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Property Tax Incentives Impact Study

Final Report

Prepared for

business oregon®

Applied Economics and TadZo

Table of Contents

Table of Contents (continued)

List of Figures and Maps

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Executive Summary

The purpose of this study is to measure the return on investment (ROI) to Oregon's economy from employment and payroll growth related to business investments under the Standard Enterprise Zone, Long-Term Rural Enterprise Zone and Strategic Investment incentive programs. The economic impacts of this growth, and associated employee income tax revenues, can be compared to the property taxes abated on new property investments by businesses using these programs to measure the ROI resulting from these incentive programs, and to provide greater quantitative insights as to how the incentives may benefit Oregon and the affected communities.

While other measures of efficacy could be investigated to evaluate these incentive programs, the focus of this study is on quantitative estimates of economic impacts and tax revenues. ***The general conclusion is that the total economic impact of job and payroll growth created by these Oregon companies receiving property tax incentives far exceeds the amount of property taxes foregone***, notwithstanding other fiscal or economic considerations or effects.

The following sections summarize the results of this quantitative analysis including findings regarding job growth, economic impacts, estimated taxes and ROI. The full report and the appendices offer more detailed discussion of not only analytical methods and results, but also:

- history and requirements for the incentive programs covered by the study,
- confidential company-specific data used in the analysis,
- the effect of incentives on business investment and location decisions,
- economic leakages and other associated costs and benefits, including short-term construction impacts and longer-term increases to property taxes post-abatement, and
- avenues for future research.

Study Dataset

The study relies on detailed data for companies that had exempt property in one of the three incentive programs in 2019 or 2020. The initial dataset contained 396 projects. Some of the companies were eliminated due to a lack of relevant records with the Oregon Employment Department, or they became ineligible for the incentive program and did not receive property tax abatements. The dataset also includes several companies with multiple abatements mainly for further expansions, for which the data were combined.[1]

The final dataset comprises 300 unduplicated employment records for 279 Standard Enterprise Zone (SEZ) businesses, 8 Long Term Rural Enterprise Zone (LRZ) businesses, and 13 Strategic Investment Program (SIP) businesses. Initial (pre-investment) applications for property tax abatements in the dataset range from 2005 to the third quarter of 2019 (for exemption beginning in 2020), although the vast majority are from the 2013 to 2017. Average annual employment preceding the application date serves as the base level of existing jobs, against which net changes in employment are calculated.

The basic geographic distribution of projects by type of enterprise zone is relatively even with 46% of projects in rural zones and 54% in urban zones, even though urban zones account for a much greater share of the state's total population and employment. The SIP is heavily weighted towards rural areas because of high participation by energy sector firms (mostly wind farm operations) that do not employ as many

[1] Companies that received multiple abatements over different time periods may be included more than once at different locations and based on different employment records.

people as other types of industries, but that are highly capital intensive. Within the SIP, there are 18 total projects in the study, 15 of which are in rural areas.

Employment and Payroll Growth

The economic impacts are based on the change in employment and payroll for the dataset company projects after the initial application up until 2019 or 2020, using data that the Oregon Employment Department collects from employers when they pay unemployment insurance premiums. The range of years over which the change is measured varies depending on when a company applied for an incentive, using the earliest application date for companies with multiple tax abatements. **The 300 companies/projects in the dataset produced a total net employment change of 27,668 jobs and additional payroll $2.3 billion through 2019/2020.** About half of this net employment change is from companies in the manufacturing sector, with the remainder spread across other sectors including services, wholesale trade, transportation and warehousing, information and energy.

The SEZ program is the largest program in these respects, accounting for more than 70% of the total employment change, though a significantly smaller percentage of total payroll change. The relative differences in the share of employment and payroll change attributed to the SEZ versus the SIP, for example, are likely due to the SEZ's being only a 3 to 5-year abatement, whereas SIP is a 15-year abatement capturing a longer timeline of wage increases for employees, even as employment growth or specific compensation levels are not statutorily required with SIP. In terms of the employment change per company (which is markedly skewed by a few very large employers), the SEZ shows an average change of about 75 jobs per company, whereas the SIP and LRZ combined show an average change of more than 300 jobs per company.

Economic Impacts

The above employment and payroll growth generate $17.4 billion in total economic output and $5.0 billion in total labor income in relation to more than 71,000 direct, indirect and induced jobs in Oregon's economy, based on the IMPLAN economic model.[2] These total impacts are driven by a change in direct payroll of $2.3 billion, and an accompanying change in direct jobs of 27,668.

This amounts to an average multiplier of 1.77 in terms of output, although actual multipliers vary significantly from industry to industry. This means that for every $1 million in output from participating companies, there was an estimated $770,000 of increased output at other companies in the state that are suppliers to the participating companies, or that sell consumer goods and services to additional employees of participating or supplier companies. These results reflect an increase in economic activity only during the period in which each company was receiving property tax abatements. The length of time varies from company to company by incentive program and by age of project.

The largest impacts by sector, both direct and total, are in manufacturing. The second largest economic output impacts, both direct and total, are in the information sector, which primarily consists of data centers in this analysis. The second largest job impacts are in the transportation and warehousing sectors, which are significantly more labor-intensive than the information sector.

The (Portland) Metro region accounts for about 74% of the total impact in terms of economic output. A total of 36% of the companies are in that region accounting for 69% of the direct employment change and 71% of the total job impacts. There are certain very large Metro-region companies using SIP, namely Intel and Genentech, as well as many other companies there, both large and small, receiving short-term SEZ incentives, including recent Amazon fulfillment centers. Rural and smaller metro-areas in the state tend

[2] Output and labor income figures are reported in constant 2020 dollars.

to attract different types of industries and account for close to 200 of the 300 unduplicated companies/projects in the dataset. The participating companies in those areas tend to be smaller in terms of employment, and thus account for a smaller share of the job growth. The Greater Eastern region accounts for 8% of job creation associated with companies in the dataset; the South Valley/Mid-Coast and Central regions each account for 5%, and the rest of the state accounts for 8% with respect to new jobs. In terms of total economic output, the South Valley/Mid-Coast and Central regions have the largest impacts after the Metro region.

Employee Personal Income Taxes

An increase in personal income taxes paid to the state accompanies job and payroll growth, which is especially impactful in Oregon given its heavy reliance on that revenue source compared to most other states. Employee income taxes are another way to measure return on investment. Employee income taxes are estimates based on the sum of direct, indirect and induced labor income from the economic impact results. **The results show an estimated $1.9 billion of additional personal income taxes generated by the direct, indirect and induced employees.**[3] The amount of income taxes per job is proportional to wage levels, ranging from $17,800 per job for SIP, to $4,125 in taxes for the SEZ program. Estimated income taxes by industry and by region are generally proportional to the economic impacts by industry and region.

These personal income tax impacts reflect the recurring nature of income taxes paid annually by employees during the historic period of tax abatements covered by this study. Beyond the study period, the increase in state income taxes due to employment growth could be projected to continue during and after the property tax abatement period, constituting, in effect, a permanent boost in revenues if the additional jobs are maintained. Although income taxes are a state-level revenue source, they are used to fund services statewide and support local governments in various ways. Most notably, a sizeable portion of state revenue (including lottery dollars) provides most of the funding for K–12 schools across Oregon. There is also the SIP program's Gain Share mechanism, by which the state has been estimating personal income taxes (only for direct jobs) and distributing a share of that estimated amount to counties and other local governments.[4]

Property Taxes Abated

The purpose of estimating the economic output and employee income taxes is to form a basis for the return-on-investment calculations in terms of the benefits or returns to Oregon. In contrast, the amount of property taxes abated for businesses through the SEZ, SIP and LRZ corresponds to the cost, or investment, side of the ROI equation in this study. Detailed information on the amount of property taxes abated each year by company/project is assembled by Business Oregon for SIP from company records and for enterprise zones from annual county assessor reports to the Department of Revenue.

On several counts, the property tax amounts do not estimate the actual taxes that would have been imposed, or the local revenues collected, if the property had not been exempt and taxes were levied. Therefore, Business Oregon also estimated adjustment factors to account for the effects of compression, shifting and billing discounts based on *Oregon Property Tax Statistics, Fiscal Year 2020-21*, with additional Department of Revenue guidance.

[3] Current dollar labor income was used to estimate income taxes, which were then converted to 2020 dollars and summed across multiple years.

[4] Gain Share was created in 2007 to share marginal income tax gains with local governments and was applied to SIP property tax exemptions since 2008. A total of 50% of identified personal income taxes from new jobs are distributed to local taxing districts.

These factors, by county, were applied to the amount of property taxes abated for each project in the study, as well as property taxes paid by SIP participants on non-exempt project property. **Total property taxes abated for the companies/projects in the dataset are estimated at $2.5 billion over the 2007 to 2019/2020 period.**[5] Beyond 2020, many abatements will continue for one or more years; the analysis does not include future foregone property taxes, nor forecasts of economic or fiscal benefits.

Return on Investment Relative to Economic Output

The first type of ROI calculation compares adjusted property taxes abated to total economic output, or the general benefit to the state's economy from increased economic activity, including other businesses affected by vendor demand from the participating businesses and increased consumer demand from employees. Added to initial ROI calculations is $556.6 million in public revenue consisting of statutory program fees, taxes on non-exempt SIP property, and special fees or payment required under local agreements or urban zone policies, as paid by the participating business during the abatement period, that effectively offset some of the abated property tax. This results in the final ROI metric that serves as a simple way to compare statewide costs and benefits of these incentive programs.

The ROI for net property taxes abated versus total economic output ranges from $29.16 for the SEZ to $6.24 for the SIP and $1.18 for the LRZ. This means, for example, that for every dollar of property tax abated, SEZ companies generated $29.16 in increased economic output. The cost difference among programs (or the denominator in the ROI calculation) reflects the relative magnitude of up-front capital investments by participating companies, combined with the ensuing period of abatement over which foregone property taxes accumulate. Total output (or the numerator in the ROI calculation) is a function of various increases in jobs and payroll and the multiplier effects on other local businesses.[6] Please see Chapter 6 for further information on industry and regional variations in the ROI results.

Return on Investment Relative to Employee Personal Income

The second set of ROI metrics compares property taxes abated to estimated personal income taxes paid by direct employees, as well as indirect and induced labor income from the economic impacts, and again including local fees and payments and taxes on the taxable portion of SIP property. This version of the ROI calculation would ideally include concurrent business income, corporate activity and other state and local taxes or revenue streams, which might generally increase ROI values, but they are very difficult to estimate. Therefore, this type of ROI attempts to measure the extent to which the incentive programs are effectively paying for themselves from a limited tax revenue perspective.

The personal income tax ROI ranges from $1.35 for the SEZ to $0.03 for SIP to -$0.84 for the LRZ. This means, for example, that for every dollar of property tax abated, $1.35 of new personal income taxes are generated by direct, indirect and induced jobs associated with SEZ abatements. The ROI for all three programs combined is -$0.02, which can be interpreted as a break-even in that, overall, these programs are covering their costs with respect to state income tax revenues versus local property tax revenues. Please see Chapter 6 for further discussion on industry and regional variations of the ROI calculations.

[5] The annual data on taxes and revenues associated with the incentives have been converted to 2020 dollars using IMPLAN deflators that are specific to the state and local government sector.

[6] These output impacts do not include one-time effects of construction estimated at around $50.5 billion spread over eight years for the companies/projects in the dataset. The construction costs used in this analysis are generally rough estimates, given considerable potential for variation in both total capital investment and the percentage of investment related to buildings and structures in contrast to equipment purchases, and are not incorporated into ROI calculations. Please see Chapter 7 for more detail on this topic.

* * *

The companies receiving incentives might also contribute to local communities in other ways that are not quantified in the ROI metrics, but that were uncovered in undertaking this study, including providing certain training or other benefits to employees, using local vendors, meeting sustainability goals, and charitable contributions. Local property tax revenues are also created by investment in specific property not qualifying for exemption, or through valuation adjustments with new development or new land use (e.g., the effect of rezoning on land value). Overall, these incentive programs generally break even when compared only to employee personal income tax increases, and in fact they result in significantly greater benefits to the overall economy as measured by economic output than the value of foregone property taxes.

1.0 Introduction

1.1 Purpose and Approach

The purpose of the Property Tax Incentives Study, conducted on behalf of Business Oregon, is to measure the return on investment to the state's economy, associated with the Standard Enterprise Zone, Long-Term Rural Enterprise Zone and Strategic Investment incentive programs. All three exempt new business property from local property taxes, for which the resulting tax abatements constitute Oregon's investment in economic growth that manifests itself in terms of capital spending and job growth. The companies in turn generate economic impacts in the state through their own increased production, as well as local supplier purchases and employee spending, resulting in a return on investment. In addition, companies and employees pay income taxes and other taxes or fees that benefit the state and local jurisdictions. To summarize, this analysis quantifies the *investment* or amount of incentives and their *return* in the form of economic and revenue impacts, in order to inform state and local policy makers about the program's value and payback.

The report contains:

- information on job growth by industry and by region for companies that are receiving incentives
- estimates of the economic impacts stemming from this job growth
- estimated personal income tax revenues generated by the companies' employees
- foregone property taxes associated with exempted property, and
- calculations of the return on investment to the state.

In addition to these quantitative measures, the report includes background information on related topics including a discussion of the impact of incentives on economic competitiveness, economic leakages and other costs associated with incentives, to provide context. There are several appendices that provide additional detail on data sources, the IMPLAN model used to estimate the economic impacts, the property tax system in Oregon (including projected future tax revenues from companies receiving incentives), and finally a summary of previous work related to economic impacts and incentives.

1.2 Information Sources

The information used in this analysis was collected from both primary and secondary sources. The process began with a series of interviews to better understand how local officials and economic developers view property tax incentive programs and how they are actually used. Although the purpose of this study is not to prove program efficacy, the interviews offer critical context. Information from the interviews is found throughout the report.

A total of 18 interviews involving 28 individuals were completed between January 20th and February 4th, 2021 to discuss Oregon's property tax incentives and related issues. The interview participants were selected by Business Oregon and the study's steering group for their experience and insights on incentive programs. A list of the individuals interviewed is included in **Appendix A**.

Business Oregon compiled data on all the projects by companies that participated in the three incentive programs in 2019 or 2020. Some were just beginning their incentive term, while others had exemptions dating back up to 15 years. A number of companies received multiple incentives at different sites and/or for overlapping expansion projects. In total, 396 separate abatements or projects were initially identified for inclusion in the analysis.

Detailed data on annual employment and payroll for these companies was collected from Oregon Employment Department records aligning to the incentive terms for purposes of calculating the job growth that forms the basis for estimating economic impacts. In addition, this study uses detailed

information on the amount of property taxes abated by year and by company/project as compiled and validated by Business Oregon. The methodology used to model the economic impacts, construction impacts, employee property taxes and other metrics related to return on investment is described in the body of the report.

The results present a comprehensive look at the value of these incentive programs in terms of the amount of additional economic activity and tax revenues that are created by participating companies, with detailed breakdowns by industry sector and by geographic region within the state. Various patterns emerge with regard to specific industries that are concentrated in different regions, but the underlying results show that companies receiving property tax incentives in Oregon generate significant economic impacts in return for the amount of property tax exemptions they receive.

1.3 Study's Property Tax Incentive Programs

The main analysis here focuses on the three incentive programs listed below that exempt certain new property from local taxes under Oregon Law, such that pursuant to local administration, a business receives an abatement on its future property taxes for a certain number of years:

(1) Enterprise Zones (Standard Program – SEZ), 3 to 5 years
(2) Long-Term Rural Enterprise Zones Facilities (LRZ), 7 to 15 years
(3) Strategic Investment Program (SIP), 15 years.

More specific information can be found in **Appendix B** regarding the history, roles and requirements for these three incentives, as well as other relevant state and local resources for economic development.

Each of these programs provides property tax abatement on the new assessed value arising from investments in real and personal property by qualifying businesses. After the abatement term ends, the property is subject to local property taxes. Oregon statutes specifically provide for these abatements. The allowance and administration of these programs depends on active efforts and coordination among state agencies and a diverse array of local government officials and other local entities across the state. This report primarily uses the term "abatement" to refer to the property tax incentives associated with the three incentive programs. The term "exemption" is also commonly used in Oregon for this purpose, in that the property is tax-exempt. Exemptions associated with the enterprise zone and strategic investment programs should be distinguished from permanent statutory exemptions on various types of property.

2.0 Job Growth Trends

To estimate the economic impacts, it was necessary to obtain annual information on employment and payroll for all companies participating in the three incentive programs covered in this study. Applied Economics worked with Oregon Employment Department (OED) to arrange for access to confidential data from the Quarterly Census of Employment and Wages (QCEW) that are reported by employers paying unemployment insurances taxes administered by OED. While the primary purpose of assembling this information is to create a dataset for estimating economic impacts, the QCEW data also provide useful insights regarding incentive program participants by industry sector and geographic region.

2.1 Participating Companies/Projects by Program

Based on businesses that were active in one of the three incentive programs in 2019 or 2020, the initial dataset for this study included 396 company records. A total of 15 records were eliminated because the companies ultimately did not qualify for property exemptions during the study's timeframe; 19 records were eliminated because employment data were not discoverable for eligible operations located in an enterprise zone or at the location of a SIP project, or they could not be adequately distinguished from other non-enterprise zone operations within the same company. The SEZ projects that were eliminated represented relatively little exempt property value. In addition, some companies received more than one abatement (i.e., two or more projects were covered by the same employment records), resulting in duplicate records that were combined in the dataset.

The final dataset includes 300 unduplicated records with 279 Standard Enterprise Zone (SEZ) projects, 8 Long Term Rural Enterprise Zone (LRZ) projects, and 13 Strategic Investment Program (SIP) projects, all of which had active abatements during 2019 or 2020. The oldest of these abatements initially applied in 2006. The newest projects in the dataset were applied for in quarters 1, 2, or 3 of 2019 for exemptions starting in 2020. Two companies participated in more than one of the incentive programs, and so they are counted once in each program and their employment is apportioned among the programs. Companies that received multiple abatements over different time periods may be counted more than once if the abatements are at different locations and are associated with different employment. **Figure 1** shows the number of companies/abatements by incentive program in the initial dataset, and in the final unduplicated dataset.

FIGURE 1
NUMBER OF COMPANIES/ABATEMENTS BY PROGRAM

	Initial Projects	Unduplicated Projects
Total of Programs	**396**	**300**
SEZ	362	279
LRZ	14	8
SIP	20	13
Exclusions (31 SEZ, 3 SIP)	34	0

The economic impacts are based on the change in employment and payroll for these companies or projects. The range of years over which the net change occurred varies by company, depending on when a company applied for an incentive. For companies that received multiple incentives tied to the same record in the dataset, the employment and payroll change is based on the earliest date of application by the company. For more detail on the methodology used to compile, reconcile and compute employment and payroll change, see **Appendix C**.

The SEZ program is the largest program based on both the number of participating companies and the overall employment change, accounting for more than 70% of the total employment change but a significantly smaller percentage of the total payroll change. The SIP and LRZ combined account for only 30% of the employment change, but over 50% of the payroll change. The relative differences in the share of employment and payroll change attributed to the SEZ versus the SIP are due the fact that the SEZ is only a 3 to 5-year program, whereas the SIP is a 15-year program that captures a much longer timeline of wage increases for existing employees, even with no statutorily required employment growth or compensation levels under SIP. In terms of the employment change per company (which is notably skewed by a few very large employers), the SEZ shows an average change of about 75 jobs per company, whereas the SIP and LRZ combined show an average change of more than 300 jobs per company.

Figure 2 shows the number of companies experiencing a range of employment changes by program. [7] For example, 103 SEZ recipients and 6 LRZ and SIP recipients show an increase of less than 0 to 10 employees between the base year and 2019/2020. A total of 22 SEZ participants show a modest decrease in employment and were subject to a penalty for failing to meet the program requirements. In some cases, these declines are consistent with existing or special COVID-related SEZ waivers by local governments and on-going enforcement remedies, as provided under state law. In other cases, they reflect definitional differences between the QCEW data and statutorily prescribed job-counting methods for compliance or reporting purposes within these incentive programs. Only five companies lost more than 20 jobs during their incentive term. The majority of companies (71%) show an increase of 50 jobs or less, primarily in the SEZ program. A total of 49 companies (16%) had increases of 100 jobs or more between the beginning of their incentive period and 2019/2020.

FIGURE 2
RANGE OF NET CHANGE IN EMPLOYMENT BY PROGRAM

	SEZ	LREZ & SIP	Total
Less than 0	22	6	109
0 to 10	81		
11 to 25	58	5	104
26 to 50	41		
51 to 99	32	6	38
100 to 199	23	4	49
200 to 399	14		
400 or more	8		
Total Projects	**279**	**21**	**300**

Figure 3 shows a historical summary of **total** annual employment and payroll (in all three programs combined) for companies with active abatements in 2019 or 2020. The economic impact modeling in this study is based on employment and payroll change respective to each record, not each record's total employment and payroll. It is useful, however, to look at total employment and payroll to understand the overall magnitude of jobs that are associated with companies benefitting from these three incentive programs.

[7] Due to the small number of companies in the LRZ and SIP programs, these programs were combined, and the ranges are broader, so as not to violate disclosure issues under OED rules. It should also be noted that the oldest active abatement in the dataset originated in 2006, but for data disclosure reasons, the data in Figure 2 begin in 2012.

FIGURE 3
TOTAL EMPLOYMENT AND PAYROLL BY YEAR

Year	Unduplicated Companies	Total Employment	Total Payroll	Average Wage
2012	53	16,628	$1,800,549,317	$108,287
2013	81	20,629	$2,041,773,715	$98,976
2014	138	27,452	$2,572,544,685	$93,711
2015	181	33,634	$3,069,310,372	$91,256
2016	222	39,082	$3,468,374,259	$88,746
2017	262	42,496	$3,672,573,177	$86,421
2018	292	49,364	$4,339,790,984	$87,913
2019	300	55,788	$4,823,252,553	$86,457
Net Change		**27,668**	**$2,716,136,303**	**$98,169**

The dataset being used for the economic impact analysis shows that the number of abatements and jobs in the program growing substantially over the past several years. Nevertheless, a great deal of historic activity, especially with SEZ and SIP, occurred with abatements that ended before 2019, for which the previously exempted property has now been added to the tax rolls. As shown in Figure 1, Figure 3 also excludes 19 recently incentivized companies due to an inability to locate them in QCEW records. The total number of individual abatements or projects is also higher because several companies received multiple abatements and were combined under a single, unduplicated record in the dataset.

These figures also do not necessarily attest to increases in the average wages of employees at benefiting companies because companies with SIP or LRZ abatement periods that go back more than a decade tend to pay higher average wages than companies that received three-year SEZ exemptions that began much more recently. Consequently, within this dataset, average wages per job peaked at about $108,000 in 2012, and then decreased gradually to about $86,000 by 2019. The last row of Figure 3 shows the net employment **change** of 27,668 that is used in the economic impacts analysis, and average wages of about $99,000 based on a change in payroll of $2.7 billion.

Under Oregon Law, average compensation (including benefits) of employees hired to fill new, full-time applicable jobs for the extended five-year SEZ or LRZ abatements must be 130% to 150% of the county average wage. Based on 2020 county average wages, current enterprise zone requirements range from a high of nearly $90,000 in Clackamas County to a low of just under $53,000 in Baker or Malheur County, although the projects in the dataset are subject to lower county wage levels for previous years.[8]

The interviews with local economic developers noted the growth in quality jobs and increases in average county wages as key benefits of enterprise zones. Business Oregon defines a quality job in its strategic plan as one that pays at or above the county or statewide annual average wage, whichever is lower, but the working definition of quality jobs varied among interviewees, who characterized quality jobs as follows:

- High school graduates with technical training and wages of at least $52,000, thus allowing them to buy a home in a rural community
- Jobs paying more than $20 per hour plus benefits, and offering a predictable schedule (i.e., stability and above average wages)

[8] Average new employee wages are lower in Wheeler County, but there are currently no projects there. Multnomah and Washington counties have only urban zones where these state requirements do not apply.

