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The Tillamook County Economy:

A Working Model for Evaluating Economic Change



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The Tillamook County Economy:
A Working Model for Evaluating Economic Change

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Introduction

"What can we do to stimulate our local economy?" is a question posed frequently by people in small rural communities. When an economic opportunity arises a question frequently asked is "What impact will it have on our community?"

For example: What if a new industry would want to locate in the community. Would local businessmen gain from increased economic activity? And how much money would they gain? How would local households be effected: Would unemployed people in the community be hired at the new industry or would others be drawn into the community to work at the new plant? And what about local governments? Would increased revenues from the new development pay for new services the industry would require such as sewer and water lines, roads and solid waste disposal? Would the population increase and schools need expanding or would new schools need to be built?

These are complex questions and people everywhere have a difficult time with them. Recently, an economic study of the Tillamook County Economy was completed by the Oregon State University Experiment Station. From this study, research and Extension Service specialists developed an Input-Output model -- a computerized simulation of the County's economy. This will be used in further community development effort.

About 200 local business men in Tillamook County were interviewed. The information they supplied from this survey was fed into a computer at Oregon State University. This publication describes some of the findings of the study and how the computerized model can be used to evaluate economic changes in Tillamook County.

Anyone desiring more information about the study and how to use the computerized model is encouraged to contact the local County Extension Office in the Tillamook County Courthouse or the authors of this report at the Oregon State University Extension Service in Corvallis.

The Tillamook County Economy:
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The Input-Output model reported here has several applications. It can be used for estimating the effects from new economic activity such as a factory being added to the community. It can evaluate an economic loss to the community, e.g., when the Garibaldi Mill closed in 1973. An Input-Output model also can assist a community in qualifying for economic assistance grants. With the primary data collected, it provides an excellent opportunity for Tillamook County residents to make informed economic decisions in their community.

Tillamook County Economic Base^{1/}

The basic industries of Tillamook County are timber and wood processing, cheese manufacturing and the related dairy industry, recreation/tourism and some marine food production. Basic industries are defined as those that sell (export) a majority of their goods or services to individuals or businesses outside the local area. The relation between what the community sells (exports) and buys (imports) is important.

For example: Tillamook County as a whole exports (sells) lumber and wood products, dairy and other food products, tourist activities and seafood products to people outside the county. Why? Simply because

^{1/}Although the data in this study is based on economic interrelationships in 1973, it can be used for the next five to ten years for planning purposes. Although the dollar figures change over time, the basic relationships among sectors will remain roughly the same for relatively short periods of time (5 - 10 years) or until a major economic change comes to the community.

more of these kinds of products are produced in the county than local residents can consume themselves and there is a demand for the excess by people living elsewhere.

In turn, the money received in Tillamook for these exports is used to purchase such imports as automobiles, petroleum, cattle feed, food and chain saws to name a few. These import products are either not produced in large enough quantity in Tillamook to satisfy local people's desires or they may not be produced at all. In the long run, a community that exports (sells) more than it imports (buys) gains wealth.

The major export sectors of Tillamook County for 1973 are listed in table 1. Sectors are composed of firms engaged in the same general type of business. A complete listing and definition of all sectors is included as Appendix A. The major export sectors in Tillamook County for 1973 are plywood and shakes \$30 million dollars, lumber from sawmills \$19 million dollars and tree farms \$16 million dollars. These three timber related sectors alone account for nearly 50% of the total exports from the county. Agriculture directly exports \$4 million dollars or only 3% of the county total; but manufacturing, largely dairy products in the form of Tillamook cheese, amounts to nearly \$17 million dollars or 13% of the county total export. The seafood industry accounts for \$1.5 million dollars, only about 1.3% of total exports. Recreation/tourism exported about \$12 million dollars in 1973, about 8% of the total county exports. Although sales from tourists are made in the county, the dollars they spend generally come from outside Tillamook County.

The exports for each sector of the Tillamook economy are presented in Appendix C. The table in Appendix C also provides much more information than can be included in the text. Some sectors buy inside and sell outside, sawmills for example. Others buy outside and sell inside, retail trade as an example.

