



State of Oklahoma

Incentive Evaluation Commission

Computer Services, Data Processing and Research and Development Tax Exemption Evaluation

November 11, 2019

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Key Findings and Recommendations



Overview

The State offers a sales and use tax exemption to new and expanding businesses primarily engaged in computer services and data processing or research and development. In order to qualify, computer services and data processing or research and development firms must derive at least 50 percent of its gross revenue from the sales of goods or services to out-of-state customers, and create 10 new jobs at an average annual salary of \$35,000. Data processing firms must make a minimum of \$100,000 in qualified purchases. Eligible purchases include computers, data processing equipment, and telecommunications services and equipment.

Recommendation: The project team recommends repealing the program due to its lack of use.

Key Findings

- **Oklahoma's sales and use tax exemption for firms engaged in computer services and data processing or research and development has not been used in the last five fiscal years.** A significant factor in its lack of use is the state's separate tax exemption for computer services and data processing firms. This separate exemption has no job creation requirement, no minimum purchase requirement and does not require firms to submit claims to the Tax Commission for each qualifying purchase. Data processing firms, which would be most likely to use the exemption based on recent industry growth, would prefer the separate exemption based on the minimal requirements associated with it and its relatively easier administrative process.
- **It may be difficult for data centers to meet job creation requirements.** In order to qualify for the exemption, a data center must create at least 10 new jobs. Employment per data center establishment has been declining in Oklahoma and nationally. In 2018, employees per data center establishment in Oklahoma was less than 7. Nationally, average employment at data centers has declined by 39.7 percent since 2001. Of 22 benchmark states, 9 have no requirement for job creation for this type of incentive.
- **Data center investment may generate increased property and sales tax revenue, but it generally does not create a significant number of new jobs.** A 2016 evaluation of Washington's tax exemption for data centers estimated a cost of \$205,000 per job for FY 2015 through FY 2019. In 2016, Oregon evaluated its incentives for data centers and found the amount of exemptions per job ranged from \$87,000 to almost \$800,000 in FY 2015. Of course, there may be businesses that cluster around data centers that create additional net new jobs.
- **Research and development firms are likely choosing the Quality Jobs Program or Small Employer Quality Jobs program instead of this incentive.** The Quality Jobs and Small Employer Quality Jobs programs do not allow companies to benefit from both incentives at once. Research and development firms in industries that would qualify for the exemption are subject to lower total payroll thresholds of \$1.5 million (instead of the standard \$2.5 million), and neither program imposes an out-of-state sales requirement on those industries.

Other Findings

- **Oklahoma ranks highly among states in terms of affordable electricity, but ranks low among states in broadband coverage, which are two important factors in data center location decisions.**



Introduction



Incentive Evaluation Commission Overview

In 2015, HB2182 established the Oklahoma Incentive Evaluation Commission (the Commission). It requires the Commission to conduct evaluations of all qualified state incentives over a four-year timeframe. The law also provides that criteria specific to each incentive be used for the evaluation. The first set of 11 evaluations were conducted in 2016, 12 were conducted in 2017 and an additional 11 were conducted in 2018.

The Computer Services, Data Processing and Research and Development Tax Exemption is one of 10 incentives scheduled for review by the Commission in 2019. Based on this evaluation and their collective judgment, the Commission will make recommendations to the Governor and the State Legislature related to this incentive.

Industry and Incentive Background

Nationally, there has been strong growth in the data center industry, with the number of data center establishments increasing by 60 percent between 2012 and 2018. During this timeframe, there has been strong competition among states to attract investment in this sector. Programs comparable to Oklahoma's have been found in 21 other states, with 2 of the programs signed into law in 2019.¹

Oklahoma offers a sales and use tax exemption to new and expanding businesses primarily engaged in computer services and data processing or research and development. A qualifying firm must derive at least 50 percent of its gross revenue from the sales of goods or services to out-of-state customers, and create 10 new jobs at an average annual salary of \$35,000. Data processing firms must make a minimum of \$100,000 in qualified purchases. Items exempt from sales and use tax include computers, data processing equipment, and telecommunications services and equipment.