- Jobs that pay more than the average household income in the community
- Family-wage jobs with benefits
- Jobs offering vacation, retirement and profit-sharing benefits
- A diversity of occupations and industries that provide quality employment opportunities in (rural) communities
- Jobs offering work-life balance

Zone managers and local economic developers believe the purpose of these three incentive programs is for job creation and retention, thus rewarding companies that generate permanent net new jobs with above average wages. Although these programs are primarily for business attraction, they are more typically used with business expansion projects. It is not unusual for a company to apply for enterprise zone or SIP incentives two or more times for different expansions. Zone managers are also cognizant of how much these programs help to diversify their local economy, expand quality job opportunities and expand long-term property tax revenues. There is also a strong sense of the importance of growing business and community partnerships, which can be a secondary benefit of the enterprise zone programs.

2.2 Job Growth by Sector

In terms of the level of participation for different industry sectors according to the interviews, the requirements for capital investment, employment growth and wage levels are most commonly achieved by manufacturers, typically food and beverage processing, metal fabrication, wood products, semiconductors and electronic components, and by information industry firms such as data centers, cloud computing and e-commerce. There is some application within warehousing and distribution, but generally tied to e-commerce. Some zone managers have also worked with hotels. The LRZ has helped to attract several large rural data centers, including Amazon (Vadata), as well as food processing and wood products industries. The enterprise zone and SIP programs are generally not applicable to professional services, software development, and other tech industry operations. Although these industries create high paying jobs, they typically lease space and make smaller capital investments, limiting the benefits of property tax abatement. According to the interviews, industry type is typically more significant than geography in terms of program participation. Even in rural areas, supply chains are reportedly being built out for food processing and datacenters because of enterprise zone programs.

Figure 4 shows the breakdown of employment change by industry. In terms of the number of companies, the largest share are manufacturers (56%); these 167 companies account for 49% of employment change in the dataset. The second largest group is in wholesale trade (14%), although the 41 companies in this sector account for only 3% of employment change. In contrast, the 18 transportation & warehousing companies (6% of companies) account for 31% of the total employment change. The average employment change per company ranges from just 12 jobs in energy & construction to 484 jobs in transportation & warehousing. The information sector added 98 new jobs per company and is above average for the companies included in the dataset.

FIGURE 4
NUMBER OF COMPANIES AND EMPLOYMENT CHANGE BY INDUSTRY

Sector	Unduplicated Companies	Distribution	Employment Change	Distribution
Utilities (Energy) & Construction	14	5%	167	1%
Manufacturing	167	56%	13,463	49%
Wholesale Trade	41	14%	862	3%
Transportation & Warehousing	18	6%	8,704	31%
Information	18	6%	1,767	6%
Services	34	11%	2,397	9%
Total	**300**	**100%**	**27,668**	**100%**

2.3 Geographical Distinctions

The definition of urban and rural is statutory and differs somewhat between the enterprise zones and SIP. However, the focus here is more about the level of program usage and types of participating companies in different parts of the state. Of the 75 total enterprise zones, 57 are defined as rural based on the statutory definition. In terms of the distribution of projects in the original dataset, the top ten zones account for 52% of the initial 376 LRZ and SEZ projects (**Figure 5**), seven of which are urban and three rural.[9] Seventeen of the current zones, all of which are rural, have not had any active projects recently. However, the overall geographic distribution of projects by type of enterprise zone is fairly even with 44% of projects in rural zones and 56% in urban zones, despite the fact that urban zones account for a much greater share of the state's total population and employment.

Rural areas dominate the geographical distribution of SIP projects, due in large part to high participation by capital-intensive wind farm operations that do not employ as many people as other types of industries. Within the SIP, out of 20 total projects, only the 3 in Washington County are urban under that program's definition.

Based on the interviews, representatives of rural communities were quick to point out the differences in the level of impacts and visibility of new jobs and wages created by enterprise zone projects in areas with relatively small populations. In terms of company size, smaller companies, and even home-grown Oregon companies, are less likely to pursue enterprise zone incentives in some parts of the state, mainly due to lack of awareness about these programs according to the interviews. Elsewhere, however, the majority of enterprise zone companies are Oregon-based. In terms of the reasons for this dichotomy, geographic location does not appear as significant as proactive outreach by zone managers and economic developers, according to the interviews. Smaller communities often lack resources and staffing to work with these incentive programs and with potential investors or businesses, both new and existing. Support from elected officials for projects is also crucial to success and can vary immensely across the state.

[9] Note that only 362 of these 396 projects that were active in 2019 and 2020 were included in the economic impact analysis. Some projects had to be eliminated from the quantitative analysis due to lack of complete employment and payroll data, or because they were ultimately not ready or failed to meet program requirements.

FIGURE 5

NUMBER OF PROJECTS BY ENTERPRISE ZONE/GEOGRAPHIC LOCATION 2019/20 ABATEMENTS

Enterprise Zone and/or SIP County	Type of Zone	SEZ/LRZ Projects	SIP Projects
Hillsboro	Urban	30	
Portland	Urban	30	
Bend	Urban	26	
East Portland	Urban	24	
Greater Redmond Area	Rural	24	
Gresham	Urban	15	
Columbia River and Morrow County	Rural	14	4
Salem	Urban	12	
Jackson County	Rural	11	
North Urban Clackamas County	Urban	11	
Albany	Urban	10	
Prineville/Crook County	Rural	9	
Springfield Community	Urban	9	
Cascade Locks/Hood River	Rural	8	
Forest Grove/Cornelius	Urban	8	
West Eugene	Urban	8	
Wasco County Joint	Rural	7	
Klamath Falls/Klamath County	Rural	6	
Malheur County	Rural	6	
Medford Urban	Urban	6	
Pendleton–Pilot Rock	Rural	6	
Benton/Corvallis	Urban	5	
North Marion	Rural	5	
Sutherlin Oakland	Rural	5	
Tigard–Lake Oswego	Urban	5	
Beaverton	Urban	4	
Grants Pass Urban Boundary	Urban	4	
Greater Umatilla	Rural	4	
Jefferson County	Rural	4	
Linn County	Rural	4	
Baker County	Rural	3	
Cottage Grove, Creswell & S Lane County	Rural	3	
Deschutes County Rural	Rural	3	
Grande Ronde and Union County	Rural	3	1
Lower Columbia Maritime and Columbia County	Rural	3	1
Roberts Creek	Rural	3	
Rogue	Rural	3	
South Columbia County	Rural	3	
Sweet Home	Rural	3	
Bay Area	Rural	2	
Columbia Cascade	Urban	2	
Dallas/Independence/Monmouth	Rural	2	
Grant County	Rural	2	
Harrisburg	Rural	2	
Lincoln County	Rural	2	
Lower Umpqua	Rural	2	
Molalla	Rural	2	
Oregon City	Urban	2	
Tillamook String of Pearls	Rural	2	
Florence	Rural	1	
Greater Hermiston	Rural	2	
Lake County/Lakeview	Rural	1	
Newberg	Rural	1	
North Santiam	Rural	1	
Silverton–Mt. Angel	Rural	1	
South Douglas County	Rural	1	
South Santiam	Rural	1	
Clatsop County	Rural	0	1
Coquille Valley	Rural	0	
CTUIR Tribal	Rural	0	
Curry County	Rural	0	
Estacada	Rural	0	
Fossil	Rural	0	
Gilliam County	Rural	0	3
Gold Beach	Rural	0	
Harney County	Rural	0	
Oakridge/Westfir	Rural	0	
Sandy	Rural	0	
Sherman County	Rural	0	3
Stanfield–Echo	Rural	0	
Veneta	Rural	0	
Warm Springs Reservation	Rural	0	
West Valley	Rural	0	
Woodburn–Gervais	Rural	0	
Umatilla County	Rural	na	3
Washington County	Urban	na	3
Clackamas County	Rural	na	1
North Klamath County	Rural	na	
Total		**376**	**20**
Urban		**211**	**3**
Rural		**165**	**17**

Rural zone managers reported that the SEZ and LRZ programs help to make them more competitive with potential urban locations. A community must be able to meet a company's basic site and labor requirements, although having an enterprise zone may allow them to "get on the list" and become a contender for a project otherwise less likely to consider a rural location. Site selectors that were included in the interviews noted that they may receive a very different reception from rural zone managers where their project is a big deal, versus urban zone managers where their project is just one of many.

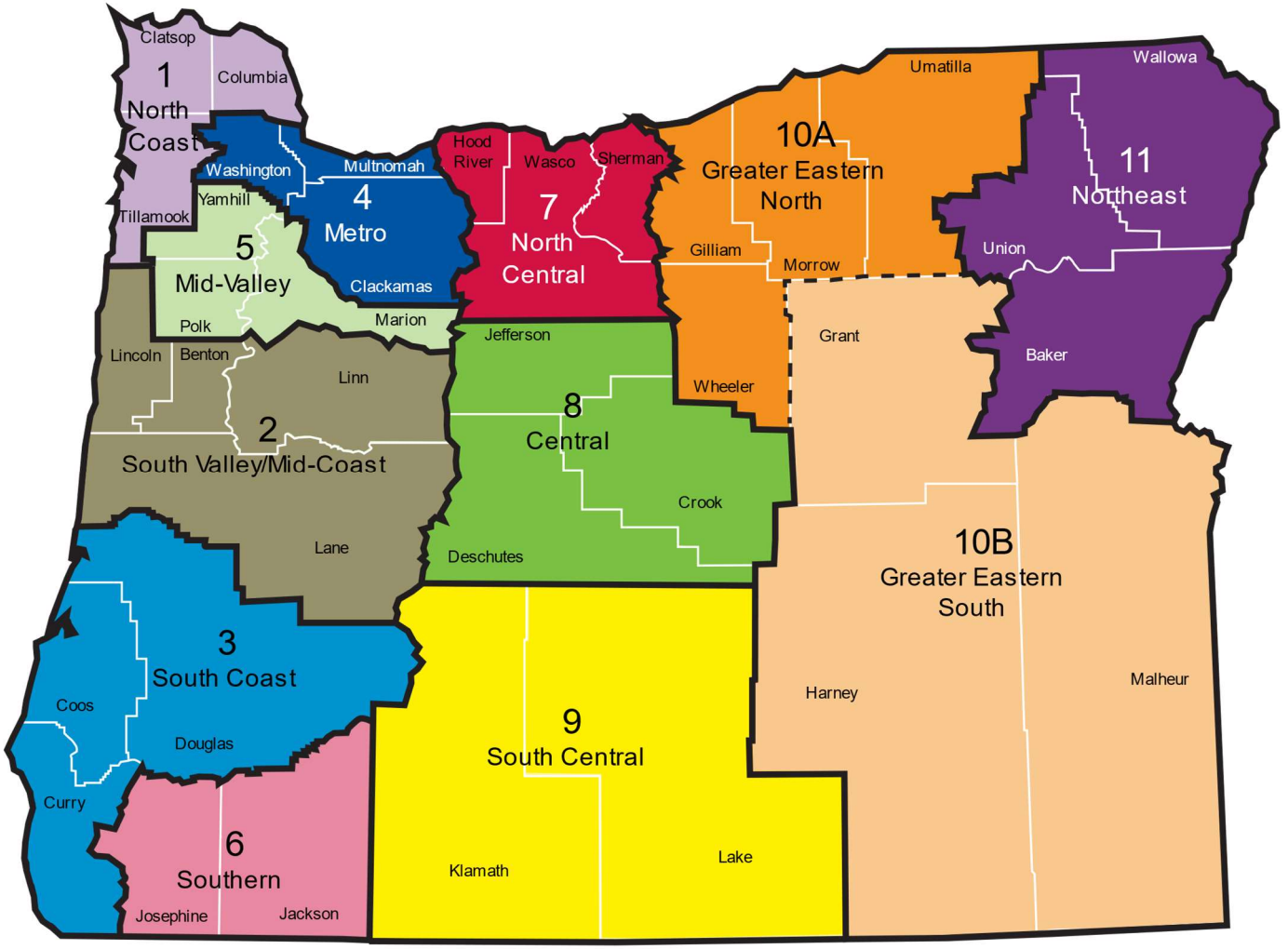
Figure 6 breaks down the employment change represented in the QCEW dataset by region.[10] The companies are grouped into 11 multi-county regions defined by Business Oregon (**Map 1**). A total of 36% of the companies are in the Metro region accounting for 69% of employment change. The other significant regions in terms of employment are the South Valley/Mid-Coast region with 8% of the employment change, and the Greater Eastern and Mid-Valley regions, each with 6% to 7% of employment change. Although the Greater Eastern region is very rural, there are a relatively large number of companies, including data centers qualifying for incentives.

FIGURE 6
NUMBER OF COMPANIES AND EMPLOYMENT CHANGE BY REGION

Region	Unduplicated Companies	Distribution	Employment Change	Distribution
North Coast	6	2%	296	1%
Mid-Valley	18	6%	1,913	7%
South Valley/Mid-Coast	41	14%	2,274	8%
South Coast	10	3%	428	2%
Southern	17	6%	481	2%
Metro	108	36%	19,103	69%
North Central	12	4%	199	1%
Central	49	16%	1,290	5%
South Central	5	2%	40	0%
Greater Eastern	27	9%	1,535	6%
Northeast	7	2%	108	0%
Total	**300**	**100%**	**27,668**	**100%**

[10] https://www.oregon.gov/biz/aboutus/regions/Pages/default.aspx

MAP 1
BUSINESS OREGON SERVICE AREAS (REGIONS)



Source: https://www.oregon.gov/biz/aboutus/regions/Pages/default.aspx

3.0 Economic Impacts of Job and Payroll Growth

3.1 Approach for Estimating Change in Employment

The economic impacts used in this study are based on the change in employment for companies receiving property tax incentives The range of years included in the net change varies by company depending on when a company first applied for an incentive. For companies that received multiple incentives tied to the same QCEW record, the employment and payroll change is based on the earliest application date. As such, the base (or starting) year from which to measure employment and payroll change is the year prior to the year that a company applied for an incentive, unless it applied in the final three months of the year, in which case the year of application is used as the base for calculating existing employment. Generally, program compliance is based on increases above the annual average employment of the company compared to the 12 months preceding an application date.

After some consideration, 2019 was selected as the end year for the employment change calculations. There were economic disruptions in 2020 due to the pandemic that create noise in the data, so that 2019 was determined to be a better end point. The exceptions are the 44 projects where the property tax exemption did not begin until 2020, in which case the end year for employment change is 2020. However, total employment growth for companies in these incentive programs is still greater through 2020 than through 2019, despite instability or noise attributable to the COVID pandemic.

3.2 Economic Impact Methodology

The economic impacts are expressed in terms of output, labor income and jobs. There are four categories of impacts for each of these variables: direct, indirect, induced and total. The direct impacts represent the change in jobs and payroll, or labor income, taken directly from the QCEW dataset described in section 2.1 Indirect impacts represent estimated local supplier purchases made by companies participating in the SIP, SEZ and LRZ programs from other businesses in the state. By definition, indirect impacts only include inputs to a production process and not capital equipment. Induced impacts represent in-state purchases made by direct and indirect employees as part of their normal household spending. The indirect and induced impacts are estimated using IMPLAN economic multipliers that are specific to the State of Oregon. Background on the IMPLAN model can be found in **Appendix D.**

Economic multipliers that are used to estimate economic impacts are generated using an input-output model. This is a statistical model that quantifies relationships between different industries. Input-output models examine the pattern of purchases by industry, and the associated distribution of jobs and wages by industry. They identify all the industries from which, for example, a semiconductor manufacturer purchases its supplies and in what proportion within Oregon. In turn, the model then identifies the industries that are suppliers to these suppliers, or “second-generation” suppliers. This continues until all major purchases are accounted for contributed to the manufacturer’s original purchases. The original purchases and subsequent rounds of purchases by local suppliers are captured in the indirect impacts. In addition, there are induced impacts associated with the manufacturer’s payroll and purchases. These include the effects of retail and other expenditures made by the additional manufacturing workers and by the employees at supply-chain businesses.

The size of these indirect and induced impacts depends upon the definition of the study area, as well as the nature of the economy within the region. A large region with a relatively closed economy should be able to meet most of the demand created by businesses and their employees through industries also located within the region, capturing more of the output, labor income, and jobs impacts locally. In a region like this (such as the entire state of Oregon, as in this study), the multiplier effects are relatively large, with a sizeable share of the multiplier effects captured within the state. In contrast, a small region with an open economy (such as a smaller city) would have a more limited array of producers providing goods

and services, and sales would leak to other regions, such that many purchases would be made from industries outside the local economy, thus decreasing the multiplier impacts on the local economy.

To summarize, input-output models measure output, jobs and labor income in three different ways:

- "Direct" impacts are the jobs, payroll or labor income, and output of the primary companies in the study that participated in the incentive programs.
- "Indirect" impacts are the changes in inter-industry purchases as suppliers respond to new demands of directly affected industries. For the 362 projects included in this analysis, indirect impacts reflect the spending by the companies and their suppliers, in purchasing goods and services from second-, third- and fourth-generation suppliers, to meet the additional demand generated by these companies' growth during the incentive period. Indirect impacts also capture the share of suppliers' payroll (or employee wages) supported by that growth. For example, when a manufacturer's expansion causes it to buy additional goods and services, its vendors will in turn expand their employment to meet the increased demand for inputs.
- "Induced" impacts capture changes arising from spending by employee households as income increases due to additional production and hiring. Induced impacts reflect the additional spending by the direct employees of the companies in the study, as well as employees throughout the supply chain.

This study applies IMPLAN multipliers for the State of Oregon to the change in payroll to estimate the increase in direct output, as well as all indirect and induced impacts in terms of jobs, labor income and output. Using multipliers specific to the State of Oregon has two effects. First, it reflects state-specific conditions in terms of the direct relationships between output and payroll, and inherent relationships among output, jobs and labor income. In addition, using multipliers for Oregon captures the magnitude of indirect and induced impacts that could be generated within the state based on the current economic base.

The IMPLAN multipliers are also specific to the industry represented by each project/company in the dataset to capture the total level of in-state indirect and induced impacts that could occur. Relationships such as the value of direct output per dollar of labor income and labor income per job vary significantly by industry type. In total, multipliers for 135 different industries were used in this analysis, highlighting the diversity of industries that participate in these incentive programs.

Since this economic impact analysis is based on the total change in jobs and payroll, rather than the amount in any given year, converting the QCEW payroll information into constant dollars is necessary prior to calculating the change, in order to isolate actual company growth versus inflationary increases in payroll. The Employment Cost Index for the Pacific Census Division (which includes Oregon) published quarterly by the Bureau of Labor Statistics was used to convert payroll into constant dollars. Quarterly index data was averaged to create an annual index. The annual index data from 2005 to 2020 was then adjusted so that the basis for 2020 = 1. All payroll data was then converted to 2020 dollars using a year-specific index.

3.3 Economic Impact Results

Figure 7 and **Figure 8** show the economic impact results by industry sector. The total economic impacts for all companies combined are estimated at $17.4 billion in output, $5.0 billion in labor income and over 71,000 jobs. These total impacts are driven by a change in direct payroll of $2.3 billion from the QCEW data, and an accompanying change in direct jobs of 27,668.

For output, this represents an average multiplier of 1.77, although the actual multipliers vary widely from industry to industry. This means that for every $1 million in increased output by the participating companies, there was a $770,000 increase in output at other companies in the state that are suppliers to the participating companies, or that sell consumer goods to the employees of the participating companies and of their suppliers. These impact results represent a change during the period when each company was receiving their property tax abatement, which varies from company to company.

The largest impacts by sector, both direct and total, are in manufacturing. The second largest output impacts, both direct and total, are in information, however the second largest job impacts are in transportation and warehousing, which is significantly more labor-intensive than the information sector that primarily represents data centers in this analysis. These results by sector are consistent with the types of companies participating in the enterprise zone and SIP programs.

The economic impacts and other results from the study can be aggregated by region based on multicounty service areas as defined by Business Oregon (see Map 1).[11] **Figure 9** and **Figure 10** show economic impact results by region of the state. The Metro region accounts for about 74% of the total impact in terms of output. As noted in Figure 6, 36% of the companies in the final dataset are in the Metro region accounting for 69% of the direct employment change and 71% of the total job impacts (including indirect and induced jobs). There are a couple of very large companies in the Metro region using SIP, namely Intel and Genentech. There are also many companies both large and small located in the Metro region that are receiving SEZ incentives, including Amazon fulfillment centers that started using the SEZ only in the past couple of years. The ten urban enterprise zones in that region contribute to its ability to compete with similarly sized metropolitan areas in other states for new and expanding projects.

Smaller metro areas and non-metro areas in the state tend to attract different types of industries, and account for close to 200 of the 300 unduplicated companies/projects in the dataset. The participating companies in rural and other metropolitan areas tend to be somewhat smaller in terms of employment, and therefore account for a smaller share of the job growth. The Greater Eastern region accounts for 8% of the new jobs created by companies in the dataset; the South Valley/Mid-Coast and Central regions each account for 5%, and the rest of the state accounts for 8%. The South Valley/Mid-Coast and Central regions also have the largest economic impacts after the Metro region.