TABLE 1
EXPORT BASE OF THE TILLAMOOK COUNTY ECONOMY, 1973 *

SECTOR	EXPORTS (\$000)	% OF COUNTY EXPORTS
1. Silviculture (tree farms, logs)	\$16,228	12.2
3. Sawmills (lumber)	19,223	14.5
4. Other Wood Processing (plywood, shakes)	<u>30,055</u>	<u>22.6</u>
Subtotal of Wood Products	\$65,506	49.3
5. Commercial Agriculture (mainly dairy)	4,187	3.2
15. Manufacturing (largely cheese)	<u>17,145</u>	<u>12.9</u>
Subtotal of Agricultural Products	\$21,332	16.1
6. Commercial Fisheries	267	.2
7. Oyster Aquaculture	216	.2
8. Seafood Processing	<u>1,274</u>	<u>1.0</u>
Subtotal of Marine Resources	\$ 1,757	1.4
Recreation-Tourism	<u>12,118</u>	<u>9.1</u>
TOTAL	\$100,713	75.9

* A complete listing of Export and Import Patterns, by Sector for Tillamook County is displayed in Appendix C, page 16.

How Do Exports Affect Tillamook County Sectors

The Input-Output study for Tillamook County provides a great amount of detailed information on economic transactions. Here, three examples are provided to illustrate the types of information that can be obtained from the model. Table 2 illustrates the distribution of dollar impacts for the following three export sectors: Other Wood Products Exports of \$30,055,000 (plywood and shakes), Manufacturing Exports of \$17,145,000 (largely Tillamook cheese) and Retail and Wholesale Trade Exports of \$5,045,000 (downtown business). (This same information is currently available from the complete model for all sectors of the Tillamook economy.)

Other Wood Products industries export about \$30 million dollars of products in 1973 as indicated in the first column of table 2. Looking down the column, the distribution of additional business in other sectors of the local economy resulting from the exports of wood products can be examined. This sector had an impact of only \$2,000 on the Commercial Fisheries and Oyster Aquaculture sectors compared to \$9.5 million dollars on Household incomes. The \$30.3 million dollar figure for the Other Wood Products sector itself is largely composed of export sales of \$30,055,000. These exports had a \$2.8 million dollar impact on the Retail and Wholesale Trade sector. Additional effects on main street business and the community are also reported in the table under headings such as financial services, professional services, retail services, etc.

The second column displays impact distribution of the Manufacturing Sector Exports of \$17,145,000, mostly Tillamook cheese. This sector also had very little impact on Commercial Fisheries and Oyster Aquaculture sectors as would be expected. Also, as expected, the Manufacturing Sector had high impacts of \$8.9 million dollars for milk from the Commercial Agriculture sector and \$8.4 million dollars to Household incomes for wages and salaries. Again there was a major impact on downtown businessmen amounting to over \$3.5 million dollars for retail and wholesale goods and services.

The final column in table 2 shows the impact of Retail and Wholesale Trade Exports of \$5,045,000 for 1973. This sector had relatively little impact on 7 sectors, but a high impact of \$1.7 million dollars on Household incomes. This sector has less economic impact on the local community since it must purchase from outside the county almost all manufactured goods sold by main street businesses.

Multipliers: Their Use in Economic Analysis

At the bottom of table 2 is the term "multiplier" and a number appears in each of the columns.^{2/} These multipliers represent the total impact of additional money being spent in the respective business sectors. The concept can be illustrated through an example where \$1,000 is spent in a community perhaps in the purchase of an exported good or service. A multiplier of 1.7 says that the total economic impact on local business will be \$1,700, the original \$1,000 of sales plus \$700 in additional business occurring throughout the economy. Knowing the size of the multiplier and how it works can help people better estimate the total economic impacts on a community.

For example, someone asks "What is the impact of this development or these purchases, on the economy of our community?" A partial answer lies in the multiplier. With the figures in table 2, it is possible to see the total impact and its distribution. For some purposes, the multiplier may be sufficient for evaluating the relative size of any particular impact. However, detail on the intersectoral distribution is also desirable.

