EXPERIENCE IN WORKING TO IMPROVE RURAL AND AGRICULTURAL STATISTICS

by

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The United States prides itself in having the most reliable and detailed rural and agricultural statistics of any country in the world. This is reason enough to rejoice. But shortcomings are apparent. To use John Gardner's terminology, an <u>uncritical lover</u> of the statistical system would ignore deficiencies and an <u>unloving critic</u> would destroy the system; I shall attempt to be a <u>loving critic</u> trying to improve the system.

Data Series Deficiencies

Despite introduction of electronic data and word processing equipment, data series today seem to be no more timely or accurate as noted by some examples below.

In the series published in February 1982, productivity appears to be declining secularly, supply appears to be falling short of demand, and real farm prices could be expected to rise. By the later revised estimate, the shifts in supply due to productivity gains not only are high but seem comprehensive than in earlier times. Fundamental data series heavily influencing farm policy decisions are subject to large

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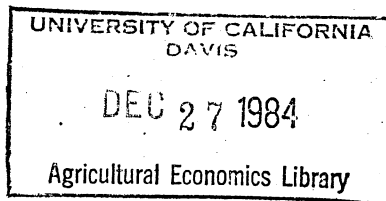
revisions. Some recent examples are listed below:

1. Oklahoma net farm income for 1981 was reported by the U.S. Department of Agriculture (October 1982, January 1984) as follows:

As Reported:	Before inventory adjustments	After inventory adjustments
	(Million dollars net farm income for 1981	
October 1982	1.0	143.2
January 1984	285.9	457.7

The adjustment measured in percentage or absolute terms was large indeed. Recently, U.S. net farm income reported for 1983 was revised downward from $22 billion to $16 billion.

2. Data revisions markedly changed perceptions of future trends in productivity series in supply-demand balance and hence in real price of farm output (Council of Economic Advisors):

As reported: Aggregate Productivity			
(Annual % increase in total farm output per unit of total input)			
	1949-59	1959-69	1969-79
February 1982	2.05	1.70	1.45
February 1984	1.95	1.75	1.88

to be increasing. It is the basis to project an unfavorable economic environment for agriculture in the 1980s.

3. A final example of data problems is in rates of return to farm assets, a critical variable in comparing farm and nonfarm well-being and disequilibrium. The U.S. Department of Agriculture (October 1983) estimates a current rate of return to farm assets

averaging 4 percent for the 1953-82 period. Melichar (1984) using the same basic data but apparently adjusting to a higher opportunity cost for labor computed a _current_ rate of return of only 2 percent for the 1953-83 period. Which series is most nearly correct?

Additional Data Needs

Quantity as well as quality of statistical data is at fault. Examples of data gaps include:

(1) It would be useful to array farm families (or individuals) by _personal income_ classes as a means to observe and analyze socio-economic and demographic characteristics of farm families (Bawden et al.). It would be useful to know, for example, the characteristics of those in poverty, including how long they stay there. How many families on farms of different scale (size) are in poverty? In-kind payments and wealth data would be components of the system.

(2) Delineation of Rural Statistical Areas and reporting of data comparable to what is now reported for each Metropolitan Statistical Area would be major additions to rural information bases and constitute a comprehensive national information system (Panel on Statistics).

(3) A measure of underemployment by county is needed to determine needs for jobs, labor force services, and the like. Unemployment is an inappropriate and poorly measured concept to record underutilized rural labor for a number of reasons cited by the Panel on Statistics (p. 202).

(4) Cost-of-living indices are available for metropolitan areas but not for rural areas of the nation. Without such measures, it is

not possible to compare real incomes among rural areas or between rural and metropolitan areas.

Concluding Comments

In concluding, I wish I could give a list of highly innovative approaches to maintain and improve our data systems. But I know of no better means than to focus resources and professional expertise on better data systems and then to convey that interest to the public, elected official, and administrators. Bonnen for one has articulated reasons for shortcomings of existing information systems and institutional changes necessary to make corrections. Social scientists have not done a very good job of indicating the costs to society of wrong decisions flowing from inadequate information systems and the benefits from more reliable and comprehensive systems.

References

Bawden, Lee, Thomas Browning, Thomas Carlin, Peter Emerson, George Irwin, and Luther Tweeten. "Income and Wealth Data as Indicators of Well-being for People Engaged in Farming." Pp. 87-92 in Agricultural and Rural Data. Proceedings of workshop held in Washington, D.C., Series B. Washington, D.C.: ESCS, USDA, May 1977.

Bonnen, James T. "The Need for Better Coordination of Policy and Priorities in Federal Statistics." Agricultural Economics Staff Report 82-33. East Lansing: Michigan State University, March 1982.

Council of Economic Advisors. "Economic Report of the President." Washington, D.C.: U.S. Government Printing Office, issued for February 1982 and February 1984.

Melichar, Emanuel. "A Financial Perspective on Agriculture."(Reprinted from Federal Reserve Bulletin) Washington, D.C.": Board of Governors, Federal Reserve Bank, January 1984.

Panel on Statistics for Rural Development Policy. Rural America in Passage: Statistics for Policy (Panel for Committee on National Statistics, National Research Council.) Washington, D.C.: National Academy Press, 1981.

Tweeten, Luther. "Farmland Pricing and Cash Flow in an Inflationary Economy". Research report P-811. Stillwater: Agricultural Experiment Station, Oklahoma State University, June 1981.

U.S. Department of Agriculture. "Economic Indicators of the Farm
Sector: State Income and Balance Sheet Statistics." Washington,
D.C.: ERS, USDA, issued for October 1981 and January 1984.

U.S. Department of Agriculture. "Economic Indicators of the Farm
Sector: Income and Balance Sheet Statistics, 1982." ECIFS 2-2.
Washington, D.C.: ERS, USDA, October 1983.