Criteria for Evaluation

A key factor in evaluating the effectiveness of incentive programs is to determine whether they are meeting the stated goals as established in state statute or legislation. In the case of this exemption, no specific goal is included in legislation. However, based on the characteristics of the exemption, the intention of the exemption appears to be to encourage investment in Oklahoma by computer services, data processing and research and development firms.

Additionally, to assist in a determination of program effectiveness, the Incentive Evaluation Commission has adopted the following criteria:

- Changes to industry measures – size sector GDP, employment compared to other sectors;
- Comparisons of changes in sector versus states with/without similar exemptions;
- Changes in Oklahoma industry employment;
- Changes in Oklahoma industry capital investment;
- State return on investment.

¹ Illinois and Indiana each created new exemptions for data centers in 2019.



Industry Background

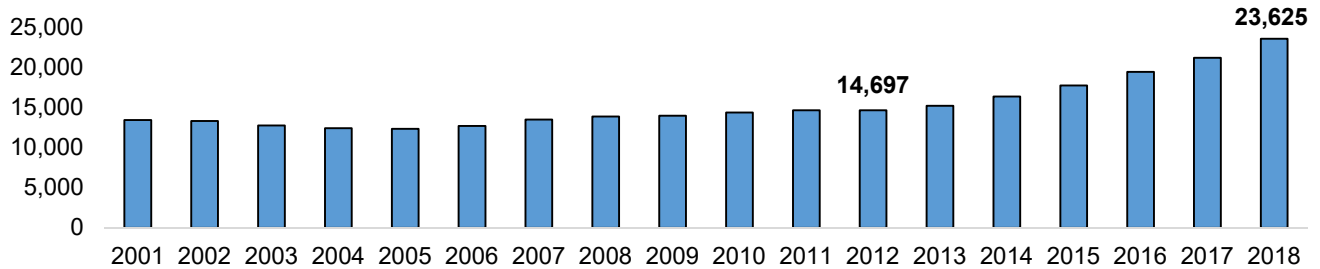


Background and History

Data Centers

As noted previously, the data center industry has experienced significant growth in recent years, especially since 2012. The number of data center establishments in the US increased by 60 percent between 2012 and 2018, representing compound annual growth of 8.2 percent. Improvements in technology during this period and the growth in cloud computing are notable factors driving this growth.²

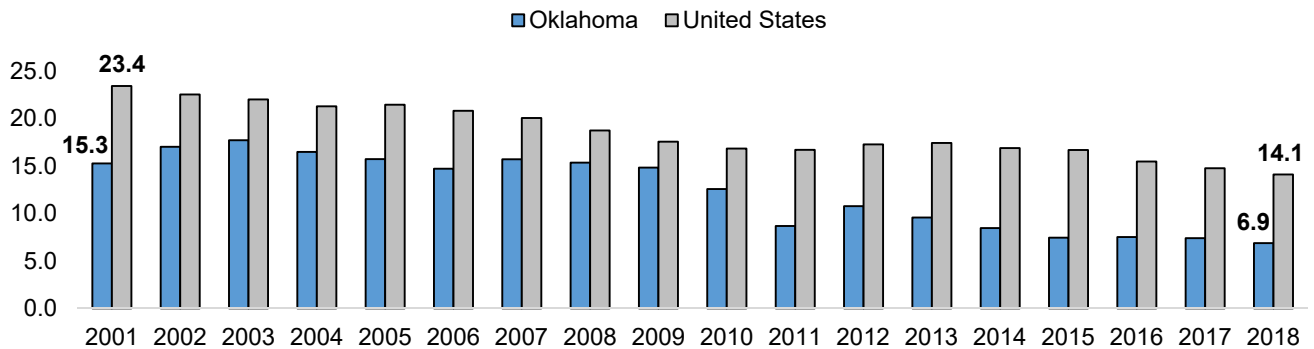
Figure 1: Data Center Establishments in the US, 2001 to 2018



Source: Bureau of Labor Statistics, Quarterly Census of Employment and Wages

The data center industry is highly capital-intensive, so much of the investment associated with these facilities consist of purchasing land, constructing the facility, equipping it, and purchasing the power needed to operate servers and computers at the site. The capital-intensive nature of the industry is illustrated by the decline in employees per establishment both in the US overall and Oklahoma, even as the industry has grown rapidly from 2012 to 2018.

