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ADEQUACY OF ECONOMIC STATISTICS FOR AGRI-BUSINESS PLANNING *

By

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When Jim Plaxico asked me last winter to take part in this program I looked forward to a rare opportunity to make some sweeping criticisms of both my former employer, USDA, and the Department of Commerce and perhaps in the process earn the Ralph Nader award for clean statistics.

Time has a way of changing things and humbling people. Dr. Taeuber has accomplished the latter by citing most of the shortcomings of his agency's agricultural facts. So, I come before you today, bent, but not broken. Rather than run the risk of unduly offending Federal Departments, I'd like to start by saying that despite all the weaknesses in both USDA and USDC statistics, they are the best of any in the world. In fact, we might be one of the under-developed nations of the world today if it hadn't been for the wisdom of our forebearers who saw the need for knowing where we had been so we could better see where we were going.

The title of my paper allows me to give the most brief presentation of all by simply saying that I think we have adequate economic statistics for agribusiness planning. But, I have been given 10 minutes on this program, and I intend to use them if for no other reason than to sell you some Nutrena Feed or Cargill Seed Corn.

Seriously, I am happy to have this opportunity both to applaud and to

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criticize constructively, I hope, the economic data that we researchers use in agri-business planning. I don't think that Abraham Lincoln had the vaguest notion what he was getting into when he authorized the first expenditure for the collection of statistics and distribution of seeds. I believe it was a significant contribution to propelling this country into its current position of world prominence in efficient production and marketing of agricultural and industrial products.

Adequacy of economic statistics implies more than just quantity. Sometimes it seems that we have more than enough in terms of sheer volume. This surplus of facts has often reminded me of a Statistical Reporting Service staff member from Washington who was in the Illinois field offices making the annual review. We loaded him with stacks of listing sheets and record books until he could barely see over them. After pouring over the information for several hours he looked up and said, "The very abundance of the data is confusing". So, it is clear that we are talking about more than just quantity of economic statistics. We are concerned with quality as well. Many of us have felt the frustration of too much bad information, but rarely have we been faced with too much good information.

Clearly, there is a need for more data, but most of us have learned to work with what is available, and now we are interested in seeing improvements in the quality. In this connection, it should be emphasized that it is important not only that data be subject to minimal error, but it should be revised as early as possible, yet as infrequently as possible. I realize that sounds like a Utopian condition, but Paul McCracken was more than jesting when he referred to Department of Commerce revisions saying, "We used to think it was tough to tell where we were going, but now we don't even know where we've been".

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Agri-business planning requires more than numbers of hogs and cattle and bushels of corn, potatoes, and apples. People, transportation, processing and finance are all integral parts of any modern look ahead for firms either selling to agriculture, or buying from it. If the company is involved in international trade, the list becomes longer and much more complicated. But, domestic statistics are sufficiently in need of improvement that I'll not attempt to make suggestions for foreign operations.

USDA recently began a program of retrenchment in its crop and livestock statistics, primarily out of budget considerations, but also with some thought for accuracy and timeliness as well. In the process, emphasis has been on national and regional data rather than state figures. As an industry economist who is engaged in interpreting these data to aid management decisions, I must admit that our needs are for more, not less, detail. Plant locations can't be made on the basis of regional, or even state data, but require county and frequently township information. The Census data has been adequate for these purposes in the past but now that agriculture is no longer a homogeneous entity, with unit operations being reported from a spatially separated location, county data may be misleading and, in some instances, totally useless. Some states have had outstanding county estimate programs in the past. Among those the Land of Lincoln is without a doubt one of the best in terms of content, timeliness and appearance. You will note that I avoided saying accuracy. This is not meant to be^a pointed criticism because it applies to county data from most states.

The technique for constructing county estimates carries in it the seed for error in excess of that for the state. Because county estimates are derived by breaking the state estimate down, rather than building state estimates from the county up, the latter are inherently weaker. To the extent that states have an annual state farm census, the county estimates in those states are likely to be

superior to those in states which do not have a census. It is frequently said that a man is his own best critic, and I believe I have had a unique opportunity to demonstrate that observation. When I was working for USDA as an agricultural statistician in the Illinois office in Springfield I was responsible for setting up the first series of county pig crop estimates. At the same time I was working on my masters at the University of Illinois and was, like all candidates, looking for a thesis topic. G. L. Jordan, my advisor, suggested that I do something relevant to my work (he thought that would be refreshing), and we settled on "An Analysis of County Pig Crop Estimates In Illinois". Professor Jordan then turned me over to Vince West, our only Department econometrician at the time. With a lot of help from Vince, I finally concluded that the county estimates that I had worked up were probably accurate within plus or minus 20%. Those first estimates were based strictly on Census data and our own survey averages per farm, etc. Today, the state farm census regularly obtains sow farrowings for both spring and fall crops, so I presume the accuracy of the county estimates has improved substantially. If someone is looking for a thesis topic, I'd like to suggest, "An Analysis of County Pig Crop Estimates In Illinois, Revisited". I would be very interested in the level of accuracy today.

Agriculture today is a far cry from what it was 40 years ago. The changes that have taken place, however, have been gradual enough that most of us have been able to adapt. There is no question that these changes have created problems for data collectors, and especially the Agricultural Census staff. Farm consolidation is a case in point. As long as some degree of comparability is maintained, the Census of Agriculture will probably provide adequate information for most agri-business plant and facility location studies.

