DEMOCRACY, ECONOMIC DEVELOPMENT, AND INCOME INEQUALITY*

EDWARD N. MULLER
University of Arizona

Most cross-national tests of inverse association between democracy and inequality have operationalized the concept of democracy by measuring its level at a single point in time. More compelling theoretical arguments can be made for causal relationships that operate over time between (1) a country's years of democratic experience and income inequality; and (2) income inequality and the stability of democracy. Continuous and qualitative measures of years of democratic experience are estimated to have a significant negative impact on income inequality independent of economic development and other control variables for a sample of 55 countries. A very strong inverse correlation is also observed between income inequality and regime stability for a sample of 33 democracies. This association holds independent of economic development, which is found to have no direct effect on democratic stability after controlling for income inequality.

Since the early 1970s, when data on the distribution of personal income within nations at differing levels of economic development first became available, the hypothesis of an inverse relationship between political democracy and income inequality has been subjected to many cross-national tests. Most studies have focused on whether a country's level of political democracy has a negative effect on the extent of income concentration in the hands of the few, controlling for level of development. Results have been inconsistent. Rubinson and Quinlan (1977), Stack (1978), and Weede (1982) report support for the hypothesis of a negative effect of level of democracy on income inequality. Weede and Tiefenbach (1981a) report both support and lack of support for it across different samples. Bollen and Grandjean (1981) find no support for it.

Of course, if democracy and inequality are related, the causal influence could run in the other direction: inequality could have a negative effect on democracy. Rubinson and Quinlan (1977) and Bollen and Jackman (1985) have estimated models of reciprocal causation in which level of democracy and income inequality are stipulated as both cause and effect of each other. In the context of these simultaneous equation models, which include a control for economic development, Rubinson and Quinlan find evidence only of a negative effect of inequality on level of democracy. Bollen and Jackman find no significant relationship in either direction, however.

Much of this research suffers from methodological problems (e.g., sample composition, reliability and validity of measurement, model specification), which have been reviewed by Bollen and Jackman (1985). Greater weight should probably be given to Bollen and Jackman's work because they used a larger sample (60 cases) than others. Their indicator of level of democracy is that developed by Bollen (1980), which is superior to those used by Rubinson and Quinlan, Stack, and Weede and Tiefenbach. Bollen and Jackman take into account the possibility of reciprocal causation. Thus, the most reliable current evidence indicates that level of democracy has no systematic effect on income distribution within countries and that income inequality has no systematic effect on the level of democracy within countries.

Previous research, regardless of its methodological strengths and weaknesses, may have been barking up the wrong tree, since any measure of level of democracy at a single point in time, no matter how reliable and valid, is insensitive to a country's experience of democracy over time. Yet it is precisely longitudinal variation in democracy, measured either by the number of years that democratic institutions have existed or by the stability of democracy over a given interval, that is most likely to be associated inversely, as cause or effect, with income inequality.

Research that focuses on level of political democracy implicitly assumes that democracy can have a more or less immediate effect on inequality. All countries with a high level of democracy are expected to have a relatively low level of income inequality, regardless of the length of time that democratic institutions have existed. But if the egalitarian influence of democracy is in reality a long-term incremental effect, then relatively new democracies should not be expected to be as egalitarian as older ones, even if they have the same level of

* Direct all correspondence to Edward N. Muller, Department of Political Science, University of Arizona, Tucson, AZ 85721.

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democracy in a given year. Thus, a reason for the failure to find a significant negative effect of level of democracy on income inequality could be the confounding influence of new, inegalitarian democracies. In such countries, sufficient time has not elapsed for the institutions of democracy, operating through mediating variables such as strong trade unions and socialist parties, to have exerted an egalitarian effect on the distribution of income. *Ceteris paribus,* the confounding influence of new but inegalitarian democracies should be a function of sample size. This problem might explain in part why the relatively large-sample tests of Bollen and Grandjean (1981), Bollen and Jackman (1985), and Weede and Tiefenbach (1981a), where the cases range from 43 to 60, find no significant negative effect of level of democracy on income inequality, while the relatively small-sample tests of Rubinson and Quinlan (1977), Stack (1978), Weede (1982), and Weede and Tiefenbach (1981a), where the cases range from 20 to 36, do report such an effect.[1]

If one accepts the argument that a relatively immediate causal effect of democracy on inequality is implausible, then one must reject the use of measures of level of democracy in research on the relationship between democracy and inequality. This has been recognized by Hewitt (1977, pp. 456–57), who proposed an index of a country's years of democratic experience as the more appropriate way of operationalizing the democracy concept. For an idiosyncratically defined sample of 25 "industrialized" nations (all of which except South Africa had experienced at least some years of democratic government),[2] Hewitt found a relatively strong negative bivariate correlation between years of democracy and the size of the share of personal income received by the richest quintile ($r = -.57$). The effect of years of democracy on income inequality was not statistically significant, however, after controlling for level of economic development.

To properly test for the presence of a negative effect of years of democratic experience on income inequality, independent of level of economic development, one should not restrict the sample to democracies and/or to economically developed countries only. This paper performs a global test of the years of democratic experience hypothesis and also evaluates the relationship between years of democracy and income inequality in comparison with that between level of democracy and income inequality. Level of economic development must be controlled for, since there are well-established relationships between it and both income inequality (an inverted U-curve—see Ahluwalia 1974, 1976; Bornschier and Chase-Dunn 1985; Kuznets 1955, 1963; Lydall 1979; Paukert 1973; Weede 1980; Weede and Tiefenbach 1981b; World Bank 1980) and level of democracy (a positive monotonic relationship—see Adelman and Morris 1967; Bilson 1982; Bollen 1979; Coleman 1960; Dahl 1971; Jackman 1973; Olsen 1968; Russett 1965). Moreover, relatively strong association also should obtain between level of economic development and years of democracy, since almost all old democracies have very high levels of economic development.

Turning to the other side of the coin, research on the question of a negative effect of income inequality on democracy has failed to recognize that two different hypotheses can be formulated. One involves the question of *genesis*: Is a relatively egalitarian distribution of income a precondition for the inauguration of political democracy? The other involves the question of *stability:* Given that a democratic political system has been established, does a relatively egalitarian distribution of income increase the likelihood of maintaining regime stability over time?

Rubinson and Quinlan (1977) focused on the genesis hypothesis. They reasoned that a relatively egalitarian income distribution reflects the rise of a strong and autonomous bourgeoisie, which strives to establish parliamentary democracy in order to convert its economic power into commensurate political power (also see Moore 1966). Therefore, Rubinson and Quinlan postulated that a country's level of democracy will vary as an inverse monotonic function of income inequality, since countries with low income inequality, indicative of a strong middle class, will be more likely to establish democracy than those with high income inequality, where the middle class is presumably weak.

Proper testing of this version of the argument that inequality will have a negative effect on democracy requires measuring income inequality before or at least contemporaneously with the inauguration of democracy. Moreover, since countries differ greatly in the timing of the inauguration of democracy, a measure of the level of democracy that exists across all nations in the same year is an inappropriate indicator of

[1] Weede and Tiefenbach (1981a) conducted a relatively small sample test using data from Paukert (1973), where the number of cases was 34. They conducted relatively large sample tests using data from Ahluwalia (1974) and Bornschier and Heintz (1979), where the number of cases was 43 and 46, respectively. The study by Rubinson and Quinlan (1977) reported a significant negative effect of level of democracy on income inequality only for a recursive model.

[2] Democracy is defined by the presence of an elected executive or an executive responsible to an elected assembly, universal manhood suffrage, and a secret ballot. Years of democratic experience is measured by the number of years during which these conditions have been fulfilled, less any period of authoritarian rule or foreign military occupation.

the dependent variable in the genesis hypothesis. Thus, tests of the genesis hypothesis that use inequality data for a relatively narrow slice of time and level of democracy measured for a single year are beside the point. The tests performed in the context of nonrecursive models by Rubinson and Quinlan (1977) and Bollen and Jackman (1985) are subject to this criticism.

The second version of the argument that inequality will have a negative effect on democracy concerns the relationship between income inequality and the stability of democracy. The stability hypothesis cannot be tested by analysis of the relationship between income inequality and the level of democracy in a country at a single point in time. The key to effective testing of it is a measure of democratic stability that is not confounded with level of democracy. Jackman (1974, p. 43) and Bollen (1980, pp. 382–84) have correctly pointed out that the index of democratic political development constructed by Cutright (1963) is an inappropriate measure of level of democracy because it confounds variation in stability with variation in level. For the same reason, it is an inappropriate measure of regime stability. The measure of democratic stability to be used here is a binary variable, according to which all countries that were democracies in 1960 are classified as unstable if during the next 20 years they experienced a transformation to an authoritarian regime because of a military or executive coup, fraudulent elections or the imposition of long-term restrictions on political liberty, or the outbreak of civil war. Otherwise, they are classified as stable. Thus, level of democracy is initially constant and subsequent variation in level is identical to variation in stability. The tests for a negative effect of income inequality on democratic stability will control for an important possible alternative cause, level of economic development (see Lipset 1959, 1981).

RESEARCH DESIGN

An effective research design for testing hypotheses about crossnational relationships between democracy, economic development, and income inequality must confront three methodological problems present in previous work (see Bollen and Jackman 1985, pp. 440–42): specification error, small sample size, and unreliable/invalid measurement of democracy and income inequality.

