LOUISIANA QUALITY JOBS PROGRAM

TAX INCENTIVE EVALUATION

PERFORMANCE AUDIT SERVICES
ISSUED MARCH 12, 2020

LOUISIANA LEGISLATIVE AUDITOR
1600 NORTH THIRD STREET
POST OFFICE BOX 94397
BATON ROUGE, LOUISIANA 70804-9397

LEGISLATIVE AUDITOR
DARYL G. PURPERA, CPA, CFE

**ASSISTANT LEGISLATIVE AUDITOR
FOR STATE AUDIT SERVICES**
NICOLE B. EDMONSON, CIA, CGAP, MPA

DIRECTOR OF PERFORMANCE AUDIT SERVICES
KAREN LEBLANC, CIA, CGAP, MSW

FOR QUESTIONS RELATED TO THIS PERFORMANCE AUDIT, CONTACT
GINA V. BROWN, PERFORMANCE AUDIT MANAGER, OR
EDWARD P. SEYLER, ECONOMIST, AT 225-339-3800.

March 12, 2020

The Honorable Patrick Page Cortez,
 President of the Senate
The Honorable Clay Schexnayder,
 Speaker of the House of Representatives

Dear Senator Cortez and Representative Schexnayder:

This report provides the results of our audit of Louisiana's Quality Jobs Program, which provides incentives to businesses to locate or expand existing operations in the state and is overseen by Louisiana Economic Development (LED). The purpose of this audit was to evaluate the program's economic impact, administration, and structure.

In examining the economic impact of the program, we found that the 59 Quality Jobs projects that started in calendar years 2011 and 2012 will have generated $10.1 billion in direct, indirect, and induced household income for Louisiana. However, we estimated the majority of that amount would have been generated even if the Quality Jobs program had not been available. As a result, it is possible that the program generates more in household income than it costs the state, but the program is still a net loss for the State Treasury. In the best-case scenario, we estimated that the program generated $1.45 in household income for every dollar it cost the state, but only $0.10 in state tax revenue. In the worst-case scenario, the program only generated $0.10 in household income and $0.01 in state tax revenue for every dollar.

The state could improve the performance of the Quality Jobs program by capping the sales and use tax rebate and project facility expense rebate components. We determined that capping both rebates, similar to the caps already in place for the Louisiana Enterprise Zone rebate, would have resulted in $84.8 million in net savings to the State Treasury for those same 59 projects. The state could have used these savings to provide additional spending or tax relief, resulting in a $49.9 million increase in the overall net gain for the state and its households.

The program could be further improved by giving recipient companies more incentive to direct their investment spending on equipment, materials, and construction labor to Louisiana-based businesses. In examining a random sample of invoices, we found that only 33.5 percent of Quality Jobs investment spending went to Louisiana-based businesses. Incentivizing in-state spending is also similar to the Motion Picture Investor Tax Credit requirement that companies can only receive the credit for Louisiana spending. Production companies can still have non-Louisiana spending, but such spending is not eligible for the credit.

The Honorable Patrick Page Cortez,
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March 12, 2020
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We also found LED needs to strengthen its administration of the program. For example, from calendar years 2011 through 2018, the Louisiana Department of Revenue paid $669,912 in Quality Jobs rebates to six companies for creating 155 jobs, but these companies either did not maintain the required number of new jobs through the third year of their contract or did not submit the documentation showing they had done so.

Additionally, we found that LED only reported estimates of the number of new direct jobs that qualified for rebates through the Quality Jobs program. The estimates, which were submitted by the companies when they applied for a rebate contract, exceeded the actual job creation numbers by 113.2 percent. For all completed or canceled Quality Jobs projects since the program's inception in 1995, the companies applying for rebates reported to LED that they anticipated creating 28,160 jobs, when only 13,210 jobs were created.

The legislature also may wish to consider making some changes in the structure of the Quality Jobs program. Contrary to other states with similar programs, Louisiana's program does not have different job and wage requirements based on the economic conditions in different parishes. Of state's 64 parishes, 17 (26.6 percent) have never had a company receive a Quality Jobs incentive. Sixteen of these 17 parishes have wages that are below the state average, and 15 have unemployment rates that are above the state average. Amending certain aspects of the Louisiana Quality Jobs Program Act, such as developing variable wage requirements and establishing tiered job requirements and rebate percentages based on economic conditions in each parish, could help parishes with low wages or high unemployment rates benefit from the program.

We also found that since the Legislature repealed the requirement for LED to perform a cost-benefit analysis for each project showing a positive net benefit for the state as a prerequisite for getting approval for a Quality Jobs incentive, the number of Quality Jobs projects approved has increased by 626.7 percent.

I hope this report will benefit you in your legislative decision-making process.

We would like to express our appreciation to the management and staff of LED for their assistance during this audit.

Sincerely,

Daryl G. Purpera, CPA, CFE
Legislative Auditor

DGP/aa
QUALITYJOBS

Louisiana Legislative Auditor
## Daryl G. Purpera, CPA, CFE

Louisiana Quality Jobs Program
Tax Incentive Evaluation

Introduction

We evaluated the economic impact, administration, and structure of Louisiana's Quality Jobs (QJ) Program, which incentivizes businesses to locate or expand existing operations in Louisiana. The QJ program was created by Act 1238 of the 1995 Regular Session to support employers within certain industries, such as manufacturing, who create well-paying jobs and make significant contributions to the development of the state economy. Since the creation of the program, new businesses or expansions of existing businesses in 47 (73.4%) of Louisiana's 64 parishes have received cash incentives from the QJ program. Exhibit 1 shows the location of these parishes and the 17 parishes that have had no QJ jobs rebates. From the program's inception through 2018, the state has paid $822.6 million in incentives for 469 QJ projects, and these projects created 26,980 new jobs.

> The **Quality Jobs Program** is a Louisiana business incentive program that provides cash rebates to companies within certain industries, such as manufacturing, that create new well-paying jobs by meeting certain wage criteria.

Exhibit 1
Quality Jobs Rebates by Parish
Calendar Years 1995 - 2018

Source: Prepared by legislative auditor's staff using 2018 United States Census and LED.
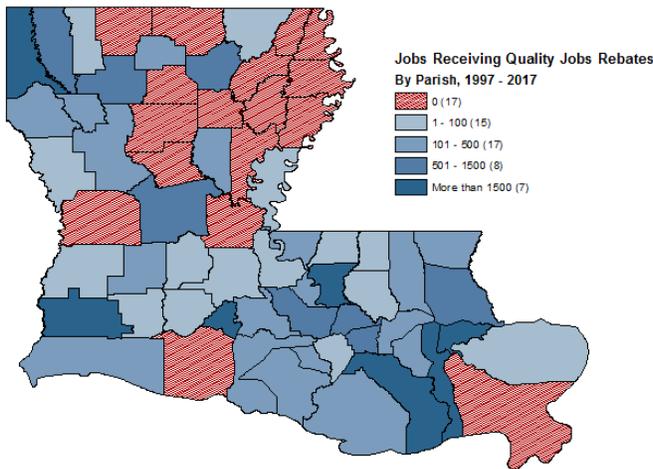
Since fiscal year 2008, the cost of the program has grown by more than 116.1%, from $46.3 million a year to $99.9 million a year in fiscal year 2018. Examples of companies that have received a QJ rebate include New Orleans Pelicans NBA, LLC; Marathon Petroleum Company, LP; Amedysis Holding, LLC; and Danos, LLC.[1] This audit is the first in a series of audits that examines tax rebates and incentives offered in Louisiana.

Creating well-paying jobs is important because Louisiana has the third-highest poverty rate among U.S. states, and access to high-paying jobs has an inverse correlation with poverty rates across states. The QJ program is limited to specific types of businesses,

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[1] These companies received the largest dollar amount of payroll rebates from the inception of the program through 2018. The sales and use tax rebate (SUTR) and project facility expense rebate (PFER) amounts are confidential.

such as manufacturers, corporate headquarters, and software companies, as well as businesses with at least 50% of their sales to out-of-state customers. These types of businesses have more choices in where to locate, so incentives can have a greater effect on these types of businesses as compared to businesses such as retailers or local water systems, which are more tied to existing local demand for their goods and services and are specifically excluded from the QJ program. Appendix C summarizes the types of companies that are eligible and ineligible for this program.

The QJ program offers the following three types of incentives to businesses that meet certain criteria:

- **Payroll Rebate ($54.8 million in FY 2018).** In line with the program's intent, this rebate incentivizes the creation of well-paying jobs. In order to qualify for the payroll rebate, companies with 50 or fewer employees must create five new direct jobs, while larger companies must create at least 15 new direct jobs. To qualify for the rebate, companies must pay at least $18/hour to receive a 4% rebate or $21.66/hour to receive a 6% rebate, the new employees must reside in Louisiana and work an average of at least 30 hours per week, and the company has to provide access to Affordable Care Act-compliant health insurance. The company must also be eligible based on its industry, out-of-state sales, or be located in one of the lowest 25% of parishes based on per-capita income, as explained in Appendix C.

- **Sales and Use Tax Rebate (SUTR) ($29.2 million in FY 2018).** In 2002, the Legislature added SUTR to the QJ program.[2] As opposed to directly incentivizing the creation of new well-paying jobs, the state provides this rebate for the sales tax paid on materials used in the construction of a building or any addition or improvement to a building for housing any legitimate business enterprise, and machinery and equipment used for the direct jobs created resulting from the QJ program. The company must meet the job creation requirement to receive this rebate. Companies can also receive rebates from local governments for their local sales and use taxes paid with the approval of the local entity levying the tax.

- **Project Facility Expense Rebate (PFER) ($16.0 million in FY 2018).** In 2007, the Legislature added PFER to the QJ program.[3] As opposed to directly incentivizing the creation of new well-paying jobs, the state provides a rebate equal to 1.5 % of qualifying capital expenditures, such as equipment, materials, and construction labor, incurred as part of the QJ project. A company cannot receive both SUTR and PFER rebates, and must meet the job creation requirement to receive this rebate.

All employers with a QJ contract who meet the job creation requirements can receive the payroll rebate. In addition to the payroll rebate, as mentioned above, they can receive either the

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[2] Act 153 of the First Extraordinary Session of 2002
[3] Act 400 of the Regular Session of 2007

SUTR or PFER rebate. Exhibit 2 shows how much the state paid in QJ rebates from fiscal years 2008 through 2018, by rebate type.

Exhibit 2
Quality Jobs Program-Amount of Rebates Paid
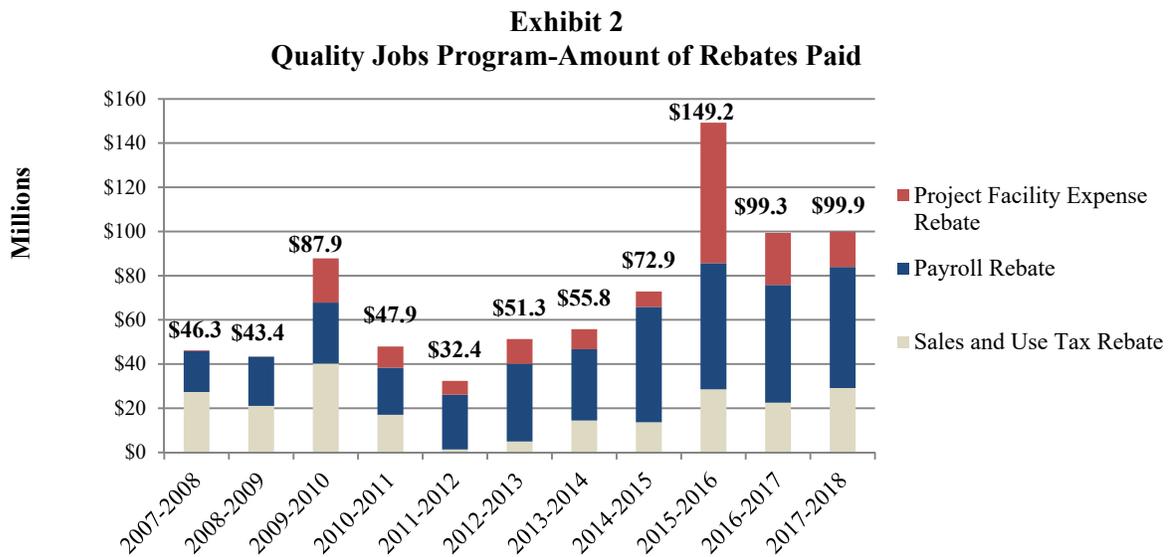
Source: Prepared by legislative auditor's staff using information from LDR's Tax Exemption Budget.

To receive a QJ rebate, a company must submit advance notification to LED before the beginning of the project and complete an application. After LED has received the application, it is sent to both the Louisiana Workforce Commission (LWC) and the Louisiana Department of Revenue (LDR), who ensure that the companies are in compliance with agency requirements such as payment of state and unemployment taxes. After all three agencies have reviewed the application, the Board of Commerce and Industry (C&I) decides if the application should be approved at its bi-monthly meeting. If approved, LED executes a contract for a term of up to five years, which can be renewed for a total of 10 years. See Appendix D for a detailed flowchart of this process.

State law gives both LED and LDR the authority to administer different aspects of the program, as summarized in Exhibit 3.

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Exhibit 3	
Responsibilities of Entities Administering the QJ Program	
Entity	**Description**
LED	• **Processes QJ Application** [*R.S. 51:2454(A) and R.S. 51:2455(D)*]. LED is responsible for processing QJ applications and assists company representatives through the application process. LED prepares QJ contracts for C&I and the Governor to approve. • **Verifies Annual Certification Reports (ACR) and Other Compliance Documents** [*R.S. 51:2456(A) and 2457(A)*]. QJ contract recipients must file ACRs that report the number of new jobs, as well as information about the employees who hold those jobs. LED is responsible for verifying the information in these reports. • **Approves Payroll Rebates** [*R.S. 51:2456(A) and 2457(A)*]. LED is responsible for approving the payroll rebate amount based on the ACR and communicating this amount to LDR. • **Notifies LDR of Noncompliance** [*LAC 13:I:1123(A)(5)*]. If a QJ recipient fails to create the requisite number of jobs and minimum payroll by the third year of its contract, LED is required to notify LDR.
LDR	• **Disburses Payroll Rebate** [*R.S. 51:2455(C) and 2457(A)(4)*]. LDR is responsible for disbursing the payroll rebate annually based on the amount approved by LED. • **Approves and Disburses Sales and Use Tax and Project Facility Expense Rebates** [*R.S. 51:2457(B) and (C)*]. Companies submit their requests for these rebates directly to LDR. LDR determines the amount of and disburses claims for these two rebates. • **Recaptures Disallowed Rebates** [*R.S. 51:2457(A)(5), LAC 13:I:117(F)(3), R.S. 47:1561.2*]. LDR has the authority to recover any rebates that are disallowed because the employer did not qualify for the rebate.
Source: Prepared by legislative auditor's staff using state law.	

According to the Pew Charitable Trusts, nearly two-thirds of states in the U.S. now regularly evaluate their economic development tax incentive programs to address important questions, such as the extent to which incentives affect business behavior and whether they are achieving their goals.[4] The Pew article notes examples of policy changes resulting from tax incentive evaluations by state auditors or other research agencies in six other states. In addition, Louisiana R.S. 47:1517.1(A) notes that the Legislative Auditor has the authority to evaluate the impact, efficiency, effectiveness, and cost-effectiveness of state agency programs. To this end, we evaluated three different areas of the Quality Jobs program:

Section 1. Economic Impact of the QJ Program (*p. 5-19*)
Section 2. Administration of the QJ Program (*p. 20-23*)
Section 3. Structure of the QJ Program (*p. 24-30*)

Our results are discussed in detail throughout the remainder of the report. We provided our economic impact analysis to economists familiar with public finance and applied economics research, and we took their comments into consideration when revising the report. Appendix A contains LED and LDR's responses, Appendix B summarizes our scope and methodology, Appendix C summarizes the industries eligible and ineligible for this program, and Appendix D summarizes the full application and administration processes of the program. Appendix E compares other states' minimum qualifying wage criteria, and Appendix F compares other states' tiered structures for program eligibility.

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[4] "Governments Increasingly Rely on Evaluations for Tax Incentive Reform." https://www.pewtrusts.org/en/research-and-analysis/articles/2019/12/18/governments-increasingly-rely-on-evaluations-for-tax-incentive-reform

Section 1: Economic Impact of Quality Jobs Program

It is important to evaluate the performance of tax incentive programs to ensure these programs have a positive return on investment of taxpayer dollars. Although LED has estimated the amount of new tax revenues generated by projects receiving QJ rebates, LED's analysis does not account for how much of these new tax revenues would have been generated even if the QJ program had not been available. The Pew Charitable Trusts and the Louisiana Task Force on Structural Change in Tax and Budget Policy stress the importance of conducting a "but-for" analysis for an economic development incentive.[5] The purpose of such an analysis is to estimate how much of the new economic activity would not have occurred "but-for" the existence of a particular economic development incentive. To evaluate the economic impact of the QJ program, we conducted a "but-for" analysis of the program.

> **Economic impact** is defined in this report as the effect of the QJ program on state tax revenues, household income, and state spending. Three ways of measuring economic impact include:
>
> - **Fiscal return on investment (ROI)**, calculated as the increase in state tax revenue caused by the QJ program, per dollar of gross state spending on rebates for the QJ program.
> - **Household income benefit-cost ratio**, calculated as the dollars of new household income created by the QJ program, divided by the net cost of the QJ program to the State Treasury.
> - **Overall net gain or loss**, calculated as the dollars of new household incomes caused by the QJ program, minus the net state spending on the QJ program.

