FOOD PROCUREMENT BY USDA's FARM SERVICE AGENCY

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Abstract

USDA's Farm Service Agency (FSA) purchases food products for distribution through several of the Department's food assistance programs. This report describes FSA purchase methods and compares them to procurement strategies used by other Federal agencies and by private sector firms. It summarizes the principal policy issues faced by FSA in designing procurement strategies. Finally, it uses a detailed statistical analysis to compare FSA prices to those realized in the private sector, and to identify the separate effects of agricultural commodity prices, seasonality, client location, purchase volumes, product characteristics, and competition on FSA product prices.

Keywords: procurement, auctions, food assistance, competition

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Executive Summary

The U.S. Department of Agriculture's Farm Service Agency (FSA) purchases food products for distribution through several of the Department's food assistance programs. FSA purchases food throughout the year, using methods that economists refer to as auctions. The food products are then delivered to States for distribution to client agencies, such as school systems and social service organizations, which in turn distribute the products to needy households.

In the fall of 1996, FSA asked the Department's Economic Research Service (ERS) to evaluate the agency's procurement system. This report summarizes that work, based on three sources of information: 1) interviews with participants, including FSA employees and clients, other government agencies with responsibilities for food procurement, and private sector food processors and distributors; 2) summary FSA expenditure and quantity data; and 3) an extensive statistical analysis of data on individual FSA auctions, focusing on the determinants of FSA bid prices and on comparisons with commercial prices for the same products.

FSA Obtains Highly Competitive Prices

FSA's system aims to elicit low-price bids for the delivery of large volumes of a limited number of food products. The system works well in reaching those goals: FSA prices are substantially lower than those paid by private sector buyers for corresponding products. Moreover, processing margins for FSA products are quite low; FSA stretches USDA budget dollars by purchasing substantial volumes of food products for any given budget allocation.

Experience at other major Federal procurement agencies, such as the Department of Defense and the Department of Veterans Affairs, shows that ultimate consumers want more than low prices. Along with nutrition, they are also interested in timely delivery and product variety. FSA does not act as a full-line food distributor for its clients, and hence does not focus on wide variety and rapid delivery. Rather, it provides clients with the opportunity to obtain large volumes of a few items at very favorable prices, by limiting product variety and by responding more slowly to orders than full-line distributors. Clients can more effectively spend the rest of their budgets on a variety of products.

But Clients Cite Four Problems in USDA Service Quality

1. ***Unreliable Delivery***. Because of FSA's long lead times for delivery, client agencies must plan meals well in advance. If deliveries arrive late, meal plans are upset, meal quality can suffer, and client agency costs can rise sharply when they must replace FSA's orders quickly. Interviewees cited several sources of delivery delays: lags due to USDA inspection delays (typically at small plants), cancellation of auctions, and vendor noncompliance.

2. ***Product Selection***. Client agencies feel that surplus removal goals often drive the selection and distribution of bonus commodities that clients frequently have little interest in, although this problem relates more to the distribution of bonus commodities through the Agricultural Marketing Service.

3. ***Product Deterioration***. USDA products follow a long distribution chain between ordering and eating. A client first places an order with USDA, which arranges for production. A vendor then manufactures the product, and arranges for delivery from the processing plant to a State warehouse or to another processing site. The product is then delivered to the client's central facilities, before being distributed to dining facilities, where further preparation and holding may occur before serving. Deterioration may occur at any point in the chain.

4. ***Problem resolution***. The client may interact with State government agencies in ordering and final delivery, and may be unaware that up to five different USDA agencies may be involved in their order for food, as well as private vendors, truckers, and warehouses.

What Drives FSA Bids?
Observations and Recommendations

1. ***Agricultural Commodity Prices***. FSA bids are far more sensitive to agricultural price movements than are wholesale and retail food prices. Because FSA prices are so sensitive to agricultural prices, they will fall more than wholesale and retail prices when agricultural prices decline, and they will rise more when agricultural prices rise. The gap between FSA and corresponding retail and wholesale prices should therefore be largest during periods of relatively low agricultural prices, and smallest during periods of high agricultural prices.

2. ***Competition***. We found that competition matters in FSA auctions, but it matters a lot only in some circumstances. As an approximate rule of thumb, FSA can do as much for its clients by attracting a second bidder to a monopoly auction (reducing prices by 4-7 percent), as by finding four more bidders for an auction that already has two. Consequently, we recommend that FSA focus its efforts on adding bidders at those auctions that typically attract only 1 or 2 bidders.

The number of bidders in FSA auctions varies substantially by product and over time. Where are the most serious competitive problems? The data suggest that seasonality is important for some products: for example, over three-quarters of monopoly auctions in flour occur in the fall, when mills operate near peak capacity. Monopoly auctions are also more likely among products with limited FSA volume, because of unusual package sizes or product characteristics.

In those cases, FSA can counteract monopoly by conveying accurate price information to clients—for example, that FSA's price advantages over commercial flour providers are weakest in the fall and strongest in other periods, or that FSA's price advantages are strongest in high-volume products. We recommend that FSA explore ways to counteract seasonal variations in monopoly by extending the experiment with rolling contracts, currently in use with cheese, to other products.

