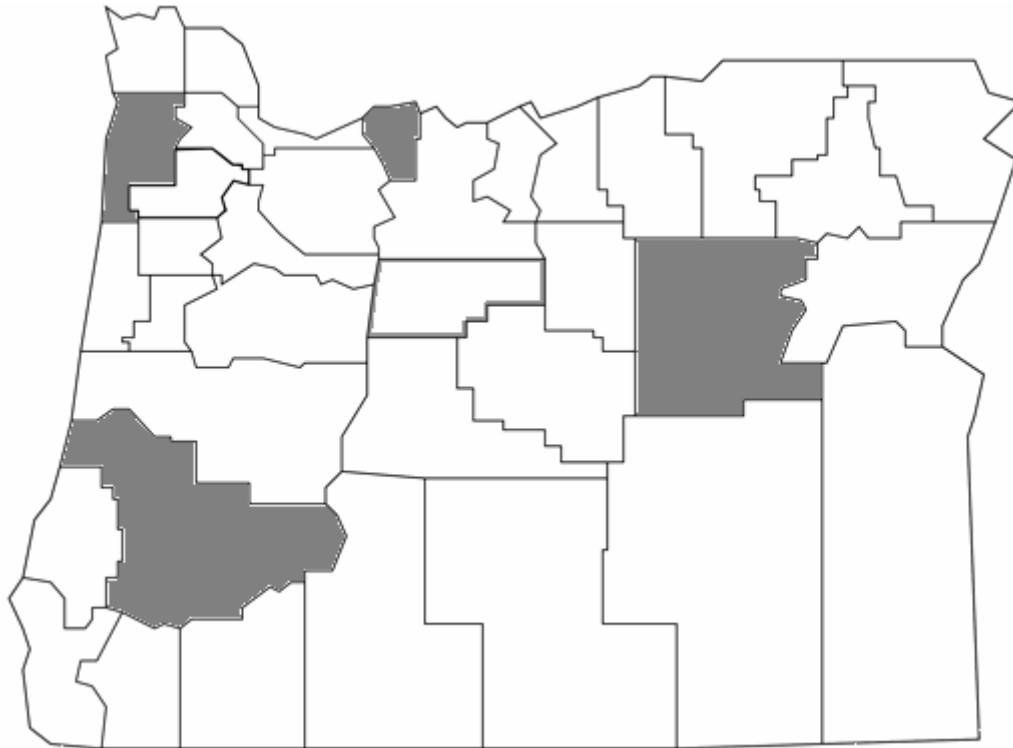


Special Report 1076
May 2007

Oregon County Fairs: An Economic Impact Analysis



Oregon State
UNIVERSITY | Extension
Service



Acknowledgments

The author would like to thank the Oregon Fairs Association (OFA), particularly Allan Westhoff, Past President, OFA Executive Secretary, John McCulley and the fair managers from the selected counties (Harold Phillips, Clara Rice, Jerry Underwood and Stephanie Walters) who supported this project in many ways, including funding, logistics, and sound advice. They encouraged our efforts to follow an objective course of study. Key to the project were the many businesses and community leaders and members who willingly took time from their busy schedules to provide the essential local knowledge that we used to edit the model and check the reasonableness of the findings. Jessica Pearse-Nelson, research assistant, helped with research design and fair visits, and Bruce A. Weber, Professor and Director of the Rural Studies Program in the Agricultural and Resource Economics Department, Oregon State University, reviewed the report and offered suggestions that improved its analytical clarity.

Oregon County Fairs: An Economic Impact Analysis

May 2007

Bruce Sorte, Oregon State University
Rural Studies Program
Agricultural & Resource Economics Department

“There is a candle in the window. As much as ever we need safe and festive ground where we can publicly communicate our own individuality and safely scrutinize each other’s qualities as well as inherent differences in peaceful gatherings. Local communities need an opportunity to showcase themselves to each other and to see evidence of how their individual experiences add to their whole community’s identity and character. In other words we need fairs.”

—Sharon Jensen, in *Agricultural Fairs in America: Tradition, Education, Celebration*.

Background

A number of county fairs throughout Oregon and the U.S. have, over the past 30 years, transitioned from primarily single summer events with a few year-round activities focused on agriculture to diverse enterprises working toward financial self-sufficiency. Some county fairs have struggled to remain open, been unsuccessful competing for people’s free time, experienced increased expectations for their facilities while resources to upgrade facilities have declined, and fought to retain their board members, directors, and staff.

