

## Introduction

All progressive modern nations desire a satisfactory guide to changes in price levels, by which the stability of the monetary unit, the adequacy of wages, the justice of taxation, and the flow of credits can be gauged. But a compilation of “averages,” covering an endless variety of goods, objects, and services, which are continuously undergoing changes in character both in their production and consumption, cannot form a wholly reliable basis for judgment. Yet, without some statistical measurement along these lines, we would be without the crudest instruments to direct economic and political actions; and all scientific attempts to trace trends and future developments would practically cease, or become mere guesswork and intuition.

—A. M. Sakolinski, *Commercial and Financial Chronicle*, June 15, 1944

Economic statistics are a mainstay of modern government, but most citizens know little about how these figures are produced. Generally, the latest economic numbers elicit commentary on current trends: productivity is up (good); unemployment is rising (bad). But the origin of the numbers themselves—their creation and calculation—typically remains invisible to those not concerned with statistical work. Still, such comfortable ignorance is highly unstable (especially when the consequences of statistical judgments are extensive), and periodically the constant murmur of scholarly chatter about the methods and goals of statistical calculation erupts into more strident public debates, in turn raising unsettling questions about the foundations of modern governance.

One of the more spectacular recent examples occurred in the mid-1990s during discussions about the U.S. Consumer Price Index (CPI), a measure of consumer price change calculated by the U.S. Bureau of Labor Statistics. In congressional testimony in 1995, the Chairman of the Federal Reserve, Alan Greenspan, remarked that the CPI was probably overestimating

consumer inflation by at least one percentage point per year.<sup>1</sup> This was no minor issue: since the CPI was the most common measure of retail price change, Congress had built escalator clauses based on the index into a wide variety of federal programs as a hedge against inflation (a practice known as “indexation”). Tax brackets, Social Security benefits, federal pension plans, even payments to the school lunch program: all would shift upward automatically as the CPI rose. Accordingly, any overstatement in the calculations could have dramatic financial consequences.

Following Greenspan’s remarks, the Senate Finance Committee appointed a five-member committee of economists, chaired by Michael Boskin of Stanford University, to review the index. The report concluded that the CPI was roughly 1.1 percentage points higher than the true rate of inflation each year, a “bias” that was threatening to cripple the federal budget. Using data from the Congressional Budget Office, the Boskin commission declared that the overstatement would increase the federal debt by a staggering \$691 billion over the next decade through a combination of reduced revenues (due to higher tax brackets), increased expenses, and debt financing. “More remarkably,” the commission noted, by 2006 “the upward bias by itself would constitute the fourth largest federal outlay program, behind only Social Security, health care, and defense.”<sup>2</sup>

That a statistical miscalculation could produce the fourth largest federal expenditure was shocking. But for budget hawks, it was also fortuitous. Here at last, declared the *New York Times*, was “a rational way to reduce the deficit”: adjust either the CPI or the indexation formulas used in federal programs.<sup>3</sup> Unfortunately for the *Times*, the rationale for adjusting the index proved less straightforward than initially hoped. Some critics contested the commission’s estimate of an upward bias; others went further and questioned the conceptual framework behind the commission’s critique. A 2002 committee from the National Academy of Sciences returned a split verdict on that issue, while most government statistical agencies outside the United States likewise rejected the commission’s conceptual claims.<sup>4</sup> Within

<sup>1</sup> “As Parties Skirmish over Budget, Greenspan Offers Painless Cure,” *NYT*, 10 January 1995, p. A1.

<sup>2</sup> Michael J. Boskin et al., *Toward a More Accurate Measure of the Cost of Living: Final Report to the Senate Finance Committee from the Advisory Commission to Study the Consumer Price Index* (Washington, D.C.: U.S. GPO, 1996), 1–11, esp. 10.

<sup>3</sup> “A Rational Way to Reduce the Deficit,” *NYT*, 1 March 1997, p. 22.

<sup>4</sup> Boskin et al., *Toward a More Accurate Measure of the Cost of Living*, iii, 22–23. For reactions of varying critical intensity from American economists, see Angus Deaton, “Getting Prices Right: What Should Be Done?” *Journal of Economic Perspectives* 12, no. 1 (1998): 37–46; Robert A. Pollak, “The Consumer Price Index: A Research Agenda and Three Proposals,”

a few years it became clear that the Boskin report had given new structure and impetus to discussions about price index theory but had not succeeded in creating a consensus about the alleged bias in the index.

