Policy as Symbolic Statement: International Response to National Population Policies[*]

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Abstract

Traditional studies of state policies tend to focus on the achievement of the policies' stated ends. But policies, as systems of meaning and expressions of legitimate statehood, signal various meanings to national and international audiences. In this article, we demonstrate the importance of the symbolic and international realms by investigating the impact of population policies on patterns of financial assistance from international donor organizations. We find that developing countries with policies are more likely to (1) receive population assistance, and (2) receive greater amounts of funding than are countries without policies. These results suggest that studies of policy outcomes should not only evaluate local, intended consequences, but how national policies as international symbols may foster other types of consequences.

Research on national policies often focuses on questions of effectiveness. This conventional framework overlooks two aspects of national policies: their significant symbolic value (which may bring unanticipated effects) and their international relevance. Drawing on interpretative and institutionalist perspectives, we consider policies as national symbols and explore consequences attributable to their meaning within global society.

We focus on policies within an area of sociology where the policy evaluative tradition is especially common: demography. Given the perceived urgency of

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population issues, demographic research often investigates questions of "what works." Many studies measure the demographic and economic effects of policy initiatives on the populations they were intended to help. This article illustrates the importance of exploring policy outcomes that transcend stated goals. In particular, we analyze the financial response of an international donor organization to national population policies.

We chose population policies aimed at reducing national fertility growth rates because they represent an important world model for developing countries. In the mid-1960s, population growth came to be viewed by a community of experts (including academicians, consultants and policymakers) as a central drain on economic development. Over the ensuing years, an elaborate international apparatus formed to assist in the reduction of population growth rates in developing countries. The landmark United Nations Declaration on Population (1966) urged national leaders to examine demographic conditions and adopt policies to bring fertility rates in line with their development goals. The near-homogeneous population policies adopted over the past several decades not only represent governments' commitments to internal change, but also a signal of their alliance with the international community concerned with population growth.

We therefore hypothesize that the adoption of a population policy may provoke a supportive response from the international community. Using time-series multivariate regression, we test the explanatory power of policy adoption as a signal for funding against alternative explanations of funding allocation for a major donor, the United States Agency for International Development (USAID). Our findings show that net of demographic, economic and political factors, population policies significantly increase both the likelihood and amount of USAID funding for population projects in 114 developing countries.

National Policies as International Symbols

Our study draws on interpretative policy analyses, which consider not only the instrumental aspects of policies, but their expressive side as well. This approach views policies as theories, symbols, or reflections of value systems (Edelman 1971; Majone 1981; Steinberger 1981), and examines the various and sometimes unintended meanings policies communicate to national constituents and targeted populations (e.g., Chambliss 1964; Maynard-Moody & Stull 1987; Yanow 1996). This article extends this approach to include the international arena, drawing on the institutionalist literature which focuses on the embeddedness of national policy in the dense array of international activity that gives legitimacy to state actions (e.g., Boli & Thomas 1997; Meyer et al. 1997). According to this tradition, national policies are one of several taken-for-granted components of legitimate nation-statehood as defined in normative world society.

Policy research from this institutionalist perspective has focused almost exclusively on the origin of policies. For example, institutionalist research has demonstrated how world cultural forces create historical waves of dramatically similar institutions and policies, such as national constitutions (Ventresca 1995); environmental preservation (Frank 1997); women's rights and suffrage (Berkovitch 1999; Ramirez & McEneaney 1997); education (Boli et al. 1985; Bradley & Ramirez 1996); and population policies (Barrett & Frank 1999). Their findings demonstrate that policies reflect a shared system of meaning and represent important symbols within a larger international culture.

While institutionalist theory has explored the global origin of national policies, it has generated little research on their international effects. It has nonetheless supplied the theoretical basis for such research (Meyer 1987; Meyer et al. 1997). It is a fairly standard institutionalist argument that international isomorphism or conformity to world models is rewarded with greater resource flows, that world society encourages adherence to global standards through the "carrot" of financial assistance and other rewards. As Meyer (1987:55) describes, member-state support, including "flows of economic aid . . . is much more likely to go to organizations that take on the appropriate nation-state forms and responsibilities." We hypothesize on the basis of this theoretical work that certain national policies, serving as markers of conformity to valued global standards, elicit measurable responses by the international community.

The Case of Population Policies

The case we use to test this hypothesis involves population policies. By population policies we refer specifically to legislation intended to decrease fertility rates (not to maintain or raise rates or affect migration). This case is particularly appropriate for several reasons.

First, population policies to reduce fertility rates have undergone tremendous diffusion in the past three decades, providing significant over-time variation in the policy-adoption variable. In 1960, three countries had national policies to reduce the national fertility rate; in 1992, 77 countries had such policies (see Figure 1).

Second, it is well established that these policies grew out of activities in international society following World War II, such as the population programs of the United Nations and related organizations, the emerging global consensus in the field of demography, and the activism of international non-governmental family-planning organizations (Barrett 1995; Crane 1993; Finkle and Crane 1975, 1985; Harkavy 1995; Hodgson and Watkins 1997; Johnson 1987; Kirby and Kirby 1996; Population Council 1978; Suitters 1973; Wolfson 1983).

Third, it is clear that world society takes population policies seriously. They are encouraged at international meetings (United Nations 1967; 1975; 1986) and

monitored closely (U.N. Department of International Economic and Social Affairs 1987, 1989, 1990, 1995). Their effectiveness at reducing fertility rates is studied voluminously. Most importantly for the purposes of this paper, large sums of money are distributed to assist nations in their efforts to reduce fertility rates. Total assistance for family planning programs reached almost $1 billion dollars by 1990 (Knowles, Koek & Seligman 1993:3); the U.S. alone, through its Agency for International Development (USAID), spent more than a quarter-billion dollars on population programs in 1990, and almost a half-billion dollars by 1997 (USAID 1998). These funds provide a measurable indicator of world society's response to policy adoption.