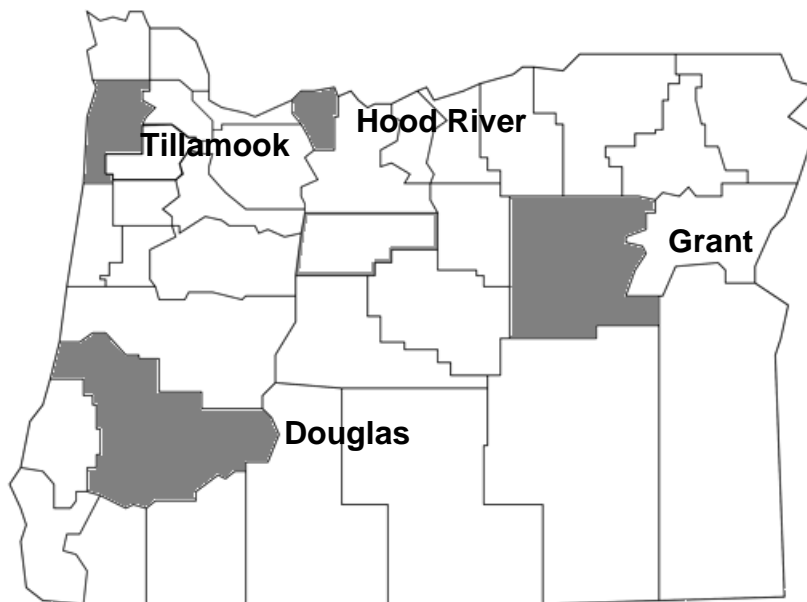
Economic changes, including how agricultural goods are produced and how and where people spend their discretionary time and money, and demographic changes, particularly in the number of children per family, are some of the reasons that community institutions such as county fairs have faced serious challenges. Local and statewide decision makers are increasingly interested in economic-impact assessments as important metrics to consider when making budget allocations. The Oregon Fairs Association (OFA) contracted with Oregon State University (OSU) in January 2004 to provide an economic-impact analysis of Oregon county fairs.

To accommodate budget and time considerations, and after discussions with the OFA Board and executive director, we decided to study three fairs and their year-round activities. We chose Douglas, Hood River, and Grant counties as a representative sampling of a large fair, a close-to-metro fair, and a remote fair, respectively. Tillamook County contracted for an individual study and consented to the use of their results as part of the statewide sample group.

The findings of this report are an overview that was extrapolated from the attributes and experiences of the four counties. While the information can inform decision making, particularly as it represents trends and magnitudes, it should not be considered precise.

We estimated the economic effects in two ways: both as economic “footprints” and as economic impacts, which are explained below, for four county fairs. Using that information, we estimated the combined economic “footprint” and economic impacts for all the county fairs in Oregon. We also developed a template that any Oregon county fair can complete (Appendix A) and obtain its own county’s estimates. This is not a traditional economic impact analysis. Our goal was to estimate the major areas where county fairs contributed to their counties’ economies. We would have preferred more precise primary data, and when such data were unavailable we substituted estimates to give the reader a sense of the county fairs’ economic contribution. Instead of focusing on precision, we were trying to (1) evaluate each fair’s current programs by measuring its contributions to the local economy and (2) determine whether there were areas that the fair could emphasize to enhance its economic success.

Figure 1. Representative Counties.



We addressed the question: *“How important are the county fairs and year-round fairground activities to their local economies?”* We did have trouble confining our discussion to only the financial or market activities related to county fairs. When the effects of community institutions such as county fairs are summarized only in terms of financial impact, other

economic, social, and cultural impacts are missed. Economies rely on social capital or the networks that develop in economies to reach higher levels of economic efficiency and resilience. (For example, knowing a person may reduce the costs of a transaction with that person because if the person is trusted, a handshake may suffice instead of a contract; research on or testing of the good or service to be purchased may be unnecessary; and the “warranty” may be simply knowing that any future problems can be worked out between friends.) This report does discuss the social capital that county fairs foster, but it is very difficult to measure.

Preview of Results

We found that county fairs and fairground activities contributed to the local and statewide economies in five major ways:

- 1) Highlighting and reinforcing the natural resource-based economic sectors of each economy with competition that informs and teaches through example and demonstration. This information and teaching helps to retain natural resource-based businesses and increase their productivity.
- 2) Retaining local expenditures (import substitution) for both goods and services by providing flexible and frequent market settings for many different types of local vendors and providing entertainment that is competitive with events for which people may travel outside their county.
- 3) Attracting people who are both consumers and potential residents to the communities to attend county fairs and fairground activities or events throughout the year.
- 4) Using each dollar of state funding to leverage another \$10 for operating budgets.
- 5) Building social capital that connects diverse groups in terms of culture, age, profession, and leisure activities.