[11] https://www.oregon.gov/biz/aboutus/regions/Pages/default.aspx

FIGURE 7
DISTRIBUTION OF TOTAL JOB IMPACTS BY INDUSTRY

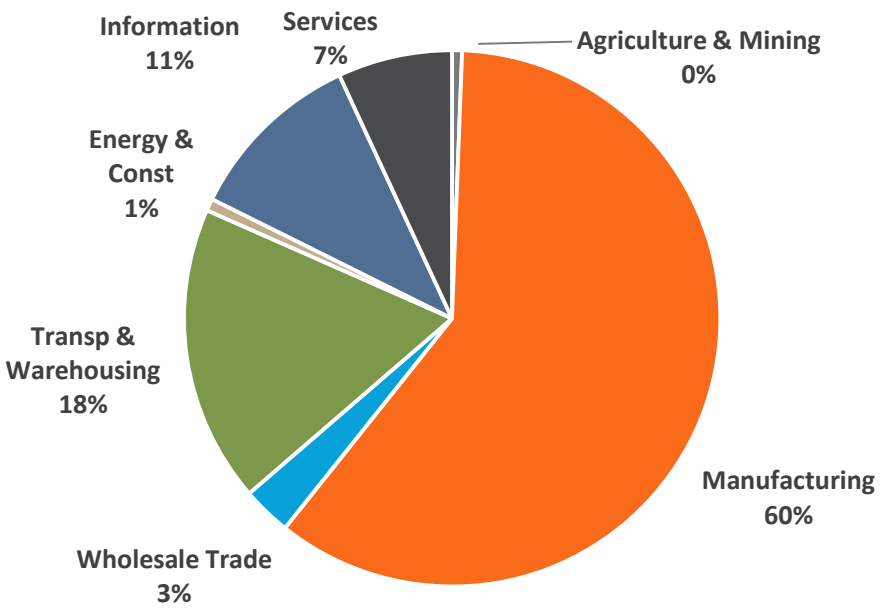


FIGURE 8
ECONOMIC IMPACTS BY INDUSTRY SECTOR
(Millions of 2020 Dollars)

	Direct			Indirect			Induced			Total Economic Impacts		
Sector	Output	Jobs	Labor Income	Output	Jobs	Labor Income	Output	Jobs	Labor Income	Output	Jobs	Labor Income
Agriculture & Mining	$19.82	308	$14.08	$4.77	34	$1.75	$13.69	89	$4.52	$38.28	431	$20.35
Energy & Construction	$136.80	167	$14.12	$62.17	191	$14.51	$24.62	160	$8.13	$223.60	518	$36.77
Manufacturing	$7,343.59	13,463	$1,512.18	$3,055.78	14,783	$1,126.67	$2,248.29	14,600	$742.22	$12,647.66	42,846	$3,381.08
Wholesale Trade	$215.35	862	$55.21	$117.18	700	$42.47	$85.71	557	$28.30	$418.24	2,119	$125.99
Transp & Warehousing	$632.21	8,704	$286.73	$337.03	1,927	$99.46	$331.18	2,151	$109.34	$1,300.41	12,781	$495.53
Information	$1,046.15	1,767	$252.93	$537.87	3,505	$198.14	$369.49	2,400	$122.00	$1,953.50	7,672	$573.07
Services	$423.50	2,398	$191.34	$178.48	1,033	$61.76	$230.28	1,496	$76.04	$832.26	4,927	$329.14
Total	**$9,817**	**27,668**	**$2,326.59**	**$4,293.28**	**22,172**	**$1,544.78**	**$3,303.26**	**21,453**	**$1,090.55**	**$17,413.95**	**71,293**	**$4,961.92**

FIGURE 9
DISTRIBUTION OF TOTAL JOB IMPACTS BY REGION

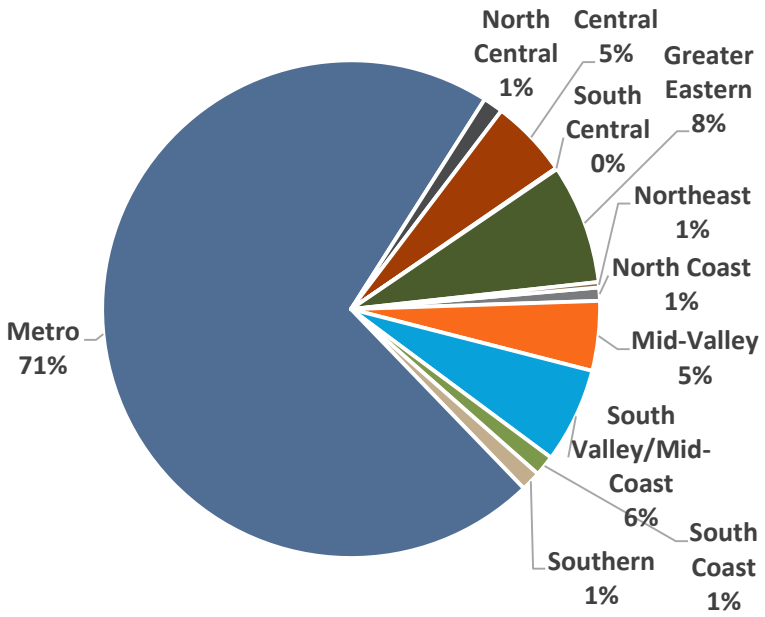


FIGURE 10
ECONOMIC IMPACTS BY REGION
(Millions of 2020 Dollars)

	Direct			Indirect			Induced			Total Economic Impacts		
Region	Output	Jobs	Labor Income	Output	Jobs	Labor Income	Output	Jobs	Labor Income	Output	Jobs	Labor Income
North Coast	$88.35	296	$13.15	$38.19	176	$10.46	$20.50	133	$6.77	$147.03	606	$30.38
Mid-Valley	$249.50	1,913	$84.79	$117.79	628	$37.61	$105.38	684	$34.79	$472.67	3,225	$157.19
South Valley/Mid-Coast	$503.80	2,274	$114.63	$210.60	1,119	$67.09	$156.00	1,013	$51.50	$870.40	4,406	$233.22
South Coast	$97.38	428	$21.23	$57.16	300	$20.28	$35.61	231	$11.76	$190.15	960	$53.26
Southern	$86.46	481	$20.74	$52.40	237	$15.43	$31.06	202	$10.26	$169.91	920	$46.42
Metro	$7,346.87	19,103	$1,805.21	$3,043.72	15,311	$1,139.97	$2,519.16	16,360	$831.66	$12,909.74	50,774	$3,776.84
North Central	$139.26	199	$26.43	$71.58	436	$25.13	$45.19	294	$14.92	$256.03	928	$66.48
Central	$468.05	1,290	$110.11	$221.80	1,353	$75.81	$149.74	973	$49.44	$839.58	3,616	$235.35
South Central	$7.51	40	$1.26	$3.52	16	$1.08	$2.00	13	$0.66	$13.04	69	$3.00
Greater Eastern	$774.91	1,535	$123.66	$454.46	2,516	$146.04	$228.95	1,487	$75.60	$1,458.32	5,538	$345.29
Northeast	$55.32	108	$5.38	$22.07	80	$5.90	$9.68	63	$3.20	$87.07	251	$14.48
Total	**$9,817.41**	**27,668**	**$2,326.59**	**$4,293.28**	**22,172**	**$1,544.78**	**$3,303.26**	**21,453**	**$1,090.55**	**$17,413.95**	**71,293**	**$4,961.92**

Figure 11 shows the total economic impacts by program. It is not possible to show detail on direct, indirect and induced impacts by program due to nondisclosure limitations with the data. In terms of output, 45% of the total impacts can be attributed to the Standard Enterprise Zone that includes 279 companies/projects in the dataset. Long-term Rural Enterprise Zone Facilities represent 6% of total output from 8 companies/projects, and the Strategic Investment Program accounts for 49% of the total impacts from 13 companies/projects.

FIGURE 11
ECONOMIC IMPACTS BY PROGRAM
(Millions of 2020 Dollars)

	Total Economic Impacts		
Program	Output	Jobs	Labor Income
SEZ	$7,765.42	42,081	$2,280.34
LRZ	$1,091.92	4,172	$276.53
SIP	$8,555.31	25,039	$2,404.56
Total	**$17,412.65**	**71,291**	**$4,961.42**

4.0 Employee Personal Income Taxes and Property Taxes Abated

4.1 Employee Personal Income Taxes

Labor income from the economic impact analysis can be used to estimate personal income taxes paid by employees. An increase in state income taxes occurs as a result of employment growth during and after the property tax abatement. It is important to note that income taxes are a recurring revenue source, so an increase in jobs and wages can generate a permanent boost in revenues to the state from participating companies, if they maintain the additional jobs. This study does not include projections of such revenue after 2019/2020.

While income taxes are a state revenue source, they are used to pay for services statewide and to support local governments in various ways. Most notably, a sizeable portion of state revenue (including state lottery money) provides most of the funding for K–12 schools across Oregon. Also with SIP, counties and other local governments receive 50% of estimated personal income taxes from new (direct) jobs, and 20% of estimated taxes from existing jobs at companies participating in the program, up to a maximum of $16 million per county per year out of state personal income tax collections. These Gain Share distributions amounted to nearly $190 million from 2010 to 2020, and under current law they will continue through July 2024. Gain Share was enacted in 2007 to share marginal state income tax gains with local governments. These distributions took effect for SIP property tax exemptions beginning in 2008, starting after the 2009–2010 property tax year. Businesses in the SIP program are required to submit an annual report to Business Oregon documenting the taxes and value of taxable and exempt property, community service fees and other payments, and total annual taxable wages. This information is used to estimate direct employee income taxes for the previous year.

The employee income tax estimates in this study relate to direct, indirect and induced labor income from the economic impacts, over and above the base year levels for each company/project. Annual increments in labor income are used to estimate income taxes. For each company/project, the amount of direct, indirect and induced labor income was divided by the number of jobs to estimate average income per employee. Prior to making this calculation, it was necessary to convert the annual labor income information into current (uninflated) dollars. The average income taxes were calculated using the actual tiered state tax rate schedule for each year, the standard deduction and the tiered personal exemption credit dating back to 2005. Average taxes per employee were then multiplied by the number of employees in each year and converted back to constant dollars. Then the base year amount of constant dollar income taxes for each company's existing payroll (base employment) was subtracted out of the resulting income tax estimate in each subsequent year to estimate the increase in employee income taxes (direct, indirect and induced) related to the increase in payroll associated with the participating companies in the analysis. In cases where the change over the base year was negative, the amount of additional income tax was set to zero.

The results show an estimated $1.9 billion of additional personal income taxes generated by the direct, indirect and induced employees during the impact period as detailed in **Figure 12**. The personal income tax impacts reflect the recurring nature of income taxes paid annually by employees for the historic period of tax abatement covered by this study. During the 2016–2019 period, when most of the companies in the dataset were receiving property tax abatements, employee income taxes average $312 million per year.

FIGURE 12
ESTIMATED ANNUAL PERSONAL INCOME TAXES
FROM DIRECT, INDIRECT AND INDUCED EMPLOYEES

Year	Total Taxes (millions)
2006-2012	$179.61
2013	$104.14
2014	$147.68
2015	$206.69
2016	$253.44
2017	$251.17
2018	$351.45
2019	$392.78
2020	$14.76
Total	**$1,901.72**

Figure 13 shows employee personal income taxes by incentive program, and the average amount of taxes per job. The amount per job is proportional to wage levels, ranging from a high of $17,800 per job for the SIP program to $4,125 for the SEZ program.

FIGURE 13
ESTIMATED PERSONAL INCOME TAXES BY PROGRAM
FROM DIRECT, INDIRECT AND INDUCED EMPLOYEES

Program	Total Taxes (millions)	Average Per Job per Year
LRZ	$81.46	$11,075
SEZ	$604.16	$4,125
SIP	$1,216.10	$17,787
Total	**$1,901.72**	**$9,818**

Estimated income taxes by industry and region are listed in **Figures 14 and 15** and are generally proportional to the economic impacts by industry and region. It is important to note that these are generalized estimates of employee income taxes. Actual results will vary significantly depending on total income of employee households, deductions, and actual wages rather than the averages used here.

FIGURE 14
ESTIMATED PERSONAL INCOME TAXES BY INDUSTRY
FROM DIRECT, INDIRECT AND INDUCED EMPLOYEES

Sector	Total Taxes (millions)
Agriculture & Mining	$3.77
Energy & Construction	$17.71
Manufacturing	$1,533.74
Wholesale Trade	$35.81
Transp & Warehousing	$46.50
Information	$169.29
Services	$94.91
Total	**$1,901.72**

FIGURE 15
ESTIMATED PERSONAL INCOME TAXES BY REGION
FROM DIRECT, INDIRECT AND INDUCED EMPLOYEES

Region	Total Taxes (millions)
North Coast	$12.90
Mid-Valley	$30.85
South Valley/Mid-Coast	$72.16
South Coast	$16.44
Southern	$16.08
Metro	$1,554.19
North Central	$17.85
Central	$77.11
South Central	$0.58
Greater Eastern	$97.22
Northeast	$6.33
Total	**$1,901.72**

4.2 Other Taxes and Public Revenues

When considering the return on investment from these incentive programs, it is important to identify other revenue streams that are created by participating companies to offset the property tax abatements. While it is not possible to gather information on revenue generation at the company level, the interviews identify a variety of revenues that are being generated by participating companies. Examples of revenues generated by participating companies can be grouped into general state and local revenues and project-specific revenues, as follows.

General State and Local Revenues

- Local utility franchise fees (significant for data center projects)
- Corporate income (excise) and pass-through business income taxes
- Corporate activity taxes (a new state tax on the gross receipts)
- Local system development charges and permitting fees

- Construction excise tax (a relatively new local tax available to fund school facilities)
- Local transient occupancy taxes from hotels and other lodging from construction workers, equipment installers, etc. during the construction phase of a project
- Additional property taxes from housing growth and commercial development and appreciation related to workers moving into the community (particularly in rural areas), which might also enhance future bonding capacity for fire, recreation, water/sewer and schools
- Additional payroll taxes in transit districts from new jobs created to support transit system expansion, such as Tri-Met within the Metro region.

While the direction of these revenue streams would generally be positive in relationship to businesses' using the incentives, there are not necessarily the methods, data or resources to quantify them as part of this study. Future efforts to do so might also factor in the relevant cost of former, specialized income tax credits with enterprise zones (as described in Appendix B, section 6).

Examples of Project Specific Revenues

- The City of Umatilla, with a household population of about 5,000 people, went from an average of 10 residential permits per year in 2014–2016 to 72 permits issued in 2020 as a result of job growth created directly and indirectly by enterprise zone companies. This housing growth will create new property tax revenues for the community on an on-going basis, as well as one-time permit fees.
- Facebook paid $2.5 million in system development charges to the City of Prineville, plus $500,000 in permitting and planning fees to Prineville and Crook County. Facebook also pays a 5.5% utility franchise fee to the City of Prineville that will equate to $1 million annually at full buildout.

4.3 Property Taxes Abated

The purpose of estimating economic output and employee income tax revenue is to form a basis for the ROI calculations. These measures represent benefits, or the returns to Oregon. The amounts of property taxes abated through the SEZ, SIP and LRZ programs correspond to the cost or investment part of the return on investment. Business Oregon has collected, maintained and validated detailed information on the property taxes abated each year by project through program records. This section provides information about the amount of property taxes abated through the three incentive programs for the 362 projects comprising this analysis. A detailed description of property taxes in Oregon, constitutional limitations on tax rates and assessed values, and bond levies can be found in **Appendix E**.

The ROI measures that are the key results of this study (see Chapter 6) are based on a comparison of the economic and revenue impacts of the companies in the dataset versus the amount of property tax abatements received by those companies. For this purpose, Business Oregon has provided information by company and by year on the amount of taxes abated for the period from 2007 to 2020. The data do not represent all taxes abated by these incentive programs, but rather the abated taxes specifically associated with the companies in this study during the period they were receiving abatements. The information does capture most of the taxes abated by the three programs from 2015 to 2019. The defining criterion for a project's inclusion in the study is that it effectively received tax abatement in one or both years of the

2019–2021 biennium.[12] The following describes how the property tax information was collected for each of the incentive programs.

- **Long-term Rural Enterprise Zone (LRZ)** – County assessors are obliged by law to report property tax figures for purposes of potential payback to local taxing districts from corporate excise taxes, if the certified business firm were also claiming a former corporate tax credit, so that districts would not be compensated for more than their taxes foregone. The Department of Revenue has received and retained these figures most every year that the program has existed, and the information can be found at the Oregon Open Data Portal (data.oregon.gov) for recent years. Counties share their reports with Business Oregon, which also works informally with local zone sponsors to gather associated program information.

- **Standard Enterprise Zone (SEZ**) – As part of a system involving local duties and options for verification of statutory (and applicable local) criteria, the law provides that enterprise zone businesses must annually file and affirm employment information four to six times over the term of the abatement with county assessment and local enterprise zone officials, in order to begin – and then continue – exemptions on qualified property over three to five years. These data along with estimates of exempt property values and taxes are reported to the Oregon Department of Revenue by county assessor offices, and Business Oregon is copied.

  Over the years, there have been gaps and inconsistencies with this annual SEZ reporting, as found in a 2016 Secretary of State Audit. Business Oregon has worked with counties to validate and improve data quality both before and since the audit, and in recent years, despite growth in the number and complexity of exemptions, the completeness and consistency of the data has reached a level suitable for compilation of hundreds of projects for the Oregon Transparency website and Open Data Portal annually in the past two years. Issues persist, primarily with older data, notably the lack of exact information on the original cost of the investment in qualified property.

- **Strategic Investment Program (SIP)** – Business Oregon receives reports (for currently 20 projects) directly from businesses in the SIP program and has supplemented that with data gathered from counties for the period before 2010. The businesses' reporting of their property value and other figures occasionally contains errors, but it offers an efficient and manageable set of data available to Business Oregon for analysis. (See discussion of Gain Share in section 4.1)

4.4 Adjustments to Property Taxes Abated

In several ways, the abated property taxes as estimated by county assessors or taxpayers do not correspond to the taxes that would actually have been imposed, or the local revenues collected, if the same property had not been exempt. This is not so much a consequence of issues with the data (or even the 'but–for' question of efficacy), but rather that the property is not subject to regular appraisal, assessment and billing. As such, these estimates may overstate the true revenue impact from the property tax abatements by at least 20%, and likely more, according to Business Oregon estimates. This section discusses adjustments that are made to the property tax data, prior to estimating ROI, to account for

[12] Hundreds of other SEZ exemptions concluded in previous years over the past decade, and several SIP and LRZ exemptions ended in recent years. Their specific employment impacts are not included in this study.

compression, shifting and discounts, and describes other issues that are not accounted for in the adjustments.

- **Compression**—County reports multiply the value of exempt property by the consolidated billing rate for the tax code where property is located, which does not include relevant compression. Compression is applied to district tax rates at the point of generating tax bills. It could be approximated in cases where it would be known to arise, but this would be impractical for county assessors in general. Though variable, compression is only a few percentage points on average at most, but it would generally be higher for industrial property associated with the incentives in this study.
- **Shifting**—Because of remaining true levies (especially school bonds) a substantial amount of the estimated property tax abatement is passed on (shifted) to other taxpayers and does not reduce public revenue, which is the measure used by the study to gauge return on investment.
- **Discount**—All taxpayers receive a 3% reduction in their property taxes if they pay in full by the initial due date, which is not incorporated into initial estimates of abated property taxes. The Oregon Department of Revenue provided estimates by county on the average effect of the discounts.
- **Valuation**—Before assessed values and taxes are computed, public appraisers must determine a property's fair or real market value.[13] Machinery and equipment, or other tangible personal property, is depreciated according to specific schedules provided by the Department of Revenue for different types of equipment and personal property. Industrial real estate can be very challenging to value due to its uniqueness and illiquidity. Most counties account for some valuation effect, oftentimes through trended depreciation, especially for larger projects and in urban areas, but it is not fully represented in the data and likely contributes to some overestimation of revenues foregone.
- **Assessment**—Like the issue of valuation, it is unclear how completely or accurately counties apply Change Property Ratios (CPRs), or caps on the annual growth of assessed value when estimating exempt property values, particularly during SEZ exemption periods. In some counties, it is likely that the end of the abatement period often triggers the application of CPRs for actual tax computations. In any case, such constraints on assessed value are much less relevant for the types of property covered by the incentives in this study than for determining assessed values across the whole property tax system. The considerable decline sometimes observed in the amount of property taxes imposed after an exemption period has ended, compared to earlier estimates, underscores the significant effect of this and the previous factor, as valuation becomes more meaningful and closely scrutinized, and change property ratios more thoroughly applied.
- **Gaps in Data**—As noted above, there are issues with the quality of reporting from year to year, that should impart little or no bias to the ROI calculations in terms of making them consistently higher or lower.
- **Concomitant Nonexempt Property**—Exemptions and reporting for LRZ and SIP are quite comprehensive, but improvements to the land, or changes in its use or entitlements, can increase taxable value that is not exempt. Additionally in the case of SEZ, sometimes significant personal property (e.g., forklifts, furniture, etc.) does not qualify for abatement. Upgrades or installation

[13] Called Measure 5 value or M5V in Oregon Department of Revenue Research Section, *Oregon Property Tax Statistics: Fiscal Year 2020-21*, Salem, Oregon (PTS 2021).

of equipment owned by utilities are another example of additions to tax generating property value (less shift) that could be treated as an offset to the taxes abated through incentives.

In some cases, the incentive would have also depended significantly on a prior construction-in-process exemption, on the property while it was being built or installed (see Appendix B, section 6). This would counterbalance, to some extent, the tendency of the above factors to overstate abated property taxes. It should be noted that one such exemption has been generally applicable throughout Oregon since 1959 and might thus be considered a normal part of taxation.

Figure 16 shows the quantifiable adjustment factors for compression, shifting and discounts estimated by Business Oregon based on *Oregon Property Tax Statistics: Fiscal Year 2020-21* with further Department of Revenue guidance. These factors by county were applied to the amount of property taxes abated for each of the projects in the study prior to estimating return on investment. These same factors were also applied to property taxes paid by SIP participants on non-abated property.

FIGURE 16
ADJUSTMENT FACTORS FOR ABATED PROPERTY TAXES

County	Shift Due to True Levies	Compression with Modification for Assessment	Tax Bill Discount	Total Adjustment
Baker	99.71%	95.36%	97.49%	92.70%
Benton	88.65%	97.12%	97.28%	83.76%
Clackamas	84.69%	98.02%	97.37%	80.83%
Clatsop	81.89%	98.95%	97.38%	78.90%
Columbia	90.13%	98.58%	97.32%	86.47%
Coos	89.86%	99.42%	97.42%	87.03%
Crook	91.13%	99.35%	97.48%	88.26%
Curry	91.34%	99.97%	97.47%	89.00%
Deschutes	85.52%	99.55%	97.37%	82.89%
Douglas	95.52%	98.72%	97.52%	91.96%
Gilliam	97.29%	97.72%	97.16%	92.37%
Grant	89.61%	99.12%	97.61%	86.69%
Harney	97.62%	94.05%	97.62%	89.63%
Hood River	84.25%	96.25%	97.46%	79.03%
Jackson	88.82%	99.38%	97.39%	85.97%
Jefferson	82.75%	97.88%	97.37%	78.86%
Josephine	96.49%	99.74%	97.41%	93.75%
Klamath	92.18%	98.48%	97.40%	88.42%
Lake	94.68%	96.62%	97.44%	89.13%
Lane	83.82%	98.24%	97.33%	80.15%
Lincoln	84.08%	99.60%	97.40%	81.57%
Linn	85.36%	97.31%	97.31%	80.83%
Malheur	91.50%	98.34%	97.48%	87.71%
Marion	79.39%	99.42%	97.32%	76.82%
Morrow	88.39%	93.13%	97.19%	80.01%
Multnomah	84.30%	93.88%	97.37%	77.06%
Multnomah*	74.86%	93.88%	97.37%	68.43%
Polk	84.01%	99.69%	97.29%	81.48%
Sherman	100.00%	94.89%	97.18%	92.22%
Tillamook	86.06%	99.59%	97.43%	83.51%
Umatilla	83.12%	95.99%	97.37%	77.69%
Union	89.66%	97.91%	97.38%	85.48%
Wallowa	99.87%	99.43%	97.34%	96.66%
Wasco	96.75%	97.41%	97.42%	91.82%
Washington	80.74%	98.91%	97.28%	77.69%
Wheeler	96.26%	91.57%	97.65%	86.07%
Yamhill	82.33%	99.57%	97.36%	79.82%

Source: Business Oregon based on PTS 2021 with Department of Revenue guidance.

* For two Portland enterprise zones to account for Gap Bond levy.

5.0 Local Benefits from Incentivized Projects

The interviews suggest that companies receiving incentives contribute to local communities in other ways: providing certain training or other benefits to employees, using local vendors, meeting sustainability goals, and making charitable contributions. There are also local property tax revenues arising from investment in non-abated property, or from valuation adjustments. The following sections provide specific examples of these types of local benefits, including statutory or locally required fees or payments.

5.1 Local Fees, Negotiated Payments and Other Requirements

The ROI calculations include a variety of local fees and payments as additional revenues that offset the abatements, in addition to the taxable portion of SIP project investments. The interviews offer specific examples of how these local agreements are applied, as discussed in sections 5.2, 5.3 and 5.4.

5.1.1 Application Fees

Statutes provide for two types of formal application fees. In processing the initial application for SEZ authorization, the zone sponsor may impose a fee that can be as high as $200 or 0.1% of the estimated cost of qualified property, although many zones do not collect application fees. Within such limits, the interviews reveal that zones that charge an application fee may specify minimums, tiered amounts, or even a maximum for large projects. This fee is intended to defray costs associated with program administration and may be shared with the county assessor's office, according to the interviews.

For SIP applicants, there is a filing fee of $5,000 to $10,000 (depending on whether the project is rural or urban) that Business Oregon is obligated to collect, which can allow project work to commence, even while county approval is still pending. After the SIP application is approved by the Oregon Business Development Commission, the company must also pay an additional $10,000 to $50,000 fee to the state, 50% of which goes to the Department of Revenue.

5.1.2 Local Agreements

State law allows local governments to impose additional reasonable requirements on businesses in order for them to receive tax abatements, in certain cases, primarily 1) under a policy and standards adopted by the sponsor (only) of an urban enterprise zone, of which 12 of 18 such zones have such policies; and 2) as described in program summaries (See Appendix B), in situations that entail a negotiated agreement between a local government and a specific business. These agreements may include recurring obligations for businesses based on local policies implemented by the zone sponsor, but the number of zones or situations involving such agreements is fairly limited. In many cases, the agreement contains no additional local conditions, but only statutory wage and compensation requirements in the case of the extended (five-year) SEZ abatement. Some of the Metro-region urban zones, to which these statutory requirements do not apply, instead substitute criteria based on minimum wages for all abatements.

It is not within the purview of this study to comprehensively examine all instances of local requirements, but they may merit further research. Local requirements give city, port, county or Tribal governments the opportunity to exercise local control and discretion in addressing immediate impacts of development, recouping resources, and pursuing local policy objectives. Nevertheless, businesses and site selectors who were interviewed, especially those with experience looking at multiple options within Oregon, cited these local requirements as adding a layer of uncertainty, as well as complexity in understanding the incentives and correspondingly evaluating specific locations as part of a site selection process. The interviews also revealed confusion about the respective role of state statutes, state agencies and local governments in this regard. Observations from the interviews and the steering committee suggest a perception that a

local area's ability to seek certain additional conditions may be constrained by staff capacity to administer those requirements, and the relative competitiveness of the area for economic development.