Having a population policy, we argue, thus represents government endorsement of the international efforts spearheaded by U.S. demographers and validated by the United Nations and other prominent international organizations to associate population regulation with economic and social development.
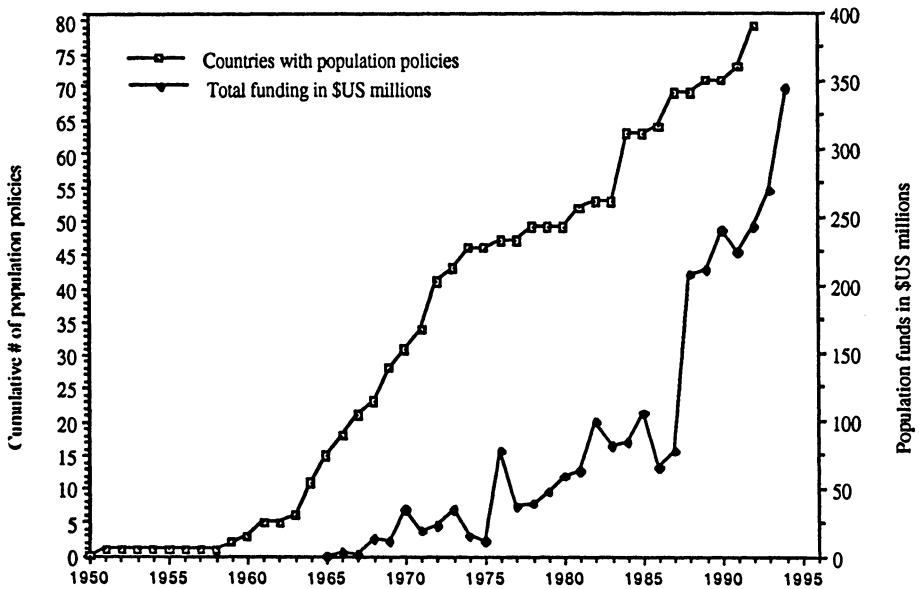
Yet there is a studied tendency to ignore population policies' international consequences. It is well documented that since the 1960s, international organizations have devoted funding, contraceptive supplies, personnel, and demographic training to countries expressing interest in influencing their demographic conditions. However, the surge in population policies and donor assistance are generally treated as responses to the same phenomenon: that population growth was found to be economically draining.

With increased flows of legitimacy from policy adoptions, we expect, come provisions of resources such as demographic surveys, training and expert services, and contraceptive supplies. In this paper, we focus on one easily measurable part of the bundle of goodies: money. We ask to what extent financial rewards befall nation states who subscribe to international standards asking developing countries to survey their demographic conditions and adopt policies in line with current development theory.

Hypotheses

According to demographer Julian Simon (1990:209), two reasons that donor organizations provide international population assistance are whether or not potential recipients (1) need help and (2) want help. The first reason, representing a realist or conventional interpretation, seems quite straightforward: International donors are more able to justify grants for population programs where they appear needed. Research from this view weighs the impact of demographic factors such as population size, growth, density, and child mortality; economic factors such as standard of living; and measures of general well being, such as child and maternal health. The expectation is that countries with low per capita measures of economic

FIGURE 1: Total Bilateral USAID Funds for Population Projects (in $US
millions) and Cumulative Count of National Population Policies
1950-94

(N = 170)

development and problems attributed to their demographic conditions are the most
likely recipients of population aid.

Several studies find support for this view. Simon (1990:209) reports that
countries with high population growth rates are indeed more likely to evoke a
response from international donors. This was corroborated by U.N. (1995) that
reported greater population assistance by the UNFPA in regions with low per capita
GNPs and high population growth rates from 1982 to 1990. At first glance, a study
by Knowles, Koek and Seligman (1993) on UNFPA and USAID assistance from
1987 to 1990 provides further support. Using bivariate analysis, Knowles et al. find
that high fertility countries were more likely to receive aid from these two donors.
In their multivariate analysis, however, their demographic and economic variables
become insignificant. Instead, the most important explanatory factor appears to
be an aggregate measure of nonpopulation aid received from foreign donors, which
Knowles et. al. interpret to represent "political factors."

Several studies cast further doubt on a need-based allocation of population
funding. A study by Donaldson (1991) of 69 developing countries between 1965
and 1980 finds that fairly well-off countries are more likely to receive foreign

assistance than are poorer ones. This was particularly notable among those receiving the largest amounts of aid, a finding Donaldson explains as "a by-product of donors' perception of local absorptive capacity" (1991:170). Ness, Johnson and Bernstein (1983) find a similar result in their study of Asian family planning policies and programs.

While the conventional view has received mixed support, the logic remains straightforward: International aid agencies are more inclined to subsidize programs where funding is most needed. We include this view through a set of hypotheses about the likelihood and amount of funding countries receive as a response to need, represented by their demographic and economic characteristics.

> *Hypothesis 1a:* Developing countries with *large populations* are more likely to receive (any and more) donor assistance.

The number of people inhabiting a country seems an important measure for funding considerations because decisions may be made on a per capita basis. Clearly, populous countries such as India are more likely to receive greater amounts of funding than smaller ones like Burkina Faso or St. Kitts.

> *Hypothesis 1b:* Developing countries with *higher fertility rates* are more likely to receive (any and more) donor assistance.

The fertility rate (in conjunction with population size) is considered the most important measure of a country's population problem, particularly in poorer countries. Finally, it seems straightforward that countries considered in need of economic development would be suitable beneficiaries of financial aid:

> *Hypothesis 1c:* Developing countries with *less economic development* are more likely to receive (any and more) donor assistance.