The economic effects of county fairs in traditional financial measurements are significant. Additionally, an area where county fairs’ economic effects provide a contribution greater than many organizations is that of bringing people together, particularly youth, and building social capital. That social capital can help communities run more efficiently and increase their capabilities to bounce back quickly from economic shocks.

Methods

To better understand the trends—both demographic and economic—since 1969 that have forced many county fairs to change their programs, facilities, and plans for the future; we studied the four counties' population, employment, real average earnings per job, and personal income by source.

All four counties are classified as nonmetro counties, without population centers of 50,000 people. Their average population and employment growth from 1969 through 2004 have been 38.2 percent and 80.0 percent, respectively. These percentages compare to nonmetro Oregon's population and employment growth of 48.8 percent and 80.5 percent, respectively; Oregon's population and employment growth rates of 74.2 percent and 132.2 percent, respectively; and U.S. population and employment growth rates of 45.9 percent and 86.8 percent, respectively.

While population and employment growth rates in Oregon have exceeded national rates, and nonmetro Oregon's rates have basically kept pace with national rates, changes in average earnings per job and the components of personal income over those 36 years have not.

Oregon's average earnings per job in 1969 were 97.16 percent of the national average earnings per job, and nonmetro Oregon's average earnings per job were 89.86 percent of the national average. Nationally, average earnings per job grew much faster than Oregon's or nonmetro Oregon's over the 36-year period; Oregon's average earnings per job in 2004 were \$36,989, which was 89.97 percent of the national average, and nonmetro Oregon's were \$29,008, or 70.56 percent of the national average. Some of the difference between Oregon earnings and national earnings per job may be explained by quality of life differences between Oregon and the average setting for a job nationally, which may have become more pronounced over the period. Climate, reduced congestion, access to recreational opportunities, etc. are factored into willingness to accept salary offers by workers. The nonpecuniary components of the compensation package in Oregon may explain some of the difference in the rate of pay necessary to recruit employees to Oregon and nonmetro Oregon jobs.

However, the major factors for the comparative decline in average earnings per job are (1) the movement to more mechanization in natural resource-based manufacturing and (2) the simultaneous policy changes that limited access to and/or increased the cost of harvesting raw materials. These changes reduced the number of jobs and the real wages for semi-skilled employees in natural resource-based industries.

While in terms of numbers the reduction in natural resource-based jobs has been more than offset by an increase in jobs in the service sectors, the average earnings per job is generally lower in the service sectors, particularly for the displaced and semi-skilled workers from the wood products industry.

Also, over the 36-year period, the Oregon and nonmetro Oregon economies have become much “leakier” as people have progressively purchased more goods and services produced and sold outside the county.

Another shift that has taken place is how personal income is created or received in Oregon and nonmetro Oregon. In 1969, approximately three-quarters of all income received in Oregon and nonmetro Oregon was from net current earnings, and one-quarter came from dividends, interest, and transfer payments (e.g., Social Security). Today, current earnings have declined to 65 percent of personal income in Oregon and are approaching 50 percent of personal income in nonmetro Oregon. Oregon and nonmetro Oregon are becoming increasingly dependent on income sources determined by national policy toward transfer payments and on national and international markets and events affecting dividends, interest, and rents.

County fairs’ primary role of providing forums and events for learning about and showcasing the natural resource-based industries has diminished as those industries have become a smaller portion of Oregon’s and nonmetro Oregon’s economies. Still, the need for the forums and the need to bring communities together to address the economic changes and the continuing economic distress, real or perceived, has increased. The themes for community events have become more diverse as communities search for ways to bring people together and attract nonresidents to their communities. County fairs have changed accordingly, and their event calendars reflect a wide array of activities and events at the fairs themselves as well as year-round at the fairgrounds.

The challenge for county fairs is how to continue providing this public good of bringing communities together for social and economic purposes and to do so with declining public resources.

Recognizing the changes that have taken place in Oregon and nonmetro Oregon, and with some understanding of the four counties’ local economies, we wanted to be sure the models we used to estimate the fairs’ economic effects were checked to determine how well they reflected the local economies and to ensure that major discrepancies were at least reduced.

Ground Truthing

With a general overview of the counties' economies, researchers visited each of the county fairs in the summer of 2004. We observed and recorded license plates and license plate surrounds, an admittedly crude approach, yet it did give us a rough idea of the percentage of attendees who were residents and nonresidents. Later we checked our estimates with fair managers and staff members for reasonableness. We observed the conditions of the facilities, level of attendance both at the fairs generally and at individual events, and the types of events offered at the fairs.

