

# Regressive Socioeconomic Distribution and Democratic Survival

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Many scholars have argued that unequal socioeconomic distribution constitutes a threat to democratic survival. However, the evidence in support of this claim has been contradictory. We argue that this inconsistency derives from the literature's assumption that income inequality will adequately reflect the conditions under which demands for radical redistribution will emerge and trigger antidemocratic elite reactions. We argue instead that when developmental context is taken into consideration, absolute forms of distribution, like basic needs deprivation, are better indicators of these conditions. When needs deprivation exists in the face of enhanced economic development, citizens will not only notice deprivation more readily, but also, given the greater social surplus, deem it more unacceptable, provoking radical demands for redistributive justice. This combination of development and continuing basic needs shortfalls, a condition that we refer to as regressive socioeconomic distribution, will threaten democratic survival. Using event history analysis on a sample composed of all democracies from 1961 to 1995, we confirm that regressive socioeconomic distribution increases the risk of breakdown.

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What role does socioeconomic distribution play in the breakdown of democratic regimes? There is strong consensus that extreme forms of socioeconomic inequality undermine democracy. Whether caused by "labor repressive" modes of production (Moore 1966), the rise of "bureaucratic authoritarianism" (O'Donnell 1973), or the state's need to repress wages and social expenditures to promote growth (Kurth 1979; Rueschemeyer, Huber Stephens, and Stephens 1992), extreme forms of inequality are believed to lay the foundation for the

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*Author's note:* The authors would like to thank several scholars for their comments or suggestions on this manuscript, including: Kirk Bowman, Zehra Arat, Donald Larson, Norman Rask, Quan Li, and Walter Falcon. We would also like to thank John Kmetz, III, Maria Inclan, and Claudiu Tufis for their valuable research assistance. Data and instructions for replicating the results reported in this paper can be found at: [http://isanet.org/data\\_archive.html](http://isanet.org/data_archive.html).

conditions that provoke popular pressures for redistribution and elite resistance to them (Acemoglu and Robinson 2001; Boix 2003). All of these accounts cite the intense concentration of society's resources in the hands of a narrow elite as an important cause of democracy's failure. Yet despite this theoretical consensus, an interesting puzzle remains: why in the face of rising income inequality do many democracies appear to be in a period of stability unequalled in their histories?

Until 20 years ago, there was reason to believe that economic development would promote greater socioeconomic equality (Kuznets 1955). However, over the last two or three decades, many developed and developing countries have experienced substantial economic growth in conjunction with higher levels of income inequality (Wimberley and Bello 1992; Deepak and Myint 1996; Gottschalk and Smeeding 1997; Paus and Robinson 1997; Aghion 1998; Rodrik 1999; Rueda and Pontusson 2000; Landa and Kapstein 2001; Alderson and Nielsen 2002; Adams 2003; Firebaugh 2003; Kenworthy and Pontusson 2005). Yet despite this trend toward greater income inequality, the overwhelming majority of these democracies continue to survive. One recent work poses a potential answer to this question, suggesting that capital mobility may attenuate the negative influence of income inequality on democratic survival (Boix 2003). However, the empirical findings in support of this claim are inconsistent, perhaps driven by reliance on income inequality data which scholars previously have argued are too sparse to draw meaningful conclusions about the survival of democracies (Przeworski, Alvarez, Antonio Cheibub, and Limongi 2000). As a result, the lack of definitive findings on this question makes the empirical quandary posed above even more perplexing. Are we to believe that the material plight of some portion of the citizenry is irrelevant to democracy's survival? If so, this would be disturbing from both a theoretical and normative perspective. Such conclusions may, however, be premature.

In this article, we offer a theoretical account of socioeconomic distribution's relation to democratic survival. Drawing on the work of Sen (1992) and Gurr (1970), we recognize that socioeconomic distribution's effects on society are conditional on both its form and the context in which it occurs. Their insights lead us to reject the use of Gini coefficients and other measures of the relative distribution of income and instead to gauge socioeconomic distribution's threat to democracy using basic needs deprivation. Furthermore, we suggest that the impact of basic needs is contextual, with deprivation playing a more critical role as development proceeds. We argue that if democracies develop economically and fail to respond to basic needs deprivation, a combination that we term "regressive socioeconomic distribution," then radical demands for redistribution will be more likely to emerge and be met with elite resistance. Under these conditions, the prospects for democratic breakdown will be heightened.

To test our theory, we analyze the relationship between regressive socioeconomic distribution and democratic survival using methods of event history on a dataset consisting of all democracies from 1961 to 1995. We gauge the extent to which any given democracy has a regressive pattern of socioeconomic distribution by interacting our measure of basic needs deprivation with the potential of that regime to respond to demands for distribution as gauged by its overall level of development. Our results reveal that regressive socioeconomic distribution places democracies at greater risk of breakdown.

### **Income Inequality's Inconsistent Relation to Democratic Survival**

All previous research on socioeconomic distribution and democratic survival has assumed that income inequality best reflects the distributional conditions that lead to breakdown. Yet income inequality has proved to be ineffective in

producing consistent findings about this relationship (Przeworski et al. 2000; Boix 2003).<sup>1</sup> In the following sections, we highlight two shortcomings in the literature that we believe account for these inconsistencies. First, we discuss problems with the quality and range of income inequality data. Second, we argue that basic needs satisfaction as a concept is superior to income inequality in capturing the negative effects of distribution on democratic survival. After our discussion of these limitations we elaborate our concept of regressive socioeconomic distribution and introduce our theoretical framework.

#### *Problems with Relative Inequality Data*

Reliable income distribution data simply do not exist for a broad range of cases over a substantial period of time. Despite the efforts of Deininger and Squire (1996) to improve the scope of income inequality data, reliance upon Gini coefficients has left researchers with only a small and unrepresentative sample of democracies on which to test their theories. Indeed, Barro pointed to “the poor quality of the data ... rather than the irrelevance of equality for democracy” to explain his null findings (Barro 1997:69). Przeworski et al. even refused to draw definitive conclusions on the relationship of income inequality to breakdown due to problems with missing data (Przeworski et al. 2000:120–121). Others have resorted to interpolation and extrapolation to fill in missing data (Feng and Zak 1999; Boix 2003), but the soundness of such missing data techniques is questionable (King, Honaker, Joseph, and Scheve 2001).<sup>2</sup> In fact, these data problems have led other researchers to develop alternative measures of distribution, abandoning Gini coefficients altogether (Stokes and Anderson 1990:64–65).

Because of extensive missing data, we are skeptical of what conclusions, if any, can be drawn about the relationship between income inequality and democratic breakdown.<sup>3</sup> Yet, while data issues clearly account for some measure of the literature’s inconsistent findings, we believe there is a more compelling explanation for the state of the literature. We believe that a fundamental misconception about which form of socioeconomic distribution most threatens democratic survival lies at the core of these difficulties.

#### *Socioeconomic Distribution: Shifting the Conceptual Focus*

Amartya Sen warns those who study distribution to pay careful attention to the way that they conceptualize and measure it, because the choice will highlight different dimensions of the distributional system (Sen 1992:12). We believe that insufficient attention to this warning is one of the reasons that the literature using income inequality has not produced definitive findings. In order to overcome this limitation, we distinguish between *relative* and *absolute* concepts of

<sup>1</sup> Boix, for example, in his first model, which includes GDP/capita as a measure of asset specificity, reports that higher inequality promotes survival. In most subsequent models, income inequality negatively affects survival, but only with GDP/capita, which is a robust indicator of survival, omitted from the models (Boix 2003:79–81).

<sup>2</sup> Boix, for example, begins with a data set of approximately 120 countries from 1950 to 1990 (almost 5,000 country-years), for which Gini data are only available for approximately 200 country-years. To remedy this, Boix calculates 5-year averages, substantially reducing variation and resulting in his most complete model having only 1,042 observations out of approximately 5,000. The remaining cases are simply list-wise deleted from the analysis, potentially biasing his results.