The predicament highlighted by the Boskin commission and its aftermath was not novel. On the contrary, the CPI has been a hotbed of theoretical, methodological, and political controversy since its inception during the First World War. Just as in later years, such debates did not stop politicians, economists, union officials, or businessmen from vesting great power in the index. By mid-century, the CPI's extensive role in regulating wage and salary adjustments had led a congressional committee to call it "the most important single statistic issued by the government." Even if overblown, the committee's verdict captured the financial power already held by the index in the early 1950s: the committee estimated that a 0.5 percent change in the CPI would produce \$1 billion in related income transfers each year.<sup>5</sup> Still, the occasion for this declaration—a congressional hearing driven by ongoing criticism of the index—illustrates how controversy and power have walked hand in hand throughout the history of the CPI. Of course, the particulars of the debates have changed: both the theoretical foundations and operational methods of price indexes are far more sophisticated today. Yet even as the CPI has been refined, its applications have been extended, so that the influence of the index repeatedly outstrips the ability of experts to agree about its accuracy and thereby tags seemingly arcane technical debates about statistical calculation and economic theory with enormous financial weight.

Though the CPI may represent a more extreme example of this phenomenon, its situation is not unique: every major economic statistic faces similar debates about methods and interpretation. For economists and

*Journal of Economic Perspectives* 12, no. 1 (1998): 69–78; Dean Baker, *Getting Prices Right: The Debate over the Consumer Price Index* (Armonk: M.E. Sharpe, 1998); Charles L. Schultze and Christopher Mackie, eds., *At What Price? Conceptualizing and Measuring Cost-of-Living and Price Indexes* (Washington, D.C.: National Academy Press, 2002). For a summary of the views of the U.S. Bureau of Labor Statistics, see David S. Johnson, Stephen B. Reed, and Kenneth J. Stewart, "Price Measurement in the United States: A Decade after the Boskin Report," *MLR* 129, no. 5 (2006): 10–19. For a useful overview of professional responses, see Ernst R. Berndt, "The Boskin Commission Report after a Decade: After-Life or Requiem?" *International Productivity Monitor*, no. 12 (2006): 61–73. Jack Triplett's paper in the same symposium as Berndt (2006) provides a short summary of international reactions.

<sup>5</sup> "Report on the Consumers' Price Index," p. 39, appended to U.S. Congress. House Committee on Education and Labor. Subcommittee to Study the Consumers' Price Index, *Consumers' Price Index: Hearings before a Subcommittee of the Committee on Education and Labor*, 82nd Cong., 1st sess., 8–11, 14–18, 21, 24, May and 29 June, 1951.

statisticians, these arguments highlight issues in need of further investigation; the financial and political consequences merely make the problems more pressing. Yet the combination of power and uncertainty in economic statistics can also raise other questions: How and why did we come to this strange place, where extraordinary amounts of money change hands based on small movements in a controversial and admittedly ambiguous statistic such as the CPI? What choices have been made in constructing and using American economic statistics, and what have been the consequences of those decisions?

These questions form the central motivation for this book, a historical study of the production and use of American cost-of-living statistics, a label that includes measures such as expenditure surveys, family budgets that delineate “adequate” standards of living, and price indexes, especially the Consumer Price Index and its ancestors. In part it is a technical tale, about how American economists and statisticians have wrestled with conceptual and methodological questions: What is meant by the “cost of living”? How can you define a meaningful standard of living within an economically and socially diverse nation, and how can you track the changing cost of obtaining that standard over time, especially as consumer purchasing habits and goods themselves undergo radical alterations? Yet it is also a story about political economy, about the proposed and actual application of economic theory and knowledge by the state in its attempt to influence the production and distribution of material or financial resources. Cost-of-living statistics have been used to adjudicate wage disputes, to guide economic planning and policy decisions, and to determine both eligibility and compensation levels for government welfare programs. Economic statistics and twentieth-century political economy are thus deeply intertwined and cannot be fully understood independently of one another.

Grounded in this perspective, my study of American cost-of-living statistics is therefore a study of American political economy as seen through a focused lens, a lens trained on the role of state-created, quantitative knowledge about the “cost of living” in policy decisions, government administration, and industrial relations. Why has it proven so hard to reach agreement about the accuracy of cost-of-living statistics? Why did Americans nonetheless come to rely so heavily on these numbers in political economy, a dependence exemplified by the massive financial transactions controlled through indexation? What can we learn about the development of American politics and labor relations by examining the history of these statistics?