Simon's second criterion of why countries receive assistance — the expression of desire — is particularly pertinent in this case because of the controversial nature of fertility regulation. At a minimum, potential recipients of population aid must appear desirous of assistance. What makes countries appear interested in assistance? One unambiguous marker, we argue, is national population policy. Policies are not synonymous with countries' commitment to family planning (some countries with no policies have well-developed programs, while others have policies but weak programs). However, the act of adopting a policy is laden with meaning that is communicated to local constituents as well as the international organizations that support population programs. Governments are aware that a policy announcement will be applauded by donor agencies (in addition to eliciting particular local responses).

We thus broaden conventional hypotheses to include the effects of national policies as signals of countries' receptivity to international donors, thereby identifying them as appropriate recipients of international aid systems.

> *Hypothesis 2:* Countries with *population policies* are more likely to receive (any and more) donor assistance.

No research explores the signaling effect of population policies. Most studies that include the relations between population policy and international assistance consider policy within the milieu of population activity. Nonetheless, some findings lend empirical support to the hypothesis that policies evoke donor responses. In a comprehensive review of the literature on policy environment, Knowles, Bollen and Yount (1993) refer to supplies from private and public sectors as policy outcomes, along with more common policy output variables such as fertility change. In a study of 21 Asian countries between 1965 and 1975, Ness and Ando (1984) find that funding flows depended on the existence of fertility limitation policies and programs. Knowles, Koek and Seligman (1993) similarly report that countries with stronger policies or better absorptive capacities received more assistance from USAID and UNFPA. In a more extensive study, Zhang (1994) examines the interrelationships among policies, programs, international assistance and fertility change in 80 countries between 1969 and 1990. Her findings show that countries with stronger population policies received a greater amount of international aid, measured by UNFPA allotments, although she does not explore the reasons for this. Instead this work is driven by an empirical question of untangling the directionality in the interconnections among policy, programs, fertility change, and international assistance. Yet the findings of these studies uphold the thesis that population policies signal receptivity to donors.

We also include political variables to explain any idiosyncrasies of the population funding source considered in this study, the U.S. Agency for International Development (see below for a justification for this source). Throughout the Cold-War period, the U.S. remained staunchly opposed to state socialist regimes, placing some on an embargo list. Therefore, we expect USAID to be less inclined to fund state socialist nations.

> *Hypothesis 3a:* Countries with *socialist governments* are less likely to receive (any and more) donor assistance.

In addition, given the US government's explicit preference for democratic regimes, we expect the USAID may discriminate against less democratic countries.

> *Hypothesis 3b:* Countries with *more democratic regimes* are more likely to receive (any and more) donor assistance.

As a note, we expect biases against state socialist regimes to be greater than those against less democratic countries because the US government has supported non-democratic leaders who assisted in the fight against communism, such as Iran, Taiwan, South Korea, Indonesia and right-wing Latin American governments.

Finally, we include a measure of total USAID funding made available each year for bilateral population assistance to the developing world. As Figure 1 shows, USAID funding has fluctuated over time. The general dip in the 1980s may be the result of changes in US government policy toward family planning, namely the restriction of activities that could involve support for abortion under the Reagan administration (Donaldson 1990). We expect availability of funding affects countries' opportunities to receive assistance.

> *Hypothesis 3c*: Countries are more likely to receive (any and more) donor assistance during years with greater amounts of donor assistance distributed.

Research Design

We test the above hypotheses about the allocation of population funding to developing countries using two time-series regression models: Model A addresses whether or not countries receive funding; Model B examines the amount funded countries receive. Two models were needed to represent the substantive distinction between likelihood and amount of funding, and for empirical grounds. Because fewer than one-third of country-year observations receive funding (see Table 1), our data are "left censored." Therefore including all observations in one continuous regression would misrepresent the effects of our explanatory variables. We used a Tobit regression model to test the effect of the skewed distribution of our dependent variable (Greene 1993:694), and Cragg's specification to confirm that left-censored data would misspecify our model.

The most appropriate analysis for our data is a two-stage estimator in which we begin with the full sample in Probit (Model A), followed by a second OLS regression with a censored or truncated model (Model B). Although it appears that removing unfunded cases in Model B may involve sampling on the dependent variable, truncated regression equations of this sort have precedent in analyses where two separate processes are thought to occur (e.g., Duan et al. 1984; Manning, Duan & Rogers 1987).

Model A explores the determinants of the decision by USAID whether or not to allocate *any* funding to developing countries. Availability of data on variables of theoretical interest limits our formal analyses to 114 of 158 developing countries and to the years 1973 to 1993, capturing active years of the international population-policy movement. Model B examines the variation in the amount funded countries received, with a continuous measure of the annual dollar figure (in current

dollars). Data are available for 88 of the 123 USAID-funded developing countries and for the same years as model A: 1973 to 1993.

Both models use time series regression procedures with annual measures of country observations. We use STATA to estimate comparable models for both regressions, including a procedure (the Huber-White Correction) to correct for autocorrelation.

Data and Variables

Variables for our formal analysis are described in Table 1. Because we use time-series data with repeated yearly measures for countries, the descriptive data are not intuitive. Some countries are represented more often than others.

For the 20 years and 114 countries included in model A, we have complete data on approximately 85% of the cases (1939 of 2280 country-year observations). For a country-year observation to be included, data must exist for all seven covariates. Countries that lack data for a given year remain in the analysis for the years where data are complete. Model B includes only those country-years with funding (88 of the 114 countries in model A), reducing the sample to 628 observations.

