

The keeping of all sorts of statistics began when early civilizations learned to count their populations. The Romans, who for a time held a census every 5½ years on average, revered numbers. This marble frieze of about 100 B.C. shows a gathering for a post-count Ceremony of the Census, which included the sacrifice of animals to the gods.

Statistics

"Lies, damn lies, and statistics." During the 19th century, when that denunciation was first uttered (whether by Benjamin Disraeli or Mark Twain is still disputed), the industrializing nations were just beginning to become addicted to statistics—figures on population, the economy, and other matters of concern to the state. As scholars note, even accurate numbers can obfuscate as well as illuminate. "I still think that a familiarity with the best that has been thought and said by men of letters," critic Joseph Wood Krutch wrote in 1963, "is more helpful than all the sociologists' statistics." Yet, of necessity, the worldwide drive to quantify people, money, and almost everything else continues. To help policy-makers and others, the U.S. government alone spends \$1.4 billion a year collecting statistics, and it publishes 6,000 books of them annually. Here, William Alonso and Paul Starr discuss the role that "official" statistics now play in daily life. William Petersen looks at how the *politics* of numbers has affected the U.S. census.

A NATION OF NUMBERS WATCHERS

by William Alonso and Paul Starr

To read a newspaper in the United States (as in any advanced society) is to be bombarded by statistics. On any given day, the numerical fare may include figures on the cost of living and the unemployment rate, "lagging" and "leading" economic indicators, out-of-wedlock birthrates, reading scores, and life expectancies, not to mention data on crime, divorce, and oil reserves.

Most of these statistics are "official," in the sense that they are produced by the government. In some countries, of course, official statistics are routinely disbelieved. But where the statistical collecting and reporting agencies enjoy a reputation for professionalism, their findings are commonly presented—and

accepted—as neutral observations, like a weatherman's report on temperature and atmospheric pressure.

This view is too simple, of course.

Official statistics do not merely hold a mirror to reality. They are the product of social, political, and economic interests that are often in conflict with one another. They are shaped by presuppositions and theories about the nature of society. They are sensitive to methodological decisions made by complex bureaucracies with limited resources. Moreover, official numbers, especially those that appear in series (e.g., monthly inflation figures, quarterly bulletins on economic growth), do not reflect instantaneously all these shaping factors: They echo the past subtly, just as a landscape reflects its underlying geology.

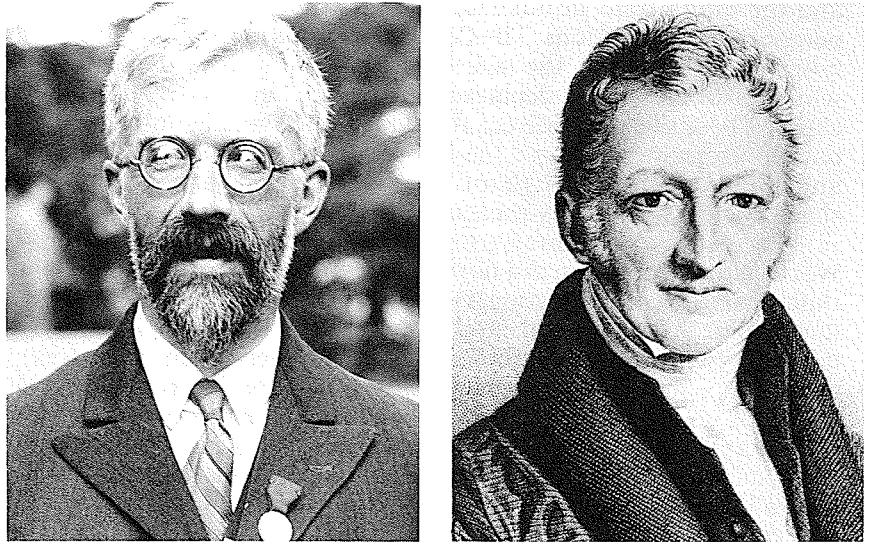
A Subtle Business

Official statistics have always been subject to competing influences, of course, but never before in America has so much *money* ridden on what the numbers say. In 1940, for example, only about nine percent of the federal budget was distributed as grants to states and localities. But by the early 1970s, that percentage had nearly doubled, and today such funds (totaling some \$100 billion) make up about one-fifth of state and local revenues. Where these billions get spent is largely determined by congressionally mandated formulas using statistics.

