Oregon's Long-Term Care Sector:

An Analysis of the Sector and the Economic Impacts from Potential Reductions in Funding

Prepared for The Campaign for Oregon's Seniors and People with Disabilities

by:

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January 5, 2009

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Executive Summary

The Campaign for Oregon's Seniors and People with Disabilities engaged ECONorthwest to measure the dimensions of the long-term care sector in Oregon, and evaluate the economic impacts from potential reductions in state general funding and the resulting loss of federal matching funds.

The long-term care sector in Oregon is extensive and is composed of three major sub-sectors: 1) nursing, residential care and assisted living facilities; 2) in-home and adult foster care providers; and 3) state and local offices. The sector is divided into these three sub-sectors for economic modeling purposes. Although adult foster homes are linked to residential care and assisted living facilities for funding purposes, the wage, labor, and spending profiles of adult foster homes and the larger residential care and assisted living facilities differ greatly. Adult foster homes and in-home care providers both provide largely non-medical services to relatively few recipients per provider and were grouped together because of these and other similarities. Likewise, nursing homes, residential care and assisted living facilities share a number of similarities in how they produce services and are grouped into one sub-sector for this reason.

For the purposes of this study, only providers that accept state funding were considered. Oregon's long-term care sector is very diverse and includes a robust private-pay sector. Although private-pay only providers are a significant and important part of Oregon's long-term care sector they are not the focus of this study, and as such, are not included in any aggregations or calculations. Table 1 summarizes employment, number of recipients, and total employment for the long-term care sector, as defined for this study.

TABLE 1: Summary of the Long-Term Care Sector in Oregon

Fiscal Year	Sector	Employment	Recipients	Total Expenditures
2007	Nursing, residential care, and assisted living facilities	22,589	27,438	$1,112,458,536
2008	In-home and adult foster care providers	14,032	14,854	$249,216,403
2008	State and local offices	1,898	n/a	$126,042,391

Source: ECONorthwest calculations using OHCA, SEIU, and O4AD data.
Note: Facilities and providers without Medicaid contracts are not included in these calculations. These numbers would be much greater if private-pay providers were included.

Nursing, residential care, and assisted living facilities provide 24-hour long-term care services to, primarily, seniors. In FY2007, there were 133 nursing home facilities and 439 residential care and assisted living facilities in Oregon. These facilities employed almost 22,600 workers and provided long-term care services to approximately 27,500 recipients.

*This report was prepared by ECONorthwest's Portland office for The Campaign for Oregon's Seniors and People with Disabilities. Questions regarding the report should be directed to ECONorthwest's Portland office at (503) 222-6060.

In-home and adult foster care providers offer services to those who require long-term care, but whose medical needs do not require 24-hour, nursing facility. In FY2008, the in-home and adult foster care sector employed almost 14,000 workers and provided long-term care services to almost 15,000 recipients.

In addition to these sub-sectors discussed above, the State of Oregon Department of Human Services performs important administrative functions, such as providing oversight on Medicaid funding distributions and information services to those eligible for Medicaid assistance. Local government offices provide eligibility determination services, care plan authorization, and ongoing case management. According to information provided by the Oregon Association of Area Agencies on Aging and Disabilities (O4AD), these state and local offices employed almost 1,900 workers and had a budget of $252 million for the 2007–2009 biennium.

As part of recessionary macroeconomic factors and general budget tightening pressures, the Governor's Office has requested that all state government agencies prepare a list of potential budget reductions for the 2009–2011 biennium. Under a 10 percent reduction option package, the Oregon Department of Human Services projects a $66.6 million reduction in state general funding for long-term care programs in the next biennium. Unlike many other state programs, a majority of long-term care recipients qualify for Medicaid assistance. As such, these programs enjoy the added benefits of matching federal funds, which are delivered to the state at a rate of approximately $1.70 in federal funds for every dollar spent by the state, for most programs. Consequently, reducing state general funding for these long-term care programs will also result in a reduction in federal matching funds coming into the state on behalf of these programs and their recipients.[1] **For Oregon, this means that the $66.6 million reduction in state general funding would lead to a $110.5 million reduction in federal matching funds.**

The proposed budget cuts under the 10 percent budget reduction option are not certain, and the size and exact mix of actual budget cuts for Oregon's long-term care sector are unknown. As a result, ECONorthwest modeled the economic impacts associated with a $1 million reduction in federal matching funds for each of the three long-term care sub-sectors discussed earlier. The output, income, and tax impacts attributed to a $1 million reduction in federal matching funds are summarized for each long-term care sub-sector in Figure 1.

[1] ECONorthwest's modeling approach assumes that reductions in state funding of long-term care programs will either be reallocated elsewhere in the State budget or returned to tax payers. This approach assumes that there are no net economic impacts directly associated with the reductions in state spending. Federal matching funds, however, represent an "export" of the state economy since these funds will likely be spent outside of Oregon. Reductions in state spending on long-term care for seniors and persons with disabilities will result in a reduction in federal matching funds. It is this loss in federal matching funds that has a negative or contractionary effect on the state's economy.

FIGURE 1: Economic Impacts From a $1 Million Reduction in Federal Matching Funds for Oregon's Long-Term Care Sector, by Major Sub-Sector (2008 dollars)

	Lost Output	Lost Wages	Lost Business and Other Income	Lost State and Local Tax Revenues
Long -term care facilities	$1,695,120	$664,790	$321,430	$100,180
In-home and adult foster care	$1,820,070	$718,570	$263,040	$81,820
State and local offices	$1,652,880	$910,970	$262,150	$89,470

Source: ECONorthwest using IMPLAN

ECONorthwest estimates that the economic impacts associated with a $1 million reduction in federal matching funds for **nursing, residential care, and assisted living facilities** are:

- A reduction of $1,695,120 in total economic activity statewide, including the loss of approximately $665,000 in wages, $32,000 in small business income, and $290,000 in other income, rents, and profits. These declines in economic activity would translate into the loss of $100,180 in state and local government tax revenues.
- The loss of approximately 36 full-and part-time jobs, of which 29 jobs are in the long-term care sector.

The economic impacts associated with a $1 million reduction in federal matching funds for **in-home and adult foster care providers** amount to:

- The loss of $1,820,000 in total economic activity in Oregon, including $719,000 in wages, $74,000 in small business income, and $189,000 in other income, rents, and profits. These reductions in economic activity would lead to loss of an estimated $81,800 in tax revenues for state and local taxing jurisdictions.
- The loss of approximately 26 full- and part-time jobs for in-home service providers, and another seven jobs in other sectors of the economy.

The economic impacts associated with a $1 million reduction in federal matching funds for **state and local offices** offering supporting services to the long-term care sector and recipients are:

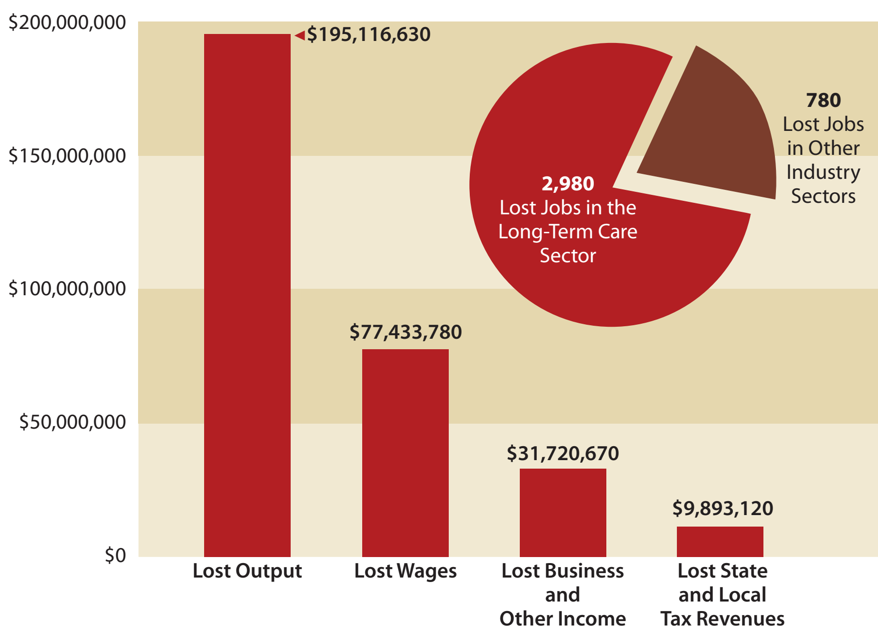
- A decline in $1,652,880 in economic activity for Oregon, including $910,970 in wages, $41,170 in small business income, and $220,980 in other income, rents, and profits. These output and income declines would lead to the loss of $89,470 in state and local government tax revenues.
- The loss of approximately 14 full- and part-time jobs in state and local offices, and 6 jobs in other industry sectors.

