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# Valuing Public Price Reporting: The Iowa Experience

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***Abstract:** Auction market users and operators were surveyed regarding their source and use of livestock auction price information. Although important for marketing and to a lesser extent production decisions, only 30 percent preferred publicly reported prices over reports from market operators or other sources. The small share of market users willing to pay for public price reports suggests acceptable substitutes are available. Based on these results it is unlikely that user fees will be able to replace the current level of public support for auction market price reporting.*

***Key Words and Phrases:** Price reporting, Willingness to pay.*

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In an era of federal deficits, declining government resources, and increased shifting of traditionally public services to the private sector, funding for publicly reported price information is being called into question. At the same time there is growing concern in the livestock and meat sectors about price reporting, price discovery, and efficient transmission of market signals regarding quality characteristics. Federal budget concerns carry over into state governments as well. In particular, state reporting of livestock auction market prices and volumes has been reduced in some states and faces elimination in others. Accurate and timely market price reporting is an important contributor to price discovery and is necessary for buyers and sellers to make efficient marketing decisions (Ward). A paradox is developing between the need for efficient markets and price discovery, and reduced government funding for activities facilitating desired activities.

## *Background and Perspective*

Reporting of market information by public agencies has persisted for more than a century in the United States (Allen, Huggins and Killion).

Because public price reporting and market information are important to efficient markets, providing buyers and sellers of agricultural products with equivalent information regardless of their size, society has a stake since markets impact resource allocation (Dobson). Inappropriate resource allocation due to a lack of good quality information on which to base production and marketing decisions will result in a dead weight loss to society. Profit-maximizing buyers and sellers using this information to make decisions that impact their business would be expected to place a value on such information, and they should be willing to pay for it. However, free-rider problems associated with the public-good nature of market price reporting cause the private sector to provide less than the optimal amount from a society perspective.

Plans are being considered to shift some U.S. Department of Agriculture (USDA) price reports, inventory reports and forecasts, and regulatory functions to the private sector. Will privatizing these services eliminate their function or will beneficiaries of this heretofore public service be willing to pay to make private services economically viable? Because public reporting often has been the standard in the market, the private sector may initially choose to operate with less or no information, while determining its value and the level at which to reestablish. Rapidly increasing sources of information and improving technological access to information continue to reduce the cost of private information (Just). Electronic media, fax machines, internet, and in-home satellite market information services, e.g., DTN or FarmDayta, link decision makers to public and private market information. If private sources are the source of primary information, this raises questions of potential bias. Access to multiple market information sources (public and private) allow market participants to compare price reports and evaluate the credibility of the information. In the case of public reporting of auction market prices, agribusinesses with a vested interest in the information—the auction markets themselves—are providing a private substitute in the absence of a public good. Other agribusinesses, including agricultural producers, will face similar choices in the future as government resources and provided services.

Is public reporting of livestock auction markets sufficiently valuable to users that government resources should be allocated, or are there acceptable substitutes available in the private sector? Auction market managers and livestock buyers and sellers in Iowa, a state experiencing cuts to market reporting funds, were surveyed about where they get market information, how they use it, and their willingness to pay for objective third-party price reporting of auction markets. The results of the surveys are presented, and

possible implications from shifting public price reporting to the private sector and privatizing other similar public goods are considered.

### *Price Reporting and Public Information*

Public price reports can be classified as a public good because they exhibit indivisibility, uncertainty, and nonappropriability (Henderson, Schrader and Rhodes). Indivisibility involves the idea that the cost of collecting information is unaffected by the number of users. Scale economies in information collection may encourage larger firms to generate their own information, but limited resource market participants, at a minimum, may have access to only basic, primarily public, information. Uncertainty describes the inability of the information user to assess the benefits of collecting the information until after the information is known. Nonappropriability refers to the fact that the supplier cannot easily limit who has access to information once it is released to users. Private firms have difficulty controlling the information they wish to sell, making it difficult to recover their costs. Because of the public-good nature of price information, users are reluctant to pay for it. They become free riders, waiting for other individuals to pay for the collection of this information, knowing that the marginal cost of sharing the information is less than the cost of protecting it, and that they cannot be excluded from using it.

