terror scale. *In Human rights and developing countries*, edited by D. L. Cingranelli, 73-84. Greenwich, CT: JAI Press.
- Gibney, Mark and Michael Stohl. (1988) Human Rights and US Refugee Policy. In *Open Borders? Closed Societies? The Ethical and Political Issues*, edited by M. Gibney. New York: Greenwood Press.
- Greene, William H. (2000) *Econometric Analysis*. Upper Saddle River, NJ: Prentice-Hall Inc.
- Hagle, Timothy M. and Glenn E. Mitchell. (1992) Goodness of fit measures for Probit and Logit. *American Journal of Political Science* 36(3): 762-784
- Heckman, James J. (1976) The Common Structure of Statistical Models of Truncation Sample Selection and Limited Dependent Variables and a Sample Estimator for Such Models. *The Annals of Economic and Social Measurement* 5(4): 475-492.
- Heckman, James J. (1979) Sample Selection Bias as a Specification Error. *Econometrica* 47(1): 153–161.

- Hudson, Valerie M. (2005) Foreign Policy Analysis: Actor-Specific Theory and the Ground of International Relations. *Foreign Policy Analysis* 1(1): 1-30.
- Institute for International Economics. (2003) Chronological Summary of Economic Sanctions for Foreign Policy Goals, 1914-2000. <http://www.iie.com/research/topics/sanctions/sanctions-timeline.htm>. (Accessed 2006, March 3)
- Kaplan, Stephen S. (1975) The Distribution of Aid to Latin America: a Cross-national Aggregate Study and Time Series Analysis. *The Journal of Developing Areas* 10(1): 37-60.
- Kato, Masakatsu. (1969) A Model of US Foreign Aid Allocation: an Application of a Rational Decision-making Scheme. In *Approaches and Measurement in International Relations*, edited by J. E. Mueller. New York: Apple-Century-Crofts.
- Kennan, George F. (1954) *Realities of American Foreign Policy*. Princeton NJ: Princeton University Press.
- Klein, L.R., and Mitsugu Nakamura. (1962) Singularity in the Equation Systems of Econometrics: Some Aspects of the Problem of Multicollinearity. *International Economic Review* 3(3): 274-299.
- Klein, L.R. (1962) *An Introduction to Econometrica*. Englewood Cliffs, New Jersey: Prentice Hall, Inc..
- Knack, Stephen. (2004) Does Foreign Aid Promote Democracy? *International Studies Quarterly* 48(1): 251-266.
- Lai, Brian. (2003) Examining the Goals of US Foreign Assistance in the Post-cold War Period, 1991-96. *Journal of Peace Research* 40(1): 103-128.
- Lancaster, Carol. (2006) *Foreign Aid: Diplomacy, Development, Domestic Policies*. Chicago: The University of Chicago Press.
- Lebovic, James H. (1988) National Interests and US Foreign Aid: The Carter Reagan Years. *Journal of Peace Research* 25(2): 115-135.
- Lopez, George A. and Michael Stohl. (1992) Problems of Concept and Measurement in the Study of Human Rights, in *Human Rights and Statistics: Getting the Record Straight*, edited by Thomas B. Jabine and Richard P. Claude, Philadelphia: University of Pennsylvania Press.

- Marshall, Monty, Keith Jagers and Ted R. Gurr. (2003) Political Regime Characteristics and Transitions, Polity IV Dataset <http://www.cidcm.umd.edu/inscr/polity/>. (Accessed March 3, 2006)
- McCormick, James M. and Neil Mitchell. (1988) Is US Aid Really Linked to Human Rights in Latin America? *American Journal of Political Science* 32(1): 231-239.
- McKinlay R. D. and R. Little. (1977) A Foreign Policy Model of US Bilateral Aid Allocation. *World Politics* 30(1): 58-86.
- Meernik, James D., Eric Krueger and Steven C. Poe. (1998) Testing Models of United States Foreign Policy: Foreign Aid During and After the Cold War. *Journal of Politics* 60(1): 63-85.
- Meernik, James D. and Steven C. Poe. (1996) U.S. Foreign Aid in the Domestic and International Environments. *International Interactions* 22(1): 21-40.
- Morgenthau, Hans. (1962) A Political Theory of Foreign Aid. *American Political Science Review* 56(2): 301-309.
- Morgenthau, Hans. (1978) *Politics Among Nations*. New York: Knopf.
- Moore-Lappé, Frances and Joseph Collins. (1977) *Food First*. New York: Ballantine Books.
- Most, Benjamin A. and Harvey Starr. (1989) *Inquiry, Logic, and International Politics*. Columbia, SC: University of South Carolina Press.
- Neumayer, Eric. (2003a) *The Pattern of Aid Giving*. London: Routledge.
- Neumayer, Eric. (2003b) Is Respect for Human Rights Rewarded? An Analysis of Total Bilateral and Multilateral Aid Flows. *Human Rights Quarterly* 25(2): 510-527.
- Neumayer, Eric. (2005) Is the Allocation of Food Aid Free from Donor Interest Bias? *The Journal of Development Studies*. 41(3): 394-411.
- Palmer, Glenn, Scott B. Wohlander and T. Clifton Morgan. (2002) Give or Take: Foreign Aid and Foreign Policy Substitutability. *Journal of Peace Research* 39(1): 5-26.
- Poe, Steven C. (1990) Human Rights and U.S. Foreign Aid: A Review of Quantitative Studies and Prescriptions for Future Research. *Human Rights Quarterly* 12(4): 499-512.