DEPENDENT VARIABLES

This study uses USAID funding as the dependent variable for five reasons. First, USAID has been the most influential of the donor organization on population projects in developing countries (Donaldson 1991:50; Simon 1990:213; Warwick 1982:45). Second, USAID provides more funding than any other single agency; its funding alone constitutes 40% of total donor assistance for population programs (Knowles, Koek & Seligman 1993:4). Third, USAID was the first governmental organization in the population field (Donaldson 1990). Fourth, USAID gives grants not loans (unlike the World Bank), representing a more explicit system of rewards. Finally, data availability on bilateral contributions is more systematic for USAID than for any other organization, including the United Nations Fund for Population Activity (UNFPA), now called the United Nations Population Fund.

We feel USAID adequately represents population assistance more generally because USAID coordinates with other donors, such as the UNFPA, IPPF/London, and the World Bank, and because USAID often contributes funds through them. Furthermore, the funding criteria are similar at all these agencies. USAID, like the others, seeks to provide voluntary family planning services as part of its broader objective to improve social, economic, environmental, and health conditions through population growth reduction in developing countries (USAID 1997). Importantly, there is no explicit requirement of policy for funding. Rather, USAID funding decisions rest on numerous measures of countries' interest and ability to

TABLE 1: Descriptive Statistics for Time-series Analyses of USAID Allocation, 1973-1992

Dependent Variables	Description	Model A:	Model B:
		Mean (St. dev.)	Mean (St. dev.)
Model A: DUSAID	Whether or not country received USAID population funding the previous year.	.324	
	(1 = funding; 0= no funding)	(.468)	
Model B: LOGUSAID	Logged, USAID annual funds in US $1000s each country received the previous year.		5.96 (2.56)
	(Unlogged)	950.603 (5515.375)	2361.39 (4348.49)
Independent Variables			
1. Population Size	Logged, annual total population size in each country.	15.577	16.121
	(Unlogged)	(1.796) 33,800,000 (127,000,000)	(1.561) 33,800,000 (127,000,000)
2. Population Growth	The annual increase in population in each country since the previous year calculated as 100 * $((\text{population}_{T2} - \text{population}_{T1})/ \text{population}_{T1})$.	2.482 (1.054)	2.408 (0.758)
3. Gross Domestic Product (GDP)	Logged, annual per-capita GDP in constant dollars using the Chains index (1985 international prices).	7.506 (0.883)	7.333 (0.701)
	(Unlogged)	2,775.761 (3112.439)	1981.268 (1669.878)
4. Population Policy	Whether or not country has a national policy to reduce fertility by that year.	.439	.615
	(1 = policy; 0 = no policy)	(.496)	(.487)
5. Democracy	Democracy scale (2-14) of political rights and civil liberties scales annually.	6.769 (3.411)	7.469 (3.231)
6. Socialism	Whether or not country is state socialist that year. (1 = socialist; 0 = not socialist)	.146 (.353)	.072 (.258)
7. Annual USAID	Logged total annual USAID bilateral population assistance in $US millions.	11.258 (.856)	11.583 (.858)
	(Unlogged)	107,798.2 (84,285.82) (1939 Obs)	143576.7 (89797.58) (628 Obs)

support family planning including the "level of contraceptive prevalence, degree of national policy support, and private and public sector resources" (USAID 1991; 33). Nonetheless, we control for possibly non-representative aspects of USAID funding with variables representing potential recipients' socialist and democratic leanings as well as idiosyncratic trends in USAID's provision of population assistance.

Data on USAID funding come from various US Congressional Reports (USAID 1969-1995). The dependent variable in our first model (DUSAID) is a dichotomous measure of whether or not countries receive any assistance in a given year. The annual average funding per country-year observation is just under $1 million, affected by the small proportion (0.324) of observations in which funding is received. The dependent variable for our second model (LOGUSAID) is logged because of the skewed distribution of USAID funding. In this sample, the average funding per county per year approaches $3 million, with the largest annual bilateral population assistance at $45.5 million (given to Bangladesh in 1990). We lag both dependent variables one year so that the explanatory variables predate the allocation of USAID funds.

Data on USAID represents bilateral population assistance actually given by USAID each year. We do not include measures of funding obligated, which may or may not have been received (see Knowles, Koek and Seligman 1993:5). Nor do we include regional projects or USAID funds provided indirectly through other donors such as UNFPA or International Planned Parenthood Foundation. While this may underrepresent total USAID contributions, we use a direct measure of USAID-country contributions and eliminate the difficulty of tracking and deciphering destinations of regional money.

INDEPENDENT VARIABLES

Both models A and B contain the same seven independent variables. The first set of hypotheses — representing the need-based perspective — is operationalized with annual measures of countries' total population size, population growth, and per capita GDP. Demographic data come from the World Bank (1995) and cover 209 countries from 1960 to 1993. We logged total population size to adjust for its skewed distribution. To depict "population problems," we chose countries' annual population growth rate, which we calculated using World Bank data (1995), as $(\text{population}_{T2} - \text{population}_{T1}) / \text{population}_{T1}$, multiplied by 100, as is customary for reporting growth rates. Because population growth rates are evenly distributed (mean and median are both around 2.5%), no transformation is needed. We chose population growth rates rather than population density, because the former is generally considered a more representative measure of population problems, available data were more inclusive, and because in initial analyses both yielded nearly identical statistical results.

National economic development is represented with an annual measure of per capita Gross Domestic Product (GDP), a common gauge of economic productivity and wealth. Data come from Penn World Tables (Heston & Summers 1995), which include 152 countries, and represent real GDP per capita in constant dollars using the Chain index (1985 international prices). We log per capita GDP because of its skewed distribution and disparities in the meaning of dollar increments at its higher values. Table 1 shows the average per capita GDP is less than $2,000 for countries receiving USAID funding (model B) compared to nearly $3,000 for the total population (model A), lending support to the hypothesis that population assistance targets poorer countries.