Private providers of information, with a supply curve based on the marginal cost of producing the information, determine the quantity supplied based on the demand curve of information users willing to pay for its use (Just, Hueth and Schmitz). As a result, the private sector will not produce the optimal amount of this public good. While the cost of collecting and disseminating third-party price reports can be measured in time, equipment and expense, quantifying the benefits of public price reporting is more challenging. However, the perceived value of a public good can be estimated using a willingness to pay (Combs, et al.).

Henderson, Schrader and Rhodes argue that public price reporting has increased the efficiency of economic resource allocation by reducing the cost of information and improving arbitrage. Price reporting has also facilitated a movement away from the public markets to more direct trading by giving agents observable prices that reflect current market conditions. This movement has resulted in more thinly traded public markets, raising concerns about the quality of price discovery in those markets.

Researchers examining the value of government reports and current market price reports have differentiated between *ex ante* information

(inventory and acreage reports or forecasts) and *ex post* information (price reports of current markets) (Bullock; Gardner; Just) and are split on the relative importance of each. Because of the delay in releasing production and/or inventory reports due to collection and analysis time, some argue that the markets already reflect the information that will be released (Carter and Galopin).

Public price reporting does reduce search cost, but information scale economies may still encourage larger operations to obtain more information than is publicly available. Continued concentration of the agricultural production sector also raises questions about the continued need for publicly supported price reporting as firms grow large enough to economically internalize market information collection and analysis.

Price reporting suffers from classic public-good problems. While information may have value to its users and scale economies exist in collecting it, private sector firms have difficulty charging for the information because of the high cost of excluding free riders. Technological advancements have increased access to price information, but are limited in their ability to control or quantify the quality of this information. Researchers agree that price reporting has facilitated market arbitrage and price discovery, but are divided on how limited government resources should be allocated between providing *ex ante* and *ex post* information.

### *Auction Market Price Reporting*

Auction market volume has declined over the last half century (U.S. Department of Agriculture), but auction markets remain an important market for feeder cattle, feeder pigs, cull breeding stock, and some other livestock sold in small lots. Public auction market price reporting is the responsibility of the state government in conjunction with the USDA. State funded market reporters are trained and certified by the USDA and the prices they collect are reported over the USDA market news wire. Certified market reporters attend auctions, visually grade animals in the ring and report the selling price.

In addition to publicly funded price reporting, private market price information is available. Auction market operators often summarize all or selected parts of their sale results and present their price report via the local newspaper or radio. These reports typically double as advertisements for the auction market and inform potential market participants of market conditions, and their costs are passed back to sellers in higher marketing fees. Market information services such as radio stations, DTN, and

FarmDayta often ask auction markets for price summaries. Buyers and sellers themselves may attend the auctions to gather information of market prices and trends, and they may share that information with other buyers and/or sellers. Although these sources of market information may not be objective or unbiased, or, at a minimum, suffer from selective memory, they do represent an alternative to public price reporting. There is also some cost associated with collecting and disseminating the information.

### *Social Benefit of Public Reporting*

The red meat industry is a series of vertically linked market sectors from the breeding herd to the consumer. It can be argued that the sectors between the breeding herd and the consumer are margin businesses that buy and sell intermediate products and ultimately pass costs forward to consumers or backward to the owners of the breeding herd. Long-run red meat supply decisions are made by owners of the breeding herd. Although auction market price information most directly impacts short-run marketing decisions of buyers and sellers (when and/or where to buy/sell), better informed short-run marketing decisions lead to reduced risk or increased profits and expanded supplies. A reduction in the quantity or quality of information to make informed marketing decisions, or increased cost of obtaining private information in lieu of public information, will result in reduced red meat supplies and higher consumer prices. The following model examines the potential misallocation of resources, and resulting deadweight loss, due to noise in market signals available to buyers and sellers.

