

Economic Impact Brief

Annual economic impact of the expansion of an insurance wholesaler in Nevada County with the assistance of the Nevada County ERC.

Analysis and brief prepared by the Economic Studies Program at the Center for Economic Development, California State University, Chico.

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1. Expansion of an Insurance Wholesaler in Nevada County

By the end of 2003, 30 additional people will be working at an insurance wholesaler in Nevada County and the company is expected to continue expanding through 2006. This expansion involves direct support from the Nevada County Economic Resource Council (Nevada County ERC). The ERC has been credited by the company with retaining them in Nevada County after they had considered moving to a neighboring county in 1999. The economic impacts associated with this retention were quantified in a similar report issued by the Center for Economic Development (CED) in 2000.

Nevada County ERC provided the CED at California State University, Chico with employment and average wages for each of the four years that the insurance wholesaler is expected to expand their operations in Nevada County. Table 1 provides a summary of the information provided to CED.

Table 1 – Expansion of the Insurance Wholesaler in Nevada County

<i>Impacts</i>	<i>Total</i>
New employees in 2003	30
New employees in 2004	70
New employees in 2005	100
New employees in 2006	75
Total new employees, 2003-2006	275
Average salary in 2003 (2003\$)	\$ 30,000

Source: Nevada County ERC

The insurance wholesaler is expected to add an additional 275 employees in Nevada County by 2006 with an average annual salary of \$30,000 in year 2003 dollars (2003\$). At this rate, the annual payroll of 275 employees will be \$8,100,000 (2003\$) by 2006.

For the purpose of this analysis, it was assumed that 86.7 percent of all new employees reside in Nevada County. This is the percentage of jobs in Nevada County that were filled by Nevada County residents in 2000, the latest year in which this data is available¹.

In order to determine the appropriate industry to use in the economic model to determine economic impact, CED examined industry expenditures from the insurance carrier (NAICS 5241) and insurance agent/broker (NAICS 5242) industries. The insurance wholesaler is intended to facilitate the communication between an agent and a carrier, but the economic model assumes that communication between the two types of businesses is direct, i.e., there is no industry in which an insurance wholesaler would fit. Therefore, CED examined expenditures for each of these industries to determine which one would

¹ According to Census 2000, 33,949 people held a primary job in Nevada County, of which 29,443 were Nevada County residents. Therefore, 86.7 percent of jobs in Nevada County are filled by Nevada County residents, while the remainder are filled by residents of other counties.

be nearest to an insurance wholesaler. Table 2 contains a listing of the top five industries from which insurance carriers and insurance agencies purchase goods and services.

Table 2 – Insurance Carriers and Insurance Agents and Brokers by Percent of Cost of Goods Sold by Industry, Top 5 Industries

Rank	<i>Insurance Carriers</i>		<i>Insurance Agents and Brokers</i>	
	Industry	Percent	Industry	Percent
1	Insurance agents and brokers	91.9 %	Business services not elsewhere classified	15.7 %
2	Security and commodity (investment) brokers	3.4 %	Management and other consulting services	10.5 %
3	Commercial real estate	0.6 %	Commercial real estate	9.8 %
4	Legal services	0.5 %	Telephone and electronic communication	8.5 %
5	Telephone and electronic communication	0.5 %	Personnel supply services	7.2 %

Source: IMPLAN

Commercial real estate and telephone and electronic communication are purchases that occur largely from both insurance carriers and insurance agents and brokers. While this is an important similarity, it is necessary to examine the differences between these two industries.

Goods and services purchased by insurance carriers are almost exclusively payments to insurance agents with other larger sums going to investment brokers and legal services. Good and service purchases by insurance agents and brokers are distributed more broadly across other industry sectors and include business services, management and other consulting services, and personnel supply services.

In order to properly classify the insurance wholesaler, CED analyzed function of an insurance wholesaler. An insurance wholesaler assembles information on available insurance choices, combines insurance options to construct insurance plans, and offers these plans to insurance agents that sell these plans to insurance purchasers. The operations of the insurance wholesaler are similar to that of a basic office environment reliant on communications, business services, and personnel, but does not provide, protect, or invest insurance capital. An insurance wholesaler only connects insurance agents with insurance carriers, which will produce spending patterns more similar to the kind of office environment in which insurance agents operate. Therefore, in the opinion of CED, it is more realistic to assume that an insurance wholesaler will purchase more business services, consulting services, and personnel supply services like insurance agents rather than purchase investment brokerage services or legal services like an insurance carrier.