We represent population policy with a time-varying binary measure that indicates whether or not each government has reported a policy to reduce national fertility growth. Data come from Barrett (1995) and the United Nations Department of International Economic and Social Affairs (1995). We consider the first policy adoption as the moment a government declares its commitment to the international community; we do not include subsequent policy changes, which are few in number.

Socialism is represented with a time-varying dichotomous measure of whether or not countries have state socialist regimes. Data come from Barrett (1995). Spells of socialism cover the Eastern bloc countries until 1989 and the socialist regimes that followed revolutions in some Latin American, African and Asian countries.

Countries' degree of democracy comes from Freedom House (1995) annual ratings of civil liberties and political rights. This variable is based on data for 161 countries from 1973 to 1995, making it a most comprehensive measure of democracy.[4] As suggested by the founder of this rating system (Gastil 1991), we summed two ordinal 7-point scales of civil liberties and political rights, then inverted the 2-14 scale so that higher numbers mean greater democratic rights. Countries receiving funding (model B) have a somewhat higher democracy score (7.5 compared to 6.8) than the total population (model A).

Finally, we include a measure of total annual bilateral USAID population aid, logged because of its skewed distribution: $120 million in 1975 to almost $300 million in 1985.

Results of Multivariate Anaylsis

Overall, our results provide strong support for our hypothesis about the signaling effect of population policies on donor agencies, and considerably less support for conventional or need-based explanations of donor allocation. Political variables also matter, which we interpret as "removing the political bias" of our dependent variable, thus contributing to the generalizability of our results that aid agencies respond favorably to the policy expressions of developing countries.

MODEL A: THE PROBABILITY OF RECEIVING USAID FUNDING

In our first model, two of the three variables representing the conventional hypothesis are statistically significant: population size and per capita GDP. As expected, total population size predicts aid. However, the rate of population growth is not a significant predictor of funding in our model. This is quite surprising and runs counter to conventional need-based explanations (Simon 1990:209).

To translate our probit regression coefficients into a more intuitive form, we convert them into probabilities and compare hypothetical cases to the probability of funding for our entire sample (32.4%), identical to our dependent variable's mean. The reason for hypothetical cases is that our model is not linear and probabilities therefore shift depending on the reference point. Median values are preferable to mean values because most of our variables have skewed distributions.

Countries at the median population size (6.1 million) have a 32 percent predicted likelihood of receiving USAID funding, as compared with a 27 percent chance at the lower quartile (2 million), and a 36 percent at the upper quartile (17 million). The effect of population size appears more striking at the extremes: the most populous country in the dataset (India) with nearly 1 billion persons has almost a 60 percent predicted chance of assistance, while the least populous country (St. Kitts) with less than 42,000 inhabitants would have a mere 14% likelihood of receiving population assistance.

This would lend support to the demographic aspect of the conventional thesis, in that populous countries receive more funding. However, the insignificance of population growth, changes the story. Population size is instead likely to represent the tendencies of donors to provide assistance on a roughly per capita basis, or to countries where they expect their efforts to have greater international effects.

Per capita GDP also significantly predicts a country's likelihood of funding. Simply put: Poorer countries are more likely to receive aid. The country with the lowest per capita GDP in this model ($299) has 59 percent likelihood, compared with a 32% probability at the median per capita GDP ($1,767), and a mere 5 percent at the upper end ($34,000). These findings suggest that the likelihood of population assistance funds reflects economic need, thus contradicting findings of similar studies (e.g., Donaldson 1991; Ness, Johnson & Bernstein 1983). This could be due, in part, to the (arguably inappropriate) inclusion in some studies of developed countries, which receive a sizable proportion of USAID population funds.

Adoption of a population policy likewise has a significant effect in the hypothesized direction. If no country in the sample had a formal policy (and all variables were constant), each country would have a 26.4% likelihood of receiving funding, somewhat lower than the general probability. But if every country has a population policy (again holding all else constant), the probability increases to 38.9 percent. Thus, an "average" country that moves from no policy to a policy increases its predicted chances by 12.5 percentage points.

TABLE 2: Predictors of USAID Funding, 1973-1992 Time-Series Regressions

	Model A: Probit Regression		Model B: Truncated Regression	
	DUSAID Funding vs. No Funding Parameter Estimate (Standard Error)	Z-value	LOGUSAID Amount of USAID Funding Parameter Estimate (Standard Error)	T-value
Intercept	3.343*** (1.291)	-2.593	-5.278* (2.982)	-1.770
1. Population size (logged)	.147*** (.044)	3.356	.638*** (.073)	8.718
2. Population growth	.019 (.064)	.307	28.97* (15.239)	1.901
3. Gross domestic product (logged)	-.471*** (.096)	-4.879	-.224 (.252)	-.887
4. Population Policy	.414*** (.149)	2.780	1.009*** (.219)	4.603
5. Democracy	.088*** (.024)	3.565	.036 (.042)	.865
6. Socialism	-.555** (.260)	-2.140	.156 (.223)	.370
7. Annual US AID (logged)	.415*** (.058)	7.131	.196* (.101)	1.948
Number of obs	1,939		628	
Number of countries	114		88	
	$c^2 (7) = 103.63$		$F (7, 87)$	
	$Prob > c^2 = .000$		$Prob > F = .000$	
	Pseudo R^2 .1810		$R^2 = .431$	
			Root MSE = 1.402	

* p < .05   ** p < .01   *** p < .001

As predicted, USAID is also more inclined to fund more democratic countries.[5] The median democracy score of 6.5 (on a scale of 2 to 14) is associated with a 31.4% chance of receiving funds. Decreasing the democracy score by 1 point to 5.5 lowers the probability to 28.8%. On the extremes, countries with the lowest democracy score (2) have only a 20% chance of receiving USAID funds, while those with the highest score (14) have more than a 50% chance. The U.S. government is also less inclined to fund state socialist countries. Holding all other factors constant, if all the nonsocialist countries in the model became socialist, the likelihood of receiving USAID population funding would decline from 34.5% to

19.4%. Country allocations are also affected by total annual USAID population assistance, albeit only minimally. The predicted likelihood that a country receives funding in a year with the median amount available (about $78 million) is 31.4%, only one point under the observed probability of 32.4.