As requested by the Governor's Office, the Oregon Department of Human Services prepared a list of potential budget reductions for the 2009–2011 biennium. Under a 10 percent reduction option package:

- Nursing, residential care, and assisted living facilities would lose $26.6 million in state funding, resulting in the loss of $45.4 million in federal matching funds.
- In-home and adult foster care providers would lose $37.4 million in state funding and $62.8 million in federal matching funds.
- State and local offices would lose $2.6 million in state funding and $2.4 million in federal matching funds.

The potential economic impacts associated with the lost federal matching funds, under the 10 percent reduction option package for the 2009–2011 biennium, are shown in Figure 2.

FIGURE 2: Potential Economic Impacts Under the DHS 10 Percent Reduction Option Package (2008 dollars)



Source: ECONorthwest using IMPLAN

According to our economic impact model of Oregon, a $110.5 million reduction in federal matching funds would translate into a $195.1 million decrease in economic activity, including $77.4 million in wages, $31.7 million in foregone business and other income, $9.9 million in reduced state and local tax revenues. In addition, approximately 3,760 full- and part-time jobs throughout the state would be lost as a result of the reduction in federal matching funds alone.

The Long-Term Care Sector in Oregon

This section of the report provides an overview of the long-term care sector in Oregon for the 2007–2008 fiscal year (FY2008). Data was provided by the Oregon Health Care Association (OHCA), SEIU Local 503, and O4AD.[2] The data was then thoroughly vetted and fact checked through a collaborative effort involving ECONorthwest economists and senior staff at each of these agencies.

The long-term care sector is diffuse, with a broad range of long-term care services being offered by a variety of providers in a variety of settings. ECONorthwest combined similar programs and activities to form the following three long-term care sub-sectors: 1) nursing, residential care, and assisted living facilities, 2) in-home and adult foster care providers, and 3) state and local offices. The sector is divided into these three sub-sectors for economic modeling purposes. Although adult foster homes are linked to residential care and assisted living facilities for funding purposes, the wage, labor, and spending profiles of adult foster homes and the larger residential care and assisted living facilities differ greatly. Adult foster homes and in-home care providers both provide largely non-medical services to relatively few recipients per provider. For these reasons, adult foster homes and in-home care providers were grouped into one sub-sector. Likewise, nursing homes, residential care and assisted living facilities share a number of similarities in how they provide services and are grouped into a single sub-sector.

It's important to emphasize that, for the purposes of this study, only facilities and providers with Medicaid contracts were considered. Oregon has a large private long-term care sector, but it is generally not directly affected by state funding reductions.[3] As such, these privately funded providers are not included in any aggregations or calculations in this study.

Nursing, Residential Care, and Assisted Living Facilities

Nursing, residential care facilities, and assisted living facilities provide facility-based long-term care to full-time residents in need of 24-hour supervision or emergency services. Nursing homes provide an assortment of services to patients, including: medical and non-medical care services, as well as cooking, cleaning, social, and supervisorial services. According to OHCA, in FY2007, Oregon had a total of 142 nursing home facilities with 133 facilities (or 94 percent) receiving funding under the state Medicaid program. In FY2007, Medicaid-funded nursing homes provided long-term care services to over 7,500 primarily elderly residents, with over 50 percent receiving Medicaid assistance. These Medicaid-funded nursing homes employed 10,900 employees in FY2007. A majority of nursing home employees are caregivers and laundry, cooking, and cleaning staff. In FY2007, laundry, cooking and cleaning staff made just over $19,000 year, while nursing aides and assistants earned just under $21,000 year.

[2] FY2008 as defined in this report is July 1st, 2007 – June 30th, 2008. OHCA provided nursing, residential care, and assisted living facility data from FY2007 and in-home care agency data from FY2008. SEIU provided adult foster home and in-home services data from FY2008. O4AD provided data on government offices and Medicaid spending from FY2008 and the 2007–2009 biennium.

[3] Oregon Project Independence (OPI) is a totally state funded long-term care program that is not eligible for federal matching funds. And although it may receive funding reductions, it is not included in this study.

Residential care and assisted living facilities provide services to adults with functional limitations who don't require the intensive, 24-hour care offered by nursing homes. However, like nursing facilities, assisted living and residential care facilities provide medical and non-medical care services, as well as cooking, cleaning, and other care functions. In FY2007, Oregon had 439 residential and assisted living facilities with a total of almost 20,000 residents. Just over 30 percent of these residents received Medicaid assistance. Residential care and assisted living facilities employed 11,600 full- and part-time employees in FY2007. Similar to nursing home employees, most residential care assisted living facility employees are caregivers and support staff. The average wage for workers in this sector was just over $15,000 per year in FY2007.

In total, Medicaid-funded nursing homes, residential care, and assisted living facilities employed approximately 22,500 full- and part-time employees and provided long-term care services to over 27,000 residents in FY2007.

In-Home and Adult Foster Care Providers

In-home and adult foster care providers offer long-term care services to seniors and persons with disabilities in residential and small facility settings rather than in large facility settings. The in-home and adult foster care sub-sector is composed of adult foster homes and in-home service providers. Adult foster homes are licensed to provide long-term care services for up to five seniors or persons with disabilities in the home of the provider, while in-home service providers deliver long-term care services in the homes of recipients.

According to SEIU, in FY2008, Oregon had over 2,500 homes that provided adult foster care services to the elderly and people with disabilities. Medicaid eligible adult foster homes are permitted to have up to five residents. Residents at adult foster homes pay a fee, set by the state, for room and board and receive 24-hour assistance with daily tasks. In FY2008, adult foster homes provided services to 3,920 residents. Almost 80 percent of Medicaid eligible adult foster care bills are paid by Medicaid, the rest are paid by residents. Adult foster homes employed about 3,060 employees in FY2008. Most adult foster homes have only one employee—the home-based provider. Some of the larger adult foster homes hire additional employees. On average, adult foster home employees received wages just under $17,000 per year in FY2008.

In-home care providers are individuals or agencies that provide long-term care services in the recipients' own homes. In-home recipients meet Medicaid eligibility for nursing home placement but remain at home due to the availability of family or other forms of support. The range of long-term care services that may be provided is extensive. For example, some recipients may only require a few hours of assistance every week from a traveling provider, while other recipients receive 24-hour care from a provider that resides in the recipient's home. Live-in and spousal in-home care workers provide 24-hour availability to seniors and people with disabilities who have unanticipated and unscheduled care needs.

In FY2008, approximately 10,900 people received long-term care services under the State of Oregon's in-home care program or from in-home care agencies that have Medicaid contracts. The State of Oregon's in-home care program had 10,200 employees with an average wage of $16,000 per year in FY2008. In-home care providers receive wages that are collectively-bargained for by the Service Employees International Union, and that vary based upon the level and type of service provided. Medicaid funding is the sole income source for providers receiving funding under the state in-home services program. As such, this sub-sector is extremely vulnerable to Medicaid funding reductions.

In total, the in-home and adult foster care sub-sector provided services to approximately 14,800 recipients and employed almost 14,000 full and part-time employees in FY2008.

State and Local Offices

The State of Oregon Department of Human Services office for Seniors and Persons with Disabilities, located in Salem, administers Medicaid funded programs by providing oversight on the distribution of Medicaid funds and eligibility assistance to the elderly. These services are provided through local Area Agencies on Aging and state offices throughout Oregon.