A Word of Caution About Multipliers

The size of the multiplier is obviously not the only tool to be used in evaluating changes in an economic sector. The total volume of business

^{2/} For a more complete discussion of the multiplier concept the reader is referred to: Income Multipliers in Economic Impact Analysis - Myths and Truth, Special Report 294, June 1970, Cooperative Extension Service, Oregon State University, Corvallis, Oregon.

TABLE 2

THREE EXAMPLES OF DISTRIBUTION EFFECTS FROM EXPORTS
ON SELECTED SECTORS OF THE TILLAMOOK COUNTY ECONOMY
(In \$1,000's)

SECTORS	OTHER WOOD PRODUCTS EXPORTS OF \$30,055 (Plywood, Shakes)	MANUFACTURING EXPORTS OF \$17,145 (Cheese)	RETAIL & WHOLESALE TRADE EXPORTS OF \$5,045 (Downtown Business)
1. Silviculture	\$1,506	\$ 5	\$ 1
2. Logging & Hauling	1,520	3	1
3. Sawmills	23	20	6
4. Other Wood Products	30,264	8	1
5. Commercial Agriculture	36	8,861	6
6. Commercial Fisheries	2	2	-
7. Oyster Aquaculture	2	2	-
8. Sea Food Processing	6	5	1
9. Motel - Hotel	9	11	2
10. Campgrounds	5	5	1
11. Sport Fishing Marinas	10	10	4
12. Cafes & Taverns	43	378	77
13. Service Stations	45	355	72
14. Auto & Farm Implements	1,230	1,449	224
15. Manufacturing	60	18,731	11
16. Construction	1,260	1,309	226
17. Retail & Wholesale Trade	2,820	3,534	5,936
18. Transportation	36	199	20
19. Medical Services	393	375	71
20. Other Professional Services	280	508	73
21. Financial Services	154	370	43
22. Retail Services	1,267	1,406	273
23. Local Government	775	736	108
24. Households	9,518	8,430	1,709
TOTAL LOCAL BUSINESS GENERATED BY EXPORTS	\$52,049	\$46,712	\$ 8,869
TOTAL BUSINESS	\$30,336	\$20,027	\$31,038
MULTIPLIER	1.73	2.72	1.76

sales is also very important. A hot dog stand may have a larger multiplier than a lumber mill, but the volume of business at the mill has a more influential impact within the community. The multiplier alone is seldom helpful in selecting a business for expansion in the community.

Going back to table 2, the Other Wood Products and Retail and Wholesale Trade sectors have almost the same multipliers of 1.73 and 1.76 respectively. But manufacturing in column 2, representing the cheese industry has a multiplier of 2.72 which is much higher than the other two and indicates the relative importance, dollar for dollar, of that industry to the local Tillamook economy. (A complete listing of all multipliers for Tillamook County can be found in Appendix B.)

The Impact from an Addition or Loss of Business

Since the information in the Input-Output study may have a practical lifetime of several years, it could be used to evaluate impacts from potential economic expansion (or losses) within Tillamook County. It is most helpful in evaluating prospective major changes in business. For example, it could be used to estimate the broad economic impact of losses from the dairy industry resulting from a flood, if milk production is affected. Other possibilities are evaluations of the impacts of increased (decreased) tourism or manufacturing in the county.

For examples of how the study can be used, two alternative sizes of possible aquaculture additions to the local area will be examined along with the impact from the loss of the large plywood mill that closed in Garibaldi during 1973. The information in table 3 gives an idea of which businesses in the community are affected by the changes in economic activity.