We met with the county fair managers and obtained event calendars, budgets, and referrals to people in the communities who might have a good understanding of and suggestions for the county fairs. Then, we visited with 5 to 10 business people, elected representatives, and long-time volunteers for each fair to discuss the local economies and the fairs and their facilities.

Along with the information gathered from the communities, we reviewed national (Bureau of Economic Analysis) and local (Oregon Agricultural Information Network) databases and reconciled them with a proprietary *IMPact PLANning*, or IMPLAN, input-output model and the IMPLAN models for each county. The county-level models were edited to better reflect the local economies from the information that we had received in the communities and from reviewing the various databases.

Fair Expenditures and Economic Footprint

This section provides a brief summary of how the economic effects of county fairs' expenditures were estimated. The edited IMPLAN models we developed for the counties were designed to run county fair and fairground event purchases or expenditures through all the transactions that are linked to them within each economy. The models determined the extent to which the value of each transaction multiplied as its impacts were transmitted throughout the economy.

As an example, when a fair manager asks a contractor to install a new fan in a building, from the moment the fair manager picks up the phone he or she initiates a series of transactions, such as the contractor's purchasing the fan from a local electrical shop, purchasing gasoline for his or her van on the way to pick up the fan, maybe stopping at a café for lunch on the way back to his or her shop, and so on. Every supply purchase or backward linkage from the fair

manager's decision to purchase a new fan includes a payment in wages or proprietor income, which is used by households to purchase items such as food, dental care, automobiles, and on and on until the money leaks out of the county for goods and services essential to the job but unavailable in the county.

The county fairs' expenditures are summarized in Table 1 for each representative county and the state. For presentation purposes, we aggregated the 23 categories that we used for our calculations to 15. We projected the percentage of total expenditures for each category of expenditure, except Personnel Costs – Salary and Fringes, for which we had an actual statewide total, using a weighted average of the four representative counties' expenditures. We then multiplied the total expenditures from the OFA summary reports of all 36 county fairs by those projected percentages to estimate the statewide expenditures.

Also, Douglas County's entertainment costs were proportionally higher than those of the other three fairs, so we adjusted the Entertainment proportion downward. From a budgetary perspective, the four counties represented one large, one moderate, and two smaller budgets. The fairs have individual accounting systems and so the expenditures are not perfectly aligned, which usually meant the expenditures were aggregated to larger categories (e.g., Security was included in Other Services). It should not be presumed that no purchases were made for the categories within a category if the amount shown is \$0. We just could not determine an exact amount.

Table 1. Representative County Fairs' and Estimated Statewide Expenditures (2004 Data).

	<u>Douglas</u>	<u>Grant</u>	<u>Hood River</u>	<u>Tillamook</u>	<u>Oregon</u>
Personnel Costs - Salary and Fringes	758,447	117,000	77,045	231,000	10,113,164
Entertainment	314,290	39,213	18,170	0	1,574,572
Machinery Repair & Maintenance	16,249	400	4,862	0	146,869
Construction	15,000	11,000	9,821	107,391	977,800
Other Services	39,867	19,500	9,476	35,759	564,187
Wholesale and Retail Supplies	69,427	5,000	22,810	322,105	1,944,096
Food & Beverage	97,847	2,000	0	0	681,719
Software	5,150	0	293	0	40,702
Vehicles	8,865	2,213	0	0	75,637
Printing, Advertising, Postage & Communications	98,472	3,113	8,849	0	754,003
Insurance & Banking	18,322	13,000	1,007	0	220,731
Utilities, Fuel & Oil	96,840	15,000	26,052	18,750	1,069,495
Travel, Dues, Conventions, Schools, Training	7,396	2,200	2,940	0	85,591
Security	0	0	6,076	0	41,485
Premiums, Refunds and Judges' Fees	0	5,852	24,034	0	199,899
Total Operating Expenditures	\$1,546,172	\$235,491	\$211,435	\$715,006	\$18,489,950

Exports (Visitor Spending)

In this report, we describe the economic linkages the fairs have in their counties and statewide as their “economic footprint.” Their economic footprint includes the multiplied effects of the budgeted expenditures, the outside economic activity they attract, and the economic activity that would have otherwise leaked out of the economy.