LLA's Model for Determining Economic Impact

Although it is not possible to directly observe what would have happened if an economic development program had not existed, economists have proposed several approaches to estimate what would have happened in such a scenario. These approaches include surveying recipient companies, econometric analysis, and simulations, as further explained in Appendix B.

We determined that the best approach to evaluating the QJ program would be to utilize a simulation model that estimates how much businesses would increase their hiring and investment in response to the Quality Jobs incentives. A simulation model uses economic theory to predict how businesses will respond to a change in prices or some other factor, such as an economic development incentive. Our model relies on the assumption that companies will increase hiring and capital spending if the cost of labor or cost of capital decreases. This approach enables us to estimate what would have happened if the QJ program had not existed. Simulation approaches have been used to study economic development incentives by Fisher and Peters (1998), Peters and Fisher (2002), Bartik and Bishop (2009), and Bartik and Erickcek (2014). Our model most closely resembles the approach of Murray (1993), Luger and Bae (2005), and Chirinko and Wilson (2010). A contracted report for the state of Tennessee also followed a similar approach (Anderson Economic Group, LLC, 2016). We acknowledge that there are other approaches with

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[5] "How States Are Improving Tax Incentives for Jobs and Growth," Pew Charitable Trusts, May 2017, p. 15. "Louisiana's Opportunity: Comprehensive Solutions for a Sustainable Tax and Spending Structure," HCR 11 Task Force, January 2017, p. 52.

their own advantages and disadvantages, and there are different opinions on how best to determine the economic impact of the QJ program. We also acknowledge that there is not only one correct way, and that different approaches may yield different results. However, we believe our approach is both reasonable and appropriate. Appendix B provides more detail on the different approaches and why we consider a simulation approach to be the most appropriate for this audit.
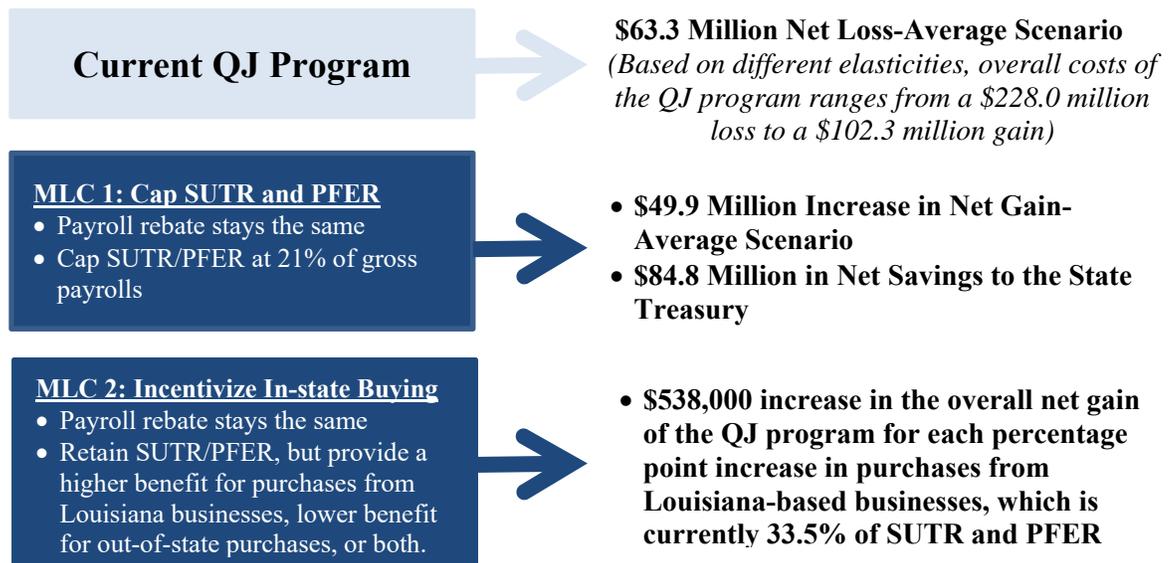
Summary of the LLA's Economic Impact Results

Overall, based on our economic model, we estimate the overall benefit to households minus the overall net cost of the QJ program ranged from a $228.0 million loss to a $102.3 million gain for the 59 QJ projects that started during calendar years 2011 and 2012, with the average effect being a net loss of $63.3 million.[6] However, our analysis also shows that the program's benefits could exceed its costs in certain scenarios. As such, the report does not recommend eliminating the program but instead includes two matters for legislative consideration (MLCs) that would likely give the state a better fiscal return on investment (ROI) and household income benefit-cost ratio from this program. We estimated the QJ program's fiscal ROI to the state, the household income benefit-cost ratio, and the overall net gain from the program with the program's current requirements. We define these terms on page 5. Exhibit 4 summarizes these MLCs using the 59 QJ projects that started during calendar years 2011 and 2012. These MLCs are discussed in greater detail throughout this section of the report.

Exhibit 4
MLCs to Improve the Performance of the QJ Program
Effect on Overall Net Gain or Loss of Program over Calendar Years 2011 through 2032
for the 59 QJ Projects that Started during Calendar Years 2011 and 2012

Current QJ Program →

$63.3 Million Net Loss-Average Scenario
(Based on different elasticities, overall costs of the QJ program ranges from a $228.0 million loss to a $102.3 million gain)

MLC 1: Cap SUTR and PFER
- Payroll rebate stays the same
- Cap SUTR/PFER at 21% of gross payrolls

→
- **$49.9 Million Increase in Net Gain-Average Scenario**
- **$84.8 Million in Net Savings to the State Treasury**

MLC 2: Incentivize In-state Buying
- Payroll rebate stays the same
- Retain SUTR/PFER, but provide a higher benefit for purchases from Louisiana businesses, lower benefit for out-of-state purchases, or both.

→
- **$538,000 increase in the overall net gain of the QJ program for each percentage point increase in purchases from Louisiana-based businesses, which is currently 33.5% of SUTR and PFER**

Source: Prepared by legislative auditor's staff using information from LED, LDR, and LWC

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[6] The average effect is the result of using the mean elasticity.

Specifically, we found the following:

- **We estimate that the 59 Quality Jobs projects that started in calendar years 2011 and 2012 will have generated $10.1 billion in direct, indirect, and induced household income for Louisiana households. However, the majority of the $10.1 billion in household income would likely have been generated even if the QJ program had not been available.** Based on our economic model, we estimate the overall benefit to households minus the overall net cost of the QJ program ranged from a $228.0 million loss to a $102.3 million gain for these projects depending on the sensitivity of businesses to the rebates, which we refer to as the elasticity. This results in the average effect being a net loss of $63.3 million.[7] Over calendar years 2011 through 2022, the state will have paid out approximately $253.3 million in rebates for these contracts.

- **The state could improve the performance of the QJ program by capping the SUTR and PFER rebates similar to the caps already in place for the Louisiana Enterprise Zone.** Capping SUTR and PFER to 21% of gross payrolls would have resulted in an estimated $49.9 million increase in the net gain of the program and $84.8 million in net savings to the State Treasury (under the average scenario) for the 59 QJ projects that started in calendar years 2011 and 2012. In addition, tying the SUTR and PFER rebates to gross payrolls would cause the rebates to be more directly related to the original intent of Louisiana's QJ program as stated in R.S. 51:2452(A)(2), which is to provide incentives in amounts directly related to the creation of new direct jobs.

- **The state could improve the performance of the QJ program by incentivizing QJ recipient companies to direct more of their investment spending on equipment, materials, and construction labor towards Louisiana-based businesses.** We randomly sampled 110 invoices, representing $21.0 million (18.2%) of the $115.7 million issued during fiscal years 2012 through 2018, and found that 33.5% of QJ investment spending goes to Louisiana-based businesses, with variation between industry groups. For every percentage point increase in purchases from Louisiana businesses, the overall net gain of the QJ program would increase by approximately $538,000.

- **LDR should account for out-of-state purchases receiving the SUTR or PFER rebates when it starts analyzing the return on investment for the QJ program in 2020.** As mentioned in the previous finding, of the SUTR and PFER rebates we reviewed, 66.5% of capital expenditures for QJ projects were for purchases from out-of-state businesses for rebates issued during fiscal years 2012 through 2018. In-state purchasing also varies between industries. Not accounting for this could overstate the economic impact of the program.

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[7] This sensitivity can be quantified as an elasticity, which is defined in this report as the percentage increase in spending on capital and labor for a one-percent decrease in the per-unit cost of capital and labor.

Our results, along with recommendations to help strengthen the program, are discussed in more detail below.

We estimate that the 59 Quality Jobs projects that started in calendar years 2011 and 2012 will have generated $10.1 billion in direct, indirect, and induced household income for Louisiana households. However, the majority of the $10.1 billion in household income would likely have been generated even if the QJ program had not been available. Based on our economic model, we estimate the overall benefit to households minus the overall net cost of the QJ program ranged from a $228.0 million loss to a $102.3 million gain for these projects, depending on the sensitivity of businesses to the rebates.

The amount of additional hiring and investment induced by the Quality Jobs incentives is captured by elasticity measurements that we obtained from peer-reviewed economics research. The elasticity represents the percentage increase in spending on capital and labor for a 1% decrease in the per-unit cost of capital and labor. Estimates of this elasticity parameter vary, so we present our results based on a wide range of elasticity estimates, at least as broad as a 95% confidence interval. Appendix B further explains how we derived our elasticity estimates.

We estimate that the 59 Quality Jobs projects that started in 2011 and 2012 will have generated $10.1 billion in direct, indirect, and induced household income for Louisiana households. However, the majority of the $10.1 billion in household income would likely have been generated even if the QJ program had not been available. Based on our economic model, we found that between 0.2% and 3.4% (average 1.8%) of the household earnings associated with the QJ program would not have been generated but for the existence of the QJ program. These 59 projects will cost the state approximately $253.3 million (in present value)[8] by the end of their contract terms. The program would need to have created $235.3 million in household earnings (2.3% of the $10.1 billion) for the program's benefit to households to equal its net cost to the State Treasury (the gross cost of the program minus state tax revenues generated), or $3.3 billion in household earnings (32.8% of the $10.1 billion) for the program to generate enough new tax revenues to offset the cost of rebates. Further details on our "but-for" methodology can be found in Appendix B.

> The estimated "but-for" percentage is 1.8%. Even though this may seem low, it is consistent with the fact that the QJ program only provides an incentive equal to an average of 2.3% of companies' spending.

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[8] Rebate, tax, and household income amounts are discounted using the average projected risk-free, long-term interest rate from the Congressional Budget Office for federal fiscal years 2011 through 2022 of 2.3%. The undiscounted rebate cost to the state for calendar years 2011 through 2022 was estimated to be $264,290,022.

Based on our economic model, we estimate for the 59 Quality Jobs projects that started in 2011 and 2012 that the overall net gain of the program, defined as the household income generated by the program minus the net fiscal cost to the State Treasury, ranged from a $228.0 million loss to a $102.3 million gain, depending on the sensitivity of businesses to the rebates. Under the mean scenario, the state's overall net loss from the program would be $63.3 million. Over calendar years 2011 through 2022, the state will have incurred approximately $253.3 million in rebates in net present value for the 59 contracts that began in calendar years 2011 through 2012.[9] We estimate that these contracts will have caused state tax revenues to increase by $1.8 million to $25.2 million in present value over calendar years 2011 through 2032, resulting in a net fiscal cost to the state treasury of $251.5 million to $228.1 million. This state spending and private sector hiring generated a $23.5 million to $330.4 million increase in household income over calendar years 2011 through 2032.[10]

This increase of $23.5 million to $330.4 million in household income includes direct effects in the form of wages, salaries, and benefits paid directly to workers at QJ recipient companies, as well as indirect and induced effects, or ripple effects that occur from subsequent rounds of spending. As a result, the overall net gain of the program, defined as the household income generated by the program minus the net fiscal cost to the state treasury, ranged from a $228.0 million loss to a $102.3 million gain, as shown in Exhibit 5 below.

Exhibit 5 Estimated Economic Benefits to the State (Calendar Years 2011 – 2032) Caused by the QJ Program (in dollars) 59 Contracts Beginning in Calendar Years 2011-2012			
Sector	**Mean Scenario**	**Low-Elasticity Scenario**	**High-Elasticity Scenario**
Labor Elasticity (Lichter, et al. 2015)	-0.56	-0.22	-0.90
Capital Elasticity (Caballero et al., 1995)	-1.0	-0.01	-2.0
Household Income	$176,487,179	$23,511,790	$330,355,128
Gross Cost to the State	$253,281,148	$253,281,148	$253,281,148
State Taxes Generated*	$13,459,705	$1,793,115	$25,194,366
Net Cost to the State Treasury (Gross Cost Less Taxes)	($239,821,442)	($251,488,033)	($228,086,781)
Overall Net Gain (Loss)	($63,334,264)	($227,976,243)	$102,268,347
Fiscal Return on Investment (Taxes/Gross Cost)	0.05	0.01	0.10
Household Income Benefit-Cost Ratio (Household Income/Net Cost to the State Treasury)	0.74	0.09	1.45
* Calculated the state tax revenue using 7.63% of household income, and using estimates derived from the Legislative Fiscal Office. **Note:** All dollar amounts discounted to present value as of the first year of the contract using a discount rate of 2.3%. **Source:** Prepared by legislative auditor's staff using information from LED, LDR, and the U.S. Bureau of Economic Analysis.			

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[9] We used payroll and rebate amounts from actual rebate filings where available and then projected rebate and payroll amounts for each project out to 20 years after the contract start date, using Annual Certification Report filings and LWC wage data to estimate future trends. We discounted future cash flows using a discount rate of 2.3%, as described above.

[10] The costs of the program were only projected through 2022 because QJ rebate contracts cannot be extended past 10 years, so the costs through 2032 would be the same as the costs through 2022. The benefits, however, can continue after the contract expires, and we projected these through 2032. The timing of the QJ program's costs and benefits is summarized in Table B.6 on appendix page B.14.

Overall, we estimate that the QJ program provides a fiscal return on investment of $0.01 to $0.10 in state tax revenues for every dollar the state spends on the program and a household income benefit-cost ratio of $0.09 to $1.45 in new household incomes for every net dollar the state spends on the program. We calculated the fiscal return on investment by dividing the $1.8 million to $25.2 million in new state tax revenues generated by the QJ program by the $253.3 million the state spends on the program. We calculated the household income benefit-cost ratio by dividing the $23.5 million to $330.4 million in household incomes generated by the QJ program by the net cost to the State Treasury of $251.5 million to $228.1 million, respectively, as shown in Exhibit 5. As noted previously, the net cost to the State Treasury is the gross cost of the rebates minus the new tax revenues generated by the QJ program. Although LED reported in 2018 that the state received $1.96 for every dollar spent on the QJ program in its required reporting under Act 191 of 2013,[11] LED's estimate did not account for the possibility that most of the new jobs that received rebates under the program would have been created without QJ rebates.

If the state had spent the $253.3 million in QJ rebates on highway construction instead of QJ rebates, the state could have increased household incomes by $138.5 million and increased the quality of the state's infrastructure. The Pew Charitable Trusts and the Task Force on Structural Change in Tax and Budget Policy recommend accounting for the fact that dollars spent on economic development incentives could have been used in other ways that would have economic benefits, such as tax cuts or additional government spending.[12] The state's balanced budget requirement means that any additional spending or foregone revenues from the QJ program must be compensated for by less spending on other areas, or increased taxes. If the QJ program were eliminated, these dollars would potentially be free for other uses.

We estimate that spending the $253.3 million on highway construction would have increased household incomes by $138.5 million, compared to the $23.5 million to $330.4 million increase that we estimate for the QJ program. We estimated the effects of highway spending on households using the final-demand earnings multiplier for the highways and streets construction industry. This $138.5 million in benefits represents only the benefits to households from greater government spending in this sector, including direct, indirect, and induced effects from the first and subsequent rounds of spending. Highway construction spending could have additional benefits for households in the form of improved transportation infrastructure, which is not included in the $138.5 million figure. This additional $253.3 million in highway spending would also generate an estimated $10.6 million in taxes, for a net fiscal cost to the State Treasury of $242.7 million. Furthermore, this analysis does not account for federal matching dollars for highway spending, which would increase the benefits of spending on highway construction for Louisiana households. The state could also use these funds to decrease taxes instead of providing QJ rebates. Lowering taxes would also increase household incomes. However, calculating the size of the effect of a tax decrease is beyond the scope of this audit.

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[11] The Louisiana Legislative Auditor issued a financial audit on Act 191 reporting on October 3, 2018. https://lla.la.gov/PublicReports.nsf/8F85E9838E24E5308625831B00524FF5/$FILE/0001A8EC.pdf

[12] "How States Are Improving Tax Incentives for Jobs and Growth," p. 16, Pew Charitable Trusts, released May 2017. "Louisiana's Opportunity: Comprehensive Solutions for a Sustainable Tax and Spending Structure," HCR 11 Task Force, January 2017, p. 52-53.

Summary of Management's Response: According to LED, the LLA suggested that LED present its own study, and LED determined that it was imperative to employ the services of a reputable third-party organization. After receiving the LLA's economic analysis of the QJ program LED contracted with Regional Economic Modeling Inc. (REMI) on October 21, 2019, to perform its own economic analysis of the QJ program. REMI determined that the program has a significant economic impact on the state. Overall, REMI concludes that QJ "may very well be a sound investment for the state of Louisiana to make to spur economic growth even it if does not entirely pay for itself."