State and local offices provide eligibility for Oregon Health Plan, Food Stamps, Medicaid long-term care and other disability benefit programs. For the purposes of this study, only employees involved with providing or supporting long-term care eligibility, service authorization and case management services are considered. In FY2008, these state and local offices employed almost 1,900 employees and had a budget of $126 million. All Oregon state Medicaid programs and recipients rely on these state and local offices.

Summary of the Long-Term Care Sector

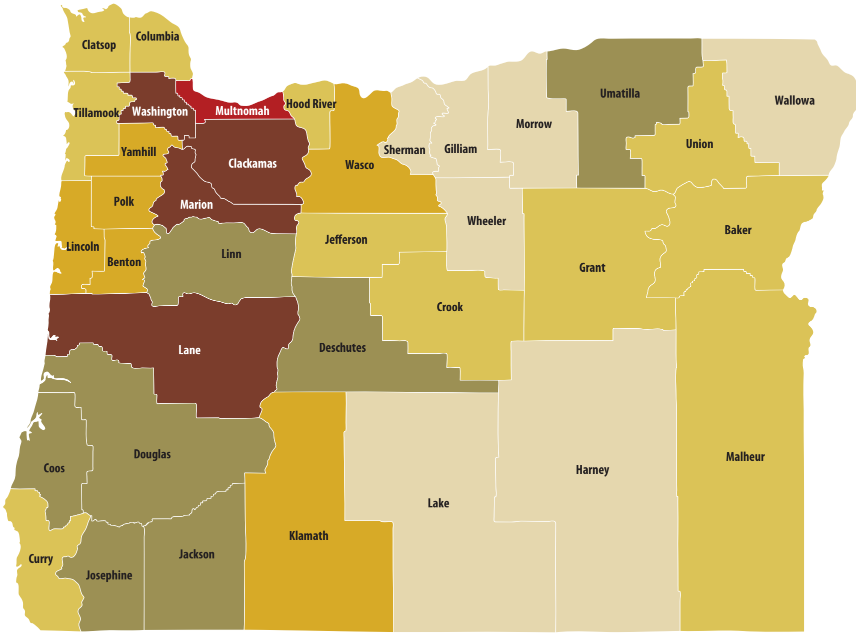
Table 2 shows employment, number of recipients and total expenditures for the three sub-sectors described previously. The most recent data for nursing, residential care, and assisted living facilities are from FY2007, all other data are from FY2008. As can be shown by the table, in FY2008, in-home and adult foster care providers and state and local offices employed a total of 15,930 employees and spent just over $375 million. In FY2007 nursing, residential care, and assisted living facilities employed over 22,500 full- and part-time employees, served over 27,000 recipients and spent $1.11 billion. Facilities and providers without Medicaid contracts are not included in these calculations.

TABLE 2: Summary of the Long-Term Care Sector in Oregon

Fiscal Year	Sector	Employment	Recipients	Total Expenditures
2007	Nursing, residential care, and assisted living facilities	22,589	27,438	$1,112,458,536
2008	In-home and adult foster care providers	14,032	14,854	$249,216,403
2008	State and local offices	1,898	n/a	$126,042,391

Source: ECONorthwest calculations using OHCA, SEIU, and O4AD data.
Note: Facilities and providers without Medicaid contracts are not included in these calculations.

Figure 3 shows the distribution of long-term care recipients in Oregon, by county. As one would expect, high population regions have more long-term care recipients than low population regions. As a result, the number of long-term care residents is greater in the high-population counties in the Willamette Valley.



LEGEND

Number of Recipients

- Less than 100
- 101–500
- 501–1,000
- 1,001–2,500
- 2,501–5,000
- More than 5,000

N

Total Long-Term Care Recipients, by County

Base Map Data Source:
Oregon Geospatial Enterprise Office, accessed November 2008

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Source: ECONorthwest calculations using SEIU, OHCA, and O4AD data

Note: Facilities and providers without Medicaid contracts are not included in these calculations

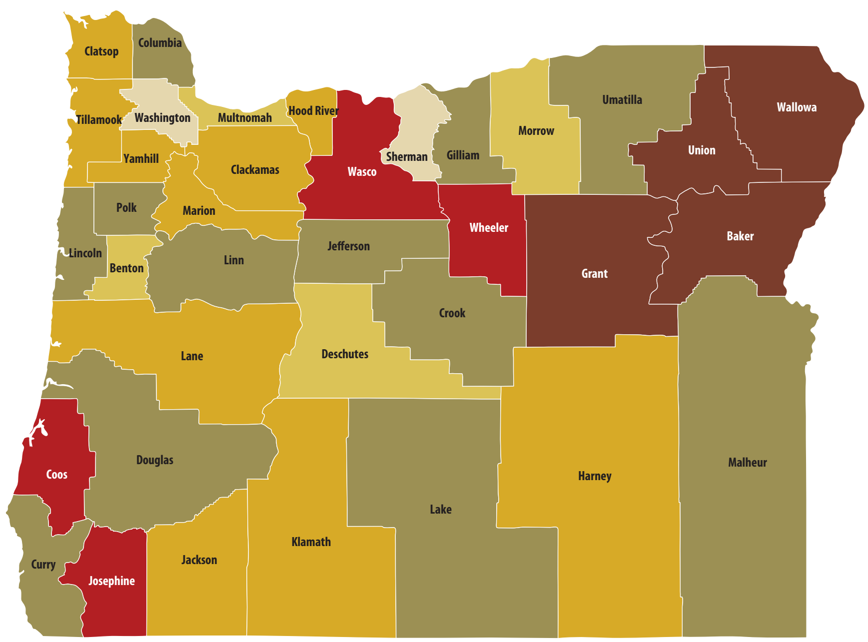
FIGURE 3: Geographic Distribution of Long-term Care Recipients in Oregon, FY2007

The distribution of long-term care recipients in Oregon is strongly correlated with population. However, the "relative" economic impact from reductions in federal matching funds will be greater in those counties where the long-term care sector plays a larger economic role. Using employment as a proxy, Figure 4 shows the employment in the long-term care sector as a percentage of total employment for each county in Oregon. Generally, in rural counties, the long-term care sector employs a greater percentage of the workforce than in urban counties. This is especially true in the northeast and southwest portions of the state (see the darker shaded counties in Figure 4).

FIGURE 4: Long-term Care Employment as a Percent of Total County Employment, FY2008

Source: ECONorthwest calculations using data provided by OHCA, SEIU, O4AD, and data collected from the Oregon Labor Market Information System (OLMIS)

Note: Facilities and providers without Medicaid contracts are not included in these calculations



LEGEND

Percentage

- Less than 1.50%
- 1.50%-2.00%
- 2.01%-3.00%
- 3.01%-4.00%
- 4.01%-5.00%
- More than 5.00%

N

Long-Term Care Employment as a Percentage of Total Employment, by County

Base Map Data Source:
Oregon Geospatial Enterprise Office, accessed November 2008

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Economic Impact Analysis

The next two sections report our modeling approach and economic impact results. The results are broken out for each of the three long-term care sub-sectors. The final section looks at the economic impacts associated with potential budget cuts under DHS' 10 percent funding reduction option.

General Approach

Many long-term care recipients in Oregon are entitled to benefits under the federal government's Medicaid Program. As a result, reductions in state funding of long-term care programs will result in the loss of federal matching funds.[4]

The loss of federal matching funds will affect the long-term care sector *directly* as nursing homes, residential care and assisted living facilities, in-home and adult foster care providers, and state and local government offices cut back on services and reduce employment and payrolls. Reductions in the long-term care sector influence other sectors that are related through supply or sales chain links. For example, nursing homes purchase a variety of goods and services—such as rents on properties, insurance, medical supplies, utilities, and advertising—in order to provide long-term care services. Budget reductions for nursing homes will lead to a reduction in sales for these businesses. These types of impacts are called *indirect* impacts.

