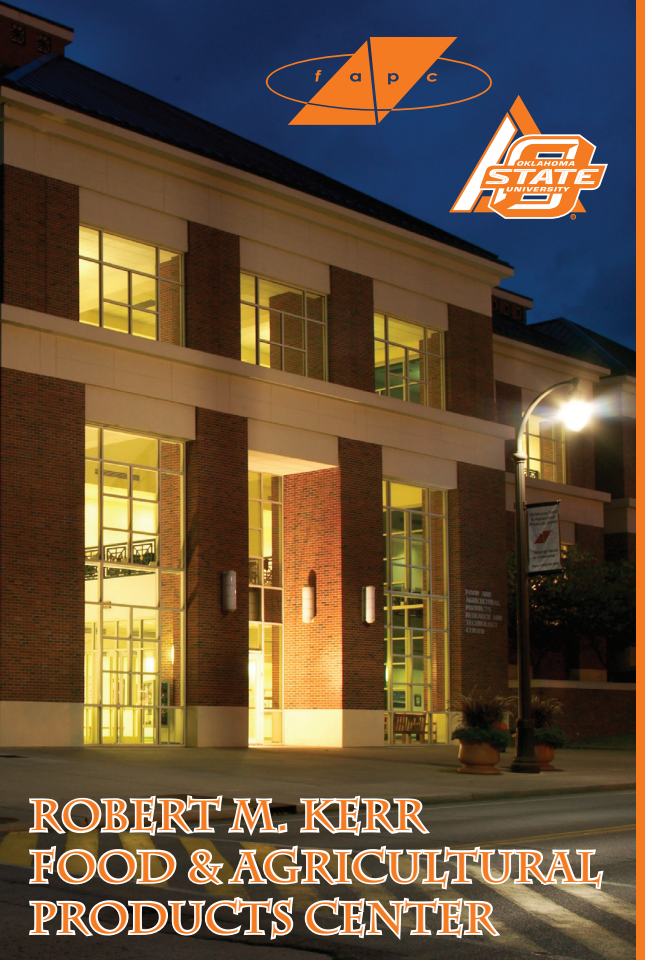

ROBERT M. KERR
FOOD & AGRICULTURAL
PRODUCTS CENTER

10-YEAR ECONOMIC IMPACT

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The Robert M. Kerr Food & Agricultural Products Center (FAPC) has been serving the food and fiber industries of Oklahoma for a decade. This state-funded center has worked with all manners of food and agribusiness operations in those 10 years, with projects related to food safety, new product development, engineering, analytical chemistry, and economic and market analyses.

A recent survey of FAPC clients revealed, collectively, these firms directly contributed to Oklahoma's economy by generating more than 8,700 full-time jobs, 325 part-time jobs, and $1.9 billion in sales for 2006. Using the input-output model IMPLAN to determine the "ripple effect" (i.e., indirect and induced economic impacts) of the firms' operations on communities and counties in Oklahoma indicated total economic impacts in excess of 52,000 jobs and $6.3 billion in economic activity for 2006. Respondents attributed $93 million of their 2006 sales and 157 jobs directly to the assistance provided by FAPC. Thus, the direct, indirect, and induced economic impacts attributable to FAPC were roughly 800 jobs and $308 million in economic activity for the state of Oklahoma in 2006.

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SUMMARY

THE FAPC

The state of Oklahoma has historically been a large agricultural commodity-producing state, especially in wheat and beef cattle, but most of those commodities are shipped out of state to be processed into consumer-demanded products.

All of this added value that was done outside of the state meant those agricultural product processing employment and sales dollars that could have boosted Oklahoma's economy were lost to other states. Because of this, Governor Henry Bellmon compared the state's agricultural industry to a "third world type agriculture" at the 1987 Conference on Expanding Food Processing in Oklahoma.

That same year, Senator Robert M. Kerr wrote a bill to initiate a feasibility study of a food processing center in the state, but it was not until 1990 that the feasibility study was approved and funded by the state legislature.

The final result of that conference and feasibility study was the establishment of the Oklahoma Food and Agricultural Products Research and Technology Center in 1997 to help businesses and entrepreneurs in the state of Oklahoma with developing value-added food and fiber products.