LED had the following concerns with LLA's economic analysis:

(1)   LLA's methodology is neither proven nor easily accessible, whereas REMI's methodology is proven and accessible.

(2)   LLA did not consider variable factors that may be present in the workforce and tax code of Louisiana.

(3)   LLA's methodology is not transparent and easily reproducible like REMI's methodology.

(4)   LLA did not survey QJ participants, which would have provided concrete information as to participants' impressions and actions arising from the use of QJ. LED further mentions that a survey from Virginia found that 70% of projects that received incentives would have been eliminated or downsized without the available incentives.

(5)   LLA's performance audit does not follow standards appropriate for the audit.

See Attachment A.1 for LED's complete response.

LLA Additional Comments: LLA did not suggest that LED conduct its own study. Although REMI estimated that the program has a significantly larger economic impact than what we estimated, we do not dispute REMI's overall conclusion that QJ "*may very well be a sound investment even if it does not entirely pay for itself.*" We did not make a conclusion as to the effectiveness of the QJ program overall.

In addition, LED declined to provide us with a copy of the REMI report that we could include in our files, but LED did allow us to view REMI's analysis of the QJ program. REMI **did not** conduct a "but-for" analysis, as recommended by the Pew Charitable Trusts and the HCR 11 Task Force, so the results of this study should not be interpreted as indicating the effect of the QJ program. To interpret REMI's findings as showing the true impact of the program would require the reader to assume that 100% of the projects that received the QJ rebate would not have happened in Louisiana but for the existence of the QJ program. Further explanation as to why REMI's analysis is not a but-for analysis is provided in Appendix B, page B.3. Finally, we offer for the following information in response to LED's specific concerns about our economic analysis:

(1)   Our methodology is based on several studies published in peer-reviewed journals, as explained in detail in Appendix B.[13]

(2)   Other variable factors would be relevant if we were comparing economic outcomes in Louisiana with outcomes from other states, but it is not relevant in this context. In an empirical study it would be important to control for differences between states. The advantage of a simulation model is that it enables us to estimate the effects of incentives, holding all other factors constant.

(3)   We thoroughly explain our model in Appendix B. Except for SUTR and PFER rebates, all of the information that we used is publicly available. Our model only requires a spreadsheet program and the BEA's RIMS multipliers to recreate. The model REMI uses is proprietary, and LED has not provided us with sufficient information to understand how REMI obtained its results.

(4)   As noted in Appendix B, prior research has established that surveys of companies receiving cash-based incentive will likely yield inflated estimates of such an incentive's effectiveness because company officials have an obligation to avoid saying anything that would reduce profits and, by extension, shareholder value.

(5)   Although LED offers several concerns about our methodology, none of these are related to auditing standards. Our audit followed generally accepted *Government Auditing Standards*, as noted in Appendix B. In accordance with these standards, we planned and performed the audit to obtain sufficient, appropriate evidence in order to provide a reasonable basis for our findings and conclusions.

The state could improve the performance of the QJ program by capping the SUTR and PFER rebates similar to the caps already in place for the Louisiana Enterprise Zone. Capping SUTR and PFER to 21% of gross payrolls would have resulted in an estimated $49.9 million increase in the net gain of the program and $84.8 million in net savings to the State Treasury (under the average scenario) for the 59 QJ projects that started in calendar years 2011 and 2012.

R.S. 51:2452(A)(2) provides that the amount of incentives paid to companies under the Quality Jobs program shall be directly related to the new direct jobs created as a result of the employer locating or expanding existing operations in this state. However, subsequent amendments to the Louisiana Quality Jobs Act in 2002 and 2007 have added new types of

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[13] One study (Bartik & Erickcek, 2014) utilizes REMI's model to calculate indirect effects, but the authors still calculate a "but-for" percentage using an elasticity estimate, similar to our approach. The spending by companies receiving incentives is multiplied by this "but-for" percentage before being fed into the REMI model.

rebates that are less directly related to the creation of new well-paying jobs, as summarized in the introduction of this report. Specifically, in 2002[14] the QJ program expanded to include SUTR and in 2007, the program expanded to include PFER.[15] These expansions allow companies to obtain *either* the SUTR *or* PFER for their capital expenditures (i.e., equipment, materials, and construction labor incurred as part of the QJ project) associated with a specific project.

Since the Louisiana Quality Jobs Act expanded the program to include SUTR and PFER, the cost of the program to the state has increased significantly, with SUTR and PFER growing at a higher rate than the payroll rebate. During fiscal years 2011 through 2014, the cost of the QJ program was $187.4 million in total, growing to $421.4 million for fiscal years 2015 through 2018. The sales and use tax and project facility expense rebates accounted for $130.0 million (55.5%) of the $234.0 million increase in the total cost. As can be seen in Exhibit 6, between these two periods the SUTR and PFER grew at rates of 147.7% and 205.1%, respectively, much higher in percentage terms than the 91.7% increase in the payroll rebate.

Exhibit 6: Increase in QJ Rebates
Fiscal Years 2011-2014 and 2015-2018
(in millions)
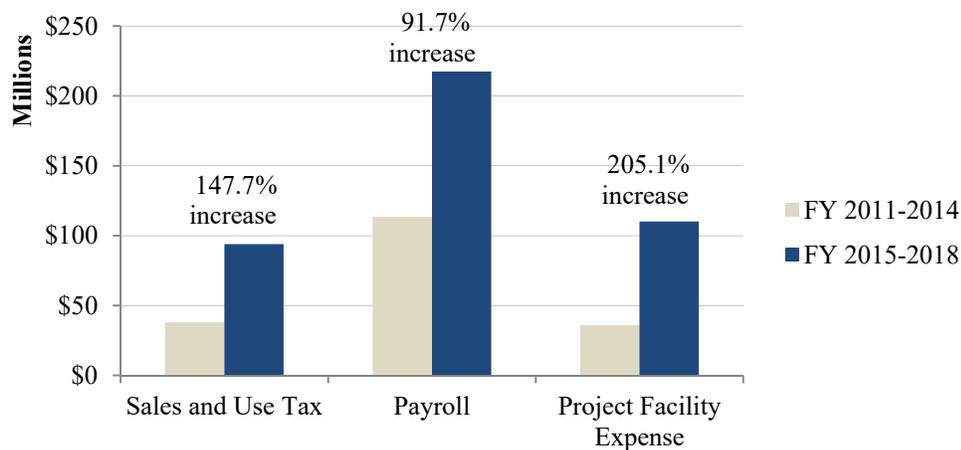
Source: Prepared by legislative auditor's staff using information from the Tax Exemption Budget.

While our economic model indicates that the overall net gain of the QJ program could be positive or negative, the model clearly indicates that the state could improve the performance of the QJ program by capping the SUTR and PFER rebates. Act 18 of the 2016 First Extraordinary Session limited the SUTR rebates and investment tax credits available for each project under the Enterprise Zone program to $100,000 per new job. Although these caps do not apply to the QJ program, we considered what would have happened if these caps had been extended to the QJ program. Because the amount of rebates awarded under the QJ program

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[14] Act 153 of the First Extraordinary Session of 2002 added the sales and use tax rebate but also removed the requirement for a cost-benefit analysis, among other changes. The cost-benefit analysis is discussed on page 25 of this report.

[15] The Act originally referred to this as an Investment Tax Credit, but subsequent legislation renamed this as a Project Facility Expense Rebate. We use the more current terminology throughout this audit.

is calculated based on gross payrolls instead of the amount of new direct jobs, we calculated that $100,000 per new job would be equivalent to 21% of gross payrolls under the QJ program.[16]

Based on our range of elasticity estimates, capping the SUTR and PFER rebates at 21% of gross payrolls would have resulted in $84.8 million in net savings for the State Treasury and a $49.9 million increase in the overall net gain of the program for the 59 projects that started in calendar years 2011 and 2012. As noted in the previous finding, the range of possible elasticity estimates affects the overall net gain of the QJ program. However, capping the SUTR and PFER rebates at 21% of new gross payrolls would improve the overall net gain of the program throughout the entire range of elasticities that we considered. In addition, tying the SUTR and PFER rebates to gross payrolls would cause the rebates to be more directly related to the original intent of Louisiana's QJ program as stated in R.S. 51:2452(A)(2), which is to provide incentives in amounts directly related to the creation of new direct jobs.

The Enterprise Zone's $100,000-per-job cap was recommended in a Louisiana government streamlining report issued by the consulting firm Alvarez and Marsal in May 2014. The consultants observed that, "the program could be utilized to incentivize the creation of only a few minimum wage jobs with no benefits, while providing almost unlimited amounts of sales and use tax rebates or investment tax credits as long as qualifying expenses are made." The Act 18 caps would also have applied to the QJ program if not for Act 663 of the 2016 Regular Session. Because EZ rebates are based on hiring as opposed to gross payrolls, we adapted the $100,000 per job limit to be more relevant for the QJ program.

Exhibit 7 below shows the estimated benefit to household income, the net fiscal cost to the State Treasury, and the overall net gain of the QJ program under the program as currently structured, and with SUTR and PFER capped at 21% of gross payrolls.

Exhibit 7: Estimated Net Gain/Loss of the QJ program
Calendar Years 2011 through 2032
Middle-Case Scenario
For the 59 projects that began in calendar years 2011 and 2012
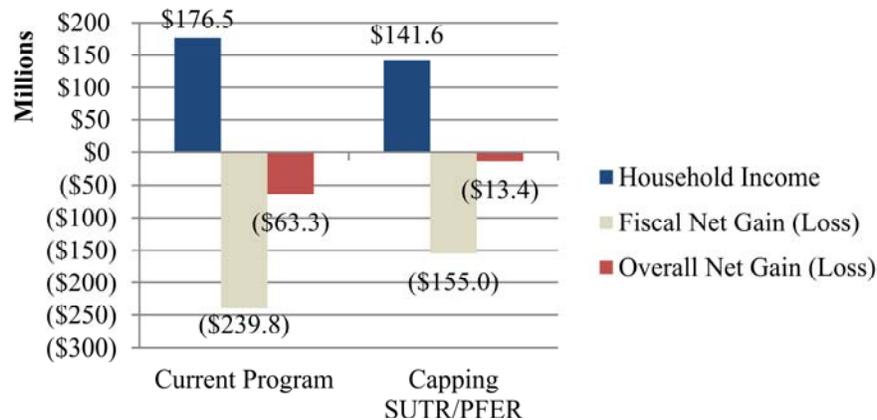
Source: Prepared by legislative auditor's staff using information from LED and LDR.

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[16] The average annual salary for jobs receiving QJ rebates is $48,000. Over a 10-year contract, this would result in $480,000 in gross payrolls, so a $100,000 rebate would amount to approximately 21% of $480,000.

Exhibit 8 shows the estimated net gain/loss of QJ rebates from calendar years 2011 through 2032, with and without SUTR or PFER caps across three sectors for the 59 projects that began in calendar years 2011 and 2012. As noted in this exhibit, the majority of individual petrochemical and liquefied natural gas (LNG) projects are projected to provide a positive overall net gain, but outlier projects in these sectors caused the sector as a whole to have a large overall net loss. Capping the SUTR and PFER rebates would reduce the size of these losses, while leaving other sectors unaffected.

Exhibit 8					
Estimated Net Gain/Loss of QJ Rebates, with and without caps on SUTR/PFER					
Calendar Years 2011 through 2032					
Mean Elasticity Scenario					
For the 59 projects that began in CY 2011 and 2012					
Sector	**Number of Projects**	**Outcome**	**Current Program**	**SUTR/PFER Capped**	**Effect of Capping SUTR/PFER**
Petrochemical/LNG Manufacturing*	10	Overall Net Gain (Loss)	($60,830,864)	($10,906,931)	$49,923,933
		% of Projects Breaking Even	80.0%	80.0%	0.0%
Other Manufacturing	24	Overall Net Gain (Loss)	$4,226,124	$4,226,124	0
		% of Projects Breaking Even	33.3%	33.3%	0.0%
Other Non-manufacturing	25	Overall Net Gain (Loss)	($6,729,524)	($6,729,524)	0
		% of Projects Breaking Even	8.0%	8.0%	0.0%
Total	**59**	Overall Net Gain (Loss)	($63,334,264)	($13,410,311)	$49,923,933
		% of Projects Breaking Even	30.5%	30.5%	0.0%
*These industries were combined to avoid disclosure of confidential information.					
Source: Prepared by legislative auditor's staff using information from LED, LDR, LWC, and the U.S. Bureau of Economic Analysis.					

Matter for Legislative Consideration 1: The Legislature may wish to consider reducing or capping the SUTR and PFER to improve the state's return on investment from the QJ program.

The state could improve the performance of the QJ program by incentivizing QJ recipient companies to direct more of their investment spending on equipment, materials, and construction labor towards Louisiana-based businesses.

The QJ program allows companies to obtain either SUTR *or* PFER for their capital expenditures associated with a specific project, but not both. Although the payroll rebate can only be applied to Louisiana resident employees, the SUTR and PFER can be applied to purchases from both in- and out-of-state businesses. This impacts the return on investment of the program because purchasing materials from in-state businesses helps contribute to in-state jobs, and the purpose of the QJ program is to create well-paid jobs and promote economic development in Louisiana.

The state could improve the performance of the QJ program by incentivizing companies to spend a higher percentage of their investment spending on goods (i.e., equipment, materials, and construction labor incurred as part of the QJ project) supplied by Louisiana-based businesses by increasing the rebate percentage for in-state purchases, decreasing the rebate percentage for out-of-state purchases, or both. Approximately 33.5% of QJ investment spending goes to Louisiana-based businesses, which impacts the program's benefits for Louisiana.[17] For every percentage point increase in purchases from Louisiana businesses, the overall net gain of the QJ program would increase by approximately $538,000. Exhibit 9 provides an example of the potential net gain scenarios from incentivizing the purchase of materials from Louisiana-based businesses.

Exhibit 9		
Effect of Out of State Sales on QJ Program Performance		
In-state percentage of investment spending	**Effect on Household Income**	**Overall Net Gain of Program**
33.5%	$176,487,179	($63,334,264)
34.5%	$176,986,823	($62,796,514)
100.0%	$216,717,897	($20,035,370)
Source: Prepared by legislative auditor's staff using information from LED, LDR, LWC, BLS, and BEA.		

We reviewed a random sample of 10 of the 157 sales and use tax and project facility expense rebates issued, which accounted for $21.0 million (18.2%) of the $115.7 million issued during fiscal years 2012 through 2018.[18] We found that an average of 33.5% of the invoices were

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[17]Such a policy would need to distinguish between goods manufactured in Louisiana, as opposed to goods manufactured out-of-state and resold by a Louisiana-based pass-through company.

[18] Using a random number generator, we randomly selected 10 of the 157 rebate issuances. For each of these 10 rebate issuances, we randomly sampled 10 invoices supporting the rebate, except for one rebate that had only 21 invoices, for which we sampled all 21 invoices. Our sample accounted for $21.0 million (18.2%) of the $115.7 million issued during fiscal years 2012 through 2018. We reviewed a total of 110 invoices and classified them as originating in-state or out-of-state. We obtained the 33.5% in-state percentage by taking the percentage of invoices for each rebate issuance that originated in Louisiana. The dollar-weighted average in-state percentage would have been 4.14%.

from Louisiana-based businesses, although this percentage varies between projects and industries. For example, one company received $8.5 million in sales and use tax rebates, but none of the invoices we sampled that supported the rebate were from businesses located in Louisiana. Machinery and equipment, and building and materials, comprised 52.4% of the total cost of a company's spending. Exhibit 10 shows examples of rebates the state paid to companies for products purchased outside of the state.

Exhibit 10			
Examples of Rebates Issued for Out of State Sales			
Item	Amount Purchased	Rebate received	Location of Purchase
55-ton Rough Terrain Crane	$302,500	$12,100	Houston, TX
Air Cooled Heat Exchangers	$1,874,160	$74,966	Beasley, TX
Concrete	$309,371	$12,375	Dallas, TX
Insulation	$121,189	$4,848	Houston, TX
Steel Pipe and Pipe Spool	$172,475	$8,624	Bursa, Turkey
Source: Prepared by legislative auditor's staff using information obtained from invoices submitted by QJ recipients through LDR.			

Providing a higher SUTR and PFER rebate percentage for in-state purchases, a lower percentage for out-of-state purchases, or both could increase the overall net gain of the QJ program. The legislature may wish to consider encouraging companies to shift more of their capital spending to Louisiana-based suppliers by increasing the PFER or SUTR rebates for in-state purchases, decreasing them for out-of-state purchases, or both. Goods produced out of state but resold by Louisiana-based resellers would have less benefit for the state's economy than goods produced in state. In addition, the Motion Picture Investor Tax Credit does have an incentive for in-state purchasing, insofar as production companies can receive credits only for Louisiana spending. Production companies can still have non-Louisiana spending, but such spending is not eligible for credits.