Auction market sellers face short-run marketing decisions of when to sell (today or in the very near future) and where to sell. Consider a feeder animal producer  $m$  at time  $t$  with a production function

$$(1) \quad Q_{st}^m = f(Q_{st-1}^m, P_{st}^e)$$

based on previous production decisions,  $Q_{st-1}^m$ , and price expectations,  $P_{st}^e$ . The short-run market supply curve is relatively inelastic and is the aggregation of the  $m$  firms

$$(2) \quad Q_{st}^M = \sum_{M=1}^M Q_{st}^m$$

The demand for feeder animals is a derived demand based on expected cost of gain,  $C_{dt}^m$ , and expected selling price,  $P_{dt}^{eT}$ , for the finished animal derived from the consumer demand for meat and the expected purchase price of the feeder animal,  $P_{dt}^e$ .

$$(3) \quad Q_{dt}^m = f(C_{dt}^m, P_{dt}^{eT}, P_{dt}^e).$$

The market demand for feeder animals at time  $t$  is

$$(4) \quad Q_{st}^D = \sum_{d=1}^D Q_{st}^d.$$

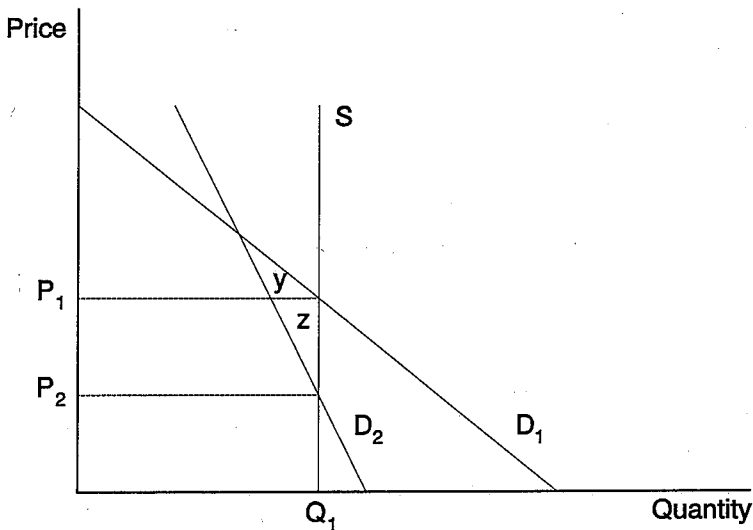
Buyer and seller price expectations for the feeder animal are a function of the market information,  $I_t$ , available to the buyer and seller

$$(5) \quad P_t^e = f(I_t).$$

Market information has both a quantity and quality component and includes recent and current price data from the local market,  $Z_1$ , and related markets,  $Z_2 \dots Z_n$ . These related or substitute markets may be other markets in the region, and/or the futures market which reflects price changes expected in market  $Z_1$ .

Reduced public price reporting reduces the amount and quality of information,  $I_t$ , and forces market participants to find substitutes and results in two potential sources of deadweight loss to society. In the short run, the supply curve  $S$  is relatively inelastic because production of the feeder animals has already occurred (Figure 1). Once a seller has chosen a location and date to sell the animals, the supply is nearly perfectly inelastic because of the high cost of a "no-sale." Buyers have more flexibility about when and where to buy animals resulting in a more elastic demand curve  $D_1$ . With adequate information, supply  $Q_1$  clears the market at price  $P_1$ . Increased uncertainty because of limited or suspect market information, will cause a leftward shift and possible rotation of the demand curve in the short run if buyers have noisy perceptions about equilibrium prices and become more reluctant to buy at any given price. The supply may remain at  $Q_1$ , and consumer surplus is increased at the expense of producer surplus. The resulting deadweight loss is the triangle area  $yz$  that depends on the relative change in slope of the demand curve.