- Poe, Steven C. (1991a) U.S. Economic Aid Allocation: The Quest for Cumulation. *International Interactions* 16(4): 295-316.
- Poe, Steven C. (1991b) Human Rights and the Allocation of US Military Assistance. *Journal of Peace Research* 28(2): 205-216.
- Poe, Steven C. (1992). Human Rights and the Economic Aid Allocation Under Ronald Reagan and Jimmy Carter. *American Journal of Political Science* 36(1): 147-167.
- Poe, Steven C. (2004) The Decision to Repress: An Integrative Theoretical Approach to the Research on Human Rights and Repression. In *Understanding Human Rights Violations: New Systematic Studies*, edited by S. Carey and S. Poe, pp. 16-38. Aldershot: Ashgate.
- Poe, Steven C. and C. Neal Tate. (1994) Repression of Human Rights to Personal Integrity in the 1980s: A Global Analysis. *American Political Science Review* 88(4): 853-900.
- Poe, Steven C., C. Neal Tate and Linda Camp Keith. (1999) Repression of Human Rights to Personal Integrity Revisited: A Global Crossnational Study Covering the Years 1976-1993. *International Studies Quarterly* 43(2): 291-313.
- Poe, Steven C. and James D. Meernik (1995). U.S. Military Aid in the Eighties: A Global Analysis. *Journal of Peace Research* 32(4): 399-412.
- Poe, Steven C., and Rangsimma Sirirangsi. (1993) Human Rights and U.S. Economic Aid to Africa. *International Interactions* 18(4): 309-322.
- Poe, Steven C., and Rangsimma Sirirangsi. (1994) Human Rights and US Economic Aid during the Regan Years. *Social Science Quarterly* 75(3): 494-509.
- Poe, Steven C., Nicolas Rost, and Sabine C. Carey. (2006) Assessing Risk and Opportunity in Conflict Studies: A Human Rights Analysis. *Journal of Conflict Resolution* 50(4): 484-507.
- Poe, Steven C., Sabine C. Carey and Tanya C. Vazquez. (2001) How are These Pictures Different? A Quantitative Comparison of the US State Department and Amnesty International Human Rights Reports, 1976-1995. *Human Rights Quarterly* 23(3): 650-677.
- Poe, Steven C., Suzanne Pilatovsky, Brian Miller and Ayo Ogundele. (1994) Human Rights and U.S. Foreign Aid Revisited: The Latin American Region. *Human Rights Quarterly* 16(3): 539-558.