An added benefit of incentivizing companies to spend more on in-state businesses in order to get the SUTR or PFER rebate is that this may also grow Louisiana's supplier base for industrial equipment, building materials, and related industries, which would make Louisiana more attractive for economic development in the long run. Economic development research shows that a critical factor in some business location decisions is the presence of a cluster of businesses that buy from or sell to one another. For example, Louisiana is second only to Texas in the number of jobs in the petrochemical manufacturing industry. Louisiana is also second only to Texas in the number of jobs in the industrial building construction industry, which supplies the petrochemical manufacturing sector (among others) with services to build and maintain their facilities. These two industries are mutually reinforcing and have contributed to Louisiana's dominance among states in these industries. In general, industries located in regions with strong clusters experience higher growth in new business

formation, start-up employment, and expansions of existing businesses; and start-ups in these regions have higher survival rates.[19]

> **Matter for Legislative Consideration 2:** The legislature may wish to consider amending the project facility expense rebate and sales and use tax rebate for the QJ program to incentivize companies to spend a higher percentage of their investment spending on goods (i.e., equipment, materials, and construction labor incurred as part of the QJ project) supplied by Louisiana-based businesses by increasing the rebate percentage for in-state purchases, decreasing the rebate percentage for out-of-state purchases, or both.

LDR should account for out-of-state purchases receiving the SUTR or PFER when it starts analyzing the return on investment for the QJ program in calendar year 2020. Not accounting for this will overstate the economic impact of the program.

Consistent with the United States Bureau of Economic Analysis's RIMS II User Guide, the impact of a new business or economic development project in a particular region should only include spending in that specific region. As discussed in the last finding, the more a company spends in Louisiana, the more it contributes to the economic development of Louisiana's economy and increases the effect the QJ program has on Louisiana jobs.

Act 87 of the 2018 Regular Session [R.S. 47:1517.1(B)(5)] requires LDR to perform a comprehensive return on investment analysis for the QJ program starting in calendar year 2020. Although this Act does not require that LDR account for the SUTR and PFER rebates issued for out-of-state purchases when conducting its return on investment analysis, not accounting for this will overstate the economic impact of the program. To obtain an accurate estimate of the in-state economic impact of capital expenditures made by QJ recipients, LDR should include only in-state capital expenditures in its calculations and exclude out-of-state capital expenditures because the more purchases made in state, the greater the impact on Louisiana jobs. As a result, LDR needs to account for this in its return on investment analysis starting in 2020.

> **Recommendation 1:** LDR should account for out of-state purchases when it starts conducting its return on investment analysis in calendar year 2020.

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[19] Delgado, Mercedes, Michael E. Porter, and Scott Stern. "Clusters and Entrepreneurship." U.S. Census Bureau, Center for Economic Studies Research Paper. September, 2010. URL: https://pdfs.semanticscholar.org/1777/c250fbd0a74f9106657351f26cbe4ae8630c.pdf, accessed January 14, 2020.

Summary of Management's Response: LDR neither agreed nor disagreed with this recommendation. LDR stated that the statute does not distinguish between in-state or out-of-state purchases when determining a qualifying expenditure, and LDR has not historically captured or required the taxpayer to report this information separately. LDR will evaluate the information that is currently required for rebate claims to determine whether additional documentation could be incorporated on a prospective basis to support the ROI analysis. See Attachment A.3 for LDR's full response.

Section 2: Administration of the Quality Jobs Program

Overall, we found that LED needs to strengthen its administration of the QJ program in certain areas. Specifically,

- **LED did not always notify LDR when a company did not meet the job creation requirements of the QJ program, as required by state law.** We found that from calendar years 2010 through 2018, LDR paid $669,912 in QJ rebates to six companies for creating 155 jobs. However, these companies either did not maintain the required number of new jobs through the third year of their QJ contract or did not submit documentation showing they had done so.

- **LED only reports estimates of the number of new direct jobs qualifying for rebates through the QJ program. These estimates, submitted by companies when they apply for a rebate contract, exceeded the actual job creation numbers by 113.2%. Although companies report actual job numbers to LED, LED only reports the anticipated number of jobs created.** For all QJ projects since the program's inception in 1995, the companies applying for QJ rebates reported to LED that they anticipated creating 28,160 jobs when actually only 13,210 jobs were created, overstating job creation by 113.2%. As a result, this may lead the legislature and public to believe the program has a greater impact than it actually does.

Our findings, along with recommendations to help LED improve its administration of the program, are discussed in more detail on the following pages.

LED did not always notify LDR when a company did not meet the job creation requirements of the QJ program, as required by state law.

Louisiana Administrative Code[20] requires LED to notify LDR if a QJ recipient company has not met its job creation requirements. This is important because state law[21] assigns LED the responsibility of determining whether the company has met its job creation requirements, while also assigning[22] LDR the responsibility of disbursing rebates to the companies. Furthermore, this law[23] also requires a company to pay back any rebates it received under a QJ contract if it does not satisfy the job creation requirements associated with the contract.

We found that LED did not always notify LDR when a company did not demonstrate that it met its job creation requirements, as required by state law. As a result, from calendar years 2010 through 2018, LDR paid $669,912 in QJ payroll rebates to six companies for creating 155

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[20] Louisiana Administrative Code 13:I:1123(A)(5)
[21] R.S. 51:2457 (A)(1)
[22] R.S. 51:2457(A), (B), and (C)
[23] R.S. 51:2457(A)(5)

jobs. However, these companies either did not maintain the required number of new jobs through the third year of their QJ contract or did not submit documentation showing they had done so. After providing our analysis to LED, LED began to follow up with the companies in order to obtain sufficient documentation to show that the jobs were actually created.

According to LED, its new Fastlane Next Generation system includes a mechanism for notifying LDR automatically when a company does not satisfy its requirements. LED should work to ensure that the new system notifies LDR in the correct instances and should periodically review cancelled and terminated projects to ensure that the required notifications are being sent and acted upon appropriately. In the meantime, LDR officials stated that they would follow up quickly on any companies communicated to them that were not in compliance with the QJ program.

Recommendation 2: LED should ensure LDR is notified when a company did not create the required number of jobs or did not submit the documentation showing they had created the required number of jobs to satisfy to the job creation requirements of the QJ program.

Summary of Management's Response: LED disagrees with this recommendation and stated LED informs LDR when a company has not met the job creation requirement. LED further states that the notification process has largely been a manual process, which could have led to a delay in LED contacting LDR for non-compliance. However, LED and LDR have taken steps to improve this process by allowing interoperability with an updated cloud-based platform that administers the QJ program. LED stated it feels the new system put into service during the past year will allow for rare incidents of this issue to occur and for the occurrence to be identified earlier in the contract term. See Appendix A.2 for LED's full response.

LED only reports estimates of the number of new direct jobs qualifying for rebates through the QJ program. These estimates, submitted by companies when they apply for a rebate contract, exceeded the actual job creation numbers by 113.2%. Although companies report actual job numbers to LED, LED only reports the anticipated number of jobs created.

It is important for state officials and the public to have access to accurate and relevant outcome-related information so that they can make informed decisions based on the actual economic impact of the QJ program. However, the actual jobs created from this program are not included in LED's publications or website. Although not required by law to report the actual number of jobs created, the lack of this type of information may lead the legislature and public to

believe that the program has a greater impact than it actually does. LED's current reports[24] on the performance of the QJ program include only anticipated job creation and incentive numbers provided by companies, not actual numbers. LDR's Tax Exemption Budget also does not show the number of jobs created.

LED only reports the anticipated number of jobs created as a result of the QJ program even though companies report their actual job numbers to LED. LED reports the number of anticipated jobs created by companies in its Annual Program and Incentives Performance Report. This report is available on the department's website.[25] LED uses the estimated number of jobs the companies claim they will create for these reports. LED has also publicly reported these numbers in the April 2015 Unified Economic Development Budget Report and in the Quality Jobs Program 2009 Report released in December 2010. However, LED does not publish the actual number of jobs created from the program in any report even though companies report their actual job numbers to LED annually.

These estimated job creation and spending amounts exceeded actual job creation numbers by 113.2% and actual payroll amounts by 222.4%. For all QJ projects since the program's inception in 1995, companies applying for QJ rebates reported to LED that they anticipated creating 28,160 jobs when only 13,210[26] jobs were actually created. LED could report the actual number of jobs created because companies do report their actual job creation and payroll numbers to LED using an Annual Certification Report (ACR), which is used to calculate the actual payroll rebate to be issued to the company. Using the ACR for each company, we calculated the actual number of jobs created compared to the estimated jobs, along with estimated and actual new payroll, as shown in Exhibit 11.

Exhibit 11 Comparison of Job Creations at Different Phases All Completed or Canceled Projects July 1, 1995 through February 2019		
Phase	**New Jobs**	**New Payroll**
Estimated, from Application	28,160	$12,834,984,033
Actual, from Annual Certification Report	13,210	$3,980,860,710
Percentage Difference	113.2%	222.4%
Source: Prepared by legislative auditor's staff using information from LED's Fastlane Next Generation system.		

In addition to reporting actuals, if LED wants to continue reporting the anticipated number of jobs the QJ program will create, LED could report more accurate estimated jobs by using estimates from the Advance Notification Form rather than the estimates from applications. This form is submitted to LED before a company submits its application to notify LED how many jobs the company expects to create. We found that the job estimates from the Advance

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[24] These current reports include the Annual Program and Incentives Performance Report, Unified Economic Development Budget Report, and the Board of Commerce and Industry Incentive Approvals.

[25] https://www.opportunitylouisiana.com/boards-reports-and-rules/performance-reporting *(see page A-5 for QJ)*

[26] This number of jobs differs from the number of jobs we listed in the introduction is because this number reflects the actual number of jobs created by contracts that have ended.

Notification Form only differed from the actual number of jobs created by 11.5%, which would be more accurate than what LED is currently reporting.   Having accurate estimations is important for determining how much the program will cost.

Recommendation 3: LED should report actual numbers when reporting the outcomes of the QJ program so the legislature and public can accurately assess the actual number of jobs receiving the QJ rebate.

Summary of Management's Response: LED disagreed with this recommendation and stated that if the legislature desires for LED to report an aggregate number of jobs created by applicants of the QJ program each year, LED would abide by the change in statute regarding reporting. See Appendix A.2 for LED's full response.

Recommendation 4: If LED wants to continue reporting the anticipated number of jobs the QJ program will create in addition to reporting the actuals, LED should report more accurate estimated jobs by using estimates from the Advance Notification Form rather than the estimates from applications.

Summary of Management's Response: LED disagreed with this recommendation and stated LED reports estimated jobs created based on what the applicant estimates in the application which is then approved by C&I, and is the basis for the QJ contract. Advances are filed as a notice to the state and to start the time for when an application must be submitted to LED. See Appendix A.2 for LED's full response.

LLA Additional Comments: Reporting the anticipated number of jobs from the advances would be more accurate and transparent to stakeholders than using the numbers stated on the applications.

Matter for Legislative Consideration 5: The Legislature may wish to consider requiring LED to publically report actual numbers when reporting the outcomes of the QJ program.

Section 3: Structure of the Quality Jobs Program

Overall, we found that, unlike other states with similar programs, Louisiana's QJ program does not have different requirements based on the economic conditions in each parish. We also found that since the Legislature repealed the requirement for LED to perform a cost-benefit analysis for each project showing a positive net benefit for the state as a prerequisite for getting approval, the number of QJ projects approved increased by 626.7%. Specifically, we found the following:

- **Since 2002, state law no longer requires LED to demonstrate a positive net benefit to the state for each QJ applicant. Requiring LED to demonstrate that a project will have a positive net benefit to the state before it is approved by C&I may help ensure that companies are approved only if the project benefits the state.** Act 153 of the First Extraordinary Session of 2002 repealed the requirement for LED to perform a cost-benefit analysis for each QJ project showing a positive net benefit for the state. After the Legislature passed Act 153, the number of QJ projects approved increased by 626.7%.

- **Amending certain aspects of the Louisiana Quality Jobs Program Act, such as developing variable wage requirements and establishing tiered job requirements and rebate percentages based on the economic conditions of each parish, may help parishes with low wages or high unemployment rates to benefit from the QJ program.** Of the 64 parishes, 17 (26.6%) have not had a company receive a QJ incentive. Sixteen of the 17 parishes have wages that are below the state average, and 15 have unemployment rates that are above the state average. In addition, amending the Louisiana Quality Jobs Program Act's wage requirements to adjust annually for inflation would ensure that the QJ wage requirements provide the same standard of living over time for all areas of the state.

- **Amending the definition of "new direct job" in state law would clarify that companies are allowed to receive QJ rebates for re-hiring previous employees who have been away from the company for a defined length of time, consistent with LED's interpretation.** One of the eligibility requirements in state law mandates that only employees "not previously on an employer's payroll in Louisiana" are eligible for rebates. LED implements the previous-employment restriction using an "employment baseline." The pre-employment baseline consists of an employer's roster of employees during the four-month period immediately preceding the contract effective date. Using LWC wage data, we estimated that $2.1 million was paid in QJ rebates for employees that had previously worked for the company or a related entity.

Our results are detailed on the following pages.

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Since 2002, state law no longer requires LED to demonstrate a positive net benefit to the state for each QJ applicant. Requiring LED to demonstrate that a project will have a positive net benefit to the state before it is approved by the C&I Board may help ensure that companies are approved only if the project benefits the state.

Act 153 of the First Extraordinary Session of 2002 repealed the requirement for LED to perform a cost-benefit analysis for each QJ applicant showing a positive net benefit for the state. Before this requirement was repealed, LED was required to perform a cost-benefit analysis for each QJ application and determine whether the project would have a positive net benefit to the state. After the Legislature passed Act 153, the number of QJ projects approved by the C&I Board increased from an average of 3.0 per year over fiscal years 1998 through 2002 to 21.8 per year from fiscal years 2003 to 2007, a 626.7% increase. Some of this growth may also be attributed to other provisions in Act 153, such as the addition of the SUTR for QJ recipients,[27] but the removal of the cost-benefit analysis requirement may have also contributed to the growth of the program. Requiring LED to demonstrate that a project will have a positive net benefit to the state before it is approved by the C&I Board may help ensure that companies are only approved if the project benefits the state.

> **Matter for Legislative Consideration 6:** The Legislature may want to consider requiring LED to perform a cost-benefit analysis to determine whether a project will have a positive net gain to the state.

Amending certain aspects of the Louisiana Quality Jobs Program Act, such as developing variable wage requirements and establishing tiered job requirements and rebate percentages based on the economic conditions of each parish, may help parishes with low wages or high unemployment rates to benefit from the QJ program.

Seventeen (26.6%) of 64 parishes in Louisiana have not had a company receive a QJ incentive since the program's inception. Sixteen of these 17 parishes have wages that are below the state average, and 15 have unemployment rates that are above the state average, as shown in Exhibit 12. As shown in this exhibit, Plaquemines Parish is the only parish that has never had a QJ project but does have both an unemployment rate that is lower and hourly wage rate that is greater than the state average.

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[27] The sales and use tax rebate is discussed in pages 12 through 15 of this report.

Exhibit 12 Parishes that Have Never Had a Quality Jobs Project				
Parish	**Unemployment Rate Above State Average**	**Unemployment Rate***	**Average Wage Below State Average***	**Average Wage****
Louisiana Statewide	-	**5.1**	-	**$22.51**
1. Avoyelles	Yes	6.1	Yes	$15.15
2. Caldwell	Yes	5.7	Yes	$16.27
3. Catahoula	Yes	7.0	Yes	$14.73
4. Claiborne	Yes	5.3	Yes	$17.60
5. East Carroll	Yes	11.1	Yes	$12.69
6. Franklin	Yes	7.5	Yes	$13.06
7. Grant	Yes	6.3	Yes	$14.82
8. Jackson	No	4.5	Yes	$18.94
9. Madison	Yes	8.1	Yes	$12.93
10. Plaquemines	No	4.6	No	$32.08
11. Richland	Yes	6.1	Yes	$15.57
12. Tensas	Yes	8.5	Yes	$16.05
13. Union	Yes	5.5	Yes	$14.87
14. Vermilion	Yes	6.0	Yes	$18.99
15. Vernon	Yes	6.5	Yes	$17.28
16. West Carroll	Yes	9.8	Yes	$17.17
17. Winn	Yes	6.4	Yes	$17.58
			Average Wage for these 17 parishes	**$16.81**
*The unemployment and wage rates are based on calendar year 2017. **Calculated as average annual earnings divided by a 2,080 hour work year. **Source:** Prepared by legislative auditor's staff using the Bureau of Labor Statistics Local Area Unemployment Statistics data, via the Federal Bank of St. Louis.				

Even though state law already contains one provision for economically disadvantaged parishes (defined as the lowest 25% of parishes per R.S. 51:2453), this provision only allows businesses in additional industries other than manufacturing, corporate headquarters, and oil and gas, to qualify for the program in these parishes. These businesses are still required to meet the same job creation thresholds in order to receive the rebate percentage even though unemployment rates are higher than the state average. Giving greater benefits to QJ recipients in these areas would better reflect the greater need that these areas have for well-paid job opportunities.

Amending the Louisiana Quality Jobs Program Act's wage requirements to account for variation in cost of living between parishes may make it easier for parishes with low wages and high unemployment rates to benefit from the program. According to R.S. 51:2453, to receive a QJ rebate, a company must pay its employees at least $18 per hour to receive a 4% rebate and at least $21.66 per hour to receive a 6% rebate. This is a statewide requirement even though the cost of living varies between parishes. For example, East Carroll Parish had an average hourly wage in calendar year 2017 of $12.69, which is more than $5.00 lower than the statewide QJ wage requirement of $18 per hour for the 4% rebate. As a result, if a company wants to expand their business in East Carroll Parish and receive a QJ rebate, they would have to pay a wage that is out of line with the local economy. Not accounting for variation in cost of living between parishes may make the QJ program less useful in inducing businesses to expand in parishes with low wages or high unemployment rates. The average wage

for all parishes that have had no QJ projects is $16.81, which is $1.19 below the lower wage requirement.