Specification Error

The most common kind of specification error in tests of the hypothesis of a negative effect of democracy on income inequality results from failure to allow for reciprocal causation between democracy and inequality variables measured at approximately the same time. If level of democracy is replaced by years of democracy, however, the possibility of simultaneity bias is reduced because years of democracy are calculated from the date of the inauguration of democracy and measurements of income inequality are observed for an interval of time after the inaugural date of democracy. This does not eliminate the problem, since simultaneity bias could still be present if income inequality caused democracy to be inaugurated in the first place, and if income inequality remained essentially constant after the inauguration of democracy. In the case of old democracies, where the lag period between the inauguration of democracy and the observation of income inequality is more than a generation, it is reasonable to assume that some nontrivial change in income inequality has occurred. Of course, this assumption cannot be made for the relatively new democracies. Nevertheless, simultaneity bias is not a problem in regard to them if one assumes that there is little or no causal relationship between income inequality and the genesis of democracy.

The alternative hypothesis of a negative effect of income inequality on stability of democracy can be tested by measuring the two variables over the same interval. To infer causality, the inequality observations must precede or be simultaneous with the date of an instability event.

The other kind of specification error entails the form of the relationship between level of economic development and income inequality. Since it is nonlinear, the critical question of whether democracy affects inequality independent of level of economic development cannot properly be assessed if the relationship between economic development and inequality is represented as a montonic function. This problem only affected research in the 1970s, before Weede (1980) called attention to it.

Sample Size

Previous research on inequality and democracy has typically stipulated that the relevant population is all self-governing political units with market economies.[3] Data on income distribution have been reported for a majority of self-governing noncommunist states since the early 1960s, although the comprehensiveness of the coverage varies by region.[4] A reasonably large

[3] Countries with centrally planned economies are excluded because it is assumed that their data on income distribution are not comparable with data from countries with market economies (see Bollen and Jackman 1985, p. 442).

[4] It is good (two-thirds or more) for states located in Europe and North America, in Central and South

sample is one of at least approximately 50 cases.

Measurement of the Variables

Data on income distribution are heterogeneous in regard to the timing of the observations, the definition of the income recipient, the proportion of the population covered, and the nature of the data collection procedure. Any attempt to assemble comparable data must consider each of these issues.

Previous studies have assumed that a country's income distribution changes slowly and that measurements of income inequality are reasonably comparable within an interval of approximately 20 years (Ahluwalia 1976; Bollen and Jackman 1985; Lecaillon, Paukert, Morrisson, and Germidis 1984; Paukert 1973). This assumption is debatable. In testing the hypothesis of a positive effect of years of democracy on inequality, a conservative assumption is that measurements of income inequality are reasonably comparable within an interval of 11 years (1965–75).

Estimates of income distribution are typically made for households and for individuals, defined either as individual members of the population or as economically active persons. These different units of income recipients are not necessarily comparable. The issue of comparability has been investigated by Lecaillon et al. (1984, pp. 25–35). They concluded that, at least in LDCs, incomes of economically active persons are usually somewhat more concentrated than those of households or individual members of the population but that indexes of concentration such as the Gini coefficient are approximately the same for distributions of income by households and by individual members of the population. The number of cases on which these comparisons are based is small, however. Therefore, it is advisable to control for the nature of the income recipient unit (see Bollen and Jackman 1985).

Finally, comparable measurement of income distribution crossnationally requires estimates for the total population obtained from representative national surveys instead of from income tax statistics.

Data on income inequality compiled for the period 1965–75 are listed by region in Table 1, which shows the distribution of scores on the two most commonly used measures: the size of the share of personal income received by the richest quintile, an indicator of concentration at the top of the distribution; and the Gini coefficient of concentration, an indicator of the extent to which the entire distribution deviates from perfect equality. The income recipient unit is, in general, the household; if data for households are not available in LDCs, however, then data on individuals are used. If more than one source and/or year is listed,[5] the income share is the average value. This sample of 55 countries encompasses approximately one-half of the 113 self-governing noncommunist countries that existed in 1965.[6]

A country's level of economic development is measured by energy consumption per capita in 1965 (from Ballmer-Cao and Scheidegger 1979).[7] This summary indicator is often used in preference to gross national product per capita because it avoids some of the comparability and exchange rate problems that occur when convert-

America, and in Asia. It is unsatisfactory (approximately one-third) for states located in the Middle East and North Africa and in Sub-Saharan Africa. If region were an important causal variable, differences in regional coverage would create a problem. Here, region is assumed to be an unimportant causal variable.

[5] The sources of the data are the World Bank (A—Ahluwalia 1976; J—Jain 1975; W—World Bank 1980–1985), the International Labour Organization (L—Lecaillon et al. 1984; P—Paukert 1973), the Organization for Economic Development and Cooperation (S—Sawyer 1976), and the United Nations Economic Commission for Latin America (C—Comisión Económica para América Latina 1983). Multiple observations were averaged if they were at least three years apart.

[6] This set of income-inequality measurements excludes data from several countries that were included in the study by Bollen and Jackman (1985). A 1966 measurement for Denmark is excluded because it is based on tax statistics, which tend to exaggerate inequality in comparison with data from population surveys (see Sawyer 1976, p. 23). A 1969 measurement for the Dominican Republic is excluded because it is from a survey carried out only in the capital city. A 1970 measurement for Ecuador is excluded because, although there is no indication of exactly how the data were obtained, they do not seem to be based on a sample survey (see Luzuriaga and Zuvekas 1983, p. 8). A circa 1970 measurement for Pakistan is excluded because the data seriously underestimate the incomes of higher income groups (see van Ginnekan 1976, p. 14). A 1970 measurement for Uganda is excluded because it refers only to African male wage-earners (a relatively small proportion of the population). Also, measurements for Liberia, Morocco, Niger, and Syria from a 1980 World Bank Memorandum have not been used because data for these countries were not reported in the first World Bank compendium of income distribution data (Jain 1975), nor do they appear in subsequent publications by the World Bank (World Development Report, annually 1980–85). Finally, data for five countries (Benin, Chad, Iraq, Lebanon, and Madagascar) are not used because they predate 1965.

[7] Data for Barbados and Gabon are from Taylor and Hudson (1972).

Table 1. Share of Personal Income Received by the Richest Quintile of Households/Individuals and Gini Coefficient

	Income Share of Upper Quintile, 1965–75				Income Share of Upper Quintile, 1965–75		
	(Source:Year)	%	Gini		(Source:Year)	%	Gini
Europe & N. America				*Middle East & N. Africa*			
Belgium	(W:75)	39.8	.30	Egypt	(A:65;W:74)	47.5	.39
Canada	(W:69)	41.0	.34	Iran	(L:71)	62.7	.52
France	(W:70,75)	46.4	.38	Tunisia	(A:70)*	55.0	.46
Germany, West	(S:70;W:74)	45.2	.36	Turkey	(A:68;W:73)	58.6	.49
Ireland	(W:73)	39.4	.30	*Sub-Saharan Africa*			
Italy	(W:69)	46.5	.38	Gabon	(A:68)*	67.5	.55
Netherlands	(W:67,75)	40.0	.30	Ivory Coast	(A:70)*	57.2	.49
Norway	(W:70)	37.3	.30	Kenya	(W:76)	60.4	.51
Portugal	(W:73–74)	49.1	.40	Malawi	(W:67–68)	50.6	.34
Spain	(A:65;W:74)	45.2	.36	Senegal	(L:70)	60.9	.47
Sweden	(W:72)	37.0	.29	Sierra Leone	(W:67–69)	52.5	.42
United Kingdom	(S:67;W:73)	39.2	.31	South Africa	(L:65)	58.0	.53
United States	(W:72)	42.8	.36	Sudan	(W:67–68)	49.8	.41
Central & S. America				Tanzania	(W:69)	50.4	.39
Argentina	(W:70)	50.3	.41	Zimbabwe	(L:69)	68.0	.57
Barbados	(J:69–70)*	44.0	.34	*Asia*			
Bolivia	(P:68)	61.0	.49	Australia	(W:66–67,75–76)	43.0	.34
Brazil	(W:72)	66.6	.56	India	(W:64–65,75–76)	49.2	.38
Chile	(W:68)	51.4	.43	Indonesia	(J:71)*	52.0	.39
Colombia	(L:74)	58.5	.48	Japan	(W:69)	41.0	.30
Costa Rica	(A:71)	50.6	.41	Korea, South	(J:66;L:70)	42.7	.33
El Salvador	(J:65–67,69)*	54.4	.46	Malaysia	(W:70,73)	56.4	.47
Guatemala	(C:70)*	58.8	.46	New Zealand	(S:65–66)	41.4	.31
Honduras	(W:67)	67.8	.57	Philippines	(W:70–71)	54.0	.43
Mexico	(A:69)	64.0	.52	Sri Lanka	(W:70;L:73)	44.5	.34
Nicaragua	(C:70)*	60.0	.51	Taiwan	(W:71)	39.2	.28
Panama	(W:70)	61.8	.54	Thailand	(L:69;W:75–76)	53.4	.44
Peru	(W:72)	61.0	.54				
Trinidad & Tobago	(W:75–76)	50.0	.42				
Uruguay	(A:67)	47.4	.40				
Venezuela	(W:70)	54.0	.47				

* Income recipient unit is the individual.

ing GNP to a common currency unit such as the U.S. dollar.

