STATISTICS FOR LEGISLATORS

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(The views expressed are those of the author and do not necessarily represent the views of the Joint Economic Committee, its subcommittees, or its members.)

One of the classic tools of business research is the market survey where the producer or distributor seeks to find out about the characteristics of the consumers of his product and the uses to which his product may be put. Without straining the analogy too much, let us begin by trying to understand a little about the average Member of Congress as a consumer of statistics.

Such surveys usually start with something about the occupational background of the prospective consumer. Over half of the membership in both Houses of Congress are lawyers. About a third of the Members have had some experience in business or finance. For the rest, there are medical doctors, journalists, engineers, teachers, and even ministers. A few members have quite impressive credentials in economics, as teachers or through government service. Senator Paul Douglas, of course, is a notable case. No Member, I believe, would identify himself as a statistician, although the economists, engineers, bankers, and perhaps others, will have some background in mathematics, statistics, and accounting.

Most Members of Congress who have had formal courses in economics or statistics probably took their work before the techniques and processes of aggregate analysis and the tools of national income, gross national product, or their components were available. The average age of the Senators and Members of the House would indicate that a large part of the Congress were in college before or about 1930, although of course there are many younger Members with more recent college experience. It is significant to recall that before 1930 only a small portion of the economic statistics now available were even in existence, let alone being published with any currency.

This does not necessarily mean that the average member has no familiarity with new measures and methods. Some of these statistics or techniques are in general public use, others he learns about through the kind of built-in seminar which is constantly provided by hearings on complex legislative matters. Fifteen years of the Employment Act with the annual economic reports of the President and the publications of the Joint Economic Committee have also contributed to many legislators' exposure to and knowledge of economic and statistical methods and language. But the picture of a Member of Congress as a consumer of statistics which emerges is still that of a generalist, with broad professional training and experience and, except for a very few, no specialization in economics or statistics.

Now what are the major purposes for which this Congressional consumer needs statistics? We start with the 13,000-14,000 bills and resolutions introduced each session of Congress and the 2300 which go through the committees, are reported to the floor, and passed. Not only are the measures increasing in number but also in complexity, and the use of numerical data in their presentation has become more and more essential.

As a committee member, the Senator or Representative must analyze and vote on some of these in committee. As an individual Member he must reach a decision as to his vote on the floor. He must be able to explain or justify his vote or position on pending measures to his constituents--in speeches, in individual discussion, or in response to correspondence. Above all, of course, he must satisfy himself that his part in the action taken is for the public good. He will have help from the executive agencies, committee staffs, and his own office, but in the end it is he alone who must find a basis for making decisions on literally thousands of legislative matters.

Statistics for legislators are, then, simply statistics for policy-makers. But these are special policy-makers indeed. They must make the hard decision more often, over a wider range of complex subject matter, and with a greater penalty for error than ever before in our history.

The time available for analysis and consideration prior to any policy decisions is unbelievably short. The need to draw a conclusion on some basis is unbelievably pressing.

Let me here pause to say that in considering statistics for legislative policy-makers I will draw my examples today from the area of economic stabilization. This is the area of legislative activity with which I have been most closely connected and--because of the intensive work of the Subcommittee on Economic Statistics--an area which we may be able to discuss with more precision.

This approach also leaves everything else wide open for my other colleagues on the panel. I dare say, however, we will all make a good many observations which have common application.

We start with a look at how the legislative consumer feels about statistics generally. One of the first recommendations of the Subcommittee on Economic Statistics when it was established in 1955 was to have included at some place in the President's budget document a summary of funds spent and budgeted for economic statistics. The thought behind this recommendation was to be able to make some kind of macro evaluation of the resources devoted to economic statistics--over time and in comparison with the changes of the economy as a whole. The story it tells over the years

since 1955 is one of a continuing desire on the part of the Congress and the Executive to provide adequate statistics for economic analysis and to improve our statistical resources. The attached table provides details on how this support has been distributed.

Even before the establishment of the Subcommittee on Economic Statistics, the Joint Economic Committee reflected the Congressional interest in statistics in its early reports. The first report by the committee staff was Current Gaps in Our Statistical Knowledge, issued in July 1948. The committee staff was also asked at that time to develop a publication to meet the growing needs of the Congress for current statistical information. The staff of the Council of Economic Advisers had a similar project underway for the Council. A cooperative arrangement was worked out which resulted in the publication of Economic Indicators. The popularity of Economic Indicators among the legislators resulted in a request to have it put on public sale and the Government Printing Office now has a subcription list of over 10,000 customers.

