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Does democracy promotion work? That is, do the millions of dollars spent each year by the United States and other Western donors result in any measurable impact on either the extent of democracy or the pace of democratic change in recipient countries? Despite the steadily increasing level of democracy assistance programs from the U.S. since the end of the cold war, we know very little about whether such programs achieve their goals.

To be sure, there is a growing literature that describes the origins and growth of democracy promotion in the U.S. and other Western democracies and that analyzes the motives, assumptions, and implementation of democracy assistance programs in a variety of country contexts. Much of this literature, however, relies on case studies of

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democracy promotion in specific countries or regions and hence cannot provide a general assessment of the global effectiveness of such programs on democratic outcomes. Large-N quantitative studies on the topic are few in number and often limited by their focus on particular regions or by their use of highly aggregated measures of foreign assistance as independent variables—as opposed to specific allocations for democracy. If democracy assistance is supposed to increase democracy practice, then researchers need to focus on that assistance per se and not aggregate it with programs designed to improve health, education, the environment, or economic growth.

The distinction between democracy assistance and other forms of development assistance is relevant for broader theoretical reasons. Students of comparative politics have argued for decades about whether democratization is better explained by human agency and short-term factors or by structural preconditions operating over the long run. More recently scholars have debated whether the sources of democratization are purely domestic or whether external forces such as membership in regional organizations or diffusion processes influence countries’ democratic trajectories as well. Assessing the impact of democracy promotion can shed new light on both of these controversies: democracy programs are externally generated stimuli and so represent one means by which international influences on internal democratization processes may be examined. Moreover, democracy programs seek to empower key domestic agents in order to foster democratic changes in the recipient country, in contrast to other forms of development assistance that attempt to


promote the transformation of social, economic, or structural forces in ways that eventually may support the establishment and survival of democracy. Thus, a clear distinction between democracy assistance and other types of foreign assistance can illuminate the general causal mechanisms driving the processes of democratization.

In this article we offer the first comprehensive examination of the effects of U.S. democracy assistance on democratization worldwide over a large portion of the cold war period. The main goal of the study is not to explain the allocation of democracy funds (although we address this problem briefly) but rather to explain the impact of the funding on democratic outcomes in recipient countries. We overcome many of the limitations of previous work by analyzing a unique data set containing the budget appropriations, or “obligations,” for the U.S. Agency for International Development’s (USAID) programs for the post–cold war period (1990–2003). The data were collected from the raw USAID budgetary and program records. We argue that, in order to capture the true effects of democracy promotion programs, it is necessary (1) to separate USAID obligations in the democracy sector from those in other areas and also, in order to avoid problems of endogeneity, (2) to include controls for variables potentially influencing both the allocation of funds by U.S. policymakers and the democratic outcomes themselves. Our statistical models predict not only the effect of general democracy assistance on democratic development—as gauged by the Freedom House and Polity IV indices—but also the effect of specific investments within USAID’s democracy portfolio (Elections and Political Processes, Rule of Law, Civil Society, and Governance) on dependent variables that represent democratic outcomes along those same dimensions.

**Democracy Promotion: Direct and Indirect Causal Mechanisms**

The nascent literature on democracy promotion has not been especially sanguine about its beneficial effects on recipient countries. Early work by Abraham Lowenthal, for example, tended to express deep
skepticism about the motivations of the United States in attempting to “export” democracy. Larry Diamond argued that USAID is often not flexible enough and powerful enough vis-à-vis the rest of the U.S. foreign policy establishment to program assistance where it is needed most. Thomas Carothers and his colleagues, in the most extensive body of evaluative work on the topic, suggest that democracy promotion can work when done well, although much of the time political blinders, misguided beliefs in the “inevitability” of democratic transitions, and a “one size fits all” mentality have undermined USAID’s effectiveness. A similar chord has been struck recently by Francis Fukuyama.9

Even more negative assessments are to be found in recent work. Burnell, Carapico, Hearn, and Sogge, for example, excoriate donors for placing greater emphasis on political stability than on democratization, while Knack, in one of the few quantitative, multiyear studies to examine the impact of foreign assistance on democratization across a large number of countries, finds no impact of total OECD aid on the recipient countries’ Freedom House and Polity IV scores.10

Despite these pessimistic findings, we believe it is premature to draw such conclusions about the impact of democracy programs, for three reasons. First, arguments about democracy promotion are not often linked to broader theories of democratization. We address this problem in greater detail in the following section. Second, much of the literature has relied on qualitative case studies in specific countries or regions. Although this approach is particularly useful for tracing the connections between external programs and domestic processes,11 it has not provided a systematic comparative assessment of the global effectiveness of such

programs. Third, the few quantitative analyses published on the topic of democracy promotion have relied on measures of overall foreign assistance as the main independent variable. Neither Goldsmith’s analysis of foreign aid in sub-Saharan Africa in the 1990s nor Knack’s more comprehensive analysis of some one hundred countries receiving foreign aid since 1975 separated out democracy programs from other forms of foreign assistance, thereby, in our view, making the erroneous theoretical assumption that any and all forms of foreign assistance ought to have an impact on democracy. The few analyses able to separate democracy programs from other forms of foreign aid have presented mixed findings, with one study of USAID democracy funds showing a weak positive effect and one published study of the impact of National Endowment for Democracy funding showing null effects.

From Theories of Democratization to Democracy Promotion

For many years the relative importance of domestic variables to the exclusion of global, regional, or bilateral factors went relatively unquestioned in the democratization literature. Theories explaining the genesis and survival of democratic regimes traditionally relied on one of two approaches. Macro-explanations emphasized the role of long-term structural forces, such as the country’s level of development, economic performance, class structures,

12 Goldsmith (fn. 2); Knack (fn. 2). As is becoming increasingly clear in the literature linking foreign assistance to economic growth, different kinds of programs (for example, infrastructure investment, humanitarian aid, or technical assistance) have different kinds of economic impacts. Therefore, we have good reasons to believe that the failure of prior research to distinguish democracy assistance from overall assistance has obscured the potential impact of the former on democracy. Steven Radelet, Michael Clemens, and Rikhil Bhavnani, “Aid and Growth,” Finance and Development 42 (July 2005); Michael A. Clemens, Steven Radelet, and Rikhil Bhavnani, Counting Chickens When They Hatch: The Short-Term Effect of Aid on Growth, http://ssrn.com/abstract=567241 (accessed June 2004). Pamela Paxton and Rumi Morishima, “Does Democracy Aid Promote Democracy?” (manuscript, Ohio State University, John Glenn Institute for Public Service and Public Policy, 2005); Scott and Steele (fn. 3).

and colonial legacies. Microexplanations, by contrast, emphasized human agency, short-term contingent events, and institutional incentives. Scholars in this tradition underscored the role of elite pacts, civic values and the strength of civil society, and incentives created by constitutional designs.

Only recently have students of democratization begun to emphasize the role of international variables in promoting or inhibiting democratic development. This work hypothesizes that democratization need not be a purely internally driven phenomenon and that factors such as regional diffusion and pressures from international organizations can also facilitate democratic development. However, the precise mechanisms linking international forces and domestic causes of democratization (whether structures or agency) have not been carefully theorized.


22 Particularly controversial has been whether military interventions aimed to promote democracy can be successful. For qualified optimism, see James Meernik, “United States Military Intervention and the Promotion of Democracy,” Journal of Peace Research 33 (November 1996); and Mark Peceny,
Based on existing theories of democratization, we contend that foreign assistance can promote democracy in two ways: indirectly, by transforming some of the structural conditions that serve as prerequisites for regime transition or survival, and directly, by empowering agents (individuals, political institutions, and social organizations) that struggle for regime change in the domestic arena. Traditional forms of development assistance, although not specifically targeted toward democracy promotion, may promote modernization, encourage better economic performance, and foster class transformations, all of which may have long-term implications for democratic development. Targeted democracy assistance, by contrast, works to educate and empower voters, support political parties, labor unions, and women’s advocacy networks, strengthen human rights groups, and otherwise build “constituencies for reform”; it thus attempts to influence democratic outcomes in both the short term and the medium term. The first approach, which emphasizes investment in agricultural reform, infrastructure, education, and health, prevailed in the 1960s under the auspices of the Alliance for Progress. The second approach became the dominant paradigm in the early 1990s, following the creation of the National Endowment for Democracy and of USAID’s Democracy and Governance Office.

Targeted democracy promotion reflected the influence of what Carothers labeled the “transition paradigm” of the 1990s. This strategy sought to identify the constituent stages of the process of democratization and to intervene in support of critical actors at each stage. For instance, when authoritarian rulers were in power, foreign donors would push for an opening by strengthening civil society groups and an independent press. Once the democratic breakthrough had taken place, however, they would partially shift support to electoral bodies, enabling the rapid registration of voters, the efficient printing of ballots, their honest counting, and the legitimization of free and fair elections by international election observer teams. And in the phase that followed, donors would focus their efforts on strengthening key demo-

Democracy at the Point of Bayonets (University Park: Pennsylvania State University Press, 1999). For a critical perspective, see Bruce Bueno de Mesquita and George W. Downs, “Intervention and Democracy,” International Organization 60 (Summer 2006); and Fukuyama (fn. 9).