Also, following Bollen and Jackman (1985), I control for the proportion of the population that is young, as measured by the percentage 0–14 years of age (World Bank, vol. 2, 1983), and for world-system position, as measured by the classification of Snyder and Kick (1979) with revisions by Bollen (1983). Income inequality is expected to be related positively to youth of population and a semiperipheral or peripheral world-system position.

The most reliable and valid indicator of a country's level of democracy is Bollen's (1980) Political Democracy Index (PDI). Scores on the PDI range from 0–100 (low to high). The first column of Table 2 lists the 1965 PDI value for countries with information on income inequality during 1965–75.

The years of democratic experience for each of these countries can be calculated by determining the date when democracy was established and any years since when democratic rule was either interrupted temporarily or replaced by a nondemocratic regime. For a functioning democratic regime to be established, (1) the executive must be elected or be responsible to an elected assembly in (2) at least two consecutive free and fair competitive elections in which (3) at least approximately a majority of the adult population has the right to vote, and during which (4) the rights of freedom of speech and assembly are respected.[8] If these criteria are fulfilled, then the date of the first election is the inaugural year of democracy, as listed in the second column of

[8] The first, third, and fourth criteria are standard components of contemporary definitions of democracy (cf. Bollen 1980, pp. 371–73; Dahl 1971, pp. 1–9; Hewitt 1977, pp. 456–57; Powell 1982, p. 3). The stipulation of at least two consecutive free and fair elections is included to eliminate transitory "experiments" in democracy whose duration is too brief to be considered a functioning regime.

Table 2. Bollen Political Democracy Index and Years of Democracy to Most Recent Date of Income Distribution Measurement

	Political Democracy Index, 1965	Date of Inauguration of Democracy	Interruptions/ Breakdowns of Democracy	Years of Democracy to:
Europe & N. America				
Belgium	100	1919	(1940–44)	1975: 51
Canada	100	1898		1969: 71
France	91	1875	(1940–44;1958)	1975: 94
Germany, West	89	1949		1974: 25
Ireland	97	1923		1973: 50
Italy	97	1946		1969: 23
Netherlands	100	1918	(1940–44)	1975: 52
Norway	100	1898	(1940–44)	1970: 67
Portugal	39	—		1974: 0
Spain	10	—		1974: 0
Sweden	100	1917		1972: 55
United Kingdom	99	1918		1973: 55
United States	92	1870		1972:102
Central & S. America				
Argentina	53	1916	(1930→*)	1970: 0[a]
Barbados	100	1961		1970: 9
Bolivia	36	—		1968: 0
Brazil	61	1945	(1955;1964→*)	1972: 17
Chile	97	1949	(1973→*)	1968: 19
Colombia	71	1974		1974: 0
Costa Rica	90	1949		1971: 22
El Salvador	72	—		1969: 0
Guatemala	40	1945	(1954→*)	1970: 8
Honduras	50	—		1967: 0
Mexico	75	—		1969: 0
Nicaragua	55	—		1970: 0
Panama	77	1960	(1968→*)	1970: 7
Peru	87	1956	(1962;1968–80*)	1972: 10
Trinidad & Tobago	85	1961		1975: 14
Uruguay	100	1919	(1933;1942;1973→*)	1967: 46
Venezuela	73	1958		1970: 12
Middle East & N. Africa				
Egypt	39	—		1974: 0
Iran	45	—		1971: 0
Tunisia	64	—		1970: 0
Turkey	76	1950	(1960–61;1971–73;1980→*)	1973: 18
Sub-Saharan Africa				
Gabon	45	—		1968: 0
Ivory Coast	46	—		1970: 0
Kenya	58	—		1974: 0
Malawi	58	—		1968: 0
Senegal	54	—		1970: 0
Sierra Leone	75	—		1969: 0
South Africa	65	—		1965: 0
Sudan	38	—		1968: 0
Tanzania	63	—		1969: 0
Zimbabwe	—	—		1969: 0
Asia				
Australia	100	1892		1975: 83
India	91	1947	(1975–76)	1975: 27
Indonesia	10	—		1971: 0
Japan	100	1952		1969: 17
Korea, South	53	—		1970: 0
Malaysia	80	1957	(1969→*)	1973: 11
New Zealand	100	1879		1966: 87
Philippines	93	1946	(1972→*)	1971: 25
Sri Lanka	86	1948		1973: 25
Taiwan	23	—		1971: 0
Thailand	17	—		1975: 0

* Democracy replaced by an authoritarian regime.
[a] Reverts to zero because the last year of democracy occurred more than 20 years before the 1965–75 interval.

Table 2.[9] If the criteria for the establishment of a functioning democracy were not fulfilled at any time before 1975, no inaugural date of democracy is given.[10]

A country's years of democracy, listed in the fourth column, is calculated to the most recent date of the income-inequality measurement; it is the difference between that date and the inaugural year of democracy, less any years of interruptions or breakdowns of democracy.[11] Interruptions include the temporary suspension of democratic liberties, as well as periods when the government is controlled by a foreign power.[12] Breakdowns occur when democratic regimes are replaced internally by authoritarian rule or lose authority over a large proportion of the population due to civil war.

Countries with many years of democratic experience also tend to be politically stable countries. The years of democracy variable, therefore, will be correlated with general political system stability.[13]

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[9] Data from Table 2 of Hewitt (1977) have been used to determine the inaugural date in most countries where democracy was established before World War II. In *Australia, France, Ireland,* and *Sweden,* the inaugural date is the year when the executive was first elected or became responsible to an elected assembly. In *Argentina, Belgium, Canada,* the *Netherlands, New Zealand, Norway,* the *United Kingdom,* and the *United States,* it is the year when universal adult manhood suffrage was instituted (giving approximately a majority of the population the right to vote). In the case of *Uruguay,* the year given coincides with the constitution that went into effect in 1919 (see Weinstein 1975, pp. 58–65). Democracy was inaugurated in Germany in 1918, but Germany ceased to exist as a state in 1945; *West Germany* is treated as a new state, which became independent in 1949. Among the other post-World War II democracies, the inaugural dates are as follows: in *Barbados,* after full internal self-government was granted by Britain; in *Brazil,* when the civilian authorities first allowed a genuinely free and fair election to be held (see Wesson and Fleischer 1983, pp. 14–21); in *Chile,* when women were granted the right to vote (literacy restrictions were still in effect); in *Colombia,* after the expiration of the National Front Agreement (see Kline 1985, pp. 256–59); in *Costa Rica,* after the revolution of 1948; in *Guatemala,* after an authoritarian civilian government was overthrown by the military, which then sponsored a transition to democracy (see Schlesinger and Kinzer 1983, pp. 25–35); in *India,* after independence; in *Italy,* after Allied control was relinquished; in *Japan*, after American control was relinquished; in *Malaysia,* after independence; in *Panama*, when the civilian authorities first allowed a genuinely free and fair election to be held (see LaFeber 1979, pp. 132–59); in *Peru,* after a military government abdicated in favor of democratic rule (see Cotler 1978, passim); in the *Philippines,* after independence; in *Sri Lanka,* after independence; in *Trinidad and Tobago,* after full internal self-government was granted by Britain; in *Turkey,* when the civilian authorities first allowed a genuinely free and fair election to be held (see *Encyclopedia Britannica* 1966, vol. 22, pp. 610–11); in *Venezuela,* after a military government abdicated in favor of democratic rule (see Wiarda 1985, pp. 306–10). The principal general source consulted for information on the inauguration of democracy in countries not covered by Hewitt is the *Encyclopedia Britannica* (1966); useful supplementary general sources include Coleman (1960), Dahl (1971), Lijphart (1977), Powell (1982), and Rustow (1967).

[10] All countries defined as under democratic rule in 1965 on the years of democracy index also have 1965 PDI scores in the upper quarter of the scale (75 or more), except for Venezuela. All of the countries defined as not having inaugurated democracy have PDI scores in the lower three-quarters of the scale (< 75), except for Mexico and Sierra Leone. Venezuela, Mexico, and Sierra Leone are borderline cases, with PDI scores of 73, 75, and 75, respectively. Although a relatively high level of violence accompanied elections held in Venezuela during the late 1950s and early 1960s, country specialists such as Levine (1978), Martz (1968), and Wiarda (1985) judge them to have been competitive and free. By contrast, although scholars writing in the 1960s disputed the nature of the regime in Mexico (it was classified as semi-competitive by Coleman [1960] but as a democracy by Rustow [1967]), the current consensus, including the revised opinion of Rustow (1970, p. 349), is that Mexico under the PRI has a hegemonic party system (Sartori 1976, p. 234) that does not permit free and fair competitive elections (see, e.g., Stevens 1985, pp. 435–36). Sierra Leone was classified by Taylor and Hudson (1972) as having held an election in 1965 that displayed extreme deviation from the competitive and free norm. Moreover, since 1973 Sierra Leone has consistently received a rating by Gastil (1986) of only "partly free" in regard to political rights and civil liberties. El Salvador also is a borderline case, with a PDI score (72) about the same as Venezuela. In El Salvador, reasonably free and fair competitive elections for the legislature and the presidency were held in 1966 and 1967. But after 1967 the Central Council of Elections came under military influence and subsequent elections were rigged in favor of candidates preferred by the military (see McDonald 1985, pp. 537–38; Peterson 1968, p. 88). Therefore, El Salvador is not considered ever to have inaugurated a functioning democracy.