<sup>3</sup> Using a measure of basic needs satisfaction, our data set consistently includes about 1,782 of 1,794 observations for the period 1961–1995 with 36 cases of democratic breakdown. When we tried to use Deininger and Squire’s high quality Gini data, the data coverage was so sparse, including only one case of breakdown, that the model simply did not converge. With interpolation, we obtained 664 observations and only six breakdowns and found no statistically significant relationship between income inequality and survival. By extrapolating, we expanded the total number of observations to 1,037, which included only 10 of the 36 cases of breakdown. In contravention of theory, the results based upon this analysis suggested that income inequality promotes democratic survival.

socioeconomic distribution and argue that the latter more consistently reflects the socioeconomic conditions that most threaten democracy.

The notion of socioeconomic distribution encompasses how any society allocates assets among citizens. Such allocations are a result of the interplay between economic structure, economic performance and public policy. The fundamental assumption that we make in this paper is that socioeconomic distribution threatens democracy when it creates demands for radical redistribution that trigger anti-democratic reactions by the elite. In assessing this threat, one can examine the impact of distribution either in relative or absolute terms.

Earlier studies solely focused on the relative distribution of resources, measured with income inequality data. Such relative notions of socioeconomic distribution gauge the resource shares controlled by different groups within society. Alternatively, absolute notions of socioeconomic distribution consider whether all segments of society possess sufficient resources to enjoy a “decent life” without reference to relative resource endowments. Absolute measures of distribution are perhaps best reflected in what others have termed *basic needs satisfaction*, or the “... material and social requirements of human functioning, such as minimum levels of nutrition, shelter and education” (King 1998:385).<sup>4</sup> We believe that basic needs satisfaction better captures the conditions that motivate political actors to press for radical redistributive measures and other actors to resist.

Why might this be the case? We believe those whose basic needs are met can better abide others receiving more, whereas those whose basic needs are unmet are compelled to demand remediation to ensure their survival. Moreover, these forms of distribution reflect different conditions at different levels of development. At low development, there are not enough resources to raise the population above subsistence levels, regardless of the level of income inequality. In such settings, income inequality and basic needs satisfaction may not even be correlated. As countries develop, generally speaking, and some share of new resources goes to the poor, we expect income inequality and needs satisfaction to be negatively correlated with each other. However, depending upon the proportion of new wealth that the poor receives, it is possible for basic needs deprivation to diminish in the face of rising income inequality, meaning that these two forms of distribution may even move in opposition to each other. At high levels of development, it is possible to observe even more substantial income inequality and yet low levels of basic needs deprivation.<sup>5</sup> For these reasons, we believe that basic needs deprivation will more consistently reflect the conditions under which radical redistributive demands are likely to emerge compared with income inequality.

To illustrate how income inequality and basic needs satisfaction reflect different aspects of a distributional system, consider Figure 1. This figure tracks income inequality and basic needs satisfaction, measured in Gini scores and daily food supply per capita in calories (the measure we use), in four democracies from 1975 to 1995. We have chosen these four, the United States, United Kingdom, Venezuela, and Poland, because they represent a variety of democratic countries and are some of the few for which income inequality data is available over a fairly long period of time.<sup>6</sup> These cases include two long-standing

<sup>4</sup> We understand this fundamental basket of goods and services to include not only those most commonly consumed individually (e.g., food, clothing, shelter, etc.) but also those that are provisioned as public goods (e.g., public health, sanitation, etc.; Hoadley 1981:149).

<sup>5</sup> After splitting the sample into low, middle, and highly developed democracies, we found that income inequality, where data was available, and per capita caloric supply, were not correlated in the low, and were negatively correlated in the middle (-.61) and high (-.38). Not only does the strength of association vary by development, but also the direction, with income inequality, for some cases, being correlated over time with increases in consumption.

<sup>6</sup> To understand just how poor income inequality data is—Venezuela has the most comprehensive, high-quality Gini-coefficient time series data of any country in Latin America.

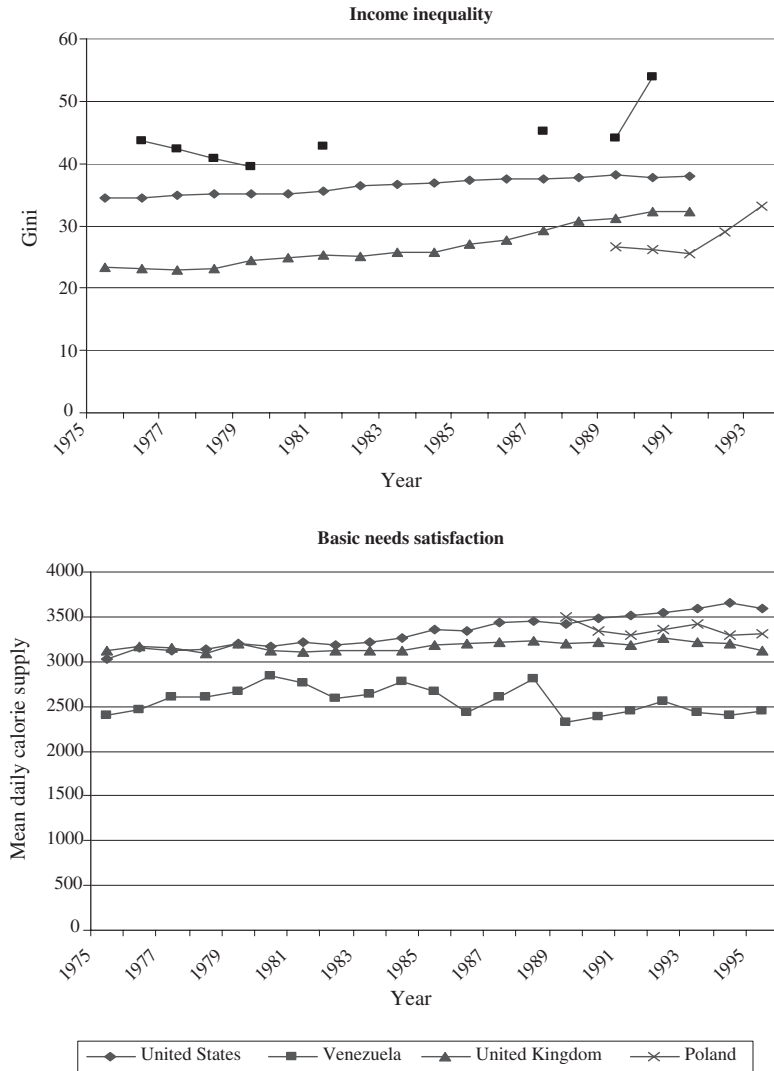


FIG. 1. Income Inequality and Basic Needs Satisfaction in Four Countries, 1975–1995.  
Sources: FAOSTAT, Deininger and Squire (1996).

democracies, a long episode of democracy in Latin America, and a successful case of post-communist democratization.

All four of these countries reflect the trend toward increasing income inequality. Yet, these increases have not necessarily meant a reduction in basic needs satisfaction. Despite rising income inequality in the United Kingdom with the onset of Thatcherism, per-capita food supply has remained fairly constant in the range of 3,100–3,200 calories per day. In the United States, a steady increase in income inequality occurred simultaneously with an increase in caloric supply to a very high level (about 3,600 per day). In Poland, the period following the transition to democracy in 1989 was very volatile politically and economically as market reforms brought a severe recession. Income inequality increased and caloric supply dropped somewhat, but remained fairly constant at a high level (3,300–3,500 calories). Since then, the economic situation has improved and the country has become a member of the European Union.

