

GIVING AWAY THE FUTURE

HOW
LOUISIANA'S
INDUSTRIAL TAX
EXEMPTION
PROGRAM (ITEP)
HAS FAILED TO
PRODUCE
PROSPERITY

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SHARED PROSPERITY, CLEAN
ENERGY, AND ECONOMIC
RESEARCH

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About the Ohio River Valley Institute

The [Ohio River Valley Institute](#) (ORVI) is an independent, nonprofit research and communications center founded in 2020. Our team of experts produces substantive research on building shared prosperity and clean energy, transitioning from tried-and-failed models of extractive economic development, and repairing the damage from a legacy of fossil fuels. We strive to help the Ohio Valley region—and beyond—chart a course toward a healthy, equitable economy that puts people first.

Generations of resource extraction have hollowed out local economies in fossil fuel communities across the nation, hemorrhaging jobs and accelerating population decline. Our research demonstrates how transitioning to clean energy, prioritizing efficiency upgrades, and deploying large-scale initiatives to clean up fossil fuel damage can uplift a holistic, place-based economic development model that improves quality of life, revitalizes economic and job growth, and builds community-wide shared prosperity.

About the Author

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In 1936, Louisiana launched what is known as the Industrial Tax Exemption Program (ITEP), aimed to compete with other states like Mississippi who had begun to massively subsidize corporate manufacturing with tax incentives. Louisiana’s policy centralized the power to exempt manufacturers from local taxes with a state board, bypassing local leaders, sheriffs, and schools. Prior to a 2016 reform, the program exempted these companies from 100% of local taxes and contained no jobs requirements or mechanisms to ensure that Louisiana taxpayers actually received any measurable benefits for giving up local tax revenue. In fact, Louisiana has lost ground since the 1930s despite ITEP being one of the largest corporate tax subsidy programs in the nation. Louisiana has exempted tens of billions of dollars over eight decades to now economically trail states that it was once leading.

The 2016 reforms scaled back exemptions to 80% of levied taxes and instituted a local approval process as well as instituted modest job creation requirements for corporate recipients. A 2022 study found that this local approval process alone helped hundreds of millions of dollars flow back into local government services. Now, the very week that this report is released, Governor Jeff Landry has signed an executive order repealing the job creation requirements and stripping approval power away from local councils, sheriffs, and school boards.

This report aims to analyze the overall effectiveness of ITEP with the most rigorous economic and statistical analysis of the program to date, using actual jobs and income data. The main goal is to assess whether ITEP has been at all correlated with **net** job and income increases in the state or whether it represents a subsidy that simply shuffles money around the state and provides a windfall for multinational companies who export most of their production value outside of Louisiana’s borders. The key findings of the analysis are provided below.

Key Findings:

- ◆ The amount of dollars exempted by ITEP, as a percentage of overall taxes collected, has **no statistically significant relationship to job growth**.¹ That is, many of the parishes that grew the most jobs had the lowest ITEP utilization, after controlling for other factors.

¹ Statistical significance in this study is defined by the p-value of the regression results. A model coefficient is deemed “statistically insignificant” if it has a greater than 10% chance of being random correlation.

- ◆ The amount of dollars exempted by ITEP has **no statistically significant relationship to personal income growth**. That is, the parishes where personal incomes rose the most often had the lowest ITEP utilization, after controlling for other factors and vice versa.
- ◆ Results 1 and 2 together support the conclusion that **the wider economic benefits of ITEP are overstated, relying on inflated and unsubstantiated indirect and induced job claims**.
- ◆ **ITEP dollars are partially invested in industries that are broadly in decline due to automation or outsourcing**. US employment in petrochemical manufacturing is lower in 2022 than it was in 1990. This suggests that continuing to invest ITEP dollars in petrochemical projects is a losing proposition for the state's residents and future workforce, chasing an ever-larger piece of a shrinking pie.
- ◆ **Louisiana's economy is likely over-reliant on the petrochemical industry**. Louisiana has a much higher petrochemical gross domestic product (GDP) per capita ratio than any other state, including Texas. Over-reliance on petrochemicals may make the state's economy less resilient to global trends and boom-bust cycles in the industry. This calls into question whether ITEP has helped support a continued lack of diversification in Louisiana's economy by giving large tax advantages to specific types of manufacturing industries.
- ◆ **GDP produced by the petrochemical industry does not translate into earnings for local workers**. Parishes that have had large portions of their revenue exempted to construct plants have retained a very low percent of their per capita GDP as worker earnings. Effectively, local communities give up tax revenue to support companies who export most of the value of their product out of the state. In other cases this **may increase inequality within the state** as plant workers take their incomes to nearby, wealthier suburban parishes outside of the community losing tax revenue.
- ◆ Finally, because ITEP has generally been used to promote the growth of petrochemical industries that have a history of environmental pollution, it is likely that **a side effect of the program has been that Louisiana's taxpayers have indirectly subsidized the destruction of their own environment and health**.

If you build it, they don't always come.