RESULTS OF MODEL B: THE AMOUNT FUNDED COUNTRIES RECEIVE

In our analysis of funded cases, both demographic variables are significant. More populous countries are likely to receive more funding, which may represent the tendency of funding agencies to calculate assistance on a per capita basis. Again, we interpret the magnitude of the effects with hypothetical cases. Because our dependent variable is logged, a one percent difference in the explanatory variable is associated with the percentage difference of the parameter estimate in unlogged units. Therefore, all other factors being equal, a one percent difference in population size brings a .638% change in USAID funds. At the median population size (9.1 million), this translates into an expected annual supplement of $625,240. As for population growth, a one percentage point increase in the population growth rate for an average case (the median) would increase USAID funding by nearly $1.3 million annually, an interpretation that will be discussed further below.

Among the funded countries, per capita GDP does not predict the magnitude of aid. These general findings are consistent with research by Knowles, Koek and Seligman (1993) and Zhang (1994); but at odds with those by Ness, Johnson and Bernstein (1983) and Donaldson (1991), who found funding more likely devoted to countries already well off.

Having a population policy increases the amount made available by USAID by a magnitude of 2.7. At the median funding level, this means policy adoption increases predicted funding from $980,000 to $2.7 million. In other words, controlling for all other factors, an average country could gain $1.7 million from adopting a population policy. All else constant, countries at the first quartile of funding would increase their predicted funding from $150,000 to $412,000, and those at the third quartile would increase theirs from $2.8 million to $7.6 million.

For funded countries, undemocratic and socialist practices have no significant effect on the amount they receive. Perhaps inclusion in the funded group itself signifies countries are appropriate recipients, so biases diminish. The total annual funding remains significant. A one percent increase in the total amount USAID distributes yearly is associated with an 0.2% increase in the amount an average country receives each year. At the median, a one percent annual increase would bring $196,000 more to each country.

While these results support both need-based and policy signaling explanations, the translation into predicted values shows some striking differences. Population policy adoption increases an average country's funding by $1.7 million. Population size could evoke a comparable effect with an increase of 2.7%, somewhat higher

than the sample's average population growth rate of 2.5. But for the population growth rate to generate at least $1 million in increased funding would require a one-percent change, an implausible amount given an average annual change in population growth rates is less than 0.1%. Thus, while population growth is a statistically significant predictor of funds, it would take decades to elicit the magnitude of funding predicted to follow a one-time policy adoption.

Discussion and Conclusion

This article seeks to expand conventional research on the outcomes of national policies by examining measurable international consequences of national policy initiatives. Drawing from the interpretive policy-analysis tradition, we consider policies as symbolic expressions; and drawing from the institutionalist approach, we consider the international arena in which national policies emerge.

Our analysis focuses on the consequences of policies aimed at reducing national fertility rates, because they represent value-laden and internationally monitored state actions that lie within a sociological tradition devoted largely to the evaluation of policy effectiveness. Demographic research on policy consequences tends to neglect international consequences in favor of those that are local.

We operationalize international policy outcomes in a form that is measurable and matters: money. In particular, we predict that the act of adopting a population policy will increase the likelihood that a country receives international donor aid as well as the amount received. Both of these hypotheses were confirmed using time-series regression models on a sample of 114 developing countries. Our analysis covers two decades (1973 to 1993), highly significant years for the growth of international collaboration for population management. We tested the strength of need-based and political explanations of international assistance against hypotheses of policy effects.

Our findings provide limited confirmation for approaches to population assistance which emphasize the demographic or political aspects of this aid. Demographic variables such as population size, population growth, and per capita wealth are generally significant in predicting both the receipt and the amount of population assistance. In addition, political variables — democracy and non-socialist government — are associated with a greater likelihood of donor assistance, but not with the amount received. These findings suggest that the international donor community distributes its aid in part according to the logic of demographic need and political likeness.

However, even when we control for demographic and political variables, the existence of a policy to reduce fertility rates remains a significant predictor of USAID population funding. Indeed, of all covariates, population policy is the most

robust predictor.[6] Furthermore, the predicted increase in international aid based on a plausible unit change in any of the independent variables is greatest for the adoption of a population policy. The very act of adopting a policy to reduce fertility rates, holding all else constant, brought an additional $1.7 million increase on average in annual USAID population-related assistance.

This finding suggests that the effect of policies in the international arena cannot be subsumed into demographic or political factors. We propose that what the conventional view does not capture is the symbolic meaning of national policy in the international arena. We argue that adoption of a policy serves as a public proclamation to the donor community that a state recognizes the seriousness of the topic addressed by the policy. It communicates support for international efforts on the topic and signals that the country is potentially receptive to international assistance. It does so in a manner that the international donor community recognizes as meaningful and legitimate.

This signaling process may be particularly important in the field of population policy because the international donor community has historically been wary of intervening in countries that are not receptive to international assistance. The management of population growth involves highly charged issues such as contraception. The World Health Organization, for example, was so struck by opposition on these grounds in the 1950s that it did not re-enter the population field until the late 1960s. Donor agencies seeking appropriate beneficiaries appear to use population policies as a cue — one among several — that such objections have been dealt with internally. As a result, the adoption of a population policy can have dramatic effects on international assistance.