- Regan, Patrick. (1995) US Economic Aid and Political Repression. *Political Research Quarterly* 48(3): 613-628.
- Roper, Steven D. and Lilian A. Barria. (2007) Gatekeeping versus Allocating in Foreign Assistance: Donor Motivations and Contributions to War Crimes Tribunals. *Journal of Conflict Resolution* 51(2): 285-304.
- Rosenblum, Marc and Idean Salehyan. (2004) Norms and Interests in US Asylum Enforcement. *Journal of Peace Research* 41(6): 677-697.
- Russett, Bruce M. (1972) A macroscopic view of international politics. In *The Analysis of International Politics*, edited by J. M. Rosenau, V. Davis and M. A. East, pp. 109-124. New York: Free Press.
- Russett, Bruce and Harvey Starr. (1985) *World Politics: The Menu of Choice* 2nd ed. New York: W. H. Freeman and Company.
- Ruttan, Vernon W. (1993) *Why Food Aid?* Johns Hopkins University Press, Baltimore.
- Schoultz, Lars. (1981) US Foreign Policy and Human Rights Violations in Latin America: A Comparative Analysis of Foreign Aid Distributions. *Comparative Politics* 13(2): 149-170.
- Shapouri, Shahla and Margaret Missiaen. (1990) Food Aid: Motivation and Allocation Criteria. E. Rpt. 240. Washington, D.C.: US Department of Agriculture, Economic Research Service.
- Shaughnessy, Daniel E. (1977) Food Aid: Are Criteria Necessary? In *Food Policy: The Responsibility of the United States in Life and Death Choices*, edited by P. G. Brown and H. Shue. pp. 94-102. New York: Free Press.
- Singer, Hans W. (1987) Food Aid: Development Tool or Obstacle to Development? *Development Policy Review* 5: 323-339.
- Sorenson, David S. (1979) Food for Peace—or Defense and Profit? The Role of P.L. 480, 1963-73. *Social Science Quarterly* 60(1): 62-71.
- Sprout, Harold and Margaret Sprout. (1957) Environmental Factors in the Study of International Politics. *Journal of Conflict Resolution* 1(4): 309-328.
- Sprout, Harold and Margaret Sprout. (1965) *The Ecological Perspective on Human Affairs*. Princeton: Princeton University Press.

- Sprout, Harold and Margaret Sprout. (1968) *An Ecological Paradigm for the Study of International Politics*. Princeton: Princeton University Press.
- Sprout, Harold and Margaret Sprout. (1969) Environmental Factors in the Study of International Politics. In *International Politics and Foreign Policy* Edited by J. Rosenau. New York: The Free Press.
- Stata release 9.0. (2005) College Station, TX: Stata Corporation.
- Stohl, Michael and David Carleton, and Steven E. Johnson. (1984) Human Rights and US Foreign Assistance from Nixon to Carter. *Journal of Peace Research* 21(3): 215-226.
- Travis, Rick. (1995) US Security Assistance Policy and Democracy: A Look at the 1980s. *Journal of Developing Areas* 29(4): 541-562.
- Travis, Rick and Nikolaos Zahariadis. (2002) A multiple Streams Model of US Foreign Aid Policy Studies Journal 30(4): 495-514.
- Tuman, John P., and Ayoub S. Ayoub. (2004) The Determinants of Japanese Official Development Assistance in Africa: A Pooled Time Series Analysis. *International Interaction* 30(1): 45-57.
- USAID. (2006) The Green Book: US Overseas Loans and Grants. <http://qesdb.cdie.org/gbk/index.html>. (Accessed March 3, 2006)
- US Department of Commerce. (2006): Bureau of Economic Analysis. Gross Domestic Product: Chain-type Price Index. <http://www.bea.gov/bea/an/nipaguid.pdf> (Accessed: March 3, 2006).
- US Department of Defense (2007) Overseas Military Deployments. <http://web1.whs.osd.mil/mmid/military/miltop.htm>. (Accessed: March 3, 2006).
- Uvin, Peter. (1992) Regime, Surplus, and Self-Interest: The International Politics of Food Aid. *International Studies Quarterly* 36(3): 293-312.
- Van Dyke, Vernon. (1972) *International Politics*. New York: Appleton-Century-Crofts.
- Wallensteen, Peter. (1976) Scarce Goods as Political Weapons: The Case of Food. *Journal of Peace Research* 13(4): 277-298.
- Wallerstein, Mitchel B. (1980). *Food for War—Food for Peace: United States Food Aid in a Global Context*. Cambridge, MA: MIT Press.

- Waltz, Kenneth. (1979) *Theory of International Politics*. New York: McGraw-Hill.
- Wittkopf, Eugene R. (1972) *Western Bilateral Aid Allocations: A Comparative Study of Recipient State Attributes and Aid Received*. Beverly Hills: Sage.
- World Bank data pages. (2006) <http://devdata.worldbank.org/dataonline/>  
(Accessed: March, 3 2006).
- World Food Programme. (2001) <http://www.wfp.org>. (Accessed: April 29, 2007)
- Zahariadis, Nikolaos, Rick Travis and James B. Ward. (2000) US Food Aid to Sub-Saharan Africa: Politics or Philanthropy? *Social Science Quarterly* 81(2): 663-676.
- Zinnes, Dina A. (1976) The Problem of Cumulation In *Search of Global Patterns*, edited by J. M. Rosenau, pp. 161-166. New York: Free Press.