Figure 2: Employees per Data Center Establishment, 2001 to 2018



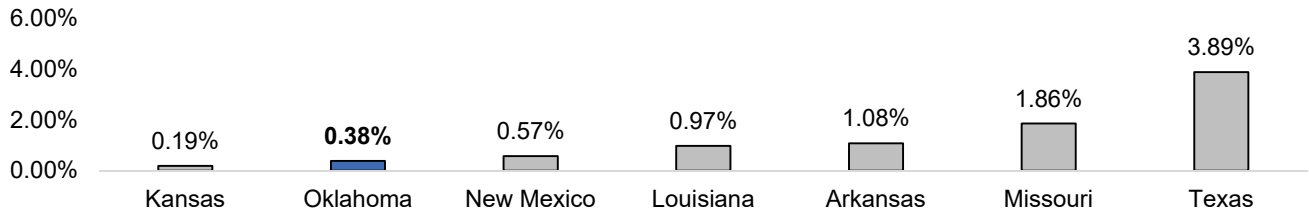
Source: Bureau of Labor Statistics, Quarterly Census of Employment and Wages

² Cloud computing is generally defined as a means of storing and accessing applications and data via the internet instead of local hard drives and file servers.



Among states, California had the largest share of new data center establishments between 2012 and 2018, with Michigan and Colorado ranking second and third. Among nearby states, Oklahoma ranks sixth of seven in the share of new data center establishments in this period.

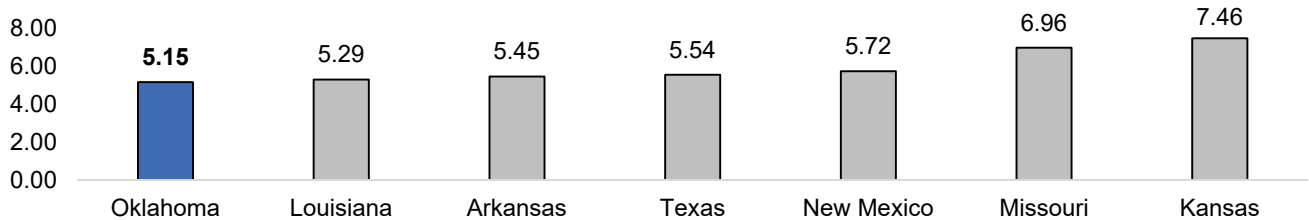
Figure 3: Share of National Data Center Establishments Growth between 2012 and 2018



Source: Bureau of Labor Statistics, Quarterly Census of Employment and Wages

As previously noted, important location decision factors for data centers include the cost of energy and internet connectivity. Among nearby states, Oklahoma has the most affordable industrial electricity and ranks as the second most affordable in the nation.

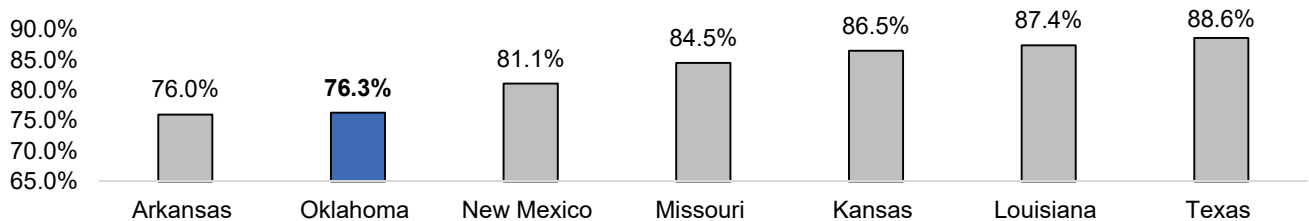
Figure 4: Industrial Electricity Cost (Cents) per Kilowatt, 2018



Source: US Energy Information Administration

Oklahoma ranks less favorably in broadband coverage. In this category, Oklahoma ranks sixth of seven nearby states. Nationally, Oklahoma ranks 47th among the 50 states, which may contribute to its low share of establishment growth.