Many economists divide participants in economies into two major categories: (1) basic industries that drive the economy through their exports or the “new” money they bring into the economy, and (2) service industries that provide the supplies and services essential for the basic industries to produce the exports and for households to function. If the basic industries decline, the local economy will contract; if the basic industries grow, it will expand. If the service sectors decline, the economy can be severely disrupted, yet the basic sectors may be able to offset all or some of the reduced local availability of supplies with imports from outside the county. The county fairs and fairgrounds activities have both basic (e.g., tourism or exporting/selling lodging, food, and retail items to visitors) and service (e.g., providing services and meeting places for local people and groups of people) components to the goods and services they produce. They do this either through sales at the fairgrounds or by attracting people to the community to attend the fair, who then spend in the local communities.

We use two measures: (1) *economic activity* or “*footprint*,” which includes both the basic or export and service portions of the fairs’ and fairgrounds’ financial transactions (plus associated respending), and (2) the subset of the economic footprint that is described as *economic impacts*, which include only the basic or export portion of the fairs’ and fairgrounds’ financial transactions (plus associated respending). Exports help drive local economies and are expressed as economic impacts.

We were able only to estimate the percentage of attendees at the fairs and year-round activities who were from outside the respective counties through discussions with fair employees and local business owners/managers. They estimated out-of-county visitors at 25 percent for the representative fairs, except for the Tillamook County Fair, which was estimated at 33 percent. Out-of-county visitors for year-round events were estimated between 10 percent and 20 percent depending on type of event. Average expenditure per visitor was estimated at \$5 for each of the three major expenses—lodging, food, and retail purchases—or \$15 total for each out-of-county visitor. Certainly, percentages of visitors and their level of expenditures vary a great deal by county, time of year, and event. Our estimates were quite conservative and lower than earlier studies. This is an area where the fairs could regularly conduct on-site surveys at a few fairs and at year-round events to develop more useful estimates.

Import Substitution

There is one additional and important economic effect that we estimate within the report. Goods and services sold locally are not typically included in calculating a sector's economic impacts. The reason this is not usually done is because if the sales were not made at the fairgrounds, they may be made at other places in the community or the money would still be spent in the local economy. So, much of providing opportunities for retailers in economic terms is a zero-sum activity, or those expenditures are considered part of the service sectors and become part of the multiplier for basic industries, either as indirect or induced effects. However, if a county resident would have purchased a good or service from a vendor living outside the county and decides to purchase the good or service locally at the county fair or a fairground event, we consider that purchase a substitute for an import. It would not have been purchased from another local supplier and is not part of the service sectors and multiplier of another industry. The purchase retains dollars in the local economy that would have otherwise leaked out of the county. We treat these types of sales in the same way as economic exports. A substituted import, particularly for a retail good, can be valuable to an economy and may serve as the foundation for future export industries. "Economic life develops by grace of innovating; it expands by grace of import-replacing (Jacobs, 39)." County fairs and fairground facilities provide a market place for locally produced goods and services that may not have been available without the county fair and year-round events.

Estimating the import substitution effects was also imprecise. We visited with fair managers, and they completed estimates for the number of local vendors at county fairs and year-round events and the average sales per vendor. We used IMPLAN regional purchase coefficients, which indicate the proportion of purchases that are local and nonlocal by sector, to project the portion of the local vendors' sales that may have been spent outside the economy without the fairs' "markets." In addition, we were able to observe and obtain the livestock auction data from the Wallowa County Fair, which was not part of our sample of counties yet could provide the most current data to refine our estimates. The livestock auctions were a major component of the import substitution impacts. Local producers, often 4-H members, sell animals they raise at the end of the county fair or at other sales at the fairgrounds throughout the year. Social capital plays a big part in these sales because the purchasers usually know the producers and pay higher than market prices for the animals. The extent to which these sales impact the local economy depends on more than whether the producer is local. If the meat processing is also provided by local

producers, more dollars are retained within the local economy. The percentage of animals processed in the local economy varies widely. We believe that we have been conservative in our estimates. However, to be sure these numbers are close, each fair needs to review its records and use the information to complete the template, which is included in the Appendix.

Analysis

Based on our representative four fairs and the application of their expenditure patterns and their ability to attract new expenditures from outside the county or to retain expenditures that may have leaked out of the county, we used the total annual expenditures made by all the county fairs for fair and year-round events and the total attendance at county fairs to estimate both the fairs' economic footprints and their economic impacts. We described the footprints and impacts as three types of effects within the local economies:

- **Output:** Total sales of goods and services
- **Value-added:** Salaries/wages of employees, proprietors' incomes, rents and leases, and business permits
- **Employment:** Full- and part-time jobs

Table 2. Statewide Economic Footprint¹ and Economic Impacts² of the County Fairs.