This report analyzes only the portion of the insurance wholesaler's operation that has expended or is expected to expand starting in 2003. The level of the insurance wholesaler's operations prior to 2003 is not analyzed in this report.

2. Indirect and Total Economic Impact

The economic impact of the expanded insurance wholesaler in Nevada County is not limited to the direct wages and spending of the company and its employees. Nevada County’s economy also experienced an indirect impact due to local respending of the expanded earnings spent by the company and its employees. For example, the expanded firm may hire a additional local janitorial services or may spend more at a local equipment repair firm maintain their expanded equipment. New local employees also purchase goods and services at local stores, including items such as food, furniture, and housing. Increased sales at other local businesses, in turn, produce additional payroll and additional sales to other local businesses. The combined economic impact to other local businesses and their employees is the indirect impact of the Nevada County ERC’s assistance in the expansion of the insurance wholesaler. In this section, an estimate of the direct and indirect impacts are presented and summed for an estimate of the total economic impact of the insurance wholesaler’s expansion.

The indirect impact on business revenue is an important measure. It is the impact to businesses in Nevada County other than the insurance wholesaler. Indirect payroll and other “value added” income are payments that result from indirect business revenue.

Spending by new employees produces a majority of the indirect benefit (Tables 3-6). Employees are likely to spend much of their income at local businesses while the insurance wholesaler itself may look elsewhere for some of the goods and services they need in order to do businesses.

Table 3 – Direct, Indirect, and Total Economic Impact of the Insurance Wholesaler’s Expansion in Nevada County in 2003¹ (2003\$)

<i>Impacts¹</i>	<i>Direct Impact</i>	<i>Indirect Impact Due to Business Spending</i>	<i>Indirect Impact Due to Payroll Spending</i>	<i>Total Impact</i>
Business revenue	\$ 1,470,000	\$ 320,000	\$ 1,110,000	\$ 2,900,000
Cost of goods sold	\$ 440,000	\$ 120,000	\$ 420,000	\$ 980,000
Income Generated	\$ 1,030,000	\$ 190,000	\$ 690,000	\$ 1,910,000
Payroll and proprietary Income	\$ 900,000	\$ 140,000	\$ 450,000	\$ 1,490,000
Dividends, interest, and rent	\$ 110,000	\$ 40,000	\$ 190,000	\$ 350,000
Indirect business taxes	\$ 10,000	\$ 10,000	\$ 60,000	\$ 80,000
Jobs	30	5	15	50

Source: Center for Economic Development at California State University, Chico

¹See Glossary of Terms for notes and definitions.

Note: Totals may not equal the sum of their components due to independent rounding

In 2003, the insurance wholesaler is expected to add \$1.47 million in revenue, \$1.03 million of which becomes local income. Indirectly, business spending will generate \$0.32 million in local business revenue, which will generate \$0.19 million in local

income. Payroll spending will generate \$1.11 million in business revenue leading to \$0.69 million in income. In total, \$2.90 million in business revenue will be generated, producing \$1.91 million worth of income in Nevada County. Most of this income will be earned in the form of payroll and proprietary income (\$1.49 million) generated by 50 jobs, while more will be earned as a return on a property or capital investment (\$0.34 million) and some is earned by federal, state, and local government in the form of excise and sales taxes (Table 3).

Table 4 – Direct, Indirect, and Total Economic Impact of the Insurance Wholesaler’s Expansion in Nevada County in 2004¹ (2003\$)

<i>Impacts¹</i>	<i>Direct Impact</i>	<i>Indirect Impact Due to Business Spending</i>	<i>Indirect Impact Due to Payroll Spending</i>	<i>Total Impact</i>
Business revenue	\$ 4,900,000	\$ 1,060,000	\$ 3,690,000	\$ 9,650,000
Cost of goods sold	\$ 1,470,000	\$ 410,000	\$ 1,390,000	\$ 3,270,000
Income Generated	\$ 3,430,000	\$ 650,000	\$ 2,300,000	\$ 6,380,000
Payroll and proprietary Income	\$ 3,000,000	\$ 470,000	\$ 1,490,000	\$ 4,960,000
Dividends, interest, and rent	\$ 380,000	\$ 140,000	\$ 630,000	\$ 1,150,000
Indirect business taxes	\$ 50,000	\$ 40,000	\$ 180,000	\$ 270,000
Jobs	100	15	50	165

Source: Center for Economic Development at California State University, Chico

¹See Glossary of Terms for notes and definitions.