Figure 5: Percent of Population with Broadband Coverage, 2017



Source: Federal Communications Commission

Climate and the region's likelihood to experience natural disasters are other important location decision factors. Moderate and cool climates can be an advantage for data center facilities, as they require less energy expense for cooling data center equipment. For example, the Wyoming Business Council's promotional materials for data center investment highlight the state's high number average days below 85 degrees. A 2016 report by Good Jobs First noted that Cisco conducts its first scan of possible sites by analyzing the occurrence of major hurricanes and considers location proximity to chemical and nuclear plants and other hazardous materials. Regions prone to tornadoes, floods, and earthquakes are also often eliminated from site selection lists.³

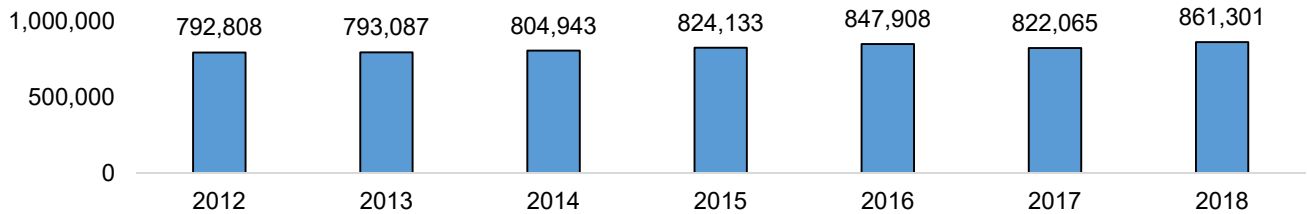
³ Good Jobs First, Money Lost to the Cloud, October 2016



Research and Development

Five specific North American Industrial Classification System (NAICS) codes may benefit from the exemption, including Testing Laboratories (541380), Research and Development in Nanotechnology (541713), Research and Development in the Physical, Engineering and Life Sciences (541715) and Social Science and Humanities Research (541720). Nationally, firms in these areas have shown more modest growth compared to data centers. Since 2012, establishments have shown compound annual growth (CAGR) of 2.6 percent while employment has had CAGR of 1.4 percent.

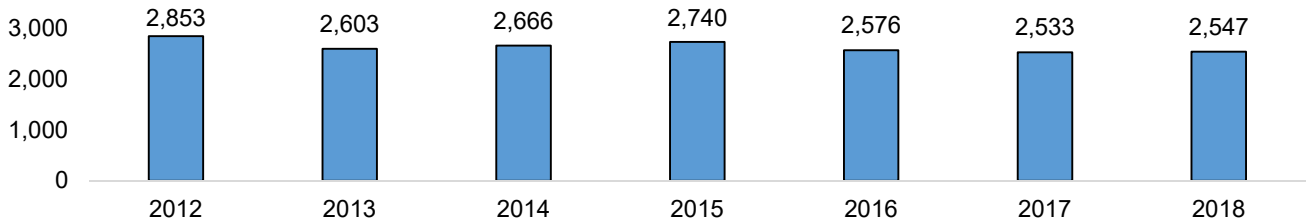
Figure 6: Research and Development Employment in the US, 2012 through 2018⁴



Source: Bureau of Labor Statistics, Quarterly Census of Employment and Wages

In Oklahoma, employment in these industries overall has declined relative to 2012 levels. Growth in establishments in the state has mostly followed the national trend, increasing by a CAGR of 2.7 percent.

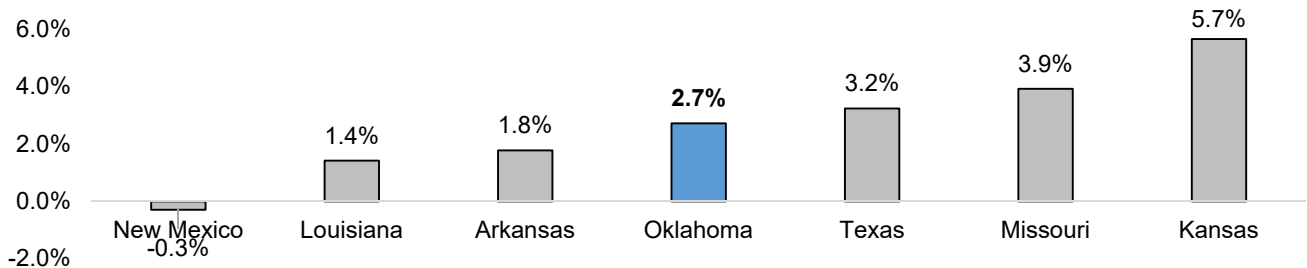
Figure 7: Research and Development Employment in Oklahoma



Source: Bureau of Labor Statistics, Quarterly Census of Employment and Wages

In terms of growth in research and development establishments, Oklahoma ranks in fourth among the seven nearby states.

