

The Economic Impact of Farm-to-School Lunch Programs: A Central Minnesota Example

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Introduction

- Goal: Local foods into school lunchrooms
- Current research on economic impact is limited – focus only on grower impact
- What is the potential economic impact of farm-to-school programs in Central Minnesota?



History of Project

- Initiated by a group of interested partners in Central MN
- Needed to determine potential availability and potential use of local foods before economic impact
- Graduate student hired



Food Service Directors

- Interviewed 3 in the area with a range of experience with and interest in farm-to-school
- What foods willing to use?
- In what volume, form and at what price?



School Utilization Scenarios

| | |
|--|--|
| Special Meal | All schools in region source local farm products for a special meal once per month |
| Unprocessed Substitution | All schools in region source only those products which can be directly used by schools and require no processing |
| Substitute All | All schools in region source all the available farm products and processing is done by farmers |
| Developed by University of Minnesota Department of Applied Economics | |



Local Producers

- Interviewed 11 local growers who had previous experience in farm-to-school or who expressed interest
- What foods willing to produce?
- In what volume, form and at what price?



Price Scenarios

| | |
|--|---|
| Farm Price | Schools pay the current price received by farmers for their product. Generally this is higher than the price schools currently pay the wholesaler. |
| School Price | Schools pays farmers the same price they currently pay their wholesaler for the same product. This is generally lower than farmers currently receive. |
| Intermediate Price | Schools pay farmers a price midway between the current price they pay and the current price farmers receive. |
| Developed by University of Minnesota Department of Applied Economics | |



Targeted Farm-to-School Foods

- Carrots
- Sweet Corn
- Potatoes
- Apples
- Cabbage
- Beef Hot Dogs
- Oatmeal
- Wild Rice



Potential Farm Product Consumed (in dollars) by Utilization Scenario

| Utilization Pricing | Special Meal School Price | Special Meal Farm Price | Special Meal Intermediate Price |
|-----------------------------|---------------------------|-------------------------|---------------------------------|
| Carrots/Whole | \$2,261 | \$1,145 | \$1,703 |
| Carrots/Processed | | | |
| Carrots/Canned | | | |
| Carrots/Frozen | | | |
| Sweet Corn/Shucked | | | |
| Sweet Corn/Unshucked | \$2,717 | \$1,167 | \$1,942 |
| Potatoes/Russet | \$2,974 | \$6,736 | \$4,855 |
| Apples | \$3,296 | \$3,222 | \$3,259 |
| Cabbage/Whole | \$1,381 | \$1,125 | \$1,253 |
| Cabbage/Shredded | | | |
| Beef Hot Dogs | \$5,009 | \$8,393 | \$6,701 |
| Oatmeal | \$1,057 | \$1,243 | \$1,150 |
| Wild Rice | \$896 | \$1,196 | \$1,046 |
| TOTAL | \$19,592 | \$24,227 | \$21,910 |
| % of Annual Budget | 0.47% | 0.58% | 0.52% |

Estimates by University of Minnesota Department of Applied Economics
 Table replicated from "Farm-to-School in Central Minnesota – Applied Economic Analysis"



Economic Impact

Considerations:

- Impact on local growers
- Impact on households
- Impact on current wholesaler



Farm Price

- Farmers positively impacted equal to new sales to schools
- Wholesalers negatively impacted equal to amount of sales lost
- Households negatively impacted in amount equal to price differential
- Farmers' proprietary income increased to account for profit



School Price

- Farmers positively impacted equal to new sales to schools
- Wholesalers negatively impacted equal to amount of sales lost
- Farmers' proprietary income decreased to account for lost profit



Intermediate Price

- Farmers positively impacted equal to new sales to schools
- Wholesalers negatively impacted equal to amount of sales lost
- Households negatively impact by half of price differential
- Farmers' proprietary income decreased to account for lost profit



Results - Special Meal

| Economic Impact of Farm-to-School Programs in Central Minnesota: Special Meal | | | | |
|---|---------------|-----------------|----------------|--------------|
| | Direct Effect | Indirect Effect | Induced Effect | Total Effect |
| Farm Price | \$20,381 | \$3,693 | -\$1,191 | \$22,882 |
| | | =2,502 | | |
| Intermediate Price | \$18,085 | \$3,167 | \$103 | \$21,355 |
| School Price | \$15,795 | \$2,673 | \$1,479 | \$19,948 |
| | | =4,152 | | |

Estimates by the University of Minnesota Extension Center for Community Vitality



Economic Impact Conclusions

- Total economic impact of farm price is always highest
- Direct and indirect effects are maximized under the school price scenario
- Mix of foods used affects the impact of the program



Conclusions

- First study to attempt to consider effects on wholesalers and households
- Future research should look at changes in farmer behavior (production functions)
- How farm-to-school program is crafted does matter in terms of the local economy

