LINDBLOM, CHARLES EDWARD
1917–

Raised in Turlock, California, Charles Edward Lindblom attended Stanford University and then went to graduate school at the University of Chicago. Shortly after he began teaching economics at the University of Minnesota in 1939, the department chair rebuked Lindblom “for giving a talk to an undergraduate club on … Lange’s concept of market socialism.” He subsequently “met with many other sharp intolerances” from faculty and did not receive tenure. After moving to Yale, he found greater diversity of thought but nevertheless “was heavily influenced by the intolerances of the discipline of economics” (Democracy and Market System, 1988, p. 17).

Although the tensions were framed in terms of “good economics,” not ideological disagreement, the response to his dissertation (Unions and Capitalism, 1949) was telling: Whereas the text offered a symmetrical analysis depicting corporate and union power relations on a collision course likely to lead to serious problems including inflation, reviewers were sure the author was calling for limits on collective bargaining. Lindblom’s subsequent work reveals that he already was contemplating restraints on corporate executive discretion.

Lindblom’s research questions and methodology were so out of favor that the Yale economics chair urged him to resign, predicting he would “die on the vine” and never be promoted to full professor. However, coteaching and scholarly collaboration with Robert Dahl led to a joint appointment in political science and a gradual shift of attention toward a discipline that recognized the landmark nature of his work. Lindblom chaired the political science department from 1972 to 1974 and later was named to Yale’s most prestigious chair as Sterling Professor of Economics and Political Science. He served as president of the Association for Comparative Economic Studies and of the American Political Science Association.

Lindblom helped found the Institution for Social and Policy Studies, intended to move the university’s social sciences into interdisciplinary conversation while enhancing their relevance to public issues. As director from 1974 to 1980, Lindblom led mapping projects designed to frame research questions with the professional care normally reserved for the conduct of research. Present-day research on the not-for-profit sector traces partly to an exploratory ISPS project, as do Richard Nelson and Sidney Winter’s evolutionary economics and Robert Lane’s studies of market and personality.

In a presidential address to political scientists titled “Another State of Mind” (1982), Lindblom argued that “conventional theory is embarrassingly defective. It greatly needs to call more heavily on radical thought” (p. 20). At four regional political science meetings, he asked audiences: “Suppose—just to limber up our minds—that we faced the fanciful task of designing … a political/economic system that would be highly resistant to change. How to do it?” A “simple and fiendishly clever” approach would be “to design institutions so that any attempt to alter them automatically triggers punishment” (“The Market as Prison,” 1982, p. 324). Far from fanciful, something approaching that arrangement occurs as market systems imprison policy, sometimes via tangible constraints, as when officials fear businesses will move if “excessively” regulated. More insidious and fundamental are imprisonments of mind, a wide range of helpful policy options becoming unthinkable because their adoption would require deviating from tightly held and carelessly examined beliefs about corporation and market.

Politics, Economics, and Welfare (1953, with Robert Dahl) remains the most systematic comparison yet attempted of the price system, hierarchy, polyarchy, and bargaining as political-economic processes of rational calculation and social decision-making. It closes with an insight still fresh generations later: “Through what social processes should action take place? Clearly the answer … (depends on another) question: What kind of human being is wanted?” (p. 523).

The idea of incrementalism introduced therein was refined in “The Science of Muddling Through” (1959), which still garners hundreds of citations annually. The core idea, derived in part from Lindblom’s training in marginalist economic analysis, was a challenge to the Western political tradition’s extreme faith in reason: Analysis is inevitably incomplete, excessively costly, and a poor guide to big changes; political interactions negotiating smaller changes often are both more feasible and more reliable. A Strategy of Decision (1963, with David Braybrooke) and The Intelligence of Democracy (1965)
offered detailed treatments of mutually adjusting interaction as a method of analyzing and determining policy moves, the latter still unparalleled regarding forms of mutual adjustment other than bargaining.

Neither critics nor followers did especially well by disjointed incrementalism. Many readers reduced the concept’s nuances to the oversimplified notion of small steps, degenerating into arguments that Aaron Wildavsky subsequently pilloried as the search for the “magic size” of an increment. Some perceived incrementalism as overly conservative (Dror 1964, Etzioni 1966), seemingly blaming the decision strategy for conservative tendencies in U.S. politics, or perhaps failing to recognize that, in principle, “A fast-moving sequence of small changes can more speedily accomplish a drastic alteration of the status quo than can an only infrequent major policy change” (“Still Muddling, Not Yet Through,” 1979, p. 520).

Goodin and Waldner (1979) argued that actually practicing incrementalism would be more difficult than it sounds. Some theoretical understanding is needed to decide where and how to intervene, and to determine how long to monitor a policy trial before deciding whether to change it. They pointed as well to difficulties posed by threshold and sleeper effects and questioned the idea that small changes are always less dangerous and more reversible. To the claim that reforms can be thought of as experiments, they found nontrivial difficulties in actually learning from early trials. A number of analysts pointed to circumstances where the value of incrementalism would be reduced, including Schulman’s (1975) recognition that large-scale policy choices such as the lunar program sometimes have to be undertaken completely if they are to work at all.