5.2 Examples of Local Monetary Requirements

Local monetary requirements are fairly common wherein businesses will make special payments designated as flat amounts or based on formulas under urban zone policies or negotiated agreements. Overall, as quantified in the ROI analysis, these monetary requirements can contribute measurably to the return on investment associated with the incentive programs and are an important offset to the property tax revenue foregone locally during the abatement period.

Examples of local monetary requirements associated with SIP agreements include the following:

- Intel is required to pay $2.87 million per year as a Guaranteed Annual Payment (GAP) to Washington County from 2014 through 2044 as a local condition of its agreement. This agreement also requires Intel to pay an annual Fee in Lieu of Property Taxes equal to the taxes that would otherwise have been payable on the new investment in real estate (excluding construction in progress) plus the community service fee multiplied by the cumulative total of all investments to date divided by $100 billion.
- The agreement between Vadata (Amazon) and the City of Umatilla requires the company to pay an Additional Annual Improvement Payment of $4.0 million per year throughout the 15-year SIP exemption period. Should the project result in more than five data centers, there is an annual fee of $750,000 per additional data center.
- The agreement among Georgia-Pacific, Lincoln County and the City of Toledo requires the company to pay a Community Impact Fee equal to 10% of the annual property tax savings from the SIP exemption in addition to the statutory community service fee.
- In the Willow Creek Wind Project agreement, Gilliam and Morrow counties require that the company pay an additional amount if the amount of property taxes due in a given year is less than the Minimum Revenue Amount in either county. This Minimum Revenue Amount is equal to the nameplate capacity of the project in megawatts multiplied by $7,048 (Gilliam County) or $8,784 (Morrow County). The company is also required to pay a School Grant equal to $40,000 per year for five years to the Ione District in Morrow County to fund renewable energy education, and to make a similar grant in Gilliam County equal to $20,000 per year for five years as a condition of its SIP agreement.

While monetary requirements are less common with enterprise zones than SIP, special payments or fees do occur with zone sponsor agreements for five-year abatements and in some urban zones, as well as every LRZ facility. A few selected examples are included here:

- Home Depot must contribute 15% of its property tax savings into a Workforce Training and Business Development Fund administered by Prosper Portland, which is a standard condition imposed in the two City of Portland enterprise zones.
- Cascade Holdings is required to pay $87,751 per year for five years to the Columbia County Economic Team as a condition of an extended SEZ agreement. This amount is equal to 10% of the estimated annual property tax savings from its exemption.
- Worldwide Structures Property Company is required to make a cash contribution equal to 50% of the tax savings in year 4, and 75% of the tax savings in year 5, to support public infrastructure, economic development or public services in Wasco County as a condition of an extended enterprise zone agreement.

- Google is required to pay Initial Project Fees equal to $1.45 million or $0.16 per cubic foot of data center building space to The Dalles and Wasco County (zone sponsors), and to pay an Annual Project Fee equal to $1.0 million or $0.114 per cubic foot per year throughout the 15-year exemption period as a condition of its LRZ agreement.

The West Eugene Enterprise Zone requires all projects to make a public benefit contribution equal to a percentage of the property tax exemption in a given year. Each business is evaluated on a broad range of criteria related to business size, wage levels, local hiring and sourcing, employee benefits, sustainability, redevelopment, health insurance, worker training and advancement, and investment size. If a business fails to satisfy enough criteria based on a point score, it must make a public benefit contribution of up to 25% of their property tax exemption. The contribution is allocated to the city, county and local school districts. The property tax abatement is further limited to $32,000 per year per job created. If the actual property tax savings exceeds this amount, then a public benefit contribution is required.

The way in which local governments use these special funds varies. In some cases, they are dedicated to community impacts from the program, and in other cases they support local administration of the enterprise zone. The interviews also included examples of funds that are dedicated to a needed community resource such as buying a lawnmower for the cemetery district, funding community park developments, or a direct investment in the sanitary district.

5.3 Examples of Local Non-Monetary Requirements

Whether by agreement, or more often as a function of certain urban enterprise zone requirements, zone sponsors may also have non-monetary conditions for community or "public benefits" to be performed by the business receiving property tax exemption. Non-monetary requirements may include local hiring practices, workforce development such as training in year 4 or 5 of an extended SEZ abatement, annual reporting on use of local vendors and construction labor, or land donations for public use. A few specific examples described in local agreements are included here as illustrations of the variety of potential non-monetary requirements.

Pursuant to the East Portland Enterprise Zone policy, the recent agreement between Home Depot and Prosper Portland requires the company to pay all employees at least $15 per hour after the first year and provide total compensation (wages plus benefits) of at least $20 per hour. Home Depot must demonstrate that it is making a good faith effort to provide career ladder opportunities for employees. The company is also required to comply with the Prosper Portland Board of Commissioners' Equity Policy and submit a procurement plan to outline how they will increase the share of goods and services purchased from local businesses, particularly businesses owned by people of color or located in priority neighborhoods.

Benton County and the City of Corvallis have a significant list of non-monetary requirements for SEZ applicants and additional requirements for extended abatements. These include a series of conditions related to sustainability such as green building, alternative energy use and green technology, as well as sustainable business practices for measuring energy use and waste, utilizing a sustainability management system, conducting routine energy audits, and potentially redesigning products and packaging consistent with enterprise zone sustainability goals.

5.4 Charitable Contributions

Local governments place a great deal of value on the corporate citizenship and local leadership that businesses receiving incentives may bring to a community. In many cases new and expanding businesses

receiving incentives lend support to local charitable causes. Some contributions are purely voluntary, while other times they relate to requirements that are included in a SIP or enterprise zone agreement.

- The 2014 SIP agreement between Intel and Washington County requires Intel to pay a Charitable Fee of $100,000 annually for six years, beginning in 2014. These funds are earmarked for public or non-profit organizations fulfilling a public purpose in Washington County. The county administrator selects recipients for this funding, subject to Intel's approval.
- The enterprise zone agreement among ConAgra, Morrow County, Port of Morrow and City of Boardman specifies that the company may make Charitable Payments to any charitable organization or government entity that directly benefits the county, or it can make housing allowance payments to a local housing project that assists employees to reside within the county. In return for these voluntary contributions, the company can reduce required annual fee payments to the county by up to $100,000 per year.
- The SIP agreement among Genentech, Washington County and City of Hillsboro includes more general conditions for community support indicating that "to the extent reasonable" the company shall provide financial and in-kind support for local schools and other educational institutions in the area, along with research grants to local area professionals and researchers.

Based on the interviews, some zones designate a portion of local fees collected to be donated by the company to other organizations in the community/county to model philanthropic giving expectations. Zone managers hope that these local philanthropic efforts will continue after the agreement ends. One example reported by the Port of Morrow for the Columbia River Enterprise Zone included $100,000 of local fees that were self-directed by the company to local non-profits and other community organizations in Morrow County. Other agreements simply require companies to support a needed community resource. There is wide variation in the type of community contributions depending on company, and the needs of a specific community.

According to one local zone manager, companies in the enterprise zone often exceed the required or requested level of annual charitable contributions. While this is certainly a desirable outcome, companies and site selectors in the interviews commented that firms making significant local contributions are likely already oriented to community philanthropy where they locate. Businesses and their employees may contribute considerably more to community causes or projects without any connection to formal conditions associated with the property tax incentive. A brief sampling of voluntary contributions by companies receiving enterprise zone or SIP incentives is included here.

- Selmet, located in Albany donated 18 new XMT 350 welding machines to Linn-Benton Community College (estimated value of $135,000) in order to create a training environment for students that mirrored the equipment that the company was actually using. Selmet has two facilities with a total of 1,400 employees in Albany.
- Google.org, the philanthropic arm of Google which has a large data center in The Dalles, has awarded more than $14 million in grants to nonprofits and Oregon-based organizations, including the University of Oregon Foundation and Next Door Inc (Help Make Better 50) to provide medical-grade isolation gowns for healthcare workers in North Central Oregon.
- Intel, which employs more than 21,000 people across four campuses in Hillsboro, has supported more than 900 community organizations in the state through employee volunteer time and grants. All total, Intel employees donated 1.6 million hours between 2015 and 2020. Intel employees, retirees and the Intel Foundation also donated $44.9 million to Oregon nonprofits and schools over a five-year period.

- In addition, Intel's ongoing support of Portland Community College provides community outreach and engagement through programming and activities for local high school and middle school students interested in Science Technology Engineering Arts Mathematics (STEAM), inspiring them to pursue pathways to high-wage and high-demand occupations including engineering, computer programming and advanced manufacturing.

5.5 Additional Property Tax Revenues

Although the companies in this study are receiving tax abatements on new capital investment through property tax incentives, there are also situations that occur that generate additional short or long-term property tax revenues for local governments in connection with the tax-exempt investment. Examples from the interviews about new property tax revenues generated under certain circumstances are described below.

- Public land that is acquired by a business for development is added to tax rolls, generating one-time revenues for the selling entity, as well as new, on-going property taxes once in use with a taxable owner or lessee.
- Valuation adjustments for land and other property due to changes in land use, including industrially zone land that was provisionally farm use, result in additional tax revenues. For example, when construction of a solar array to produce power for data processing operations resulted in a zoning change from agriculture to a higher-value zoning, this resulted in the company making a one-time payment on the increase in property value for a 10-year "look back" period, along with future increased tax receipts from the land.
- Additional taxes may arise from improvements to the land that increases its assessed value, personal property or other assets that do not qualify for SEZ, and concurrent investments by integrated vendors, contractors or utility providers located adjacent to or at the same site but not covered by the property tax abatement.
- Additions to the taxable property base after the end of SEZ and other abatements create a continuing revenue stream for local governments. Along with employment and even non-monetary benefits, long-term increases in the property tax base are perceived as the primary benefit of these incentive programs, according to many of the local representatives interviewed. See Appendix E.4 for an example of projected property tax revenues.

6.0 Return on Investment Calculations

Return on investment (ROI) compares the cost or value of property tax abatements to the economic benefits created directly and indirectly by these projects, in the form of total economic output and personal income taxes paid by direct, indirect and induced employees.[14]

Offsets are then applied to the initial ROI calculation to account for special fees or payments required under local agreements or urban zone policies, application fees in statute, and taxes on non-exempt SIP property paid during the abatement period.[15] This results in an adjusted ROI calculation. The ROI serves as a simplistic way to compare the costs and benefits of these incentive programs.

The first set of calculations compares property taxes abated to total economic output. In this case, the ROI considers the general benefit to the state economy from increased economic activity, not only at the subject businesses receiving the incentive, but also at the myriad of other businesses in the state that may benefit from new demand by participating businesses, as well as consumer demand created by their employees. This version of the ROI compares the relatively small cost in terms of local public revenues to a relatively large benefit in terms of increased economic activity or value of production at a wide range of businesses throughout the state.

The second set of ROI calculations compares adjusted property taxes abated to estimate personal income taxes paid by employees. It captures not only the income taxes paid by direct employees from the QCEW data, but also taxes paid by indirect and induced employees from the economic impacts. While this approach does account for the relatively greater economic output impacts among types of industries, it is different than comparing to total economic output because it compares public tax dollars lost to tax dollars gained. This approach yields a proportionately lower ROI because it is limited to the benefits of new taxes and does not account for other benefits in the private-sector economy. This type of ROI measures the extent to which the incentive programs are effectively paying for themselves from a limited tax revenue perspective.

While it is possible to estimate personal income taxes from employees, the companies receiving property tax abatements also generate business income taxes, corporate activity taxes, and other sources of public revenue that offset the property tax abatement. Nevertheless, due to the complexity and unknowns of estimating Oregon business tax liabilities for these companies, these other revenues are not quantitatively included in this study.

6.1 Return on Investment from Economic Output

Figure 17 shows the return on investment by incentive program. The initial ROI figures range from $25.84 for the SEZ program, which has a relatively short term, versus $4.12 for the SIP program and $1.04 for the LRZ program.[16] This means, for example, that for every dollar of property tax abated, SEZ companies generated $25.84 in increased economic output. The cost differences among programs (or the denominator in the ROI calculation) are reflective of the relative magnitude of up-front capital investments made by participating companies in combination with the term or period of the abatement over which foregone property taxes cumulate following a capital investment. The total output impacts (or the numerator in the ROI calculation) are a function of the full extent of increases in jobs and payroll at the participating companies and the multiplier effects on other local businesses. These output impacts do

[14] The information used to estimate total output in the economic impacts is represented in 2020 dollars.

[15] The annual data on abated property taxes and the offsets have been converted to 2020 dollars using IMPLAN deflators that are specific to the state and local government sector. By converting to constant dollars, this allows data from different years to be added together for the purpose of the ROI calculations.

[16] All figures are in 2020 dollars.

not include the one-time economic impacts of construction that are estimated in this study, but not included in the ROI calculation (see Chapter 7).

The estimated amount of property taxes abated is offset by local fees/payments under special agreements, policies or waivers (which are discretionary except for the SIP community service fees), as well as program application fees and taxes on non-exempt property paid by SIP participants. The modified ROI figures after these offsets range from $29.16 for the SEZ to $6.24 for the SIP and $1.18 for the LRZ.

FIGURE 17
RETURN ON INVESTMENT BY INCENTIVE PROGRAM RELATIVE TO TOTAL ECONOMIC OUTPUT
(Millions of 2020 Dollars)

Program	Total Output Impact	Adjusted Property Taxes Abated	Initial ROI	Local Required Fees & Payments	Statutory Application Fees	Taxes on Nonexempt Property	Modified ROI
SEZ	$7,766.71	$289.32	$25.84	$29.47	$2.33	$0.00	**$29.16**
LRZ	$1,091.92	$534.95	$1.04	$34.20	$0.00	$0.00	**$1.18**
SIP	$8,555.31	$1,672.02	$4.12	$400.04	$0.43	$90.12	**$6.24**
Total	**$17,413.95**	**$2,496.29**	**$5.98**	**$463.71**	**$2.75**	**$90.12**	**$7.98**

Note: All figures are in 2020 Constant Dollars

The next set of figures show the same ROI calculations by industry type (**Figure 18**) and region (**Figure 19**). Note that while impacts by region are tied to the location of the company receiving the incentive, the indirect and induced impacts captured by the state-level economic multipliers could be anywhere in Oregon. Similarly, the impacts by industry reflect the industry type for the companies participating in the incentive program, as included in the dataset used in this analysis, but the increase in total economic output is spread across a broad range of industries that provide supplies to these primary companies, as well as businesses where employees make purchases.

FIGURE 18
RETURN ON INVESTMENT BY INDUSTRY RELATIVE TO TOTAL ECONOMIC OUTPUT
(Millions of 2020 dollars)

Sector	Total Output Impact	Adjusted Property Taxes Abated	Initial ROI	Local Required Fees & Payments	Statutory Application Fees	Taxes on Nonexempt Property	Modified ROI
Agriculture & Mining	$38.28	$1.30	$28.48	$0.00	$0.00	$0.00	**$28.49**
Energy & Construction	$223.60	$353.01	-$0.37	$120.73	$0.23	$42.47	**$0.18**
Manufacturing	$12,647.66	$1,410.55	$7.97	$286.68	$0.88	$47.08	**$10.76**
Wholesale Trade	$418.24	$11.29	$36.04	$1.99	$0.31	$0.35	**$47.41**
Transp & Warehousing	$1,300.41	$21.06	$60.75	$4.11	$0.57	$0.00	**$78.42**
Information	$1,953.50	$688.36	$1.84	$48.80	$0.46	$0.21	**$2.06**
Services	$832.26	$10.71	$76.68	$1.40	$0.30	$0.00	**$91.25**
Total	**$17,413.95**	**$2,496.29**	**$5.98**	**$463.71**	**$2.75**	**$90.12**	**$7.98**

The ROI calculations by industry reveal wide variation among industries from a high of $91.25 for the adjusted ROI for services, to a low of $0.18 for energy and construction, with an overall ROI of $7.98 relative to economic output. This is largely due to differences in output impacts by industry. Some types of industries have larger economic impacts relative to the amount of capital investment, particularly those that add value through labor more than through the use of equipment. Manufacturing, which typically creates significant economic impacts, requires a larger capital investment than a service business. This larger capital investment translates, for example, into more property taxes abated, and thus a more modest ROI for manufacturing than for services. Data centers (information sector) and wind farms (energy sector) both require large capital investments and employ smaller numbers of people. While the ratio of

output per employee varies significantly from industry to industry, any combination of low employment and high capital investment (because of the impact on property taxes and economic output) can result in a very low (or even negative) return on investment based on the approach used here.

It is also interesting to note that the level of local fees, which act as an offset to the amount of property tax abated, tend to be significantly higher in proportion to abatement in the energy industry, and to a lesser extent in manufacturing and in transportation and warehousing. This is generally reflective of the practices of specific enterprise zones that tend to have concentrations of certain types of industries and of the combinations of LRZ, SEZ and SIP participants represented in different industry sectors.

As demonstrated in **Figure 19**, there is also significant variation in the ROI by region (see Map 1), although the effects of local fees, statutory application fees and taxes on non-exempt property are heavily concentrated in the Metro region, and to a lesser extent in the North Central and Greater Eastern regions. The highest ROI (both initial and adjusted) is in the Southern region, which has relatively smaller output impacts but also less property taxes abated, resulting in a modified ROI of $73.73. The second highest ROI is in the Mid-Valley region at $72.16, where the total output impact is relatively large, and property taxes abated are small, even without offsetting local fees. The lowest ROI of −$0.32 in the North Central region is a function of low output impacts due to the types of industries there, and substantial capital investment that elevates abated taxes, despite significant local fees. As a result, the impact of the incentive program on the likelihood of the capital investment occurring there takes on even greater significance.

FIGURE 19
RETURN ON INVESTMENT BY REGION RELATIVE TO TOTAL ECONOMIC OUTPUT
(Millions of 2020 dollars)

Region	Total Output Impact	Adjusted Property Taxes Abated	Initial ROI	Local Required Fees & Payments	Statutory Application Fees	Taxes on Nonexempt Property	Modified ROI
North Coast	$147.03	$20.89	$6.04	$8.99	$0.02	$1.63	**$13.33**
Mid-Valley	$472.67	$6.46	$72.16	$0.00	$0.00	$0.00	**$72.16**
South Valley/Mid-Coast	$870.40	$22.90	$37.02	$0.45	$0.02	$0.00	**$37.83**
South Coast	$190.15	$6.02	$30.56	$1.03	$0.05	$0.00	**$37.45**
Southern	$169.91	$2.27	$73.73	$0.00	$0.00	$0.00	**$73.73**
Metro	$12,909.74	$1,399.39	$8.23	$285.25	$2.32	$47.43	**$11.13**
North Central	$256.03	$479.37	-$0.47	$86.63	$0.06	$17.88	**-$0.32**
Central	$839.58	$248.72	$2.38	$4.51	$0.00	$0.00	**$2.44**
South Central	$13.04	$0.26	$49.50	$0.00	$0.00	$0.00	**$49.71**
Greater Eastern	$1,458.32	$299.11	$3.88	$75.52	$0.26	$20.04	**$6.17**
Northeast	$87.07	$10.90	$6.99	$1.33	$0.02	$3.14	**$12.60**
Total	**$17,413.95**	**$2,496.29**	**$5.98**	**$463.71**	**$2.75**	**$90.12**	**$7.98**

Note: All figures are in 2020 Constant Dollars

6.2 Return on Investment from Employee Personal Income Taxes

The next set of ROI calculations use estimated employee income taxes as the numerator and adjusted abated property taxes as the denominator. This includes income taxes paid by employees at the participating companies, as well as income taxes from the indirect and induced jobs and labor income supported by these companies. The return on investment from taxes lost versus taxes gained is naturally smaller than the return on investment from property taxes lost versus the total increase in economic output. Both property taxes and employee income taxes cumulate over time. This version of the ROI calculation would ideally include business income, corporate activity and other taxes or revenue streams that would likely increase ROI values, but they are generally very difficult to estimate.

Figure 20 presents ROI from employee income taxes compared to abated property taxes by program. In addition to the ROI being significantly smaller, the magnitude of variation in the ROI among programs is less than for the output ROI, although the SEZ program still has a notably larger ROI than the other two programs. The offsets are the same as in the previous ROI calculations. Those associated with the SIP program are substantially more than for the SEZ and LRZ. The modified ROI ranges from $1.35 for the SEZ to $0.03 for SIP to −$0.84 for the LRZ. This means, for example, that for every dollar of property tax abated, $1.35 of personal income tax is generated by direct, indirect and induced jobs associated with SEZ participants. The overall modified ROI is −$0.02, which can be interpreted as a break-even, meaning that these programs are covering their costs in net new revenue, albeit only accounting for new state income tax revenues versus local property tax revenues.

FIGURE 20
RETURN ON INVESTMENT BY PROGRAM RELATIVE TO EMPLOYEE PERSONAL INCOME TAXES
(Millions of 2020 dollars)

Program	Employee Income Taxes	Adjusted Property Taxes Abated	Initial ROI	Local Required Fees & Payments	Statutory Application Fee	Taxes on Nonexempt Property	Modified ROI
SEZ	$604.16	$289.32	$1.09	$29.47	$2.33	$0.00	**$1.35**
LRZ	$81.46	$534.95	-$0.85	$34.20	$0.00	$0.00	**-$0.84**
SIP	$1,216.10	$1,672.02	-$0.27	$400.04	$0.43	$90.12	**$0.03**
Total	**$1,901.72**	**$2,496.29**	**-$0.24**	**$463.71**	**$2.75**	**$90.12**	**-$0.02**

Note: All figures are in 2020 Constant Dollars

Figure 21 shows the ROI by industry type. In terms of personal income taxes, services have the highest modified ROI at $9.52 in employee income taxes versus $1.00 of abated property taxes, followed by wholesale trade at $3.14. While average wages in these industries may not be as high as in information or manufacturing, the larger number of employees (both direct and indirect/induced) in services results in more income taxes. In the case of wholesale trade, the amount of employee income tax is modest compared to other sectors, but capital investment, and hence abated property taxes, are relatively low compared to the other sectors. Both information and energy & construction have a negative modified ROI due to the small number of employees and high capital investment in these sectors, despite significant amounts of local payments, application fees and taxes on non-exempt property.

FIGURE 21
RETURN ON INVESTMENT BY INDUSTRY RELATIVE TO EMPLOYEE PERSONAL INCOME TAXES
(Millions of 2020 Dollars)

Sector	Employee Income Taxes	Adjusted Property Taxes Abated	Initial ROI	Local Required Fees & Payments	Statutory Application Fee	Taxes on Nonexempt Property	Modified ROI
Agriculture & Mining	$3.77	$1.30	$1.90	$0.00	$0.00	$0.00	**$1.91**
Energy & Construction	$17.71	$353.01	-$0.95	$120.73	$0.23	$42.47	**-$0.91**
Manufacturing	$1,533.74	$1,410.55	$0.09	$286.68	$0.88	$47.08	**$0.43**
Wholesale Trade	$35.81	$11.29	$2.17	$1.99	$0.31	$0.35	**$3.14**
Transp & Warehousing	$46.50	$21.06	$1.21	$4.11	$0.57	$0.00	**$1.84**
Information	$169.29	$688.36	-$0.75	$48.80	$0.46	$0.21	**-$0.74**
Services	$94.91	$10.71	$7.86	$1.40	$0.30	$0.00	**$9.52**
Total	**$1,901.72**	**$2,496.29**	**-$0.24**	**$463.71**	**$2.75**	**$90.12**	**-$0.02**

Note: All figures are in 2020 Constant Dollars

In looking at the ROI by region based on employee income taxes, the largest values are in the Southern region at $6.07 and the Mid-Valley region at $3.78 (**Figure 22**). The Mid-Valley region captures a relatively large number of total jobs, resulting in more employee income taxes. The Southern region has a modest

amount of employee income taxes, but the amount of taxes abated is also lower given the number of small manufacturing firms in this region with lower capital investments. The modified ROI in the Metro region is only $0.46, due in part to the many SEZ projects with a shorter term than SIP and LRZ, which limits the amount of time over which both income taxes and abated property taxes can cumulate, keeping them more in proportion. Four of the regions have a negative ROI, due largely to wind farms and data centers, which dominate the property tax abatement figures, despite a significant number of smaller firms in these regions, for which the amount of income taxes versus property taxes abated is more proportional.