If this finding holds for policies in other areas, then the analysis of policy effects may have implications for the analysis of policy adoption. For if policies as symbolic statements have significant effects in the international arena (aside from their intended internal effects), it may be the case that policy-makers calculate the anticipated reaction of the international community, especially in fields in which financial aid may be forthcoming. This prospect opens up new areas for research on the policy-making process: the importance of symbolic representations and international incentives on the interactions between national states and the global community. The findings in this paper do not by themselves support this perspective, but they provide preliminary grounds for additional research in this direction.

Further, the findings in this article support the initial premise that the very meaning of a national policy extends beyond its stated goals. This article has broached only one, measurable indicator of this symbolic meaning, but there are likely others. It has been noted that countries with population policies appear to have much more data on their demographic situation, including more expert services, surveys, and provision of various contraceptive services from international organizations. Policies flash the green light for a bundle of possible international reactions.

Beyond the financial benefits that may accrue from signaling receptivity to international projects, the adoption of population policies—like internationally valued policies to elevate the status of women or protect the environment—may publicly announce a country's adherence to the criteria of what constitutes a legitimate, modern, national state. Internally, it may contribute to the state's legitimacy in the eyes of its own citizens. It may signal the rise of one faction within the state, or the state's prioritization of certain national projects over others. While the internal symbolic effects of state policies have been studied extensively; this paper suggests that *international* symbolic effects ought also be brought into focus as well.

With the rise in number and importance of international organizations, more attention is being paid to their impact and role in affecting national-level standards and practices. The dialogue between international organizations and national states has increased on everything from sustainable economic development and human rights to the protection of selected species. Despite the increasing role of international organizations, national states remain the only legitimate policy actors. Governments' decision to endorse particular policies represents in part their acceptance of a model of behavior valued by international society. Numerous studies depict the normative processes through which countries that are more integrated into world society are more likely to adopt policies. This article illustrates material rewards that follow from adopting behaviors considered requisites for proper membership in world society. We provide an explicit example of how countries benefit from following policy prescriptions implicit in world society.

References

Barrett, Deborah. 1995. "Reproducing Persons as a Global Concern: The Making of an Institution." Ph.D. diss., Sociology Department, Stanford University, Stanford, Calif.

Barrett, Deborah, David John Frank. 1999. "Population Control for National Development: From World Discourse to National Policies." Pp. 198-221 in *Constructing World Culture: International Nongovernmental Organizations Since 1875*, edited by John Boli and George M. Thomas. Stanford University Press.

Berkovitch, Nitza. 1999. *From Motherhood to Citizenship: Women's Rights and International Organizations*. Johns Hopkins Press.

Boli, John, George M. Thomas. 1997. "World Culture in the World Polity: A Century of International Non-Governmental Organization." *American Sociological Review*. 62:171-90.

Boli, John, Francisco O. Ramirez, and John W. Meyer. 1985. "Explaining the Origins and Expansion of Mass Education." *Comparative Education Review*. 29:145-70.

Bradley, Karen, Francisco O. Ramirez. 1996. "World Polity and Gender Parity: Women's Share of Higher Education, 1965-1985." *Research in Sociology of Education and Socialization*. 11:63-91.

Chambliss, William J. 1964. "A Sociological Analysis of the Law of Vagrancy." *Social Problems.* 12:67-77.

Crane, Barbara. 1993. "International Population Institutions: Adaptation to a Changing World Order." Pp. 351-93 in *Institutions for the Earth,* edited by Peter M. Haas, Robert Keohane and Marc A. Levy. Cambridge: MIT Press.

Donaldson, Peter. 1990. "On the Origins of the United States Government's International Population Policy." *Population Studies.* 44:385-99.

———. 1991. *Nature Against Us: The United States and the World Population Control, 1965-1980.* Chapel Hill: University of North Carolina Press.

Duan, Naihua, et al. 1984. "Choosing Between the Sample-Selection Model and the Multi-Part Model." *Journal of Business and Economic Statistics."* 2:283-89.

Edelman, Murray J. 1971. *Politics as Symbolic Action: Mass Arousal and Quiescence.* Academic Press.

Finkle, Jason, Barbara Crane. 1975. "The Politics of Bucharest: Population, Development, and the New International Economic Order." *Population and Development Review.* 1:87-114.

———. 1985. "Ideology and Politics at Mexico City: The United States at the 1984 International Conference on Population." *Population and Development Review.* 11:1-28.

Frank, David John. 1997. "Science, Nature, and the Globalization of the Environment, 1870-1990." *Social Forces.* 76:409-35

Freedom House. 1995. *Freedom in the World*, edited by R.D. Gastil. Freedom House.

Gastil, Raymond D. 1991. "The Comparative Survey of Freedom: Experiences and Suggestions." Pp. 21-46 in *On Measuring Democracy: Its Consequences and Concomitants*, edited by Alex Inkeles. Transaction.

Greene, William H. 1993. *Econometric Analysis.* Prentice Hall.

Harkavy, Oscar. 1995. *Curbing Population Growth: An Insider's Perspective on the Population Movement.* Plenum Press.

Heston, Alan, Robert Summers. 1995. *Penn World Tables 5.6.* (World Wide Web address: http://cansim.epas.utoronto.ca:5680/pwt).

Hodgson, Dennis, Susan Cotts Watkins. 1997. "Feminists and Neo-Malthusians: Past and Present Alliances." *Population and Development Review* 23:469-523.

Jaggers, Keith, Ted Robert Gurr. 1995. "Tracking Democracy's Third Wave with the Polity III Data." *Journal of Peace Research* 32:469-82.