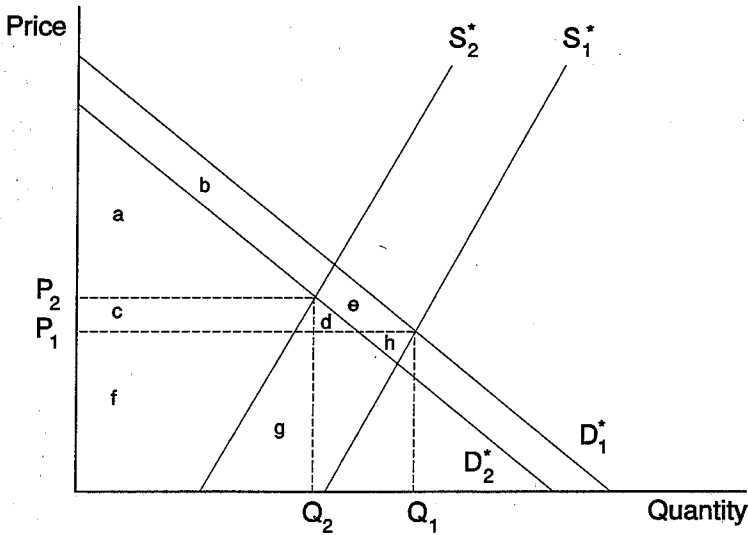
Figure 1.  
*Short Run Supply for Feeder Animals*



The second potential cause of loss to society is long-run shifts to the left in both the supply and demand curves due to increased market uncertainty and marketing cost that results in a reallocation of resources (Figure 2). The size of these shifts will depend on the difference in perceived value of public versus private information plus the increased cost incurred by the private sector. The supply initial  $S_1^*$  and demand curve  $D_1^*$  with public price reporting results in equilibrium conditions  $Q_1, P_1$ . Because of the margin nature of the feeding sector, feedlots will attempt to pass increased market information cost back to sellers by bidding less for feeder animals to maintain expected profit objectives. In addition, the long-run demand curve may shift to the left to  $D_2^*$  because of risks being higher. Without public reporting, feeder animal producers facing less available information or higher cost of information would reduce production, shifting the supply curve to the left ( $S_2^*$ ). The equilibrium quantity and price are  $Q_2, P_2$ . Producer surplus decreases by  $g+h$ , but increases by area  $c$  at the expense of consumer surplus. Consumer surplus decreases by  $b+c+d+e$ . The cost or benefit to society depends on the relative size of



Figure 2.

*Long Run Shifts in Supply and Demand for Feeder Animals*

the area lost,  $b+d+e+g+h$ , compared to the cost savings from discontinuing public price reporting.

Whether society is better off by cutting public reporting of market information depends on the elasticities of supply and demand and the cost savings from dropping the service. If producers place little value on public reporting or if there is relatively little cost in replacing public reports with substitutes from the private sector, the supply and demand curves may change very little regardless of the cost of supplying the information by the government. However, if producers place high value on public reporting or if the cost of replacing it in the private sector is high, then supply and demand decline further.

**Survey Results**

How much value do market participants place on public market information? Do they perceive that acceptable substitutes are available, and would they pay to maintain a public reporting system? Livestock

buyers, sellers and auction market operators were surveyed during the summer of 1994 to determine the importance of public price reporting of auction markets. A random sample of Iowa livestock operations was drawn and surveyed by Iowa Agricultural Statistics. Fifty-five feeder pig buyers and forty-eight feeder pig sellers, and ninety-eight feeder cattle buyers and ninety-nine feeder cattle sellers were interviewed by telephone on their perception and use of public auction market reporting. The response rate of buyers and sellers contacted was nearly 100 percent. All bonded auction markets in the state were surveyed by mail and 31 percent responded.

**Auction Managers.** The twenty-four auction markets responding sold over 392,000 feeder pigs and 810,000 feeder cattle in 1993. Nearly all auction managers reported their prices, typically to the print or broadcast media in a variety of ways, the most common being a range of prices for a given weight class of animals. The second most common method was describing and reporting prices of selected individual lots. Public price reporting may have value to auction managers because it may reduce costs for them by eliminating the need for their own price reporting. If some auction market managers gain an unfair advantage by reporting prices inaccurately to try and improve their volume, "honest" auction market managers would likely be willing to pay for unbiased reporting of all auctions to level the competitive playing field and offset inaccurate reporting. Dishonest auction managers would not want public price reporting.