Numbers direct much more than just federal funding, as we all know. Standards for affirmative action in employment and school desegregation depend on official data on ethnic and racial composition. Several states now limit their budgets to a fixed share of projected state income, and a proposed "balanced-budget" amendment would do the same for the federal government—in effect, incorporating the fuzzy science of economic measurement and forecasting into the Constitution.

Official statistics directly affect the lives of millions of Americans. They determine the cost-of-living adjustments made to many wages and to Social Security payments, and they determine who is

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*Statistics' two faces: Methods developed by such theoreticians as Britain's Sir Ronald Fisher (1890–1962) helped science to flourish. What linked statistics to social policy was the work of men such as Sir Thomas Malthus. His 1798 *Essay on Population*, arguing that people could multiply beyond society's ability to feed them, led to Britain's first modern census.*

poor enough—or too rich—to qualify for food stamps and subsidized school lunches. They are used in regulating businesses, large and small, and they determine the rates at which hospitals are paid by Medicare. Higher rates, for example, apply to urban hospitals, but determining which areas count as urban and which as rural depends on statistical standards.

It is no wonder, then, that America has become a society of statistics watchers—from the congressman worried about redistricting by the state legislature under the “one-man, one-vote” court decisions of the 1960s, to the elderly couple on Social Security worried about rising costs; from the investment banker gauging changes in the money supply, to the farmer watching the figures on cost-price “parity” for his crops. Such numbers as the unemployment rate, the money supply, and various price indices have become thoroughly institutionalized: Even the hours of their release are etched on the Washington political and economic calendar, for they are certain to stir debate on the effects of government policy and to influence the financial markets.

But official statistics also affect society in subtler ways. By the categories employed, the questions asked (and not asked),

and the tabulations published, the statisticians change images, perceptions, aspirations. The Census Bureau's methods of classifying and measuring the size of population groups determine which citizens will be declared "Hispanics" or "Native Americans." These decisions direct the flow of various federally mandated "preferments," and they, in turn, spur various alliances and antagonisms throughout the population. Such numbers shape society while they measure it.

The absence of numbers may also be telling. For years after World War II, Lebanon did not hold an official census out of fear that a count of the torn country's Christians and Muslims might upset their fragile, negotiated sharing of power (which broke down anyway). Saudi Arabia's census has never been officially released, probably because of the Saudis' worry that publishing an exact count (showing their own population to be smaller than many suppose) could encourage enemies to invade or promote subversion. In Britain a few years ago, Scotland Yard created a furor when, for the first time, it broke down its statistics on crime according to race. Some Britons objected that mere publication of the data was inflammatory.

Statistics are lenses through which we form images of our society. During the early decades of the Republic, Americans saw the rapid growth in population and industry recorded by the Census Bureau as a confirmation, for all the world to see, of the success of the American experiment. Historian Frederick Jackson Turner announced his famous conclusion about the closing of the U.S. frontier on the basis of 1890 census data.

Today, our national self-perceptions are regularly confirmed or challenged by statistics on such fundamental matters as the condition of the nuclear family (allegedly still eroding), reading and literacy rates (ditto), the (slight) reversal of rural-to-urban migration, and our industrial productivity and military strength relative to other countries. Whether the meanings read into the data by politicians and pundits are reasonable or fanciful, the numbers provide a basis for popular and specialized discussion. Even when they misrepresent reality, they standardize our perceptions of it.

The process is thus recursive. Winston Churchill observed that first we shape our buildings, and then they shape us. The same may be said of statistics.