Moreover, the direct and indirect losses lead to declines in income, and this has an influence on the pattern of final consumption in Oregon. As incomes fall, so, too, does purchasing power. Households will find it more difficult to pay their rent, purchase groceries, and take their children in for medical care. These types of impacts are called *induced* impacts.[5]

One economic modeling framework that measures these direct, indirect, and induced impacts is called *input-output modeling*. Input-output models provide an empirical representation of the economy and its inter-sectoral relationships, enabling the user to trace the effects (economic impacts) of a change in the demand for commodities (goods and services). For this analysis, ECONorthwest used the IMPLAN (for IMpact Analysis for PLANning) economic impact modeling software, to construct an input-output model the Oregon economy.[6]

[4] Federal match rates are set annually based on a three-year average of per capita personal income, ranked among all 50 states. While each state has its own federal match rate, the rate can be no lower than 50 percent and no higher than 83 percent. According to Oregon State Department of Human Services, the federal match rate for Oregon Medicaid programs was set at 63.02 percent for FY2009. For every dollar that the state of Oregon allocates to Medicaid programs, the federal government matches with $1.70 in funding. The one exception for this is Medicaid funded government services, which are matched at 50 percent.
[5] It should be noted that the impact estimates presented in this report do not include the construction and development costs of nursing, residential care, or assisted living facilities. Presumably, as spending on these activities is reduced, their future potential development would also likely be curtailed. As such, this imparts a further conservative bias to the impact estimates presented in this report.
[6] IMPLAN was developed by the Forest Service of the US Department of Agriculture in cooperation with the Federal Emergency Management Agency and the Bureau of Land Management of the US Department of the Interior to assist federal agencies in their land and resource management planning. ECONorthwest has applied the model to a variety of public and private sector projects including an impact evaluation of Oregon's system of higher education and the socioeconomic impacts of Tribal gaming in the state.

The following types of impacts are reported in this analysis:

- **Output** represents the total value of industry production. It is the broadest measure of economic activity, and includes purchases by businesses of intermediate goods and services, as well as the total value added during production. (Total value added is discussed below.)

- **Wages** include workers' wages and other benefits such as health and life insurance, and retirement payments.

- **Business income** (or proprietary income) represents the payments received by small-business owners or self-employed workers. Business income would include, for example, income received by private business owners, doctors, accountants, attorneys, etc.

- **Other income** includes payments to individuals in the form of rents received on properties, royalties from contracts, dividends paid by corporations, and profits earned by corporations.

- **Indirect business taxes** are taxes paid by businesses to local, state, and federal taxing jurisdiction. In Oregon, indirect business taxes consist primarily of property taxes. Further, in Oregon, approximately 85 percent of the indirect business taxes paid accrue to state and local taxing jurisdictions; the remainder goes to the federal government.

- **Total value added,** is the sum of wages, business income, other income, and indirect business taxes. Total value added is a component of output, and the two should not be added together. In addition, total value added is a close approximation of gross state product.

- **Jobs** include both full- and part-time employment.

- **State and local taxes** include indirect business taxes (discussed above) as well as personal income taxes; social insurance (employer and employee contributions) taxes; and various other taxes, fines, and fees paid by businesses and households.

The loss of federal matching funds will directly affect the long-term care sector, and start a chain reaction (called the "multiplier effect") as the reduction in spending spreads to other sectors. Input-output analysis generates economic impact multipliers that allow researchers to follow the initial change in economic activity as it "ripples" to other industry sectors. This chain reaction of spending does not go on forever. It continues until the change in spending eventually leaks out of the local economy as a result of taxes, savings, or purchases of non-locally produced goods and services or imports.

Modeling Inputs

Ideally, expenditures should be specific enough to allocate to each of the 440 industry sectors contained in the IMPLAN model. In addition, the expenditures should be delineated between local and non-local providers, as purchases of goods and services from out-of-state vendors will have no economic impact on Oregon employees and businesses.

Absent detailed expenditure data, ECONorthwest used the production function data for the long-term care sub-sectors contained in the IMPLAN modeling software.[7] These production functions represent the recipe of inputs that the long-term care sector requires in order to provide services. Each commodity within the production function also has a "regional purchase coefficient" that demonstrates, on average, how much can be supplied by Oregon-based businesses.

From an input-output modeling perspective, this is a standard modeling approach in the absence of detailed primary source data. Our previous modeling experience has shown—especially for statewide models—that the data contained in the IMPLAN modeling system for these long-term care sub-sectors is sufficient to permit an accurate rendering of impacts.

Input-Output Modeling Limitations

Like other quantitative tools used in economics, input-output models are *static models* that rely on a set of assumptions.[8] Their point-in-time construction and the assumption that nothing else changes ("*ceteris paribus*" in economics), enables an analyst to: 1) describe an economy at one time period, 2) introduce a change to the economy, and then 3) evaluate the economy after it has fully accommodated that change.

The use of simplifying assumptions, however, has the important following implication for this analysis. IMPLAN assumes fixed production relationships for each industry sector. This means that changes in output exhibit constant returns to or economies of scale, i.e., an increase (or decrease) in output requires all inputs to increase (or decrease) proportionately. In this analysis, ECONorthwest assumes that a decrease in federal matching funds will lead to a decrease in output, payroll, and inter-industry purchases as represented by the production functions for the long-term care sub-sectors in the IMPLAN model.

Economic Impact Results

Because the size and the exact mix of potential budget cuts for the long-term care sector are unknown, the economic impacts associated with a $1 million reduction in federal matching funds have been calculated separately for each of the three sub-sectors in the long-term care sector.

Nursing, Residential Care, and Assisted Living Facilities

Nursing, residential care, and assisted living facilities provide long-term care services for patients who require 24-hour, year-round medical or behavioral services that cannot be met in other long-term care settings. According to OHCA, in FY2007, there were 133 nursing homes in Oregon with Medicaid contracts and 439 residential care and assisted living facilities. Together these facilities provided long-term care services to over 27,000 admitted patients, with about 50 percent of those

[7] In order to ensure that the induced effects calculated in the input-output model are reasonable, ECONorthwest compared the production function data contained in the IMPLAN software with the payroll data collected for the industry in Oregon.

[8] There is a lag between data collection and modeling that creates an "implementation" lag, as changes in the structure of an economy—such as improvements in technology, changes in demand, and changes in regional trade patterns—will affect the multipliers and make the results less reliable. Input-output models constructed with the most current data available will provide the most accurate results. ECONorthwest used recently released 2007 IMPLAN data for Oregon.

receiving Medicaid assistance. Nursing, residential care, and assisted living facilities in Oregon employed approximately 22,500 individuals in FY2007. In the 2007-2009 biennium, nursing facilities received $166,833,842 in state Medicaid funding. They also paid $78,548,860 in provider taxes, which are assessed on each nursing facility to supplement the General Fund commitment made by the state. The federal government matched these funds with $381,393,038.

Providing long-term care services at nursing, residential care, and assisted living facilities is labor-intensive. As shown in Figure 5, approximately 61 percent of operating costs are attributed to wages and income. Moreover, these facilities purchase a variety of goods and services—many of which are provided by Oregon wholesalers, retailers, and service providers. Both of these general categories of operating expenses contribute to the multiplier effects of this sector.

