What's Your Share Worth? Some Comparisons of CSA Share Cost versus Retail Produce Value. By: Jack P. Cooley and Daniel A. Lass<sup>1</sup>

### Introduction

Major benefits for CSA shareholders include fresh, high quality, organic produce from a grower they know. As we report below, these are important benefits for many CSA shareholders. In some areas, a CSA farm may represent the only opportunity consumers have to obtain organically grown produce. In addition to these benefits, which are difficult to assign a dollar value, many shareholders may be expecting their CSA membership to provide that fresh produce at significant savings. If so, there may be CSA shareholders and potential shareholders with concerns about the dollar-value of CSA shares. We decided to calculate the retail values of CSA shares from three CSA farms in the Amherst, Massachusetts, area to see if the shareholders receive significant savings. The news was good for the members of these three CSA farms; they received substantial monetary benefits from membership.

The results of our research on the retail values for CSA shares are reported here, as well as some results from a survey of 250 shareholders in the Amherst area. The research was conducted during the 1995 marketing year. The shareholder survey was designed to provide information on a number of nutritional questions, but there were also questions included about why consumers chose to join a CSA. We will begin with a short discussion of what was learned from the survey before presenting the results of our retail comparison.

# Shareholder Survey Results

A survey was conducted of 250 CSA members in the Amherst-Massachusetts area. The survey respondents were members of four different CSA farms. One important aspect of the survey was a set of questions designed to ask about the shareholders' motivations for joining a CSA and the benefits they felt they received.<sup>2</sup> One of the most important reasons for membership in a CSA was *support for local farming*. Ninety-seven percent of the respondents cited *support for local farming* as an important factor in their decision. The *quality of produce* was also one of the leading reasons for joining a CSA; 93% of the members surveyed cited *quality of produce* as an important reason for joining a CSA. *Environmental and food resource* 

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<sup>&</sup>lt;sup>2</sup> Cooley, Jack P. 1996. *Community Supported Agriculture: A Study of Shareholder's Dietary Patterns, Food Practices, and Perceptions of Farm Membership.* Master of Science thesis. University of Massachusetts, Amherst, MA.

*concerns* were important membership reasons for 72% of the respondents. *Food safety* and *community service by the farm* were important reasons for joining, both were cited by 59% of the respondents. While *support for local farming* was an important reason for nearly all respondents, *knowing the farmer* was an important reasons for only 29% of the CSA members surveyed. Thus, support for local farming in general was more important than support for a specific farmer.

When asked what was *the most important reason* for joining, 34% of the respondents chose *quality of produce*. Support for local farming and supporting farm community service were both chosen as *the most important reason* by 17% of the respondents. *Environmental/food resource concerns* was chosen as *the most important reason* by 14% of the respondents.

The CSA members were also asked what disadvantages they found in membership. Members were generally quite satisfied with their CSA, only 14% found that there was a lack of variety in the produce provided and only 11% of the members were concerned about their lack of choice. Twenty-four percent found that there was too much produce provided resulting in waste. While many families found visiting the farm pleasant (38% believed the farm exposure was important for their children), 23% found it inconvenient to go to the farm. Very few of the CSA members surveyed, about two percent, were concerned about getting their money's worth out of their share. While few consumers in the Amherst area were concerned about getting their money's worth for their share, a large proportion did not perceive tremendous cost savings from membership. Nearly half of the CSA members surveyed believed that their CSA produce cost about the same or more than comparable items in local stores. In addition, a great number of potential consumers may not be aware of the CSA concept or the benefits associated with membership in a CSA operation.

## **Retail Values of CSA Shares**

We wanted to compare CSA share prices, the cost per share that members pay, to what it would cost them to purchase the same basket of produce at a retail store. Ideally, the retail value for each member's share would be calculated at their alternative source for produce. For example, if they would typically purchase all their produce during their weekly grocery shopping trip, then their share value would be determined by gathering price data from their most frequent shopping location, perhaps a national food chain. If the consumer would seek an alternative source that provided comparable organic produce, then the best estimate of the retail value of their share would be the nearest natural or organic food store. We did not have information on consumers' preferences for alternative sources of produce, so we chose some likely alternatives that were also quite different. We computed retail values for CSA shares for three different types of groceries: a national food chain selling mostly conventional produce; a regional chain selling both organic and conventional produce; and a local store that sells locally grown conventional produce.