23 USAID (fn. 8), 28. This document provides a thorough overview of recent programs, cooperative agreements, and “indefinite quantity contracts” (IQCs) in the four sectors areas of the USAID portfolio.


ocratic actors and institutions, such as the legislature, the judiciary, and local governments, in order to promote consolidation.26

In recent years, for example, USAID has funded an independent radio station in Tajikistan, a women’s leadership program in Kosovo, the observation of elections by the Parliamentary Forum of the Southern Africa Development Community in Zimbabwe, the organization of town meetings in Peru, the establishment of dispute-resolution centers in Bolivia and a legal advocacy program in Cambodia, the renovation of the National Institute of Justice facilities in Bulgaria, the setup of computer systems in Mongolian courts, and a grassroots anticorruption program in Paraguay.27 Funding has also supported the training of judges, the development of modern criminal codes, the establishment of committee systems in legislatures, and the promotion of decentralized government elsewhere. But a fundamental question remains open: can support for such specific actors and local programs lead to significant changes in a country’s overall levels of civil liberties, political rights, and other indicators of democratic development?

Table 1 places the two policy approaches in the context of broader theories of democratization. We list some of the variables commonly presented as explanatory factors affecting democratic development, whether positively or negatively. The table is not intended to be exhaustive, and for the sake of simplicity we have omitted specific arguments or references. We illustrate whether the sources of democracy (or dictatorship) lie ultimately in the domestic arena or in the international arena and whether they are expected to operate indirectly (creating structural conditions that foster the emergence of particular social forces and class coalitions) or directly (affecting the incentives and capacities of domestic agents in the medium and short run). Arguments involving foreign aid are presented in italics. We thus conceive of democracy assistance as an externally driven, agent-based influence on democratization. As such, the assessment of the effects of USAID Democracy and Governance (DG) expenditures—as distinct from other forms of (non-DG) development assistance—provides a crucial test of the impact of this relatively unexamined set of explanatory factors in the democratization process.

There are distinct analytical problems in the estimation and assessment of the impact of both DG programs and non-DG forms of develop-

26 On the ensuing debate around the “right” sequence, see Thomas Carothers, “How Democracies Emerge: The ‘Sequencing’ Fallacy,” Journal of Democracy 18 (January 2007).
27 For summaries of those projects, see http://www.usaid.gov/our_work/democracy_and_governance (accessed June 2007).
ment assistance intended to produce structural transformations. In the case of structural transformations, economic and social development assistance is expected to operate on regime change cumulatively and over the long run. In the short and medium run, indirect effects may be distorted by a large number of intervening variables (for instance, economic development may empower authoritarian elites). Thus, the microfoundations of indirect democratization effects are hard to pin-point. And although the immediate goals of development programs (alleviating poverty and improving the conditions for health and education) represent valuable goals in themselves, the cumulative impact of those programs on regime change may be difficult to discern. It is also the case that high levels of non-DG development assistance may have pernicious effects in newly democratic regimes, for example, by reinforcing executive dominance in the political process or by worsening corruption and bureaucratic quality.²⁸

Direct democracy programs, for their part, may be unable to overcome adverse social conditions in the face of overwhelming odds against democratization. Moreover, the allocation of direct assistance to local actors raises multiple questions about the behavior of U.S. policymakers. On the one hand, it is clear that U.S. policymakers may take into account the stance of prodemocracy domestic actors toward the United States in deciding whether to offer support. Thus, U.S. officials may

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be reluctant to support democratic actors when they embrace a leftist or anti-American discourse, whereas they may be willing to allocate funds to actors with weaker democratic credentials when they may be of service to the broader U.S. agenda in the respective region. Indeed, the presence of a USAID mission in a given country is a sign that there is at least a modicum of a friendly bilateral relationship. This suggests that any model intended to assess the impact of democracy programs should control for whether the recipient country constitutes a U.S. foreign policy priority for reasons other than the prospect of democracy itself.

On the other hand, foreign assistance officials may be more willing to invest in countries that represent likely successes than in those in which democratization is likely to fail. Knack claims in this regard that “AID currently has an explicit policy of directing more aid to countries that appear to be making greater progress towards democratization.” Leaving aside the factual accuracy of this claim, if it were true, then the process of democracy promotion could be marred by endogeneity—since foreign assistance would be directed to countries that already had a higher expectation that democratization would succeed. Although this argument about result-driven allocation seems to run counter to the previous claim about politicized allocation, the two patterns of strategic behavior may coexist at different levels of an administration and prevail when dealing with different countries or regions. Therefore, any model of democracy promotion should be able to capture the effects of foreign assistance after controlling for the anticipated level or trend of democracy in the country during the period under study. Of course, additional controls for other known influences on democratization, such as economic growth, regional diffusion, and the like, will also have to be included in the statistical models.

In the analyses that follow we use a variety of statistical procedures to control for these processes, including hierarchical growth models that enable the estimation of USAID effects controlling for the unique trend in democratic growth for each country over time, as well as more traditional econometric panel models that include controls for the potential endogeneity of democracy assistance. In addition, we employ a newly constructed data set that allows us to separate USAID obligations targeted directly at democracy and governance programs from other kinds

29 Knack (fn. 2), 259. The article provides no citation for the statement, and we have not found evidence for such an explicit policy in USAID documents. Rather, the agency’s self-described intent is to “target democracy dollars to maximize impact,” with “each country’s unique history and political evolution defin[ing] opportunities and obstacles in the transition to democracy”; USAID–Office of Democracy and Governance, Strategic Assessment, http://www.usaid.gov/our_work/democracy_and_governance/technical_areas/dg_office/assess.html (accessed February 2007).
of U.S. foreign assistance addressing structural preconditions. The results indicate that, contrary to the skeptical or negative conclusions from previous research, there are consistent positive impacts of direct USAID democracy assistance on overall levels of democracy in recipient countries, as measured by the Freedom House and Polity IV indices over time. Moreover, we show that, with the important exception of human rights expenditures, U.S. democracy assistance in particular areas has significant positive effects on precisely the democratic outcomes corresponding to those subsectors of the USAID democracy portfolio.

DATA AND METHODS

Our data set covers 165 countries between 1990 and 2003. This set includes all independent states with the exception of thirty advanced industrial democracies, which are generally donors and not potential recipients of democracy assistance. We list all countries included in the analysis in Appendix 1.30 Our independent variables were estimated using a new database on USAID obligations that comprises 38,822 budget records for specific activities in all sectors between 1990 and 2003.31 We aggregated yearly totals for (1) Democracy and Governance (DG) spending at the country level; (2) DG subsectors (Elections, Rule of Law, Civil Society, and Governance) at the country level; (3) Non-DG sectors (Agriculture and Economic Growth, Education, Environment, Health, Humanitarian Assistance, and so on) at the country level; (4) Democracy programs that operate at the regional or subregional level; and (5) Non-DG programs that operate at the regional or subregional level. In addition, we used USAID’s congressional reports (the so-called Greenbook) to document official U.S. development assistance not channeled through USAID. All variables were measured in millions of constant 2000 U.S. dollars.32 Based on our analysis of the nature of the obligation and expenditure process, we determined that the most ac-

30 Countries were included in the analysis if they met any of the following criteria: (1) they were recipients of USAID funds during 1990–2003; (2) they were classified by the World Bank as low or middle income; (3) they had an average Freedom House score equal to or greater than 3 (using the original untransformed scale) over the period 1972–2003; or (4) they were newly independent countries (that is, created after 1990). In total, 165 countries met at least one of the criteria.

31 The database was compiled by John Richter and Andrew Green at USAID. We are indebted to Andrew Green for his advice on how to aggregate figures for different subsectors.

32 In previous research, two other methods of standardization have been tested: aid as percentage of GDP and aid per capita. See Knack (fn. 2); Paxton and Morishima (fn. 13); Craig Burnside and David Dollar, “Aid, Policies, and Growth,” American Economic Review 90 (September 2000). The former method assumes that aid would have larger effects in smaller economies, the latter that aid would have larger effects in countries with smaller populations. We explore each of these possibilities in the analyses that follow.
curate indicator of USAID activity in a given year is a two-year rolling average of the obligations. For instance, activity for 1994 in any given country was measured as the average of 1993 and 1994 obligations.33

Democracy assistance has been steadily increasing over the years. Measured in 2000 dollars, DG funds escalated from $128 million in 1990 to $817 million in 2003. Resources for democracy programs therefore increased 538 percent between 1990 and 2003, as opposed to total USAID assistance, which increased only 19 percent, and the total economic assistance disbursed by the United States (including channels other than USAID), which grew by 86 percent over the same period.