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We can begin by considering the motivation behind the most extreme use of economic statistics in political life—indexation. Fundamentally, indexation is an attempt to eliminate political responsibility for certain government operations by treating them as technical, administrative tasks. Politicians need not haggle over the adjustment of tax brackets or poverty thresholds each year; the CPI does that for them. Not only does indexation promise greater administrative efficiency, but it is often portrayed as a superior solution—a rational method free from the messy imperfections of political negotiation. (Indeed, when President Richard M. Nixon first proposed indexing Social Security payments to the CPI, he explained that this step would help “depoliticize” the system.)<sup>6</sup>

Borrowing from the sociologist Max Weber, I describe processes like indexation as attempts to “rationalize” governance by restricting action to allegedly reasonable rules that are grounded in objective, empirical knowledge.<sup>7</sup> Once the system is established, rules replace the judgment of individual administrators. Accordingly, the propriety of the resulting actions depends solely on the propriety of the rules (should Social Security benefits be adjusted according to changes in the national cost of living?) and the accuracy of the empirical knowledge (is the CPI correct?).

In Weber’s view, rationalization would necessarily accompany attempts to gather and exploit power in a liberal democracy.<sup>8</sup> In political theory, liberalism assigns high value to individual rights and autonomy, while democracy (in a pure form) gives every citizen equal control over government affairs. Powerful institutions or groups, if unconstrained, could threaten both the liberal and the democratic character of a society. Rationalization promised to ameliorate this threat by limiting actions to a “reasonable” framework of rules or guidelines. The vast sums of money transferred through

<sup>6</sup> Richard M. Nixon, “Special Message to the Congress on Social Security, 25 September 1969,” in *Public Papers of the Presidents: Richard Nixon, 1969* (Washington, D.C.: U.S. GPO, 1971), 740–745.

<sup>7</sup> Weber’s use of “rationalization” is notoriously loose: Alan Sica, “Rationalization and Culture,” in *The Cambridge Companion to Weber*, ed. Stephen Turner (New York: Cambridge University Press, 2000). Likewise, many scholars (especially since the Second World War) have employed the term in a variety of ways to describe, analyze, and critique modern institutions and forms of life. My own usage is restricted to the definition given above, which could perhaps be qualified as “bureaucratic rationalization,” if that phrase was not overly cumbersome. I have chosen to retain the label “rationalization”—despite its slippery nature—because I have found aspects of the neo-Weberian literature on rationalization valuable, even though my own interests lie in the details of specific rationalized systems rather than in rationalization as an abstract, social process.

<sup>8</sup> Max Weber, *Economy and Society: An Outline of Interpretive Sociology* (New York: Bedminster Press, 1968), 956–1003.

the U.S. Social Security Administration, for example, are not distributed according to the whims of individual bureaucrats but according to complex rules and benefit calculations. The logic of rationalization assumes that once politicians or political appointees define the broad goals of a program (poverty thresholds should rise alongside the cost of living), responsibility for administering the system and creating the empirical knowledge at its base can be entrusted to career civil servants and technical agencies. In this manner, power can be concentrated while remaining, in principle, under democratic control or oversight.

Beyond legitimating collective power (by constraining it), governance through rational rules offers other potential administrative benefits: It can abet centralized control by restricting the authority of subordinates or by easing oversight through standardized reporting; it can reduce labor costs by transforming tacit, expert knowledge into explicit instructions to be followed by less skilled employees or machines; it can aid efficient, large-scale administration by allowing rapid processing of information; it can render actions of the system more predictable (a prime consideration for regulatory regimes); and it can channel and constrain conflict into specific domains (consider the extensive rules that often comprise workplace grievance procedures).<sup>9</sup> Thus, there can be many motives for turning to rationalized governance and a complex set of causes that contribute to the creation of any given rationalized system.

As this list of potential benefits also suggests, the attraction of rationalization was not limited to the state alone. On the contrary, Weber noted that rationalization appeared most seductive to capitalist businessmen, who valued the allure of quick, precise, predictable, and logic-driven action and sought to instill rationalized administration both within the state and within the confines of their own organizations.<sup>10</sup> Adopted by the state and

<sup>9</sup> For examples, see Hugh G. J. Aitken, *Scientific Management in Action: Taylorism at the Watertown Arsenal* (Princeton: Princeton University Press, 1985); David Montgomery, *Workers' Control in America: Studies in the History of Work, Technology, and Labor Struggles* (New York: Cambridge University Press, 1980); James R. Beniger, *The Control Revolution: Technological and Economic Origins of the Information Society* (Cambridge: Harvard University Press, 1986); Simon Schaffer, "Astronomers Mark Time: Discipline and the Personal Equation," *Science in Context* 2 (1988): 115–145; John Carson, "Army Alpha, Army Brass, and the Search for Army Intelligence," *Isis* 84, no. 2 (1993): 278–309; James C. Scott, *Seeing Like a State: How Certain Schemes to Improve the Human Condition Have Failed* (New Haven: Yale University Press, 1998); S. M. Amadae, *Rationalizing Capitalist Democracy: The Cold War Origins of Rational Choice Liberalism* (Chicago: University of Chicago Press, 2003), 61–75. Of course the operating reality rarely matched the idealized vision.