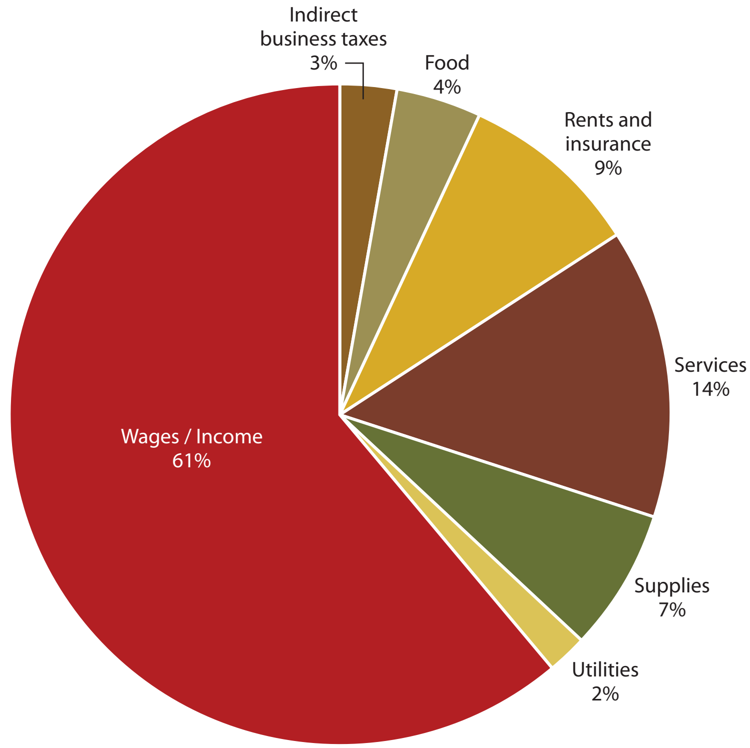


FIGURE 5: Expenditure Pattern of Nursing, Residential Care, and Assisted Living Facilities in Oregon, 2007

Source: ECONorthwest calculations using IMPLAN 2007 data for Oregon

Table 3 reports the economic impacts associated with the loss of $1 million in federal matching funds for nursing, residential care, and assisted living facilities.

TABLE 3: Economic Impacts From the Loss of One Million Dollars in Federal Matching Funds for Nursing, Residential Care, and Assisted Living Facilities (2008 dollars)

Type of Impact	Direct	Indirect	Induced	Total
Output	-$1,000,000	-$286,630	-$408,490	-$1,695,120
Total Value Added	-$647,210	-$158,040	-$247,620	-$1,052,870
• Wages	-$447,930	-$77,580	-$139,280	-$664,790
• Business Income	-$2,360	-$14,690	-$14,560	-$31,610
• Other Income	-$167,140	-$52,180	-$70,500	-$289,820
• Indirect Business Taxes	-$29,780	-$13,590	-$23,280	-$66,650
Jobs	-29	-3	-4	-36

Source: ECONorthwest using IMPLAN

As demonstrated by their expenditure pattern, the long-term care services provided by nursing, residential care, and assisted living facilities are labor intensive and require a variety of skilled and semi-skilled occupations, including administrators, nurses, therapists, nursing aides, caregivers, and cooking and janitorial staff. As a result, the loss of $1 million in federal matching funds will fall largely upon workers in the long-term care sector. As shown in Table 3, the direct impacts include $450,000 in lost wages and the loss of 29 full- and part-time jobs for workers in this sector for every $1 million reduction in federal matching funds.

Losses in federal matching funds will cause long-term care facilities to cut back on operating expenses.[9] It will also cause a decline in consumption spending by households whose incomes are linked to the long-term care sector. Declines in these two types of spending create a ripple effect that affects jobs and incomes in other sectors of Oregon's economy. In total, every million dollars in foregone federal matching funds for the nursing, residential care, and assisted living sub-sector results in a **loss of $1,695,000 in economic activity, including, $665,000 in wages, $31,600 in small business income, $290,000 in rents and profits, 36 jobs, and $67,000 in indirect taxes for local, state, and federal governments.**

Table 4 provides additional details regarding the total economic impacts from a $1 million dollar decrease in federal matching funds, and shows how changes in business purchases and household consumption spending spreads the economic impacts to other industry sectors. Outside of the health care sector, the industry sectors experiencing the largest impacts include: 1) finance, insurance, and real estate; 2) professional services; and 3) retail and wholesale trade.

TABLE 4: Total Economic Impacts, by Major Industry Sector, From the Loss of One Million Dollars in Federal Matching Funds for Nursing, Residential Care, and Assisted Living Facilities (2008 dollars)

Aggregate Industry Sector	Output	Wages	Business Income	Other Income	Indirect Business Taxes	Jobs (full- and part-time)
Natural resources	-$11,160	-$1,410	-$240	-$2,130	-$250	-0.1
Construction	-$10,820	-$3,750	-$830	-$540	-$140	-0.1
Manufacturing	-$60,390	-$9,100	-$970	-$3,780	-$270	-0.2
Transportation, comm, & utitlies	-$63,910	-$14,230	-$2,240	-$13,170	-$3,420	-0.3
Retail and wholesale trade	-$88,170	-$32,980	-$3,100	-$10,420	-$13,140	-0.9
Finance, insurance, and real estate	-$176,520	-$23,590	-$7,230	-$66,440	-$14,770	-1.2
Professional services	-$104,660	-$41,960	-$9,440	-$9,590	-$1,200	-1.2
Health care and social assistance	-$1,056,910	-$474,630	-$5,550	-$171,740	-$30,240	-29.6
Lodging, food service, & recreation	-$40,000	-$13,080	-$850	-$3,830	-$2,220	-0.7
Other services	-$26,940	-$9,480	-$1,160	-$2,400	-$1,000	-0.4
Government and unclassified sectors	-$55,640	-$40,580	$0	-$5,780	$0	-0.8
Total All Industry Sectors	-$1,695,120	-$664,790	-$31,610	-$289,820	-$66,650	-35.5

Source: ECONorthwest using IMPLAN

In addition to these output, income, and job effects, state and local tax jurisdictions will experience a decline in revenues as a result of reductions in personal and business incomes. Table 5, below, summarizes the tax revenue impacts by type of tax.[10] **In total, the loss of $1 million in federal matching funds translates into a $100,180 decrease in state and local tax revenues.** Most of this loss is attributed to declines in business and personal property taxes (31.1 percent of total) and personal income taxes (24.0 percent of total). However, there are also various other taxes, fines, and fees that will also be affected by the loss in federal matching funds.

[9] The indirect effects show how this sector is linked to other business sectors in Oregon. For some operating expenses—the purchase of medical supplies, for example—the foregone spending has minimal impact on the economy. This is because these materials are largely manufactured outside of the state, so the only impacts on Oregon are the lost margins for transporters and wholesalers. Other purchases—such as services, insurance, and utilities—are largely provided by Oregon-based businesses, and reductions in spending by long-term care facilities will have a more pronounced effect on these providers.

[10] This table includes the loss in indirect business taxes paid to state and local governments, but does not include the indirect business taxes paid to the Federal government.

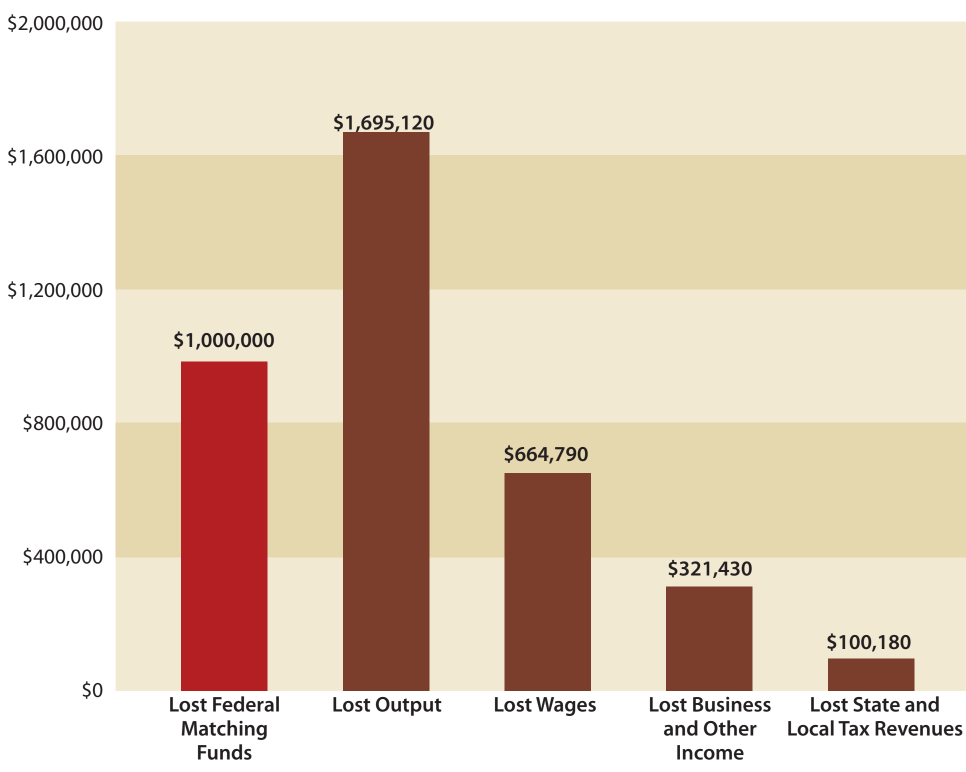
TABLE 5: State and Local Tax Revenues Lost From the Loss of One Million in Federal Matching Funds for Nursing, Residential Care, and Assisted Living Facilities (2008 dollars)