To calculate *retail values* for the CSA shares at these three different stores, we (actually

Jack) did the following. Each week on pick-up day, the amounts of produce in the CSA shares were gathered. Each CSA included in the study listed the amounts for each item on a blackboard. Weights for every item in the share were recorded. If items were offered to the members in number rather than weight, three different samples were carefully weighed. The average of the weights for the three different samples was recorded as the weight for that item. For example, if the share was to include five tomatoes, three different samples of 5 tomatoes were weighed and the average of the three weights was recorded for the share. Detailed data were gathered in this manner for the quantities of produce included in the three farms' shares for each week of the season.

Prices per pound for all the items included in the shares were then collected at the three grocery stores the same day. These were the price data used to calculate retail values for the CSA shares each week. To get a season total for the retail values, we simply summed the weekly retail values. We did have some problems collecting price data. There were several weeks during the growing season that items included in the CSA shares could not be found in one or more of the three stores. In those cases, the average price per pound for the season was used. There were also a number of items, primarily organic products, for which prices were never available in the stores during the season. An average price was estimated for these items based on the average price for the same conventional product adjusted by the difference between average organic and conventional prices for all products. For example, prices were unavailable for organic Brussels Sprouts for the entire season. The season average price for conventional Brussels Sprouts was multiplied by 1.5122 (the ratio of the average price for all organic items to the average price for all conventional items). This assumes that the price difference between organic and conventional Brussels Sprouts is about the same as the average price difference for all items. There were only 14 items (out of 80) for which missing prices were encountered for the entire season.

### Results

Share values were compared for three different farms and three different retail groceries. The season ran from late-May or early-June through November or December of 1995. Herbs and flowers that were included in some shares were not included in the cost comparison. Thus, members received additional value that is not included in the estimates presented below. Each of the farms that participated in the price comparison differed in terms of the resources available and the number of members they served.

There were a number of differences and similarities across the three farms. Farms 1 and 3 were of similar size in terms of membership. The share prices were also identical at \$450 per full share. The amount of produce in a full share for these two farms was also similar; Farm 1 provided 24.7 pounds per week on average while Farm 3 provided about 27 pounds per week. Both farms used machinery for planting and cultivation and irrigated a significant portion of their cropland. These two farms also had an apparent advantage in terms of their soil quality.

Farm 2 chose to avoid using machinery, did not irrigate, and was much smaller both in number of acres and number of CSA members. Farm 2 produced about 8.5 pounds of produce weekly for their members at a price of \$250 for the year. The differences between these farms reflect resource constraints faced by the three farms, farm choices for cultural practices and CSA philosophy. These differences in CSA characteristics represent opportunities for consumers to make choices about the type of farm they want to support through CSA membership.

Results for the comparison of CSA share costs to retail values for the same market baskets of produce are shown Table 1. The results show that shareholders for each of the three CSA operations saved substantial amounts of money. Because all three CSA operations produced organically, the best comparison would be the CSA share cost versus the retail value of the same basket of organic produce. The retail values for organic produce are in column 4 of Table 1. Retail values for the market baskets of produce received from Farms 1 and 2 by members were more than double the CSA share costs of \$450. The retail value for Farm 3's

CSA Farms	Share Price (\$)	Total Pounds	Retail Values of CSA Shares (\$)				
			Organic Produce Regional Store	Conventional Produce			
				Regional Store	National Chain	Local Store	
Farm 1	\$450	644.01	\$998.12	\$735.89	\$677.47	\$595.07	
Farm 2	\$250	213.18	\$399.08	\$311.69	\$294.54	\$267.41	
Farm 3	\$450	700.51	\$1,132.54	\$832.99	\$784.62	\$729.30	

Table 1. Price Comparisons for the Shares of Three CSA Farms.

share was 250% of the share cost, while the retail value of Farm 1's share was more than 120% of the cost. The retail value of Farm 2's share was about 160% of the share cost. The results in Table 1 clearly demonstrate that consumers seeking organic produce received substantial monetary savings from membership in these three CSA operations.