Note: Totals may not equal the sum of their components due to independent rounding

In 2004, 70 additional employees (making a total of 100) are expected to increase revenue generated by expansion to \$4.90 million, \$3.43 million of which will become local income. Indirectly, business spending will generate \$1.06 million in local business revenue, which in turn will generate \$0.65 million in local income. Payroll spending will generate \$3.69 million in business revenue and will lead to \$2.30 million in income. In total, \$9.65 million in business revenue will be generated, producing \$6.38 million worth of income in Nevada County. Again, most of this income will be earned in the form of payroll (\$4.96 million) generated by 165 jobs, while \$1.15 million will be earned as a return on a property or capital investment and \$0.27 million will be generated by federal, state, and local government in the form of excise and sales taxes (Table 4).

In 2005, an additional 100 employees (making a total of 200) are expected to increase the insurance wholesaler’s expanded local revenue to \$9.8 million. \$6.86 Million of this total will become local income. Indirectly, business spending will generate an additional \$2.12 million in local business revenue, leading to \$1.30 million in local income. Payroll spending will generate \$7.38 million in business revenue leading to \$4.60 million in income. In total, \$19.3 million in business revenue will be generated, producing \$12.76 million worth of income in Nevada County. \$9.92 million worth of income will be earned as payroll and proprietary income by 330 jobs, \$2.3 million will be returns on

investment, and \$0.54 million will be generated by federal, state, and local government from sales and excise taxes (Table 5).

Table 5 – Direct, Indirect, and Total Economic Impact of the Insurance Wholesaler’s Expansion in Nevada County in 2005¹ (2003\$)

<i>Impacts¹</i>	<i>Direct Impact</i>	<i>Indirect Impact Due to Business Spending</i>	<i>Indirect Impact Due to Payroll Spending</i>	<i>Total Impact</i>
Business revenue	\$ 9,800,000	\$ 2,120,000	\$ 7,380,000	\$ 19,310,000
Cost of goods sold	\$ 2,940,000	\$ 820,000	\$ 2,780,000	\$ 6,540,000
Income Generated	\$ 6,860,000	\$ 1,300,000	\$ 4,600,000	\$ 12,760,000
Payroll and proprietary Income	\$ 6,000,000	\$ 940,000	\$ 2,980,000	\$ 9,920,000
Dividends, interest, and rent	\$ 760,000	\$ 290,000	\$ 1,250,000	\$ 2,310,000
Indirect business taxes	\$ 100,000	\$ 70,000	\$ 370,000	\$ 540,000
Jobs	200	30	100	330

Source: Center for Economic Development at California State University, Chico

¹See Glossary of Terms for notes and definitions.

Note: Totals may not equal the sum of their components due to independent rounding

Table 6 – Direct, Indirect, and Total Economic Impact of the Insurance Wholesaler’s Expansion in Nevada County in 2006¹ (2003\$)

<i>Impacts¹</i>	<i>Direct Impact</i>	<i>Indirect Impact Due to Business Spending</i>	<i>Indirect Impact Due to Payroll Spending</i>	<i>Total Impact</i>
Business revenue	\$ 13,480,000	\$ 2,920,000	\$ 10,150,000	\$ 26,540,000
Cost of goods sold	\$ 4,040,000	\$ 1,130,000	\$ 3,830,000	\$ 9,000,000
Income Generated	\$ 9,440,000	\$ 1,790,000	\$ 6,320,000	\$ 17,550,000
Payroll and proprietary Income	\$ 8,250,000	\$ 1,290,000	\$ 4,100,000	\$ 13,640,000
Dividends, interest, and rent	\$ 1,050,000	\$ 400,000	\$ 1,720,000	\$ 3,170,000
Indirect business taxes	\$ 140,000	\$ 100,000	\$ 510,000	\$ 740,000
Jobs	275	40	140	460

Source: Center for Economic Development at California State University, Chico

¹See Glossary of Terms for notes and definitions.