	<i>Economic Footprint (All Economic Activity)</i>	<i>Economic Impacts (New Money Attracted to the Counties)</i>
Output	\$52,081,427	\$33,734,005
Value-Added	\$28,874,392	\$19,852,686
Employment	867	649

¹ All output, value added and jobs directly related to fairs plus associated responding

² All output, value added and jobs directly related to county fair "exports" and "import substitution" plus associated responding

The fairs' annual expenditures of \$18,489,950 in 2004 dollars, adjusted to \$18,965,080 in 2006 dollars, generated an economic footprint of approximately \$52,081,427 in output, \$28,874,392 in value-added income, and 867 full- and part-time jobs. As discussed earlier, the economic footprint of the county fairs includes all the economic activity related to the fairs' expenditures. However, if export base theory is used to explain what drives an economy, then only the portion of the economic footprint that is initiated by outside expenditures for exports or the expenditures that would have leaked out of the economy to purchase imports is considered to measure economic dependency. The expenditures that outside visitors to the county fairs brought in or that county fairs prevented from leaking out of the counties were estimated at \$33,734,005 in output, \$19,852,686 in value-added income, and 649 full- and part-time jobs. Note that these estimates are not a statewide economic impact, which would be smaller. This analysis takes a county-level perspective. The total impacts are a sum of the individual counties' economic impacts. While each county's exports include sales that extend beyond the county, or each county's import substitution is any sale retained that might have leaked out of the county, a statewide economic impact would include only exports from Oregon or import substitution for the state.

Leverage is a metric that has been considered by decision makers. It is usually defined as the amount of additional support or spending that results from some initial level of public support. Leverage is calculated based on the funding provided by the State of Oregon to each county fair. Table 3 shows how the state funding is used to leverage or encourage funding by a number of other government and private entities for the operating budgets of the county fairs and how those state funds prompt economic activity in terms of output or sales and value-added production in each county. On the average, for each dollar the state contributes the counties develop \$9.53 to support fair operations. If the state dollars are credited with the output or sales and value-added economic activity that is linked to the county fairs, each state dollar is leveraged to \$18.74 and \$11.02 respectively. Some county fairs reach this level because without the state funding they may need to close. Leverage for state funds is lower for counties that are not as dependent on state funds.

Table 3. Leverage of State Funding for Local Fair Operating Budgets, Output (Sales), and Value-added Production

Source of Funds	<i>Leveraged \$'s for Each State \$</i>
County Fairs' Operating Budgets	9.53
Output	18.74
Value-Added	11.02

Since 1986, state government support for county fairs, which was \$1.4 million in 1986 (adjusted to approximately \$2.4 million in 2006 dollars), has declined to approximately \$1.8 million, when the \$1.665 million funding in 2004 is adjusted to 2006 dollars. This is a 25 percent decline in real dollar support from state government for county fairs over the past 20 years.

In addition to the economic activity and impacts that can be measured financially, the social capital that was mentioned earlier and is created at county fairs is sizable. People visit county fairs and activities at county fairgrounds more than 5.8 million times each year. Forty-eight thousand exhibitors showed the products of their labor or taught people how to do what they do in more than 175,000 exhibits or presentations. Almost two-thirds of those people were youth, and many of the adults were mentors for those youth. As schools and nonprofits experience increasing pressure to provide activities and settings where youth can compete and socialize in ways that build skills they will take into the workplace, county fairs become more important.

Summary

This report indicates that county fairs are important contributors to their local economies. Their statewide sum of county-level economic footprints is \$52 million, and county fairs attract or retain \$34 million in new sales to their counties. They use the modest support they receive from the state and their county governments to create enterprises that are often 5 to 10 times greater than the public funding they receive. They spend the major portions of their budgets locally. The economic activities they initiate or attract are almost three times as great as their base budgets. The economic impacts they drive amount to almost twice their operating budgets.

These estimates are very conservative compared with past studies. We would expect the impacts to increase with more precise data. If surveys were completed with fair and year-round event attendees to determine their expenditures on lodging, food, and retail expenditures, we believe our estimate of \$15 per attendee could significantly increase.

The idea we have discussed in this report, which is not usually considered, is the county fairs' role in providing market places and entertainment that retain funds within the counties that otherwise would have been spent outside the counties. Local organizations in many communities are substituting local production and sales for purchases from businesses located or owned outside the local communities. Fairs have been doing this for more than two centuries. They may have the potential to grow this portion of their enterprises. It seems that they could work with the producers and existing businesses in their communities to develop marketing plans for the fairgrounds that are more intentional than those that currently exist in many counties.