Programs in the DG sector are structured into four subsectors: Elections and Political Processes (including electoral assistance and support for political parties), representing 12 percent of the budget during the period under study; Rule of Law (human rights and judicial development), 21 percent; Civil Society (mass media, civic education, and labor), 41 percent; and Governance (decentralization, transparency, and anticorruption programs), 26 percent. Given the relevance of Human Rights (part of the Rule of Law portfolio) and Free Media programs (part of Civil Society), we created separate variables to measure the magnitude of the expenditures on those activities in each country.

**Dependent Variables: Democracy Outcomes**

We estimated the impact of USAID obligations on a variety of democratic outcomes. As general measures of democracy, we employed the Freedom House index, representing the extent of political rights and civil liberties on a 1–13 scale, and the Polity IV index, ranging from −10 (extremely autocratic regimes) to +10 (highly democratic).34 We

33 Our series on democracy assistance are based on the information presented in USAID’s Congressional Budget Justification, which reports actual appropriations for the previous year. However, the Green-Richter database improves on the CBJ series in at least three ways: (1) to the extent that it was possible, the USAID team added to the country totals all funding from regional programs or centralized mechanisms that was determined to have been allocated for activities in the specific countries; (2) the team classified the allocation of funding at the subsectoral (for example, Rule of Law) and the sub-subsectoral (for example, Human Rights) levels; and (3) they occasionally adjusted the administrative classification of funds when the nature of activities was better reflected by a different label (for example, a civic education activity financed through the Rule of Law budget may have been reclassified as funding for Civil Society). We computed two-year means for all series because appropriations in one year are sometimes obligated and/or expended the following year.

34 The original Freedom House indices (measuring Political Rights and Civil Liberties) range from 1 to 7, with 7 being the least democratic outcome. Following the conventional procedure, we added the two scores, subtracted one point so that the scale would range between 1 and 13, and inverted the scores so that highest values correspond to the most democratic cases. The Polity index is based on several ordinal scales reflecting the competitiveness and openness of executive recruitment, the competitiveness and regulation of political participation, and the constraints on the chief executive; Monty G. Marshall and Keith Jaggers, Polity IV Project: Dataset Users’ Manual (College Park: University of Maryland, 2002).
utilized five additional measures to evaluate the performance of the subsectors mentioned above. Four of them were obtained through a factor analysis of twenty indicators of democratic development originating in seven different sources:

2. Respect for Human Rights: the first factor resulting from the analysis of five items reflecting Political Killings, Disappearances, Torture, Political Imprisonment, and Political Terror.  

Each of the above indices intuitively maps onto a particular subsector of USAID activity. The first index corresponds to Elections and Political Processes; the second index corresponds to Rule of Law (there is a lack of comparative information on aspects other than human rights violations); and the third and fourth indices, to Civil Society. We standardized the four indices to range between 0 and 100, with the average country having a value of 50 points (lower values on these factors indicate lower democratic performance). Although reasons of space prevent us from discussing the factor analysis in detail, Appendix 2 summarizes the results. Each of the four scales registers reliability scores of at least .84.

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5. Government Effectiveness: the large number of missing values for most existing indicators related to the Governance subsector prevented the use of factor analysis. As an imperfect alternative, we used an index of Government Effectiveness developed by the World Bank Institute that combines multiple sources of information to reflect “the quality of public service provision, the quality of the bureaucracy, the competence of civil servants, the independence of the civil service from political pressures, and the credibility of the government’s commitment to policies.” Although this index has broad geographic coverage, we could not eliminate the problem of missing data because the series (starting in 1996 and available every two years) includes only four of the fourteen years covered in our study.

**Statistical Methods**

We first utilize a statistical technique known as “hierarchical longitudinal growth modeling,” also known as “individual growth curves,” in order to assess the impact of USAID Democracy and Governance (DG) obligations on each country’s democratic outcomes over time. This method allows us to estimate the effects of DG obligations on a country’s level of democratic development, controlling for the country’s specific democratic trajectory (growth) over time and controlling for a host of other variables that may affect the democratic outcomes, growth trajectories, and the allocation of AID obligations at given points in time. The method brings decided benefits in controlling for country-specific democratic dynamics that operate independently of DG assistance and in controlling for potentially confounding factors that may determine both democratic outcomes and DG allocations. The hierarchical growth specification described here will serve as the core or baseline model for the analysis. In subsequent sections we test the robustness of the baseline results against alternative specifications of the effect of DG assistance, including models with additional controls for the potentially endogenous AID DG allocation process.

Growth modeling specifies processes that take place at two different levels, one corresponding to intracountry growth over time (level 1), and the other corresponding to intercountry differences in the level 1 growth parameters (level 2). Level 1 predictors display variance across

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countries and over time, while level 2 predictors vary across countries but are fixed within the same country over time. We begin with a linear growth model taking the form of level 1 intracountry growth (in which units of analysis are country-years):

\[ y_{ti} = \pi_{0i} + \pi_{1i}a_t + \pi_{ki}v_{ki} + \varepsilon_{ti} \]  \hspace{1cm} (1)

where \( a_t \) is the year of observation (1990, 1991, ..., 2003), \( \varepsilon_{ti} \) is a random error term for unit \( i \) at time \( t \), and \( \pi_{0i} \) and \( \pi_{1i} \) are regression coefficients that represent the individual country’s growth trajectory.\(^{41}\) The \( v_{ki} \) represent additional time-varying covariates, that is, factors that have potentially different values for a given country each year and that may influence a given democratic outcome at a specific time. The \( \pi_{ki} \) represent regression coefficients linking the \( k^{th} \) time-varying covariate to \( y_{ti} \).

All foreign assistance variables are treated in this study as time-varying covariates. We seek to model their impact on the country’s democratic outcomes, over and above the country’s predicted trajectory (determined by intercept \( \pi_{0i} \) and by slope \( \pi_{1i} \)). The set of time-varying covariates also includes other control variables discussed below.

The second portion of the growth model attempts to explain why certain countries have different \( \pi \) coefficients (that is, why some countries begin the period at higher levels of democratization or why some countries change more rapidly than others) based on level 2 variables. In equation form, we estimate level 2 intercountry differences (units of analysis are countries) as:

\[ \pi_{0i} = B_{00} + B_{0m}X_{mi} + r_{0i} \]  \hspace{1cm} (2a)
\[ \pi_{1i} = B_{10} + B_{1m}X_{mi} + r_{1i} \]  \hspace{1cm} (2b)
\[ \pi_{ki} = B_{k00} \]  \hspace{1cm} (2c)

where \( B_{00} \) is the average (fixed) population intercept or starting point for the growth trajectory; \( B_{0m} \) is the average effect of some country characteristic \( X_m \) on the country’s intercept \( \pi_{0i} \); and \( r_{0i} \) is the deviation, or residual, of the country’s intercept from the value predicted by the population average \( B_{00} \) and all of the \( B_{0m}X_m \). Similarly, \( B_{10} \) is the average population slope for the time trend; \( B_{1m} \) is the average effect of \( X_m \) on the country’s growth trajectory slope; and \( r_{1i} \) is the deviation of the country’s growth trajectory slope from the predicted value. \( B_{k00} \) is the average slope for the \( k^{th} \) time-varying covariate, assuming that the effect of this covariate is the same (is fixed) for all countries. In the baseline hierarchical model, the \( r \) error terms for equations 2a and 2b are assumed to be ran-

\(^{41}\) Quadratic and cubic terms (\( a_t^2 \) and \( a_t^3 \)) were tested as well, with their effects being insignificant.
random and normally distributed; later we test the robustness of the results with alternative fixed specifications for these disturbances.

Equations 2a to 2c thus predict the magnitude of the level 1 coefficients in equation 1 with country-level characteristics, which include relatively stable factors such as level of economic development, past political and democratic history, and the like. Equations 2a and 2b also express the growth curve intercepts and slopes as random coefficients, predicted imperfectly from the stable country-level characteristics with residual random variation captured in the $r$ disturbances. Equation 2c predicts the effects of the $k$ time-varying covariates as fixed across countries; this is the normal specification for time-varying covariates in the absence of strong expectations to the contrary.

Because of the complex nature of the combined (mixed) model’s error term (in this case $r_{0i} + r_{1i}a_i + \varepsilon_{ti}$), the assumptions necessary for ordinary least squares (OLS) estimation are inherently inappropriate. In order to cope with this problem, the model was estimated via maximum likelihood implemented in statistical packages designed for hierarchical linear models. The baseline model includes both heteroskedastic error variances, whereby the residual democracy score may vary more at some time periods than others, and autocorrelated disturbances, which allow for the error term $\varepsilon_{(t-1)i}$ to influence its successive value $\varepsilon_{ti}$, as is commonly the case in longitudinal data. The model thus captures the key features of intracountry longitudinal growth, intercountry differences in the growth coefficients, as well as estimating the form of the error term variances and covariances that is most likely to obtain with over-time data on democratic outcomes.42

**Other Variables Included in the Analysis**

We included several controls to reflect alternative explanations of democratization. The time-varying covariates (V in equation 1) are Per Capita GDP Growth,43 Regional Democratic Diffusion (the average Freedom House score for all other countries in the world during the previous year, weighted by their distance from the country’s capital),44

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42 We estimated the models using **HLM 6.0** and **SPSS 13.0**. In the latter’s **MIXED** module, we specified the error term structure to be (AR(1)) in order to model both the heteroskedastic and autocorrelated nature of the disturbances. The Polity IV model, though, attained the best fit without the heteroskedasticity option (an autocorrelation-only specification).