The two aquaculture examples, columns 1 and 2, were based on similar sized firms already in operation in the Pacific Northwest with some adaption to the Tillamook County economy. These two firms could operate on Tillamook Bay. The question was asked, "What effect would these two hatchery operations have on the local economy? And how would the impacts

TABLE 3

DISTRIBUTION OF IMPACT FROM EXPANSION OR REDUCTION
OF SPECIFIC BUSINESSES IN TILLAMOOK COUNTY
(In \$1,000's)

	AQUACULTURE \$400 (GAIN)	AQUACULTURE \$700 (GAIN)	TIMBER PRODUCT \$14,000 (LOSS)
1. Silviculture	*	1	- \$699
2. Logging & Hauling	*	*	- 706
3. Sawmills	1	2	- 11
4. Other Wood Products	1	2	- 14,059
5. Commercial Agriculture	*	1	- 17
6. Commercial Fisheries	*	*	- 1
7. Oyster Aquaculture	*	*	- 1
8. Sea Food Processing	400	700	- 3
9. Motel - Hotel	*	*	- 4
10. Campgrounds	*	*	- 2
11. Sport Fishing Marinas	*	*	- 5
12. Cafes & Taverns	3	8	- 198
13. Service Stations	3	7	- 207
14. Auto & Farm Implements	9	25	- 571
15. Manufacturing	*	1	- 28
16. Construction	13	40	- 585
17. Retail & Wholesale Trade	22	63	- 1,310
18. Transportation	*	2	- 17
19. Medical Services	3	8	- 182
20. Other Professional Services	2	5	- 130
21. Financial Services	1	3	- 72
22. Retail Services	7	21	- 589
23. Local Government	6	19	- 360
24. Households	65	188	- 4,421
TOTAL LOCAL IMPACT	\$536	\$1,096	-\$24,178
MULTIPLIER	1.34	1.56	1.73

*Less than \$500

be distributed among the business sectors?" In other words, who in the county would tend to benefit economically and who would not be affected?

The answers to these questions are available by reading down the columns in table 3. Sectors impacted the most for both sizes of aquaculture firms would be households, as incomes are anticipated to increase by \$65,000 and \$188,000 respectively for the two sizes of firms. It is also interesting to note that the larger business is less than twice the size of the smaller firm: \$400,000 annual expenditures versus \$700,000. But the total local impact for the larger operation is over twice the smaller operation. The larger firm which has a multiplier of 1.56 versus 1.34 for the smaller firm purchases more from local supporting businesses. This illustrates why specific industries should be evaluated separately using the Input-Output computer model. By asking a prospective industry about their anticipated business with local firms, it is possible to identify differences which may be useful in evaluating plant selection or the size of incentives extended to a business by the community like the provision of public services such as sewer, water and roads.

The study also uncovered another reason why it may be misleading to generalize too quickly with this type of economic information. For example, the multiplier for the current Oyster Aquaculture Industry on Tillamook Bay was determined to be 2.29 (see Appendix B). If this multiplier had been used to determine the economic impact of the two prospective salmon-trout aquaculture operations, higher impacts would have been obtained than actually occurs from these prospective businesses. The two hatchery firm multipliers of 1.34 and 1.56, would not have the impact dollar for dollar on the local community that the oyster firm has with a multiplier of 2.29.

To further illustrate how the Input-Output study could be helpful in evaluating an economic change within the local community, the Garibaldi Mill closure is included as an example in the third column of table 3. The mill had an approximate annual business of \$14,000,000. Reading down the column the final total economic effect on the local community

was a reduction of \$24,178,000 in economic activity as the multiplier also works in reverse. There may be some time lag involved before all the repercussions from this closure are felt since employees at the mill will not move out immediately. Some employees will stay and receive unemployment compensation. Some draw on savings. Others will find employment in the community, etc. But the numbers in table 3 indicate the distribution and magnitude of the reductions in economic activity county-wide, sector by sector. In this situation all sectors were eventually affected, though some so little that it was not felt. Agriculture, aquaculture, recreation, even local manufacturing were affected very little, but household income suffers a loss of \$4.4 million dollars. The local unemployment and associated problems make this a problem well known to local residents in Tillamook County. The local business community also had a reduction in business, another well known problem.

Future Use of the Study or Where Do We Go From Here?