[11] In the case of Argentina, however, where democracy was inaugurated in 1916 and lasted until 1930, these years are discounted because they occurred so long before the measurement period for income inequality. Although democracy has not been effectively restored in Argentina since 1930, the current regime is democratic, and if it survives through a second free and fair election then a functioning democracy finally could be said to have been reestablished.

[12] Domestic interruptions of democracy occurred during the transition from a parliamentary to a presidential form of government in France in 1958; when the military intervened as an "arbitrator" during crises that occurred in Brazil in 1955, in Peru in 1962, and in Turkey in 1960–61 and 1971–73; when parliament was dissolved and constitutional reforms were promulgated by executive fiat and ratified by plebiscite in Uruguay in 1933 and again in 1942; and when Indira Gandhi proclaimed a state of emergency and suspended democratic liberties in India during 1975–76. Democracy was interrupted by German military occupation during World War II in Belgium, Denmark, France, Luxembourg, the Netherlands, and Norway.

[13] The years of democracy measure does not *confound* stability with democracy because stability is not part of

Political system stability can be measured by the number of years that a country has been governed under the rules of the current constitution (see Bollen 1980, p. 383), calculated as the difference between the most recent date of the income-inequality measurement and the inaugural year of the constitution (from Table 2.1 of Taylor and Hudson 1972). The correlation between years of democracy and age of constitution for the 55 countries listed in Table 2 is +.63. Since any stable political system might tend to have lower inequality, regardless of whether it is a democracy or not, system stability in general should be controlled for when testing the years of democracy hypothesis.

DEMOCRACY AND INCOME INEQUALITY

The first hypothesis predicts that a country's accumulated years of democratic experience will have a stronger negative effect on income inequality than the level of democracy that exists at a single point in time. The simple correlations between years of democracy and the two indicators of inequality, the size of the upper 20 percent income share and the Gini coefficient of concentration, are −.61 and −.55, respectively. By contrast, the respective correlations between the 1965 PDI and the indicators of inequality are −.43 and −.37. Although these bivariate results support the democratic-experience hypothesis, a plot of the inequality variables by years of democracy shows that the form of the relationship departs substantially from linearity and is best described as a reversed J-curve. Logging is one possible transformation, but it does not improve the fit. The correlations between the natural logarithm of years of democracy[14] and the inequality variables are −.56 and −.51, respectively. An alternative transformation is to classify the years of democracy variable into a set of rank-ordered categories: nondemocracies (no years of democratic experience); new democracies (less than a generation—20 years—of democratic experience): relatively new democracies (more than one but less than two generations of democratic experience): relatively old democracies (more than two but less than three generations of democratic experience); and very old democracies (three or more generations of democratic experience). The predictions about income inequality based on these ordinal categories of experience of democracy are (1) little or no difference in inequality between nondemocracies and new democracies; (2) progressively larger negative effects for relatively new and relatively old democracies; and (3) a negative effect for very old democracies of similar size to that for relatively old democracies.

Regressions of income inequality on level and experience of democracy are reported in Table 3. Individual Income, scored 1 for countries with measurements of income distribution by individuals and 0 for countries with measurements of income distribution by households, is controlled for in all equations. Individual Income is never statistically significant at even the .05 level, and its *t*-value is always very small (less than ± 1.0).

For the upper 20 percent income share, accuracy of prediction (R^2 adjusted for sample size and the number of explanatory variables) is twice as high for the equation with years of democracy (3.2a) compared with that for level of democracy (3.1a). For the Gini coefficient of concentration, R^2 is more than twice as high for the equation with years of democracy (3.2b) than that for level of democracy (3.1b). These results strongly support the argument that the egalitarian influence of democracy is a gradual process, resulting from a country's accumulated years of democratic experience, rather than a relatively immediate effect of the level of democracy in a given year.[15]

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the operational definition. According to the years of democracy measure, countries with many years of democracy are not necessarily stable and those with few years of democracy are not necessarily unstable. Uruguay is an example of an unstable democracy that nevertheless has had many years of democracy; Venezuela is an example of a stable democracy that nevertheless has had few years of democracy.

[14] An increment of 1 is added because the log of zero is undefined.

[15] The implicit assumption of the years of democracy measures is that what counts for reduction of income inequality is simply the presence or absence of democratic institutions over time, not variation in the extent to which democratic institutions maximize democratic procedures. However, it could be argued that the years of democracy measures lose important information because they are insensitive to variation in level of democracy. It is obviously not desirable to incorporate variation in level of democracy directly into the years of democracy measures, since this would entail a procedure like that of Cutright (1963), which confounds level and stability—or, more precisely, *years*—of democracy. But the question of the relevance of level of democracy separate from years of democracy can be tested empirically by including the PDI with years of democracy in additive and interaction models. When this is done, the following results are obtained: (1) a country's level of democracy has no effect on income inequality when included additively with continuous and qualitative measures of experience of democracy; (2) the multiplicative interaction term, PDI × Years of Democracy, raises R^2 by only a trivial amount relative to that for the Years of Democracy variable alone; (3) there is no change in R^2 for the multiplicative interactions of the PDI with the qualitative categories of democratic experience relative to that for the categories of democratic experience alone. These results indicate that level of democracy is irrelevant, once experience of democracy is taken into account.

Table 3. Regressions[a] of Income Inequality on Level of Democracy and Experience of Democracy

	Upper 20% Income Share, 1965–75			
	(3.1a)	(3.2a)	(3.3a)	(3.4a)
Intercept	59.71	60.54	58.47	58.32
Individual income	+3.09 (0.95)	+0.69 (0.23)	+0.29 (0.10)	+0.32 (0.11)
Political Democracy Index, 1965	−0.13** (−3.07)			
ln years of democracy		−2.01** (−3.21)		
Very new democracy			−0.024 (−0.01)	−0.04 (−0.02)
Relatively new democracy			−5.58** (−1.76)	−5.64** (−1.79)
Relatively old democracy			−12.85** (−3.09)	
Very old democracy			−10.64** (3.06)	
Old democracy				−11.84** (−4.30)
ln age of constitution		−1.87** (−2.13)	−1.31* (−1.51)	−1.25* (−1.47)
Adj. $R^2 =$ $(N=)$	.17 (54)	.34 (55)	.41 (55)	.42 (55)
	Gini Income Inequality, 1965–75			
	(3.1b)	(3.2b)	(3.3b)	(3.4b)
Intercept	0.49	0.50	0.48	0.48
Individual income	+0.031 (0.98)	+0.0089 (0.29)	+0.0036 (0.13)	+0.0040 (0.14)
Political Democracy Index, 1965	−0.0010** (−2.50)			
ln years of democracy		−0.017** (−2.69)		
Very new democracy			+0.0096 (0.39)	+0.0094 (0.39)
Relatively new democracy			−0.055** (−1.70)	−0.056** (−1.73)
Relatively old democracy			−0.12** (−3.48)	
Very old democracy			−0.09** (−2.52)	
Old democracy				−0.10** (−3.71)
ln age of constitution		−0.017** (−1.88)	−0.011* (−1.29)	−0.011 (−1.22)
Adj. $R^2 =$ $(N=)$	.12 (54)	.27 (55)	.35 (55)	.35 (55)

[a] t ratio in parentheses.
* $p \leq .10$, one-tailed.
** $p \leq .05$, one-tailed.

Scatterplots of the income inequality variables by years of democracy indicate that, on the average, at least approximately 20 years of democratic experience are required for the egalitarian effect to occur; a second generation of democratic experience enhances this egalitarian effect; and countries with three or more generations of democratic experience are about as egalitarian as those with two generations of democratic experience. Equations 3.3a and 3.3b replace the logged years of democracy measure by qualitative categories of democratic experience. The intercept is the expected level of income inequality for countries with no experience of democracy after the income recipient unit and the age of the constitution are controlled for. The regression coefficients for very new democracies are nonsignificant, which confirms the expectation that countries with less than a generation of democracy are no less inegalitarian, on the average, than nondemocracies. By contrast, the regression coefficients for relatively new democracies, relatively old democracies, and very old democracies are all significant and the differences in the magnitude of the effects are as expected, with both relatively old and very old democracies having about twice the egalitarian influence of relatively new democracies. Since there is little difference between the egalitarian effects of the relatively old democracies (Belgium, Denmark, Ireland, the Netherlands, Sweden, the United Kingdom, and Uruguay) and the very old democracies (Australia, Canada, France, New Zealand, Norway, and the United States), these are combined into the category 'Old Democracy' in equations 3.4a and 3.4b, where the nonsignificant Very New Democracy category is deleted. Comparison of R^2 for 3.4a/3.3a with 3.2a and for 3.4b/3.3b with 3.2b shows that accuracy of prediction is improved when the qualitative categories of democratic experience are substituted for the continuous measure.

The simple correlations between age of constitution (logged) and the two inequality variables, the upper 20 percent income share and the Gini coefficient of concentration, are $-.49$ and $-.45$, respectively. When this indicator of political system stability in general is controlled for, the years of democracy measures are always significant at the .05 level. Age of constitution also has significant negative effects on inequality in most of the equations, but they are typically weak, as indicated by the relatively small t-values.