FIGURE 22
RETURN ON INVESTMENT BY REGION RELATIVE TO EMPLOYEE PERSONAL INCOME TAXES
(Millions of 2020 Dollars)

Region	Employee Income Taxes	Adjusted Property Taxes Abated	Initial ROI	Local Required Fees & Payments	Statutory Application Fee	Taxes on Nonexempt Property	Modified ROI
North Coast	$12.90	$20.89	-$0.38	$8.99	$0.02	$1.63	**$0.26**
Mid-Valley	$30.85	$6.46	$3.78	$0.00	$0.00	$0.00	**$3.78**
South Valley/Mid-Coast	$72.16	$22.90	$2.15	$0.45	$0.02	$0.00	**$2.22**
South Coast	$16.44	$6.02	$1.73	$1.03	$0.05	$0.00	**$2.33**
Southern	$16.08	$2.27	$6.07	$0.00	$0.00	$0.00	**$6.07**
Metro	$1,554.19	$1,399.39	$0.11	$285.25	$2.32	$47.43	**$0.46**
North Central	$17.85	$479.37	-$0.96	$86.63	$0.06	$17.88	**-$0.95**
Central	$77.11	$248.72	-$0.69	$4.51	$0.00	$0.00	**-$0.68**
South Central	$0.58	$0.26	$1.23	$0.00	$0.00	$0.00	**$1.24**
Greater Eastern	$97.22	$299.11	-$0.67	$75.52	$0.26	$20.04	**-$0.52**
Northeast	$6.33	$10.90	-$0.42	$1.33	$0.02	$3.14	**-$0.01**
Total	**$1,901.72**	**$2,496.29**	**-$0.24**	**$463.71**	**$2.75**	**$90.12**	**-$0.02**

Note: All figures are in 2020 Constant Dollars

7.0 Economic Impacts of Construction

In addition to the on-going economic impacts of job creation associated with companies that participate in the three incentive programs that are the subject of this study, there are also non-recurring economic impacts associated with construction. The ability to estimate construction impacts is somewhat limited by the availability of data on construction costs versus capital investment in equipment. Nevertheless, the amount of new construction activity associated with the businesses in this study is substantial, as are the one-time construction impacts. These impacts are not included as part of the ROI, but they are offered as supplemental information that can be used to highlight additional economic impacts of the companies receiving property tax abatements.

7.1 Sources of Information for Capital Investment and Construction Costs

Using information obtained from companies, zone administrators, and county assessor reports for the standard enterprise zone (SEZ) exemptions, Business Oregon compiled data on total capital investment by company/project for the same set of projects used in the ROI analyses. These data sources parallel those used to gather property tax abatement information. Businesses reported the investment costs of their entire LRZ or SIP project through local zone sponsors or directly to Business Oregon. This data was further confirmed by Business Oregon and assembled as cumulative amounts of total investment from 2014 to 2017 or total investment by 2020.

Over that period, the completeness and consistency of data for SEZ investment costs greatly improved, as Business Oregon worked with assessor's offices, though reporting issues and gaps remain. For investment years before 2017, SEZ data are less complete, but still useful, as derived indirectly from business tax filings to claim exemptions on newly invested property. The capital investment is generally assumed to occur in the year prior to the property becoming exempt, but actual timing may vary depending on the process for completing investments, qualifying property and gathering cost data. Capital investment was estimated for 321 of the 362 projects in the dataset for this study. For the remaining projects, 24 had equipment investment but no new construction, and 17 projects had no available data on capital investment in the 2014 to 2020 period.

There are several important assumptions that are necessary in estimating construction impacts, the most important of which is the breakdown of capital investment between real property and personal property, including both movable and fixed equipment. These proportions may vary widely from company to company. Based on the interviews with company representatives, many have little immediate idea of the facility's construction costs versus purchases of machinery and equipment as a portion of overall capital investment because the distinction can be too complex depending on the facility. Smaller projects that involve remodeling facilities and upgrading equipment tend to be mainly equipment, for example, 10% construction/90% equipment. Two interviewees provided high-level estimates of the breakdown of construction and equipment costs for certain types of projects including wood products, for example: 25% construction and 75% equipment; as compared to high tech manufacturing at: 30-40% construction/installation and 60-70% equipment.

To estimate the economic impacts of construction, it is necessary to exclude non-construction capital expenditures. Construction produces economic impacts not only through purchases of materials, much of which comes from within the state (e.g., concrete), but also through labor which generates worker income that will also be spent to a great extent in Oregon. Some of the machinery and equipment, or other personal property that is included in the total capital investment, may likewise be manufactured in Oregon, but there is no systematic way to trace and estimate how much of the total machinery and equipment investment is purchased from local companies. The transportation and installation of the

machinery and equipment may also involve in-state labor or business expenditures that are least partially captured here in the context of construction.

A great deal of variance is inherent in the data for construction or real estate improvements as a proportion of total capital investment, including data that are not captured by one standardized system with uniform definitions. This is the primary reason why the construction impacts are not integrated into the ROI calculations. Business Oregon worked actively with business representatives of LRZ and SIP projects to confirm percentages for approximately how much of their cost of investment was for construction, and not attributable to the purchase of equipment or other personal property. The percentage of total investment allocated to construction was about 42% for these SIP and LRZ projects, and they represent 86% of total capital investment among the three programs combined. For standard enterprise zone exemptions, the following approach was used to estimate construction investment:

- The percentage of investment related to construction was obtained from businesses directly for several of the largest SEZ projects, recent research by the City of Portland, and county property tax accounts, which are most helpful if capital investment is entirely construction, or vice versa.
- These percentages for the share of construction covered 75% of SEZ investments and 97% of the companies/projects overall that are included in this study.
- For larger projects, Business Oregon checked original applications for the project's anticipated breakdown of investment among types of property, and this breakdown was used if it seemed reflective of the finished project.
- With all remaining projects, for which further corroboration as described here was deemed impractical, comprising 12% of SEZ investment (spread across many smaller projects), 50% was assumed for construction. There is significant variation from project to project, even within the same industry depending on whether the project is an expansion or a new business, but this assumption affected only a residual 2% of the total investment captured in this study. (Fifty percent is higher than the average percent of capital investment related to construction as ultimately estimated for all projects at 43%, but smaller projects tend to spend proportionally more for buildings.)
- Finally, there were 17 older SEZ projects without any investment cost data at all, and so no construction impacts were calculated for these projects.

Consideration must also be given to the share of construction materials that may be acquired within Oregon for the economic impact calculations. The IMPLAN model does contain default factors for local construction supplier purchases specific to the economic base of Oregon, and it was necessary to rely on those assumptions in the absence of empirical data required to modify the default settings.

In terms of construction labor, general contractors most often come from the Portland metropolitan area according to the interviews, although some interviewees noted out-of-state contractors originating from southern Washington, or even, for example, from Texas. A few economic development organizations routinely share a list of local contractors and construction firms with new companies moving to the area to encourage bidding and contracting with local firms. Expansion projects typically do use local firms according to interviewees. Overwhelmingly the subcontractors and trades are hired locally, or in the case of smaller markets, within the surrounding area, according to the interviews.

Specialty skills for equipment installation are most often sourced from outside the community, even nationally and globally, depending on the level of expertise required or uniqueness of the specific work to be performed. For the most part, zone sponsors are not tracking construction activity, as the infusion is short-term relative to the overall project value, although the sourcing of contractors does factor into some

local requirements. Companies themselves find it difficult to track where construction workers are sourced in that they often hire only the general contractor.

7.2 Economic Impact Approach

In estimating the economic impacts of construction, the first step was to convert the construction cost data into 2020 dollars using construction-industry specific deflators from IMPLAN, consistent with the IMPLAN deflators applied to abated property taxes and local fees. Once the construction cost data are in 2020 dollars, they can be summed over the 2013 to 2020 period for each company. Total construction expenditures by the 320 companies or projects with available or estimated data total $26.4 billion over eight years, compared to total capital spending of $61.6 billion.

Economic multipliers for construction of manufacturing facilities are applied to construction costs for all manufacturing businesses, and multipliers for construction of commercial structures were used for all non-manufacturing businesses in the dataset. These multipliers rely on default assumptions from IMPLAN about the share of building materials purchased within Oregon, although the actual share of in-state material purchases will vary depending on price, availability and non-economic factors.

7.3 Quantitative Results for Construction Impacts

Construction impacts can be broken down by program, industry and region. In all cases, the direct output is equal to estimated construction costs from 2013 through 2020 (in 2020 dollars). The total economic impacts of construction for companies in the dataset are estimated at $50.5 billion in output, $22.8 billion in labor income and more than 357,000 person-years of employment. These total impacts are driven by estimated direct construction expenditures of $26.4 billion. For output, this represents an average multiplier of 1.92 for commercial and industrial construction. This means that for every $1 million in construction spending by the participating companies, there was a $920,000 increase in output at other companies in the state that are suppliers to the construction industry, or that sell consumer goods to their employees.

These impact results are spread over an eight-year period from 2013 to 2020, with the majority occurring in 2017 or later, due to the timing of the abatements and incentive participation for these companies in the study. Unlike the economic impacts of increases in jobs and payroll presented in previous sections that will recur in the future, construction has a one-time impact. The construction costs used in this analysis are generally rough estimates, and there is considerable potential for variation in both the amount of capital spending and the percent related to construction. As such, the construction impacts are simply a high-level estimate.

Figure 23 shows the total economic impacts of construction by program. Due to program parameters regarding capital investment and the nature of the projects, the SIP program accounts for nearly 70% of the total construction expenditures, and a similar share of the impacts, from just 17 projects in the dataset. In terms of output, only 11% of the total construction impacts can be attributed to the SEZ with 290 companies/projects, and 19% can be attributed to the LRZ with 14 companies/projects. Although they are just one-time, the relatively large construction impacts associated with LRZ and SIP could be viewed as counterbalancing the lower ROI for those programs from the economic impacts of company operations (see section 6.1).

The largest construction impacts by sector, both direct and total, are in manufacturing, due in large part to construction spending by Intel and Genentech (**Figure 24**). The second largest output impacts, both direct and total, are in information, followed by energy. These three sectors account for 95% of the construction impacts. While the energy and information sectors are typically more equipment-focused, labor is required to install that equipment. In the case of data centers, specialized facilities are required

that result in increased construction costs. Manufacturing also typically results in a greater capital investment in both facilities and equipment compared to services or other non-manufacturing industries.

The economic impacts of construction can also be aggregated by region (**Figure 25**). The Metro region accounts for about 63% of the total impact in terms of output and 33% of the companies/projects, followed by the Greater Eastern, Central and North Central regions, each of which account for about 9% to 12% of the construction impacts. The other 7 regions account for the remaining 5% of the construction impacts. This distribution by region is reflective of the number of companies/projects, and the mix of industries in each region.

FIGURE 23
ESTIMATED ECONOMIC IMPACTS OF CONSTRUCTION BY PROGRAM– 2013 TO 2020

	Direct			Indirect			Induced			Total		
Program	Construction Cost (millions)	Jobs	Labor Income (millions)	Construction Cost (millions)	Jobs	Labor Income (millions)	Construction Cost (millions)	Jobs	Labor Income (millions)	Construction Cost (millions)	Jobs	Labor Income (millions)
SEZ	$2,895.72	24,146	$1,656.22	$928.93	4,483	$299.73	$1,690.98	10,997	$558.66	$5,515.63	39,626	$2,514.61
LRZ	$5,291.81	44,545	$3,042.43	$1,665.25	8,061	$536.21	$3,094.21	20,122	$1,022.26	$10,051.26	72,728	$4,600.90
SIP	$18,164.77	147,011	$10,221.50	$6,171.76	29,530	$2,003.11	$10,564.77	68,701	$3,490.24	$34,901.29	245,241	$15,714.85
Total	**$26,352.30**	**215,702**	**$14,920.16**	**$8,765.93**	**42,074**	**$2,839.05**	**$15,349.95**	**99,820**	**$5,071.16**	**$50,468.18**	**357,596**	**$22,830.36**

FIGURE 24
ESTIMATED ECONOMIC IMPACTS OF CONSTRUCTION BY INDUSTRY – 2013 TO 2020

	Direct			Indirect			Induced			Total		
Sector	Construction Cost (millions)	Jobs	Labor Income (millions)	Construction Cost (millions)	Jobs	Labor Income (millions)	Construction Cost (millions)	Jobs	Labor Income (millions)	Construction Cost (millions)	Jobs	Labor Income (millions)
Agriculture & Mining	$25.96	219	$14.94	$8.14	39	$2.62	$15.18	99	$5.02	$49.28	357	$22.57
Energy & Construction	$1,989.33	16,775	$1,144.85	$623.71	3,021	$200.75	$1,163.48	7,566	$384.39	$3,776.52	27,363	$1,730.00
Manufacturing	$16,101.59	129,261	$9,020.91	$5,552.07	26,507	$1,804.60	$9,354.73	60,831	$3,090.46	$31,008.39	216,600	$13,915.97
Food and Beverage Processing	$504.41	4,049	$282.60	$173.93	830	$56.53	$293.06	1,906	$96.81	$971.40	6,785	$435.95
Computers & Electronics	$14,846.02	119,182	$8,317.47	$5,119.13	24,440	$1,663.88	$8,625.26	56,088	$2,849.47	$28,590.41	199,710	$12,830.83
All Other	$751.16	6,030	$420.84	$259.01	1,237	$84.19	$436.41	2,838	$144.17	$1,446.58	10,105	$649.20
Wholesale Trade	$420.39	3,545	$241.93	$131.80	638	$42.42	$245.87	1,599	$81.23	$798.06	5,782	$365.59
Transp & Warehousing	$491.87	4,148	$283.07	$154.21	747	$49.64	$287.67	1,871	$95.04	$933.76	6,766	$427.75
Information	$7,015.40	59,158	$4,037.34	$2,199.51	10,654	$707.96	$4,103.03	26,683	$1,355.55	$13,317.94	96,495	$6,100.85
Data Centers	$7,003.87	59,061	$4,030.70	$2,195.89	10,636	$706.80	$4,096.28	26,639	$1,353.32	$13,296.04	96,337	$6,090.82
All Other	$11.54	97	$6.64	$3.62	18	$1.16	$6.75	44	$2.23	$21.90	159	$10.03
Services	$307.75	2,595	$177.11	$96.49	467	$31.06	$179.99	1,171	$59.47	$584.24	4,233	$267.63
Total	**$26,352.30**	**215,702**	**$14,920.16**	**$8,765.93**	**42,074**	**$2,839.05**	**$15,349.95**	**99,820**	**$5,071.16**	**$50,468.18**	**357,596**	**$22,830.36**

FIGURE 25
ESTIMATED ECONOMIC IMPACTS OF CONSTRUCTION BY REGION – 2013 TO 2020

	Direct			Indirect			Induced			Total		
Region	Construction Cost (millions)	Jobs	Labor Income (millions)	Construction Cost (millions)	Jobs	Labor Income (millions)	Construction Cost (millions)	Jobs	Labor Income (millions)	Construction Cost (millions)	Jobs	Labor Income (millions)
North Coast	$719.12	6,054	$413.48	$226.23	1,095	$72.84	$420.49	2,735	$138.92	$1,365.84	9,884	$625.24
Mid-Valley	$153.81	1,286	$88.09	$49.11	237	$15.84	$89.85	584	$29.68	$292.77	2,107	$133.61
S Valley/Mid-Coast	$224.30	1,814	$126.17	$76.30	365	$24.77	$130.44	848	$43.09	$431.04	3,027	$194.03
South Coast	$35.95	291	$20.24	$12.19	58	$3.96	$20.91	136	$6.91	$69.05	486	$31.10
Southern	$37.57	313	$21.46	$12.11	58	$3.91	$21.93	143	$7.25	$71.60	514	$32.61
Metro	$16,595.20	133,650	$9,313.52	$5,689.31	27,185	$1,848.16	$9,645.60	62,723	$3,186.56	$31,930.11	223,559	$14,348.24
North Central	$2,458.98	20,731	$1,414.96	$771.31	3,736	$248.28	$1,438.12	9,352	$475.12	$4,668.41	33,819	$2,138.36
Central	$2,955.65	24,903	$1,700.19	$928.26	4,495	$298.83	$1,728.44	11,241	$571.04	$5,612.35	40,639	$2,570.07
South Central	$8.94	74	$5.08	$2.94	14	$0.95	$5.21	34	$1.72	$17.09	122	$7.75
Greater Eastern	$3,122.80	26,249	$1,793.97	$985.62	4,769	$317.47	$1,825.59	11,872	$603.13	$5,934.00	42,890	$2,714.58
Northeast	$39.97	337	$22.99	$12.56	61	$4.04	$23.38	152	$7.72	$75.91	550	$34.76
Total	**$26,352.30**	**215,702**	**$14,920.16**	**$8,765.93**	**42,074**	**$2,839.05**	**$15,349.95**	**99,820**	**$5,071.16**	**$50,468.18**	**357,596**	**$22,830.36**

8.0 Impacts of Incentives on Investment and Site Location Decisions

As a supplement to the quantitative analysis on economic impacts and return on investment from property tax incentives, it is important to also understand impacts of incentives on site location decisions, and how they affect the state's economic development competitiveness overall. The purpose of this study is not to determine the efficacy of these incentive programs, and therefore a detailed discussion of cause and effect with incentives and their influence on business decisions to expand or locate operations in a given place or time, is not part of the scope of work. It is not, however, simply a question of whether a particular business would have made a capital investment and created jobs in a particular location without incentives, but also whether the same sort of development would have happened sooner or later as a result of some other company locating there. Given the number of factors at play over the course of a site-selection process or the process of making other types of investment decisions, it is difficult to determine how much incentives expand the level of investment that occurred where it did in Oregon. While this question is beyond the scope of the study, the interviews do confirm the value of enterprise zones as a critical tool for local economic developers and reveal interesting insights about how these programs are viewed by site selectors and companies.

8.1 Importance of Business Climate Assets

In terms of the "but for" question with incentives, there is significant recognition among local economic developers that the question is usually complicated; regional and local attributes or assets, such as land, utilities, transportation accessibility, and the availability of a sufficiently ready or skilled workforce, are often indispensable. Incentives can motivate investors, enhance local attributes, or tip the scales so to speak, but they cannot make a poorly suited location work, or make a weak project strong. Specific assets and locations are prioritized differently by different industries, based on the location strategies of individual companies. Rural areas may have more or less valuable business climate assets compared to urban areas, depending on the type of industry. An example of a rural asset would be larger sites with adequate power resources for a data center; whereas urban areas typically do not have affordable sites of the size needed for large data centers. Urban areas may have greater access to labor and suppliers, but development and operating costs tend to be higher than in rural areas.

All interviewees, including companies, site selectors, local zone managers and economic developers, recognize that incentives alone do not solely determine business investment decisions, such that "the enterprise zone is not a magic wand." Certain zone managers and economic developers stressed the importance of certified or shovel ready sites to garner attention and compete initially, while the availability of an enterprise zone might keep a prospect at the table through the site search process. According to a representative of the City of Salem, one third of all activity in the Salem Enterprise Zone is initially generated because of their certified sites.

Based on the interviews, property tax incentives, in addition to other economic development assets, are critical in supporting a favorable business climate and enhancing Oregon's competitiveness. This is particularly true for the expansion of existing firms, for which there are a limited number of applicable incentive tools. There is recognition that many individuals outside of economic development perceive property tax abatements as being only for new companies coming to Oregon, even though that is not the case.

The enterprise zone program has also been a particularly important tool for small owner-operator companies needing to expand that may have a different approach to site selection than large corporations. One of the zone managers in the interviews attributed 80% of their enterprise zone projects to owner-operators, who were considering leaving the state to expand their operations. Companies find that the temporary property tax relief enables them to project positive cash flow in the years immediately

following their new capital investment, allowing them to re-invest that money to bolster their operations. The sooner they can achieve a positive return-on-investment for their project, the more viable the company and those specific operations become.

8.2 Examples of the Transformational Effects of Economic Development

Below are some brief examples from the interviews about situations where enterprise zone incentives made a difference in a site selection decision, and how new companies that located in enterprise zones have fundamentally improved the economic diversity of the affected communities.

- Lebanon, Oregon, a small timber industry town, was transformed by a new Lowe's distribution center that located in the enterprise zone. Lowe's employs 5,000 people and numerous new developments have now been built in Lebanon because of that project, including new housing and a new medical complex.
- Lonza, a global pharmaceutical and biotech company, acquired Bend Research. Enterprise zone incentives were an important factor in their decision to re-invest in Oregon instead of European facilities.
- Murphy Plywood in Sutherlin experienced $40 million in damage due to a fire in 2005, curtailing all operations and reducing employment to zero. An LRZ application was made, and rebuilding began in July 2006 with an estimated $55 million capital investment, repositioning the mill to manufacture laminated veneer. By 2008, the rebuilt mill opened and it has grown to 106 employees earning an annual average wage of $59,600 (exceeding the required 75 jobs).
- The Swanson Group purchased a plywood mill in Springfield from McKenzie Forest Products. The mill went through an extensive capital improvement process to enable it to produce specialized panels. In 2014, fire consumed that mill. Owners considered not rebuilding or rebuilding elsewhere. They eventually rebuilt, but instead as a specialty mill for value-added products that would diversify their market beyond residential construction. The capital investment exceeded $100 million. The standard enterprise zone had a significant impact for this new facility upgrade, with operations beginning in 2016. This mill is now the company's flagship facility. Employment increased because of the decision to build a specialty mill; whereas rebuilding the traditional mill that had been in operation before the fire would have reduced employment because of newer, more efficient equipment that would have required fewer employees.

9.0 Economic Leakages and Other Costs of Incentives

The focus of this study is primarily on the benefits arising from new and expanding companies in Oregon that receive property tax incentives, and the profound effects that those companies can have on the communities where they locate. However, the discussion would not be complete without an acknowledgement of the potential costs associated with incentives. The information presented here is largely qualitative, and in some cases theoretical, but nonetheless provides some additional context for evaluating the impacts of these Oregon incentives.

9.1 Economic Leakages

The issue of economic leakages addresses the cost side of impact analysis. Besides the obvious loss of potential property tax revenues quantified in sections 4.3 and 4.4, there are other economic costs associated with Oregon's property tax abatement. The framing of these other costs starts with the "but for" question. Some literature on this subject suggests as many as 75% of the jobs created by companies that are receiving incentives across the nation would have been created anyhow.[17] Certainly some companies in Oregon would have located, or expanded, with or without property tax relief, but to quantify probable outcomes of these highly subjective decisions under alternative scenarios would be extremely challenging. The point is really that the benefit from an incentive ultimately accounts for only a relatively small percentage of overall capital or operating costs. Wages, real estate prices and other factors represent a much larger share of overall business expenditures. Relative to other options that businesses may have, the ability of any incentive to tip the scales at the margin in the context of other factors remains indeterminable, at least for the purposes of this study.

The other arguments in the literature about economic leakages revolve around overall changes in the state or regional economy that may occur as a result of a new business, but these may be mitigated within the context of Oregon's incentives.

- New businesses may create competition and displace existing local employers, assuming that demand for their goods and services does not increase. This is one reason why Oregon incentives are targeted at businesses in traded-sector industries that are subject to national or global competition, and that bring new income into the state and community by selling to non-local customers.
- As the local economy expands due to new business activity, it can put upward pressure on wages and local supplier prices, thereby increasing operating costs and reducing profits for existing businesses. [18] While this can certainly occur, these types of consequences are not unique to companies receiving incentives. In addition, the share of new jobs in Oregon created by companies receiving enterprise zone or SIP incentives is still relatively small, and therefore, less likely to create macroeconomic changes that significantly affect labor costs. A very large company locating in a small rural area may well have such an impact locally, although firms that have tended to expand in rural Oregon have made large capital investments and had low employment density, thereby moderating the pressure on local labor markets. Ultimately, a major objective of these incentives and applicable hiring and wage requirements is to raise the standard of living in local communities, especially in the vicinity of enterprise zones.
- Another economic leakage issue is that not all new jobs will go to state residents. In a tight or under-skilled labor market, some of these new jobs will attract more in-migrants from other

[17] Bartik, Timothy J., *Making Sense of Incentives: Taming Business Incentives to Promote Prosperity,* W.E. Upjohn Institute for Employment Research, October 8, 2019.