In June 2007, the Oklahoma A&M Colleges Board of Regents approved a name change of the center to the Robert M. Kerr Food & Agricultural Products Center, commonly referred to as FAPC, in honor of the late Senator Kerr.

The FAPC was built on the Oklahoma State University – Stillwater campus with the purpose of providing Oklahoma food and fiber businesses and entrepreneurs with many services including product development, laboratory services, technical services, and many educational workshops.

Construction of the FAPC was funded by state dollars at a cost of more than $18 million, and the annual operating budget, which is now roughly $2.9 million, also is publicly funded.

Since the FAPC is publicly funded, it is important to determine the returns to the state generated by this investment of Oklahoma tax dollars.

A DECADE OF CHANGES IN THE FOOD INDUSTRY

FAPC's opening coincided with some monumental changes in both the food industry and Oklahoma's efforts related to rural economic development. Hazard Analysis and Critical Control Points (HACCP) became a mandatory food safety program for all meat processors in the late 1990s, eventually expanding to virtually all sectors of the food industry in various forms of Total Quality Management (TQM) programs. Changes in monitoring and testing technologies also influenced the HACCP and TQM programs of all food industry participants. As a result, industry needs for educational programs, laboratory analyses, and technical assistance grew with the testing and implementation of these new technologies.

FAPC has facilitated the changing food industry and assisted in the development of value-added enterprises by offering a combination of in-house technical and laboratory services for entrepreneurs and existing businesses, on-site technical assistance for larger existing food processors, and various business and marketing assistance programs and workshops.

While the food industry was changing to meet stricter and more technology-driven food safety programs, the state of Oklahoma recognized the potential of value-added activities as a means of driving rural economic development. A wave of excitement grew with the idea of new generation cooperatives, i.e. agricultural producers forward integrating to own production facilities and control the processing of their commodities, as success stories emanated from the Dakotas, Minnesota, Nebraska, and

Kansas. In addition, fostering rural entrepreneurship gained acceptance as a means of promoting home-grown, value-added food and fiber businesses in rural communities.

FAPC has facilitated the changing food industry and assisted in the development of value-added enterprises by offering a combination of in-house technical and laboratory services for entrepreneurs and existing businesses, on-site technical assistance for larger existing food processors, and various business and marketing assistance programs and workshops.

The result of forward-thinking business owners, Oklahoma entrepreneurial spirit, and FAPC assistance has been a steady growth in the value of shipments from Oklahoma food manufacturers.

Additionally, the portion of those sales associated with value-added in manufacturing, i.e. the handling, processing, and packaging steps taken to turn commodities into consumer-ready goods (excludes beverages), more than doubled between 1997 and 2005, as shown in Figure 1.

Figure 1: Trends in Oklahoma Food Manufacturing Values, 1997-2005

Source: Annual Survey of Manufacturers, U.S. Department of Commerce, 1997-2005

SURVEY OF FAPC CLIENTS

During January and February of 2007, the Oklahoma State University Bureau for Social Research performed a survey of FAPC clients using a list of phone numbers for 898 non-duplicate potential respondents from FAPC's client database. In the end, 343 surveys were completed (including partial completions), accounting for 38.2 percent of the population. Respondents provided information about their business operations, the level and types of assistance received from FAPC, when assistance was received, and the value they attributed to the assistance received from FAPC. Table 1 shows, regardless of when they first received assistance from FAPC, more than 70 percent of respondents had received some level of assistance from FAPC within the past three years.