Venezuela is the most volatile of the cases. It experienced a substantial improvement in income equality from 1975 to 1979, and from what we can tell from the three data points since then, regressed perhaps even below its initial income inequality level. Initially both caloric supply and income equality increased, but in 1988, calories fell back to their 1975 level (2,400). In this case both income equality and basic needs satisfaction deteriorated in response to major economic problems while the elite continued to capture a large share of the country's oil wealth. Myers and McCoy (2003) point out that from 1970 to 1997, the percentage of Venezuelans living below the poverty line rose from 25% to 42%, helping to explain the acute political crisis that gave rise to Chavez in the 1990s. Furthermore, his attempts to redistribute resources since he assumed office in 1999 provoked the persistent attempts to remove him from power (a coup d'état that failed after three days, a general strike, and an unsuccessful plebiscite to recall him).

Despite rising income inequality in the US, UK, and Poland in the period 1975–1995, basic needs satisfaction did not suffer. In the UK and Poland food supply per capita was relatively stable, and in the US it grew substantially. In Venezuela, by contrast, food supply initially rose and then fell back to a fairly low level (approximately 2,400 calories). Both the US and the UK remained highly stable and Poland commenced the most substantial democratic episode in its history (1989 to the present). In these countries rising income inequality did not pose a threat to democracy in the face of consistently high basic needs satisfaction. In Venezuela, where rising income inequality was accompanied by deterioration in basic needs satisfaction, democracy has been unstable. Indeed, the 3-day coup d'état in 2002 was particularly surprising given the expectation that democracies with a level of development like Venezuela (approximately \$6,000, 1985 PPP) were previously thought to be highly resistant to breakdown. This stands in marked contrast to Poland, where despite the sharp recession (–10% in GDP per capita from 1988 to 1991) that accompanied the transition from a planned to a market economy, successive reformist governments maintained enough of a social safety net that basic needs satisfaction did not deteriorate sharply.

These data illustrate the fundamental way in which relative and absolute indicators differentially reflect aspects of socioeconomic distribution. In the US, UK, and Poland increasing inequality did not seem to constitute a threat to democracy because of stable levels of needs satisfaction. In Venezuela, however, where both basic needs satisfaction and equality deteriorated, the survival of democracy became tenuous. This evidence is consistent with our contention that basic needs satisfaction is a better indicator for understanding when democracy is at risk. Unfortunately, because of missing Gini data, we cannot demonstrate this systematically.

Figure 2 below presents additional data in support of our contention that basic needs deprivation better reflects the conditions that provoke breakdown. The figure displays instances of breakdown by income inequality and basic needs deprivation across four levels of development.<sup>7</sup> The occurrence of a breakdown in the figure is indicated by a diamond, square or circle depending upon at which level of development (low, medium, or high) breakdown occurred. If theories that income inequality destabilizes democracies are correct, we would expect breakdowns mostly in democracies with high income inequality (high Gini scores).<sup>8</sup> Figure 2, however, reveals that democratic breakdowns occur across the *entire range* of Gini data in our sample, suggesting that income inequality may not best

<sup>7</sup> The four levels correspond to Low (<\$1,500), Medium–Low (between \$1,500 and \$2,500), Medium–High (between \$2,500 and 6,500), and High (>\$6,500; 1985 PPP).

<sup>8</sup> Using Gini coefficients limits our consideration of all cases of breakdown considerably, with extrapolated Gini data only providing 10 of 36 cases of breakdown.

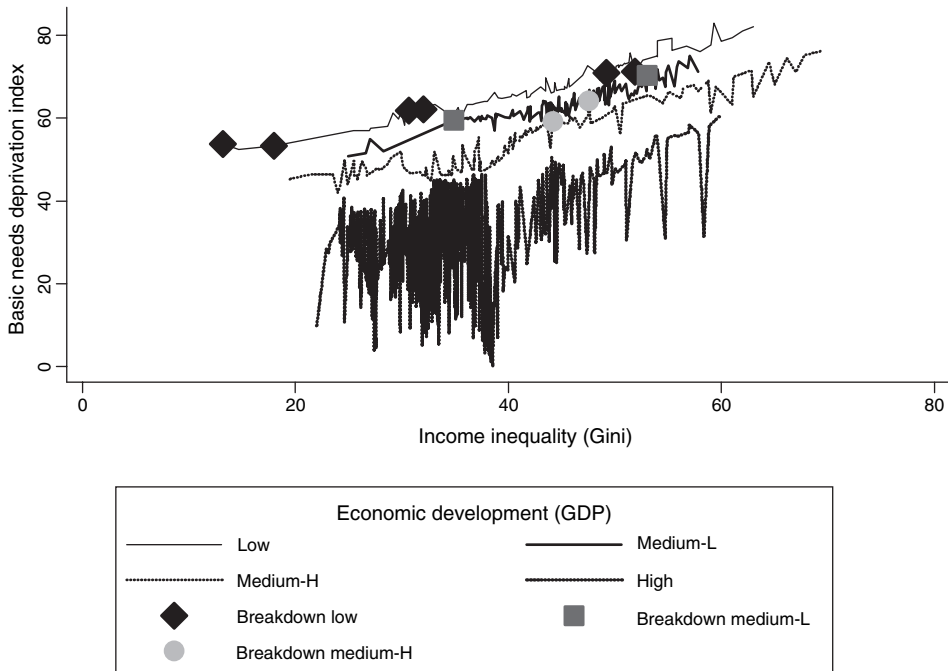


FIG. 2. The Relationship Between Income Inequality Deprivation Development and Breakdown.  
 Sources: BNR (2001) dataset, Deininger and Squire (1996), FAOSTAT (2001).

reflect the distributional pressures that threaten democracy. In contrast, democratic failures occur *only* at the high end of the basic needs deprivation scale, suggesting that it may better account for breakdown.

On the face of it, the exploratory evidence presented above in Figures 1 and 2 support our contention that income inequality and basic needs satisfaction do not always convey the same information about socioeconomic distribution. This makes plausible our claim that the previous literature's failure to find consistent evidence of a relationship between socioeconomic distribution and democratic survival is due to its reliance on income inequality data. In the next section, we present our theory of how basic needs deprivation heightens the potential for democratic breakdown.

### Regressive Socioeconomic Distribution and Democratic Breakdown

We anchor our explanation of democratic breakdown in a theoretical framework based on Linz's classic formulation of that problem. The prolonged inability "of a regime to find solutions to the basic problems facing any political system" in a way that is "perceived as more satisfactory than unsatisfactory by aware citizens" may lead to a loss of legitimacy for democracies (Linz 1978:21). When legitimacy begins to erode, a cyclical pattern of destructive politics often emerges with democracy entering a crisis phase where antidemocratic political forces pose extreme solutions to the nagging problems that democracy has been unable to address. If not effectively checked, such actors may overturn democracy and establish dictatorship. Socioeconomic distribution is just the sort of issue that is difficult to address and potentially polarizing, and thus figures often in the performance problems and legitimacy crises of embattled democracies.

By its nature, democracy allows societies to select from a variety of socio-economic arrangements that affect their distribution of resources (Huber,

Rueschemeyer, and Stephens 1997:324; Rueda and Pontusson 2000:350; Bradley, Huber, Moeller, Nielsen, and Stephens 2003). At the same time, compared with dictatorships, democracies on average produce higher levels of citizen welfare (Brown and Hunter 1999; Przeworski et al. 2000:Ch. 3; Lake and Baum 2001). However, this is not universally true; some democracies give precedence to other economic goals, preferring to allocate social surpluses toward, for instance, growth or the enrichment of elites, rather than toward the satisfaction of basic needs.

We argue that the extent to which democracy is endangered by distributional issues is a function of the confluence of two conditions: intense demands for redistribution and the regime's unwillingness to satisfy them. The former is a function of basic needs satisfaction and citizens' capacity to articulate demands. The latter is a function of economic development and whether elites are willing to channel social surpluses to alleviate basic needs shortfalls. We argue below that democracies will be most imperiled when citizen demand for redistribution is high and elite willingness to respond to such demands is low. We argue that these conditions are most likely to emerge when democracies leave basic needs unmet in the face of development, a condition which we label *regressive socioeconomic distribution* or RSD.<sup>9</sup> How such distributional conflict affects democratic survival however is keenly shaped by developmental context.