Figure 8: Compound Annual Growth in Research and Development Establishments, 2012 to 2018



Source: Bureau of Labor Statistics, Quarterly Census of Employment and Wages

⁴ Sum of NAICS codes 541380, 54171, and 541720. In 2017, there were significant changes to the classifications of firms within the 54171 NAICS code involving NAICS 541713 and 541715, leading to the use of the broader classification for purposes of tracking trends over time.



Incentive Usage and Administration



Historic Use

According to the Oklahoma Tax Commission (OTC), the Computer Services, Data Processing and Research and Development Tax Exemption has not been used in the last five fiscal years.

There are several reasons for the lack of exemption use. The State offers a separate tax exemption for data centers. The separate tax exemption is targeted toward data centers and does not require new job creation, minimum purchase amount, or the submission of claims for each qualifying purchase. The exemption, established under 68 O.S. 1357 [21] requires firms to apply for an exemption certificate each year, rather than submit documentation for a refund after making qualifying purchases. Given the availability of this exemption, it is unlikely that any data center would choose the refund.

The exemption also requires new or expanding computer services and data processing or research and development facilities to add 10 new employees. As has been previously noted, the data center industry is capital-intensive with a low number of employees per facility. It may be difficult for data centers to meet this employment threshold.

It is likely that new or expanding research and development firms are choosing to participate in the Quality Jobs Program or Small Employer Quality Jobs Program instead of this exemption. The Quality Jobs and Small Employer Quality Jobs programs do not allow companies to benefit from both incentives at once. Research and development firms in industries that would qualify for the exemption are subject to lower total payroll thresholds of \$1.5 million instead of the standard \$2.5 million, and neither program imposes an out-of-state sales requirement on those industries.

Incentive Administration

The Computer Services, Data Processing or Research and Development Tax Exemption is administered by the OTC. In order to claim the exemption, the taxpayer must submit an application to the OTC that includes details about the new or expanded facility, the operations taking place there and its employment level. Qualified purchasers must derive at least 50 percent of its gross revenue from the sales of goods or services to out-of-state customers and create 10 new jobs at an average annual salary of \$35,000. Employment and salary level must be maintained for at least 36 months. Data processing firms must make qualified purchases of at least \$100,000 to qualify.

Following the approval of an application, qualified taxpayers must submit invoices of each purchase showing the amount of state and local taxes billed and an affidavit of the vendor stating the state and local sales tax seen on the invoice has been remitted to the OTC and has not been credited, rebated, or refunded to the purchaser. Once the documents are reviewed and employment increases are verified with the Employment Securities Commission, the qualified taxpayer may receive a refund of sales and use taxes paid.



Economic and Fiscal Impact



Economic and Fiscal Impact

According to the OTC, this exemption has not been used in the last five fiscal years and therefore has had no economic or fiscal impact.



Incentive Benchmarking



Benchmarking

A detailed description of comparable state programs can be found in **Appendix A**.

For evaluation purposes, benchmarking provides information related to how peer states use and evaluate similar incentives. At the outset, it should be understood that no states are ‘perfect peers’ – there will be multiple differences in economic, demographic and political factors that will have to be considered in any analysis; likewise, it is exceedingly rare that any two state incentive programs will be exactly the same.⁵ These benchmarking realities must be taken into consideration when making comparisons – and, for the sake of brevity, the report will not continually re-make this point throughout the discussion.

The process of creating a comparison group for incentives typically begins with bordering states. This is generally the starting point, because proximity often leads states to compete for the same regional businesses or business/industry investments. Second, neighboring states often (but not always) have similar economic, demographic or political structures that lend themselves to comparison. In the case of the Computer Services, Data Processing, and Research and Development Tax Exemption, only two bordering states (Missouri and Texas) were found to have comparable programs for data centers, but comparable programs were also found in 19 additional states nationwide. Comparable exemptions for research and development were found in 15 states.