The current USDA SRS program of crop and livestock statistics, however, gives cause for serious concern to firms operating in a framework of less than

national scope. Despite the obvious market importance of accurate national data, the impact is usually limited. Local prices are somewhat a function of national supplies but, primarily, are related to local supplies. In the absence of reasonably accurate local data, producers are likely to receive less than a fair price for their product in the short run and be driven out of business in the long run. In a pure economic sense this may not be all bad, but I for one believe those areas of comparative advantage should be identified by the market -- not by the Federal Government.

Agri-business planning involves more than crop and livestock production and marketing information as I have earlier indicated. We have for a number of years been comfortably planning on a growing number of mouths to be fed around the world and in particular, in the United States. The best input we could obtain from government experts suggested something like a 1.5% annual increase in population. This may not sound like much to some firms accustomed to 10 and 15% increases, but we foresaw those people eating better each year, providing an overall annual demand improvement well in excess of 1.5%. Admittedly, our first 10-year projections were made B.P. (for those who don't know, that's Before Pill). Since then, we seem to be having difficulty in generating an annual increment of 1%, which means that 10-year projections must be reduced by about 6%. This is enough to change plans, or to make some previous expenditures look silly.

The unanswerable question is, "How much economic waste occurs each year as a result of inadequate information?" The other side of the coin is, "How much economic waste occurs each year as a result of inadequate interpretation?" I'd be the first to admit that there is a fair amount of the latter. The difference is that the former affects the public whereas the latter tends to be localized in its impact, affecting corporate stockholders the most. In such instances,

corrections in the interpreter can be made rather quickly, but no one has been successful in attempts to fire the USDA or the USDC because their data was revised drastically, or because it fell short of describing the condition in terms of either quantity or quality. The point I'm trying to make is simply this -- it is important that agri-business plans be formulated out of competent analysis of competent data. The data processing industry gave rise to the expression, "GIGO" which so adequately describes it all -- "Garbage In - Garbage Out!"

A program such as this should not be used as a forum for obtaining improvements in specific inadequate areas, but instead should serve as a platform for a broad awakening to the need for adequate economic statistics in terms of both quantity and quality and, finally, for suggestions of what can be done to bring about some improvement.

I have been privileged to work with the largest fact-finding arm of USDA, namely, the Statistical Reporting Service. (When I worked for them, however, they were known more humbly as Agricultural Estimates.) I have also had a favorable opportunity as a member of the Market Research Committee of the American Feed Manufacturers Association. In both of those settings I had first-hand experience in the production, processing, and distribution of statistics, plus the opportunity to influence the quality of data. At USDA I learned the value of phrasing questions, whether written or oral, in terms of getting the kind of information desired. I became greatly impressed with the importance placed on data by various users.

I also had the frustrating experience of trying to answer questions without adequate information. At a time when I was responsible for broiler estimates in Illinois, we were figuring annual production of about 50 million birds. L. J. Norton, whom many of you remember, thought at that time that the broiler industry

had become sufficiently important to warrant research for a doctoral dissertation. We were anxious to learn more ourselves so we gladly made available our lists of growers and sent the doctoral candidate on his way. He scoured the state and reported a total of about 10 million birds being produced. We sent him back, suggesting that he had obviously missed some large operations because our estimates just couldn't be that much in error. After another month of research his answer was the same. A short time later the 1949 Census of Agriculture was released, and it showed essentially the same 10 million birds that the graduate student found. We were embarrassed, to say the least, but we promptly revised our estimates downward and since then Illinois has been a less prominent part of the broiler output.

As a member of the AFMA Market Research Committee I've had the opportunity to sit down with both Census and USDA personnel to discuss our data needs as well as to make suggestions for improving existing data. The response has been most gratifying. Both departments expressed appreciation for a better insight into the data requirements of firms dealing with agricultural producers, and both made special efforts to accommodate our requests. For years we simply griped among ourselves about the shortcomings of data, worked with what we had, and let it go at that. Then the AFMA Market Research Committee asked for, and was granted, an audience with Tom Breen and his Census staff -- well in advance of the 1969 Census of Agriculture. We were amazed at the reception they gave us. We expected to hear all kinds of stories of inflexibility and the need for maintaining comparability. But we were 100% wrong! They had tried to collect relevant data but had been unable to generate enough interest on the part of industry to determine what was, or wasn't, relevant. As a result, they collected and published the kind of information they thought might be most useful.

We have subsequently been asked for advice on the Census of Manufacturers. Those of us on the committee are now firm believers in that biblical imperative, "Ask and ye shall receive".

In summary, it would be misleading to suggest that we have adequate economic statistics for agri-business planning purposes. To throw a general blanket of criticism, however, over the collecting agencies and the data they provide would be equally improper. We do not have adequate data in many areas, yet in some we have a surplus. It should be the responsibility of agricultural researchers in universities, government, and industry to call attention to those areas of inadequacy. Despite the fact that there will always be a short-fall between what is practically available, and what is optimally desired, a narrowing of the gap can be effected by maintaining a dialogue between data producers and consumers of data.

I am grateful for this occasion to view the game from both sides of the field. I can tell you that there is no more dedicated group of fact gatherers than those in USDA and the Department of Commerce. They deserve far more recognition than they have been accorded. Aided by our constructive criticism, I am confident that the product of their labors will continue to merit the title, "world's greatest".