The equations reported in Table 4 take into account the inverted U relationship between economic development and income inequality, as well as the proportion of young people in the population and world-system position. When the correct specification of the economic development effect is controlled for, level of democracy is estimated to have no significant effect on income inequality (4.1a and 4.1b). This result supports the conclusion of Bollen and Jackman (1985). By contrast, the continuous and qualitative measures of experience of democracy are estimated to have significant negative effects on income inequality independent of level of economic development (4.2a and 4.2b; 4.4a and 4.4b). These findings contradict that of no significant effect (for years of democracy) reported by Hewitt (1977). Since these results are based on a sample of 55 cases, they are more reliable than Hewitt's, which were based on a sample of only 18 cases with data on income inequality.

Including youth of population and world-system status in the equations reduces the number of cases to 50.[16] The experience of democracy measures again show significant negative effects on income inequality independent of youth of population and world-system status (4.3a and 4.3b; 4.5a and 4.5b). The results for youth of population and world-system status are consistent with those reported by Bollen and Jackman (1985): the former has a significant positive effect on inequality, while the latter has no effect.

The Individual Income variable again is not significant when level of economic development is controlled for (and is, therefore, deleted so as not to waste a degree of freedom when the population and world-system controls are introduced). Age of Constitution is significant in the equations with the continuous years of democracy variable (4.2a and 4.3a; 4.2b and 4.3b) but not when experience of democracy is expressed by qualitative categories and the control for level of economic development is introduced (4.4a; 4.4b).

The results of the equations estimated in Table 4 show that the inverse association between years of democracy and income inequality is not spurious due to level of economic development. This is an important finding, given the relatively close association that exists between the ln Energy Consumption p.c. and ln Years of Democracy variables ($r = +.67$).

INCOME INEQUALITY AND DEMOCRACY

The next question is whether income inequality has a negative causal effect on democracy. Previous research has addressed this question by estimating the effect of income inequality on

[16] Barbados, Malawi, Tanzania, and Zimbabwe are missing on the world-system classification; Taiwan is missing on population age structure.

Table 4. Regressions[a] of Income Inequality on Level of Democracy, Experience of Democracy, Economic Development, Youth of Population, and World-system Status

	Upper 20% Income Share, 1965–75				
	(4.1a)	(4.2a)	(4.3a)	(4.4a)	(4.5a)
Intercept	21.28	18.13	−13.09	30.63	1.52
Individual income	+2.13 (0.75)	+0.60 (0.21)		+0.25 (0.09)	
Political Democracy Index, 1965	−0.33 (−0.75)				
ln years of democracy		−1.22** (−1.71)	−1.01** (−1.64)		
Relatively new democracy				−5.29** (−1.77)	−4.79** (−1.83)
Old democracy				−8.16** (−2.40)	−6.29** (−2.10)
ln age of constitution		−1.36* (−1.51)	−1.05* (−1.38)	−1.03 (−1.15)	
ln energy consumption p.c., 1965	+13.28** (2.15)	+14.31** (2.36)	+16.74** (2.26)	+9.67* (1.53)	+12.65** (1.64)
ln energy consumption p.c.^{2}	−1.24** (−2.59)	−1.21** (−2.57)	−1.29** (−2.24)	−0.83** (−1.64)	−1.02** (−1.68)
% population < 15 years, 1965			+0.51** (3.32)		+0.42** (2.63)
Semiperiphery			−3.12 (−0.84)		−2.62 (−0.72)
Periphery			−1.18 (−0.29)		−0.72 (−0.18)
Adj. $R^2 =$ ($N =$)	.36 (54)	.41 (55)	.60 (50)	.44 (55)	.61 (50)

	Gini Income Inequality, 1965–75				
	(4.1b)	(4.2b)	(4.3b)	(4.4b)	(4.5b)
Intercept	0.008	−0.013	−0.23	0.12	−0.088
Individual income	+0.023 (0.80)	+0.0072 (0.25)		+0.004 (0.13)	
Political Democracy Index, 1965	−0.0003 (−0.66)				
ln years of democracy		−0.013** (−1.73)	−0.011** (−1.90)		
Relatively new democracy				−0.054** (−1.78)	−0.054** (−2.11)
Old democracy				−0.084** (−2.44)	−0.67** (−2.28)
ln age of constitution		−0.015** (−1.64)	−0.014** (−1.86)	−0.012 (−1.27)	
ln energy consumption p.c., 1965	+0.16** (2.50)	+0.17** (2.71)	+0.16** (2.17)	+0.12** (1.85)	+0.11* (1.50)
ln energy consumption p.c.^{2}	−0.014** (−2.80)	−0.013** (−2.77)	−0.011** (−2.01)	−0.0093** (−1.81)	−0.0085* (−1.43)
% population < 15 years, 1965			+0.0057** (3.83)		+0.0047** (3.03)
Semiperiphery			−0.024 (−0.66)		−0.017 (−0.49)
Periphery			−0.016 (−0.41)		−0.010 (−0.25)
Adj. $R^2 =$ ($N =$)	.27 (54)	.34 (55)	.59 (50)	.38 (55)	.59 (50)

[a] *t*-ratio in parentheses.
* $p \leq .10$, one-tailed.
** $p \leq .05$, one-tailed.

level of democracy in simultaneous-equation models. Such nonrecursive models are inappropriate, however, because they fail to correctly represent the causal processes involved. On the one hand, income inequality may have a negative impact on level of democracy because it reduces the likelihood of the inauguration of democracy. This is the genesis hypothesis. Proper testing of it requires that income inequality be measured either before or contemporaneously with the inauguration of democracy. Countries that inaugurated democracy long before the timing of inequality measurements would have to be excluded. On the other hand, income inequality may have a negative impact on level of democracy because it reduces the likelihood of the stability of democracy. Proper testing of this stability hypothesis requires that income inequality be measured either before or contemporaneously with the breakdown of democracy. Countries that are not democracies should be excluded because the stability of democracy hypothesis refers to democracies only, and inclusion of nondemocracies in the analysis would add irrelevant and potentially confounding cases. Thus, the simultaneous-equation method cannot be applied mechanically to the question of the causal effect of inequality on democracy because that entails different hypotheses with different dependent variables and different populations of cases.

The Inauguration of Democracy

According to the genesis hypothesis, countries with a relatively egalitarian distribution of income will be more likely to inaugurate democracy than those with an inegalitarian income distribution. During 1945–61, a total of 23 countries inaugurated democracy.[17] Excluding pre-1945 democracies, information on the distribution of income during 1945–61 is available for 27 countries, 14 of which are among the set that inaugurated democracy. Since most of the income distribution measurements are circa 1960, and most of the countries that inaugurated democracy did so before 1960, most of the inequality observations were made after the inauguration of democracy. However, if one assumes that the distribution of income did not change significantly in these countries during 1945–61, then the hypothesis of an inverse relationship between income inequality and the inauguration of democracy can be tested.

Table 5 shows the relationship between income inequality, as measured by the size of the upper-quintile share,[18] and the binary variable, presence or absence of inauguration of democracy. Each country's level of democracy circa 1960, as measured by the Political Democracy Index, is given in parentheses.[19] The point-biserial correlation between income inequality and the inauguration of democracy is approximately zero (−.07), and it also is approximately zero (−.09) for the relationship between income inequality and level of democracy. There is no support for the genesis hypothesis in these data.

The Stability of Democracy

A succinct statement of the stability hypothesis has been given by Dahl (1971) in the following propositions:

> [1] In a society that already has a regime with public contestation, extreme inequalities increase the chances that competitive politics will be displaced by a hegemony. [1a] Polyarchies are particularly vulnerable to the effects of extreme inequalities. Extreme inequalities in the distribution of key values are unfavorable to competitive politics and to polyarchy because this state of affairs: [2] is

[17] In addition to the 17 countries identified in Table 2 as having inaugurated democracy during 1945–61, democracy also was established during this period in *Ecuador* in 1948 after the military relinquished power and the constitution of 1946 went into effect; in *Greece* in 1950 after the end of a civil war; in *Israel* in 1949 after independence and the armistice that ended the war with surrounding Arab states; in *Jamaica* in 1953 after full internal self-government was granted by Britain; in *Lebanon* in 1945 after French military control was relinquished; and in *Malta* in 1947 after full internal self-government was granted by Britain.

[18] The data sources are Ahluwalia (1976), Jain (1975), and Kuznets (1963).

[19] All countries defined as having inaugurated democracy have PDI scores in the upper quarter of the scale, except for Guatemala, which experienced a breakdown of democracy in 1954. All but three of the countries defined as not having inaugurated democracy have PDI scores in the lower three-quarters of the scale (the exceptions are Madagascar, Mexico, and Tunisia). See note 10 for the reason why Mexico is not considered to have inaugurated democracy. Madagascar's extremely high score on the PDI (92!) is quite puzzling. On the Electoral Irregularity and Press Freedom variables (from Taylor and Hudson 1972), which are components of the PDI, Madagascar received an Electoral Irregularity rating of "D," defined as insufficient information available for a reliable judgment about electoral freedom, and Madagascar also was not even rated on the Press Freedom variable. Thus, Madagascar's PDI score could hardly be considered reliable. Also, since Tunisia was rated on the Electoral Irregularity variable as having held an election in 1964 that displayed significant deviation from the free and fair norm, and since Tunisia's Press Freedom score was −.7 (the global median is +1.0), it seems that Tunisia's PDI of 84 is excessively high.