To determine the economic impact of a firm's activities in the state of Oklahoma, each firm must first be identified by its industry segment. These responses were used to classify each firm into a four-digit North American Industry Classification System (NAICS) code, and the distribution of the industries is shown in Table 2. The "unclassified/other" category consists of firms who operate a food or fiber manufacturing venture but could not be easily classified into one NAICS code. The "ineligible" category is respondents who do not operate a food

Table 1: Distribution of When Received Assistance

Response	Frequency (N=223)	Percentage (%)
Currently	24	10.76
Within the last year	51	22.87
1-3 years ago	86	38.57
3-5 years ago	43	19.28
5+ years ago	16	7.17
Don't know	3	1.35
No answer	0	0.00
Total	**223**	**100**

Table 2: Distribution of Respondents by Industry

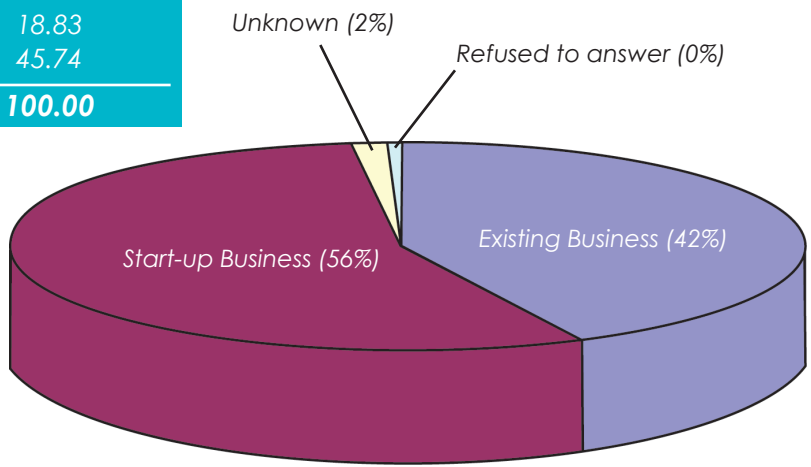
Industry	Frequency (N=223)	Percentage (%)
Animal food manufacturing	1	0.45
Grain and oilseed milling	2	0.90
Sugar and confectionery product manufacturing	3	1.35
Fruit and vegetable preserving and specialty	18	8.07
Dairy product manufacturing	2	0.90
Animal slaughtering and processing	24	10.76
Bakeries and tortilla manufacturing	5	2.24
Other food manufacturing	18	8.07
Beverage manufacturing	6	2.69
Unclassified/other	42	18.83
Ineligible	102	45.74
Total	**223**	**100.00**

or fiber business and/or do not have any economic impact relevant to this study and, therefore, were excluded from the study. An example of an ineligible respondent is a food safety consultant who does not operate a food or fiber manufacturing business.

As seen in Table 2, the largest single product category is related to meat and meat products, which includes both small packing plants and large processors of packaged meats. Second was the fruit and vegetable preserving and specialty category, which includes canners and processors of jams, jellies, and salsas.

FAPC is charged with utilizing its resources to help food and fiber industry entrepreneurs, not just assisting larger existing food processors. Figure 2 shows FAPC is providing assistance to entrepreneurs, as 56 percent of respondents to a question about their business longevity indicated they started their business after FAPC was established.

Figure 2: Existing Versus Startup Business Respondents



ECONOMIC IMPACTS OF RESPONDING FIRMS

Responding firms provided information on their 2006 sales and employment numbers, along with the changes in annual sales and employment experienced since receiving assistance from FAPC. Table 3 shows the sales, full-time employment, and part-time employment numbers provided by respondents. The firms responding to these questions accounted for more than 8,700 jobs in Oklahoma and more than $1.9 billion in product sales. The number of jobs (full and part-time) increased by 180 since receiving FAPC assistance, and sales increased almost $217 million per year.

To determine the full "ripple effect" of these business activities on the state's economy, the indirect and induced impacts of these firms were estimated using the input-output model IMPLAN. IMPLAN uses geography specific industry data, down to the county level if desired, to assess the level of economic "ripples" created by business activity. IMPLAN assumes production functions for each industry segment down to the four-digit NAICS code; each industry segment utilizes certain services and inputs that are purchased from other firms, hence the indirect and induced economic impacts (see Figure 3). Because of the assumed production functions for each industry segment, the multipliers utilized by IMPLAN can be modified to account for differences in these production functions at a local level. For example, Oklahoma is one of the largest cattle-producing states in the country, but most of those cattle go to feedlots and packing plants in Texas or Kansas before the beef comes back to Oklahoma for further processing by some of the country's most prominent meat processing firms. Thus, the IMPLAN multipliers for meat processing indirect and induced impacts were adjusted downward to account for these economic impacts not recognized in Oklahoma.