44 The formula employed to compute the spatial lags is

$$X_g = \sum_{j=1}^{J} \frac{d_{g-j}^{-t}}{\sum_{j=1}^{J} d_{g-j}^{-t}} \times FH_{j,t}.$$
U.S. Military Assistance Priority (the percentage of U.S. military and counternarcotics grants allocated to a particular country during the year), Non-U.S. Assistance, DG and Non-U.S. Assistance, Non-DG (official democracy and nondemocracy assistance supplied to the country by governments other than the U.S.), Political Violence (Banks’ index summarizing political assassinations, general strikes, guerrilla warfare, government crises, purges, riots, revolutions, and antigovernment demonstrations), and State Failure (a dummy indicating the occurrence of ethnic or revolutionary wars, genocide or politicide episodes, or violent regime changes in any given year according to the Political Instability Task Force).

Stable country characteristics (X in equations 2a-b) included Prior Democracy (the number of years the country was rated free by Freedom House between 1972 and 1989), Prior USAID Presence (total U.S. development assistance from 1960 to 1989), Population (in thousands), Country Size (in square kilometers), Level of Development (the average per capita GDP reported by the CIA Factbook for 2000–2005), Ethnic Fractionalization, Income Inequality, and Pre-1989 State Failure (the number of years between 1960 and 1989 that the country suffered political anarchy or foreign intervention according to the Polity IV database).

where $X$ is the diffusion measure, $FH$ is the Freedom House score, $d$ is the distance between capitals, $t$ indicates the year, $i$ is the country in question, $J$ is the set of all other countries, and $j \in J$.

45 OECD, CRS Database (International Development Statistics CD-ROM; OECD, 2005). Projects were coded as democracy related when the OECD activity database indicated code EDG=0 or when the five-digit CRS purpose code was between 15020 and 15065. (The two criteria proved to be highly consistent.) Figures are in constant 1995 dollars.


49 Measured as the share of income received by the top 20 percent of the population; World Bank (fn. 43).

50 Several sources contained missing data. Listwise deletion resulted in a poor solution because it reduced the geographic coverage of the analysis. Whenever possible, we used alternative sources of information to estimate missing data (for example, Penn World Tables to impute World Bank figures). In other cases, we used an expectation-maximization (EM) imputation procedure. See Paul D. Allison, Missing Data (Thousand Oaks, Calif.: Sage Quantitative Applications in the Social Sciences, no. 136, 2001); Geoffrey J. McLachlan and Thriyambakam Krishnan, The EM Algorithm and Extensions (New York: Wiley, 1997); Gary King, James Honaker, Anne Joseph, and Kenneth Scheve, “Analyzing Incomplete Political Science Data: An Alternative Algorithm for Multiple Imputation,” American Political Science Review 95 (March 2001). Imputation models are available upon request.
We present the estimation of Freedom House and Polity models in Table 2. The top panel in the table shows the impact of time-varying covariates (level 1 variables) on the level of democracy achieved during specific years, given the initial level of democracy and the overall democratization trajectory (or growth curve) determined by the country’s characteristics. The middle panel displays the effect of fixed country attributes (level 2 variables) on the initial level of democracy (intercept) and on the rate of democratization during 1990–2004 (slope).

Model 2.1 shows the results of the estimation of the Freedom House index. The results for democracy assistance variables show two clear findings: Democracy and Governance obligations have a significant impact on Freedom House scores, while all other U.S. and non-U.S. assistance variables are statistically insignificant. This effect occurs over and above the democratization dynamics of the country as reflected by its growth parameter intercept and slope, and it occurs controlling for a host of time-varying and country-level invariant economic, social, and political attributes.

Interestingly, no other assistance variable is shown to have a statistically significant impact. USAID nondemocracy obligations, regional and subregional pools of aid, U.S. assistance flowing through other channels, and non-U.S. foreign assistance all have insignificant effects. The evidence suggests that the only effect that matters for democracy is the amount of U.S. funding specifically targeted for democracy assistance. Nevertheless, we caution against interpreting other forms of assistance as being completely irrelevant to the dynamics of democratic growth. First, as suggested above, it may be the case that such variables have indirect or more long term effects on a country’s level of democracy (as economic assistance may improve economic performance and promote democracy indirectly). Second, information for non-U.S. foreign assistance is drawn from the OECD CRS database, which we believe contains a significant amount of measurement error.51

The results also show that four time-varying covariates are significant predictors of Freedom House scores. GDP growth has a clear positive effect on the level of democracy, as does the Democratic Diffusion variable that captures the distance-weighted level of democracy in all

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51 The OECD data on U.S. democracy assistance, for example, has a correlation with the Green-Richter DG variable of only .62, suggesting that the OECD measure has a considerable amount of measurement error. We therefore make no substantive claim that only U.S. democracy assistance matters in promoting democratic outcomes in recipient countries.
### Table 2
Hierarchical Growth Models Predicting Freedom House and Polity IV Scores

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>2.1. Freedom House</th>
<th>2.2. Polity IV</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Coefficient</td>
<td>Std. Error</td>
</tr>
<tr>
<td><strong>Level 1</strong> Demography and Other Assistance**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>USAID DG</td>
<td>.026**</td>
<td>.006</td>
</tr>
<tr>
<td>USAID Non-DG</td>
<td>.001</td>
<td>.001</td>
</tr>
<tr>
<td>Non-USAID US</td>
<td>.0001</td>
<td>.0005</td>
</tr>
<tr>
<td>Regional-Subregional DG</td>
<td>.010</td>
<td>.130</td>
</tr>
<tr>
<td>Regional-Subregional Non-DG</td>
<td>-.010</td>
<td>.014</td>
</tr>
<tr>
<td>Other Donor Assistance DG</td>
<td>.0004</td>
<td>.0004</td>
</tr>
<tr>
<td>Other Donor Assistance Non-DG</td>
<td>3.12E-5</td>
<td>5.60E-5</td>
</tr>
<tr>
<td><strong>Economic and Political Factors</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GDP Growth per Capita</td>
<td>.008**</td>
<td>.003</td>
</tr>
<tr>
<td>Democracy Diffusion</td>
<td>.237**</td>
<td>.088</td>
</tr>
<tr>
<td>U.S. Military Assistance Priority</td>
<td>-.029</td>
<td>.021</td>
</tr>
<tr>
<td>Extent of Political Violence</td>
<td>-.001**</td>
<td>.0004</td>
</tr>
<tr>
<td>State Failure</td>
<td>-.772**</td>
<td>.085</td>
</tr>
<tr>
<td><strong>Level 2</strong> Effect on (Level-1) Intercept</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average Intercept</td>
<td>6.866**</td>
<td>.247</td>
</tr>
<tr>
<td>Prior Democracy</td>
<td>.312**</td>
<td>.050</td>
</tr>
<tr>
<td>Pre-1990 USAID</td>
<td>4.77E-5</td>
<td>4.71E-5</td>
</tr>
<tr>
<td>Population</td>
<td>-3.2E-6</td>
<td>2.49E-6</td>
</tr>
<tr>
<td>Size in Squared Km</td>
<td>-3.0E-6</td>
<td>.0002</td>
</tr>
<tr>
<td>Income per Capita</td>
<td>.097*</td>
<td>.052</td>
</tr>
<tr>
<td>Ethnic Fractionalization</td>
<td>-1.882*</td>
<td>1.040</td>
</tr>
<tr>
<td>Income Inequality</td>
<td>.052</td>
<td>.033</td>
</tr>
<tr>
<td>State Failure, Pre-1990</td>
<td>-2.00</td>
<td>.132</td>
</tr>
<tr>
<td><strong>Effect on (Level-1) Slope</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average Slope for Growth Curve</td>
<td>.040**</td>
<td>.017</td>
</tr>
<tr>
<td>Prior Democracy</td>
<td>-.004</td>
<td>.003</td>
</tr>
<tr>
<td>Pre-1990 USAID</td>
<td>-1.9E-6</td>
<td>2.74E-6</td>
</tr>
<tr>
<td>Population</td>
<td>1.47E-7</td>
<td>1.50E-7</td>
</tr>
<tr>
<td>Size in Squared Km</td>
<td>-1.6E-5*</td>
<td>9.71E-6</td>
</tr>
<tr>
<td>Income per Capita</td>
<td>.003</td>
<td>.003</td>
</tr>
<tr>
<td>Ethnic Fractionalization</td>
<td>.112*</td>
<td>.063</td>
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<tr>
<td>Income Inequality</td>
<td>.0004</td>
<td>.002</td>
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<tr>
<td>State Failure, Pre-1990</td>
<td>-.006</td>
<td>.008</td>
</tr>
<tr>
<td><strong>Model Statistics and Variance Parameters</strong></td>
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<tr>
<td>Approx. Level 1 R-squared</td>
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<td></td>
</tr>
<tr>
<td>Random Variance (Intercept)</td>
<td>5.955**</td>
<td>.939</td>
</tr>
<tr>
<td>Random Variance (Slope)</td>
<td>.013**</td>
<td>.003</td>
</tr>
<tr>
<td>Autocorrelation (rho)</td>
<td>.794**</td>
<td>.891**</td>
</tr>
<tr>
<td>Model Deviance(\Delta IC)</td>
<td>6256.052</td>
<td>6290.052</td>
</tr>
</tbody>
</table>

** significant at p<.05; * significant at p<.10 (two-tailed)
countries in the world vis-à-vis the target country. Two additional indicators of political violence and state failure are both negative and statistically significant, indicating that political strife exerts a negative short-term impact on the country’s level of democracy.