Table 5. Inauguration of Democracy by Income Inequality

Upper 20%-Income Share, 1945–61 (Source:Year)	%	Inauguration of Democracy, 1945–61* No	Yes
(J:60)	70.8	Gabon(63)	
(J:61)	69.2		Peru(83)
(A:56)	68.0	Iraq(16)	
(J:60)	62.5	Senegal(49)	
(J:60)	62.1		Brazil(91)
(K:57)	61.7	Mexico(80)	
(J:58)	61.5		Jamaica(91)
(A:55–60)	61.0		Lebanon(84)
(J:60)	60.1	Madagascar(92)	
(J:61)	58.6		Costa Rica(91)
(K:53)	56.4	Colombia(70)	
(K:47–48)	55.4		Guatemala(70)
(J:60)	55.3		Panama(75)
(J:56)	54.8		Philippines(93)
(J:61)	54.8	Tunisia(84)	
(J:53)	53.7		Sri Lanka(94)
(K:46)	52.1	El Salvador(54)	
(J:59)	51.8	Ivory Coast(43)	
(J:59)	51.7	Benin(55)	
(J:60)	51.7		India(94)
(K:51–52)	51.6		Barbados(100)[a]
(J:61)	50.9	Argentina(63)	
(J:59–60)	50.9	Taiwan(23)[a]	
(J:57–58)	49.6		Malaysia(84)
(K:48)	48.1		Italy(97)
(K:50)	48.0		West Germany(88)
(J:61)	44.8	Chad(58)	
	[$r = -.07$]		

* 1960 PDI score in parentheses.
[a] 1965 PDI score; 1960 missing.

> equivalent to extreme inequality in the distribution of key political resources and is likely to generate resentments and frustrations which weaken allegiance to the regime. (p. 103)

A weakening of support for a democratic regime due to the presence of high levels of economic inequality is equivalent to what Nordlinger (1977, p. 93) calls "legitimacy deflation." Students of the causes of coups d'etat (e.g., Finer 1962; Nordlinger 1977; Welch and Smith 1974) attach great importance to the legitimacy variable. Given the presence of interventionist motives, a low level of legitimacy is considered a condition that causes such motives to become coup attempts. By contrast, a high level of legitimacy is thought to operate as a psychological barrier that inhibits the military or the executive from usurping power. As rational actors, they recognize that a coup attempt against a legitimate regime is likely to generate opposition, not only from important segments of the political and social elite, but also from within the officer corps itself, which reduces the likelihood of success. Moreover, even if a coup were successful, the overthrow of a legitimate regime would risk provoking mass protests, armed resistance, and civil war, all of which are contrary to the strongly held military preference for domestic order. In short, if it can be assumed that the legitimacy of democratic government is eroded by a high level of income inequality, then it follows that a democratic regime in any extremely inegalitarian society is highly susceptible to overthrow by coup d'etat.

A total of 40 countries were under democratic rule in 1961. These comprise the relevant population of cases for testing the stability hypothesis for the period 1960–80. Information on income inequality during 1960–80 is available for 33 of these democracies, a sample consisting of 82.5 percent of the population.[20]

[20] See Table 6 for a listing of these countries. The cases missing data on income inequality are Austria, Ecuador, Greece, Iceland, Jamaica, Luxembourg, and Malta. Of the 40 countries classified as democracies in 1961, 38 score in the upper quarter of the Bollen PDI for 1960. The exceptions are Venezuela (see the explanation in note 10) and Turkey, whose 1960 PDI score of 59 reflects the fact that the military had taken control of the government during a crisis in 1960 and had temporarily suspended democratic liberties. Democracy was restored in 1961, however, as reflected in Turkey's 1965 PDI score of 76.

Among the set of countries classified as unstable democracies, all income-inequality measurements are either prior to or almost exactly contemporaneous with the breakdown of democracy. Otherwise, the inequality measurements are as close to the midpoint of the interval (1970) as possible.

Democracy was replaced internally by authoritarian rule during 1961–80 in 9 of the 33 countries with income inequality measurements for 1960–80. The typical method of replacing a democratic regime by an authoritarian regime is the military coup d'etat. Military-dominated authoritarian regimes replaced democracy in Brazil in 1964, in Panama and Peru in 1968, in Chile and Uruguay in 1973, and in Turkey in 1980. The executive coup, where the chief executive with the support of the military decides to retain power indefinitely, is a method of unconstitutional regime change similar to the military coup. An executive coup was carried out by President Ferdinand Marcos in the Philippines in 1972. Less dramatic but nevertheless significant regime change entailing a transformation from democracy to authoritarian rule also can occur through the imposition of long-term restrictions on political liberty. This kind of breakdown of democracy occurred in Malaysia in 1969, when parliament was suspended. It was restored in 1971, but with constitutional provisions for political and economic discrimination in favor of Malays and a ban on public and parliamentary discussion of these privileges and the concomitant restrictions on the rights of non-Malays. Finally, an exceedingly violent civil war between Christians and Muslims erupted in Lebanon in 1975, resulting in the demise of democracy and its replacement by a tenuous authoritarian rule bordering on anarchy.

The relationship between the upper-quintile income share[21] and democratic stability is shown in Table 6. The point-biserial correlation is significant at the .05 level and has a quite high magnitude (−.80). All democracies with high income inequality (an upper-quintile share of more than 55 percent) were unstable. These very inegalitarian democracies were highly susceptible to military coups, which were responsible for four of the six instances of instability. By contrast, slightly more than two-thirds (70 percent) of the democracies with an intermediate level of inequality (an upper-quintile share between 45 percent and 55 percent) maintained stability, and all of those with relatively low inequality (an upper-quintile share of less than 45 percent) were stable.

[21] The data are from Table 1 (T1), Table 5 (T5), and the World Bank (W).

Table 6. Stability of Democracy by Income Inequality

Upper 20% Income Share, 1960–80 (Source:Year)	%	Stability of Democracy, 1961–80: Unstable	Stable
(T5)	69.2	Peru	
(T5)	62.1	Brazil	
(T1)	61.8	Panama	
(T5)	61.0	Lebanon	
(T1)	58.6	Turkey	
(W:70)	56.6	Malaysia	
(T1)	54.0	Philippines	
(T1)	54.0		Venezuela
(T1)	51.4	Chile	
(T1)	50.6		Costa Rica
(T1)	50.0		Trinidad
(T1)	49.2		India
(T1)	47.4	Uruguay	
(T1)	46.5		Italy
(T1)	46.4		France
(T1)	45.2		West Germany
(T1)	44.5		Sri Lanka
(T1)	44.0		Barbados
(T1)	43.0		Australia
(T1)	42.8		United States
(T1)	41.5		New Zealand
(T1)	41.0		Canada
(T1)	41.0		Japan
(T1)	40.0		Netherlands
(W:79–80)	39.9		Israel
(T1)	39.8		Belgium
(T1)	39.4		Ireland
(T1)	39.2		United Kingdom
(W:78)	38.0		Switzerland
(W:76)	37.5		Denmark
(T1)	37.3		Norway
(T1)	37.0		Sweden
(W:77)	36.8		Finland
	[$r = -.80$]		

Of course, the strong negative association between income inequality and democratic stability could simply be a reflection of a country's level of economic development. The argument that a high level of economic development is the principal cause of democratic stability has been the conventional wisdom in social science since Lipset (1959) first reported a positive association between stable democracy and a set of interrelated indicators of national wealth, industrialization, urbanization, education, and communications development.[22] Thus, if economic development

[22] According to Lipset (1981, pp. 469–76), this association has been repeatedly confirmed by subsequent research (e.g., Cutright 1963; Dahl 1971; McCrone and Cnudde 1967; Olsen 1968; Winham 1970). But Lipset ignores the fact that subsequent work has used either Cutright's (1963) measure of democracy, which confounds level and stability, or else measures of level of democracy only. Such analyses do not provide evidence relevant to the stability question.

does cause both income inequality and stable democracy, then the relationship between inequality and democratic stability might be spurious due to economic development.

Indeed, a strong inverse association exists for these democracies between level of economic development and the extent of income inequality. The correlation between ln Energy Consumption p.c., 1970 and the Upper 20 percent Income Share, 1960–80 is −.66. The point-biserial correlation between ln Energy Consumption p.c., 1970 and Stability of Democracy, 1961–80 is only +.58, however, while that between the Upper 20 percent-Income Share and Stability of Democracy is −.80.

Regressions of democratic stability on the Gini coefficient and the income shares of each of the five quintiles, controlling for economic development, are shown in Table 7. The Gini coefficient and the upper quintile income share are estimated to have negative effects on democratic stability, while the income shares of the lower four quintiles are estimated to have positive effects. The ln Energy Consumption p.c. variable is not significant at even the .10 level in any of these equations except that for the bottom quintile (7.6). Thus, level of economic development appears to be the irrelevant variable.

Figure 1 shows the irrelevance of economic development. Stable and unstable democracies are plotted by their joint scores on the Upper 20 percent Income Share and ln Energy Consumption p.c. variables. Countries above the dashed horizontal line have extremely inegalitarian distributions of income; countries to the right of the dashed vertical line have a relatively high level of economic development (per capita energy consumption of more than 1,000).