Note: Totals may not equal the sum of their components due to independent rounding

By 2006, 275 additional people are expected to be employed at the insurance wholesaler, which is expected to generate an additional \$13.48 million in revenue by this time, creating \$9.44 million worth of local income directly. Indirectly, business spending will generate a total of \$2.92 million in local business revenue, which will generate \$1.79 million in local income. Payroll spending will generate \$10.15 million in business revenue, leading to \$6.32 million in income. In total, \$26.55 million in business revenue will be generated, producing a total of \$17.55 million worth of income in Nevada

County. Payroll will be responsible for \$13.64 million earned by 460 jobs; returns on a property or capital investment will be responsible for \$3.17 million; and federal, state, and local government excise and sales taxes will be responsible for \$0.75 million of total income generated (Table 6).

The economic impact of the insurance wholesaler expansion in terms of total income generated in Nevada County (directly and indirectly) is expected to increase proportionately with the firm’s direct employment. \$1.91 million in additional income generated in 2003 will grow to \$17.55 million (2003\$) in 2006 if direct employment grows as expected (Table 7). This is income that will be generated every year in Nevada County in addition to that which is generated prior to the beginning of expansion in 2003.

Table 7 – Annual Income Generated Due to the Expansion of the Insurance Wholesaler in Nevada County, 2003-2006

<i>Year</i>	<i>Direct Employment</i>	<i>Total Income Generated in Nevada County</i>
2003	30	\$ 1,910,000
2004	100	\$ 6,380,000
2005	200	\$ 12,760,000
2006	275	\$ 17,550,000

Source: Center for Economic Development at California State University, Chico

Multipliers are means with which to compare the direct and total economic impacts of an event, which in this case is the expansion of the insurance wholesaler in Nevada County. Multipliers are calculated by dividing the total impact by the direct impact. Multipliers of just less than 2, as shown in Table 8, are high for an area the size of Nevada County. This occurs because a majority of the insurance wholesaler’s spending is payroll and payroll is much more likely to be spent locally than any other cost to the insurance wholesaler.

Table 8 – Revenue, Employment, and Income Multipliers for the Expansion of the Insurance Wholesaler in 2006.

<i>Impacts</i>	<i>Direct Impact</i>	<i>Total Impact</i>	<i>Multiplier</i>
Business Revenue	\$ 13,480,000	\$ 26,540,000	1.97
Income Generated	\$ 9,440,000	\$ 17,550,000	1.86
Jobs	275	460	1.66

Source: Center for Economic Development at California State University, Chico

Note: Totals may not equal the sum of their components due to independent rounding

3. Indirect Business Revenue by Industry

The indirect impact of local industry and employee spending is distributed among the 189 industry sectors present in the economic model for Nevada County. CED calculated indirect impact by industry in order to analyze which industries were the most impacted as a result of the insurance wholesaler.

Table 9 shows the top 20 industries impacted in Nevada County by the expanded insurance wholesaler in terms of increase in business revenue in 2006, assuming the firm's employment in Nevada County grows as planned. This is revenue collected by businesses other than the insurance wholesaler.

Table 9 – Indirect Business Revenue Impact by Industry in Nevada County in 2006, Top 20 Industries

<i>Industry</i>	<i>Total Indirect Business Revenue</i>
Nonresidential real estate	\$ 810,000
Residential real estate	\$ 780,000
Construction of new residential structures	\$ 620,000
Business services, not elsewhere classified	\$ 610,000
Eating and drinking places, retail	\$ 480,000
Banking	\$ 480,000
Doctors and dentists	\$ 470,000
State and local government, excl. education	\$ 410,000
Hospitals	\$ 370,000
Construction of new commercial and industrial structures	\$ 330,000
Wholesale trade	\$ 320,000
Personnel supply services	\$ 320,000
Management and consulting services	\$ 300,000
Communication equipment manufacturing	\$ 300,000
Retail stores, not elsewhere classified	\$ 300,000
State and local government education	\$ 290,000
Automotive dealers & service stations	\$ 280,000
Maintenance and repair, nonresidential facilities	\$ 250,000
Computer and data processing services	\$ 240,000
Construction of new government facilities	\$ 220,000

Source: Center for Economic Development at California State University, Chico

Most of the impacted industries will be the result of payroll spending. However, all of the top five industries from which insurance agents and brokers purchase goods and services (Table 2) are present in the top 20 impacted industries. Real estate and construction will be most impacted industries in Nevada County, with business services,

finance, health care, wholesale trade (supporting retail activities and including some warehousing), and state and local government also experiencing a significant impact.