Lindblom acknowledged the validity of some of these insights but found that the critics had not really proposed an alternative way of grappling with the basic predicament: “Incremental policy making is weak, often inefficacious, inadequate to the problem at hand; and the control over it often falls into the wrong hands. It is also usually the best that can be done,” given the imposing effects of corporation and market, gross political inequalities, and elite-catalyzed impairments in political thinking by citizens, government functionaries, and social scientists (Democracy and Market System, 1988, p. 11). Neo-incrementalists recently have begun to take up the challenge, responding to the critics’ concerns and extending incrementalist thought to deal better with inequality and with institutional malfunctioning (Collingridge 1992; Hayes 2001).


Usable Knowledge (1979, with David Cohen) argued that professional social inquiry is “incapacitated in contributing to social problem solving because of its own metaphysics, fashions, traditions, and taboos” (p. 95). Inquiry and Change (1990), another APSA best book award winner, analyzed inequality as a barrier to rationality while contrasting the analysis-heavy ideal of scientifically guided society with a more egalitarian and cognitively realistic self-guiding society. Among many barriers to self-guiding society, foremost is impairment, Lindblom argued: Not only corporation and government, but family, school, church, and media hamper development of capacities for probing problems and possibilities. Social scientists can assist people in understanding and shaping their societies by conducting partisan analysis challenging the status quo better than by aiming for avowedly neutral, supposedly authoritative knowledge that actually is forever unattainable.

Although following in the tradition of the Enlightenment, then, Lindblom’s “aspiration to improve social problem solving ... pursues inquiry and the resourceful utilization of its results more than it pursues firm knowledge. Thus, it rewrites Kant’s ‘Dare to know!’ as ‘Dare to inquire!’ ” (Inquiry and Change, p. 301).

SEE ALSO American Political Science Association; Corporations; Corporatism; Economics; Incrementalism; Marginalism; Norms; Pluralism; Political Science; Public Policy

BIBLIOGRAPHY

PRIMARY WORKS
**Linear Regression**

Linear regression refers to a linear estimation of the relationship between a dependent variable and one or more independent variables.

Social researchers typically assume that two variables are linearly related unless they have strong reasons to believe the relationship is nonlinear. In general, a linear relationship between a dependent variable \(Y\) and an independent variable \(X\) can be expressed by the equation \(Y = a + bX\), where \(a\) is a fixed constant. The value of the dependent variable \(Y\) equals the sum of a constant \((a)\) plus the value of the slope \((b)\) times the value of the independent variable \(X\). The slope \((b)\) shows the amount of change in \(Y\) variable for every one-unit change in \(X\). The constant \((a)\) is also called the \(Y\)-intercept, which determines the value of \(Y\) when \(X = 0\).

Theoretically, if the dependent variable \(Y\) can be perfectly estimated by the independent variable \(X\), then the \(y\) should be precisely located on the predicted line. The equation of the predicted line can be expressed as \(\hat{Y} = a + bX\). The \(\hat{Y}\) (“\(Y\) hat”) represents the predicted value \(Y\). However, actual social data never follow a perfect linear relationship. In fact, the actual observed value of \(Y\) is rarely on the predicted line. Therefore, it is necessary to take the deviations between the predicted value and actual value into account through the linear regression model. In the linear regression model, for every \(X\) value in the data, the linear equation will predict a \(Y\) value on the “best-fitting” line. This “best-fitting” line is called a regression line. The linear regression model should then be expressed as \(Y = a + bX + \epsilon\). The \(\epsilon\) is the error term, or a residual, which represents the distance between predicted value \((\hat{Y})\) and the actual \(Y\) value in the data.

The goal of linear regression estimation is to develop a procedure that identifies and defines the straight line that provides the best fit for any specific set of data. A basic approach of linear regression is to estimate, by minimizing the residuals, the values for the two regression coefficients \((a\) and \(b)\) based on the observed data. In other words, the predicted errors estimated by regression equation must be smaller than the errors made with any other linear relationship. To determine how close the predicted scores are to the observed scores, the method of Ordinary Least Squares (OLS) is the most popular approach used in the linear regression.

OLS estimates regression equation coefficients \((a\) and \(b)\) that minimize the error sum of squares. That is, the OLS approach sums the squared differences between each observed score \((Y)\) and its score predicted by the regression equation \(\hat{Y}\), and produces a quantity smaller than that obtained by using any other straight linear equation. The result is a measure of overall squared error between the line and the data: Total squared error = \(\sum(Y-\hat{Y})^2\).

In Figure 1 the distance between the actual data point \((Y)\) and the predicted point on the line \((\hat{Y})\) is defined as \(Y-\hat{Y}\). The best-fitting line to the data should thus show a sum of absolute values of \(Y-\hat{Y}\) to be the minimum, or the