Table 4 illustrates the estimated employment and sales impacts generated by responding FAPC clients. In total, these firms account for more than 52,000 jobs and more than $6.3 billion in economic activity in Oklahoma.

Table 3: Sales and Employment Figures for Responding Firms for 2006 and Changes Since Receiving FAPC Assistance

2006 Figures	
Sales (dollars)	$1,949,016,382
Full-Time Employment (no. of employees)	8,702
Part-Time Employment (no. of employees)	325
Changes Since Receiving FAPC Assistance*	
Sales (dollars)	$216,941,113 (average increase of 16.95%)
Full-Time Employment (no. of employees)	176 (average increase of 2.1%)
Part-Time Employment (no. of employees)	4 (average increase of 1.5%)

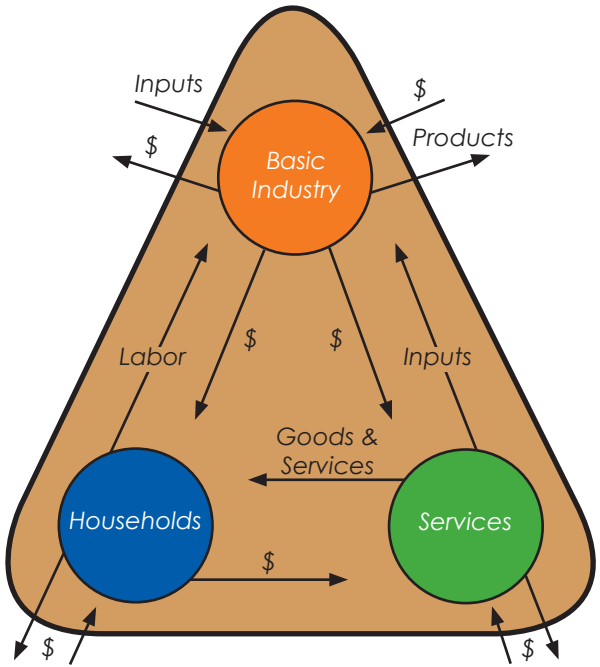
*Not all firms provided both 2006 sales and employment data and changes since receiving FAPC assistance. Percentages listed in parentheses are average increases for firms that provided information on changes in sales and employment figures since receiving FAPC assistance.

Table 4: Impacts of Responding FAPC Clients on Oklahoma's Economy*

	Direct	Indirect and Induced	Total
Employment**	8,863	43,627	52,490
Sales/Income for 2006	$1,949,016,382	$4,417,399,316	$6,366,415,698

*Impacts by four-digit NAICS category are available upon request.
**Part-time employment figures were converted to appropriate full-time equivalents and included in these impacts.

Figure 3: Overview of a Community Economic System



Respondents who provided data on the changes in sales and employment since receiving assistance from FAPC also were asked to quantify the level of changes attributable to the technical services and business development assistance they received from FAPC.

The levels of economic activity directly attributed to FAPC totaled 157 full-time jobs and almost $93 million in sales. Using IMPLAN to estimate the "ripple effect" FAPC generated by assisting these firms, the total direct, indirect, and induced impacts were estimated at 800 jobs and more that $308 million in economic activity for 2006 (Table 5).

It is important to note these impacts do not constitute the entirety of FAPC's impacts on Oklahoma, only those associated with responses to the survey.

Furthermore, these impacts do not include cost savings associated with improved operating efficiencies due to FAPC assistance or the savings to family farms and entrepreneurs who chose not to pursue risky business ventures after consulting with FAPC faculty and staff.

However, the findings of the study do suggest FAPC is fulfilling the original legislative mission of advancing the level of value-added food and fiber processing in Oklahoma and helping citizens of Oklahoma identify and explore economic opportunities in the state.

Table 5: Economic Impacts Directly Attributed to FAPC by Respondents*

	Direct	Indirect and Induced	Total
Employment	*157*	*643*	*800*
Sales/Income for 2006	*$92,866,841*	*$215,629,039*	*$308,495,880*

**Impacts by four-digit NAICS category are available upon request.*

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