The Input-Output model discussed in this publication is primarily intended for use in evaluating economic change in Tillamook County. The information required to analyze a specific economic change is usually available from any firm interested in expanding or moving into the community. The firm, whether it be a furniture factory, electronics plant or aquaculture industry generally is interested in illustrating the economic impact their business would have in the community. Given this situation, the prospective business is usually willing to provide the information necessary to run an Input-Output analysis of the firm's economic impact. The sheet on the last page of this publication provides a form that can be used for collecting information from a business for estimating the impact of an economic change in Tillamook County. While the form may look complicated at first glance, in essence, it is simply a listing of purchases of goods or services the prospective business anticipate making in Tillamook economy. The business should be able to provide the information with little difficulty and at very low expense. Other types of changes might also be evaluated, such as dredging the

bay, jetty extensions, pasture improvement, etc. The benefits from these activities will effect several economic sectors rather than just one business. The information will be more difficult to assemble, but the basic data required is the same.

The benefits of using this economic study will only be as good as the quality of the information fed into the analysis. As previously stated, the existing model results from face to face interviews with about 200 Tillamook businesses. The Oregon State University Extension Service has the interest and capacity to assist in continued use of this study. Contact the local county Extension office or the Department of Agricultural and Resource Economics at Oregon State University for more information.

APPENDIX A

SECTOR DEFINITIONS FOR THE TILLAMOOK COUNTY INPUT-OUTPUT MODEL

<u>Sector No.</u>	<u>Sector name/Definition</u>
1	<u>Silviculture</u> : Firms and government agencies engaged in the establishment, culture and sale of standing timber which might include U.S.Forest Service, U.S. Bureau of Land Management, Oregon State Forestry Department or private timber companies in Tillamook County.
2	<u>Logging and Log Hauling Firms</u> : Logging firms in Tillamook County which do or do not do their own hauling.
3	<u>Sawmills</u> : Firms or divisions of firms which either operate sawmills in Tillamook County requiring the purchase of timber or firms that have their own timber supply.
4	<u>Other Wood Processing Firms</u> : Plywood, shake, shingle or other primary wood processing companies in Tillamook County.
5	<u>Commercial Agriculture</u> : Tillamook County dairy farms which either sell or do not sell their milk to firms located in the County and animal fur farms.
6	<u>Commercial Fisheries</u> : Licensed commercial fishermen who live in Tillamook County and own their boats and derive primary or secondary income from fishing, crabbing, etc.
7	<u>Oyster Aquaculture</u> : Firms which commercially raise oysters in Tillamook County.
8	<u>Seafood Processors</u> : Firms which process seafood in Tillamook County.
9	<u>Formal Tourist Lodging</u> : Hotels, motels and Neskowin Lodge and Condominiums.
10	<u>Informal Tourist Lodging</u> : Both private and government operated campgrounds and trailer parks in Tillamook County.
11	<u>Sport Fishing and Marinas</u> : Marinas, moorages and charter fishing services in Tillamook County.

<u>Sector No.</u>	<u>Sector name/Definition</u>
12	<u>Cafes and Taverns</u> : Bars, taverns, cafes, restaurants, and fast food establishments in Tillamook County.
13	<u>Service Stations</u> : Gasoline stations in Tillamook County.
14	<u>Auto and Farm Implement Sales</u> : New and used car, truck and farm implement sales firms in Tillamook County.
15	<u>Manufacturing</u> : Iron works, machine shops, marine builders and repair companies, non-wood roofing materials manufactures, non-profit manufacturing by handicapped and food manufactures in Tillamook County.
16	<u>Construction</u> : Building contractors and developers, plumbing, heating, painting, roofing, electrical and floor covering contractors, cabinet makers, excavating, paving, sand and gravel, landscaping, building materials suppliers and forest road building companies in Tillamook County.
17	<u>Retail and Wholesale Sales</u> : Grocery, bakeries, retail liquor and wine stores, gift shops, hardware, sporting goods, appliance, auto parts and accessories, clothing, yardage, variety, music, catalogue, pet, office equipment and supply, book, carpet, paint, bicycle, gun shops, jewelry, and furniture stores, florists, nurseries, printing shops, art galleries, antique, second hand stores, rock, candle and ceramic shops, feed and seed and other agricultural supply stores, loggers and welders supply, beer, wine and soft drink distributors, hotel and motel suppliers, petroleum and bottle gas distributors and wholesale suppliers of firms listed above.
18	<u>Transportation</u> : Rail and motor transportation companies in Tillamook County.
19	<u>Medical Services</u> : Hospitals, nursing homes, physicians, osteopaths, chiropractors and dentists practicing in Tillamook County.
20	<u>Other Professional Services</u> : Accountants, business and tax consultants, surveyors, lawyers, morticians, veterinarians, consulting engineers, dental laboratories, ambulance services, real estate, insurance agencies and credit referral services in Tillamook County.