We evaluated 13 different programs in nine[28] other states similar to Louisiana's QJ program and found that 10 of the programs[29] had a wage requirement. Of these 10 programs, seven[30] had wage requirements that vary by county to account for variation in local economic conditions. For example, Florida's Qualified Target Industry Tax Refund program's wage requirement is 115% of local private average wages in each county or the statewide private sector average wage. Mississippi's Advantage Jobs program has a minimum wage requirement based on either the statewide average annual wage or the average annual wage in the county in which the business is located, whichever is less. Appendix E summarizes the 13 programs we evaluated in nine other states.

Amending the Louisiana Quality Jobs Program Act to create tiered job creation thresholds and payroll rebate percentages based on the economic conditions of the parish in which the project is located would create an incentive to businesses to locate or expand in parishes with low wages or high unemployment rates. In order to participate in the QJ program, companies with 50 or fewer employees must create a minimum of five new direct jobs, and larger companies must create at least 15. The payroll rebate percentage of either 4% or 6% is based on the hourly wage of the employee. Seven programs in other states adjust the wage requirement in each county to account for variation in local economic conditions. Like the wage requirement, the job creation thresholds and payroll rebate percentages are the same across the state and do not take into account the level of economic conditions of each parish, which may prevent less affluent parishes from benefiting from the program. This means that jobs created in East Carroll Parish, which has the highest unemployment rate (11.1%) in the state, must meet the same job creation thresholds and receive the same benefit percentage as jobs created in Cameron Parish, the parish with the lowest unemployment rate (3.6%).

Of the 13 programs we evaluated in nine other states, eleven[31] group counties into different tiers based on different economic factors, such as unemployment, and then have different requirements of the program based on these tiers. By using tiers, states can incentivize development in areas with more difficult business climates to a greater degree than areas that are more advantageous for businesses. Some, like Tennessee, divide their counties into a number of tiers based on economic factors like unemployment and per capita income. Others, like Alabama, which has only two county groupings that are based exclusively on county population,

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[28] Alabama, Arkansas, Florida, Georgia, Mississippi, Oklahoma, South Carolina, Tennessee, and Virginia
[29] Arkansas—(1) Create Rebate and (2) Advantage Arkansas programs; Florida—(3) Florida Qualified Target Industry Tax Refund program; Georgia—(4) Jobs Tax Credit program; Mississippi—(5) Advantage Jobs program; Oklahoma—(6) Quality Jobs, (7) Small Business Quality Jobs, and (8) 21st Century Jobs programs; South Carolina—(9) Job Development Credit program; Tennessee— (10) Job Tax Credit (for some industries)
[30] The seven programs that adjust wage by local economic conditions excludes the Arkansas—Advantage Arkansas program; Georgia—Jobs Tax Credit program; Tennessee—Job Tax Credit
[31] Alabama—(1) Alabama Jobs Act; Arkansas—(2) Create Rebate and (3) Advantage Arkansas programs; Florida—(4) Florida Qualified Target Industry Tax Refund program; Georgia—(5) Jobs Tax Credit program; Mississippi—(6) Jobs Tax Credit; Oklahoma—(7) Quality Jobs, (8) Small Business Quality Jobs; South Carolina—(9) Job Development Credit program; Tennessee— (10) Job Tax Credit; Virginia—(11) Major Business Facility Job Tax Credit

have a less extensive system. The way in which the tiers are used varies by state as well. Some states use them to determine the number of jobs that need to be created in order to qualify for the program, while others use them to determine the benefit the company can receive. Appendix F summarizes how other states determine and use tiers in their economic development job creation programs.

In addition, amending the Louisiana Quality Jobs Program Act's wage requirements annually for inflation would ensure that the QJ wage requirements provide the same standard of living over time for all areas of the state. Accounting for inflation would ensure that the QJ wage requirements provide the same standard of living over time. The current wage requirements were passed in calendar year 2017 but had not previously been increased since calendar year 2007. During this timeframe (from calendar years 2007 to 2017), the purchasing power of the program's required wages fell by 15.1%. Inflation causes prices to increase, so that the same goods and services cost more over time. Based on the U.S. Federal Reserve System target inflation rate of 2%, by calendar year 2027, $18 will have the same purchasing power as $15.21 in calendar year 2018. If the QJ wage thresholds are not adjusted for inflation, then the QJ program will gradually expand over time to include jobs that provide lower standards of living. All ten[32] of the 13 programs we evaluated in other states that have a wage requirement adjust the required wage annually based on either inflation or other changes in economic conditions, as summarized in Appendix E.

> **Matter for Legislative Consideration 7**: The Legislature may wish to consider amending the wage requirements in the Louisiana Quality Jobs Program Act to account for variation in cost of living between parishes and inflation. This would help better represent the needs of the individual parish where a project starts.

> **Matter for Legislative Consideration 8:** The Legislature may wish to consider revising the job creation and payroll criteria needed for projects in low income parishes or increase the benefit available for projects that locate there in order to provide additional opportunities for companies to participate in the QJ program in those parishes.

> **Matter for Legislative Consideration 9:** The legislature may wish to consider revising the wage requirement to automatically adjust for inflation or other economic conditions annually, so that actual economic conditions are more represented over time.

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[32] Arkansas—(1) Create Rebate and (2) Advantage Arkansas programs; Florida—(3) Florida Qualified Target Industry Tax Refund program; Georgia—(4) Jobs Tax Credit program; Mississippi—(5) Advantage Jobs program; Oklahoma—(6) Quality Jobs, (7) Small Business Quality Jobs, and (8) 21st Century Jobs programs; South Carolina—(9) Job Development Credit program; Tennessee— (10) Job Tax Credit (for some industries)

Amending the definition of "new direct job" in state law would clarify that companies are allowed to receive QJ rebates for re-hiring previous employees who have been away from the company for a defined length of time, consistent with LED's interpretation.

One of the eligibility requirements in state law[33] mandates that only employees "not previously on an employer's payroll in Louisiana" are eligible for rebates. Another requirement excludes employees who were retained following the acquisition of all or part of an in-state business by an employer from being eligible. LED implements the previous-employment restriction using an "employment baseline." The pre-employment baseline consists of an employer's roster of employees during the period immediately preceding the contract effective date.

> State law says that only employees "not previously on an employer's payroll in Louisiana" are eligible for rebates.

Using LWC wage data,[34] we estimated that $2.1 million was paid in QJ rebates for employees that had previously worked for the company claiming the rebate or for a related entity. We reviewed a sample of 303 of the 1,370 QJ ACRs for the 92 companies that received a payroll rebate during calendar years 2010 through 2018 and used LWC data to determine if the company had received a payroll rebate for an employee who had previously worked for the company claiming the rebate or for a related entity. We found that 35 (38.0%) of the 92 companies had claimed rebates on employees who had previously worked at the company or for a related entity at some point during calendar years 2010 through 2018. The rebates for these employees' payrolls comprised $817,849 (0.9%) of the $89.9 million in rebates granted to the sampled companies. Exhibit 13 summarizes the companies that received the largest rebates for re-hired employees.

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[33] R.S. 51:2453(4) states that a "'New direct job' means employment in this state of an employee who was not previously on an employer's payroll in Louisiana, nor previously on the payroll of such employer's parent entity, subsidiary, or affiliate in Louisiana, or previously on the payroll of any business whose physical plant and employees are substantially the same as those of the employer in Louisiana . . . 'New direct job' *shall not* mean any employees who were retained following the acquisition of all or part of an in-state business by an employer [emphasis added]."

[34] The LWC data shows the employees that each company pays unemployment insurance for to the state. This data includes the name of the employee, social security number, wage, and quarter and year of employment, among other fields.

Exhibit 13	
Top Five Companies Receiving Payroll Rebates for Rehired Employees **Calendar Years 2010 through 2018**	
Company	**Rebate Amount for Potentially Ineligible Employees**
Company A	$109,478
Company B	$82,473
Company C	$47,163
Company D	$44,803
Company E	$42,667
Source: Prepared by legislative auditor's staff using information obtained from LWC, LDR, and LED.	

Because this analysis was based on a random sample, we projected to the other companies receiving the credit and calculated that between $1.4 million and $2.7 million (average $2.1 million) of the $338.2 million in payroll rebates during calendar years 2010 through 2018 were paid for rehired employees. One company in our sample was excluded from our projection because it was an outlier, as explained in the next paragraph.

LED allowed one company to claim prior employees as new direct jobs because the business was a factory that shut down for three months, was sold to a new parent company, and reopened. Overall, this company received $1.5 million in payroll rebates of which $1.3 million (84.5%) were for employees who had worked at the same factory under a previous owner. Although LED promulgated rules (LAC 13:I:1103) that allowed the secretary of LED to grant payroll rebates under such circumstances, state law prohibits employers from claiming employees if they were retained following the acquisition of all or part of an in-state business. The Legislature may wish to clarify the definition of "new direct job" in R.S. 51:2453(4) to allow the secretary to make this decision because LED's authority to issue rebates in such circumstances is unclear in the statute.

> **Matter for Legislative Consideration 10:** The Legislature may wish to consider modifying the definition of "new direct job" in R.S. 51:2453(4) to allow the companies to receive QJ rebates that re-hire previous employees who have been away from the company for defined length of time or that acquire a company of part of a company that has been out of operations for at least three months or whose jobs would have been lost absent the transfer.

APPENDIX A: MANAGEMENT'S RESPONSES

February 12, 2020

Mr. Daryl G. Purpera
Legislative Auditor
1600 North 3rd Street
P.O. Box 94397
Baton Rouge, LA 70804-9397

Dear Mr. Purpera:

La. R.S. 24:522 authorizes the office of the Louisiana Legislative Auditor ("LLA") to provide the legislature with "evaluation and audit of the functions and activities of the agencies of state government. Such evaluations and audits shall be based on standards appropriate for each evaluation or audit."

Throughout the over one-year period of the LLA's Quality Jobs (QJ) review for LLA's report, LED expressed grave concerns regarding the assumptions and the methodology used to determine the economic impact of the QJ program. From the beginning, LLA insisted upon using ONLY an "elasticity" analysis to measure QJ despite the availability of other recognized methodologies. Because of this, LLA suggested that LED present its own study and LED determined that it was imperative to employ the services of a reputable third-party organization to construct an unbiased analysis to determine the true economic impact of the Quality Jobs program.

LED reached out to Regional Economic Modeling Inc. (REMI), an internationally recognized economic modeling firm that created the economic impact model widely used by the federal government, state agencies, universities, and many others. REMI is also used often by the same entities to determine the economic impact of various incentive programs, policy changes, and economic development projects. LED strongly encourages citizens to read both the REMI report and the LLA report (rather than merely reading an LLA press release) and to reach their own conclusions as to the content and merits of each. When analyzing the Louisiana Quality Jobs program, REMI determined that the program has a significant economic impact on the state, including:

- Average state government revenues (taxes generated) of $78-105 million per year
- Average employment impact between 36,000-49,000 jobs per year
- Average annual impact on personal income of $1.9-2.6 billion per year
- Average annual impact on Gross State Product (GSP) of $4.3-5.6 billion per year
- Estimated average population impact of 30,000-41,000 people per year.

When the firm estimated the tax revenue generated from the Quality Jobs program vs. the cost of the program, they estimated a return on investment (ROI) of between $1.10 and $1.72 (i.e., the state will receive between a $1.10 and $1.72 in taxes for every $1 spent on the QJ program). Even a more conservative approach, which also factors in added state government expenditures related to the added population, still yields an ROI between $0.76 and $1.01.

And, even when discussing the more conservative $0.76-$1.01 return, REMI believes that the Quality Jobs program is likely a sound investment for Louisiana, given its impact on economic growth in the state.

According to REMI, "the program is associated with direct employment in generally high-paying and highly productive sectors that provide significant value to the Louisiana economy." REMI notes that nearly two-thirds of the QJ "direct job creation comes in manufacturing sectors, which collectively pay twice as much as the average Louisiana sector and are over six times more economically productive than the average." According to REMI, QJ program jobs increase Louisiana "business investment, supply chain demand, and consumption activity." REMI concludes that QJ "may very well be a sound investment for the state of Louisiana to make to spur economic growth even if it does not entirely pay for itself."

This analysis reflects the Louisiana Legislature's intent in establishing QJ in 1995 with the goal of incentivizing the creation of high-paying full time and long-term jobs in Louisiana deemed to be different from jobs that are subject to cycles of "boom and bust." An important element of QJ has been the mandate that eligibility for the program also includes offering health care insurance to the employees.

Each of the four Louisiana Governors that have served since 1995 have considered QJ to be key to diversifying Louisiana's economy and each Governor and their Departments of Economic Development have revisited the QJ statute with the Legislature on multiple occasions to refine and improve QJ. Because of this continuing review of QJ, LED has welcomed input from business, labor and all Louisiana citizens as to how to best improve QJ.

The Performance Audit of the Quality Jobs Program by the LLA falls short of fulfilling the statutory mandate that standards appropriate for each evaluation or audit be used. Rather than rely upon proven, and easily accessible methodology (such as REMI's) to reach conclusions and/or to make recommendations, LLA bootstrapped a novel methodology based upon "elasticity" to justify use of its "but for" analysis that it determined to use before reviewing QJ. LLA's elasticity analysis does not consider variable factors that may be present in the workforce and tax code of Louisiana, but, nevertheless, LLA advances a conclusion that QJ provides little or no return on investment to Louisiana taxpayers.

Like REMI, LLA should use a transparent and easily reproducible procedure for evaluation of QJ and other economic incentive programs. In addition to REMI's, there are several pre-existing models that could have been used that would have produced different results from that employed by LLA. (See: http://www.ncsl.org/Portals/1/Documents/fiscal/Fiscal_meetings/2018_Meetings/Session_3_Terry_Rephann_Presentation_32821.pdf)

LLA has the capacity to undertake surveys and factual investigations and is encouraged to do so by R. S. 24:522. All of the QJ contracts were made available to LLA and it could have undertaken to review a representative sample of those contracts and obtained input from a variety of sources on the operation and impact of those contracts. This would have provided concrete information as to participants' impressions and actions arising from the use of QJ and offered the opportunity to the state to improve QJ.

By example, several states have performed surveys of companies to determine the importance of incentives. Virginia conducted a survey of firms to determine the effect of incentives on projects. **According to the survey, 70% of projects surveyed would have been eliminated or downsized without the available incentives**. Of those surveyed, only 28% of the projects would have proceeded as planned with no incentives (which answers the "but for" question that LLA deems paramount). (http://www.ncsl.org/Portals/1/Documents/fiscal/Fiscal_meetings/2018_Meetings/Session_3_Terry_Rephann_Presentation_32821.pdf)

LLA is provided by statute with the duty to conscientiously audit state programs to seek improvement and inform taxpayers. Here, LLA's function has been fulfilled by REMI, an out of state company, at additional taxpayer expense, because LLA could not produce a report that fulfills its statutory duties.

Sincerely,

Don Pierson
Secretary
Louisiana Economic Development

February 12, 2020

Mr. Daryl G. Purpera
Legislative Auditor
1600 N. 3rd St.
P.O. Box 94397
Baton Rouge, La 70804-9397

Dear Mr. Purpera:

This letter serves as the official response to the two findings and three recommendations pertaining to the audit of the Louisiana Quality Jobs program tax incentive evaluation conducted by the Legislative Auditor during the past 16 months.

Finding 1: LED did not always notify LDR when a company did not meet the job creation requirements of the QJ program, as required by state law.

Recommendation 1: LED should ensure LDR is notified when a company did not create the required number of jobs or did not submit the documentation showing they had created the required number of jobs satisfy to the job creation requirements of the QJ program.

LED can only report on the job creation requirement, or lack thereof, <u>after</u> the time delays for job creation have lapsed. LED informs LDR when a company has not met the job creation requirement. It is LED's understanding that LDR typically issues the sales and use tax rebate before a company is required contractually to create jobs which is allowed under the law. Appropriately, LDR has the ability to recapture any rebates issued to companies that are not in compliance with program rules, including rules related to the time delays for creating new jobs.

The notification process has largely been a manual process which could have led to a delay in LED contacting LDR of non-compliance. However, LED and LDR have taken steps to improve this process by allowing interoperability with an updated cloud-based platform that administers the QJ program. LED feels the new system put into service during the past year will allow for rare incidents of this issue to occur and for the occurrence to be identified earlier in the contract term.

Finding 2: LED only reports estimates of the number of new direct jobs qualifying for rebates through the QJ program. These estimates, submitted by companies when they apply for a rebate contract, exceeded actual job creation numbers by 113.2%.

Recommendation 1: LED should report actual numbers when reporting the outcomes of the QJ program so the legislature and public can accurately assess the actual number of jobs receiving the QJ rebate.

Recommendation 2: If LED wants to continue reporting the anticipated number of jobs the QJ program will

create in addition to reporting the actuals, LED should report more accurate estimated jobs by using estimates from the Advanced Notification Form rather than the estimates from applications.

LED issues several statutorily required reports on all programs administered by LED. Since these contracts are five-year contracts with the ability to renew for another five years, the actual jobs created could possibly span a 10-year period. If the legislature desires for LED to report an aggregate number of jobs created by applicants of the QJ program each year, LED would abide by the change in statute regarding reporting.

LED reports estimated jobs created based on what the applicant estimates in the application which is then approved by the Board of Commerce & Industry, and is the basis for the QJ contract. Advances are filed as a notice to the state and to start the time for when an application must be submitted to LED.