[18] This can include supplies of natural resources that are less able to adjust to economic growth.

states. This increase in labor supply will mitigate upward pressure on wages, but growth in population (and jobs) creates increased demands on municipal services and infrastructure. New residents, of course, might contribute to the tax base, even while their employer is receiving tax abatements. It is also the case that in rural communities in Oregon, a reasonable amount of population growth is often welcomed for the potential effect on property tax base and existing local retail and service businesses. Elsewhere in Oregon, such growth or in-migration may be largely a given. The interviewees indicated that more jobs are filled by Oregon residents than may be perceived, particularly if training is available that allows residents to acquire the skills necessary for the new jobs.

9.2 Negative Perspectives about Property Tax Incentives from Interviews

The interviews also revealed unfavorable perceptions about the cost of property tax incentives. Despite these perceptions, the responses also strongly confirmed that local governments believed in the longer-term benefits of increasing their tax base, and that incentives have short-term costs associated with more enduring advantages. Some of these perceptions echo issues discussed in previous sections. Negative observations about property tax incentives identified in the interviews include:

- Belief that local government is giving away taxes to companies that would come anyway, or at least did not need assistance
- Concerns of residents regarding impacts such as traffic arising from in-migration
- New/expanding businesses that pay well to attract talent from lower-paying existing companies, resulting in a tightening of the labor market that impacts the minimum-wage service industry and creates overall wage escalation
- Pressure to augment state incentives with more local requirements that may make these tools less effective or more complex
- Increased administrative costs as enterprise zone participation and volume of projects increases, especially with the complexity of programs—at least one assessor's office has had to add staff and invest in new proprietary software to reconcile accounts instead of doing it by hand as they have in the past.

In addition to these comments, there are several other issues that merit discussion with respect to potentially negative impacts of property tax incentives. Most notably, local governments and school districts may see property tax exemptions as a loss to their annual budgets, because they reduce the amount that could have been collected through permanent levy rates. There have been efforts to mitigate the immediate impacts through locally negotiated requirements or fees on businesses for the benefit of affected taxing districts.

Property tax abatements do not impact the budgets of local K-12 school districts and education service districts in the same way as cities, counties or other districts due to equalization funding from the state (see **Appendix E**). If these local property tax abatements did not exist, the conceivably extra statewide funding that now mostly covers education expenditures would be freed up for other uses. The estimated amount of such funding associated with property tax abatements is not insignificant, but it is a rather small proportion of overall school funds in Oregon. In any event, the local tax base of individual school districts does not cover required revenue, and any one district's annual budget is essentially unaffected by new taxable property or an exemption on it.

Nonetheless, the dollar value of property tax exemptions and program participation have grown substantially. **Figure 26** compares the amount of property tax exemptions for the SEZ, LRZ and SIP programs as a percentage of total property tax revenue in 2011–13 versus 2019–21. It should be noted

that 2011–13 was a slower period following the Great Recession, and that the values for the SEZ and Construction in Progress may be understated during this period due to data issues, but the trend is undeniable and not always distributed evenly across the state.

Part of this trend reflects steady growth in the number of enterprise zones over the past 25 to 30 years, and business participation in zones, especially urban zones, has also increased as economic developers effectively use these tools to grow companies in their communities. As a result, property tax exemptions for the enterprise zone and SIP programs combined would equate to about 5.16% of total property tax revenues in 2019–21, versus 2.97% in 2011–13. It is also the case that these exemptions include hundreds of small companies combined with a handful of very large projects. For example, Intel, Design LLC (Google), Vitesse LLC (Facebook), Vadata (Amazon) and Apple accounted for more than 75% of the total property taxes abated in 2019–20.

FIGURE 26
VALUE OF PROPERTY TAX EXEMPTIONS VERSUS TOTAL PROPERTY TAX REVENUES

	2011-13		2019-21	
Incentive Program	Value of Exemptions	% of Property Tax Revenue	Value of Exemptions	% of Property Tax Revenue
Standard Enterprise Zone	$45,600,000	0.46%	$122,300,000	0.79%
Long Term Rural Enterprise Zone	$31,200,000	0.31%	$94,600,000	0.61%
Rural Renewable Energy Zone	$900,000	0.01%	$6,000,000	0.04%
Strategic Investment Program	$209,600,000	2.11%	$550,600,000	3.58%
Construction in Progress	$3,700,000	0.04%	$21,500,000	0.14%
Total	**$291,000,000**	**2.93%**	**$795,000,000**	**5.16%**

Source: Oregon Tax Expenditure Reports 2013-15 and 2019-21.

9.3 Other Suggested Avenues for Future Research

This study provides detailed quantitative analysis on job growth, estimated economic impacts, certain public revenues, foregone property taxes and return on investment for a large dataset of projects/companies receiving property tax abatements in Oregon. There are multiple ways, however, to analyze ROI or evaluate these types of incentive programs, leaving open the potential for additional areas of inquiry. Suggested topics for future research related to the impacts of property tax incentives include:

- Analyzing socioeconomic changes accruing to the regions, localities or populations that the incentives are expected to benefit, which was part of a 2009 Oregon Legislative Revenue Office study of the enterprise zones and the focus of a 2011 published academic paper that included Oregon among other states with enterprise zones; both are briefly reviewed in **Appendix F**. These sorts of changes can be difficult to detect in a statistically significant way, due to noise in the data, and because they can be dwarfed by overall trends in the economy.
- Modifying the ROI calculation to use the public service demands or burdens generated by the new or expanded companies, rather than property taxes foregone, as the cost or public investment side of the equation. Such demands could be considerably less than the property taxes foregone, in that relative to a commercial district or residential subdivision, industrial development in Oregon might tend to demand relatively less in the way of public services funded though property taxes, as opposed to other fees or charges. This conclusion applies to the direct public service demands created by the company, not increased demands arising from new employment and population growth that would entail their own sources of indirect or induced property tax revenue, which this study does not address.

- Evaluations that attempt to formally consider the efficacy of these incentives in Oregon in terms of influencing businesses to make capital investments and to hire at critical junctures, in combination with other business climate factors. While incentives cannot offset major business climate liabilities or deficiencies associated with a given location, they can make a difference in the site selection process among otherwise suitable locations or options for a business to grow, including the role they play in terms of marketing and the perception of economic development competitiveness.

Finally, the current study is intended to capture a broad range of economic and revenue impacts arising from the hiring and investments by companies receiving property tax exemptions in Oregon. While this is the first time a comprehensive study of this nature has been done in Oregon, it may bear repeating on a recurring basis. There may also be efficiencies in regularly performing this sort of analytical work, although maintaining critical sources of property tax data could prove challenging. There are also models and techniques that may offer further insights in measuring the ROI. While there is no reason to expect the quantitative results to change substantively in the short run, certain incentivized investments are exceptionally large and have disproportionate impacts at any one time, and the mix of projects, programs and the Oregon economy will all evolve over time.

Appendix A
List of Individuals Interviewed

From January 20, 2021, through February 4, 2021, Allison Larsen, CEcD, of TadZo LLC completed 18 interviews involving 28 individuals to discuss Oregon's Standard Enterprise Zone (SEZ), Long-term Rural Enterprise Zone (LRZ), and the Strategic Investment Program (SIP). These individuals were selected by Business Oregon and the project steering committee based on their experience and insights on incentive programs.

Google
Tony Boetto, Sr Lead Data Center Economic Development

Intel
Ashit Parekhji, CPA
Carly Riter, Public Affairs

Swanson Lumber
Steve Swanson, President & CEO

Altus Group
Tom Dubel, Site Selector

Cushman Wakefield
Brad Migdal, Site Selector

Ernst & Young
Michael Moore, Site Selector

Columbia County
Sue Martin, Assessor
David Leader, Assessors Office

Crook County
Jon Soliz, Assessor
Shaun Christofferson, Chief Appraiser
Shannon Alleman, Senior Residential and Commercial Appraiser

Lane County
Holly Moser, Assessment & Taxation Specialist

Linn County
Roger Nyquist, County Commissioner

Washington County
Mark Brewer, Assessors Office
Neil Simon, Assessors Office

City of Hermiston
Mark Morgan, Assistance City Manager

City of Hillsboro
Dan Dias, Director of Economic and Community Development
Val Okada, Economic Development Supervisor

City of Salem
Annie Gorski, Economic Development Manager

City of Umatilla
David Stockdale, City Manager
Brandon Seitz, Community Development Director

Port of Morrow
Lisa Mittelsdorf, Economic Development Director

Coos-Curry-Douglas Business Development Corporation
Tracy Loomis, Community Development Director
Brandi Medeiros, Community Development Specialist

Albany-Millersburg EDC
John Pascone, President

EDCO (Economic Development for Central Oregon)
Roger Lee, CEO

SEDCOR (Strategic Economic Development Corporation for Mid-Valley)
Erik Andersson, President

Appendix B
Background on Incentive Programs

The three state incentive programs that are included in the impact analysis are the Standard Enterprise Zone (SEZ), Long Term Rural Enterprise Zone (LRZ) and the Strategic Investment Program (SIP). The statutes that enable and prescribe these exemptions have been substantively in their present form for many years, although there has been notable legislation in recent years. This appendix discusses related programs for economic development in Oregon, as well as details on the history, availability, criteria and processes of each incentive.

B.1 Enterprise Zones Generally

Oregon's enterprise zone program began with the 1985 State Legislature under what is now known as the Oregon Enterprise Zone Act (ORS 285C.050 to 285C.250). This initial legislation allowed for the first 30 enterprise zones, subject to local application and designation by the Governor through 1989. Between 1994 and 2015, subsequent legislation added 38 zones that were designated or re-designated by the director of Business Oregon, including most current urban designations after 2005. During that time, additional cities, ports and counties also joined in sponsoring expanded enterprise zones. Every enterprise zone terminates after 10 years, and boundary changes can occur at any time.

In 2015, the cap on the total number of enterprise zones permitted statewide was lifted. A few of the newer zone designations represent the division of former enterprise zones. Since 2015, cities, counties, ports and tribal governments can formally designate a zone or change its boundaries, subject to the state's continuing to ensure that statutory requirements are met. This entails consultations with local taxing districts, local measures of economic hardship, documentation of the established zone boundaries, and zone size limitations (for example, encompassing not more than 12 or 15 square miles). Enterprise zones often encompass all land within participating jurisdictions that could be developed for eligible uses, and typically include non-contiguous areas.

At the end of 2021, there were 75 enterprise zones covering areas in 35 of Oregon's 36 counties, with 2 Indian Tribes, 30 counties, 15 ports and 123 cities acting as zone sponsors or cosponsors. Other jurisdictions, including 19 additional cities, consent to a zone that covers a portion of their territory without being a cosponsor. A variety of cosponsors are possible, but two or more city cosponsors plus the county is common. Cosponsors must act collectively in carrying out their duties. Oregon's non-tribal enterprise zones and their property abatement programs will sunset on June 30, 2025, but they could be legislatively extended.

Oregon enterprise zones are categorized as urban or rural depending on whether they are located inside or outside the urban growth boundary (UGB) surrounding the principal city or cities of a federally designated Metropolitan Statistical Area (MSA). Currently, 57 zones are categorized a rural and 18 are urban. Reservation enterprise zones are rural zones made up of any Tribal land in one of the nine federally recognized Indian Tribes in Oregon. A Tribe may also enter into an intergovernmental agreement with a city, port or county to co-sponsor any number of contiguous partnership zones. Tribal designations allow most any type of new business to claim a special state income tax credit equal to any amount of tribal taxes that it pays in the zone. This tribal tax credit has been used sparingly since enacted in 2001, and no project in tribal enterprise zones is part of this study's dataset.

B.2 Standard Enterprise Zones (SEZ)

The 1989 and 1993 Legislatures established the broad outlines of the standard enterprise zone program, but it has been addressed in legislation several times since then. To receive an abatement, a private business must engage in eligible operations that effectively serve other business operations and do not

compete for customers in the local economy, such as manufacturing, distribution, back office and other production, processing or storage operations. Retail, construction, financial and professional services, health care, property management, and similar activities are specifically ineligible under the law, except as permitted in certain cases for call centers or administrative headquarters. In addition, an eligible business firm must meet the following requirements.

- Apply for local authorization and then commence work on new investment (e.g., construction, re-construction or installation of qualified real or personal property).
- Increase the number of full-time permanent employees engaged in eligible operations inside the zone (or within 30 miles of its boundary) by the greater of one job or 10% and maintain at least that level of employment during the term of the abatement. (Prior to authorization, the sponsor can adopt resolutions to waive/reduce required in-zone hiring under certain circumstances.)
- Have no job losses at other Oregon sites more than 30 miles away from the zone in association with relocation of operations into the zone.
- Enter into a first source hiring agreement (FSHA) with local publicly-funded training providers through local Oregon Employment Department offices.

By satisfying these requirements, enterprise zone businesses receive a 100% abatement from real and personal property taxes on qualifying capital investments (excluding land and existing structures or equipment previously used inside the zone) for a three-year, as-of-right, term. The local sponsor may extend the tax abatement period to five years in total through a written agreement with the firm at the time of authorization. If the term is extended, the business is also required to pay wages (including benefits) for new positions equal to at least 130% or 150% of the county average wage as set at the time of authorization, except for urban zones in large MSAs. In addition, the business must pay wages (excluding benefits) that at least equal the most recently available county average wage in years four and five. Local zone sponsors may impose additional requirements or conditions with five-year abatement agreements, and any urban zone may do so as a matter of an established policy, as discussed in this report (Chapter 5).

Once the qualified property is placed in service and requirements are met, the three to five-year enterprise zone property tax abatement begins in the following year with the filing of an initial exemption claim. Up to three successive, overlapping abatements on different property are allowed under a single authorization. Although zone sponsors are involved to varying degrees, these abatements are part of the annual cycle of property assessment by county assessor's offices, which are responsible for disqualification and imposition of back taxes when requirements are not satisfied. The county assessors are also required to submit reports to the Oregon Department of Revenue on enterprise zone abatements.

With the SEZ program, some zone sponsors also offer local incentives, which are generally established when the zone is designated. Many zone sponsors choose to make hotel and resort businesses eligible for enterprise zone benefits. Up to 15 zone sponsors at a time may also designate their entire zone for electronic commerce. These 15 electronic commerce zones formerly provided a special income tax credit for e-commerce investments, which was the reason for capping the number of electronic commerce zones. With respect to SEZ property tax abatement, electronic commerce zones still allow for expanded business eligibility (e.g., third-party service providers), and for movable personal property used in e-commerce and costing at least $1,000 to qualify for abatement, which is the normal minimum per-item cost for personal property used in tangible production (otherwise, the item needs to cost $50,000 or more).

The SEZ program may also be used by producers of biofuels or electricity from renewable sources (e.g., geothermal, solar, wind) located in any of around 14 rural renewable energy development (RRED) zones.

These RRED zones typically encompass entire counties. There have been a handful of projects recently using RRED zones that are not part of this study.

B.3 Long Term Rural Enterprise Zone (LRZ) Facilities

The Oregon Legislature created the LRZ program in the late 1990s. While the program was used less often in the beginning, since the 2000's, activity within this program has notably increased. Businesses that apply for abatements for their facilities under this program must not only be certified pursuant to local resolutions and a zone-sponsor agreement, but the facilities must also be located in a rural enterprise zone and in a county that meets the criteria for chronic economic indicators, or that is outside an MSA with a certain average property tax rate. Presently, these qualifying conditions exist in 39 of the 57 rural enterprise zones.

The statutory requirements for facilities to receive the LRZ tax abatement vary by county size and other geographic factors. However, the general requirements are as follows:

- Total new investment in assets (whether abatable or not) of more than 0.5% of county's total real market value – effectively ranging from $1 million to $12.5 million (or $25 million if the facility is less than 10 miles from Interstate 5), based on costs incurred by the end of year when facility occupancy or operations commence.
- Increase full-time permanent jobs at the facility by at least 10, 35 or 50 employees (or 75 within 10 miles of Interstate 5) within 3 or 5 years of commencing operations, and continued employment at this level of employment throughout the remainder of the abatement period.
- Average annual compensation (with benefits) for all employees at the facility of at least 130% or 150% of county average wage by the 5th year of operations, and for the remainder of the abatement period, based on latest county average wage when first satisfied. From that point on, the facility's average wage (without benefits) must also be 100% or more of the most recently available county average wage.

If these requirements are met, all qualifying new real and personal property at the facility is exempt from property taxes during construction for any number of years following local certification, and then subject to a 100% abatement for 7 to 15 years once the facility is operational, as established in the local agreement. The law also provides for full repayment of abated taxes if the facility fails to meet the requirements. In addition to these statutory requirements, there are often additional local requirements that are discussed later in this report.

B.4 Strategic Investment Program (SIP)

In addition to the two enterprise zone programs, this impact analysis also includes companies that received property tax abatements under the Oregon Strategic Investment Program. Local approval for projects requesting a SIP incentive is typically done on an ad hoc basis, primarily through a county government. However, there are three designated Strategic Investment Zones (SIZ) in the City of Gresham and in Clackamas County, in which a business can be approved according to established parameters using a streamlined process.

The Strategic Investment Program was created in 1993 and has been amended several times. It is designed for companies that will make exceptionally large capital investments, and therefore its usage is more limited compared to enterprise zones in terms of the number and types of businesses. As for total investment and value of property tax abatements, the SIP has a much greater impact for large energy projects, especially wind farms and for firms in the semiconductor manufacturing industry. The predominant user of this program has been Intel Corporation in Washington County, whose projects also

generate significant levels of employment, whereas job creation for most other SIP users has been modest compared to the level of capital investment.

A business seeking the SIP exemption must enter into a written agreement with the sponsoring county (and the city if locating inside city limits) to be executed pursuant to a public hearing by the county's governing body. These agreements include the terms of the statutory community service fee, and generally set forth additional local requirements for the business to satisfy. Additionally, the business submits an application to the state involving significant administrative fees specified by state law in order to receive a determination of project eligibility from the Oregon Business Development Commission. State eligibility is contingent on completion of the local approval process.

In contrast to enterprise zones, SIP projects may be located anywhere in the state, and the SIP does not have specific employment criteria. However, the program does require that:

- The business is in a "traded sector" industry, defined as a firm that is subject to national or international competition, which is comparable to SEZ eligibility requirements
- The business executes a First Source Hiring Agreement with the Oregon Employment Department, much like other programs, and
- The business makes a minimum investment of at least $25 million in a rural area (specially defined for SIP), or $100 million elsewhere in the state, which relates to the program's initial taxable portion, such that
  - For an investment of up to $500 million in a rural area, it is the project's first $25 million (which was the threshold for all approved rural projects until 2017).
  - The initial taxable portion is $50 million for a rural-area investment between $500 million and $1 billion.
  - Outside a rural area, or for any investment of $1 billion or more, the taxable portion is $100 million.

The actual investment needs to be substantially larger than the requisite minimum in order for the business to realize a meaningful benefit, because the property tax abatement applies only to new property in excess of the taxable portion. The value of the property below the threshold amount is still subject to taxation, and that amount of taxable real market value increases at 3% per year. Taxes on property value greater than the taxable portion are fully abated for 15 years.

By law, the companies participating in SIP must also pay an annual community service fee equal to 25% of each year's property tax savings, up to a maximum of $2.5 million per year over the 15-year abatement term. (Prior to 2017, this maximum was lower, and it still is lower in a SIZ at $500,000 in rural areas and $2 million in urban areas.) Community service fee payments are made to the county and are subject to distribution under an intergovernmental agreement among the county, the city (if applicable), and local taxing districts in the project's tax code area(s).

In 2007, the Legislature created what is known as Gain Share, in which a share of the estimated personal income tax revenue arising from SIP project employment is disbursed by the state to the county for local distribution consistent with the community service fee. These disbursements began in 2011 and are slated to continue until 2024. They have been most impactful in Washington County. One result of Gain Share is that the businesses with SIP tax abatements must annually report payroll information to Business Oregon. This is not for compliance, but rather for estimating income taxes, and provides a quality source of data about the program.

B.5 Role and Relationship to Other Incentives or Programs

Oregon has a few state-level incentive programs that are important to recognize in addition to the enterprise zones and the SIP. They are the Business Expansion Program, the Oregon Investment Advantage, and the Governor's Strategic Reserve Fund (**Figure B-1**). Only the Strategic Reserve Fund was acknowledged in the interviews and may be a regularly significant incentive, including at times in combination with property tax abatement, whereas the Business Expansion Program and Oregon Investment Advantage are used much less frequently.

B.5.1 Business Expansion Program

The Business Expansion Program, which is available to existing companies that are expanding, is a forgivable loan equivalent to the estimated increase in personal income taxes generated by new employees over a period of two years. It is funded through the same appropriations as the Strategic Reserve Fund. The incentive is available to "traded sector" industries and can also be applied to headquarters operations.

Qualified companies must have at least 150 existing Oregon employees and hire at least 50 additional FTE employees. A first-source hiring agreement is also required. The average wages for the new employees must be at least 150% of the lesser of the state or county average wage in urban areas, or 130% of the lesser of the state or county average wages in rural (non-MSA) counties. If the company fails to meet these wage and employment targets, or if new hires are offset by layoffs elsewhere in the state, they must repay some or all of the loan. Given the requirements, most of the limited use of this incentive has been in large metropolitan areas.

B.5.2 Oregon Investment Advantage

The Oregon Investment Advantage program is available to companies proposing to locate a facility in one of 15 currently eligible counties. It must also be on industrially zoned land, or within the urban growth boundary of a city of 15,000 people or less. Any type of industrial or commercial business can qualify, but the operations at the facility must be the first of their kind in Oregon for that company and not compete with existing local employers. Certified companies can deduct or subtract their taxable corporate income related to the new facility for up to ten years, beginning two years after new facility operations commence. This incentive can be combined with enterprise zone or SIP property tax abatement.

There is no minimum capital investment required; however, in order to be certified for this income tax reduction, the company must create at least 5 new full–time, year-round jobs each with compensation (including benefits) that is at least 100%, 130% or 150% of the county per capita income at the time of the pre-development application, and since 2017 the jobs must pay an average of 100% or more of the current county average wage. OIA is decidedly oriented toward rural areas and economically challenged counties. The limited geography, complicated criteria, and hard-to-communicate tax benefits may be responsible for this program having only a small number of users.

B.5.3 Strategic Reserve Fund

The Governor's Strategic Reserve Fund is funded by the lottery and offered in the form of forgivable loans. While the qualifications vary from project to project, as is the case with such discretionary incentives, there are three primary elements: job creation/retention, capacity building and public benefit.

- Projects that qualify based on **jobs** include both business retention and expansion projects where the amount of the incentive is performance-based and tied to the number of jobs created or retained; a first source hiring agreement is also required. These agreements necessitate first-source hiring agreements and timing milestones, as well as public benefit requirements.

- **Capacity building** includes projects that invest in research and development, industry studies, economic development emergency response, or small business initiatives. While agreements for capacity-building do not have job creation requirements, there are other specific milestones and criteria for each company or organization.
- All companies receiving SRF funds must create **public benefits**. These may include creating internal career ladders for employees; recruiting and hiring underserved populations; diversity, equity and inclusion plans; and contributions to local nonprofits. The specific public benefits can vary depending on the business, and the needs of the community.

B.5.4 Other Programs

In addition to these state incentives, the interviews provided information about other state and local programs commonly used in conjunction with the SEZ, LRZ and SIP incentives. The overwhelming response from the interviews was that SEZ, LRZ and SIP are crucial tools, and in many cases, they make up 95% of the value of incentive packages offered to most companies, even as other economic development factors, efforts and funds may have also been essential for the project to proceed. It is informative to understand how the three property tax incentive programs may be packaged with other state and local resources for public infrastructure or other assistance, to provide a comprehensive and competitive value proposition to companies seeking to relocate or expand in Oregon. Based on the interviews, the following programs were noted as being useful in combination with enterprise zone or SIP incentives.