The majority of the managers whose auction market reports by government price reporters were discontinued have noticed no changes in the operation or performance of their market (Table 1). Two-thirds of the auction managers reported that the current price reporting system is sufficient for markets to operate efficiently. Several managers indicated some value to public price reporting in their short answer responses, but only three of the twenty-four respondents indicated they would be willing to pay a surcharge for public price reporting of their auction. Some managers were adamantly opposed to public price reporting or any type of government involvement with markets. These results suggest auction market managers are neither concerned about the cost of providing private price reports, or the accuracy or adequacy of their competition's price reporting nor have they experienced major cost or operational difficulties in a private price reporting system.

**Buyers and Sellers.** Cattle producers buy or sell feeder animals less frequently than do hog producers (Table 2), but are relatively more frequent users of auction markets. Approximately half of the hog producer

Table 1.

*Auction Market Managers' Responses Regarding Public Price Reporting and the Impact of Discontinuing of Public Price Reports*

Question	Respondent' Answers (%)	
	Yes	No
Have your auction's feeder cattle or feeder pig prices ever been reported by a government reporter?	57	43
If your auction prices are no longer reported by a government reporter, has it changed the operation or performance of your auction?	17	83
Is the current price reporting system adequate for efficient marketing decisions and market operations?	67	33

respondents reported buying or selling feeder pigs directly farm-to-farm, a much higher percentage of direct sales than feeder cattle. Eighty-three and 93 percent of the feeder pig buyers and sellers, respectively, use the live hog futures contract as a basis for private treaty pricing decisions. Less than 25 percent of feeder cattle buyers and 8 percent of feeder cattle sellers look to the futures market (live cattle and feeder cattle contracts combined) for information to make private treaty pricing decisions. Feeder cattle sellers surveyed have relatively small operations, sell animals less than five times per year, and rely heavily on auction markets to sell their cattle. Feeder cattle buyers buy more often and in larger lots than do feeder cattle sellers, suggesting that auction markets or order buyers perform an assembly function. Feeder cattle buyers report using auction markets less than feeder cattle sellers. However, these feeder cattle buyers report using order buyers who likely buy cattle at auctions. Those that do buy or sell direct farm-to-farm or through order buyers still refer to auction market prices for the prevailing price for feeder cattle.

The survey examined the importance of auction prices in determining price, location and timing of marketings, and how they affect long-term plans of the business (Table 3). Auction market prices are used by many buyers and sellers in making short-run marketing decisions, i.e., price, location of sale, timing of sale. Both feeder cattle and feeder pig market participants place importance on auction market prices, but hog producers are less likely than cattle producers to use auction market information when

Table 2.

*Feeder Livestock Buyer and Seller Marketing Patterns and Market Information Sources*

	Feeder Cattle		Feeder Pigs	
	Buyer	Seller	Buyer	Seller
---- percent of respondents <sup>1</sup> ----				
Number of times per year feeder animals are bought or sold				
1-5	71.43	100.00	38.60 <sup>c</sup>	47.92 <sup>c</sup>
6-10	15.31	0.00	36.84 <sup>c</sup>	22.92 <sup>c</sup>
11 or more	13.27 <sup>b</sup>	0.00	24.56 <sup>bc</sup>	29.17 <sup>c</sup>
Most commonly used market for feeder animals <sup>2</sup>				
Auction market	44.81	88.68	45.45 <sup>c</sup>	47.46 <sup>c</sup>
Direct farm to farm	15.58	9.43	42.42 <sup>c</sup>	44.07 <sup>c</sup>
Order buyer/dealer	36.66	0.94	7.58 <sup>c</sup>	1.69 <sup>c</sup>
Satellite auction market	0.65	0.94	na	na
Other	1.30 <sup>ab</sup>	0.00 <sup>a</sup>	4.55 <sup>bc</sup>	6.77 <sup>c</sup>
Information used for private treaty pricing decisions <sup>3</sup>				
Slaughter animal market	16.50 <sup>ab</sup>	38.46 <sup>a</sup>	10.34 <sup>bc</sup>	0.00 <sup>c</sup>
Slaughter animal futures <sup>1</sup>	7.48	0.00	82.76	92.86
Feeder animal market	56.31 <sup>a</sup>	53.85 <sup>a</sup>	6.90 <sup>c</sup>	7.14 <sup>c</sup>
Feeder cattle futures	6.80 <sup>a</sup>	7.69 <sup>a</sup>	na	na
Other	2.91	0.00	0.00	0.00