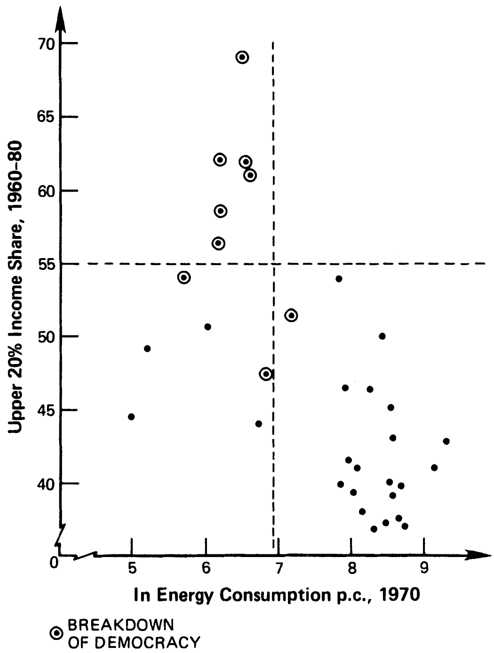

Fig. 1. Stability of Democracy by Income Inequality and Level of Economic Development.

The critical data points are contained in the

Table 7. Regressions[a] of Stability of Democracy on Gini Coefficient of Income Inequality and Quintile Income Shares, Controlling for Economic Development

	Stability of Democracy, 1961–80					
	(7.1)	(7.2)	(7.3)	(7.4)	(7.5)	(7.6)
Intercept	1.71	2.24	−2.09	−1.26	−1.037	−1.24
ln energy consumption p.c., 1970	+0.65 (1.27)	+0.038 (0.70)	+0.064 (0.99)	+0.028 (0.47)	+0.066 (1.18)	+0.14** (3.04)
Gini income inequality, 1960–80	−3.90** (−5.12)					
Quintile 5 (81%–100%), 1960–80		−0.038** (−5.08)				
Quintile 4 (61%–80%), 1960–80			+0.11** (3.51)			
Quintile 3 (41%–60%), 1960–80				+0.12** (4.48)		
Quintile 2 (21%–40%), 1960–80					+0.12** (4.35)	
Quintile 1 (1%–20%), 1960–80						+0.16** (4.64)
Adj. R^2 = (N =)	.62 (33)	.62 (33)	.50 (33)	.58 (33)	.57 (33)	.59 (33)

[a] t ratio in parentheses.
* $p \leq .10$, one-tailed.
** $p \leq .05$, one-tailed.

lower left-hand cell of the figure: democracies characterized both by a relatively low level of economic development and by income inequality scores that fall in the range of intermediate to relatively low. According to the economic development hypothesis, these democracies should have been unstable because of their relatively low level of development. By contrast, the income inequality hypothesis predicts that these democracies should have been stable because of their lack of extreme inequality. Since regime stability was maintained during 1960–80 by most less-developed democracies with intermediate or relatively low income inequality, the data indicate that income inequality is the predominant causal variable.

SUMMARY AND CONCLUSION

In testing the hypothesis that democracy reduces income inequality, the democracy concept can be defined operationally either as the level of democracy in a country at a single point in time or as a country's years of democratic experience. According to the level-of-democracy version of the hypothesis, a high level of democracy at any time is expected to produce a more egalitarian distribution of income. Thus, new democracies with few years of democratic experience are expected to be just as egalitarian as old democracies with many years of democratic experience. This is an implausible assumption. Since the causal influence of democratic institutions must operate through intervening mechanisms such as interest groups and political parties, it is more plausible to stipulate that the influence of democracy on income inequality operates gradually. The assumption of gradual causal influence requires a measure of years of democratic experience. According to the experience-of-democracy version of the hypothesis, a high level of democracy is expected to reduce inequality only if it is maintained for a relatively long time.

The evidence reported here, which is based on a larger sample of countries than in most prior studies, shows that the operational definition of democracy indeed makes a great deal of difference. The bivariate correlation between level of democracy and income inequality is much weaker than that between years of democracy and income inequality. Moreover, no significant inverse association obtains between level of democracy and income inequality, independent of a country's level of economic development. But when the level of democracy measure is replaced by continuous and qualitative measures of a country's experience of democracy, a significant negative effect of years of democracy on income inequality is observed, controlling for level of economic development and other potentially relevant determinants of inequality. These results support the argument that democracy has a negative influence on income inequality, one that operates gradually over time.

Of course, an effect of democratic institutions on the distribution of income must be transmitted through intervening causal mechanisms. The egalitarian political institutions of modern democracy provide all citizens with both the *opportunity* to participate in the governing process, as manifested by universal adult suffrage and free and fair elections, and the *opportunity* to contest governmental decisions, as manifested by rights of freedom of expression and association. Given the existence of an egalitarian political structure, it is plausible to expect that, over time, as the more numerous poorer members of the population organize into unions and other interest groups, and as parties of the social democratic left develop a solid electoral base, win seats in legislatures, and participate in or control the machinery of government, democracy becomes associated, in a *facilitative* sense, with a gradual reduction of economic inequality (see Lenski 1966, pp. 318–25). Thus, the influence of democratic political structure on income inequality should take the form of an indirect negative effect, operating through intervening processes such as the development of strong trade unions and socialist parties (see Stephens 1979). These transmission mechanisms that intervene between years of democracy and a reduction of income inequality are complex and await further research.

In regard to the hypothesis of a negative causal effect of income inequality on democracy, a measure of level of democracy is inappropriate because it is not sensitive to temporal variation in the inauguration and stability of democracy. If income inequality has a negative effect on democracy, it could operate either (1) by reducing the likelihood of the inauguration of democracy in countries under authoritarian rule; or (2) by causing a reduction of democracy in a country that was initially highly democratic, i.e., by causing a change from democracy to authoritarian rule. The genesis of democracy and the stability of democracy are separate questions requiring separate measures, and the causes of genesis may be quite different from the causes of stability (see Rustow 1970).

No support is found for the genesis hypothesis across a small sample of 23 countries (which, however, includes a majority of all countries that inaugurated democracy during the 1945–61 period). A more compelling theoretical argument can be made for the hypothesis that income inequality is incompatible with the stability of democracy than for the hypothesis that it is incompatible with the inauguration of democracy. When the stability question is addressed on the basis of a sample that includes more than 80 percent of the relevant cases, a very strong inverse association is observed between income inequality and the likelihood of stability versus breakdown of democracy. Democracies as of 1961 with extremely inegalitarian distributions of income during 1960–80 all experienced a breakdown of democracy (typically due to a military coup d'etat), while a breakdown of democracy occurred in only 30 percent of those with intermediate income inequality. It did not occur at all among democracies with relatively egalitarian distributions of income. This negative effect of income inequality on democratic stability is independent of a country's level of economic development because, among democracies at relatively low levels of development, where one would expect instability if a positive relationship between economic development and democratic stability were the only causal force, regime stability was maintained by most democracies that did not have extremely inegalitarian distributions of income. Indeed, level of economic development, considered by many scholars to be the predominant cause of variation in the stability of democratic regimes, is found to be an irrelevant variable once income inequality is taken into account.

In sum, the evidence from a longitudinal perspective indicates that inverse causal relationships between political democracy and income inequality obtain in both directions. Democratic institutions, if maintained for a relatively long time, cause some gradual reduction of income inequality, independent of level of economic development. But if a democratic regime is inaugurated in a country with an extremely inegalitarian distribution of income, high inequality is likely to undermine the legitimacy of the regime and cause democratic institutions to be replaced by authoritarian rule. Thus, a high level of inequality will reduce a country's years of democratic experience. This vicious circle can be avoided if democracy is inaugurated (or restored) in a country with only intermediate or relatively low inequality. Otherwise, it seems that the only way to break out of this vicious circle is for a strong political party with redistributive goals to develop during the early years of democracy and then hold office for a sufficiently long period of time to implement policies that significantly reduce income inequality.

REFERENCES

Adelman, Irma and Cynthia Taft Morris. 1967. *Society, Politics, and Economic Development*. Baltimore: Johns Hopkins University Press.

Ahluwalia, Montek S. 1974. "Income Inequality: Some Dimensions of the Problem." Pp. 3–37 in *Redistribution with Growth,* edited by Hollis Chenery, Montek S. Ahluwalia, C.L.G. Bell, John H. Duloy, and Richard Jolly. New York: Oxford University Press.

______. 1976. "Inequality, Poverty, and Development." *Journal of Development Economics* 3:307–42.

Bilson, John F.O. 1982. "Civil Liberty—An Econometric Investigation." *Kyklos* 35:94–114.

______. 1979. "Political Democracy and the Timing of Development." *American Sociological Review* 44:572–87.

______. 1980. "Issues in the Comparative Measurement of Political Democracy." *American Sociological Review* 45:370–90.

Bollen, Kenneth A. 1983. "World System Position, Dependency, and Democracy." *American Sociological Review* 48:468–79.

Bollen, Kenneth A. and Burke D. Grandjean. 1981. "The Dimension(s) of Democracy: Further Issues in the Measurement and Effects of Political Democracy." *American Sociological Review* 46:651–59.