State Programs

- Connect Oregon (transportation related, used extensively)
- Immediate Opportunity Fund (related to roads, access, etc., used extensively)
- Shovel Ready/Certified Sites (crucial according to interviewees)
- Special Public Works Fund (for various types of infrastructure, including site-specific)
- Revolving Clean Water Fund Loan Program (Department of Environmental Quality)
- Oregon Business Development Loan Fund
- Governor's Strategic Reserve Fund (discussed previously)
- Workforce training assistance services (always offered)

Local Programs and Incentives

- Urban Renewal (tax increment financing)
- Local revolving loan funds
- Local improvement districts
- Waived SDCs and permit fees
- County development funds
- Incentive rate land sales
- Utility riders
- Expedited permitting
- Dedicated manager for permit review provided free for projects >$10 million investment

B.6 Related Construction-in-Process Exemptions and Tax Credits

Any business property assessed as of January 1 is subject to taxes in Oregon, even if unusable (except inventory and registered vehicles). Property exempted by the incentives in this study may also have qualified for construction-in-process exemptions in its unfinished state, if otherwise taxable in a year

preceding the term of the incentive. There are no data specifically for these construction-in-process exemptions that would allow for their inclusion in the study.

- As noted previously, LRZ has its own, built-in abatement for property prior to the facility being occupied/operational, as relevant projects in the study may have utilized. This LRZ construction-in-process exemption has no time limit.
- For most SEZ businesses, any property that is expected to qualify may be exempt for up two consecutive years under what is essentially a specialized version of the exemption described below.
- Since 1959, with timely filing each year to the county assessor, manufacturers in particular (though not exclusively) can avoid property taxes on improvements and other real property anywhere in Oregon for not more than two years before use or occupancy. This is the only option available for SIP and for SEZ projects that cannot use the above exemption. In either case, centrally assessed (for example, energy-related or utility) property is ineligible.

Formerly, there were also state income tax credits with limited applicability for certain businesses in enterprise zone programs, although it is unclear how much they were utilized by projects in this study:

- A business firm with an SEZ abatement could claim a credit equal to 25% of the investment that it made before 2018 in electronic commerce (e-commerce) assets inside an e-commerce enterprise zone. State income tax statistics indicate around $31 million of these credits have been used since 2005, with $4 to $8 million of carryforward use expected by 2023, based on information from the Legislative Revenue Office or in the Department of Revenue Tax Expenditure Reports.[19]
- With a local agreement by June 30, 2018, an LRZ facility could generate payroll-based credits against state corporate excise taxes over many years if approved by the Governor, as occurred on four occasions including two businesses in the dataset. However, potential users of this credit are too few for statistics to be available because of taxpayer privacy disclosure rules.

[19] State of Oregon: Government & Researchers - Department of Revenue

FIGURE B-1
OREGON INCENTIVE PROGRAMS[A]

NAME OF INCENTIVE OR PROGRAM	BASIC BENEFIT FOR BUSINESS FIRM	GEOGRAPHY	BUSINESS ELIGIBILITY BY TYPE, SECTOR, ACTIVITY	NEW EMPLOYMENT (MINIMUM)	EMPLOYEE COMPENSATION [B]	FSHA[C]	SELECTED OTHER REQUIREMENTS ON BUSINESSES
Standard Enterprise Zone (SEZ) Exemption	Qualified property tax-exempt (as-of-right) for 3 years; discretion locally to add up to 2 years	Any of presently 75 zones, widely varying in size (up to 12 or 15 square miles)	Eligible operations statutorily defined (like traded sector); retail, etc. are ineligible [D]	10% of existing number of full-time employees in zone (but at least one)	For 5-year exemption period, new full-time jobs' average w/benefits in all years ≥ 150% or ≥ 130% of county wage as set with authorization, **and** average wage (only) ≥ 100% of latest county average wage in 4th & 5th year [E]	YES	Any urban zone may impose additional conditions set by local policy and standards
Long-term Rural Enterprise Zone (LRZ) Facility	New facility property tax-exempt during construction and then for 7 to 15 years	Rural enterprise zones where county meets certain criteria [E]	Not applicable (N/A) – no such criteria	Hire at least 10, 35, 50 or 75 full-time at facility [F]	All facility employees' average w/benefits ≥ 150% or ≥ 130% of county wage by 5th year, **and** once met, average facility wage also ≥ 100% of latest county wage each year [E]	NO	Minimum investment typically $12.5 or $25 million by year operations begin [F]
Strategic Investment Program (SIP)	Project property > $25, > $50 or > $100 million tax-exempt for 15 years [G]	Statewide	Traded sector [D]	N/A	N/A	YES	Community service fee (CSF) = 25% of tax savings up to $2.5 million per year [H]
Business Expansion Program (BEP)	Forgivable loan ≤ 2 years' state revenue from new jobs	Statewide	Traded sector	50 full-time equivalent (FTE) jobs inside state [I]	Applicable jobs for revenue increment ≥ 150% of county/state average wage, or ≥ 130%, in any of 23 non-MSA counties	YES	150 or more existing employees in general
Governor's Strategic Reserve Fund (SRF)	Forgivable loan (grant) based on agreement	Statewide	Traded sector	Subject to agreement	Subject to agreement	YES	Subject to agreement
Oregon Investment Advantage (OIA)	10-year subtraction of state income from certified facility [J]	Eligible county **and** inside small-city UGB or on industrially zoned land	Unrestricted in small cities; essentially industrial elsewhere	5 full-time, year-round hires at facility	Wages w/benefits of 5 hires ≥ 150% (in MSA), ≥ 130%, or ≥ 100% of pre-set county per capita income, [K] **and** their average wage ≥ latest county wage	NO	Operations new to facility and to firm in Oregon, and not compete with local employers
Construction in Process (CiP): Regular & SEZ version	Applicable property tax-exempt up to 2 years	Statewide, or in any enterprise zone, for ...	... mainly manufacturing, or ... firm authorized for SEZ [L]	N/A	N/A	NO	N/A
Food Processing M&E	New machinery and equipment tax-exempt for 5 years	Statewide, but may be limited by local ordinance	Primary processing of specified products	N/A	N/A	NO	N/A

Business Oregon (Oregon Business Development Department, OBDD) February 11, 2022

FIGURE B-1 (Continued)
OREGON INCENTIVE PROGRAMS

NAME OF INCENTIVE OR PROGRAM	SELECTED LOCAL/STATE FUNCTIONS, PROCESS, ETC. [M]	COMMENTARY ON UTILIZATION	PROGRAM DATA / INFORMATION SOURCES	PROGRAM WEBPAGE LINK
Standard Enterprise Zone (SEZ) Exemption	Pre-project, firm applies for local, ministerial authorization; sponsor employment waiver allowed in certain cases, and 5-year sponsor agreements may contain additional require-ments. Later, firm annually files to claim exemption and certifies employee numbers.	Tribal, county, port and/or city governments comprise zone sponsors. Diverse, largely existing businesses of every size, across state. 2020/2021: 355 projects, directly employing nearly 20,000 people in new full-time jobs inside zone	OBDD maintains information from local application copies and tracks exemptions using and following up on statutory assessor reports to DOR based on filings – see Part A – Enterprise Zone Business Projects | Oregon's Open Data Portal, and parts B, C & D. Also, DOR | Oregon Tax Expenditures (#2.013, 2021–23)	Business Oregon | Standard Enterprise Zone
Long-term Rural Enterprise Zone (LRZ) Facility	Local discretion and approval; county and city containing facility must adopt resolution(s). Zone sponsor agreement sets exemption period and may contain additional requirements. Later procedures unspecified	Critical for special projects in rural communities, notably major data centers, in six counties so far. Currently, 8 firms with 16 facilities; more proposed. About 1,000 new employees of firms in 2020	Administrative tools to help with compliance, data collection, etc. through increasingly regular but informal interaction with local officials & others. See assessor reports at Long-Term Rural Enterprise Zone | Oregon's Open Data Portal. Also, DOR | Oregon Tax Expenditures (#2.014, 2021–23)	Business Oregon | Long-Term Rural Enterprise Zone Facilities
Strategic Investment Program (SIP)	Local/county approval after public hearing and agreement, which includes city if applicable, and which may contain other requirements in addition to CSF. Firm applies to OBDD for state Commission determination.	Becoming more diverse but largely energy projects across northern Oregon; Intel is only urban user. Out of 15,570 FTEs (2,080 hours paid per year) total jobs in 2020, 7,377 were new, at 18 projects.	Since 2011, firms annually report payroll and other data to OBDD for estimating personal income tax (PIT) revenue to be distributed locally. See DOR | Oregon Tax Expenditures (#2.100, 2021–23). Also, Strategic Investment Program (SIP) | Oregon's Open Data Portal.	Business Oregon | Strategic Investment Program
Business Expansion Program (BEP)	Performance agreement executed with OBDD; award made based on estimated state PIT revenue	Funded through SRF. Nine MSA projects ≈ $9 million over about 9 years	Business Expansion Program Awards | Oregon's Open Data Portal [I]	Business Oregon | Business Expansion Program
Governor's Strategic Reserve Fund (SRF)	Firm executes performance agreement with OBDD subject to Governor's approval	Biennial appropriations of state lottery funds; variously sized awards for job creation at businesses, and other purposes	Strategic Reserve Fund | Oregon's Open Data Portal lists SRF awards [I]	Business Oregon | Strategic Reserve Fund
Oregon Investment Advantage (OIA)	Preliminary & annual certifi-cation of firm through OBDD; then, firm claims subtraction on state tax return. Local govern-ments can officially object to preliminary certification	Limited geography, criteria and sophisticated tax benefit may deter use. Only handful of active users; other firms preliminary certified.	Business annually submits information on new jobs, etc., available at Oregon Investment Advantage (OIA) | Oregon's Open Data Portal. Also, DOR | Oregon Tax Expenditures (#1.310, 2021–23)	Business Oregon | Oregon Investment Advantage
Construction in Process (CiP): Regular & SEZ version	File with county assessor by April 1 each year for property not yet in use or occupancy or in service; strictly administrative	Available since 1959. Versions generally interchangeable for manufacturers. SEZ version dovetails with qualified property for standard exemption.	See DOR | Oregon Tax Expenditures (#2.011, 2021–23)	N/A
Food Processing M&E	State Department of Agriculture certifies each M&E item	Expanded in 2015 for additional subsectors; ministerial, but county or city can now proscribe	See DOR | Oregon Tax Expenditures (#2.032, 2021–23)	Food Processing M&E | Ore. Dept. of Agri.

NOTES:

A. Excludes debt financing for (typically smaller) businesses, local/urban renewal (TIF) funds, ENERGY TRUST and OREGON FILM, as well as agricultural, brownfields and other tax abatements that may benefit businesses but serve other policy goals and seldom have discernible effect on new private-sector job creation. Also does not include various tax preferences that are neither intended nor significantly useful for economic development.

B. Compensation includes all taxable income (wages, salary, etc.) paid to applicable employees, as well as fringe or financial benefits like medical insurance, pension, etc., in some cases—but not mandatory payroll taxes or costs such as workers' compensation insurance or employer-paid social security.

C. First-source hiring agreement required, by which business commits to notify about job openings and to consider qualified referrals from WorkSource Oregon (local Employment Department office), on behalf of publicly funded job training providers.

D. Certain exceptions by law, such as administrative centers/headquarters; additional electronic commerce allowances in up to 15 zones, and hotel/resorts by city/county election at time of enterprise zone designation.

Traded Sector refers to an industry engaged in national or international competition.

E. Two-year extension of SEZ abatement depends on agreement at authorization between business and zone sponsoring governments.

Compensation criteria do **not** pertain to urban zones in the Portland–Salem region.

A rural enterprise zone is outside the core urban growth boundary (UGB) of a metropolitan statistical area (MSA). LRZ county eligibility criteria must be true at time of local agreement.

With both enterprise zone programs, minimum average compensation that is 130% of an established average annual county wage applies only in non-MSA counties that have an average property tax rate of 1.3% or more at time of local approval.

F. Hiring requirement must be satisfied by the 3rd or 5th year after the year in which LRZ facility operations commence. 75-job and (maximum) $25-million minimum pertain only to facilities within 10 miles of Interstate 5; other hiring minimums vary with county population on date of local certification.

Lower investment minimums apply if county's total real market value is less than $2.50 billion in the year facility operations commence.

G. SIP taxable portion, which grows 3% per year during exemption period, varies by total size of investment and by rural or urban area (rural is outside UGB of city with 40,000 or greater population).

H. SIP–CSF subject to distribution by separate agreement, to which county, city and special service districts are parties. Strategic Investment Zones (SIZs) have lower annual CSF caps—only $500,000 in rural SIZ, $2 million for urban.

I. BEP and SRF employment (FTEs at 1,820 hours worked per year) based on quarterly payroll data in confidential unemployment insurance reports through Oregon Employment Department.

J. OIA eligibility depends on per capita incomes and annual unemployment rates of counties. Available in 15 of 36 counties at present.

Small city is one with population less than or equal to 15,000.

Eligible location and other criteria determined at time of application for preliminary certification.

K. Relevant per capita income level for OIA compensation with benefits is also set with preliminary certification application.

Only five new employees need to each receive such compensation – at a minimum not on average. Adequate compensation (again, with benefits) might be as little as 100% of pre-set county income if health insurance coverage at facility equals or exceeds that of local municipal workers, although this criterion is very challenging to determine and use in practice.

L. CiP does not include centrally assessed (utility) property. Regular CiP covers only real property and non-manufacturing facilities needing at least a year to build. SEZ version excludes hotel/resorts.

M. Besides overseeing local enterprise zone designations, or boundary changes, OBDD supports marketing, local administration, data collection, business compliance & enforcement, and so forth for tax abatements of private investments in new property, along with the Department of Revenue (DOR).

Appendix C
QCEW Records and Procedures for Determining Employment Change

C.1 Data Collection and Dataset Assembly

The original list of companies receiving property tax incentives that was provided by Business Oregon contained 393 companies/abatements. Three additional projects were added that began in 2020, resulting in a total of 396 companies/abatements. Applied Economics worked with Oregon Employment Development (OED) to arrange permission to receive Quarterly Census of Employment and Wages (QCEW) data files for 2014 through 2020. These records were compiled into a database that could be searched and matched with the list of companies receiving incentives. Additional data dating back to 2005 was requested from OED for the 80 companies/projects that began receiving property tax abatements prior to 2014.[20]

Applied Economics attempted to match up QCEW annual average payroll and annual average employment for the 2005 to 2019/2020 period for each of the participating companies/projects. In the majority of cases, these matches were successful based on the Business Identification Number (BIN) and Reporting Unit Number (RUN) information provided by Business Oregon. In some cases, however, BINs or RUNs changed over time, as did company names. Applied Economics worked with OED to identify predecessor and successor BINs/RUNs for more difficult to find company records. Annual QCEW data were searched by company name, address and BIN/RUN to extract employment and payroll information for as many companies as possible. For larger companies, it was often the case that information from multiple QCEW records relating to the same company in the same year were summed to reflect total employment at a given location in multiple operating units. At the end of this phase, Applied Economics identified 28 companies for which additional information was required in order to find a match with the QCEW data.

Business Oregon assisted Applied Economics in contacting local zone managers and companies to gather additional information for the 28 companies with missing data and to clarify other project records. In most cases, these missing data issues could be grouped into five categories:

- Employment at the enterprise zone sites was combined with other operating units for that company that were not subject to property tax abatement, although in some cases companies provided specific data to help isolate employment in enterprise zones.
- An initial group of employees was transferred from a different Oregon location to the location receiving incentives and needed to be excluded from the net job growth
- QCEW information was reported by a third-party professional employer organization (PEO) under a different BIN and/or company name
- The company used different sub-contractors over time (as was the case with wind farms) that reported under different BIN/RUN numbers
- The company changed names and BINs over time.

In a number of cases, Applied Economics was able to obtain information from the company that allowed us to match up historical employment and payroll from QCEW data. Not surprisingly, some issues could not be resolved, and thus a limited number of generally small companies were dropped from the analysis, accounting for 4.5% of estimated property taxes abated. There were also 15 companies removed due to

[20] Count of 79 companies based on unduplicated records and does not reflect that some of these companies also received later abatements during the 2005 to 2013 period.

enterprise zone program disqualification, or that otherwise did not receive abatements in 2019 or 2020. All total, 34 of the 396 projects were excluded from the analysis.

The next step was to eliminate duplicates since some companies received multiple incentives associated with common or closely related BIN/RUN combinations. A total of 46 records or groups of records were eliminated/combined, so that employment and payroll in a given year would be counted only once. This type of duplication issue was particularly true for larger companies such as Amazon Data Services/VADATA, Facebook/Vitesse, Orenco Systems or Jireh Semiconductor.

C.2 Calculating Net Change

The primary result of the QCEW analysis is the net change in employment and payroll for each company during their incentive term through 2019/20. The master spreadsheet provided by Business Oregon included information on the date, after which employment change could be attributed to the incentive, based on the initial application submitted to local officials by the company before the start of investment in property proposed for exemption. This application date typically preceded the date when the abatement began by a year or more. The change in employment and payroll were calculated relative to an existing or base level for the year preceding the application date if it fell in the first 9 months of the year, or the year in which the application was made if the date was in the final 3 months.

Historic employment and payroll are compared mostly to 2019 levels, but 2020 is used if the property tax exemption did not begin until 2020. In cases where business operations were new and had a base employment level of zero, total 2019/2020 jobs and payroll represented the change, since all of the jobs were new. Because the abatements for the companies in the dataset cover a wide range of years, the change in employment may occur during up to 15 years, or as little as one year. In most cases the change in employment occurred over the preceding three to five years.

In some cases, employment initially increased after the incentive application, but showed a net decrease by 2020. While decreases in employment occurred for a number of reasons, the impacts of the pandemic on the state's economy are also evident in the types of companies that are more likely to have employment decreases. Of the 300 unduplicated records in the dataset, 24 show a net decrease in employment. Only 5 of those companies show a loss of more than 20 jobs each. Overall, employment continued to rise from 2019 to 2020.

C.3 Administrative Program Data

The final portion of this task involved evaluating the correspondence between QCEW employment records and job numbers from annual reports, tax filings or data collection at the state or local level for compliance or administrative purposes. The SEZ program requires an increase in employment throughout the enterprise zone of 1 job or 10% to qualify for property tax abatement, whereas an LRZ facility must hire 10 to 75 employees within three to five years of commencing operations in the zone. The SIP has no statutory criteria for job creation, but participating companies report sizeable increases in employment. The programs do not always collect information on employee compensation, and when they do, what is reported typically includes benefits in addition to wages.

Program data provided important guidance in determining that relevant QCEW records were being used based on Oregon Business Development Department advice. Nevertheless, in almost every case, there are differences in QCEW employment versus program data, primarily due to the way that employment is measured, or that jobs are counted, as well as systems for gathering and processing data. The QCEW data, which are captured from unemployment insurance records, cover all paid employees during a given quarter, including part-time, temporary and seasonal employees that would be excluded under statutory program definitions for SEZ and LRZ. Employment reported for enterprise zone compliance is supposed

to consist only of full-time permanent employees, but those employees may be leased or contracted for relevant work and would thus not be covered in the employer's unemployment insurance reporting. Persons working elsewhere within the enterprise zone can be included under potentially other RUNs.

QCEW annual employment comprises an average of monthly data; however, in some cases employment was not reported in all months so averages contain zero months. Redundancy can also arise in the QCEW data given that the number of employees includes any individual who was paid in a given month even if they were replacing another employee who also worked part of that same month. The QCEW data may contain employees in ineligible or ancillary operations within the same RUN who may not be part of the incentivized project. Nonetheless, QCEW offers a consistent, uniform source of employment and payroll data, for which there are checks and regularity in the way that employers report payroll in relation to unemployment insurance, as compiled in OED databases.

Therefore, while the QCEW definition of employment differs from that of the incentive program laws, the overall change in employment based on QCEW is a reasonably good representation of the change in employment and wages that occurred at companies receiving incentives. In addition, the use of a verifiable source that is independent of incentive program reporting provides added rigor and credibility.

In working with the data to match QCEW records with incentivized hiring, Business Oregon reports observing that it would be generally very difficult, if not infeasible, to use QCEW data to corroborate administrative numbers, given definitional and reporting differences between program provisions and QCEW methods. In some cases, the employment figures appear quite similar, and QCEW data could help substantiate basic compliance, if necessary. According to the agency, the observed differences are in line with experience, and it was anticipated that QCEW data would not often compare closely to specific numbers that businesses report for the incentive programs, even if aligning well at an aggregate level. Consequently, Business Oregon considers program data to be basically reliable and analytically useful, despite data collection systems that are based on limited resources, complex technical distinctions, and the efforts of diverse entities statewide.

Appendix D
Background on the IMPLAN Model

There are several input-output models commonly used by economists to estimate indirect and induced economic impacts. Because of the difficulty of measuring these effects, all models have limitations. Still, economists generally agree that the models can provide an approximate measure of the indirect and induced spending, jobs, and labor income generated by a given amount of direct spending in a particular geographic area. To calculate the multiplier effects of the companies receiving property tax abatements, this study uses the IMPLAN model (IMpact Analysis for PLANning). IMPLAN is a national vendor of input-output software and data used to create economic impact models and is widely used in government, higher education and in the private sector to evaluate economic impacts.

The IMPLAN model begins with the most current national transactions matrix developed by the National Bureau of Economic Analysis Benchmark Input-Output Model. The model breaks down the U.S. economy into over 500 separate economic sectors. The IMPLAN model also incorporates regional purchase coefficients that measure trade flows—i.e., the proportion of local demand purchased from local producers. Next, IMPLAN creates state, county and zip-code level values by adjusting the national data, such as removing industries that are not present in a particular region. The economic base data are updated annually by IMPLAN. The most current data available at the time the analysis was conducted were for 2019. This study categorizes QCEW jobs and payroll for each of the participating companies or projects into the IMPLAN industry classifications and applies industry-specific economic multipliers for the State of Oregon to calculate the total effect of the *change* in jobs and payroll during the relevant period.

In order to calculate the economic impacts presented in this study, the change in labor income by company was then divided by the direct labor income multiplier (which is effectively the direct labor income per dollar of output) to estimate direct output for each company. Indirect and induced multipliers were then applied to estimated change in direct output for each company to estimate indirect and induced jobs, labor income and output. In a few cases, there were declines in the number of jobs, but increases in payroll over the relevant incentive period for a particular company. Consistent with the general methodology, the increase in payroll was used as the basis for the impacts, which were positive. In other limited cases, there were increases in jobs, but decreases in payroll over the relevant time period. In this situation, it was assumed that an increase in workers would support a positive (though relatively modest) change in direct output, so the estimate of direct output was based on the change in jobs. There were other cases where both the change in jobs and the change in payroll was negative, and so the resulting economic impacts for a particular company or project are negative. The results show the sum of economic impacts by incentive program, by company and by region of the state, similar to the way in which the QCEW results were presented in sections 2.2 and 2.3.

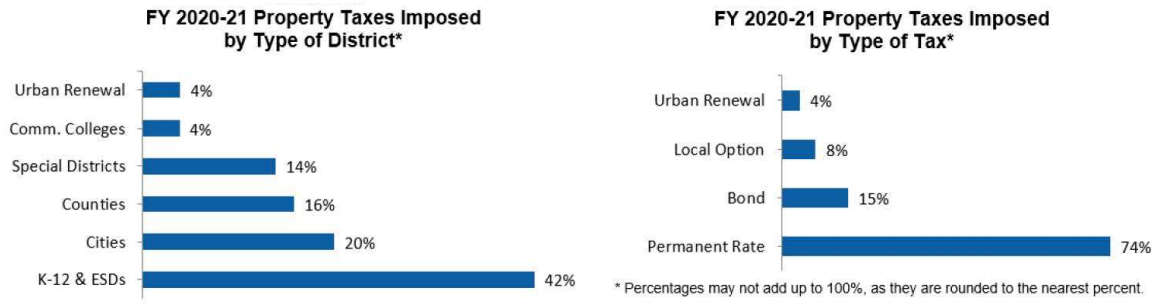
The IMPLAN economic output in this study as used in the ROI calculations are distinct from gross domestic product (GDP) or other value-added measures, in that they include the value of all sales of goods and services. As such, the value of inputs is included in the study's impact results. In contrast, GDP is equal to gross output minus intermediate inputs, and so the value of inputs is only counted once and only the value added is captured.