Turning to level 2 variables, the results indicate, first, that there are significant effects of several variables on the intercepts of countries’ growth trajectories. Countries on average started the period with a Freedom House value of approximately 6.87, with an additional increment of .31 for every year of previous democratic experience between 1972 and 1989. Wealthier countries are predicted to start the period at higher democratic levels than poorer countries, as are countries with less ethnic fractionalization. Indicators of prior aid presence, state failure, population, country size, and income inequality all have insignificant effects on the country’s democratic growth trajectory intercept.

And, second, the results also indicate that on average countries experienced a positive rate of change in the Freedom House index over time. The average country increased about .04 points on the thirteen-point scale each year (by the end of the fourteen-year period the average score was predicted to be about .6 units higher). The only variables that predict differences in this average rate of change are country size, with smaller countries increasing on Freedom House ratings at a faster rate, and ethnic fractionalization, with greater rates of change for more heterogeneous societies. The effects of all other variables on countries’ growth trajectory slopes were insignificant.

We present the corresponding results for the Polity measure on the right side of Table 2. The results largely parallel those seen for the Freedom House variable, indicating the robustness of the statistical findings. Controlling for country-specific trends, U.S. obligations also exert a positive impact on the Polity measure. In fact, the size of the effect (.047) is almost exactly the same magnitude, relative to the range of the scale, as that one found in the Freedom House model. As in the Freedom House model, none of the other aid-related variables exerts significant impact on democratic outcomes. In this model the only other covariates that exert impact on democracy are the Diffusion and State Failure variables, while GDP growth and political and social

52 The “average” country in this context means countries with mean levels of all covariates, including foreign assistance, time-varying covariates, and country-level predictors.

53 Controlling for all variables predicting the growth trajectory intercept and slope, there is still significant variation in those parameters in the overall sample of countries. This is shown in the statistically significant “random intercept” and “random slope” estimates at the bottom of the table. Including these random effects allows us to estimate the impact of DG aid and other time-varying factors, over and above each country’s specific democratic trajectory.
conflict have insignificant effects. The pattern of level 2 effects on the intercept and slope of the Polity IV growth trajectory is also similar to the Freedom House model, though for this model prior democracy has a negative effect on the slope (such that more democratic countries increase at a slower rate over time), and pre-1990 U.S. development assistance has a positive effect on the Polity IV intercept, suggesting some support for a cumulative effect of all USAID development assistance, at least in the pre-1990 period, as well.

How strong is the contemporaneous impact of U.S. DG programs on a country’s level of democracy? The coefficient of .026 for the DG variable in the Freedom House model means that ten million dollars will raise the Freedom House index by about .26, or one-quarter of a point. In the Polity model, ten million dollars will raise the index by just less than one-half of a point. To put the values in better perspective, consider that the slope of the average country’s growth in the Freedom House model is predicted to be .04, meaning that the average country increases by about .04 points per year. This small amount of baseline growth reflects a slow but steady increase in democratization among the cases in our analysis. The DG coefficient indicates that $1 million in democracy assistance would increase that value by .026, or 65 percent. Ten million dollars would therefore produce a sixfold increase in the amount of democratic change expected for the average country. These figures indicate a relatively strong potential impact of DG programs. At the same time the potential must be viewed in the context of the actual current outlays for democracy assistance, as the average country received only $2.3 million per year during the period under study. Moreover, the standardized coefficient of the DG variable is relatively small at .04, meaning that a standard deviation increase in USAID DG funding (about six million 2000 dollars) produces only a .04 standard deviation increase in the country’s Freedom House score. Compared with other level 1 covariates, this DG effect is stronger than the standardized impact of economic performance and political violence but weaker than the impact of diffusion and state failure (both with standardized effects of .07).

Controls for Omitted Variable and Endogeneity Bias

It is essential to estimate the effect of aid DG obligations while controlling simultaneously for factors that may influence both the allocation of DG assistance and countries’ democratic outcomes over time. The hierarchical growth models we have estimated to this point control for many such potentially confounding factors, in that they include a wide range
of observed country-level characteristics and time-varying covariates that may relate to both DG allocation and democratic outcomes. In addition, the models include estimates of country-specific democratic trajectories over time, and to the extent that AID allocates DG assistance based on predictable elements of the country-specific trends, the models thus control for these kinds of selection mechanisms. Yet there are still several plausible alternative processes that may be responsible for the significant DG obligations-democracy relationship that we have observed so far.

One possibility is that both DG assistance and democratic outcomes are determined by some stable unobserved country-level factor(s), thus producing a spurious relationship between the two variables. Another builds further on the possibility of endogeneous DG assistance by assuming that a country’s democratic development leads directly to the allocation of DG funds, that is, that AID DG obligations are themselves determined by the country’s level of democracy in that time period. In this section, we extend our tests of the AID DG effect by estimating models that control specifically for these potential confounding causal processes. To anticipate our results, in every case we find that the effects of DG obligations on Freedom House democracy scores remain statistically significant and roughly of similar magnitude to what was found in the baseline model.

**Country-Level Fixed Effects**

One threat to causal inference is the possibility that the relationship between DG assistance and democracy is a result of their joint relationship to variables that we were unable to include in the analyses. For example, countries with better organized political parties may be more likely to attract USAID DG funding, and better organized parties may also produce pressure for greater political rights and hence higher levels of overall democracy. As another example, following Paxton and Morishima, countries that are more peripheral than others in the global economic system may have a lower likelihood of receiving AID funding in comparison with more integrated countries, and peripheral/integrated status may then lead to different levels of democracy. In both cases the variable in question is not included in the observed data set, and thus both represent unmeasured potential influences on the receipt of DG assistance and the level of a country’s democratic attainment.

54 An noted above, the hierarchical growth specification controls for selection biases related to the country’s overall democratization trend and the predictable elements of that trend; the endogeneity model here goes further to control for the possibility USAID allocates funding based on the expected level of democracy in the immediate term.

55 Paxton and Morishima (fn. 13).
If we assume that these unobserved country-level factors are stable over time, we may control for their potential biasing effect by estimating models with fixed effects for each country’s Freedom House and Polity IV intercepts. Such a model is equivalent to one produced through the inclusion of dummy variables for all but one country in the data set and, as is common in panel analysis, the inclusion of dummy variables for all but one time point in the data set as well. There are two important differences between this model and the baseline hierarchical growth model we have considered thus far. First, the intercept in the baseline hierarchical model (or more precisely, the deviation of a country’s intercept from the overall population average) is assumed to be a normally distributed random disturbance that is unrelated to all other variables in the model; here the fixed intercept comprising unknown, stable country-level factors may covary freely with the observed independent variables. Thus the fixed-effect specification allows an even more conservative test of the effects of DG assistance on democracy, in that the model takes into account the potentially confounding effects of stable unmeasured country-level characteristics. Second, in contrast to the baseline model’s assumption of linear growth in democracy over time, the inclusion of $T-1$ time dummy variables in the two-way fixed-effects model makes no assumption about trends or growth in democracy at all, again a more conservative specification for controlling for the potential effects of particular time periods on democratic outcomes across the entire sample.

We show the results of the fixed-effect estimation in the first column of Table 3, with the country and time dummy effects omitted because of space considerations. It can be seen that the effect of DG assistance is estimated to be .031 and statistically significant ($p<.001$). Its value is slightly larger than the .026 value from the baseline model, indicating that unobserved country or time factors do not account for the DG assistance-democracy relationship found thus far. The effects of the other foreign assistance variables are irrelevant, as they were found to be in the baseline model. The effects of all time-varying covariates are also similar to the baseline findings, aside from the diffusion variable, which exhibits extremely high stability at the country level over time, thus producing unreliable estimates of its effects in a model that essentially contains dummy variables for each country.

56 The fixed-effects model cannot estimate the impact of observed country-level stable attributes, as they are perfectly correlated with the unique component of the country intercept. Hence all fixed country-level variables, observed and unobserved, are controlled simultaneously but cannot be disentangled by this procedure.