Oregon has more farms today than it did 25 years ago. The average size of farms has declined, but the number has increased. The owners of these smaller farms are often very interested in being economically successful. County fairs provide a setting for both full-time production farmers and adaptive part-time farmers to learn from one another. There may be potential to reverse some of the job losses of the past three decades in agriculture through these very labor-intensive adaptive farms. County fairs and the 4-H youth programs may be able to help foster a new and larger generation of farmers.

County fairs have capable managers who have often been recruited from successful private business experiences. In many counties, the fairs have unique facilities, yet the competition for public funding and private spending is becoming more intense. Nonprofit organizations are not averse to almost duplicating other nonprofits' programs to gain additional funding. They race to repackage existing programs of their own or others to present "new" programs or initiatives, to obtain additional public and private funding for their organizations. This puts traditional or existing programs or organizations such as county fairs at a disadvantage. As we conducted our ground-truthing interviews for this study, we found that people in the local communities were quite supportive of the county fairs, yet they did not frequently link specific events or activities at the fairgrounds to the quality of life of their coworkers or employees. Community events and programs have become so plentiful that the "market" may be oversupplied and unable to sustain the current events and programs in many counties. County fairs may want to work with their elected officials to lead the coordination and possibly consolidation of some of the events and community programs.

Finally, as people spend more and more time in their homes and less time visiting and working with their neighbors, county fairs and their year-round activities have drawn people back together. The importance of this social capital is demonstrated by all the counties in Oregon retaining their county fairs at least in some form. The challenge will be to find metrics to measure the importance of the social capital at least as well as we can measure the economic activity and impacts of the county fairs' expenditures.

"Again and again, we find that one key to creating social capital is to build in redundancy of contact. A single pitch is not enough, whether you are pitching unionization or Christian salvation. Common spaces for commonplace encounters are prerequisites for common conversations and common debate. Furthermore, networks that intersect and circles that overlap reinforce a sense of reciprocal obligation and extend the boundaries of empathy."

Robert D. Putnam and Lewis M. Feldstein with Don Cohen in *Better Together: Restoring the American Community*.

References

- Davis, S.W., R.B. Mackey, and H.D. Radtke. 1987. *Oregon County Fairs Economic Assessment*. Agricultural & Resource Economic Associates (AREA), sponsored by the Oregon Fairs Association.
- Hand, Michael L., Jesse M. Long, and Charles Kirschbaum. 1998. *Economic Impact Analysis Prepared for: The Oregon State Fair & Exposition Center*. Atki Graduate School of Management, Willamette University, Salem, OR: 12.
- Helvoigt, Ted L., Darius M. Adams, and Art L. Ayre. 2003. "Employment Transitions in Oregon's Wood Products Sector: During the 1990's." *Journal of Forestry* (June 2003): 42–46. ECONorthwest website:
<http://www.econorthwest.com/energyresourcereports.html>
- Holland, David W., Hans T. Geier, and Ervin G. Schuster. 1997. *Using IMPLAN to Identify Rural Opportunities (General Technical Report INT-GTR-350)*. USDA Forest Service, Intermountain Research Station, 324 25th Street, Ogden, UT 84401.
- Jacobs, Jane. 1985. *Cities and the Wealth of Nations*. New York: Random House.
- Jensen, Sharon. 2000. "Fairs and Their Changing Communities: Adapting to Urban Communities." *Agricultural Fairs in America: Tradition, Education, Celebration*. Avery, Julie A. (ed.). East Lansing, MI. Board of Trustees, Michigan State University: 80.
- Leontief, Wassily. 1986. *Input-Output Economics*. New York and Oxford: Oxford University Press.
- Loy, William G. (ed.), Stuart Allan, Aileen R. Buckley, and James E. Meacham. 2001. *Atlas of Oregon*. Eugene, OR: University of Oregon Press.
- Maki, Wilbur R. and Richard W. Lichty. 2000. *Urban Regional Economics*. Ames, IA: Iowa State University Press.
- Northwest Area Foundation. 2004. <http://www.indicators.nwaf.org/>
- Olson, Doug and Scott Lindall. 1999. *IMPLAN Professional Version 2.0 Social Accounting and Impact Analysis Software—User's Guide, Analysis Guide, and Data Guide*. Minnesota IMPLAN Group, Inc., 1725 Tower Drive West, Suite 140, Stillwater, MN 55082, <http://www.implan.com>
- Oregon Agricultural Information Network (OAIN). Oregon State University Extension Service, Agricultural and Resource Economics Department, <http://ludwig.arec.orst.edu/oain/SignIn.asp>
- Putnam, Robert D. and Lewis M. Feldstein, with Don Cohen. 2003. *Better Together: Restoring the American Community*. New York, NY, Simon & Schuster: 291.