Type of Tax	Foregone Revenues	Percent of Total
Profits and dividends taxes	-$16,060	16.0%
Property taxes	-$31,120	31.1%
Personal income taxes	-$24,060	24.0%
Social insurance taxes	-$220	0.2%
Other taxes	-$16,150	16.1%
Fines, fees and other non-taxes	-$12,570	12.5%
Total state and local taxes	-$100,180	100.0%

Source: ECONorthwest using IMPLAN

The links between state general funds and federal matching funds, and the potential economic and fiscal impacts for Oregon are summarized in Figure 6. **A decline of every $1 million in federal matching funds will ultimately cause economic activity to fall by approximately $1.7 million in Oregon. This decline in economic activity will cause wages, business income, profits, and state and local tax revenues to fall.**

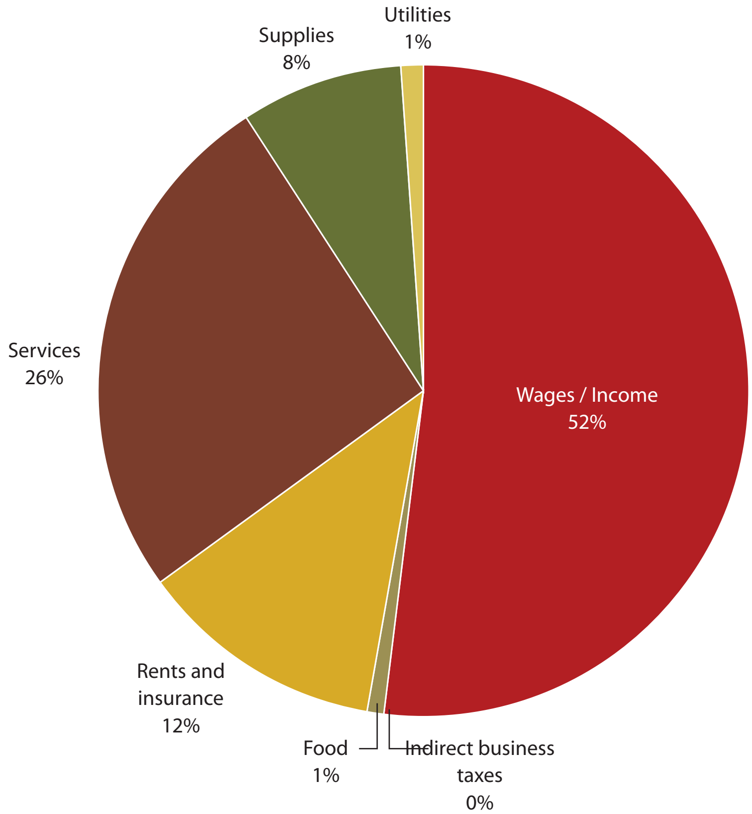
FIGURE 6: Oregon Impacts From the Loss of One Million in Federal Matching Funds for Nursing, Residential Care, and Assisted Living Facilities (2008 dollars)



Source: ECONorthwest using IMPLAN

In-Home and Adult Foster Care Providers

In-home and adult foster care providers offer services in residential and residential-based facility settings rather than in large facility-based settings. In-home and adult foster care providers offer care for seniors and adults with disabilities that have family support available, do not require the more intensive services offered at nursing facilities, or that require more care than other long-term care settings are capable of delivering. Services provided by these types of caregivers range from light housekeeping to 24-hour in-home supervision and care. According to



Source: ECONorthwest calculations using IMPLAN 2007 data for Oregon

FIGURE 7: Expenditure Pattern of In-Home Service Providers in Oregon, 2007

SEIU, in FY2008, nearly 14,000 in-home and adult foster care employees offered services to almost 15,000 recipients in the state of Oregon.

In-home and adult foster care providers with Medicaid contracts are heavily funded by Medicaid dollars. As such, reductions in state funding for these programs will result in a significant loss in federal matching funds, and strongly affect those that are employed by and receive services from the in-home and adult foster care sub-sector.

The expenditure pattern for in-home and adult foster care providers is shown in Figure 7. Similar to long-term care facilities, this long-term care sub-sector is labor-intensive. Indeed, approximately 52 percent of the total operating expenses of in-home and adult foster care services go towards wages and income. In addition, in-home and adult foster care providers purchase a variety of goods and services. However, these indirect expenditures differ from those of long-term care facilities both in terms of their magnitude and mix.

Table 6, below, shows the direct effects of reduced federal matching funds, as well as the subsequent effects as job losses and declining incomes in this long-term care sub-sector filter their way through the state economy. **As shown in the first column of** Table 6**, every million dollars in lost federal matching funds for in-home and adult foster care providers is associated with the loss of approximately 26 jobs and $467,000 in wages for workers in this sector.**

TABLE 6: Economic Impacts From the Loss of One Million Dollars in Federal Matching Funds for In-Home and Adult Foster Care Providers (2008 dollars)

Type of Impact	Direct	Indirect	Induced	Total
Output	-$1,000,000	-$368,120	-$451,950	-$1,820,070
Total Value Added	-$549,550	-$208,040	-$270,230	-$1,027,820
• Wages	-$467,080	-$102,760	-$148,730	-$718,570
• Business Income	-$37,140	-$20,070	-$16,410	-$73,620
• Other Income	-$42,080	-$68,590	-$78,750	-$189,420
• Indirect Business Taxes	-$3,250	-$16,620	-$26,340	-$46,210
Jobs	-26	-3	-4	-33

Source: ECONorthwest using IMPLAN

Reductions in service levels by in-home and adult foster care providers will lead to less spending on intermediate goods and services, and reductions in payroll and employment. These declines will affect other sectors of the Oregon economy. **In total, every $1 million in lost federal matching funds for in-home and adult foster care providers translates into the loss of approximately $1.8**

million in economic activity, including $719,000 in wages, $73,600 in small business income, $189,000 in rents and profits, and 33 jobs.

Table 7 provides information on how a $1 million loss in federal matching funds for in-home and adult foster care providers impacts other industry sectors in Oregon. The direct impacts, of course, occur in the state's health care sector. However, decreases in spending in that sector spread to other sectors. The sectors experiencing the largest impacts include: 1) finance, insurance, and real estate; 2) professional services; and 3) retail and wholesale trade.