At low levels of development, large parts of society will be at subsistence. Despite low levels of needs satisfaction, however, intense demands for redistribution are not guaranteed. There will be few resources available to press distributional demands via collective action. Moreover, populations that have lived at subsistence for long periods of time may develop fatalistic attitudes toward their conditions. As a result, deprivation at low levels of development will not necessarily lead to the sharp politicization of distributional issues. From the perspective of elites, basic needs deprivation at low levels of development presents a nearly intractable problem. Given the lack of resources, no set of reforms can lead to significant alleviation of existing deprivation. Either a unified elite will realize that its ability to address the needs of society is constrained, and it will resort to force to maintain its rule, or the elite will split over whether to redistribute the resources of one group to another in a zero- or negative-sum game. Under such circumstances, the prospects for democratic breakdown are high. At low development, such extreme resource constraints simply make democracy difficult to sustain.

As development proceeds, the problem posed by needs deprivation to regime survival changes in three important respects. First, assuming no significant changes in the system of distribution, development will raise personal income, diminishing basic needs deprivation and lessening constraints on collective action. Second, increased levels of development will expand the potential social surpluses that a democracy can allocate to alleviate deprivation. Again, assuming a relatively fixed distributional system, the share of total resources or the marginal tax rate that must be levied to undertake redistributive measures, sufficient to alleviate basic needs shortfalls, will decline as development increases (Przeworski 2005). Last, increased levels of development will also render lingering deprivation more conspicuous and intensify expectations for improvement in living conditions. Like Gurr and others, we believe that the impact of socio-economic distribution on politics is relational—whether a material condition becomes a salient demand is based on a complex set of intra- and interpersonal comparisons to the broader economic context (Gurr 1970; Gurr and Lichbach 1986;

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<sup>9</sup> RSD is predicated on a model of accumulation in which increments to national income continue to be concentrated in the hands of the wealthy at the expense of general welfare (see also Moon 1991:45–46). It is often a legacy of predatory forms of authoritarianism that either place accumulation for the leader and his followers above other economic goals such as development or consumption (Olson 1993; Evans 1995:12), suppress wages and social programs in order to create surpluses for further development (O'Donnell 1973), or control wages and provide other kinds of subsidies to obsolete forms of production (Moore 1966; Gerschenkron 1989).



Lichbach 1989; Klandermans, Roefs, and Olivier 2001). For patterns of socioeconomic distribution to threaten the survival of democracy, citizens must first perceive differences in patterns of distribution, deem them unwarranted and demand their alleviation (Dahl 1971:95).<sup>10</sup> When basic needs deprivation persists in the presence of greater development, what we refer to as RSD, citizens will not only notice deprivation more readily, but also, given the greater social surplus, will deem it more unacceptable, provoking radical demands for redistributive justice.

At this juncture, democratic leaders in moderately developed democracies face a critical choice: dedicate a sufficient share of the social surplus toward diminishing needs deprivation or utilize the social surplus for other ends (i.e., improving the welfare of elites, building up national military resources, reinvesting the surplus to promote further growth).<sup>11</sup> If leaders do not commit sufficient resources to alleviate deprivation, pressure for changes in policy and for a government more reformist in orientation will grow. Elites who oppose reform either will accept the prospect of electoral loss or, convinced that the costs of short-circuiting democracy are less than that of losing elections, will resist reform and try to impose their will by force. Even if leaders opt to direct a sufficient share of the social surplus toward diminishing deprivation, there is another potential danger. At moderate levels of development, the resources required to accomplish these redistributive goals may require a tax rate or even harsher measures (e.g., confiscation of property) that may provoke the resistance of certain elite factions. Under such circumstances these factions may try to short circuit democracy in order to block reforms that they find too radical.<sup>12</sup> For these reasons RSD seems more prone to emerge at low-to-moderate levels of development, creating a dangerous set of conditions for democracy.<sup>13</sup>

Once a democracy becomes highly developed, distributional issues become far less dangerous for two reasons. First, the aggregate level of basic needs deprivation will be small. Unless there is a truly perverse distribution of wealth that concentrates vast fortunes in the hands of a few, the majority of those who are relatively less well-off in wealthy societies will nevertheless have a standard of living that provides for their basic needs. Second, the size of any program to alleviate basic needs deprivation in a rich society will represent a much smaller percentage of national wealth. Such redistributive schemes would not require the confiscation of property or even a marginal tax rate that the rich would find threatening (Przeworski 2005). Because wealth alleviates most deprivation and diminishes the potential threat that

<sup>10</sup> Unlike income inequality, basic needs deprivation in the face of increasing economic development more consistently reflects citizens' propensity to judge their regime's performance as inadequate. The inability of a significant portion of the population to obtain adequate supplies of food, clothing and shelter, especially when a country seems to have sufficient resources to diminish such shortfalls, is difficult for elites to justify. In contrast, relative forms of inequality are easier to justify on the basis of skill differentials, the vagaries of the market, or differences in work habits, particularly when the disadvantaged are above subsistence levels.

<sup>11</sup> Rudra (2005) suggests that elites also minimize social spending to demonstrate fiscal discipline to attract foreign assistance and direct investment.

<sup>12</sup> Both the interwar period in Europe and bureaucratic authoritarianism in Latin America provide examples of such breakdowns (see O'Donnell 1973; Luebbert 1991; Rueschemeyer et al. 1992; Bermeo 2003; Capoccia 2005 for in-depth discussions of these cases).

<sup>13</sup> This is not to say that distribution always poses insoluble problems for democracies at middle levels of development. Clearly some states manage such distributional crises, though success seems predicated on a diverse range of mechanisms. First, some democracies like Korea and Taiwan made their transitions to democracy at relatively high levels of development with more equal distributions of wealth (Haggard and Kaufman 1995; Wong 2005). Second, some democracies avoid sharp distributional conflicts because elites judge undermining democracy as too costly (Boix 2003). Strong middle class support for democracy may be important in this calculation (Luebbert 1991; Linz and Stepan 1996:ch. 14; Valenzuela 2004; Levitsky 2005; Mainwaring and Pérez-Liñán 2005). Third, elites may find ways to protect their wealth from redistribution either informally through "reserved domains of authority and decision-making" (Mainwaring 1992:315; Valenzuela 1992:64-66), or through pacts that remove certain issues from the political agenda as the price of democratization (Karl 1986; Burton, Gunther, and Higley 1992).

reforms pose to elites, distributional issues cease to pose a threat to democratic survival. As a result, we simply do not expect to observe RSD at this level.

In this section, we have argued that, conditional upon developmental context, basic needs deprivation represents a threat to democratic survival. Our theory suggests that those democracies that have moved beyond low levels of development and continue to tolerate high levels of deprivation, a combination that we have labeled RSD, will be at greater risk of breakdown. Moreover, at higher levels of development, the impact of deprivation on democratic survival becomes increasingly more dangerous. Therefore we test the following testable hypotheses:

**Hypothesis 1:** *At sufficiently high levels of economic development, basic needs deprivation will increase the likelihood of democratic breakdown.*

**Hypothesis 2:** *Moreover, the effect of basic needs deprivation in increasing the likelihood of democratic breakdown will intensify as development increases.*

### Research Methods and Data

To investigate the impact of regressive socioeconomic distribution on democratic survival, we use the Bernhard, Nordstrom and Reenock (2001) [BNR] dataset, which includes all democracies from 1919 to 1995 and is coded for event history analysis.<sup>14</sup> The dataset defines as a democracy any regime that approaches Dahl's (1971) criteria for polyarchy, specifically those that permit a high level of contestation and enfranchise a large part of the adult population. The coding of democracy is highly congruent with existing datasets.<sup>15</sup>

There are two advantages to this dataset. First many datasets that attempt to operationalize democracy explicitly ignore the participation component of Dahl's criteria (Bollen 1991:6–7; Gasiorowski 1991; Alvarez et al. 1996:19).<sup>16</sup> The BNR dataset excludes any country where a majority of the adult population is barred from political participation. Second, it also satisfies the “stateness” (Linz and Stepan 1996) condition for democracy, excluding countries that are not fully sovereign or subject to extensive internal wars.