<u>Sector No.</u>	<u>Sector name/Definition</u>
21	<u>Financial Services</u> : Banks, savings and loan associations, credit unions and finance companies in Tillamook County.
22	<u>Retail Services</u> : Barber and beauty shops, cleaners and recreation places, auto and appliance repair shops, breeding services, private day care centers and kindergartens, janitorial services, auctions, towing services, pet grooming shops, septic tank cleaners, garbage collection services, dispatching companies, photographers, telephone companies, newspaper, broadcasting companies, private grade and high schools, industrial parks, electric utility companies, churches and public water systems not operated by the incorporated cities of Tillamook, Bay City, Garibaldi, Rockaway, Wheeler, Nehalem and Manzanita.
23	<u>Local Government</u> : Tillamook County Government (excluding a county owned campground included in sector 10), the governments of the seven incorporated cities in the county, the seven school districts, assorted other small taxing authorities including sanitary districts, rural fire protection districts, special districts and port authorities (excluding the airport industrial park of the Port of Tillamook which is included in sector 22.
24	<u>Households</u> : Households earning income in Tillamook County.

APPENDIX B

INCOME MULTIPLIERS FOR SECTORS OF THE TILLAMOOK COUNTY ECONOMY

Sector	Multiplier
1. Silviculture	1.76975
2. Logging and Log Hauling	2.52187
3. Sawmills	2.25029
4. Other Wood Processing	1.73181
5. Commercial Agriculture	2.78742
6. Commercial Fisheries	2.72465
7. Oyster Aquaculture	2.29032
8. Seafood Processors	3.00387
9. Formal Tourist Lodging	2.34857
10. Informal Tourist Lodging	2.72989
11. Sport Fishing and Marinas	2.54364
12. Cafes and Taverns	2.79736
13. Service Stations	2.30895
14. Automobile and Farm Implement Sales	1.44676
15. Manufacturing	2.72451
16. Construction	2.59478
17. Retail and Wholesale Sales	1.75799
18. Transportation	2.13842
19. Medical Services	2.89749
20. Other Professional Services	2.95242
21. Financial Services	3.03056
22. Retail Services	2.35514
23. Local Government	2.68371
24. Households	2.49090