57 This model was estimated using Stata 9.0’s *xtregar* module, which includes first-order autocorrelated disturbances.

Perhaps the most significant challenge to our findings is the possibility that, even after taking into account the observed covariates and the growth trajectories estimated in the baseline model and even after taking into account stable unobserved factors in the fixed-effects model, there still may be endogeneity in the process, such that levels of democracy cause DG obligations and not the reverse. How could such a process operate? There are several plausible hypotheses. It may be the case, for example, that countries such as North Korea receive no AID funding precisely because they score at the lowest level of Freedom
House’s democracy scale. There is, however, ample evidence to suggest that, at times, AID provides assistance to the especially tough cases regarding democracy. Haiti, for example, received some $25–30 million more than the average country in the mid-1990s; Egypt consistently receives democracy assistance in the range of $30–50 million dollars despite Freedom House ratings that hover around 3; and the Russian Federation has received similar amounts in recent years despite consistently declining Freedom House scores. Moreover, countries that reach a certain level of democracy often graduate from AID DG assistance or have their AID missions closed altogether, as was the case in countries such as Botswana, Costa Rica, Poland, and others in Eastern Europe during the time period under study. In these cases there is a negative relationship between democracy and DG assistance, and if this is generally the case, then the potential effect of DG assistance on subsequent levels of democracy may have been underestimated in the models thus far.

Given this discussion, it is not altogether clear how the democracy-to-AID linkage will present itself in a given country in any case—it may be that some AID missions are prone to take on the tough cases with increased DG funds while others wish to reinforce what they perceive as a more facilitative democratic environment. And it may be the case that these decisions change over time and across countries, as well in other, idiosyncratic ways. All of this is to suggest that systematic biases from a reciprocal causal process whereby democratic levels or growth cause current AID expenditures—over and above the models that we have already estimated and the controls that we already have in place—may not be as severe as anticipated.

Nevertheless, if there are effects from democracy “causing” AID expenditures, the statistical consequence is that the DG assistance variable at a given time point will be correlated with the error term of the Freedom House equation, leading to the inability to estimate the effect of DG assistance on democracy without bias. The standard approach to this problem is to utilize instrumental variables or two-stage least squares (2SLS) regression. In the first stage a proxy variable is estimated by regressing DG obligations on all exogenous variables as well as on several predictors (instrumental variables) that are assumed to (1) have no direct effect on the Freedom House scores in that year and (2) have some significant influence on the DG variable. The predicted value of DG assistance at time t from this equation is the best estimate of DG levels, purged of their contemporaneous relationship with the Freedom House error term. In the second stage the DG proxy variable is used to estimate the effects of DG on Freedom House without bias.
We estimated several different instrumental variables models to test the robustness of the effects. In model 3.2 we transform the dependent variable by taking the first difference in Freedom House scores. This is a demanding alternative to country dummies for eliminating potentially confounding stable factors at the country level. (Year dummies are preserved in the model.) In model 3.2 we also employ a proxy for DG funding in order to purge the potential endogeneity. The proxy was estimated using all exogenous time-varying covariates in model 3.1, along with lagged values of inflation and an additional measure of Foreign Policy Priority as instrumental variables. The Foreign Policy Priority variable indicates the number of times that a secretary or assistant secretary of state was mentioned by the *New York Times* in relation to a particular country in any given year.\(^{59}\) We assume (and confirm with statistical tests) that these variables influence the DG allocation decision yet exert no independent effect on Freedom House scores, once all other variables are taken into account.\(^{60}\) Following Lewbel, we augment these instruments with the second and third moments of the AID DG variable.\(^{61}\) The results show a DG assistance effect of .021, statistically significant and only slightly smaller in magnitude than its value in the baseline model. In addition, the model as a whole satisfies the assumptions of the instrumental variable procedures: the Sargan test of the model’s overidentifying restrictions supports the exogeneity assumptions regarding the instruments ($\chi^2$ of 1.19 with 3df, $p=.77$); the hypothesis that the instruments are irrelevant in the first-stage equation can be decidedly rejected ($LR$ value of 3735.7 with 4 df, $p<.0001$); and the foreign policy priority instrument predicts DG assistance in the first stage in ways that make theoretical sense, as more State Department mentions lead to significantly more DG assistance in the country’s next obligation cycle.\(^{62}\)

Finally, we estimate the DG effect using the Arellano-Bond generalized method of moments (GMM) estimator, which uses the panel struc-

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\(^{59}\) The *New York Times* data were retrieved from the Lexis-Nexis database using the search protocol “[Country name] w/s secretary of state.”

\(^{60}\) Among the top ten recipients of State Department mentions are Iraq in 2003 (345 mentions, with a Freedom House score of 3), Israel in 1991 (169 mentions, with a FH score of 11), the Soviet Union in 1990 (100 mentions, with a FH score of 6), China in 1994 (86 mentions, a FH score of 1), and North Korea in 2003 (84 mentions and a FH score of 1). State Department mentions correlate at .22 with DG funding, at -.13 with FH scores, and at -.08 with Polity scores.


\(^{62}\) A fixed-effects instrumental variables version of model 3.2 with identical instruments shows a statistically significant DG effect of .048.
ture of the data to include additional instruments in the form of more distant lags of the model’s variables.\textsuperscript{63} This model also provides for a fully dynamic model specification, in that the Freedom House variable is assumed to be caused by the variable’s lagged value as well all the other variables considered in previous models; the model is estimated by differencing the equation to remove the fixed country-level effect and then applying twice-lagged differences of the lagged dependent variable, and twice-lagged differences of the endogenous variables as instruments in order to purge the relationship between the right-side variables in the model and the equation’s disturbance. These instruments, as in model 4.2, were augmented by the country’s inflation rate, the State Department variable, and the two higher-order moments of the DG variable. The results, shown in column 3.3, again confirm the significance of the DG assistance effect. The value of the DG variable is .018, more than twice its standard error and approximately 70 percent of its size from the baseline model. The model again passes all relevant statistical tests, as the Sargan-Hansen test supports the exogeneity of the instruments ($\chi^2$ of 175.9 with 158 df, $p=.16$), and the test for second-order autocorrelation is negative ($z=1.39$, $p>.17$).

All of this evidence shows that the DG assistance effect initially demonstrated by the hierarchical growth models is robust; it remains after controlling for country-level and time fixed effects; it remains after assuming that DG assistance is endogenously related to Freedom House scores; and it remains in endogeneity models that include the endogenous lagged dependent variable as well. This is strong evidence that democratic outcomes in the 1990–2003 period were caused in part by Democracy and Governance programs supported by USAID.

**Variations in the Specification of the DG Effect**

The models estimated thus far indicate that USAID Democracy and Governance assistance, as measured by the two-year rolling average of DG obligations, has a statistically significant effect on a country’s overall Freedom House and Polity scores, controlling for the country’s specific democratic growth dynamics and a series of time-varying and time-invariant control variables. There are, however, other possible ways to conceptualize the DG effect on democratic outcomes, including the possibility of lagged effects, the possibility of nonlinear effects of AID, and the

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possibility that AID variables have different effects when standardized on a per capita basis or on the country’s level of economic development. We explore these possibilities, returning to the baseline model’s hierarchical growth specification and focusing solely on the Freedom House democracy index as the dependent variable for ease of presentation.

Table 4 shows the estimated effect of DG obligations under a variety of different specifications. 64 In model 4.1 we include DG lagged by one time period, in addition to the contemporaneous level of DG assistance. This model thus includes the rolling average of the current (t) and previous year’s (t-1) obligations, as well as the prior rolling average (of t-1 and t-2). The results indicate that DG obligations have both contemporaneous and lagged effects on Freedom House scores, with the lagged value of .015 being some 70 percent as large in magnitude as the contemporaneous effect. We further tested for the effect of USAID obligations lagged twice and found no significant impact. The results indicate that if DG obligations were to increase on average by 10 million dollars over a three-year period, then the total impact on democratic growth would be more than one-third of a unit on the Freedom House scale, as opposed to the one-quarter unit estimated in the baseline model. The lag effect itself suggests that democracy programs may take several years to mature; and the fact that both lagged and contemporaneous effects are significant suggests that the effects of DG assistance are to some degree cumulative, with effects in one year augmenting effects in the next. 65

The remaining models in Table 4 show the effects of DG obligations under a variety of other assumptions. In model 4.2 we include the squared value of DG aid in order to test for nonlinear effects (for example, diminishing or even negative marginal returns). 66 The linear DG effect is equivalent to the baseline model, but the squared term is statistically irrelevant. In models 4.3 and 4.4 we examine whether the AID DG effect depends on the way that the variable is standardized. In

64 For ease of presentation, we do not show the estimated effects for each and every variable that was included in these models but focus instead on the effects of our primary variables of interest, DG obligations. The full results from these models are available on request.

65 The interpretation of cumulative effects of AID obligations is also reflected in the results of the lagged endogenous variable model of Table 3.3, whereby sustained AID obligations over time would have both short-term impacts on Freedom House scores of .018 per million dollars in any given year and a cumulative long-term or equilibrium effect of .054 (.018/(1-.669), where .669 is the coefficient for the lagged dependent variable). For good expositions on long-term effects in dynamic time series or panel models, see Suzanna De Boef and Luke Keele, “Revisiting Dynamic Specification” (Paper presented at the Society of Political Methodology, Florida State University, 2005); David Kaplan, “Modeling Sustained Educational Change with Panel Data: The Case for Dynamic Multiplier Analysis,” Journal of Educational and Behavioral Statistics 27 (Summer 2002).