<sup>10</sup> Weber, *Economy and Society*, 974–975.

by private companies, rule-governed administration has therefore become a pervasive feature of contemporary life.

Statistics have strong ties to attempts to rationalize governance (in both its public and private forms). First, statistics make aggregate concepts tangible. Reducing “national unemployment,” for example, cannot be a target for economic policy until that concept is defined and measured. Statistics thus make it possible to exercise centralized control by purporting to bring order and legibility to an otherwise ungraspable complex of interactions.<sup>11</sup> Second, the modern discipline of statistics is itself a form of rationalized knowledge-making: a collection of reasonable techniques (i.e., formal or informal rules) for compiling aggregate data and judging their reliability. Indeed, as Theodore Porter has argued, the impersonal, rule-governed nature of quantitative calculation has greatly contributed to its popularity in political life (for example, in cost-benefit analysis, risk assessment, or oversight through accounting regulations). Accordingly, statistics have developed hand-in-hand with attempts by the state and private entities to organize and control a broader environment through “rational” means.<sup>12</sup> A history of the ties between cost-of-living statistics and American governance is thus a history of such rationalization projects.

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<sup>11</sup> I would distinguish this view—which emphasizes the constructed nature of economic statistics—from Michel Callon’s claims about the “performative” character of economics. Callon’s usage expands the meaning of both “performative” and “economics” in ways that undercut their analytic utility. See the critiques of Callon from Philip Mirowski, Edward Nik-Khah, and Emmanuel Didier in *Do Economists Make Markets? On the Performativity of Economics*, ed. Donald MacKenzie, Fabian Muniesa, and Lucia Siu (Princeton: Princeton University Press, 2007).

<sup>12</sup> Theodore M. Porter, *Trust in Numbers: The Pursuit of Objectivity in Science and Public Life* (Princeton: Princeton University Press, 1995). Numerous scholars have illustrated these connections in specific contexts, e.g., Jean-Claude Perrot and Stuart J. Woolf, *State and Statistics in France, 1789–1815* (New York: Harwood Academic Publishers, 1984); William Alonso and Paul Starr, ed., *The Politics of Numbers* (New York: Russell Sage, 1987); Ian Hacking, *The Taming of Chance* (Cambridge: Cambridge University Press, 1990); Mary O. Furner and Barry Supple, *The State and Economic Knowledge: The American and British Experiences* (Cambridge: Cambridge University Press, 1990); Michael J. Lacey and Mary O. Furner, eds., *The State and Social Investigation in Britain and the United States* (Cambridge: Cambridge University Press, 1993); M. Norton Wise, *The Values of Precision* (Princeton: Princeton University Press, 1995); Silvana Patriarca, *Numbers and Nationhood: Writing Statistics in Nineteenth-Century Italy* (Cambridge: Cambridge University Press, 1996); Alain Desrosières, *The Politics of Large Numbers: A History of Statistical Reasoning*, trans. Camille Naish (Cambridge: Harvard University Press, 1998); J. Adam Tooze, *Statistics and the German State, 1900–1945: The Making of Modern Economic Knowledge* (Cambridge: Cambridge University Press, 2001).

The trouble with rationalization, of course, is that it cannot deliver what it promises: an apolitical, neutral form of knowledge and governance. Consider the case of economic statistics. Most economists would agree that the proper method for a given calculation depends on its objective; furthermore, selecting objectives for state-produced economic statistics requires political choices. Rationalization assumes a straightforward operation for this principle: the state or its representatives tell technical experts what they would like to know and experts define how best to produce that knowledge and to assess its accuracy. But the situation is rarely that simple, since the central concepts used to define economic statistics—“unemployment,” “inflation,” “productivity,” etc.—are rife with ambiguities. These ambiguities become recognizable when one seeks to translate the concepts into operational terms—that is, to construct a practical, working measure—especially when faced with challenges from those whose political perspectives or values differ from one’s own. In this situation, to choose between possible interpretations is to choose between competing objectives for a given calculation, and thus to make what is necessarily a political choice (i.e., a choice that is properly within the domain of political deliberation, even if political reasoning *per se* has not factored into the decision).