One result of the Congress having its own statistical publication has been to strengthen greatly the confidence in our regularly published statistics. The monthly booklet, Economic Indicators, not only presents a handy reference for the busy legislator but is a symbol of the complete bi-partisan interest of the Members of Congress in having the best set of facts available. Given the facts, they will interpret or combine them in the way which they consider appropriate to their point of view.

This is not to say that weaknesses in statistics might not be pointed out by any member of the Congress. But, with extremely rare exceptions these criticisms are on a professional, technical basis, and the type of question which any informed user might well raise. On the occasions when partisan implications have been made, a member of the critic's own party will often rise to the defense of the statisticians. An even more dramatic instance was the vigorous defense of employment and unemployment statistics against public attack last year. Members from both sides of the aisle rose to express their confidence in the integrity of the statistics and the statisticians producing them.

The legislator's first interest, then, is in statistics which are as technically correct as possible. His faith in the integrity of the figures produced by our statistical agencies, both public and private, is a continuous compliment to the statistics profession. But he will maintain this faith only as long as it can be demonstrated that the weaknesses and limitations which exist are inherent in the amount and kind of resources available, or the state of the arts, and do not come from any attempt to direct the results.

Given reliability and integrity of the basic series, what kind of statistics are apt to be most helpful to the legislator? Historically the answer has been those directed toward a single problem. In fact, many of the series we have today were developed to answer questions in connection with specific legislation. Our international trade statistics in connection with proposals for trade legislation, the Consumer Price Index in reviewing proposals for setting wage rates for shipyard workers, income statistics developed for the National Recovery Administration, and consideration of tax legislation, etc.

Today, examination of stabilization policies requires broader tools for the legislator, and, above all, statistics which portray and explain relationships. Here is where statistics and statisticians are increasingly making their greatest contribution to decision-making. Given various combinations of policy alternatives what are likely to be the results?

Ideally, at least from the standpoint of the harassed legislator, these relationships should be capable of being set down in the most summary fashion. For the Joint Economic Committee and the Council of Economic Advisers, this need for summary statistics has meant the development of the simplified economic model and the concept of the "potential" growth line. Even these devices have not been as well understood as they should be. And, of course, here is the hazard for the statistician and economist. The projections themselves can go wrong--or, what is more possible, too much is expected of them.

In some cases the attempt to reduce relationships goes even farther to what are virtually "rule-of-thumb" concepts. These are very popular indeed. For example, one rule-of-thumb frequently used is the assumption that the automatic stabilizers will offset about one-third of each $1 billion drop in Gross National Product. Other examples of the summary statistics are those that have been developed for revenue estimates in connection with the consideration of tax legislation: total revenue will decrease $3 billion for every $100 increase in the exemption, or each percentage point reduction in all individual income tax rates will mean a $2 billion loss in revenue--or the broader and more debatable measure, that each $1 billion of tax reduction will add $2.5 billion to Gross National Prodcut through the multiplier.

I am sure there are some in this audience who look very skeptically on this type of analysis. Let me simply say for them, that the alternative will be the calculation of similar figures by much less sophisticated persons, with much less knowledge of the limitations involved.

One way of examining the concerns of the Congress with the nation's statistics is to look at the objectives the staffs of the Council of Economic Advisers and the Economic Statistics Subcommittee have been encouraged to pursue in the biennial reviews of Economic Indicators. We start with the question of timeliness which is so familiar to all of us who have been on the production side of statistics.

A very real dilemma which faces most statis-

tics producers, in my experience, is whether to publish an inferior number and get it out sooner, or a better number which can only come out a day, a week, a month, later. The compromise is, of course, the "preliminary" figure, which is later revised. I suspect that forced to a choice, the legislator would pick the later but better figure and, as the Joint Economic Committee has done, ask that the whole process be speeded up. It is exceedingly disconcerting to a legislator to come out with a policy decision based on a set of "preliminary figures" only to learn a month or two later that the figures really went up instead of down.

More and more emphasis is now being put on seasonally adjusted series. The concept and usefulness of seasonal adjustment is well enough understood that it outweighs any possible confusion from having adjusted and unadjusted figures in the same table. Charts, particularly, use seasonally adjusted figures.

Wherever possible, more anticipatory series have been added to Economic Indicators. This is in response to a Subcommittee recommendation made after hearing from the Federal Reserve task force on anticipatory statistics. The interest of the Committee and other members of Congress in having figures on an earlier phase in the economic process rather than trying to force conclusions from preliminary data on a later phase is not new. The Dun and Bradstreet series on Business Men's Expectations was originally developed for the use of the Joint Economic Committee and first published in 1948. The Committee is also credited with doing much to stimulate the preparation and publication of the National Industrial Conference Board's survey of Preliminary Plans for Capital Spending.