66 Logarithmic models are often used to test nonlinearities of this sort, but we chose the quadratic specification because of the large number of zero values for DG and other assistance variables (nearly half of the sample).
model 4.3 we substitute DG per capita for raw dollar obligations, and we do the same for all the non-DG, and non-U.S. assistance variables. The results show that DG obligations per capita have a slightly smaller effect on Freedom House scores than they did in the baseline model, but this effect remains significant. Model 4.4 shows that both DG and non-DG obligations are statistically significant when standardized by GDP. In the case of DG obligations, we believe that this standardization is hard to defend, for the simple reason that democracy assistance, unlike economic assistance, is not designed to influence macroeconomic outcomes (therefore it is not clear why the size of the economy should necessarily matter for democracy programs). Following this logic, however, we do find that nondemocracy funds have a significant impact on Freedom House when standardized by the size of the economy. But model 4.5 shows that the impact of non-DG assistance per GDP fails to achieve statistical significance in a model with raw DG assistance; moreover, the size of the DG effect in this model is considerably larger for the average country than in the GDP model.67 The results suggest that

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**Table 4**

**ALTERNATIVE MODELS OF THE IMPACT OF AID DG OBLIGATIONS**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Coefficient</th>
<th>Standard Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1. Baseline Model</td>
<td>USAID-DG</td>
<td>.026**</td>
</tr>
<tr>
<td>4.1. Lag Effects</td>
<td>USAID-DG</td>
<td>.021**</td>
</tr>
<tr>
<td></td>
<td>USAID-DG Lagged</td>
<td>.015*</td>
</tr>
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<td>4.2. Diminishing Returns Model</td>
<td>USAID-DG</td>
<td>.025**</td>
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<td></td>
<td>USAID-DG Squared</td>
<td>1.44E-5</td>
</tr>
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<td>4.3. Per Capita</td>
<td>USAID-DG Per Capita</td>
<td>.082*</td>
</tr>
<tr>
<td>4.4. Aid Dollars per GDP Dollars</td>
<td>USAID-DG over GDP</td>
<td>35.716*</td>
</tr>
<tr>
<td></td>
<td>USAID-Non DG over GDP</td>
<td>12.291**</td>
</tr>
<tr>
<td>4.5. DG in Raw Dollars, Non-DG over GDP</td>
<td>USAID-DG, Raw Dollars</td>
<td>.028**</td>
</tr>
<tr>
<td></td>
<td>USAID-Non DG over GDP</td>
<td>7.125</td>
</tr>
</tbody>
</table>

** significant at p<.05; * significant at p<.10 (two-tailed)

Entries are coefficients for alternative DG variable specifications in model 2.1. All other coefficients omitted for ease of presentation; full results available upon request.

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67 That is, a country with average DG expenditures as a proportion of GDP (.0005) is predicted to change .018 units on the Freedom House Scale, compared with a predicted change of .052 units for a country with average raw DG expenditures ($2.3 million).
the proper way to conceptualize the impact of nondemocracy assistance may be in terms of GDP units, while this is probably not the case for democracy assistance.

**The Effects of Subsectoral Obligations**

In this section we extend the analysis by examining the impact of specific DG subsectors on different aspects of democratic development. We include as independent variables funds for Elections and Political Processes, Rule of Law, Civil Society, and Governance, with certain models including the sub-subsectors of Human Rights and Mass Media obligations (within Rule of Law and Civil Society, respectively). Following the results from model 4.1, we include in all models the current and the lagged values for these variables in order to capture the potential longer-term effects of the programs.

We summarize the results for five outcomes corresponding to different dimensions of democratic development in Table 5.68 Model 5.1 shows that funds for Elections and Political Process have a significant contemporaneous effect on the Free and Fair Elections factor, indicating that programs in this area affect precisely the dimension of democracy for which they are targeted. Lagged Rule of Law obligations also exert an effect of reasonable magnitude on this dimension as well. The impact of one million dollars in current Elections obligations is .22, roughly equal to the amount that an “average” country is expected to change on this dimension per year.

Assistance for civil society programs exhibits both contemporaneous and lagged effects on the Civil Society factor (model 5.2). In this model, civil society obligations are the only DG assistance variables that are significant, again indicating that subsectoral obligations affect the intended democratic outcomes. Somewhat remarkably, almost the same pattern is seen in the model predicting Free Media (5.3). DG obligations for media area have a strong lagged effect of .48, with an additional effect from lagged nonmedia Civil Society obligations as well.

The results for our Human Rights factor, however, show a strong negative effect of contemporaneous DG obligations in this area (model 5.4). For every million dollars in the area of Human Rights, the country’s value on the respective dimension is predicted to be .75 points lower. How can this effect be understood? We cannot be certain, but there are three plausible explanations for the negative correlation. First, it is pos-
possible that the negative contemporaneous relationship reflects the same kind of reciprocal effects examined earlier (for example, if USAID allocates more assistance to countries that are facing a human rights crisis). We are prone to reject this explanation, however, since a GMM model similar to that of model 4.3 showed that the negative impact was not altered in a model dealing with the potential endogeneity problems.

Second, it is possible that more resources in the area of human rights will strengthen advocacy organizations, emboldening them to report human rights violations. Thus the negative effect may be partly an artifact of the measurement process. Third, there may be a true negative causal effect: authoritarian regimes, facing increasing international pressures on the human rights front, may become more zealous and intensify their efforts against the opposition. We leave it to future work to help confirm our thesis; for now we report that it may not be the case that human rights assistance will lead to positive outcomes in the short run.

The final model estimates the impact of DG obligations on the Governance Effectiveness variable constructed by the World Bank. The
results are ambiguous. On the one hand, there is a positive effect of lagged Governance obligations on the Government Effectiveness measure. On the other hand, this impact is more than offset by the anomalous negative effects of DG obligations in the area of Elections. As noted above, we have less confidence in this model, as the indicator itself is available for only four years in the entire 1990–2003 period. We infer that Governance obligations may be effective, but the evidence is not conclusive.

**Conclusions**

This study has advanced the analysis of democracy promotion programs in several ways. Unlike all prior published research, the data set is based upon an exhaustive survey of the entire democracy portfolio of the United States Agency for International Development. Prior published quantitative research had been unable to separate democracy programs from other forms of assistance. We estimated the effects using models that take into account each country’s unique democratic trajectory during the period under study, controlling for a wide range of theoretically relevant variables. We also used an instrumental variables approach to minimize the possibility that the findings were an artifact of endogeneity, or a process whereby USAID selects more democratic or democratic-trending countries to receive democracy assistance in the first place. Controlling for these potentially confounding processes, we find that DG expenditures exerted a significant, albeit modest, impact on democratic outcomes as measured by both Freedom House and Polity IV scores.

Our results underscore the recent trend emphasizing international factors in studies of democratization. Moreover, the evidence lends credence to the theoretical perspectives that emphasize the role of agency in democratic change. Although agency is difficult to capture in large-N statistical models (and thus generally relegated to the disturbance term), investment in democracy programs is explicitly directed toward the empowerment of particular agents. It is through the local action of individuals, political organizations, and social movements that funding decisions can translate into democratic change in the short run. Thus, the finding of a significant DG effect supports theoretical notions of both external and agent-based sources of democratic change.

The analysis produced four major results. First, contrary to the gen-

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69 Brinks and Coppedge (fn. 5); Gleditsch (fn. 21); Pevehouse (fn. 5); Starr (fn. 21); Whitehead (fn. 21).
erally negative conclusions from previous research, there are clear and consistent impacts of USAID democracy assistance on democratization in recipient countries. An investment of one million dollars (measured in constant 2000 dollars) would foster an increase in democracy 65 percent greater than the change expected for the average country in the sample in any given year. Second, significant lagged effects were found, suggesting that democracy programs may take several years to mature. Third, the results were found to hold under a variety of specifications, capturing the possibility of endogenous funding, diminishing returns, and alternative standardizations of the aid variables. Finally, the pattern of effects suggests that with one notable exception—the area of Human Rights promotion—USAID expenditures targeted for specific subsectors such as Elections, Civil Society, and Free Media tend to have the largest impact on the respective dimensions of democratic performance.

At the same time, these optimistic conclusions must be tempered with several cautionary observations. First, the findings must be viewed in the context of the actual current outlays for democracy assistance by the United States. Democracy assistance is still only a small portion of total USAID assistance, and a small proportion of overall GDP when compared to the assistance given by a number of European countries. Second, the apparent negative effect in the area of human rights reminds us that the causal processes involved in democracy promotion are extraordinarily complex. It may not always be the case that increased democracy assistance will lead to a positive impact in the short run. Third, such an “anomalous” finding highlights the fact that we do not yet know many of the ways through which democratic assistance impacts democratic outcomes for better and possibly for worse. Are some patterns of USAID investment more effective than others? Are some countries or regions more likely than others to benefit from democracy funds? Such questions demand not only more conditional and interactive models of the effects of democracy assistance but also more comprehensive modeling of the decisions made by donor organizations in funding democracy programs in different countries at different times.