For this study, the unit of analysis is the democratic episode, where an episode represents a distinct period of democracy in a country's history. The portion of the dataset that we used runs from 1961 to 1995 and contains 1,794 country-years with 131 episodes of democracy and 36 breakdowns.<sup>17</sup> The democratic episodes for our data are presented in Appendix A, with breakdowns noted in bold.

#### *Estimation Technique and Dependent Variable*

We estimate the effect of RSD on democratic breakdown using continuous-time event history techniques. In these models the dependent variable is the implicit

<sup>14</sup> The BNR dataset is publicly available at <http://www.personal.psu.edu/mhb5/data/data.htm>.

<sup>15</sup> The coding is similar to two other event history data sets used in survival analyses, the *Political Regime Change Dataset* (Gasiorowski 1995, 1996) and *Classifying Political Regimes* (Alvarez, Antonio Cheibub, Limongi, and Przeworski 1996). If one establishes thresholds for democracy using a graded scale like *Polity* (Jaggers and Gurr 1995) or *Freedom in the World* (Freedom House 1999) there is also substantial agreement.

<sup>16</sup> Vanhanen (2003) includes voter turnout in his operationalization of democracy; we, however, concentrate on popular enfranchisement rather than actual turnout.

<sup>17</sup> We begin in 1961 because of the availability of per capita food data. For those democratic episodes that began prior to 1961, we set the count variable at the cumulative number of years that a state was democratic prior to 1961 (Guo 1993). For example, if a state began a democratic episode in 1951, its count variable would begin at 10 rather than zero in 1961.

hazard rate estimated by the statistical routine and is defined as “the instantaneous probability that episodes in the interval  $[t, t + \Delta t]$  are terminating provided that the event has not occurred before the beginning of th[e] interval” (Blossfeld, Hamerle, and Mayer 1989:31). In our case, the hazard rate represents the probability that a democracy will break down, given that it survived until that year. The statistical routine that we employ, STATA 9.2’s *streg*, uses two variables in the dataset to estimate this implicit dependent variable. The first is a dichotomous variable that is essentially an “event” variable that codes when breakdowns occur. This variable is coded “0” for those years in which a country continues to be democratic and “1” for those years in which it breaks down. The second variable is a counter, which indicates the amount of time that has passed since the inauguration of democracy and ends either with a breakdown as indicated by the “event” variable or with right censoring in 1995. The duration of democratic episodes in these data, with the left-censoring adjustment, ranges from 1 to 77 years, with an average life span of 25.72 years. We estimated clustered standard errors to correct for nonindependence of observations within countries. In addition, to correct for possible endogeneity between democratic survival and basic needs satisfaction, we also estimate a two-stage model that includes predicted levels of basic needs estimated from variables exogenous to the system.

To test our hypothesis, we estimate democratic survival as a function of the multiplicative interaction between our measure of basic needs deprivation and our measure of development, where development conditions the impact of needs deprivation on survival. The statistical significance of this marginal effect is, however, also conditional upon the level of development, given conditional standard errors. Accordingly, to evaluate the conditional statistical significance of this effect we plot the estimated marginal effect of needs deprivation for a given level of development with 95% confidence levels plotted around this relationship.<sup>18</sup>

#### *Main Independent Variable—Regressive Socioeconomic Distribution*

Regressive socioeconomic distribution reflects basic needs deprivation in the presence of economic development. Under such circumstances, we expect that the positive effects of development will be attenuated by higher levels of deprivation. Accordingly, to measure this concept, we interact two independent variables—basic needs deprivation (measured as the reciprocal of the average daily per-capita caloric consumption—the inverse of basic needs satisfaction) and the level of development (measured as the natural log of real GDP per capita in 1985 PPP dollars). The concept of basic needs satisfaction emerged as a critical response to conventional notions of development. Paul Streeten, one of many economists who questioned the centrality of growth in the study of development, argued that growth was essentially a means to an end, which he conceptualized as quality of life (Streeten 1981, 1994). To measure basic needs, analysts have focused on fundamentals like food, shelter, and essential services (Hoadley 1981:150; King 1998:485).

A number of indices of basic needs exist in the literature, including the Physical Quality of Life Index (PQLI) (Morris 1979; London and Williams 1988), the World Index of Social Progress (Estes 1984; London and Williams 1988), and more recently the Human Development Index (HDI) (Streeten 1994:235; United Nations Development Program 2003). While useful for cross-sectional

<sup>18</sup> When the 95% confidence bands do not straddle zero (the  $x$ -axis), the marginal effect of needs deprivation is significant for a given level of development; when the bands straddle the  $x$ -axis, the marginal effect is essentially zero (Brambor, Clark, and Golder 2006).

analyses, these indices have lower utility for our purposes because they either have not been updated (PQLI) or do not provide adequate data coverage for our cases. Other researchers have used individual components of these indices, such as life expectancy, infant mortality and physicians per capita, to investigate basic needs levels (London and Williams 1988; Stokes and Anderson 1990; Firebaugh and Beck 1994).<sup>19</sup> Several scholars have settled on food supply as the best single indicator of basic needs satisfaction (Wimberley and Bello 1992; Jenkins and Scanlan 2001).

We use per-capita food supply in our analyses for several reasons. First, there is no more important basic need than food (Wimberley and Bello 1992; Jenkins and Scanlan 2001:719). Streeten puts it in stark terms when he notes that “people must eat, even if they drink unsafe water, are illiterate, and are not inoculated or vaccinated against disease” (Streeten et al. 1994:57). Second, food supply is more responsive to changing circumstances. For example, life expectancy, infant mortality, basic education, and physicians per capita are fairly constant in the short term, except in response to catastrophic conditions. Food supply, on the other hand, will vary in the short term in response to moderate economic changes.

Last, food supply has certain properties that make it attractive in terms of understanding distribution of resources across society even when it is enumerated on a per-capita basis. Other measures of basic needs satisfaction, like physicians per capita or newborn survival can increase in a seeming show of progress. However, such increases hide unequal distribution of benefits just as a rise in GDP per capita might (Streeten et al. 1994:235). For many measures, an increase in a variable’s mean tells us little about its distribution. Some variables, however, have physical or biological limits, and in such cases increases in the mean tell us something significant and unambiguous about their distribution. Daily per-capita food consumption measured in caloric terms is precisely this kind of measure.

Sociologists recognize that increases in food supply per capita are tied to an increase in the welfare of the poorer groups in society (Wimberley and Bello 1992:901; Firebaugh and Beck 1994:640). Recently, Bowman (2002) has argued that per-capita food supply is a good indicator of equality, because the richest members of any society do not substantially consume a greater number of calories as their wealth increases. In this respect, an increase in the average per-capita caloric supply likely benefits the poorest members of society. This suggests that food supply in per-capita caloric terms reveals information about the satisfaction of basic needs across society without directly measuring relative distribution.