<sup>1</sup> Values with the same superscript are not significantly different. Comparisons were made between:

<sup>a</sup> feeder cattle buyers and sellers

<sup>b</sup> feeder cattle and feeder pig buyers

<sup>c</sup> feeder pig buyers and sellers

<sup>d</sup> feeder cattle and feeder pig sellers.

<sup>2</sup> Total may exceed 100 percent because respondents used more than one market.

<sup>3</sup> Private treaty includes farm-to-farm and order buyer/dealer transactions. Percentages of those reporting private treaty sales.

Table 3.

*Use of Auction Market Prices in Marketing Decisions by Feeder Livestock Buyers and Sellers*

	Feeder Cattle		Feeder Pigs	
	Buyer	Seller	Buyer	Seller
---- percent of respondents <sup>1</sup> ----				
Consider auction market prices when making marketing decisions				
Yes	84.69 <sup>b</sup>	72.28 <sup>d</sup>	78.18 <sup>bc</sup>	81.25 <sup>cd</sup>
No	15.31 <sup>b</sup>	27.72 <sup>d</sup>	21.82 <sup>bc</sup>	18.75 <sup>cd</sup>
Level of importance of auction prices in marketing decisions				
	None	Minor	Moderate	Major
	---- percent of respondents ----			
On your market price	2.9	9.7	29.0	58.4
Where you buy/sell	13.5	15.2	25.3	46.0
When you buy/sell	14.0	18.7	34.9	32.3
Whether you expand/ reduce size of operation	23.3	28.4	24.6	23.7

<sup>1</sup> Values with the same superscript are not significantly different. Comparisons were made between:

<sup>a</sup> feeder cattle buyers and sellers

<sup>b</sup> feeder cattle and feeder pig buyers

<sup>c</sup> feeder pig buyers and sellers

<sup>d</sup> feeder cattle and feeder pig sellers.

making private treaty pricing decisions. The results indicate that auction market prices are most important in influencing selling (or buying) price, but they are less important in influencing selling (or buying) location or timing. As might be expected, auction market prices are less important in longer-term operating decisions, because auction prices are used as an indication of short-term supply and demand conditions rather than long-term trends. While most buyers and sellers consider auction market prices in their short-term decisions, less than a fourth of the respondents consider auction market prices important when making herd expansion or reduction decisions. This result suggests that the supply shift in Figure 2 may be relatively small.

Table 4  
*Preference of Third Party Auction Market Price Reporting*

	Feeder Cattle		Feeder Pigs	
	Buyer	Seller	Buyer	Seller
--- percent of respondents <sup>1</sup> ---				
Are the auction market prices received reported by a third party?				
Yes	48.19 <sup>a</sup>	39.73 <sup>ad</sup>	30.25 <sup>c</sup>	48.72 <sup>cd</sup>
No	39.76 <sup>ab</sup>	38.36 <sup>ad</sup>	58.14 <sup>cb</sup>	38.46 <sup>cd</sup>
Not sure	12.05 <sup>ab</sup>	21.92 <sup>ad</sup>	11.63 <sup>cb</sup>	12.82 <sup>cd</sup>
Does it make a difference to you if the auction market price you receive is reported by a third party?				
Yes	26.51 <sup>ab</sup>	13.51 <sup>a</sup>	13.95 <sup>bc</sup>	30.77 <sup>c</sup>
No	73.49 <sup>b</sup>	86.49	86.05 <sup>bc</sup>	69.23 <sup>c</sup>