We have shown that there was a moderate but consistent worldwide effect of U.S. democracy promotion in the period 1990–2003. Nevertheless, U.S. democracy assistance pales relative to other U.S. development assistance, relative to per capita development assistance provided by many other advanced industrial nations, and, most starkly, relative to the sums expended to democratize nations via military intervention. Only when viewed from those relative perspectives and by considering
the stark consequences of recent controversial efforts to democratize countries via military intervention can the gains achieved by USAID’s democracy assistance programs be appropriately evaluated.\textsuperscript{70}

\textbf{APPENDIX 1}

\textbf{Countries Included in the Data Set and Recipients of Democracy Aid, by Region}\textsuperscript{a}

\textbf{Africa}

Angola (9), Benin (9), Botswana (3), Burkina Faso (3), Burundi (10), Cameroon (2), Cape Verde (1), Central African Republic (2), Chad (0), Comoros (0), Congo, D.R. (Zaire) (9), Congo, Republic of (2), Côte d’Ivoire (10), Djibouti (1), Equatorial Guinea (0), Eritrea (9), Ethiopia (12), Gabon (0), Gambia (6), Ghana (10), Guinea (11), Guinea-Bissau (6), Kenya (9), Lesotho (4), Liberia (10), Madagascar (11), Malawi (11), Mali (11), Mauritania (1), Mauritius (0), Mozambique (13), Namibia (12), Niger (4), Nigeria (11), Rwanda (10), São Tomé and Príncipe (1), Senegal (12), Seychelles (0), Sierra Leone (9), Somalia (7), South Africa (14), Sudan (3), Swaziland (2), Tanzania (11), Togo (4), Uganda (10), Zambia (12), Zimbabwe (9)

\textbf{Asia}

Afghanistan (6), Bangladesh (14), Bhutan (0), Brunei Darussalam (0), Cambodia (13), China (2), India (7), Indonesia (14), Iran (0), Korea, D.P.R. (N) (0), Korea, Republic of (2), Laos (0), Malaysia (1), Maldives (0), Mongolia (8), Myanmar (Burma) (6), Nepal (12), Pakistan (7), Philippines (14), Singapore (0), Sri Lanka (14), Taiwan (0), Thailand (8), Timor Leste (2), Vietnam (1)

\textbf{Eurasia}

Armenia (12), Azerbaijan (12), Belarus (12), Georgia (12), Kazakhstan (12), Kyrgyzstan (12), Moldova (12), Russian Federation (12), Tajikistan (12), Turkmenistan (12), Ukraine (12), Uzbekistan (12)

\textbf{Europe}

Albania (13), Bosnia-Herzegovina (11), Bulgaria (14), Croatia (12), Czech Republic (4), Czechoslovakia (3), Estonia (5), Hungary (9), Latvia (7), Lithuania (9), Macedonia (12), Poland (10), Portugal (0),

\textsuperscript{70} See Bueno de Mesquita and Downs (fn. 22); Fukuyama (fn. 9).
Romania (14), Serbia and Montenegro (10), Slovakia (9), Slovenia (4)

**Latin America and the Caribbean**

Antigua and Barbuda (0), Argentina (0), Belize (4), Bolivia (14), Brazil (8), Chile (6), Colombia (10), Costa Rica (7), Cuba (4), Dominica (0), Dominican Republic (13), Ecuador (14), El Salvador (14), Grenada (0), Guatemala (14), Guyana (13), Haiti (14), Honduras (14), Jamaica (10), Mexico (9), Nicaragua (14), Panama (14), Paraguay (9), Peru (14), Saint Lucia (0), St. Kitts and Nevis (0), St. Vincent and the Grenadines (0), Suriname (0), Trinidad and Tobaco (0), Uruguay (1), Venezuela (2)

**Middle East and the Mediterranean**

Algeria (8), Bahrain (2), Cyprus (0), Egypt (13), Iraq (2), Israel (0), Jordan (4), Kuwait (0), Lebanon (10), Libya (0), Morocco (6), Oman (2), Qatar (1), Saudi Arabia (1), Syria (0), Tunisia (5), Turkey (4), United Arab Emirates (0), West Bank and Gaza (10), Yemen (7)

**Oceania (Pacific Islands)**

Fiji (0), Kiribati (0), Marshall Islands (0), Micronesia, Federated States (0), Nauru (0), Palau (0), Papua New Guinea (1), Samoa (0), Solomon Islands (0), Tonga (0), Tuvalu (0), Vanuatu (0)

>Figures in parentheses indicate the number of years the country received USAID democracy assistance between 1990 and 2003.

### Appendix 2

**Components of the Factor Analysis for Indices of Democratic Development**

<table>
<thead>
<tr>
<th>Description</th>
<th>Factor Loadings</th>
<th>Communalities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Free and Fair Elections</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Political Rights (Freedom House)</td>
<td>-.940</td>
<td>.884</td>
</tr>
<tr>
<td>Index of Electoral Competition (Vanhanen 2003)</td>
<td>.906</td>
<td>.821</td>
</tr>
<tr>
<td>Women’s Political Rights (Cingraneli and Richards 2004)</td>
<td>.631</td>
<td>.398</td>
</tr>
<tr>
<td>Competitiveness of Participation (Polity IV 2004)</td>
<td>.947</td>
<td>.896</td>
</tr>
<tr>
<td>Total variance explained (%)</td>
<td></td>
<td><strong>75.0</strong></td>
</tr>
</tbody>
</table>
APPENDIX 2, cont.

<table>
<thead>
<tr>
<th>Description</th>
<th>Factor Loadings</th>
<th>Communalities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conditions for Civil Society</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Restrictions on the Organization of Minorities (Minorities at Risk, 2004)</td>
<td>−.558</td>
<td>.312</td>
</tr>
<tr>
<td>Freedom of Assembly and Association (Cingranelli and Richards 2004)</td>
<td>.843</td>
<td>.710</td>
</tr>
<tr>
<td>Favorable Conditions for Nonprofit Sector (Green 2004)</td>
<td>.779</td>
<td>.607</td>
</tr>
<tr>
<td>Religious Freedom (Cingranelli and Richards 2004)</td>
<td>.758</td>
<td>.575</td>
</tr>
<tr>
<td>Respect for Worker’s Rights</td>
<td>.781</td>
<td>.611</td>
</tr>
<tr>
<td>Freedom of Movement (Cingranelli and Richards 2004)</td>
<td>.746</td>
<td>.556</td>
</tr>
<tr>
<td>Respect for Women’s Economic Rights (Cingranelli and Richards 2004)</td>
<td>.572</td>
<td>.327</td>
</tr>
<tr>
<td>Total variance explained (%)</td>
<td></td>
<td><strong>52.8</strong></td>
</tr>
<tr>
<td>Respect for Human Integrity (Human Rights)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Political or Extrajudicial Killings (Cingranelli and Richards 2004)</td>
<td>.856</td>
<td>.610</td>
</tr>
<tr>
<td>Disappearances (Cingranelli and Richards 2004)</td>
<td>.781</td>
<td>.732</td>
</tr>
<tr>
<td>Torture (Cingranelli and Richards 2004)</td>
<td>.775</td>
<td>.563</td>
</tr>
<tr>
<td>Political Imprisonment (Cingranelli and Richards 2004)</td>
<td>.750</td>
<td>.600</td>
</tr>
<tr>
<td>Political Terror Scale (Gibney 2004)</td>
<td>−.925</td>
<td>.856</td>
</tr>
<tr>
<td>Total variance explained (%)</td>
<td></td>
<td><strong>67.2</strong></td>
</tr>
<tr>
<td>Free Media</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Freedom of the Press (Freedom House 2004; 3-point scale)</td>
<td>.928</td>
<td>.861</td>
</tr>
<tr>
<td>Freedom of the Press (Freedom House 2004; 100-point scale)</td>
<td>−.955</td>
<td>.912</td>
</tr>
<tr>
<td>Freedom of Speech and Press (Cingranelli and Richards 2004)</td>
<td>.871</td>
<td>.758</td>
</tr>
<tr>
<td>Restrictions on Freedom of Expression (Minorities at Risk, 2004)</td>
<td>−.635</td>
<td>.403</td>
</tr>
<tr>
<td>Total variance explained (%)</td>
<td></td>
<td><strong>73.3</strong></td>
</tr>
</tbody>
</table>

Sources: See fnn. 35–38.

*EFA conducted for complete sample of 195 countries (excluding industrial democracies). N= 2672. Extraction method was principal component analysis. Cronbach’s Alpha for standardized, non-weighted items is 0.88 for Elections, 0.85 for Civil Society, 0.88 for Human Rights, and 0.87 for Free Media. Aggregate indices were recorded as T-scores with a mean of 50 and a standard deviation of 10.