The applicant must create a minimum of jobs, there is no requirement in statute for the estimated jobs provided by the applicant to be created since the applicant is only allowed a rebate on actual jobs created once the minimum jobs over the company's baseline are created.

LED Does Not Concur With Either Of These Findings

LED recognizes the need for external assessments and evaluations which provide suggested improvements on processes, and LED is committed to reviewing those assessments and evaluations and implementing any necessary improvements.

Sincerely,

Don Pierson
Secretary
Louisiana Economic Development

Agency: LDR

Audit Title: Louisiana Quality Jobs Program-Tax Incentive Evaluation

Audit Report Number: 40180018

Instructions to Audited Agency: Please fill in the information below for each recommendation. A summary of your response for each recommendation will be included in the body of the report. The entire text of your response will be included as an appendix to the audit report.

LDR needs to account for out-of-state purchases receiving sales and use tax (SUTR) and project facility expense (PFER) rebates when it starts conducting the return on investment for the QJ program in 2020. Not accounting for this will overstate the economic impact of the program.
Recommendation: LDR should account for out of-state purchases when it starts conducting its return on investment analysis in 2020.
Does Agency Agree with Recommendation?　　　☐ Agree　　☐ Disagree
Agency Contact Responsible for Recommendation:
Name/Title: Danell R. Gerchow, Assistant Secretary, Group II
Address: 617 North Third Street
City, State, Zip: Baton Rouge, LA 70113
Phone Number: 225-219-4059
Email:Danell.gerchow@la.gov

The statute does not distinguish between in-state or out-of-state purchases when determining a qualifying expenditure and LDR has not historically captured or required the taxpayer to report this information separately. LDR will evaluate the information that is currently required for rebate claims to determine whether additional documentation could be incorporated on a prospective basis to support the ROI analysis.

APPENDIX B: SCOPE AND METHODOLOGY

This report provides the results of our performance audit of the Quality Jobs Program. We conducted this performance audit under the provisions of Title 24 of the Louisiana Revised Statutes of 1950, as amended. This audit covered from the inception of the QJ program in 1995 through calendar year 2018. Our audit objective was:

To evaluate the economic impact, administration, and structure of the Quality Jobs program.

We conducted this performance audit in accordance with generally-accepted *Government Auditing Standards* issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide reasonable basis for our findings and conclusions based on our audit objective. We believe the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objective. To answer our objective, we reviewed internal controls relevant to the audit objective and performed the following audit steps:

- Researched best practices in economic development program evaluation from the Pew Charitable Trusts, W.E. Upjohn Institute, and other states' evaluations of their economic development programs.

- Met with Quality Jobs (QJ) program stakeholders, including the Louisiana Association of Business and Industry, Louisiana Pulp and Paper Association, Louisiana Chemical Association, Louisiana Midcontinent Oil and Gas Association, Louisiana Industrial Development Executives Association, Louisiana Budget Project, Together Louisiana, Public Affairs Research Council, Baton Rouge Area Chamber, and Advantous Consulting, to obtain their input on the program.

- Researched laws and regulations governing the QJ program, and developed a legal opinion regarding the interpretation of the definition of "direct new job" pertaining to former employees who are rehired.

- Researched laws in other states in comparison to the design of the Louisiana QJ program. From our stakeholder meetings, including information from LED, we identified 13 programs in nine states with similar programs to Louisiana's. We focused on southern states since they are more likely to compete for the same industrial projects as Louisiana. Oklahoma was chosen because it has a similar program to Louisiana's QJ program.

  (1)   Alabama: Alabama Jobs Act
  (2)   Arkansas: Create Rebate and Advantage Arkansas programs

   (3) Florida: Florida Qualified Target Industry Tax Refund program
   (4) Georgia: Jobs Tax Credit program
   (5) Mississippi: Advantage Jobs program and Jobs Tax Credit program
   (6) Oklahoma: Quality Jobs, Small Business Quality Jobs, 21st Century Jobs programs
   (7) South Carolina: Job Development Credit program
   (8) Tennessee: Job Tax Credit
   (9) Virginia: Major Business Facility Job Tax Credit.

- Requested a process walkthrough with LED to understand how LED administers the program and how the Fastlane Next Generation (NG) data system works.

- Obtained Annual Certification Reports (ACR) and other company filings from LED, showing lists of eligible employees claimed each year and their wage amounts.

- Obtained employee wage data from the Louisiana Workforce Commission (LWC) for all employers required to submit wage data for the unemployment insurance program for fiscal years 2006 through 2018. Matched ACR data to the LWC data to identify employees that had previously worked for the same employer.

- Met with officials from the Louisiana Department of Revenue (LDR) to learn about their process. Requested policies and procedures pertaining to the QJ program. Requested LDR rebate issuance data, and compared these to LED's rebate issuance data to look for rebates that may have been improperly authorized.

- Requested a random sample of invoices supporting sales tax rebate requests to estimate the percentage of QJ capital spending that goes to out-of-state sources, and to test LDR's process for reviewing rebates.

- Obtained QJ applicant information from LED's Fastlane NG system to use when conducting our economic analysis and test its administration processes of the program. To assess the completeness and accuracy of key data fields in the LED's Fastlane NG system, we evaluated the IT controls on the Fastlane NG system and requested supporting documentation from the IT contractor who developed and maintains the system. Auditors reviewed the documentation and determined that the controls provide reasonable assurance that the data would be sufficiently complete and accurate for our purposes. Auditors concluded that the Fastlane NG data would be reliable for our purposes.

- Obtained LDR's QJ rebate tracking system to use when conducting our economic analysis and test its administration processes of the program. To assess the completeness and accuracy of key data fields in LDR's QJ rebate tracking system, we obtained the data from their system and ensured that it matched the amounts in the Tax Exemption Budget for years since it was audited by LLA's financial audit services. Auditors also tied a sample of the LDR, SUTR, and PFER rebate issuances back to the supporting documentation. Based on this review, auditors

concluded that the data were sufficiently complete and accurate for our purposes. Auditors concluded that the LDR's QJ rebate tracking spreadsheets were reliable for our purposes.

- Requested comments and sought input on our approach and economic analysis from economists familiar with public finance and applied economics research, including Prof. Gregory Upton at the LSU Center for Energy Studies; Profs. Daniel Keniston and Abigail Peralta at LSU; Profs. James Alm, Patrick Button, and Steven Sheffrin at Tulane; and Gregory Albrecht and Benjamin Vincent at the Legislative Fiscal Office. We took their comments into consideration when revising the report. However, we alone are responsible for the analysis and results. A detailed explanation of the scope and methodology for our economic analysis follows below.

- Reviewed the analysis that was performed at LED's request by economists employed at Regional Economic Models, Inc. (REMI). REMI did not conduct a "but for" analysis, as recommended by the Pew Charitable Trusts and the HCR 11 Task Force, so the results of this study should not be interpreted as indicating the true effect of the QJ program. Although REMI's report says it allows for the possibility that some of the jobs would have existed in the state anyway, this is not the same as a "but for" analysis. We estimated how much the QJ rebates affect the decision making of companies receiving the rebates and found that the 2.3% decrease in costs would cause businesses to increase their spending by an average of 1.8%. On the other hand, REMI assumed that 100% of the project spending by QJ recipient companies was caused by the rebate. REMI did allow for the possibility that QJ recipient companies would be competing for customers with existing businesses in Louisiana. For example, if a QJ recipient builds a new facility to produce polyethylene or expands an existing one, REMI accounts for the fact that this new facility would cannibalize some of the existing polyethylene manufacturers in Louisiana. This is different from measuring how much QJ actually causes companies to change their behavior. Other economists have used REMI's model to perform a "but for" analysis (Bartik and Erickcek 2014), but the analysis REMI performed for LED does not do so.

Economic Analysis Scope and Methodology

This section provides our methodology for estimating the economic impact of the QJ economic development program and the state's return on investment from the program. Because the intention of the program is to induce businesses to locate or expand their operations in Louisiana, we estimated how much economic activity would not have occurred "but for" the QJ program. Under the QJ program, the state will issue a cash rebate of up to 6% of the payrolls for newly created jobs that meet certain basic requirements. Additionally, employers can receive either a rebate of their sales and use taxes (the sales and use tax rebate, or SUTR) for project-related capital expenditures, or a rebate of 1.5% of their project-related capital expenditures (the project facility expense rebate, or PFER). During fiscal year 2018, the state paid $99.9 million in QJ rebates, of which $54.8 million was payroll rebates, $29.2 million was sales and use tax rebates, and $16.0 million was project facility expense rebates. Overall, we estimate that the vast

majority of the jobs that qualified for the rebate would have been created even in the absence of the rebate, and we estimate that the state was able to generate $0.01 to $0.10 in state tax revenues for every $1 the state spent on the program. For every net dollar that the state spent on the QJ program, the state was able to increase household incomes by $0.09 to $1.45. We suggest that the legislature consider capping the sales and use tax rebate and project facility expense rebate at 21% of gross payrolls as a way to improve the state's return on investment from the program.

Data Overview

Our analysis is based on the 59 QJ projects that had a contract effective date in calendar years 2011 or 2012.[35] Before starting on a new project, a company wishing to claim the QJ rebate must first submit documents to LED containing the project type, the recipient company's industry, and the project's anticipated costs. The project costs include permanent labor, construction labor, building and materials, and machinery and equipment. After the project begins, the company must submit documents to LED containing actual payroll data (at the employee level), and the company may also submit additional data to LDR on actual capital expenditures to obtain SUTR or PFER rebates. Figure B.1 below shows the amounts of project spending (dollars spent by the companies receiving QJ rebates) by industry and expenditure category.

**Figure B.1: QJ Project Spending by Industry and
Expenditure Category (in Billions of Dollars)
All Contracts Starting Calendar Years 2011-2012**
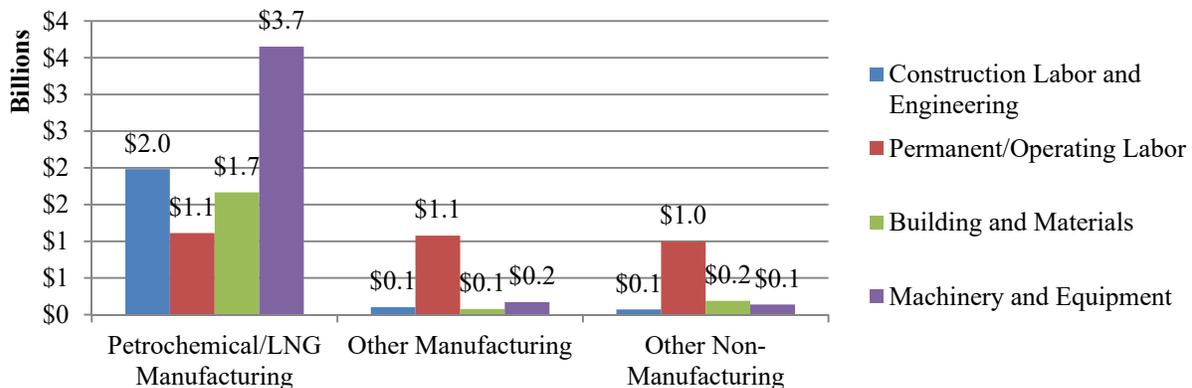
Source: Prepared by legislative auditor's staff using advances, applications, and annual certification reports submitted by QJ recipients to LED and SUTR and PFER rebates submitted to LDR. Operating payrolls were projected for 20 years following the start of the project using attrition factors estimated from LWC wage data and were discounted using a 2.3% discount rate. Examples of other manufacturing are shipyards and machinery and parts fabrications. Example of other non-manufacturing are private prisons, and distribution companies.

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[35] The contract effective date is the date used to determine if the company met its hiring requirements. The company must have hired five (15 for large companies) additional employees who meet the program's requirements by the end of the third fiscal year after the contract effective date. The company must hire replacements for any employees who were employed as of the contract effective date but whose employment ends after the contract effective date. The New Orleans Pelicans NBA renewal is excluded.

For each project, we projected the project's operating costs out 20 years following the start of their QJ contract. We did this by considering typical growth and attrition rates from companies' annual certification reports for the first 10 years. For the remaining 10 years after the expiration of each QJ contract, we used average growth factors developed from an analysis of Louisiana Workforce Commission wage filings submitted by companies through the state's unemployment insurance tax program. We discounted these amounts to their present value using a 2.3% discount rate, which was based on the U.S. Congressional Budget Office's *Long-Term Budget Outlook*. The undiscounted projected gross payrolls, payroll rebates, and job counts are shown in Figure B.2 below.

**Figure B.2: Projected Gross Payrolls, Payroll Rebates, and Jobs
Totals Since Project Inception (by year)
All Contracts* Initiated in Calendar Years 2011 or 2012**
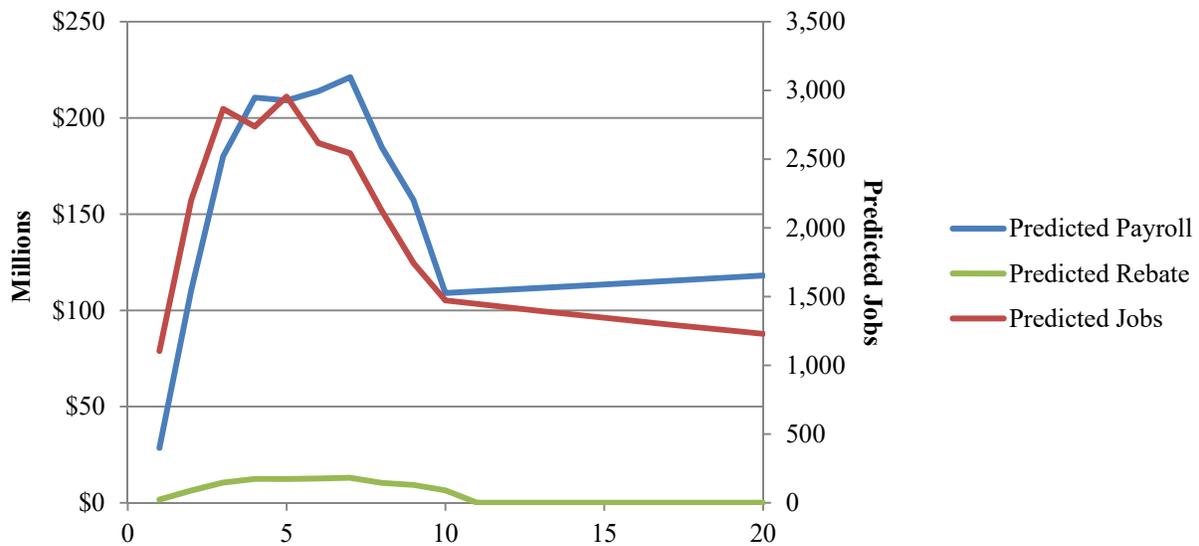
Note: Horizontal axis denotes the year since the beginning of the contract.
*Excludes New Orleans Pelicans NBA LLC.
Source: Prepared by legislative auditor's staff using data from LED and LWC.

Economic Impact Model

Economists have utilized a range of methodologies to evaluate the impact of economic development incentives, including surveys, econometric analysis, and simulations (Luger & Bae, 2005). Survey studies involve surveying company officials or economic developers to ask how important incentives are generally or how important specific incentives are for a particular project. Some surveys ask businesses to rank different factors in their location decision, which, as Bartik (1991), (1992) notes, typically results in a low ranking assigned to taxes, but these low rankings may mask the importance of taxes in deciding between states or metropolitan areas that are close substitutes. Other studies directly ask businesses what they would have done if an economic development incentive had not been available. For example, Rephann (2018) surveyed Virginia businesses receiving economic development incentives and found that purportedly

30.1% of the respondents would have canceled their project or proceeded at an out-of-state location. However, Bartik (2005), (2018) notes that, while surveys can be useful in understanding why a program is effective and how it could be improved, businesses have an incentive to say that cash-based economic development incentives have an effect on their location decisions because these businesses would like to continue receiving such assistance and may also anticipate that they would face political criticism for accepting an incentive that had no effect on their decision-making. For this reason, such survey responses may overstate the effects of an economic development incentive.

Other studies have utilized econometric techniques to estimate the effectiveness of economic development incentives. Faulk (2002) compares employment growth at firms receiving a Georgia job creation tax credit with firms eligible for but not receiving the credit, and finds a 23% to 28% increase in job creation among firms receiving the credit, while Jensen (2017) finds no discernable impact of a Kansas job creation incentive. Hicks and LeFaive (2011) analyze a Michigan tax incentive and find no impacts on county-level aggregate employment. Neumark and Grijalva (2017) use a "difference-in-differences" approach at the state level to identify the change in employment growth following the enactment of job creation tax credits, and find that programs targeting the unemployed, programs with clawback provisions, and programs with refundable credits are the most effective. Chirinko and Wilson (2008) study differences in investment tax credits between states and capital stocks in border counties and find that state investment tax credits can increase capital-output ratios within their own borders, but at the expense of neighboring states.