Sahr, Robert. Homepage: http://oregonstate.edu/Dept/pol_sci/fac/sahr/sahr.htm and the U.S. Bureau of Labor Statistics Inflation Calculator, <http://data.bls.gov/cgi-bin/cpicalc.pl>

Smith, Gary W. 2006. *Oregon Regional Economic Analysis Project web page*. Pullman, WA: Department of Agricultural Economics, Washington State University. <http://www.pnreap.org/Oregon>

U.S. Bureau of Economic Analysis, Regional Economic Data, Detailed income, employment, and compensation tables by NAICS industry 2001–2003 (CA05, CA25, CA06), Table CA25N, <http://www.bea.gov/bea/regional/reis/default.cfm#a>

Appendix A

Oregon County Fairs Impact Template	
<i>Sector</i>	<i>Amount</i>
Fair & Year Round Operating	
Personnel Costs - Salary and Fringes	
Construction	
Machinery Repair & Maintenance	
Other Services	
Retail Trade	
Software	
Food & Beverage	
Wholesale Trade	
Vehicles	
Printing	
Entertainment	
Insurance	
Advertising	
Fuel & Oil	
Utilities	
Communications	
Postage	
Dues	
Travel	
Conventions, Schools, Training	
Other _____	
Other _____	
Subtotal	
Out-of-County Visitors	
Lodging	
Eating and Drinking Places	
Retail Trade	
Subtotal	
Import Substitution	
Fair	
Retail	
Entertainment	
Year-Round	
Retail	
Entertainment	
Subtotal	
Total	

Appendix B

Economic Model

The edited IMPLAN input-output (I-O) model that we used to estimate the county fair economic impacts and activity provides an effective way of organizing and using detailed expenditure information to estimate economy-wide economic impacts. It is based on a matrix that shows all the goods and services (inputs) required to produce all the outputs of each business or organization. In other words, the matrix quantifies the purchase and sales relationships between the various sectors in the economy of interest. After the necessary tables and matrices of an I-O model are constructed, an economic event like a county fair or wedding at the county fairgrounds can be introduced into the model/economy and a set of impacts projected.

We purchased the basic I-O models for Oregon and the four counties from the Minnesota Implan Group, Inc. (MIG). MIG incorporates more than 30 national and local databases into an I-O modeling structure that can create geographically specific I-O models ranging in size from the national level to the ZIP Code level. The software, as noted above, is called IMPLAN Professional and comes with a number of dataset options.

IMPLAN is an effective tool that is being used across the U.S. and is regularly being tested and improved. The data for the IMPLAN system is updated on a regular basis. It takes approximately 3 years to gather and incorporate the data from a number of sources into IMPLAN. This report used the 2002 IMPLAN database. For the purposes of impact analysis, the relationships in the structural model (purchase and sales patterns) are more important than the absolute magnitude of the data (size of the economy). Therefore, as long as the underlying structure of the economy has not changed significantly since 2002, the model will be very robust for this analysis.

Estimates in this report are influenced by I-O model limitations. The model is dependent on its assumptions of how things are produced (their production functions), the price of inputs, and the percentage of purchases that are made within the economy under consideration.

An I-O model is static and gives a single snapshot of an economy. It is linear and does not account for major changes in markets and technological conditions. It assumes that industries can and do continue to produce goods and services in the same manner without adjusting techniques when the scale of their production changes.

Even with these limitations, I-O models can be very useful for estimating economic impacts and understanding how they extend throughout an economy from the backward (supplier) to the forward (customer) linkages. The accuracy of the models as they are received from MIG, Inc. can be improved by further checking them against national and local databases and ground truthing as we did for the fairs study and discussed earlier in this report.

© 2007 Oregon State University. This publication may be photocopied or reprinted in its entirety for noncommercial purposes. This publication was produced and distributed in furtherance of the Acts of Congress of May 8 and June 30, 1914. Extension work is a cooperative program of Oregon State University, the U.S. Department of Agriculture, and Oregon counties. Oregon State University Extension Service offers educational programs, activities, and materials without discrimination based on age, color, disability, gender identity or expression, marital status, national origin, race, religion, sex, sexual orientation, or veteran's status. Oregon State University Extension Service is an Equal Opportunity Employer.

Published May 2007.