No comparable programs were found to require that a firm be new or expanding, hire a certain amount of new employees, or pay them a minimum wage. Of 15 states where similar exemptions were found, 13 do not require the firm claiming the exemption to be predominantly engaged in research and development activities. However, those exemptions do require that the exempt equipment be used fully or predominantly for research and development activities. California and Rhode Island’s exemptions have more specific requirements. California allows firms to qualify if at least 50 percent of revenue or operating expenses are the result of qualified research and development activities or if 50% of salaries, value of production or employees are assigned to research and development activities. Rhode Island requires that research and development must be an “integral part” of a qualifying firm’s operations.

Comparable data center programs are differentiated by several features, including minimum investment requirements, duration of exemption, job creation requirements, wage requirements and square footage requirements.

Minimum Investment

Of 21 comparable state programs, 18 have high investment requirements comparable to Oklahoma. Other state programs generally require a data center to commit to a certain level of capital investment in order to qualify for an exemption. These investment minimums range from \$3 million to \$250 million, while Oklahoma only requires \$100,000 in qualified purchases in a given year to qualify.

Electricity Sales Tax Exemptions:

In addition to exempting equipment and construction purchases from sales and use tax, several states offer a sales tax exemption on the costs associated with power consumption. Considering the high usage of electricity by these facilities, this may be an attractive incentive. It is likely that these exemptions are costly to states as well, although there is often minimal reporting on the costs of exemptions. States offering electricity sales tax exemptions to data centers include Indiana, Iowa, North Carolina, South Carolina, Tennessee, and Texas.

⁵ The primary instances of exactly alike state incentive programs occur when states choose to ‘piggyback’ onto federal programs.



Exemption Duration

Several states limit the number of years a facility can qualify for an exemption, while Oklahoma does not. These states include Arizona, Illinois, Indiana, Minnesota, Missouri, Nevada, and Texas. Duration limits in this group range from 10 to 50 years.

Job Creation and Wage Requirements

In the comparison group, new job or payroll creation is required by 13 states. Requirements range from 10 to 50 new jobs. Minimum wage requirements are imposed by 10 states. Most of these states require wages to be at least 150 percent of the state or county average. All states with a minimum wage requirement were found to tie the requirement to a state, county or other area average. Oklahoma's exemption requires a wage of at least \$35,000, with no adjustments relative to area averages.

Square Footage Requirements

Iowa, Minnesota, North Dakota, Texas, and Washington include the square footage of the data center facility as part of qualification requirements. This is another way to target a certain level of investment and commitment. For example, Texas' exemption requires facilities to be at least 100,000 square feet, while Iowa's exemption is available to data centers of 5,000 square feet and larger.

Benchmarking Program Evaluations

The low employment nature of data centers appears to lead to high costs per job for data center incentives. A 2017 evaluation of Washington's data center sales and use tax exemption estimated a cost per job created by the program to be approximately \$205,000 between FY 2015 and FY 2019.⁶ Oregon's evaluation of its property tax abatement for data centers found exemptions per job ranging from \$87,000 to nearly \$800,000.⁷ A 2016 report by Good Jobs First reviewed 11 data center incentive deals from the last ten years with investments of \$50 million or more and found costs per job ranging from \$780,000 to \$6.4 million.⁸

A 2018 review of the state of the data center market in Washington suggested the state's inconsistency in offering tax preferences to data centers had a significant impact on industry growth in the state. Washington's original data center incentives were ended in December 2007, then re-enacted in April 2010 causing an influx of new investment. However, just over a year later the incentives were allowed to lapse. In May 2012, the state re-enacted the incentives, but in the meantime significant investment from Adobe, Apple, Fortune Data Centers and NetApp was driven to Oregon, which does not have a sales tax and offers a property tax abatement for data centers. Washington's sales tax adds as much as 10.1 percent to data center costs, according to State estimates. In this case, the sales tax exemption was a key to being competitive for data center investments.⁹

⁶ JLARC Final Report: 2016 Tax Preference Performance Reviews, January 2017

⁷ Oregon Secretary of State Audit Report, "Business Oregon Can Improve the Evaluation and Transparency of Economic Development Incentives and Loan Programs" December 2016

⁸ Good Jobs First, Money Lost to the Cloud, October 2016

⁹ State of Washington Department of Commerce, State of the Data Center Industry, January 2018