The problem faced by all econometric studies is to develop a credible control group for the firms, counties, or states that had economic development incentives, particularly when there is no independent or exogenous source of variation in which companies or geographic areas are eligible for incentives (Bartik, 2018). At the state level, other economic differences between states unrelated to economic development incentives can overwhelm the effects of an economic development program (Bartik, 1991). At the county or firm level, selection bias can create a positive or negative bias in the estimated effect of an economic development incentive. Positive selection can occur because counties or firms that are already growing for reasons unrelated to an economic development incentive are more likely to be able to benefit from a program. Comparing recipient counties or firms with non-recipients could erroneously include some of this unrelated growth as part of the effect of the incentive. In other cases, negative selection occurs when the design of an economic development program is such that underperforming counties or firms are more likely to participate (Bartik, 2018). We considered evaluating the QJ program using various econometric models, but the QJ program did not present any clear opportunities to overcome the endogenous selection of parishes or firms into the QJ program.[36]

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[36] We considered using distance from economic development consultants as an instrument for program participation, but the consultants who assist companies in QJ program participation were almost entirely located in the Baton Rouge area. If distance from Baton Rouge is correlated with other determinants of business activity, then this instrument would fail the exclusion restriction for instrumental variables regression. We also considered using bunching in the hourly wage distribution above and below the minimum wage thresholds for QJ payroll rebates to estimate the effect of the QJ program on hourly wages following Kleven (2016) and Kleven and Waseem (2013), but this only captured one aspect of how the QJ program impacts companies' behavior and would have significantly underestimated the impact of the program.

The third class of studies uses simulations to estimate the effects of economic development incentive programs. Simulations use an economic model to estimate how companies change their behavior in response to an economic development incentive. The advantage of the simulation approach is that it can be used when econometric estimates of a program's effectiveness cannot be directly estimated using available data. The success of a simulation depends on how well a specific model and set of parameters approximate the actual behavior of firms. Although commercial vendors offer more complex models that can account for general equilibrium effects and offer more fine-grained linkages between industries, we determined that developing our own simpler, purpose-built model based on models used in other published studies would be more useful because the inner workings of commercially available models are proprietary.

An important aspect of the literature on this subject is the distinction between taxes and incentives. Some studies of economic development incentives have treated such incentives as a reduction in taxes (Fisher & Peters, 1998); (Peters & Fisher, 2002); (Bartik & Erickcek, 2014), while others treated incentives as a reduction in the cost of business inputs (Luger & Bae, 2005); (Chirinko & Wilson, 2008); (Bartik & Bishop, 2009); (Chirinko & Wilson, 2010). Some research has found that a decrease in state taxes does increase business activity in the state, although there is disagreement as to the magnitude of this relationship (Newman & Sullivan, 1988); (Bartik, 1992). Giroud and Rauh (2019) found that variation in state income tax rates has an effect on the allocation of capital across states. However, McGuire (2003) and Weiner (2009) noted that this relationship between taxes and business activity is fragile and disappears after making slight modifications to the time period considered. Furthermore, Weiner noted that the relationship between taxes and business activity, even if accurately measured, may not be useful in evaluating the effectiveness of economic development incentives, because the impact of targeted incentives may differ from the impact of broad tax changes. Because of these concerns surrounding tax elasticities, we designed our model so that the QJ incentives would impact business spending by decreasing the cost of business inputs, namely labor and capital goods.

Specifically, our model assumes that the rebate induces companies to spend more in Louisiana by decreasing their labor costs and their user cost of capital. Our model treats labor and capital as perfect complements, so that each company's capital-labor ratio remains constant. In our model, the QJ rebate induces companies to increase capital and labor spending by the same proportion.[37] Simulation approaches have been used to analyze economic development incentives by Fisher and Peters (1998), Peters and Fisher (2002), Bartik and Bishop (2009), and Bartik and Erickcek (2014). Our approach most closely resembles the approach of Murray (1993), Luger and Bae (2005), and Chirinko and Wilson (2010). A contracted report for the state of Tennessee also followed a similar approach (Anderson Economic Group, LLC, 2016).

A key parameter in this model is the total spending elasticity, which represents the percentage change in total spending for a 1% increase in the average per-unit cost of capital and labor, weighted using capital and labor shares of total costs. This method of incorporating incentives as reducing factor costs follows the simulation approach of Murray (1993), Luger and

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[37] We also consider a variant of this model in which capital and labor are determined independently and obtain similar overall results.

Bae (2005), and Chirinko and Wilson (2010), and is analogous to the empirical approach of Chirinko and Wilson (2008) and Chirinko and Wilson (2014). We calculate a specific total spending elasticity for each project by computing a weighted average of capital and labor cost elasticity estimates obtained from literature.

We use capital elasticities ranging from -0.01 to -2.0, with a mean of -1.0, as reported by Caballero, *et al.* (1995).[38] Caballero *et al.* estimate the elasticity of capital demand with respect to the user cost of capital. In our model, the project facility expense rebate or sales and use tax rebate influences firm behavior by reducing the user cost of capital. Our estimated labor elasticities range from -0.22 to -0.90, with a mean of -0.56 based on the meta-regression contained in Lichter *et al.* (2015).[39] Lichter *et al.* estimate the own-wage elasticity of labor demand. In our model, the payroll rebate influences firm behavior by reducing the per-unit cost of labor. The weights on each component are specific to each project and are based on the permanent labor and capital spending as a percentage of the total spending on the project. Construction labor is allocated to the capital spending share. The average labor share for these 59 projects is 68.1%, but the weighted average by spending is 28.4%. As a result, the total spending elasticity for each project i is calculated as follows:

$$\epsilon_i = ([\text{Capital Share}_i] \times \epsilon_K) + ([\text{Labor Share}_i] \times \epsilon_L)$$

In this equation, ϵ_i is the total spending elasticity of demand, ϵ_K is the user-cost elasticity of capital demand, and ϵ_L is the own-wage elasticity of labor demand.

We used the elasticity to calculate a counterfactual spending multiplier for each project. The counterfactual spending multiplier for each project is the percentage of the actual spending that we estimated would have occurred even if the QJ rebates had not been available.

$$[\text{Counterfactual Spending Multiplier}_i] = 1 + \left(\frac{[\text{Total Rebates}_i]}{[\text{Actual Costs}_i]} \times \epsilon_i \right)$$

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[38] Cf. p. 4, and Figure 4, p. 16. Similar user-cost elasticity estimates are found in Goolsbee (1997), Coulibaly and Millar (2011), and Dwenger (2014). Also see Chirinko and Wilson (2008) for additional estimates of the response of local investment to investment tax credits. Chirinko and Wilson report elasticities for the number of establishments at -0.08 (see p. 2376, table 6), and they report a range of elasticities on the capital-output ratio ranging from -0.523 to -0.961 (see p. 2367, table 2). Chirinko and Wilson's elasticity with respect to the number of establishments suggests that either the true elasticity is much nearer the low end of Caballero et al.'s range, or that the vast majority of the effect of the program comes from intensive-margin effects on the size of existing establishments, rather than extensive-margin effects from forming new establishments. Chirinko and Wilson's elasticity estimates with respect to the capital-output ratio are not directly applicable to our analysis because it is affected both by the scale effect of greater output, and by the substitution effect of firms using capital instead of labor because of the reduction in the user cost of capital.

[39] We estimated a predicted value from the authors' meta-regression for the elasticity for manufacturing industries in the United States, for men and women, with variable output, over the long term, using panel data, for workers of all skill levels, and obtained an estimate of -0.56, with a 95% confidence interval of -0.90 to -0.22. In addition, Chirinko and Wilson (2014) estimate a labor demand elasticity with respect to wages net of job creation tax credits of -0.3.

A counterfactual spending multiplier of one indicates that the QJ rebates had no effect, while a multiplier of zero means that all of the project spending was due to the rebate. In practice, we estimate counterfactual spending multipliers for each project ranging from 0.968 to 0.993. Specifically, we use the following formula:

$$[\text{Counterfactual Total Spending}_i] = [\text{Actual Total Spending}_i] \times [\text{Counterfactual Spending Multiplier}_i]$$

This change in total spending gives us the direct effect (or "first-round" effect) of the QJ program on spending. However, we also considered indirect and induced effects of the QJ program using RIMS II Multipliers from the U.S. Bureau of Economic Analysis. Specifically, we considered each project as contributing to the economy in two phases, construction and operation.

In the construction phase, we used earnings-earnings multipliers for labor and engineering costs reported by companies to LED on their advances and applications, updated to reflect the amounts reported on SUTR and PFER rebate filings for each project, if available. For machinery and equipment, we estimated the percentage of machinery and equipment purchased in Louisiana by sampling invoices submitted by companies to the Louisiana Department of Revenue with their rebate claims and by inspecting the location of the vendor. We multiplied total machinery and equipment spending by in-state regional purchasing coefficients, which we calculated separately for four industries: liquefied natural gas, petrochemical manufacturing, other manufacturing, and other non-manufacturing. We then multiplied this in-state machinery and equipment spending by the average output-earnings multiplier for industrial machinery manufacturing industries. Because we used earnings-earnings multipliers for the construction industry, we excluded the "building and materials" spending amounts reported on QJ advances and applications because we treated these as intermediate goods, which are accounted for implicitly when using earnings-earnings multipliers. The dollar-weighted average regional purchasing coefficient for all industries is 4.1%, but some industries had coefficients in excess of 50%. Confidentiality rules prevent us from publishing regional purchasing coefficients for each industry. We treated capital spending as occurring at the beginning of the contract, so no time discounting was needed to obtain present value.

For the operations phase, we used earnings-earnings multipliers for the industry of the QJ recipient company to estimate direct, indirect, and induced effects on household income. Any maintenance capital required to continue operating the plant is accounted for implicitly when using earnings-earnings multipliers. Because payroll spending by QJ recipient companies was discounted to present value (as noted on page B.4), the household income benefits in the operating phase are also presented in present value.

The household income concept in the Bureau of Economic Analysis's RIMS tables encompasses labor income from households working in sectors benefiting from the new spending by QJ recipient firms, as well as proprietor's income for Louisiana-resident owners of firms benefiting from subsequent rounds of spending. Our analysis does not explicitly account for profits accruing to Louisiana residents who own firms that directly receive QJ rebates. We separately considered the existence of windfall profits, which we define as the profits accruing to

firms because their QJ rebate exceeds the amount by which they increase their spending. However, only 10.1% of the rebates in our sample went to Louisiana-owned firms. While these firms received $25.5 million in rebates, our model estimates that these firms increased their spending by at least $22.2 million. The difference of $3.3 million between these two figures represents an upper-bound estimate for windfall profits for Louisiana residents who own QJ recipient firms. To the extent that these firms likely had increases in other costs that were not eligible for QJ rebates, such as purchases of vehicles or laptop computers, those other costs would reduce windfall profits.

Our model does not explicitly incorporate the effects of QJ rebates on the number of business establishments operating in Louisiana. However, Chirinko and Wilson (2008) find an elasticity of the number of establishments with respect to the user cost of capital of -0.078 using a twin-counties approach and differences in state investment tax credits (p. 2376). The QJ rebates, causing a 2.3% reduction in total cost (or a 2.1% reduction in the user cost of capital, if counting SUTR and PFER rebates as a percentage of total capital spending), would be expected to increase the number of establishments by 0.2%. We considered an alternative calculation using elasticities derived from aggregate, industry-level data, which would account for changes in the number of firms operating as well as changes in the amount of capital and labor used by each firm.[40] We found that this increased the estimated overall net gain of the program to $25.6 million in the mean-elasticity scenario, and the net cost to the state treasury was a $233.5 million loss, both within the range of uncertainty of our primary estimates. We also recalculated the high-elasticity scenario with industry-level data and found that capping SUTR and PFER at 21% of gross payrolls would increase the overall net gain of the program by $20.1 million and reduce the net cost to the state treasury by $82.7 million.

Our model only considers the effects of the QJ program and excludes other economic development incentives that companies might have received, such as the Industrial Tax Exemption Program (ITEP). Of the 59 projects in our analysis, 18 (30.5%) received ITEP incentives. The amounts of ITEP and QJ incentives for these projects are shown in Table B.3. The table presents separate results to exclude one large outlier project that accounted for $2.1 billion (96.1%) of the $2.2 billion in ITEP incentives issued to these projects. The remaining 17 projects received $88.0 million in ITEP incentives. We did not estimate the economic impact of the ITEP program as part of this audit. Although the Enterprise Zone (EZ) program is similar to QJ in providing hiring credits, sales and use tax rebates, and investment tax credits, we did not account for interaction between the QJ and EZ programs in this analysis because an employer cannot receive both QJ and EZ for the same expansion project, per R.S. 47:2458(7).

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[40] We derive labor demand elasticities of -0.25 to -1.00 (mean -0.63) from Lichter et al. (2015) in the same manner as described previously in footnote 35 on page B.8, except we use industry-level estimates instead of firm-level estimates. We derive user-cost elasticities of demand for capital of -1.47 to -1.80 (mean -1.64) from Schaller (2006).

	ITEP Incentives*	No. Projects Receiving ITEP and QJ	QJ Payroll Rebates***	QJ SUTR/PFER Rebates***	Total QJ Incentives for ITEP Recipients ***
Table B.3 **ITEP Incentives Received by QJ Recipients**					
Outlier Projects	$2,102,831,441	1	$6,906,473	$ **	$ **
Other Projects	204,366,182	17	30,896,586	**	**
Total	2,307,197,624	18	37,803,059	149,842,214	187,645,273

*ITEP incentive amounts are taken from Commerce and Industry Board Applications in the Fastlane NG Database. As noted on pages 19-20 of this report, the amounts reported for QJ to the Commerce and Industry Board significantly overstate the amount of incentives actually received.
**Certain amounts of QJ incentives could not be disaggregated due to confidentiality.
***QJ incentive amounts are forecast to 10 years after the contract effective date.
Source: Prepared by legislative auditor's staff using information from LED's Fastlane System and the Louisiana Department of Revenue.

Aggregate Counterfactual Analysis Results

We evaluated the effects of the QJ program by looking at the effect of the QJ program on capital and labor spending by QJ recipient companies. We estimated how much QJ recipient companies would decrease their spending if the QJ rebates were not available. Table B.4 shows the first stage of our analysis, in which we estimated the counterfactual values for direct labor and capital spending by QJ recipient companies. We consider two possible modifications to the QJ program, the first of which would involve completely eliminating the QJ program, and the second of which would involve capping the SUTR and PFER rebates at 21% of gross payrolls. These results are shown in Table B.4. In both cases, we compare spending by recipient companies with the QJ program against spending without the program. Our estimated spending from the current QJ program, $11.2 billion, drops to $11.0 billion (a 2.0% decrease) if the entire QJ program is eliminated, or $11.1 billion (a 1.2% decrease) with SUTR and PFER caps.

Table B.4 First-Round Effects of QJ Rebates on Labor and Capital Spending Amounts in Dollars			
Sector	**Current Program**	**Capping SUTR/PFER***	**Change from removing SUTR/PFER***
Labor Spending** with QJ	5,342,121,433	5,342,121,433	0
M&E and B&M*** with QJ	5,893,750,767	5,893,750,767	0
Total Spending with QJ	11,235,872,201	11,235,872,201	0
Labor Spending without QJ	5,247,378,950	5,266,193,233	18,814,283
M&E and B&M without QJ	5,768,338,212	5,833,991,205	65,652,993
Total Spending without QJ	11,015,717,162	11,100,184,438	84,467,276
Difference in Labor Spending	94,742,483	75,928,200	(18,814,283)
Difference in M&E and B&M	125,412,555	59,759,562	(65,652,993)
Difference in Total Spending	220,155,039	135,687,763	(84,467,276)
Labor Spending Caused by QJ	1.8%	1.4%	-0.4%
M&E and B&M Caused by QJ	2.1%	1.0%	-1.1%
Total Spending Caused by QJ	2.0%	1.2%	-0.8%

*SUTR/PFER refers to the sales and use tax and project facility expense rebates.
**Labor spending includes direct wages and salaries, health care benefits and other costs. The reduction in labor cost was calculated using total labor spending, but only wages and salaries and health care benefits were multiplied by the earnings-earnings multipliers, consistent with BEA's definition of household earnings.
*** M&E and B&M are machinery and equipment and building and materials.
Source: Prepared by legislative auditor's staff using information from LDR, LED, and the U.S. Bureau of Economic Analysis.

Table B.5 shows the second-phase of the analysis, which takes the incremental increase in QJ recipient spending and uses the BEA's RIMS multipliers to estimate the QJ program's overall effects (direct, indirect, and induced) on different sectors of the Louisiana economy. The amounts shown in Table B.5 include both direct and indirect effects.

Table B.5 Effects of the QJ Program, with and without SUTR/PFER/ITC Amounts in Dollars (Except Jobs)			
Sector	**Current Program**	**Capping SUTR/PFER**	**Change from removing SUTR/PFER**
Direct Effect of Payrolls on Household Earnings	$82,736,623	65,397,393	(17,339,230)
Indirect Effects of Subsequent Spending on Household Earnings	$93,750,556	76,202,268	(17,548,288)
Total Effect on Household Income	$176,487,179	141,599,661	(34,887,518)
Gross Cost to the State	$253,281,148	165,809,018	(87,472,130)
State Tax Revenue	$13,459,705	10,799,026	(2,660,679)
Net Cost to the State Treasury (Gross Cost less Taxes)	$239,821,443	155,009,992	(84,811,451)
Overall Net Gain (Loss)	$(63,334,264)	(13,410,331)	49,923,933
Fiscal Return on Investment*	$0.05	0.07	0.01
Benefit-Cost Ratio**	$0.74	0.91	0.18
Permanent Jobs Supported Per Year	97.3	95.0	(2.3)
Construction Jobs Supported	182.3	112.5	(69.9)
*Fiscal return on investment is the state tax revenue generated by the program, divided by the gross cost to the state. **Benefit-cost ratio is the dollars of household income generated by the program, divided by the net cost to the state. **Note:** Rebate, tax, and household income amounts discounted to the first year of the QJ contract using a discount rate of 2.3%. **Source:** Prepared by legislative auditor's staff using information from LED, LDR, LWC, and the U.S. Bureau of Economic Analysis.			