Economists have shown that caloric consumption does not increase substantially as people become richer. Economic theory has long assumed that there is a saturation point beyond which the marginal utility of consuming additional units of staple goods can approach zero or, in rare cases, become negative (Zimmerman 1932; Houthekker 1957). Economists have not only looked at the income elasticity of food expenditure, but caloric consumption as well. The vast majority of these studies find a “wedge” between these two – income elasticity for food expenditure is higher than that for caloric consumption. This means that as people get richer they begin to spend money on adding more varied, attractive, and expensive foods as opposed to more calories (Behrman and Deolalikar 1989; Strauss and Thomas 1990; Rask 1991; Subramanian and Deaton 1996). At high levels of income, the income elasticity of calories will reach zero (and even decline for some individuals) (Logan 2003:8), but the income

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<sup>19</sup> For example, in our data set, the use of life expectancy, infant mortality data or HDI decreases the number of observations by between 60% and 85%, and more importantly, decreases the number of democratic breakdowns by between 72% and 92%, threatening our ability to draw defensible inferences. Our caloric supply variable, however, is strongly correlated with life expectancy (.73), human development (.80), and infant mortality (–.68).

elasticity of food expenditure only approaches zero (Ravallion 1990; Strauss and Thomas 1990; Subramanian and Deaton 1996). These elasticities imply that as the mean of daily per-capita caloric consumption rises, it is caused by those who have been underfed in the past getting more calories, and not because the rich are eating more calories.

We collected food data from United Nations sources (FAOSTAT 2001). The United Nations considers 2,300 calories per day to be an adequate level of calories for an individual. Obviously, given our discussion, a national per-capita average of 2,300 calories is not indicative of basic needs satisfaction for the population as a whole. For any one country, individuals will be arrayed around the country mean with some eating more and others eating less.<sup>20</sup> In our dataset, this daily per-capita caloric consumption ranged from a low of 1,602 calories per day in Ghana (1982) to a high of 3,711 calories per day in, ironically, Hungary (1990). The average consumption was approximately 2,798 calories per day with a standard deviation of 478.05.

The variable *basic needs deprivation* is the reciprocal of the average daily per-capita caloric consumption. We transform caloric consumption to account for changing marginal effects. In other words, an increase in caloric consumption at low levels will have a larger impact on democratic survival than that same movement when caloric consumption is already high. To operationalize the concept of RSD we use a multiplicative interaction of basic needs deprivation with economic development, that is, basic needs deprivation multiplied by *level of development*, or the natural log of GDP per capita in 1985 PPP dollars (Easterly and Yu 2001).<sup>21</sup> The nonlinear transformation of the food variable suggests that the sign on the interaction term coefficient will be negative, indicating that as deprivation occurs in the context of greater development, democratic survival is at greater risk of breakdown.<sup>22</sup>

#### *Control Variables*

Our models include a set of control variables that have been previously associated with democratic breakdown (Gasiorowski 1995; Power and Gasiorowski 1997; Przeworski and Limongi 1997; Gasiorowski and Power 1998; Przeworski et al. 2000; Bernhard, Nordstrom, and Reenock 2001; Cheibub 2002; Bernhard, Reenock, and Nordstrom 2003, 2004; Boix 2003; Boix and Stokes 2003; Lai and Melkonian-Hoover 2005). To account for the effect of poor economic growth on democratic survival, we include *economic performance*, coded as the annual change in real GDP per capita in 1985 PPP dollars (Easterly and Yu 2001). Since we expect *ethnic and religious diversity* to complicate the process of maintaining democracy, we used Rae and Taylor's (1970) fractionalization index to capture this dimension. We calculated an index for both religion and ethnicity in each country, but since the

<sup>20</sup> For example, a study from a poor agricultural region in India reports a mean consumption of 2,000 calories with the richest tenth eating around 3,000 calories per day and poorest tenth eating around 1,400 calories (Subramanian and Deaton 1996). Therefore, even if calorie supply surpasses the UN subsistence level of 2,300, some people will experience deprivation because richer populations eat above the per capita daily mean. Generally speaking, food supply distribution tends to approximate normality within countries. However, while wealthy segments of society may eat at substantially higher levels than the typical citizen, their number is small relative to poor- and middle-class citizens. As a result, deviations from normality will be positively skewed but small (Migotto, Davis, Caretto, and Beegle 2006).

<sup>21</sup> All findings reported here are robust for both the linear specification and natural log transformation of the food variable.

<sup>22</sup> As an additional check on the validity of our measure of increased mass demands and elite resistance to them, we also regressed our measures on incidents of domestic political conflict. Using Banks's (1979) data on domestic conflict, we estimated several event count models in which the dependent variables were the number of riots, strikes, and demonstrations. The results suggested that RSD significantly promotes domestic conflict in the form of riots and demonstrations although not strikes, further increasing our confidence in the measure's validity.

data was only available by decade, it is constant throughout each 10-year period (Singer 1997; supplemented by national statistical annuals). In order to control for the possible negative effects of *presidentialism* on democratic survival, we included a dichotomous variable for presidentialism (presidential = 1, other = 0) according to Sartori's (1994:84) definition. In order to control for the possible negative effects that *party fractionalization* in legislatures could have for democratic survival; we used the Laakso and Taagepera (1979) index to calculate the effective number of parties in the legislature. To control for the potential impact of participation in the global economy on democratic survival we included a variable for *trade openness*, measured as  $(Imports + Exports)/GDP$  (Li and Reuveny 2003). Last, to control for the possibility that lessons learned from previous democratic episodes may promote democratic survival (Huntington 1991:47), we included a variable, *past attempts*, which reflects, at any time  $t$ , the cumulative sum of a country's prior episodes of democracy (e.g., Turkey from 1983 forward was scored a two to reflect its two prior democratic episodes).

### Results

We begin by presenting descriptive information about basic needs satisfaction, level of development and democratic survival. In general, basic needs satisfaction varies substantially among democracies at all levels of development. For democracies below \$2,000 GDP/capita, the mean supply is 2,214 calories per day with a standard deviation of 307, while democracies with a GDP/capita between \$2,000 and \$5,999 have not only a higher mean food supply at 2,718 calories, but also a wider standard deviation of 382, suggesting greater diversity in levels of needs satisfaction among mid-level democracies. Democracies with a GDP/capita of over \$6,000 have a mean daily caloric supply of 3,119 calories with a standard deviation of 290 calories. These data suggest that while, in general, democracies respond to increased development by seeing to their citizens' basic needs, there is nevertheless variation within each of level of development, suggesting that daily caloric consumption is not simply a function of development, although the two are correlated (.71).

With respect to our proposition that RSD threatens democratic survival, we expect that higher levels of deprivation will attenuate the positive effects of development. The descriptive data below, which consider conditional hazard probabilities, or the ratio of breakdowns to survivors, lend support to this claim. At the lowest levels of development (<\$2,000), those democracies with high needs deprivation (<2,300 calories) have conditional hazard probabilities of 0.086, compared with 0.037 for those with only moderate deprivation (2,300–3,200 calories). This pattern holds among democracies at middle development (between \$2,000 and \$5,999) as well, with those experiencing severe needs deprivation having higher conditional hazard probabilities (0.024) compared with (0.013) those with only moderate deprivation. Of course, at the highest levels of development (over \$6,000) there are no breakdowns and needs deprivation is rare. This may well explain why democracies are immune to breakdown at this level; they are seeing to their citizens' basic needs. On the whole, the descriptive data above reveal that for both low and moderately developed democracies, those that less effectively provide for their citizens' basic needs have higher conditional probabilities for breakdown. While these data are supportive of our argument, in order to properly test our theory, we turn to multivariate analysis.