<sup>1</sup> Values with the same superscript are not significantly different. Comparisons were made between:

- <sup>a</sup> feeder cattle buyers and sellers
- <sup>b</sup> feeder cattle and feeder pig buyers
- <sup>c</sup> feeder pig buyers and sellers
- <sup>d</sup> feeder cattle and feeder pig sellers.

While auction market prices are considered in marketing decisions, nearly 80 percent of survey participants do not consider the source of the price reports to be important (Table 4). Prices reported by auction market managers are deemed as valuable as those reported by a government price reporter. Most buyers and sellers obtain a sufficient amount of market information in the absence of government price reporting. Eighty percent of buyers and sellers believe the current system is adequate for making marketing decisions (Table 5). Of the four groups surveyed, feeder cattle buyers and feeder pig sellers were less concerned with the loss of third-party reporting and more confident that the current system is adequate for efficient market decisions.

Table 5.

*Adequacy of Existing Market Reporting System and Willingness to Pay for Public Price Reporting*

	Feeder Cattle		Feeder Pigs	
	Buyer	Seller	Buyer	Seller
---- percent of respondents <sup>1</sup> ----				
Is the current market price reporting system adequate for efficient marketing decisions and market operations?				
Number of respondents	83	73	43	39
Yes	73.49 <sup>ab</sup>	86.30 <sup>ad</sup>	86.05 <sup>bc</sup>	74.36 <sup>cd</sup>
No	26.51 <sup>ab</sup>	13.70 <sup>ad</sup>	13.95 <sup>bc</sup>	25.64 <sup>cd</sup>
If no, do you believe that expanding third party price reporting would improve the current auction market price reporting system?				
Number of respondents	22	10	43	39
Yes	72.73 <sup>ab</sup>	80.00 <sup>ad</sup>	83.33 <sup>bc</sup>	80.00 <sup>cd</sup>
No	27.27 <sup>ab</sup>	20.00 <sup>ad</sup>	16.67 <sup>bc</sup>	20.00 <sup>cd</sup>
If yes, would you be willing to pay a surcharge to accommodate third party price reporting at auction markets?				
Number of respondents	16	8	5	8
Yes	68.75 <sup>a</sup>	75.00 <sup>ad</sup>	100.00 <sup>c</sup>	75.00 <sup>cd</sup>
No	31.25 <sup>a</sup>	25.00 <sup>ad</sup>	0.00 <sup>c</sup>	25.00 <sup>cd</sup>
If yes, what surcharge per \$100 of gross value would be acceptable?				
Number of respondents	11	6	5	6
Less than 10 cents	90.91 <sup>ab</sup>	100.00 <sup>ad</sup>	80.00 <sup>bc</sup>	83.33 <sup>cd</sup>
11 to 30 cents	9.09 <sup>ab</sup>	0.00 <sup>ad</sup>	20.00 <sup>bc</sup>	16.67 <sup>cd</sup>
31 to 50 cents	0.00	0.00	0.00	0.00
Over 50 cents	0.00	0.00	0.00	0.00

<sup>1</sup> Values with the same superscript are not significantly different. Comparisons were made between:

<sup>a</sup> feeder cattle buyers and sellers

<sup>b</sup> feeder cattle and feeder pig buyers

<sup>c</sup> feeder pig buyers and sellers

<sup>d</sup> feeder cattle and feeder pig sellers.