Participation in FSA bidding has a distinctive “all or nothing” character to it—bidders typically commit to being active in FSA auctions, in which case they bid actively each month on auctions for a variety of locations and products. Auction participation then does not typically decline because bidders reduce the number of auctions they are active in; rather, firms decide to get out of FSA bidding entirely. Our present research has not aimed to uncover the reasons why firms decide to enter or leave FSA’s bidding process. But efforts to increase competition should emphasize research into the reasons for entry and exit by those firms, and the research should generate strategies to attract participation by more firms.

3. ***Product Volumes***. Monthly FSA purchase volumes have dropped substantially as a result of changes in USDA commodity support programs. But declining volumes have not yet had any substantive effects on FSA prices. Purchase volumes have only small direct effects on prices, and those effects are not always in the same direction. Moreover, the monthly volumes that matter are total USDA purchases (foreign and domestic), and not simply domestic purchases. The most important effects on prices occur in months in which large PL480 purchases are occurring—in those months, coincident large domestic purchases can lead to FSA price increases of 2-4 percent. The driving factor in these instances are PL480 purchases, which vary quite sharply from month to month. FSA should initiate strategies to get better prices on domestic flour and vegetable oil, either by smoothing PL480 purchases, or by timing domestic purchases to avoid peaks in PL480 purchases.

Order volumes (the amount going to a specific destination in a specific order) have very small effects on prices. Larger orders generally draw more aggressive bidding, but prices only fall by less than 1 percent—combining orders into multiple truckloads yields very limited savings. Major gains in price likely come as one goes to truckload volumes from smaller orders, and FSA already acts to combine small orders into orders of at least truckload sizes.

Service Quality
Observations and Recommendations

FSA’s procurement system is designed to obtain good-quality products at very competitive prices. But at times, FSA may sacrifice service quality in the form of reliable delivery and in the pursuit of advantageous prices:

1. ***Canceled Auctions***. There may be a problem in Kansas City Commodity Office’s (KCCO) calculation of constructed prices, used in deciding whether to cancel an auction and shift purchases to a later month. In particular, because constructed prices seem to be less sensitive to underlying agricultural prices than actual bid prices are, constructed prices may give insufficient weight to agricultural prices. Now, the threat of cancellation can be useful— auction theory suggests that the threat can lead to more competitive bidding, and the threat of cancellation is only credible if it is actually used at times. But actual cancellations lead to lags in product deliveries, and can therefore impose substantial costs on clients. We therefore recommend that FSA review its procedures for calculating constructed prices, with a particular focus on the weight given to agricultural prices.

2. ***Penalties***. Vendors have traditionally faced weak penalties for failures to meet FSA delivery dates. Our statistical analysis shows that vendors are very sensitive to

economic incentives—they revise bids quickly to changes in materials costs, transport costs, and capacity utilization. Stronger penalties for noncompliance, in the form of financial penalties or suspension of later contracts, should lead to improved vendor compliance.

3. ***USDA Inspection and Labels***. Under existing rules, FSA products undergo onsite USDA inspection and must carry USDA, rather than commercial, labels. The rules are related: reliance on USDA labels and packaging shifts some risks of poor product quality to USDA, and consequently creates a need for USDA inspection. Inspection, along with occasional unusual packaging requirements, can raise vendor costs by 1-2 percent; USDA inspection and testing can also lead to lags in product delivery, which clients cite as a persistent problem. Some vendors, especially relatively small plants, cite inspection and packaging requirements as deterrents to participation in FSA auctions, because of the effects on cost and on timely delivery of products.

The current system results in very competitive prices, and the insistence on USDA labels may contribute to the competition that leads to those prices—some firms may not wish to bid aggressively on their own branded products. In some products, in other words, the net effect of USDA labels and inspection may be lower prices. But the insistence on USDA labels may, in other products, limit opportunities to obtain surplus stocks of commercially labeled products and may deter additional bidders from participating.

FSA currently purchases commercially labeled products in a few commodity categories. In markets with only a few vendors, FSA may be able to obtain more product variety and greater competition by opening auctions to commercially labeled products—the clear examples include the current experiments in ready-to-eat cereal and infant formula. Those two cases illustrate a dilemma for the agency. A principal argument made for USDA labels is that they limit brand loyalty on the part of consumers and therefore allow for more competitive bidding, but brand loyalty is important in those two products (especially ready-to-eat cereal).

FSA's shift to purchase of commercial labels reflects the agency's judgment that the shift may introduce greater competition into two highly concentrated markets. But FSA also purchases products for other markets in which brand loyalty is far less important, because the brands are never seen by ultimate consumers and because the products are used as ingredients in final servings, not as the serving itself. We recommend that FSA carefully evaluate its current experiments and consider a gradual expansion of commercial labels (especially including high-quality private label and wholesalers' own-brand products), especially in products with limited existing brand loyalty and low vendor participation.

The research for this report relied primarily on paper reports, whose data were reentered into an electronic format, because FSA disposes of the electronic records of auctions after 1 year. Electronic data retention grows cheaper every year, as do methods for analyzing data. Moreover, because of steady improvements in data retention and analysis, undergraduate business and economics majors now routinely learn almost all of the techniques used in this report. KCCO commodity analysts should in the future be able to easily call up 5 years' worth of past auction data (for example); they should be able to quickly summarize key data patterns, and can easily be provided with expert summaries of more subtle issues. They should be able to use that information in making auction decisions and in delivering timely information and advice to client agencies. We recommend that KCCO's future strategy for information technology include steps to retain electronic auction records and to develop those records into easily accessible databases.