———. 1996. *Polity III: Regime Type and Political Authority, 1800-1994.* Ann Arbor, MI: Inter-University Consortium for Political and Social Research

Johnson, Stanley. 1987. *World Population and the United Nations: Challenge and Response.* Cambridge: Cambridge University Press.

Knowles, James, Irene Koek and Barbara Seligman. 1993. "What Does a Population Dollar Buy? Patterns Determines And Impact of Donor Support for Population Programs." Paper presented at 1993 meeting of the Population Association of America.

Knowles, James, Kenneth Bollen and Kathy Yount. 1993. *The Policy Environment of Family Planning Programs: A Literature Review.* The Evaluation Project, Carolina Population Center, University of North Carolina at Chapel Hill.

Lapham, Robert, W. Parker Mauldin. 1972. "National Family Planning Programs: Review and Evaluation." *Studies in Family Planning* 3:29-52.

————. 1985. "Contraceptive Prevalence: The Influence of Organized Family Planning Programs." *Studies In Family Planning* 16:117-37.

Majone, Giandomenico. 1981. "Policies As Theories." Pp. 15-26 in *Policy Studies Review Annual*, Volume 5, edited by Irving L. Horowitz. Sage.

Manning, Willard, Naihua Duan and W.H. Rogers. 1987. "Monte Carlo Evidence on the Choice Between Sample Selection and Two-Part Models." *Journal of Econometrics* 35:59-82.

Mauldin, Parker W. 1983. "Population and Fertility Regulation." Pp. 267-294 in *Determinants of Fertility in Developing Countries*, edited by Rodolfo Bulatao and Ronald D. Lee with Paula E. Hollerbach and John Bongaarts. Academic Press.

Maynard-Moody, Steven, Donald Stull. 1987. "The Symbolic Side of Policy Analysis." Pp. 248-65 in *Confronting Values in Policy Analysis*, edited by Frank Fischer and John Forester. Sage.

Meyer, John W. 1987. "The World Polity and the Authority of the Nation-State." Pp. 41-70 in *Institutional Structure: Constituting State, Society, and the Individual*, edited by George M. Thomas, John W. Meyer, Francisco O. Ramirez and John Boli.

Meyer, John W., John Boli, George M. Thomas, and Francisco O. Ramirez. 1997. "World Society and the Nation-State." *American Journal of Sociology* 103:144-81.

Ness, Gayl, Timothy Johnson, and Stan Bernstein. 1983. "Program Performance: The Assessment of Asian Family Planning Programs." Pp. 284-322 in *Collected Papers of the Population Association of America Annual Meeting*, Pittsburgh, Penn. Vol. 14.

Ness, Gayl, Hirofumi Ando. 1984. *The Land Is Shrinking: Population Planning in Asia*. John Hopkins University Press.

Population Council, The. 1978. *The Population Council: A Chronicle of the First Twenty-Five Years 1952-1977*. The Population Council.

Ramirez, Francisco O., Elizabeth McEneaney. 1997. "From Women's Suffrage to Reproduction Rights? Cross-National Considerations." *International Journal of Comparative Sociology* 38: 6-24.

Simon, Julian. 1990. *Population Matters: People, Resources, Environment, and Immigration*. New Brunswick: Transaction Books.

Steinberger, Peter. 1981. "Typologies of Public Policy: Meaning Construction and the Policy Process." Pp. 27-39 in *Policy Studies Review Annual*, edited by Irving L. Horowitz. Vol. 5. Sage Publications.

Suitters, Beryl. 1973. *Be Brave and Angry: Chronicles of the International Planned Parenthood Federation*. London: International Planned Parenthood Federation.

United Nations Department of International Economic and Social Affairs. 1987; 1989; 1990. *World Population Policies*. No. 102. Vol. 1-3. New York: United Nations.

————. 1995. *Global Population Policy Database 1993*. NY: United Nations.

United Nations. 1967. Proceedings of the World Population Conference (2d: 1965 Belgrade). New York: United Nations.

————. 1975. *The Population Debate: Dimensions and Perspectives: Papers of the World Population Conference* (3d: 1974 Bucharest). New York: United Nations.

———. 1986. *Review and Appraisal of the World Population Plan of Action: 1984 Report.* (1984: Mexico City). New York: United Nations.

United Nations Population Fund (UNFPA). 1995. *Global Population Assistance Report.* New York: UNFPA.

United States Agency for International Development. 1969-1995. *Overview of U.S.AID Population Assistance* (titles vary). Washington, D.C.: USAID Office of Population.

———. 1997. *United States Strategic Plan for International Affairs.* (Sept. 1997) Washington, D.C.: USAID.

———. 1998. *Overview of USAID Population Assistance FY 1997.* August 1998. Washington, DC: Department of State, Office of Resources, Plans and Policy.

Ventresca, Marc J. 1996. "When States Count: Institutional and Political Dynamics in Modern Census Establishment, 1800-1993." Ph.D. diss., Department of Sociology, Stanford University, Stanford, Calif.

Warwick, Donald P. 1982. *Bitter Pills: Population Policies and Their Implementation in Eight Developing Countries.* Cambridge: Cambridge University Press.

Wolfson, Margaret. 1983. *Profiles in Population Assistance: A Comparative Review of the Principal Donor Agencies.* Paris: Development Centre of the Organisation for Economic Co-operation and Development.

World Bank. 1995. *World*Data.* [CD-ROM]. Washington, D.C.: The World Bank.

Yanow, Dvora. 1996. *How Does a Policy Mean? Interpreting Policy and Organizational Actions.* Georgetown University Press.

Zhang, Qun. 1994. "The Impact of International Population Assistance on Population Policy, Program and Fertility Change in the Developing Countries." Ph.D. diss., Department of Population Planning, University of Michigan, Ann Arbor, Mich.