Another question which comes up in connection with Economic Indicators is the broken series. That is, the revised series which is carried back a few years. I realize that there may be times when it simply is not possible to link series in any satisfactory way because of changes in concept, etc. But even in those cases, it is up to the statistician to give his best judgment on the relationship between the two series. He is in a better position than the user to make this judgment. The preference is to carry the series on the revised basis back to the beginning of the old series, or, at a minimum, to show for some overlap period what the numbers are on both bases.

So far, we have discussed existing statistics and largely in terms of their general use in connection with economic stabilization. In recent years a new dimension has been added in the form of policy questions about economic growth.

Here our tools are not as good. What is the return to society for investment in human capital? We know something of this by deducting the usual inputs from increases in output but it leaves us with a very large area of growth to account for. Or what is the return for investment in research and development? The Subcommittee on Economic Statistics has just completed a very illuminating set of hearings on "capacity"--illuminating from the standpoint of how little we really know about capacity and its relationship to economic growth. The hearings and report on Government Price Statistics and the included report of the Stigler Committee indicate that some of our use of price statistics strains them far beyond their original concepts. Here frontier research is needed on series some of which may be forty years old.

The statistician needs, then, to keep his present tools sharp and to continuously be on the lookout for new tools which are needed now or will be needed in the future to help the legislator shape policy. It is often said that a political democracy rests on an informed electorate and an informed government. In this last half of the twentieth century, in the kind of world we live in, statistics and statisticians will be looked to more and more to provide much of the information on which our private and public policymakers will rely.

Direct Obligations for Principal Current Federal Statistical Programs, by Agency, 1954-1963

(Fiscal years; millions of dollars)

AGENCY	1954 actual	1955 actual	1956 actual	1957 actual	1958 actual	1959 actual	1960 actual	1961 actual	1962 estimate	1963 estimate
Department of Agriculture:										
Agricultural Marketing Service										
Economic & Statistical analysis	0.9	1.0	1.4	1.4	1.6	1.6	1.6	--	--	--
Crop & Livestock estimates	3.7	4.0	4.6	5.1	5.7	6.2	6.4	--	--	--
Agricultural Research Service (production economics)	1.3	1.4	1.6	2.4	2.7	2.9	2.9	--	--	--
Economic Research Service (except foreign economic analysis)								8.3	8.5	9.3
Statistical Reporting Service								8.1	8.8	9.7
Department of Commerce:										
Bureau of the Census	6.8	6.3	7.3	7.4	8.2	8.6	8.2	9.6	10.8	13.0
Business & Defense Services Administration (construction statistics)	0.1	0.1	0.1	0.1	0.1	.2	--	--	--	--
Office of Business Economics	0.9	0.9	1.0	1.0	1.1	1.2	1.4	1.5	1.6	1.9
Department of Health, Education and Welfare:										
Office of Education										
Research Statistics	0.2	0.2	0.2	0.5	0.6	.7	.8	.9	1.0	1.3
Public Health Service										
National Office of Vital Statistics	1.3	1.3	1.4	1.4	1.6	1.6	--	--	--	--
Public Health Methods & Reports	0.5	0.5	0.5	1.2	1.9	2.0	--	--	--	--
National Health Statistics							3.0	4.0	4.5	5.2
Department of Labor:										
Bureau of Labor Statistics	5.5	5.4	6.6	7.1	7.5	8.0	10.5	11.1	12.4	15.3
Treasury Department:										
Internal Revenue Service										
Statistical reporting	1.6	2.0	1.9	1.8	2.4	2.6	2.6	3.1	3.2	3.9
Federal Trade Commission (financial reports)	0.1	0.1	0.3	0.3	0.2	.2	.2	.3	.3	.3
Securities & Exchange Commission										
Operational & Business statistics	0.2	0.1	0.2	0.2	0.2	.2	.2	.2	.2	.3
Total, current progrms	23.0	23.4	27.1	29.8	33.7	36.0	38.3	48.4	52.8	61.9
Periodic census programs	1.5	22.6	9.2	4.2	6.4	13.6	95.4	21.4	12.8	11.5
Total, principal statistical programs	24.5	46.0	36.3	34.0	40.1	49.6	133.7	69.9	65.6	73.4

Source: Budget of the United States Government, special analyses of principal statistical programs and Office of Statistical Standards, Bureau of the Budget. Details may not add to totals because of rounding.