Appendices



Appendix A: Comparable State Programs Data Center Incentives

State	Name	Benefit	Minimum Investment	Job Creation Requirements	Benefit Duration	Other Qualifications
Oklahoma	Computer Services/Data Processing/Telecommunications Sales Tax Exemption	Refund of state and local sales taxes on purchases of computers, data processing equipment, related peripherals, telegraph, or telecommunications services, and equipment	Must purchase \$100,000 of exempt items	Must add 10 new full time employees with an average salary of \$35,000 who are employed for at least 36 months	Unspecified	Must be a new or expanding business
Arizona	Computer Data Center Program	Transaction Privilege Tax and Use Tax exemptions on the state, county, and local levels – defined as the deduction of gross proceeds of sale or gross income from the sale of qualified equipment	\$50 million (if located in Maricopa or Pima Counties) or \$25 million if located anywhere else. \$250 million if the capital investment was made at an existing facility	None	10 years (20 years for sustainable redevelopment projects)	
Georgia	Data Centers Sales & Use Tax Exemption	Sales tax exemption for equipment in data centers	\$100 million to \$250 million, depending on the location of the investment	Create and maintain 20 new jobs	No limit specified	
Illinois	Data Center Tax Incentive	Exemption on state and local taxes for equipment inside facilities	\$250 million	Must employ 20 full time workers over five years with salaries at least 25% higher than the median income in the county in which data center is located	10 years	Must meet green building standards (such as LEED or Energy Star)
Indiana	Data Center Incentive	Sales tax exemptions for electricity, equipment, and construction costs	\$25 million - \$150 million	None	25 years (50 years if invest \$750 million)	Must procure at least 75% of materials and labor used in construction through local vendors
Iowa	Data Center Business Property Exemption	Sales and use tax exemption for capital utilized in data centers, as well as electricity	\$200 million over a six year period	None	No limit specified	Data center must be at least 5,000 sq ft.
Kentucky	Communications and Computer Systems Tax Refund	Sales tax refund for computer system equipment	\$100 million	None	No limit specified	
Minnesota	Data Center Sales Tax Exemption	Sales tax exemption on equipment and energy; permanent property tax exemption on equipment	Equipment must cost at least \$30 million	None	20 years	Data center must be at least 25000 sq ft
Mississippi	Data Center Incentives	Sales tax exemption on computer equipment and software used by data centers	\$50 million	Must create at least 50 jobs paying 150% of the state average wage	No limit specified	
Missouri	Data Center Sales Tax Exemption Program	State and local Sales tax exemption	New data centers: \$25 million; Existing data centers: \$5 million	Must employ 10 people with average wages that meet or exceed 150% of the county average wage over a 36 month period. Existing data centers must add five jobs with average wages that meet or exceed 150% of the county average during a 24 month period	10 years for expanding data centers and 15 years for new data centers	
Nebraska	Data Center Tax Exemption	Sales and property tax exemption	Several tiers: \$3 million and employ at least 30 people; \$37 million and keep employment steady	Either employ at least 30 new people or keep employment steady, depending on tier	No limit specified	
Nevada	Data Center Tax Abatement	Partial sales and property tax exemptions - up to 75%	\$25 million; \$100 million for 20 year abatement	Must create 10 jobs at average wages. For the 20 year abatement must create 50 jobs.	10 or 20 years	Must commit to maintain the business in Nevada for 10 years