TABLE 7: Total Economic Impacts, by Major Industry Sector, From the Loss of One Million Dollars in Federal Matching Funds for In-Home and Adult Foster Care Providers (2008 dollars)

Aggregate Industry Sector	Output	Wages	Business Income	Other Income	Indirect Business Taxes	Jobs (full- and part-time)
Natural resources	-$8,060	-$1,150	-$250	-$1,580	-$170	-0.1
Construction	-$11,200	-$3,770	-$870	-$620	-$150	-0.1
Manufacturing	-$55,570	-$9,690	-$890	-$3,500	-$320	-0.2
Transportation, comm, & utitlies	-$84,800	-$19,740	-$2,470	-$14,540	-$3,540	-0.4
Retail and wholesale trade	-$98,490	-$36,850	-$3,460	-$11,640	-$14,680	-1.0
Finance, insurance, and real estate	-$221,210	-$29,590	-$9,800	-$82,960	-$18,460	-1.2
Professional services	-$143,650	-$56,620	-$12,850	-$14,290	-$1,630	-1.7
Health care and social assistance	-$1,064,450	-$497,350	-$40,750	-$47,260	-$3,770	-26.8
Lodging, food service, & recreation	-$40,360	-$13,150	-$960	-$3,960	-$2,270	-0.7
Other services	-$32,720	-$11,010	-$1,320	-$3,120	-$1,220	-0.4
Government and unclassified sectors	-$59,560	-$39,650	$0	-$5,950	$0	-0.8
Total All Industry Sectors	-$1,820,070	-$718,570	-$73,620	-$189,420	-$46,210	-33.4

Source: ECONorthwest using IMPLAN

In addition to the employment and income effects, the foregone economic activity attributed to the decrease in federal matching funds will cause state and local tax revenues to decline**.** Table 8 **shows that every $1 million in lost federal matching funds for in-home and adult foster care providers results in the loss of $81,820 in tax revenues for state and local governments.**

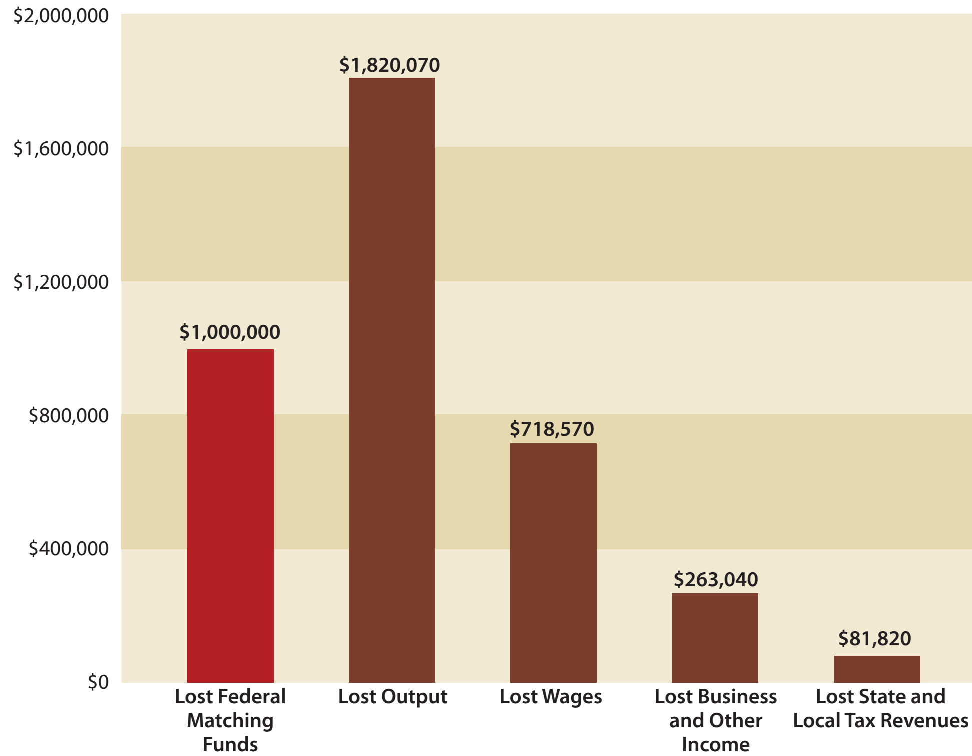
TABLE 8: State and Local Tax Revenues Lost From the Loss of One Million in Federal Matching Funds for In-Home and Adult Foster Care Providers (2008 dollars)

Type of Tax	Foregone Revenues	Percent of Total
Profits and dividends taxes	-$10,430	12.7%
Property taxes	-$21,620	26.4%
Personal income taxes	-$27,340	33.4%
Social insurance taxes	-$240	0.3%
Other taxes	-$11,160	13.6%
Fines, fees and other non-taxes	-$11,030	13.5%
Total state and local taxes	-$81,820	100.0%

Source: ECONorthwest using IMPLAN

Figure 8 shows the linkages between the reduction in state general funding that leads to a $1 million reduction in federal matching funds for in-home and adult foster care service providers, and the subsequent reductions in income to individuals and businesses, and revenues to state and local tax jurisdictions

FIGURE 8: Oregon Impacts From the Loss of One Million in Federal Matching Funds for In-Home and Adult Foster Care Providers (2008 dollars)



Source: ECONorthwest using IMPLAN

State and Local Offices

The State of Oregon administers Medicaid funded programs through the Seniors and Persons with Disabilities Division of DHS in Salem. Eligibility for long-term care and other financial benefits, service authorization and case management are provided through state and local offices throughout Oregon, including Area Agencies on Aging. In FY2008, these offices provided employment to 1,900 employees. All state Medicaid programs and recipients rely on state and local offices for assistance. Table 9 shows the direct, indirect, and induced impacts associated with the loss of $1 million in federal matching funds for state and local offices. **For every one million dollars in reduced federal funding, 13 jobs and over $703,000 in wages are lost at state and local offices that administer Medicaid programs.**

TABLE 9: Economic Impacts From the Loss of One Million Dollars in Federal Matching Funds for State and Local Offices (2008 dollars)

Type of Impact	Direct	Indirect	Induced	Total
Output	-$1,000,000	-$117,510	-$535,370	-$1,652,880
Total Value Added	-$838,570	-$61,250	-$318,720	-$1,218,540
• Wages	-$703,090	-$33,700	-$174,180	-$910,970
• Business Income	-$15,690	-$5,910	-$19,570	-$41,170
• Other Income	-$110,440	-$17,000	-$93,540	-$220,980
• Indirect Business Taxes	-$9,350	-$4,640	-$31,430	-$45,420
Jobs	-14	-1	-5	-20

Source: ECONorthwest using IMPLAN

Losses in federal matching funds will cause employment, payroll, and operations at state and local offices to decline, which will further affect the state economy, resulting in another 6 jobs lost and $616,540 in reduced output. **In total, 20 jobs, $910,970 in wages, and $1,652,880 in total output will be lost as a result of a $1 million dollar reduction in federal funding for state and local offices.**

Table 10 shows the economic impacts across major industry sectors in Oregon resulting from a $1 million loss in federal match funding for state and local offices. Besides the government sector, the other sectors most strongly affected by the funding reduction are: 1) finance, insurance, and real estate, 2) retail and wholesale trade, and 3) health care and social assistance.

TABLE 10: Total Economic Impacts, by Major Industry Sector, From the Loss of One Million Dollars in Federal Matching Funds for State and Local Offices (2008 dollars)[11]

Aggregate Industry Sector	Output	Wages	Business Income	Other Income	Indirect Business Taxes	Jobs (full- and part-time)
Natural resources	-$17,050	-$2,170	-$730	-$2,610	-$320	-0.2
Construction	-$28,060	-$10,530	-$1,980	-$880	-$280	-0.3
Manufacturing	-$123,720	-$20,510	-$2,960	-$8,730	-$740	-0.4
Transportation, comm, & utitlies	-$107,470	-$25,310	-$3,060	-$21,030	-$5,140	-0.5
Retail and wholesale trade	-$118,650	-$44,350	-$4,170	-$14,040	-$17,680	-1.2
Finance, insurance, and real estate	-$180,470	-$25,160	-$6,490	-$65,520	-$14,050	-0.8
Professional services	-$141,320	-$54,330	-$14,130	-$12,100	-$1,790	-1.6
Health care and social assistance	-$80,500	-$37,780	-$4,440	-$6,380	-$650	-1.0
Lodging, food service, & recreation	-$53,940	-$17,610	-$1,190	-$5,410	-$3,070	-1.0
Other services	-$48,300	-$16,290	-$2,020	-$4,640	-$1,700	-0.6
Government and unclassified sectors	-$753,400	-$656,930	$0	-$79,640	$0	-12.0
Total All Industry Sectors	-$1,652,880	-$910,970	-$41,170	-$220,980	-$45,420	-19.5

Source: ECONorthwest using IMPLAN

The losses in output and incomes associated with a $1 million federal funding reduction for state and local offices will lead to reductions in local and state tax revenues. Table 11 shows how tax revenues to local and state jurisdictions will be affected by the reduction. **For every $1 million in reduced federal matching funds for state and local offices, $88,560 in state and local tax revenues will be lost.**

[11] Due to the fact that state and local government offices are caseload driven, whenever there is a cut to a facet of the long term care system (e.g., nursing facilities), state and local government offices are affected as well. The numbers in Table 10 reflect the impact of reductions in funding to those offices, but do not reflect the impact of caseload reductions as a result of reductions in funding to the state's publically funded care providers. As a result, the job losses to these state and local government offices may be higher than the impact reflected in Table 10.