Only two projects would have been affected if SUTR and PFER had been capped at 21% of gross payrolls, and these two projects were outliers, accounting for the majority of the SUTR and PFER rebates issued for these 59 projects. The other 57 projects received SUTR and PFER rebates averaging 2.3% of their new gross payrolls.

We wanted to determine if the effect of capping SUTR and PFER was sensitive to the elasticity estimate. For the program as a whole, elasticity estimates at the top and bottom of the range give different results, preventing us from determining conclusively if the program as a whole generates benefits that exceed its costs to the state. However, as shown in Table B.6, the overall net gain of the program with SUTR and PFER caps is higher than the overall net gain of the program as currently configured, across all elasticity estimates. The effect on the overall net gain would be an increase of $13.1 million to $86.4 million, with the average estimate being $49.9 million.

Table B.6 Overall Net Gain of QJ as Currently Structured and with SUTR/PFER Caps Comparison of Elasticities			
Scenario	**Mean Elasticity**	**Low Elasticity**	**High Elasticity**
Elasticity	-0.56 labor -1.00 capital	-0.22 labor -0.01 capital	-0.90 labor -2.00 capital
Net Gain, Current Program	($63,334,264)	($227,976,243)	$102,268,346
Net Gain, SUTR/PFER Caps	($13,410,331)	($141,550,057)	$115,341,438
Effect of Caps on Net Gain	**$49,923,933**	**$86,426,186**	**$13,073,092**

Note: Rebate, tax, and household income amounts discounted to the first year of the QJ contract using a discount rate of 2.3%.
Source: Prepared by legislative auditor's staff using information from LED, LDR, LWC, and the U.S. Bureau of Economic Analysis.

We also considered the timing of benefits and costs by separately presenting the effects for the first and second 10 years. Table B.7 below shows the results of this decomposition. The costs for the program occur during the first 10 years. In addition, the bulk of the benefits also occur during the first 10-year period. As is evident in Figure B.2, the trend for QJ recipient companies is for the new direct jobs and gross payrolls to decrease after the first five years of the contract. Our model then predicts steady trends in payrolls and job counts, per trends in LWC wage filings of other QJ recipient companies.

Table B.7 Effects of the QJ Program by Ten-Year Period Mean Elasticity Scenario			
Years After Contract Effective Date	**1-10**	**11-20**	**Total**
Household Income: Construction Phase	$30,108,145	$0	$30,108,145
Household Income: Operating Phase	$109,917,554	$36,461,480	$146,379,034
Total Household Income	$140,025,699	$36,461,480	$176,487,179
Gross Cost to the State	$253,281,148	$0	$253,281,148
State Tax Revenues	$10,678,989	$2,780,716	$13,459,705
Net Cost to the State Treasury	$242,602,159	($2,780,716)	$239,821,442
Overall Net Benefit	($102,576,460)	$39,242,196	($63,334,264)

Note: Rebate, tax, and household income amounts discounted to the first year of the QJ contract using a discount rate of 2.3%.
Source: Prepared by legislative auditor's staff using data from LED, LWC, LDR, and the U.S. Bureau of Economic Analysis.

Conclusion

Our model indicates that capping SUTR and PFER at 21% of gross payrolls would reduce household incomes by an estimated $34.9 million, in comparison to the current structure of the QJ program, but this would also reduce the net cost to the State Treasury by $84.8 million. The effect on the overall net gain of the program would be an increase of $49.9 million, compared to the current structure of the program. As a result, our model indicates that the state could improve its return on investment from the QJ program by capping SUTR and PFER rebates at 21% of gross payrolls.
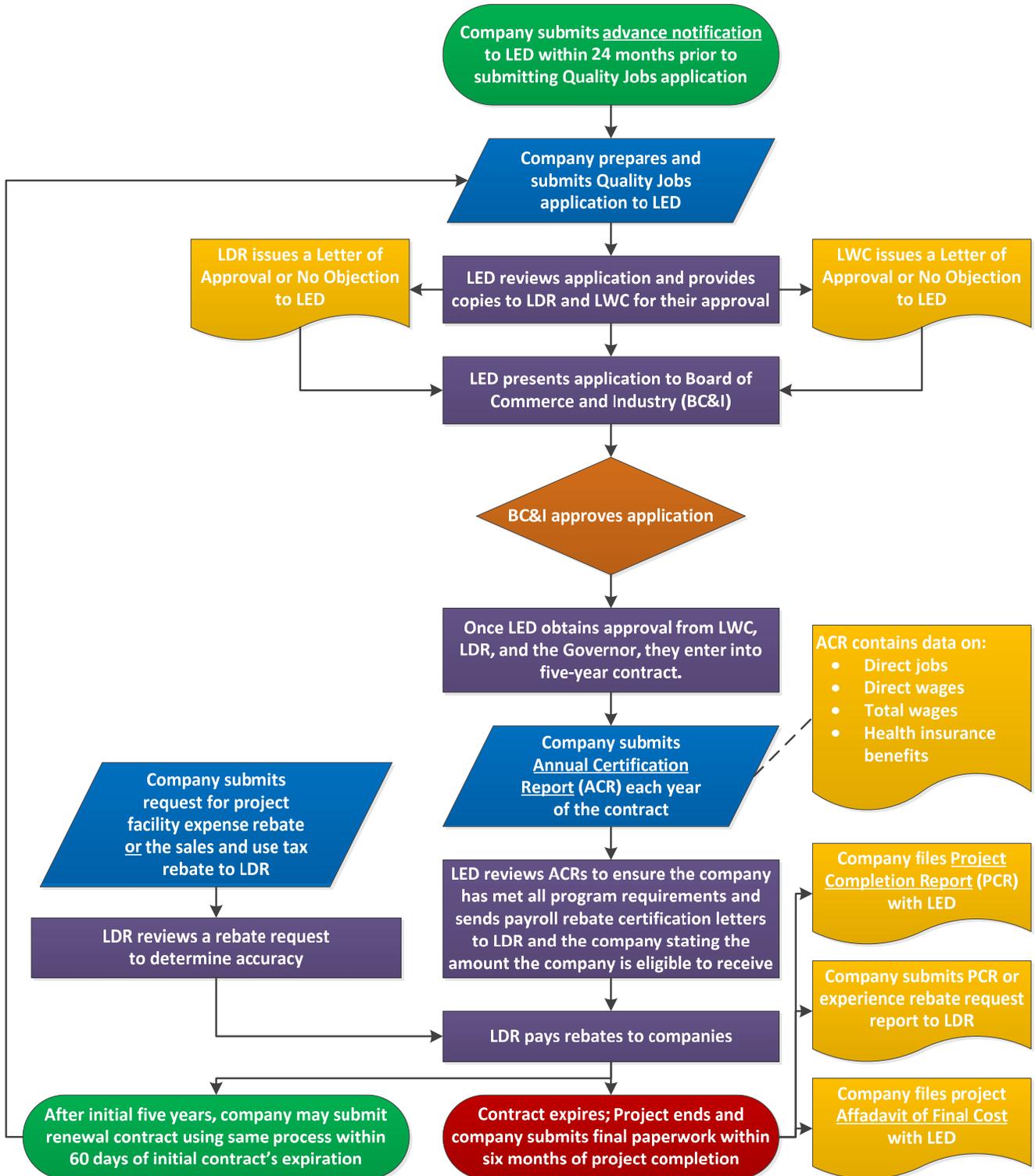
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APPENDIX C: ELIGIBLE AND INELIGIBLE CRITERIA TO PARTICIPATE IN QJ PROGRAM

Companies must meet one of the following criteria in order to participate in the Quality Jobs Program:	Companies in the following industries are generally <u>ineligible</u> for the Quality Jobs Program:
- Be involved in one of the following industries: - Biotechnology, biomedical, and medical industries serving rural hospitals - Most manufacturing, including micromanufacturing - Software, internet, and telecommunications technologies - Clean energy technology - Food technology - Advanced materials - Headquarters of a multi-state business - Commercial aircraft maintenance, repair, and overhaul - Oil and gas field services - Have at least 50 % of sales to out-of-state buyers, to in-state buyers who will resell the product out of state, or to the federal government - Perform at least 50% of services for an out-of-state parent company - Be located in a parish that is one of the lowest 25% of parishes based on per capita income	- Retail - Business associations or professional organizations - State and local government - Automobile rental or leasing - Local solid waste disposal, sewage system, or water system - Most nonprofit organizations - Gaming - Most professional services, such as lawyers, accountants, or advertising agencies - Most construction businesses - Employment services - Most medical services companies except those involved in in biomedical and biotechnology industries or those servicing rural hospitals - Real estate agents, operators, and lessors

Source: Prepared by legislative auditor's staff using state law.

APPENDIX D: APPLICATION AND ADMINISTRATION PROCESSES OF THE QJ PROGRAM

Company submits <u>advance notification</u> to LED within 24 months prior to submitting Quality Jobs application

Company prepares and submits Quality Jobs application to LED

LDR issues a Letter of Approval or No Objection to LED

LED reviews application and provides copies to LDR and LWC for their approval

LWC issues a Letter of Approval or No Objection to LED

LED presents application to Board of Commerce and Industry (BC&I)

BC&I approves application

Once LED obtains approval from LWC, LDR, and the Governor, they enter into five-year contract.

ACR contains data on:
- Direct jobs
- Direct wages
- Total wages
- Health insurance benefits

Company submits request for project facility expense rebate <u>or</u> the sales and use tax rebate to LDR

Company submits <u>Annual Certification Report</u> (ACR) each year of the contract

LDR reviews a rebate request to determine accuracy

LED reviews ACRs to ensure the company has met all program requirements and sends payroll rebate certification letters to LDR and the company stating the amount the company is eligible to receive

Company files <u>Project Completion Report</u> (PCR) with LED

Company submits PCR or experience rebate request report to LDR

LDR pays rebates to companies

After initial five years, company may submit renewal contract using same process within 60 days of initial contract's expiration

Contract expires; Project ends and company submits final paperwork within six months of project completion

Company files project <u>Affadavit of Final Cost</u> with LED

D.1

APPENDIX E: SUMMARY OF OTHER STATES' JOB CREATION PROGRAMS—MINIMUM QUALIFYING WAGE CRITERIA

State	Program	Wage Adjusted Annually?	Wage Requirement Adjusted by County for Local Economic Conditions?	Minimum Qualifying Wage
1. Alabama	1. Alabama Jobs Act	Non-applicable because this program does not have a wage requirement.	Non-applicable because this program does not have a wage requirement.	Non-applicable because this program does not have a wage requirement.
2. Arkansas	2. Create Rebate	Yes (to receive highest rebate)	Yes (to receive highest rebate)	Average hourly county wage.
	3. Advantage Arkansas	Yes	No	At least the wage of the county with the lowest average hourly wage.
3. Florida	4. Florida Qualified Target Industry Tax Refund	Yes	Yes	115% of local private average wages
4. Georgia	5. Jobs Tax Credit Program	Yes	No	At least the average wage of the county with the lowest average wage in the state
5. Mississippi	6. Jobs Tax Credit	Non-applicable because this program does not have a wage requirement.	Non-applicable because this program does not have a wage requirement.	Non-applicable because this program does not have a wage requirement.
	7. Advantage Jobs Program	Yes	Yes	Varies between 100% -110% of average wage of county or state
6. Oklahoma	8. Quality Jobs Program	Yes	Yes	Average county wage
	9. Small Business Quality Jobs Program	Yes	Yes	110% to 125% of average county wage
	10. 21st Century Jobs Program	Yes	Yes	300% of average county wage or annually indexed state wage
7. South Carolina	11. Job Development Credit	Yes	Yes	At least 120% of the county's or state's average per capital income, whichever is lower.
8. Tennessee	12. Job Tax Credit	Partially, only for some industries	No	For back office operations job positions, state's average occupational wage for the month of January of the year during which the job was created.
9. Virginia	13. Major Business Facility Job Tax Credit.	Non-applicable because Virginia does not have a wage requirement.	Non-applicable because Virginia does not have a wage requirement.	Non-applicable because Virginia does not have a wage requirement.

Source: Prepared by legislative auditor's staff using information obtained from other states.

APPENDIX F: SUMMARY OF OTHER STATES' JOB CREATION PROGRAMS—QUALIFICATION TIERS

State	Requirements based on the level of development of the county (i.e., tiers)	Description of Tiers
1. Alabama*	1. **Alabama Jobs Act. Yes**, this program's tiers are population-based, and not based on the level of development of the county.	• **Tier 1** requires companies in counties with more than 25,000 people to create 50 jobs to qualify to receive a 3% rebate. • **Tier 2** requires companies in counties with populations with under 25,000 people to create 25 jobs to qualify to receive a 4% rebate.
2. Arkansas	2. **Advantage Arkansas. Yes,** sets payroll credit percentages based on unemployment rate, poverty rate, per capita income; and population growth for businesses that have reached a certain amount in total annual payroll.	• **Tier 1** (More Developed) has a credit that is 1% of the payroll for the new full-time permanent employees of the business. • **Tier 2** has a credit that is 2% of the payroll for the new full-time permanent employees of the business. • **Tier 3** has a credit that is 3% of the payroll for the new full-time permanent employees of the business. • **Tier 4** (Least Developed) has a credit that is 4% of the payroll for the new full-time permanent employees of the business.
	3. **Create Rebate. Yes,** sets payroll credit percentages based on a County's unemployment rate, poverty rate, per capita income; and population growth.	• **Tier 1** (More Developed) has a benefit of 3.9% of the annual payroll of new full-time permanent employees. • **Tier 2** has a benefit of 4.25% of the annual payroll of new full-time permanent employees. • **Tier 3** has a benefit of 4.5% of the annual payroll of new full-time permanent employees. • **Tier 4** has a benefit of 5% of the annual payroll of new full-time permanent employees.
3. Mississippi	4. **Jobs Tax Credit. Yes,** sets job creation thresholds and payroll credit percentages based on a County's unemployment rate and per capita income.	• **Tier 1** (Most Developed) must create at least 20 jobs for a 2.5% payroll credit. • **Tier 2** (Moderately Developed) must create at least 15 jobs for a 5% payroll credit. • **Tier 3** (Least Developed) must create at least 10 jobs for a 10% payroll credit.
	5. **Advantage Jobs. No**, the requirements and benefits are not affected by location of the company.	• **Non-applicable**
4. Florida*	6. **Qualified Target Industry Tax Refund. Yes**, enterprises zones and rural communities receive an increased benefit than non-enterprise zones.	• **Tier 1** has a benefit of $3,000 per new job for companies located in non-enterprise zones and non-rural communities. • **Tier 2** has a benefit of $6,000 per new job for companies located in enterprise zones and/or rural communities, which are generally counties with populations under 75,000.

5. Tennessee	7. **Job Tax Credit. Yes**, requirements are based on each county's unemployment rate, per capita income, and poverty level.	Each county is given a tiers that is based on its unemployment rate, per capita income, and poverty level • **Tier 1** must create 25 jobs (Most Developed) • **Tier 2** must create 25 jobs • **Tier 3** must create 20 jobs • **Tier 4** must create 10 jobs (Least Developed) Tiers 2, 3, & 4 can receive the credit for a longer period of time.
6. South Carolina	8. **Job Development Credit. Yes,** benefits are based on each county's per capita income and unemployment rate	• **Tier 1** (Most Developed) can receive 55% of the maximum allowable credit • **Tier 2** can receive 70% of the maximum allowable credit • **Tier 3** can receive 85% of the maximum allowable credit • **Tier 4** (Least Developed) can receive 100% of the maximum allowable credit
7. Georgia	9. **Jobs Tax Credit Program. Yes,** benefits and program requirements based on each county's unemployment rate, per capita income, and poverty level.	• **Tier 1**(Least Developed) required to create two jobs and receives $3,500 per job • **Tier 2** required to create 10 jobs and receives $2,500 per job • **Tier 3** required to create 15 jobs and receives $1,250 per job • **Tier 4** (Most Developed) required to create 25 jobs and receives $750 per job
8. Virginia*	10. **Major Business Facility Job Tax Credit. Yes,** program requirements are based on unemployment rate and enterprise zone.	• **Tier 1** for areas with an unemployment rate lower than 0.5% of the statewide average must create 50 jobs • **Tier 2** for areas with an unemployment rate higher than 0.5% of the statewide average or in a designated enterprise zone must create 25 jobs.
9. Oklahoma*	11. **Quality Jobs Program. Yes,** the benefit for companies located in economically distressed and Opportunity Zones may be greater.	• **Tier 1** areas are those that are not Opportunity Zones or economically distressed and can receive a rebate of up to 5%. • **Tier 2** areas are economically distressed and Opportunity Zones automatically receive a 5% rebate on the payroll for new jobs.
	12. **Small Employer Quality Jobs Program. Yes,** the program requirements are based on the population of the county.	• **Tier 1** counties have a population of 7,000 or more and companies located in them are required to create the greater of 15 new jobs or 10% of the company's employment. • **Tier 2** counties have a population of between 3,500 to 6,999 and companies located in them are required to create the greater of 10 new jobs or 7.5% of the company's employment. • **Tier 3** counties have a population under 3,500 and companies located in them are required to create the greater of 5 new jobs or 5%
	13. **21st Century Quality Jobs. No**, the requirements and benefits are not affected by location of the company.	**Non-Applicable.**

*These states do not call the different qualifications "tiers."
Source: Prepared by legislative auditor's staff using information obtained from other states.