State and local government purchases will be made because of increased business, personal income, and other tax and special fee revenue. Not all tax revenue generated by governments are estimated to be spent directly or indirectly in Nevada County, although because Nevada County does not contain a state capital, most of the increase state and local government purchases are due to increases in local government revenue. According to Dr. David Gallo, professor of economics at CSU, Chico, roughly 30 percent of indirect business taxes goes to local government. If this is the case, in 2006, local government would benefit by \$222,000. This does not include government revenue from increased personal property and income taxes that are collected or filtered down to local government. Therefore, local governments would collect at least \$222,000 in additional revenue and as much as \$410,000 in 2006, due to the expansion of the insurance wholesaler.

The total indirect impact of the insurance wholesaler's expansion in 2006 will be \$13.07 million (sum of indirect impacts in Table 6). The top 20 impacted industries benefit with increased revenues of \$8.18 million² in total. The remaining \$4.89 million is distributed among the remaining 169 private industries located in Nevada County. In conclusion, the insurance wholesaler's expansion will produce a significant benefit for businesses in select industries in Nevada County.

4. The Economic Model

In order to estimate indirect impact, a regional economic model was built for Nevada County using the IMPLAN economic impact analysis system. IMPLAN models the economy through pre-constructed matrices measuring dollar flows between 509 private industries, 10 government sectors, households, and 6 other miscellaneous sectors covering foreign trade, domestic services, holding companies, secondhand goods, and scrap. This is called an input-output economic model and can be used to measure how changes in spending by households, industries, or governments produce changes in spending by all other households, industries, and governments. The input-output economic model predicts the flows from one industry or household to another through a matrix. A matrix is a mathematical equation that is capable of solving for multiple variables with just one equation.

A model based on the social accounting matrix (type SAM model) was used to determine the effects of insurance wholesaler's expansion in Nevada County. IMPLAN's type SAM model is the most widely used economic model to determine economic impact as of the date of this study. It is used by a majority of economic analysis consulting firms who work with local governments and economic development organizations to analyze the impact of changes to the local business structure.

² This total may not equal the sum of all figures in Table 7 due to independent rounding.

The direct employment shown in Table 1 was entered into the model's insurance agents and brokers industry. The model produces an estimate of the two types of indirect impact, while the total impact is calculated by CED.

5. Glossary of Terms

Business revenue is the total value of goods and services produced and sold by establishments in Nevada County.

Cost of goods sold is the component of business revenue that is spent on other businesses for the purchase of goods and services they need in order to operate.

Income Generated is the component of business revenue that is added value in the production or service delivery process. Income generated may go toward payroll or proprietary income; dividends, interest, and rent; or indirect business taxes.

Payroll and proprietary income is the total wage and salary income estimated to be earned annually by local employees of the insurance wholesaler. In the case of indirect payroll, proprietary income is included for sole proprietors and partnerships that generate profit.

Dividends, interest, and rent mostly includes payments to individuals for rents received on property, although interest from investments, royalties from contracts, dividends paid by corporations, and corporate profits.

Indirect business taxes consist primarily of excise and sales taxes, but also include property taxes, fees, and licenses paid by businesses. Taxes on profit and income are not included (these are already included in other components of income generated). These figures include what are estimated to be spent additionally in Nevada County as a result of increased business revenue. It is possible to analyze a breakdown of indirect business taxes if requested, although this is not within the scope of this document.

Jobs is the total number of full- and part-time jobs in Nevada County. All direct jobs are assumed to be full-time; however, indirect jobs are full- and part-time. Indirect jobs are likely to consist largely of part-time jobs.

Direct impact is the aggregate business revenue, employment, or payroll of all of the businesses upon which the economic impact analysis is based. Direct impact is estimated using the regional average business revenue, cost of goods sold, etc. for every employee in the insurance agents and brokers industry.

Indirect impact is broken out between two types: the indirect impact of local business spending and the indirect impact of local payroll spending. Each of these are calculated

independently. The indirect impact is based on the economic model's regional purchase coefficient³.

Total impact is direct impact plus indirect impact.

Multiplier is the ratio between total impact and direct impact. For example, a business revenue multiplier of 1.97 shows that for every \$1.00 of revenue generated by the insurance wholesaler, an additional \$0.97 dollars in revenue is generated by other businesses in the Nevada County for a grand total of \$1.97 in total business revenue for every \$1.00 in insurance wholesaler revenue.

³ The regional purchase coefficient is the estimated percentage of goods and services required by business or households that would be purchased in Nevada County based upon the amount of those goods and services available locally. Availability is used to estimate the ability of local businesses to meet the increased demand for these goods and services.