We present the results of our multivariate analyses in Table 1. In the base model (1), we find that economic development and economic growth both have beneficial effects on democratic survival. These results confirm the general expectations of the literature. Among our other control variables, only religious fractionalization and trade openness have an impact on democratic breakdown,

TABLE 1. Hazard Models (Weibull) for Needs Deprivation's Effect on Democratic Survival

<i>Variable</i>	<i>Model 1 (base)</i>	<i>Model 2 (complete)</i>	<i>Model 3 (corrected)</i>
GDP per capita (logged)	1.059*** (0.212)	3.930*** (0.917)	5.011*** (1.507)
Economic growth	5.446** (2.806)	4.834* (2.559)	5.610** (2.807)
Presidentialism	-0.177 (0.296)	-0.236 (0.279)	-0.299 (0.372)
Effective no. parties	-0.065 (0.107)	-0.019 (0.112)	-0.037 (0.110)
Religious fractionalization	-1.453** (0.724)	-1.888*** (0.791)	-1.870** (0.916)
Ethnic fractionalization	-0.651 (0.878)	0.304 (0.910)	-0.103 (1.050)
Past attempts at democracy	0.0003 (0.286)	0.021 (0.375)	0.173 (-0.428)
Trade openness (current dollars)	0.012* (0.006)	0.015** (0.006)	0.015** (0.006)
Basic needs deprivation (1/caloric consumption)	-	46,361.740*** (14,024.210)	69,646.150** (27,432.920)
Basic needs deprivation * GDP per capita (logged)	-	-6,663.320*** (2,027.690)	-9,272.930*** (3,414.580)
Constant	-3.820* (2.294)	-24.744*** (7.405)	-32.821*** (12.133)
Duration parameter	1.319	1.421	1.35
Log likelihood	-72.543	-67.201	-66.557
Log likelihood (constant only model)	-120.35	-120.35	-120.35
No. democratic spells	120	119	118
No. observations (country-years as democracies)	1,726	1,722	1,720

Robust standard errors in parentheses. Standard errors are clustered on country.

\* $p < .10$ , \*\* $p < .05$ , \*\*\* $p < .01$  (two-tailed tests).

with more religiously fractionalized and more autarkic democracies being less likely to endure. Ethnic fractionalization, a fragmented legislature and a presidential system of government do not independently affect the likelihood of breakdown. Model 1 performs significantly better than the constant-only model, suggesting that our variables are contributing to an explanation of the survival of democratic regimes.<sup>23</sup> The results in this base model conform closely to other studies of democratic survival.

The second model in Table 1 contains our measure of basic needs deprivation as well as its interaction with development.<sup>24</sup> The results provide support for our hypothesis. The coefficient on the natural log of *GDP* is positive and significant suggesting that in the complete absence of needs deprivation, development enhances a democracy's survival. The coefficient on the variable *Basic Needs Deprivation* is positive, suggesting that in the absence of any economic development (i.e., setting *GDP* per capita to zero), basic needs deprivation actually enhances a democracy's survival.<sup>25</sup> The coefficient on the interaction term is negative and significant, suggesting that basic needs deprivation attenuates the positive benefits of development on democratic survival. This confirms our expectation about the impact of regressive socioeconomic development.<sup>26</sup> Given that the marginal

<sup>23</sup> A likelihood ratio (LR) test of the base model compared with the constant-only model suggests that the base model fits the data significantly better ( $p < .01$ ). With eight degrees of freedom, a LR of 95.62 [2 (120.35–72.54) = 95.62] exceeds the critical chi-square value of 20.01, for ( $p = .01$ ).

<sup>24</sup> A likelihood ratio test of Model 2 (with the addition of both basic needs and the interaction term) compared with Model 1 suggests that Model 2 fits the data significantly better than Model 1 ( $p < .01$ ). With two degrees of freedom, a LR of 10.68 [2 (72.54–67.20) = 10.68] exceeds the critical chi-square value of 9.21, for ( $p = .01$ ).

<sup>25</sup> This interpretation is, however, misleading given that no democracies in our data have no national income. Moreover, as we will demonstrate below, given the conditional standard errors associated with the interaction term, the marginal effect of this variable is only significant above a given level of development, beyond which the effect of needs deprivation takes on the expected direction.

<sup>26</sup> We confirmed the robustness of our findings by replicating our models on the Alvarez et al. (1996) data set. These findings are available upon request.

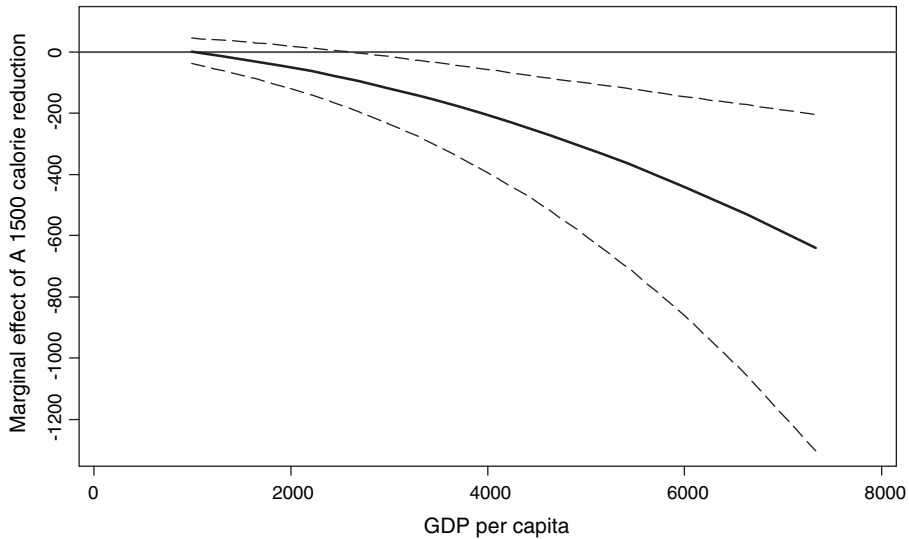


FIG. 3. Marginal Effect of Absolute Inequality on Expected Duration Across GDP per Capita (Expected Duration Measured in Years)

effect of basic needs deprivation and its associated standard error vary with development, we also provide estimates of its marginal effect over a range of development in Figure 3.

Figure 3 provides the estimates of the marginal effect of a 1,500-calorie reduction on the expected duration of democratic regimes (in years), along with 95% confidence intervals for this effect, given conditional standard errors. The figure suggests that the negative marginal effect of the failure to meet basic needs becomes stronger as a state becomes wealthier. However, the marginal effect of meeting basic needs is only statistically significant beyond approximately 2,300 per capita. This finding confirms that as democracies reach mid-level development, attention to needs deprivation becomes increasingly critical to their survival. At high levels of development, there is little needs deprivation. Thus, while the figure implies that even at higher levels of development, a similar caloric difference would strongly enhance the propensity for breakdown, this is an out-of-sample prediction, given that we simply do not observe such caloric differences among these democracies. Therefore, this figure only displays the estimated marginal effects over the range of development where a 1,500-calorie difference is observable in our data.

The control variables in Model 2 show results that are similar to the base model. High levels of wealth, growing economies, trade openness, and religious homogeneity all increase the survival of democracies. While Model 2 provides support for our hypothesis, it is possible that the results are being driven by endogeneity between democracy and basic needs satisfaction. Some empirical research suggests that as democracies survive and develop, they become more egalitarian (see Hewitt 1977; Rubinson and Quinlan 1977; Weede 1982; Bollen and Jackman 1985; Muller 1988; Burkhart 1997; Bowman 2002).<sup>27</sup> And indeed,

<sup>27</sup> We ran an additional test to assure ourselves that high development on its own did not account for our findings. We estimated our model on the low- and middle-developed democracies (less than \$6,000 [1985 PPP] per capita) without the interaction term. In these models, basic needs satisfaction was significant, suggesting that it explains the survival of these democracies.



we would expect highly developed democracies to meet the basic needs of their people.

Model 3 estimates a two-stage regression, which accounts for any endogeneity between democratic survival and basic needs deprivation. The first stage estimated a time series cross-sectional (TSCS) regression with basic needs deprivation as the dependent variable on all of the exogenous variables in the system. We used this to create an instrument for basic needs deprivation in the second stage in Model 3. Our findings are robust even with accounting for endogeneity between democratic survival and basic needs. Both basic needs deprivation and its interaction with the level of development are statistically significant in the predicted direction. In particular, the marginal effect of basic needs satisfaction would be larger in mid-range democracies.