Of the 16 percent of the respondents who did not believe the current system was adequate, approximately 80 percent indicated that increased third-party reporting would improve the current market reporting system. Respondents who did not believe the current price reporting system was adequate for efficient marketing operations were asked if they would be willing to pay a surcharge to have objective third-party price reporting. Following Combs, et al., buyers and sellers were asked closed-ended questions to which they answered "yes" or "no" to discrete values rather than open-ended questions regarding how much they would pay for the service. If the respondent answered "no" when asked if he would pay \$A, the questioning ended and it was assumed he would pay less than \$A (or \$0). If the individual answered "yes" to \$A, then he was asked if he would pay the next higher level, \$B. If the answer was "no", the questioning ended and it was assumed the individual would pay between \$A and \$B. If the answer was "yes," the process was repeated until a "no" response was given.

Only 12 percent of the respondents (a total of sixteen buyers and sellers interviewed) indicated they were willing to pay for public price reporting and only a small percentage were willing to pay more than the lowest suggested surcharge (one to ten cents per hundred dollars of sale value). A common characteristic of those willing to pay for public price reporting was that most of these respondents only participated in the market one to five times per year. However, it is important to note that 70 percent of the respondents were in this category.

Buyers' and sellers' willingness to pay is an indirect measurement of the effectiveness of public price reporting substitutes. Because nearly 90 percent of the survey participants were not willing to pay for public price reporting, it appears they perceive viable substitutes are available that will allow them to make sound marketing decisions.

There are both direct and indirect substitutes for public price reporting. Indirect substitutes for public price reporting include closely related markets that can serve as a proxy for actual prices (for example, more distant auction markets and the feeder cattle futures contract for feeder cattle and the live hog futures contract for feeder pigs). These prices provide information about feeder animal market conditions and prices, and may serve as a substitute for public price reporting of feeder animal auctions.

The most apparent substitute for public price reporting in most auction markets is auction market manager price reporting. In the absence of public price reporting of feeder animal auctions, there exists a significant amount of price reporting by auction market managers. Twenty-one of the twenty-



five auction market managers who responded to our survey do report prices in a public medium, i.e. radio, television, or an electronic service such as DTN. Auction market managers have a vested interest in the prices that are reported from their sale and thus may offer a biased summary of prices. The reported prices and quality characteristics of the lots sold from a sale reflect on the quality of animals that are traded and the ability of their establishment to get the "top-dollar" for the seller that is choosing the market and paying the commission. Vast amounts of market information are being disseminated from private sources and public reports in related markets (futures, slaughter market, auctions elsewhere). The willingness to pay clearly is a measure of the adequacy of these substitutes, and market participants find them generally adequate. Individual market participants, who intuitively understand the public good nature of price reporting and may not have recognized a change in informational content or perceived any increased risk due to reduced public reporting, are reluctant to pay to reinstate third-party reporting. If significant problems develop with the substitutes in the future, there may be a greater willingness to pay for public price reporting by the market user.

A simple comparison of the cost of reporting all seventy-seven bonded Iowa livestock auctions to the willingness to pay for the service by users suggests that taxpayer support would be necessary. Assume for illustrative purposes that a trained reporter can report five sales a week and the cost of the reporter for salary, benefits and expenses is \$50,000 per year. It would require fifteen reporters or \$750,000 to report every sale. Aggregating the buyers and sellers willing to pay for third-party price reporting across the estimated value of feeder animals traded in Iowa results in revenues that are approximately equal to the cost. While alternatives to publicly reporting all auctions are possible, if they were perceived to be less effective, market participants may be less willing to pay the cost.

### *Summary and Conclusions*

The results of this study suggest that turning the provisions of a public good over to the private sector may be feasible if acceptable substitutes exist. In the case of auction market price reporting, direct (auction market manager reports) and indirect (futures markets) substitutes for government funded reporting appear to be acceptable to market participants. Relatively few livestock market users surveyed were willing to pay for third-party market price reporting. This amount of revenue generated would cover only about 10 percent of the estimated cost of full market reporting in

Iowa. The benefit to society from public reporting depends on the number of resource allocation decisions buyers and sellers undertake given less public information. As funds for public reporting continue to decline, greater reliance on the private sector may be required, but, in markets with numerous good information alternatives, the likelihood of significant adverse impacts is small.

## Notes

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