Bollen, Kenneth A. and Robert W. Jackman. 1985. "Political Democracy and the Size Distribution of Income." *American Sociological Review* 50:438–57.

Ballmer-Cao, Thanh-Huyen and Jürg Scheidegger eds. 1979. *Compendium of Data for World System Analysis*. Zürich: Soziologisches Institut der Universität.

Bornschier, Volker and Christopher Chase-Dunn. 1985. *Transnational Corporations and Underdevelopment*. New York: Praeger.

Coleman, James S. 1960. "Conclusion: The Political Systems of the Developing Areas." Pp. 532–76 in *The Politics of the Developing Areas,* edited by Gabriel A. Almond and James S. Coleman. Princeton: Princeton University Press.

Cotler, Julio. 1978. "A Structural-Historical Approach to the Breakdown of Democratic Institutions: Peru." Pp. 178–205 in *The Breakdown of Democratic Regimes: Latin America,* edited by Juan J. Linz and Alfred Stepan. Baltimore: Johns Hopkins University Press.

Cutright, Phillips. 1963. "National Political Development: Measurement and Analysis." *American Sociological Review* 28:253–64.

Comisión Económica para América Latina. 1983. "Notas sobre la Evolucion del Desarrollo Social del Istmo Centroamericano hasta 1980." (Notes on the Evolution of Social Development in the Isthmus of Central America Since 1980.) Pp. 93–126 in *Centroamerica: Indicadores socioeconómicos para el Desarollo*, by R. Ramalinga Iyer, Gonzalo Ramirez, Carlos Raabe, Guillermo Molina Chocano, Sergio Reuben, et al. San José, Costa Rica: Ediciones Flacso.

Dahl, Robert A. 1971. *Polyarchy*. New Haven: Yale University Press.

Encyclopedia Britannica. 1966. vol. 22. Chicago: William Benton.

Finer, S.E. 1962. *The Man on Horseback: The Role of the Military in Politics*. New York: Praeger.

Gastil, Raymond D. 1986. *Freedom in the World, 1986*. Westport, CT: Greenwood Press.

van Ginnekan, Wouter. 1976. *Rural and Urban Income Inequalities*. Geneva: International Labour Office.

Hewitt, Christopher. 1977. "The Effect of Political Democracy and Social Democracy on Equality in Industrial Societies: A Cross-National Comparison." *American Sociological Review* 42:450–64.

Jackman, Robert W. 1973. "On the Relation of Economic Development to Democratic Performance." *American Journal of Political Science* 17:611–21.

______. 1974. "Political Democracy and Social Equality: A Comparative Analysis." *American Sociological Review* 39:29–45.

Jain, Shail. 1975. *Size Distribution of Income*. Washington, DC: World Bank.

Kline, Harvey F. 1985. "Colombia: Modified Two-Party and Elitist Politics." Pp. 249–70 in *Latin American Politics and Development,* 2nd ed., edited by Howard J. Wiarda and Harvey F. Kline. Boulder, CO: Westview.

Kuznets, Simon. 1955. "Economic Growth and Income Inequality." *American Economic Review* 45:1–28.

______. 1963. "Quantitative Aspects of the Economic Growth of Nations, VIII: The Distribution of Income by Size." *Economic Development and Cultural Change* 11:1–80.

LaFeber, Walter. 1979. *The Panama Canal,* expanded ed. New York: Oxford University Press.

Lecaillon, Jacques, Felix Paukert, Christian Morrisson, and Dimitri Germidis. 1984. *Income Distribution and Economic Development*. Geneva: International Labour Office.

Lenski, Gerhard. 1966. *Power and Privilege*. New York: McGraw-Hill.

Levine, Daniel H. 1978. "Venezuela Since 1958: The Consolidation of Democratic Politics." Pp. 82–109 in *The Breakdown of Democratic Regimes: Latin America,* edited by Juan J. Linz and Alfred Stepan. Baltimore: Johns Hopkins University Press.

Lijphart, Arend. 1977. *Democracy in Plural Societies*. New Haven: Yale University Press.

Lipset, Seymour Martin. 1959. "Some Social Requisites of Democracy: Economic Development and Political Legitimacy." *American Political Science Review* 53:69–105.

______. 1981. *Political Man,* expanded ed. Baltimore: Johns Hopkins University Press.

Luzuriaga C., Carlos and Clarence Zuvekas, Jr. 1983. *Income Distribution and Poverty in Rural Ecuador, 1950–1979*. Tempe, AZ: Center for Latin American Studies, Arizona State University.

Lydall, Harold. 1979. *A Theory of Income Distribution*. New York: Oxford University Press.

McCrone, Donald J. and Charles F. Cnudde. 1967. "Toward a Communications Theory of Democratic Political Development." *American Political Science Review* 61:72–79.

McDonald, Ronald H. 1985. "El Salvador: The Politics of Revolution." Pp. 528–44 in *Latin American Politics and Development,* 2nd ed., edited by Howard J. Wiarda and Harvey F. Kline. Boulder, CO: Westview.

Martz, John D. 1968. "Venezuela." Pp. 199–230 in *Political Forces in Latin America: Dimensions of the Quest for Stability,* edited by Ben G. Burnett and Kenneth F. Johnson. Belmont, CA: Wadsworth.

Moore, Barrington. 1966. *The Social Origins of Dictatorship and Democracy*. Boston: Beacon.

Nordlinger, Eric A. 1977. *Soldiers in Politics: Military Coups and Governments*. Englewood Cliffs, NJ: Prentice-Hall.

Olsen, Marvin E. 1968. "Multivariate Analysis of National Political Development." *American Sociological Review* 33:699–712.

Paukert, Felix. 1973. "Income Distribution at Different Levels of Development: A Survey of Evidence." *International Labour Review* 108:97–125.

Peterson, Robert L. 1968. "Guatemala, Honduras, El Salvador, and Nicaragua." Pp. 57–90 in *Political Forces in Latin America: Dimensions of the Quest for Stability,* edited by Ben G. Burnett and Kenneth F. Johnson. Belmont, CA: Wadsworth.

Powell, G. Bingham, Jr. 1982. *Contemporary Democracies*. Cambridge: Harvard University Press.

Rubinson, Richard and Dan Quinlan. 1977. "Democracy and Social Inequality: A Reanalysis." *American Sociological Review* 42:611–23.

Russett, Bruce M. 1965. *Trends in World Politics*. New York: Macmillan.

Rustow, Dankwart A. 1967. *A World of Nations*. Washington, DC: Brookings.

______. 1970. "Transitions to Democracy." *Comparative Politics* 2:337–63.

Sartori, Giovanni. 1976. *Parties and Party Systems*. New York: Cambridge University Press.

Sawyer, Malcolm. 1976. "Income Distribution in OECD Countries." *OECD Economic Outlook: Occasional Studies,* 3–36.

Schlesinger, Stephen and Stephen Kinzer. 1983. *Bitter Fruit*. Garden City, NY: Anchor Press/Doubleday.

Snyder, David and Edward Kick. 1979. "Structural Position in the World-System and Economic Growth, 1955–70: A Multiple Network Analysis of Transnational Interactions." *American Journal of Sociology* 84:1096–1126.

Stack, Steven. 1978. "Internal Political Organization and the World Economy of Income Inequality." *American Sociological Review* 43:271–72.

Stephens, John D. 1979. *The Transition from Capitalism to Socialism*. London: Macmillan.

Stevens, Evelyn P. 1985. "Mexico in the 1980s: From Authoritarianism to Power Sharing?" Pp. 403–45 in *Latin American Politics and Development,* 2nd ed., edited by Howard J. Wiarda and Harvey F. Kline. Boulder, CO: Westview.

Taylor, Charles L. and Michael C. Hudson. 1972. *World Handbook of Political and Social Indicators,* 2nd ed. New Haven: Yale University Press.

Weede, Erich. 1980. "Beyond Misspecification in Sociological Analysis of Income Inequality." *American Sociological Review* 45:497–501.

______. 1982. "The Effects of Democracy and Socialist Strength on the Size Distribution of Income." *International Journal of Comparative Sociology* 23:151–65.

Weede, Erich and Horst Tiefenbach. 1981a. "Some Recent Explanations of Income Inequality: An Evaluation and Critique." *International Studies Quarterly* 25:255–82 and 289–93.

______. 1981b. "Correlates of the Size Distribution of Income in Cross-National Analyses." *Journal of Politics* 43:1029–41.

Weinstein, Martin. 1975. *Uruguay*. Westport, CT: Greenwood Press.

Welch, Claude E. and Arthur K. Smith. 1974. *Military Role and Rule: Perspectives on Civil-Military Relations*. North Scituate, MA: Duxbury Press.

Wesson, Robert and David V. Fleischer. 1983. *Brazil in Transition*. New York: Praeger.

Wiarda, Iêda Siqueira. 1985. "Venezuela: the Politics of Democratic Developmentalism." Pp. 293–316 in *Latin American Politics and Development*, 2nd ed., edited by Howard J. Wiarda and Harvey F. Kline. Boulder, CO: Westview.

Winham, Gilbert R. 1970. "Political Development: A Causal Model." *American Political Science Review* 64:810–18.

World Bank. 1980, 1981, 1982, 1983, 1984, 1985. *World Development Report*. New York: Oxford University Press.