### Conclusions

In this article, we reexamined the impact of socioeconomic distribution on democratic survival. We set out to explain an intriguing puzzle: if inequality is detrimental to the survival of democracy, why in the face of rising income inequality do many democracies appear to be in a period of stability unequalled in their histories? Boix's (2003) work on democracy and redistribution leads one to believe that this stability is a function of low asset specificity. Under such conditions, capital is more mobile and politicians must be careful about proposing too much redistribution for fear of provoking capital flight. Yet, such a model cannot account for the empirical findings reported here. Boix's theory suggests that in the presence of extreme socioeconomic inequality, countries that have more mobile forms of capital should be more stable than their counterparts with more fixed assets. Our results suggest quite the opposite. We find that patterns of regressive socioeconomic distribution, or basic needs deprivation in the presence of greater development (one of Boix's measures of asset mobility), are destabilizing.<sup>28</sup> We thus have an alternate explanation for the puzzle that motivated this research—income inequality is not destabilizing to developed democracies because they are meeting the basic needs of their citizens.

Our solution to this puzzle also explains why previous attempts to test the broadly held proposition that there is a negative relationship between income inequality and democratic survival have yielded only inconsistent results. In this regard, we built upon two insights in the literature on inequality and deprivation previously unlinked to democratic survival. First, Sen's (1992) insight that all forms of inequality do not necessarily have the same impact forced us to reexamine how theory, concepts of distribution, and measures had been used in previous studies. Second, Gurr's (1970) work was essential to our recognition that developmental context shapes actors' motivations. In tandem, these insights led us to understand that relative conceptions of distribution only intermittently reflect the conditions under which more radical demands for redistribution and elites more prone to resist them are likely to emerge. In its place, we adopted a more appropriate absolute conception, basic needs satisfaction, and contextualized it with our concept of regressive socioeconomic distribution. With this new approach, we find evidence to support the fundamental notion that socioeconomic distribution is important for democratic survival.

Our work also sheds light on one of the perpetual mysteries in comparative politics: why is there such a strong correlation between democracy and development (Barro 1997:52; Landa and Kapstein 2001:267-272)? Our results suggest that the answer, in part, is that when properly channeled, the social surpluses

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<sup>28</sup> In fact, the results reported here are robust if for GDP per capita we substitute two other indicators of asset mobility: rural population as a percentage of the total and average years of schooling for the adult population.

that accompany greater development alleviate basic needs deprivation, lowering the prospects for breakdown. At low levels of development there is no potential to address problems of basic needs deprivation, explaining why poor democracies seemed doomed to fail. At the middle level of development, where prospects for democratic survival are uncertain, if basic needs remain unmet in the face of new possibilities to meet them, democracy will be imperiled. Such patterns of regressive socioeconomic distribution pose a powerful threat to the survival of developing democracies. Of course, at high levels of development, deprivation is almost nonexistent, explaining, in part, the resilience of democracy. Taken together our theory and findings offer new insights into how development contributes to democratic survival.

From a policy perspective, the results reported here suggest that economic development alone will not automatically protect democracy from breakdown. Economic development needs to be channeled in such a way as to increasingly meet the basic needs of society. Our findings group us with an increasing number of authors who have begun to criticize the “Washington Consensus” (i.e., Rodrik 1999; Stiglitz 2003) for its overemphasis on economic development while downplaying issues of socioeconomic distribution. In fact, if internationally sponsored austerity measures make it more difficult to see to society’s basic needs, our findings indicate that this may well hasten the breakdown of the very kinds of regimes that international financial authorities seek to promote. In this regard, our results echo Rudra’s (2005) on the negative impact of globalization, absent adequate social protection, on the quality of democracy. Negotiating the tension between what promotes growth and what promotes democracy is challenging, particularly with constrained resources. Efforts to promote both democracy and material well-being require further research to understand why some countries are more effective at meeting basic needs at lower levels of development while not provoking anti-democratic reactions by elites.

### Appendix A: Democratic Episodes in the Data Set from 1961 to 1995

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Andorra 1993–1995	Costa Rica 1961–1995	Ireland 1961–1995
Antigua and Barbuda 1981–1995	Czech Rep. 1992–1995	Israel 1961–1995
Argentina 1984–1995	Czechoslovakia 1990–1991*	Italy 1961–1995
Australia 1961–1995	Denmark 1961–1995	Jamaica 1963–1995
Austria 1961–1995	Dominica 1978–1995	Japan 1961–1995
Bahamas 1973–1995	Dominican Rep. 1963, 1978–1995	Kenya 1963–1966
Bangladesh 1991–1995	Ecuador 1979–1995	Latvia 1993–1995
Barbados 1966–1995	El Salvador 1991–1995	Lithuania 1991–1995
Belgium 1961–1995	Estonia 1992–1995	Luxembourg 1961–1995
Belize 1981–1995	Finland 1961–1995	Macedonia 1991–1995
Benin 1961–1962, 1991–1995	France 1961–1995	Madagascar 1961–1971, 1993–1995
Bolivia 1982–1995	Gambia 1966–1994	Malawi 1994–1995
Botswana 1966–1995	Germany 1961–1995	Malaysia 1959–1969
Brazil 1961–1964, 1986–1995	Ghana 1969–1972, 1979–1982	Mali 1992–1995
Bulgaria 1990–1995	Greece 1975–1995	Malta 1964–1995
Burkina Faso 1978–1980	Grenada 1974–1979, 1984–1995	Mauritius 1968–1995
Burundi 1993	Guyana 1992–1995	Moldova 1994–1995
Canada 1961–1995	Haiti 1995	Mongolia 1992–1995
Cape Verde 1991–1995	Honduras 1990–1995	Mozambique 1994–1995
Chad 1961–1962	Hungary 1990–1995	Myanmar 1961–1962
Chile 1961–1973, 1990–1995	Iceland 1961–1995	Namibia 1990–1995
Colombia 1974–1995	India 1961–1975, 1977–1995	Nepal 1991–1995
Congo 1961–1963, 1992–1993		

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### Appendix A: Continued

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Netherlands 1961–1995	St. Lucia 1979–1995	Switzerland 1971–1995
New Zealand 1961–1995	St. Vincent 1979–1995	Taiwan 1992–1995
Nicaragua 1990–1995	Sao Tome 1991–1995	Tanzania 1961– <b>1962</b>
Niger 1993–1995	Seychelles 1993–1995	Thailand 1975– <b>1976</b>
Nigeria 1961– <b>1966</b> , 1979– <b>1983</b>	Sierra Leone 1962– <b>1967</b>	Trinidad 1962–1995
Norway 1961–1995	Slovakia 1992–1995	Turkey 1961– <b>1971</b> , 1973– <b>1980</b> , 1983–1995
Papua New Guinea 1977–1995	Slovenia 1990–1995	Uganda 1962– <b>1966</b>
Panama 1994–1995	Solomon Islands 1978–1995	Ukraine 1991–1995
Paraguay 1993–1995	Somalia 1961– <b>1969</b>	United Kingdom 1961–1995
Peru 1980– <b>1992</b>	South Africa 1994–1995	United States 1961–1995
Philippines 1953– <b>1972</b> , 1987– 1995	South Korea <b>1961</b> , 1988–1995	Uruguay 1961– <b>1973</b> , 1985–1995
Poland 1989–1995	Spain 1978–1995	Vanuatu 1980–1995
Portugal 1976–1995	Sri Lanka 1961– <b>1983</b>	Venezuela 1961–1995
Romania 1992–1995	Sudan 1965– <b>1969</b> , 1986– <b>1989</b>	Zambia 1991–1995
Russia 1993–1995	Suriname 1975– <b>1979</b> , 1988– <b>1989</b> , 1991–1995	
St. Kitts and Nevis 1983–1995	Sweden 1961–1995	

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\*Termination by voluntary partition, not breakdown.

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