Appendix E
Background Information on Oregon Property Taxes

E.1 Taxing Districts and Taxable Property in Oregon

Property taxes pay for public services provided by more than 1,200 local governments in Oregon. The consolidated tax rate on tangible property for a particular company is location-specific and depends on the combination of overlapping rates for the county, city, school, community college and special districts (fire, parks, water, cemetery, vector control, etc.) in which the property is located. As a result, numerous consolidated property tax rates apply around Oregon, ranging from less than 0.75% to more than 2.50% of assessed value depending on the location, and averaging 1.71% relative to the properties' taxable or assessed value in the 2020–21 tax year. **Figure E-1** gives a breakdown of property tax revenue to be collected according to the type of property tax, as well as major categories of local taxing districts.[21]

FIGURE E-1
PROPERTY TAXES IMPOSED BY TYPE OF TAX AND DISTRICT



The majority of local taxing districts are known as special service districts (SSDs). Within cities that are more full-service, they are less common. Though inside the Portland metropolitan area there are multi-county districts and unincorporated areas with major districts providing specialized services. Rates for urban renewal districts or areas (URAs) arise through very involved computations for tax increment financing and are beyond the scope of this analysis. Cities, counties, community colleges, and the various SSDs may view any exempt property as a loss of revenue to their budget, insofar as it reduces the amount of property taxes that could have been collected through permanent or local option levy rates. Except for ports, SSDs are not enterprise zone sponsors, but they do receive a portion of the statutory community service fee under the Strategic Investment Program. City, county and port co-sponsors of enterprise zones might also use local requirements or fees on businesses receiving property tax abatements to offset the impact of those abatements on SSDs.

K–12 school districts and education service districts (ESDs) are part of a state equalization formula, whereby after several adjustments and special expenditures, the State School Fund, as set by legislative appropriation, and the total property taxes to be collected by those districts statewide for the biennium, are combined. Actual State School Fund disbursements to each district are calibrated to provide an equal amount of funding on a per-pupil basis. As a result of equalization at the state level, exemptions on local property or significant increases in local collections (e.g., due to new construction) will have a minimal impact on a particular district's financial resources, and typically a highly diluted effect statewide. The State School Fund consists mostly of state General Fund

[21] Oregon Department of Revenue Research Section. *Oregon Property Tax Statistics: Fiscal Year 2020–21.* Salem, OR: 2021. State of Oregon: Government & Researchers - Government and researchers (PTS, 2021)

(principally income tax revenue) and lottery funds, but it also has reserves and other sources. Legislative appropriations and administrative systems may achieve similar adjustments across the community colleges statewide. **Figure E-2** illustrates the impact of these incentive programs on school district funding based on data for the 2021 fiscal year that are used with this study.

FIGURE E-2
IMPACT OF PROPERTY TAX ABATEMENTS ON SCHOOL FUNDING IN OREGON

State of Oregon, Fiscal/Tax Year 2020–2021	Total State School Fund and Rate-based Property Taxes
School Districts*	$6,375,930,830
Education Service Districts*	$294,662,709
Local Option Taxes, Schools**	$237,336,844
Total	**$6,907,930,383**
Adjusted Property Tax Impact Due to Incentives***	$381,058,304
Percent of Property Taxes Going to Schools**	39.48%
School-Related Impact***	$150,426,423
Impact of Incentives as a Percent of Total School Funding	**2.18%**

* 2020-21 State School Fund Estimates (5/1/2021), Oregon Department of Education: State School Fund: School District and ESD payment statements: Grants and Funding Resources: State of Oregon.
** Oregon Department of Revenue Research Section. Oregon Property Tax Statistics: Fiscal Year 2020–21, (PTS 21), and Oregon Department of Revenue guidance.
*** Includes exemptions on property for projects omitted from Study due to lack of employment data and excludes adjustment for tax bill discounts.

For administrative, practical and public policy reasons, many specific types of property are specially assessed or exempt, either fully or partially from taxation. There are 136 property tax abatements or exemptions in Oregon law that are detailed in Chapter 2 of Oregon's Biennial Tax Expenditure Report. For the 2021–23 biennium, it is estimated that these exemptions and special assessments represent around 39% of all potential property tax revenues.

The three business development incentives that are the subject of this study are a relatively small portion of such potential revenues at about 3%, or 7% of total revenues foregone due to property exemptions and special assessments (less than 5% of estimated 2021–23 property tax revenue). [22] Unlike many property exemptions, the SIP, SEZ and LRZ are programs with eligibility criteria and procedures. In contrast, other exemptions are basic definitions of property – such as publicly owned, registered vehicles or non-business personal property that may not even be assessed – for which the exemption can be viewed as a more intrinsic feature of the overall property tax system.

[22] Oregon Department of Revenue Research Section. *State of Oregon Tax Expenditure Report*: *2021-23 Biennium*. Salem, OR: Oregon Department of Administrative Services, 2020. [Mostly resource lands (e.g., farmland) are specially assessed to reduce the tax burden] State of Oregon: Government & Researchers - Government and researchers (TER, 2020)

E.2 Limitations on Tax Rates and Assessed Values

Constitutionally, two types of limitations affect Oregon property taxes. Historically, the concerns of residential property owners drove these limitations.

- **Compression (Ballot Measure 5)** – From the early 1990s, the effective tax rate for any particular property may not exceed 1.5% of the property's real market value (RMV), excluding temporary bond levies to pay off debt borrowed for any K–12 educational purpose or capital construction. Specifically, any such effective tax rate for education (K–12 school, education service, community college) districts compresses to 0.5%. For all other taxing districts (general government) the maximum is 1.0%. To achieve this, total affected property taxes are reduced (tax account by tax account); tax rates of any local option levy are reduced first to the point of elimination, before permanent tax rates are reduced commensurately for each taxing district in the group under respective RMV-based limits.
- **Constrained Assessment (Ballot Measure 50)** – Since the late 1990's, the assessed value of property subject to taxes is often less than the RMV. Initially, the ballot measure lowered assessed values across the board. The maximum assessed value then increases by no more than 3% per year, regardless of the increase in the market value. Rarely does this matter for equipment or personal property that is depreciated based on standardized schedules. The assessed value of industrial land and improvements is also often at or close to its RMV, but property that is subject to abatement with the incentives in this study can also appreciate due to market conditions.
- **Change Property Ratio (CPR)** – To ensure proportionate treatment of new property, counties annually compute a CPR for each class or basic type of property, which is the average of total assessed value divided by total RMV (or Measure 5 Value) for that property class countywide. The RMV of any new or other property subject to a change event in that class is then multiplied by the corresponding CPR to determine its initial assessed value. Again, industrial property CPRs will tend toward one (1.0), especially for larger, state-appraised accounts, although many county-appraised accounts are grouped with commercial properties and can have significantly lower CPRs (<1.0).
- **Interactive Effects** – Constrained assessment and CPRs greatly reduce incidences of compression, in that the taxes are based on values that are often well below the property's RMV. Industrial properties still experience compression relatively more frequently compared to other property types, such as residential or commercial property, in that industrial properties' taxable value tends to be at or near its real market value. Compression also remains relatively more common in urban areas where total billing rates by category more often exceed the 0.5% or 1.0% limit.

E.3 Compression, Bonds and True Levies Today

After Measure 5, almost all taxes were still derived from a levy until Measure 50, such that any exemption on property effectively shifted taxes largely to other taxpayers, as tax rates were set as a function of total property value in the school or other district in order to collect the amount budgeted by the district as its general levy (less amounts lost due to imposition of tax rate limits). Measure 5 progressively pushed down school levies so that the effective tax rate increasingly approached the 0.5% cap relative to real market value. Significant reductions in effective tax rates were often the case for school districts, versus local governments where the 1.0% cap had less of an impact. State income taxes rose to fund K–12 schools under an equalization formula as noted above.

Before Measure 50, nearly 25 years ago, compression was also rather commonplace. With Measure 50, Oregon acquired a mostly rate-based system with the added consequence that exemptions and new development had a more direct impact on potential local revenue. As noted previously, compression became less common as real market value increased to greater than the assessed value on which taxes

are actually based, even if compression is more likely for industrial and other business property covered by property tax incentives in this study, because industrial real market value and assessed value are more often aligned. That type of property may often be in areas where the consolidated rate for education or general government exceeds the statutory limit.[23]

Estimated taxes on exempt property correspond more to "property tax extended", rather than taxes imposed, as shown in **Figure E-3**. It is important to note that in addition to excluding urban renewal taxes, the property taxes shown in the figure are dominated by residential property, for which compression is typically neutralized because the real market value is significantly greater than the property's assessed value. Nevertheless, statewide it reveals the following:

- Property taxes subject to compression are reduced on average by 2.14%, or in other words compression amounted to 1.81% of total taxes to be collected, or imposed in 2020–21, ranging by county from 0.3% to 6.4%. (Including urban renewal taxes increases the rate of compression.)
- Compression appears more prevalent for the types of taxing districts that are more common in urbanized areas, or that rely on local option levies, for which taxes are compressed to zero before other rates. As such, compression will depend on the particular tax code, especially in relation to the number of overlapping general government districts.
- The amount outside the limit, which is exclusively bond levies in Figure D-3, is more than 15%, consistent with Figure E-1. For K–12 schools and Education Service Districts, the amount outside the limit is effectively 25%.
- Bond levies are also less common in rural counties, although their occurrence will vary by tax code.

Bond levies are an example of a still remaining true levy, such that the amount to be collected from taxes is set, and the tax rate adjusts accordingly relative to total taxable property value. Consequently, increases or decreases in the amount of assessed value due to new construction or exemptions do not affect the amount of local public revenue collected, so that under true levies an exemption shifts the taxes (fractionally) to other taxpayers within the district that has the bonded debt.

Despite the name, local option levies are hardly ever a true levy, but rather a temporarily established rate authority for the district in addition to its permanent authority. The only other remaining true levies are several special Urban Renewal levies and a City of Portland gap bond for certain public pensions. Because of this last example, the statewide share of taxes affected by true levies rises from 15.5% to 18%.[24]

[23] Such excesses of a 10th of a percent (0.1%) greater than the limit are not uncommon; 0.1% equals 1 mill. Tax bills are denominated in millage (%) or dollars ($) per thousand dollars of value.

[24] Both of these miscellaneous levy types fall under constitutional limits and are thus subject to compression. Oregon Department of Revenue Research Section. *Oregon Property Tax Statistics: Fiscal Year 2020–21, Supplemental.* Salem, OR: 2021.

FIGURE E-3
TAX EXTENDED, TAX IMPOSED AND COMPRESSION DUE TO MEASURE 5 RATE LIMITS FY20-21 BY TYPE OF TAXING DISTRICT AND LIMIT CATEGORY

	Tax Extended			Tax Imposed			Compression	
District Type	Inside Limit	Outside Limit	Total	Inside Limit	Outside Limit	Total	Reduction due to Limit	% of Tax Extended
County	$1,266,682,690	$17,096,876	$1,283,779,566	$1,245,852,054	$17,096,880	$1,262,948,934	$20,835,934	1.60%
City	$1,532,428,707	$100,874,221	$1,633,302,928	$1,496,382,531	$100,874,222	$1,597,256,753	$36,046,172	2.40%
School	$2,369,551,249	$816,827,001	$3,186,378,249	$2,300,606,140	$816,814,082	$3,117,420,222	$68,958,533	2.90%
Education Service	$147,348,372	$0	$147,348,372	$145,628,865	$0	$145,628,865	$1,719,933	1.20%
Community College	$203,419,495	$106,236,550	$309,656,045	$201,322,001	$106,236,563	$307,558,565	$2,098,163	1.00%
Cemetery	$3,343,805	$0	$3,343,805	$3,310,475	$0	$3,310,475	$33,328	1.00%
Fire	$430,811,116	$23,480,285	$454,291,401	$429,526,719	$23,480,289	$453,007,008	$1,306,324	0.30%
Health	$40,880,514	$5,525,092	$46,405,606	$40,274,816	$5,525,097	$45,799,913	$605,723	1.50%
Park	$96,700,602	$15,099,036	$111,799,639	$96,547,674	$15,099,038	$111,646,712	$152,930	0.20%
Port	$23,187,088	$962,643	$24,149,732	$22,916,759	$962,643	$23,879,403	$270,402	1.20%
Road	$13,674,515	$7,999	$13,682,514	$13,672,010	$7,999	$13,680,009	$2,505	0.00%
Sanitary	$1,315,434	$1,404,051	$2,719,485	$1,315,039	$1,404,051	$2,719,090	$396	0.00%
Water Supply	$4,394,358	$1,409,173	$5,803,531	$4,393,166	$1,409,173	$5,802,339	$1,192	0.00%
Water Control	$20,865,866	$283,748	$21,149,614	$20,533,096	$283,748	$20,816,844	$332,989	1.60%
Vector Control	$7,490,360	$0	$7,490,360	$7,313,886	$0	$7,313,886	$176,477	2.40%
Service	$65,964,934	$75,040,590	$141,005,524	$63,655,618	$75,040,606	$138,696,225	$2,309,379	3.50%
Other	$287,042,247	$0	$287,042,247	$282,672,391	$0	$282,672,391	$4,369,905	1.50%

Notes: The category "Other" includes taxing districts such as library, transit, and public utility districts.

Taxes in the "Outside Limit" category are not subject to the Measure 5 rate limits.

Differences between "Outside Limit" tax extended and tax imposed due to rounding at the district level. Urban renewal revenues are not included in this table.

E.4 Projected Property Tax Revenues (Post-Abatement)

An additional data point that further supports the return on investment related to property tax incentives is the projected (post-abatement) amount of future property taxes that could be generated by recently tax-abated companies after their exemption period ends.

A special effort was undertaken by Business Oregon for illustrative purposes to project future property taxes for companies receiving abatements, which was a major element of the *Enterprise Zones Study* (Research Report #4-09) prepared by the Oregon Legislative Revenue Office in 2009 (see Appendix F). This exercise supports a point often made by local government officials and others in interviews for this study that the abatements of property taxes by incentives in this study are not permanent. There are longer-term revenues for local governments that accrue following the abatement period.[25] Under Oregon's largely rate-based property tax system (since Ballot Measure 50), additional property on the rolls increases tax revenues, all other factors being equal.

There is no system to track actual property and its post-exemption assessed value, which would be very difficult. Nonetheless, future assessed values can be projected based on assumptions, and future property taxes roughly approximated. As noted in section 4.4, the data that Business Oregon collects and manages for estimating abated property taxes can be adjusted to better account for estimated tax revenues subject to actual assessment and taxation. In this case, however, such adjustments for compression, shifting and discount would have the same effect during and after the abatement.

There are several possible viewpoints regarding the value of future tax revenues relative to the value of tax abatements. If new capital investment on behalf of a company would have occurred with or without an incentive, then the abatement is strictly a cost and effectively provides no additional future benefit that would not have otherwise occurred. Vice versa, if the capital investment would **not** have occurred in

[25] Aside from businesses that are disqualified from the program and required to pay back taxes due to non-compliance, for which systematic data do not exist.

the absence of an incentive, then the value of the abatement is a non-cost that results in a longer-term gain once the property becomes taxable. While the efficacy of incentive programs is not the topic of this study, these considerations do create a context for evaluating future property taxes.

With or without incentives, both real and personal business property tend to lose value over time unless reinvestments are made, and businesses may close and/or move, thus sometimes removing personal property from the tax rolls earlier than might be anticipated. The premise of economic development efforts is not to improve the performance of the current economy or specific businesses, but rather to ensure that the regional economy can continue to grow.

Using estimated (unadjusted) values of exempt property from the dataset of projects used in this study, Business Oregon projected future tax revenues, applying annual growth rates, or rather more often rates of decline, to 2019 or 2020 values, and to future years. No assumption is applied regarding further reinvestment or disinvestment of property within these projects, and while this will no doubt occur, it would be very difficult to predict. Efforts were made to calculate recent annual average growth rates for the exempt property, but especially for LRZ and SIP project data, the retirement of property and new investment in recent years greatly complicates these growth rate calculations. *Applied Economics did not independently verify the data or modeling approach used is these projections created by Business Oregon*. The following summarizes the results of the growth rate calculations:

- Rates of year-over-year change in value applied to each project range from 65% to 103%.
- Many projects default to 91% growth, which is the weighted average valuation rate from Business Oregon's ongoing work with (short-term) SEZ exemptions.
- The weighted average annual rate of change is effectively 89%, which would be a very rapid rate of depreciation, suggesting a rather conservative estimate.
- Values also a hit a floor of 15% of the project's 2019 or 2020 value, in that even personal property retains scrap value for property tax purposes.
- Consequently, for 2021 to 2050, the average rate of growth is −4.1%, or a 72% decline in value over 30 years.

Next, project values are multiplied by the 2019 or 2020 tax rate that last applied to the project. The estimated property taxes that have already been abated, and projected taxes in the remaining years of the abatement period are subtracted from totals to arrive at future property taxes to be collected.

Figure E-4 shows a summary of estimated forgone taxes as well as projected taxes by program from Business Oregon. For standard enterprise zone exemptions of three to five years, the provisional break-even point agrees with findings from the 2009 Legislative Revenue Office study, in that an equivalent amount of taxes to the amount foregone could be received after approximately twelve years.

FIGURE E-4
SUMMARY OF PROJECTED PROPERTY TAXES 2007-2050
(Billions of Dollars)

Incentive Program	Estimated Taxes Foregone by 2020	Taxes Foregone with Projections*	Projected Taxes to Be Collected	Breakeven Year
Long Term Rural Enterprise Zone	$0.55	$1.24	$0.57	Indeterminate
Standard Enterprise Zone	$0.35	$0.45	$1.03	2034
Strategic Investment Program	$1.92	$3.11	$1.39	Indeterminate
Total	**$2.83**	**$4.80**	**$2.99**	

*To end of current exemption period(s).

For LRZ and SIP abatements that typically extend 15 years, some currently exempt projects in this study will begin paying property taxes over the next few years, but the time it might take to generate an amount of taxes equivalent to the amount forgone is too far in the future to meaningfully predict. Based on the estimates presented here, cumulative projected property taxes collected during the projection period would be only about 50% of the total estimated amounts that were foregone for the LRZ and SIP programs.

The above calculations provided by Business Oregon are inherently uncertain, and for this study, they are intended as an illustrative exercise to complement the main analyses of return on investment (ROI). Even with better data for projections, it would not necessarily be appropriate to integrate any sort of payback from future property taxes with other ROI measures. Unlike other types of incentives for business development (e.g., grants, tax credits), however, property tax abatements do result in a future revenue stream once the incentive period ends. Additional efforts might be pursued to refine the projection methodology and produce improved calculations regarding the offsetting effect of long-term property tax collections from projects receiving incentives.

Appendix F
Review of Previous Research to Quantify the Value of Enterprise Zone Incentives and Other Metrics

Previous research has been done specific to enterprise zone programs in Oregon, although not in the same comprehensive manner as this study. This appendix briefly describes two previous studies. Since the purpose is not to prove the efficacy of the incentive programs, the focus of this review is on past research regarding return on investment and economic impacts.

F.1 Enterprise Zone Research

In 2009, the Oregon Legislative Revenue Office conducted a study to evaluate the performance of enterprise zones and related tax incentives under ORS 285C.050 and 285C.250, generally arriving at favorable conclusions that contributed to the extension of the program's former sunset dates in statute.[26] The Legislative Revenue Office study compared the change in employment and payroll from 2003 to 2006 for selected enterprise zones and comparison areas (outside enterprise zones) with similar employment profiles. The enterprise zones were grouped into five categories based on their location within the state, including both urban and rural areas. The study also looked at changes in other general indicators of economic welfare such as median household income, poverty rates, housing vacancy rates and median rents in the enterprise zones, and in comparative areas, between 1990 and 2000. The value of the property tax exemptions in the selected enterprise zones was also used: 1) in combination with data on net employment gains to calculate abated property tax per net new job, and 2) to estimate the number of years that would be required to generate the amount of new property taxes equal to the exemptions, as somewhat replicated in Appendix E.4.

This 2009 study was different from the current study in several important ways. First, it only included a sampling of data rather than a comprehensive attempt to account for all job and payroll increases by participating companies over a multi-year period. Second, it did not attempt to estimate indirect and induced economic impacts created by job growth at companies receiving exemptions, and so it captured only direct jobs and payroll. The current study also includes estimates of local fees paid by paid by companies as an offset to the property tax exemptions and estimates of state personal income taxes generated by the new employees as part of the ROI calculations.

A paper about enterprise zones was published in the *Journal of Public Economics* in 2011.[27] This broad national analysis also included federal empowerment zones and enterprise communities, as well as state enterprise zones in 13 states, focusing exclusively on impacts of these incentive programs on local labor markets, not on return-on-investment measures. It should be noted that enterprise zones in Oregon are different than in many states where the incentive typically takes the form of an income tax credit per new job created rather than property tax exemptions. The paper presented an analysis of state-specific measures of labor market impacts during the 1990s, drilling down to the census tract level.

The results looked at the average national effects of enterprise zones, as well as the average effects by state. The paper's authors employed a rigorous econometric approach to isolate the labor market impacts of enterprise zones in terms of changes in unemployment rates, poverty rates, share of households with wage and salary income, average wage and salary income, and total employment in enterprise zone

[26] Oregon Legislative Revenue Office, *Enterprise Zones Study*, April 1, 2009.

[27] Ham, John C., Swenson, Charles, Imrohoroglu, Ayse, Song, Heonjae, *Government programs can improve local labor markets: Evidence from State Enterprise Zones, Federal Empowerment Zones and Federal Enterprise Community*, Journal of Public Economics 95 (2011).

census tracts versus comparison areas. For Oregon, the positive impacts of enterprise zones on poverty rates and the share of households with earned income were shown to be statistically significant.

This national study was entirely different than this Property Tax Incentives Impact Study in that it was exclusively focused on labor market impacts as a measure of the effectiveness of enterprise zone programs. Due to the high-level, multi-state nature of the analysis, there was no information on jobs or payroll created by companies receiving incentives, much less the immediate or ongoing economic impacts of those new jobs. In addition, there was no attempt to compare the economic benefits of enterprise zones to the monetary value of the incentives, which would be impossible in a multi-state study given the varied nature of how the tax exemptions and credits related to enterprise zones are structured.

F.2 Other Metrics on the Value of Incentives

Additional metrics were suggested in the interviews for measuring the value of SEZ, LRZ and SIP incentives, some of which would only be possible with sustained, additional analytical resources at the state or local level. These additional metrics would enhance the required reporting that is already being done, and they could provide added value and insights for local zone sponsors.

- Number of repeat applications per company—that is, expansions from original project and cumulative additions to existing employment base
- Number of Oregon-based company projects (Example: From 2007 to 2019, 60% of the companies in the Salem Enterprise Zone were Oregon companies with Salem ownership or beginnings)
- Map of SEZ/LRZ wins overlaid on certified industrial sites (certified sites were cited as being of great importance to success by those interviewed – see Appendix B.5.4)
- Economic impacts of each project and zone to inform local negotiations and provide pro-active messaging
- Annual reports to cities and counties on the value of abated taxes, new capital investment, future income stream from new property tax revenue following the tax abatement period, for the region or local area.

Business Oregon commissioned a *Strategic Assessment of Incentives* in 2021, prepared by Smart Incentives, that evaluated how current business development incentives advance the five priorities in "Prosperity for All Oregonians – Business Oregon Strategic Plan, 2018-2022." This assessment included other programs and had three components – 1) alignment between business development incentives and economic development priorities including a series of interviews, 2) benchmarking of incentive programs in competitor states, and 3) review of incentive program effectiveness and efficiency – to help address the question of what could be done differently to accomplish the strategic plan's priorities and enhance Oregon's competitiveness. The report's findings emphasize better ways to demonstrate how incentives are used strategically to benefit Oregon businesses, residents and communities, including recommendations on new or expanded metrics. The research and findings from that assessment report should also offer critical input as the agency undertakes further strategic planning.[28]

[28] Smart Incentives, *Strategic Assessment of Incentives*, prepared for Business Oregon, Salem, Oregon, July 2021