APPENDIX C

EXPORT¹ AND IMPORT² PATTERNS, BY SECTOR, FOR TILLAMOOK COUNTY, 1973

NO.	SECTOR NAME	PERCENT OF OUTPUT SOLD		(\$1,000's) VALUE OF EXPORTS	PERCENT OF TOTAL COUNTY EXPORTS	PERCENT OF INPUTS ³		(\$1,000's) VALUE IMPORTS	PERCENT OF COUNTY IMPORTS
		IN COUNTY	EXPORTED			IN COUNTY	PURCHASED OUTSIDE		
1	Silviculture	31.9	68.1	16,228	12.2	30.0	70.0	16,687	12.4
2	Logging and Log Hauling	93.3	6.7	283	.2	63.3	36.7	1,551	1.2
3	Sawmills	.3	99.7	19,223	14.5	56.5	43.5	8,383	6.2
4	Other Wood Processing	.14	99.86	30,055	22.6	31.2	68.8	20,701	15.4
5	Commercial Agriculture	67.4	32.6	4,187	3.1	74.5	25.5	3,275	2.4
6	Commercial Fisheries	68.1	31.9	267	.2	73.0	27.0	226	.2
7	Oyster Aquaculture	6.4	93.6	216	.2	53.1	46.9	108	.1
8	Seafood Processing	.9	99.1	1,274	1.0	76.4	23.6	303	.2
9	Formal Tourist Lodge	5.4	94.6	2,053	1.5	54.6	45.4	985	.7
10	Campgrounds	10.8	89.2	377	.3	70.0	30.0	127	.1
11	Sport Fishing and Marinas	18.2	81.8	360	.3	65.0	35.0	154	.1
12	Cafes and Taverns	68.8	31.2	1,714	1.3	79.7	20.3	1,113	.8
13	Service Stations	62.7	37.3	1,961	1.5	65.7	34.3	1,803	1.3
14	Auto and Farm Implements	83.6	16.4	2,024	1.5	18.3	81.7	10,106	7.5
15	Manufacturing	8.1	91.9	17,145	12.9	63.9	36.1	6,739	5.0
16	Construction	82.4	17.6	2,039	1.5	64.7	35.3	4,087	3.0
17	Retail and Wholesales	83.4	16.6	5,044	3.8	32.9	67.1	20,459	15.2
18	Transportation	98.9	1.1	9	0.0	45.8	54.2	470	.3
19	Medical Services	90.4	9.6	355	.3	76.3	23.7	881	.7
20	Other Professional Services	95.1	4.9	146	.1	79.2	20.8	623	.5
21	Financial Services	89.9	10.1	188	.1	82.3	17.7	329	.2
22	Retail Services	92.2	7.8	1,022	.8	55.7	44.3	5,791	4.3
23	Local Government ⁴	78.5	21.5	22,715	17.1	68.9	31.1	3,290	2.4
24	Households ⁵	70.8	29.2	24,272	18.3	68.6	31.4	26,136	19.4
TOTAL				\$132,715	100.0	TOTAL		\$134,329	100.0

¹ Exports include local sales to non-residents.

² Imports include transfers as: taxes to state and federal government, stockholder dividends, absentee owners profits, etc; in the timber sector it includes locally grown trees and represents the value of timber cut.

³ Note that 100% of each sectors inputs is spent either in or out of the county. Profits are considered to be spent in the area of residence of the owners.

⁴ Output for local government is the revenue they received for fiscal year 1973-74.

⁵ Output for households is the total of wages, profits, salaries, dividends, retirement income, federal and state government transfers, etc. received by households in the county.

TEAR-OUT FORM

Information Needed to Evaluate Economic
Impact from a Proposed Change in Tillamook County

Record the annual expenditures that result from a firm (or other economic activity) within Tillamook County. What is the total amount of business done annually? \$ _____

How much is purchased from?:

	Purchased in Tillamook Co.	Purchased outside Tillamook Co.
Firms or agencies primarily engaged in the establishment, protection, culture, and sale of standing timber	1 _____	_____
Logging and log hauling firms	2 _____	_____
Sawmills	3 _____	_____
Other wood processing	4 _____	_____
Commercial agricultural	5 _____	_____
Commercial fisheries	6 _____	_____
Oyster aquaculture	7 _____	_____
Seafood processors	8 _____	_____
Formal tourist lodging (hotels, motels)	9 _____	_____
Informal tourist lodging (camps, trailer parks)	10 _____	_____
Sport fishing and marinas	11 _____	_____
Cafes and taverns (include private clubs)	12 _____	_____
Service stations	13 _____	_____
Auto and farm implement sales	14 _____	_____
Manufacturing	15 _____	_____
Construction	16 _____	_____
Retail and wholesale sales	17 _____	_____
Transportation	18 _____	_____
Medical services	19 _____	_____
Other professional services	20 _____	_____
Financial services	21 _____	_____
Retail services	22 _____	_____
Taxes and fees paid to local governments in Tillamook Co., including schools	23 _____	_____
Households in Tillamook Co. (wages, salaries, business profits, rents, royalties, etc.)	24 _____	_____
Taxes and fees paid to all governments not located in Tillamook County	_____	_____

MAIL COMPLETED FORM TO: Russ Youmans, Extension Economist, Dept. of Agricultural and Resource Economics, Oregon State University, Corvallis, Oregon 97331. (phone) 754-2942

RETURN RESULTS TO:

NAME : _____

ADDRESS: _____

PHONE : _____

EXTENSION *Community Development* PROJECT
OREGON STATE UNIVERSITY