State	Name	Benefit	Minimum Investment	Job Creation Requirements	Benefit Duration	Other Qualifications
North Carolina	Data Center Sales and Use Tax Exemptions	Sales tax exemption for equipment and electricity used by data centers	\$75 million	Data center must meet county wage standard and health insurance requirements; must pay at least 50% of health insurance premiums	No limit specified	
North Dakota	Computer and Telecommunications Equipment Sales Tax Exemption	Sales tax exemption on computer equipment			No limit specified	Must be at least 16,000 sq ft
Ohio	Data Center Tax Exemption	Partial or complete sales tax exemption	\$100 million	Must create annual payroll of at least \$1.5 million	Eligibility is determined on an annual basis	
South Carolina	Data Center Materials Tax Exemption	Sales tax exemption on computer equipment and a reduction on electricity sales tax	\$50 million	Create at least 25 jobs within the five year period that pay an average wage of at least 150% of the state or county per capita wage, whichever is lower, and maintain those jobs for at least three years	No limit specified	
Tennessee	Data Center Tax Credit	Sales and use tax exemption	\$100 million	Must create 15 full time positions that pay at least 150% of the state's average occupational wage over a three year period	No limit specified	
Texas	Data Center Sales Tax Exemption	Sales tax exemption on equipment and electricity for data centers	\$200, \$250, or \$500 million depending on length of benefit	Must employ a minimum of 20 people with an average salary at least 120% of the county average salary	10, 15, or 20 years depending on the amount of investment	Must contain at least 100,000 sq ft
Virginia	Data Center Sales and Use Tax Exemption	Sales tax exemption	\$150 million	Must create 50 full time jobs paying 150% of the average wage of the community in which the data center is located. 25 full time jobs required if data center is located in an enterprise zone or in a locality that had an unemployment rate in the preceding year that is at least 150% of the average statewide unemployment rate	No limit specified	
Washington	Data Center Sales and Use Tax Exemption	Sales and use tax exemption	None	Must create 35 jobs within six years that pay 150% of the county wage and offer health insurance, or 3 positions for each 20,000 sq ft of space that is dedicated to housing working servers	Must begin construction within two years of approval	Must be located in a rural or developing area. Must have at least 20,000 sq ft dedicated to housing working servers
West Virginia	High Technology Valuation Act	Tangible personal property is valued for property tax purposes at 5% of the original cost of the property. Sales tax is eliminated from all purchases of prewritten software, computers, computer hardware, servers, building materials, and tangible personal property for direct use in a high-technology business or internet advertising business	None	None	No limit specified	
Wyoming	Data Center Sales Tax Exemption	Sales tax exemption on computer equipment	\$5 million in capital infrastructure (in addition to \$2 million in equipment) or \$50 million in capital infrastructure (in addition to \$2 million in equipment)	None	No limit specified	



Research and Development Incentives

State	Name	Benefit	Other Qualifications
Oklahoma	Computer Services/Data Processing/Telecommunications Sales Tax Exemption	Refund of state and local sales taxes on purchases of computers, data processing equipment, related peripherals, telegraph, or telecommunications services, and equipment	Must be a new or expanding business
Arizona	Research and Development Sales Tax Exemption	Full exemption	Qualified purchase must be used predominantly in research and development
California	Manufacturing and Research & Development Equipment Exemption	Partial exemption	Can qualify if 50 percent of revenue or operating expenses are in a qualifying line of business. Can also qualify if 50% of salaries, value of production or number of employees are assigned to qualifying line of business
Florida	Sales and Use Tax Exemptions for Machinery and Equipment	Full exemption	Qualified purchase must be used predominantly in research and development
Idaho	Research and Development Sales Tax Exemption	Full exemption	Qualified purchase must be used predominantly in research and development
Indiana	Research and Development Activities Sales Tax Exemption	Full exemption	Qualified purchase must be used predominantly in research and development
Iowa	Research and Development Sales Tax Exemption	Full exemption	Qualified purchase must be used predominantly in research and development
Maine	Research and Development Sales Tax Exemption	Full exemption	Qualified purchase must be used predominantly in research and development
Maryland	Sales and Use Tax Exemption for Research and Development Purposes	Full exemption	Qualified purchase must be used predominantly in research and development
Ohio	Research and Development Sales Tax Exemption	Full exemption	Qualified purchase must be used predominantly in research and development
Rhode Island	Research and Development Sales Tax Exemption	Full exemption	Research and development must be an "integral part" of the company's operations
South Carolina	Research and Development Machinery Sales Tax Exemption	Full exemption	Qualified purchase must be used predominantly in research and development
Texas	Sales Tax Exemption Or Franchise Tax Credit For Qualified Research	Full exemption	Qualified purchase must be used predominantly in research and development
Utah	Sales Tax Exemptions for Machinery and Equipment	Full exemption	Qualified purchase must be used predominantly in research and development
Virginia	Sales Tax Exemption for Tangible Property Used in Research & Development	Full exemption	Qualified purchase must be used predominantly in research and development
Washington	Sales Tax Exemptions for Machinery and Equipment	Full exemption	Qualified purchase must be used predominantly in research and development