The magnitudes of consumer savings are smaller when comparing the CSA share cost to the retail value of conventional produce. However, all three CSA operations still provided better value to their members than an equivalent bundle of conventional produce purchased at retail stores. Consider the comparison of share price versus the cost of the same bundle at the national chain store, a store with a relatively large market share. The retail value of Farm 2's share was 118% of their share price. Farm 3's share again had the highest retail value, equivalent to 174% of their share price.

Table 1 also illustrates variation in consumer savings for the shares of different CSA farms. As mentioned above, cultural practices, farm size, resource availability and CSA philosophy can affect consumer benefits. One additional consideration may be differences in the composition of the CSA shares. The three different farms provided different quantities of produce in their full shares. The differences in quantities were reflected in share prices and also retail values of the shares. However, the three farms also provided different combinations of items. It is difficult to summarize concisely the differences in shares; however, market prices

		Retail Values of CSA Shares (\$ / lb.)				
		Organic Produce Regional Store	Conventional Produce			
CSA Farms	Share Price (\$ / lb.)		Regional Store	National Chain	Local Store	
Farm 1	\$0.70	\$1.55	\$1.14	\$1.05	\$0.92	
Farm 2	\$1.17	\$1.87	\$1.46	\$1.38	\$1.25	
Farm 3	\$0.64	\$1.62	\$1.19	\$1.12	\$1.04	

provide information on relative consumer values for the different items included in shares. The estimated retail values of shares can then be used to infer differences in the items included in the shares if all shares are put on an equal-weight basis. Table 2 presents a comparison of CSA farm shares on a price per pound basis to illustrate differences in share composition.

The price per pound for Farm 2's share was the greatest of the three farms included in this study. Over the marketing season, consumers paid an average of \$1.17 per pound for the produce included in Farm 2's share. Share prices per pound for Farms 1 and 3 were fairly similar with averages of \$0.70 and \$0.64, respectively. However, the market basket of produce provided by Farm 2 was also different in composition from those provided by Farms 1 and 3 and this difference in composition is illustrated by the retail values included in Table 2. In column three of the table, equivalent retail values for organic produce are provided for each of the three CSA shares. The average retail value per pound for the items included in a share from Farm 2 was greater than the average retail values per pound for shares from both Farms 1 and 3. If it can be assumed that market prices (retail prices) reflect relative consumer values for different items, then the higher average price per pound for the Farm 2's share indicates a market basket of produce that included relatively high valued items.

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### Summary

In our comparison of CSA share prices and retail values for equivalent amounts of produce, we found substantial savings for shareholders of three CSA farms. The most appropriate CSA-retail comparisons are between share prices and the retail value of equivalent amounts of organic produce. We found that consumer savings for this comparison ranged from \$682.54 for Farm 3's share, which cost the members \$450, to \$149.08 for Farm 2's share, which cost \$250. Comparisons of CSA share prices to retail values for equivalent amounts of conventional produce also showed substantial consumer savings. Farm 1's shareholders saved \$227.47 and Farm 3's shareholders saved \$334.62 on their \$450 shares by getting farm fresh organic produce at the CSA rather than purchasing conventional produce at the national chain store. Farm 2's shareholders saved \$44.54 by purchasing their share rather than buying conventional produce at the national chain store.

The farms included in this study had different characteristics. Farm 2 was smaller and chose not to use mechanical planting or cultivation, did not irrigate crops and had stoney soil. Farm 2 also offered a smaller full share at a lower price. To try to account for some of these differences, we compared share prices to retail values on a per pound basis. When comparisons were made of share price per pound versus retail value per pound, we found that Farm 2 actually provides a relatively high value share to their members. The retail values for Farm 2's share were higher than those of Farms 1 and 3 in all comparisons. Thus, Farm 2 includes more high value items in their CSA share relative to Farms 1 and 3.

The comparisons presented here can be useful information for developing a CSA marketing plan. Consumers may be concerned about getting their money's worth when purchasing a CSA share. For the three CSA operations we considered, this was certainly not the case. In addition, by comparing share prices and retail values on a per pound basis, a summary of the relative values of items included in CSA shares can be provided. The quantities of produce provided in CSA shares as well as their compositions and relative values are factors important to operators when developing a CSA and to consumers when choosing a CSA to join.