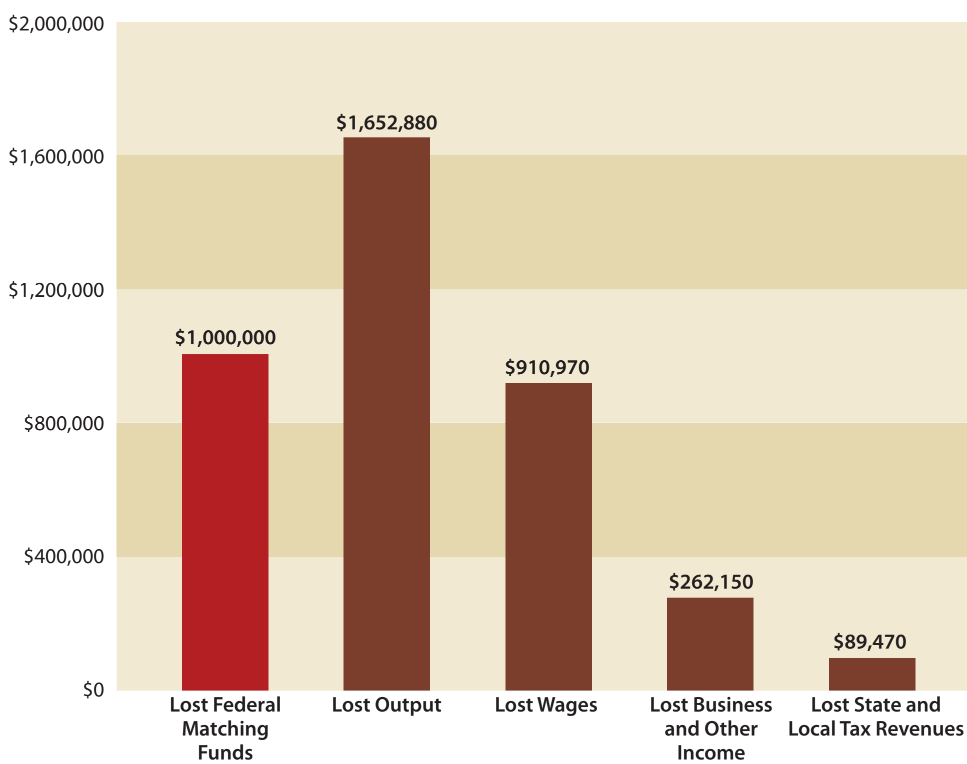
TABLE 11: State and Local Tax Revenues Lost From the Loss of One Million in Federal Matching Funds for State and Local Offices (2008 dollars)

Type of Tax	Foregone Revenues	Percent of Total
Profits and dividends taxes	-$12,170	13.6%
Property taxes	-$21,290	23.8%
Personal income taxes	-$32,650	36.5%
Social insurance taxes	-$310	0.3%
Other taxes	-$10,950	12.2%
Fines, fees and other non-taxes	-$12,100	13.5%
Total state and local taxes	-$89,470	100.0%

Source: ECONorthwest using IMPLAN

Figure 9 summarizes the potential economic and fiscal impacts of a $1 million reduction in federal matching funds used to finance operations at state and local offices that administer Medicaid programs in Oregon. **Every $1 million reduction in federal matching funds will cause economic activity in Oregon to decline by over $1.6 million.** Wages, business income, and state and local taxes will all fall as a result of this decline in economic activity.

FIGURE 9: Oregon Impacts From the Loss of One Million in Federal Matching Funds for State and Local Offices (2008 dollars)



Source: ECONorthwest using IMPLAN

Potential Economic Impacts Associated with a 10 Percent Funding Decrease

As part of general budget tightening measures, the State of Oregon's Department of Human Services ("DHS") was asked to prepare a budget based on a 10 percent reduction in state general funding for the 2009–2011 biennium. Reductions in state general funding would generate even larger budget cuts for the state's long-term care sector because of the loss in federal matching funds. The funding consequences of these budget cuts for the state's long-term care sector are shown in Table 12.

TABLE 12: Oregon Department of Human Services Potential Reduction Options, 2009–2011 Biennium

Sector	State General Funds	Federal Matching Funds	Other Funds	Total Funds
Nursing, residential care, and assisted living facilities	$26,615,054	$45,356,427	$874,368	$72,845,849
In-home and adult foster care providers	$37,381,031	$62,833,590	$0	$100,214,621
State and local offices	$2,615,936	$2,340,936	$0	$4,956,872
Total	$66,612,021	$110,530,953	$874,368	$178,017,342

Source: State of Oregon, Department of Human Services, "Required List of Potential Reduction Options, 2009–11 Agency Budget Request," compiled by the Oregon Health Care Association.

Under the 10 percent funding reduction option, state general funds for the long-term care sector would decline by $66.6 million over the two year, 2009–2011, period. This would lead to an additional loss of $110.5 million in federal matching funds. In total, the long-term care sector would be confronted with the potential loss of over $178 million in funding between 2009 and 2011.

Table 13 shows the economic impacts associated with the loss of $110.5 million in federal matching funds. These impacts have been modeled based on the budget cuts for each long-term care sector identified in Table 12, i.e., a $45.4 million reduction for nursing, residential care, and assisted living facilities; a $62.9 million reduction for in-home and adult foster care providers; and a $2.3 million reduction in state and local offices.

TABLE 13: Economic Impacts from the Loss in Federal Matching Funds Under a 10 Percent General Fund Reduction Option (2008 dollars)

Type of Impact	Direct	Indirect	Induced	Total
Output	-$110,530,980	-$36,407,090	-$48,178,560	-$195,116,630
Total Value Added	-$65,848,190	-$20,383,930	-$28,955,760	-$115,187,880
• Wages	-$51,310,860	-$10,053,410	-$16,069,510	-$77,433,780
• Business Income	-$2,477,230	-$1,940,560	-$1,737,470	-$6,155,260
• Other Income	-$10,483,670	-$6,718,030	-$8,363,710	-$25,565,410
• Indirect Business Taxes	-$1,576,430	-$1,671,930	-$2,785,070	-$6,033,430
Jobs	-2,979	-309	-471	-3,758

Source: ECONorthwest using IMPLAN

The potential economic impacts associated with the loss of federal matching funds under a 10 percent state general fund reduction option are significant. Indeed, over the two-year funding period, approximately 2,980 jobs would be lost in the long-term care sector.

The direct losses in employment, wages, and income in the long-term care sector would have ripple effects for other sectors of the Oregon economy. In total, the loss in federal matching funds would cause economic activity in Oregon to decrease by $195.1 million, including $77.4 million in wages, $6.2 million in business income, and $25.6 million in other income. These losses are associated with almost 3,760 jobs in this state.

The losses in economic activity would also lead to reductions in state and local tax revenues. These reductions are shown in Table 14.

TABLE 14: State and Local Tax Revenues Lost from the Loss in Federal Matching Funds Under a 10 Percent General Fund Reduction Option (2008 dollars)

Type of Tax	Foregone Revenues	Percent of Total
Profits and dividends taxes	-$1,411,850	14.3%
Property taxes	-$2,818,980	28.5%
Personal income taxes	-$2,885,650	29.2%
Social insurance taxes	-$25,870	0.3%
Other taxes	-$1,459,300	14.8%
Fines, fees and other non-taxes	-$1,291,470	13.1%
Total state and local taxes	-$9,893,120	100.0%

Source: ECONorthwest using IMPLAN

As shown in Table 14, the $66.6 million reduction in state general funding for the long-term care sector would lead to a loss in federal matching funds that would cause state and local tax revenues to fall by approximately $9.95 million during the two-year funding period.