A history of American cost-of-living statistics illustrates how judgments with political implications have been interwoven into the calculation and use of official statistics. Attention to the cost of living typically has taken one of two forms. First, reform-minded Americans have periodically compared household incomes to the cost of an “adequate” standard of living, thereby providing a means to judge the sufficiency of wages or other income. Second, economists have tried to compare the costs of reaching a given standard of living in two time periods (or, less frequently, two geographic locations). Comparisons of the second sort are expressed as an index number, a ratio between two costs:

$$\text{Cost-of-living index} = \frac{\text{Cost of given standard of living (currently)}}{\text{Cost of same standard of living (in base period)}}$$

Today, economists often describe the CPI as an attempt to calculate such a cost-of-living index.

From the outset, it should be evident that comparisons of the first sort (between income and an adequate standard of living) are necessarily dependent on normative judgments. What constitutes an adequate standard for housing, clothing, food, healthcare, recreation, or other typical components of household expenditure? By contrast, comparisons of the second sort (an

index number) may seem free of such hazards. After all, here there is no attempt to judge adequacy; one merely tracks the cost of any given standard of living. But this apparent distinction between the first and second forms is illusory, for ambiguities abound in index numbers as well. How can you account for changes in the quality of goods or in the tastes and purchasing habits of consumers? Should a cost-of-living index focus strictly on price changes (as might be appropriate for monetary policy), or should it encompass a host of other shifts (such as moving to a more expensive location) that might also be construed as altering the cost of maintaining a constant standard of living?

In the abstract, of course, there are no universally valid, “right” answers to these questions (though there may be many wrong ones). Proper answers depend on the uses to which any given cost-of-living index is put, and they may be different for different applications, such as guiding monetary policy, “deflating” consumer expenditures for the national accounts, altering the official federal poverty thresholds, or adjusting Social Security payments. Equally important, selecting one of these applications to guide the design of an official cost-of-living index does not put an end to our troubles, for in designing our methodology to match that application (such as the indexation of tax brackets to account for changes in the cost of living), we will invariably encounter questions for which there can be no apolitical answers. (Exactly how should quality improvements in television sets affect tax brackets?)

Economic theory can help to clarify these issues by drawing distinctions, illuminating relationships, and judging the coherence of existing choices, but it cannot resolve the matter except by appealing (perhaps covertly) to applications where the normative judgments are less obvious, less consequential, or less contentious. To put the matter bluntly, a full specification of the proper methods for a statistical calculation requires a full specification of its objectives down to a high level of detail, which means that judgments with political valences extend all the way through the calculation process. (Examples of this claim are described in Chapters 5–9.)

Unfortunately, this reality runs counter to the motivation behind the widespread incorporation of economic statistics into public life, namely, the attempt to depoliticize large swaths of public and private administration through rationalization. The resulting tension—and the attempts to suppress, avoid, or mitigate it—drives the basic narrative of this book. It makes it possible to write an expressly *political* history of economic statistics—to study the choices made in crafting, stabilizing, and dismantling specific systems of rationalized governance (including their empirical bases) and

thereby to incorporate the construction and use of economic statistics into the history of American political economy.

Creating such a history is my primary interest. In that sense, although rationalization provides an important framework for my analysis, this book is not about rationalization per se, considered as a generic process. On its own, the concept of rationalization does not provide a rich or satisfying explanation for a given phenomenon. (To say that the indexation of Social Security is an example of rationalization tells us something, but not very much.) Instead, rationalization serves as a useful heuristic, a tool for recognizing analogous situations and suggesting critical questions or interpretations. The contingent nature of rationalization pushes us to probe the details, to ask why specific forms of rule-governed administration appeared at particular times and places, why they developed in certain ways, why they might have failed (if they did), and what consequences these systems had for political, social, and economic life.

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Statistically based, rationalized governance has been an important political strategy in the United States since the country's founding. During the Revolutionary War, for example, Massachusetts used price statistics to adjust payments to its militia, and the most well-known, American example of rationalized governance through statistics is embedded in the Constitution: the use of census data to distribute congressional seats among the states.<sup>13</sup> Nonetheless, rationalized governance based on national economic statistics emerged largely in the twentieth century as Americans grappled with the changes wrought by industrial capitalism and confronted a series of crises—two world wars and a major depression—that precipitated the expansion of federal power.

The growth of federal ambitions to manage American political economy thus forms a basic theme of my narrative. These projects not only elevated national cost-of-living statistics over the local measures that usually held comparable or greater sway up through the 1920s, but they also helped to change the primary form of those statistics. The most influential studies of the cost of living during the late nineteenth and early twentieth centuries were one-time surveys of family expenditures or prices. The prominence of routine data collection—which permitted the ongoing monitoring

<sup>13</sup> On the Massachusetts system, see Willard C. Fisher, "The Tabular Standard in Massachusetts History," *QJE*, no. 3 (1913): 417–454.