For decades Louisiana has pursued an economic development strategy that aims to attract businesses to the state by offering them lucrative tax incentive packages (1). These include a combination of state grants as well as tax exemptions, where companies pay little to no local taxes, including property taxes. However, Louisiana's most financially egregious tax incentive program, the Industrial Tax Exemption Program (ITEP), differs significantly from other states. ITEP is perhaps the largest corporate giveaway program in the United States, responsible for over \$20 billion in foregone local tax revenue in the state since 1998 (2). Yet, despite these massive costs to the state's taxpayers, there is little to show in terms of progress after more than eighty years. Louisiana ranks near dead last in key indicators of growth, according to US News and World Report's 2022 rankings, as shown in **Figure 1**.

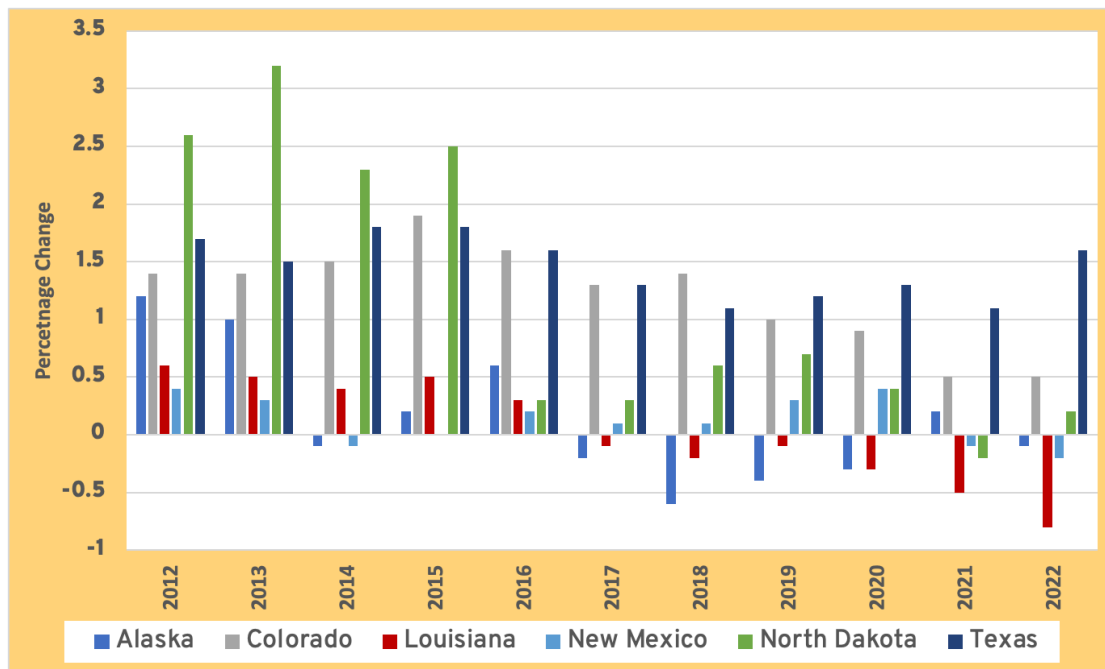
Figure 1: Louisiana's US News and World Report Rankings, 2023

Louisiana's US News and World Report Rankings in 2023	
Overall Ranking	50th
Overall Economy	50th
Business Environment	44th
Overall Health Care	45th
Education	46th
Public Safety	49th
Environment	49th
Internet Access	47th
Transportation	48th
Equality	49th
Economic Opportunity	50th

Data Source: [US News and World Report](#)

It has long been shown by peer-reviewed economic studies that people “vote with their feet,” as Charles Tiebout first proposed in 1956 (3,4). Data-based studies have shown that to be the case as families and workers move not just to where jobs are located but to where the quality of life and public goods are higher. Simply put, people generally choose to live where there is a strong mixture of economic opportunity, low pollution, good schools, and safe environments. As might be expected with Louisiana’s abysmal rankings relative to other states, the state’s population has been in decline since 2016 as shown in **Figure 2**. Even prior to 2016, the state’s population growth lagged other major states that also have large petrochemical manufacturing sectors. Despite all the talk by state politicians about “being open for business”, an extreme pro-business policy by itself is not the path to economic and population growth (5).

Figure 2. Annual Change in Resident Population, 2012-2022



Data Source: US Bureau of Economic Analysis (BEA)

Note: Benchmark petrochemical states chosen according to [US Energy Administration data](#).

ITEP has existed since 1936 and was virtually unchanged until 2016, when a reform was implemented that enacted jobs requirements and instituted a local approval process before the state’s Board of Commerce and Industry approves applications for exemptions. However, data has never generally supported ITEP as an effective tool for promoting shared prosperity and income growth in the state. As **Figure 3** shows, Louisiana has lost ground on personal income per capita between 1930, before ITEP was created, and 2022, relative to other states that provide far fewer corporate subsidies. Given the shrinking state population, this decline in ranking is largely driven by other state incomes rising faster than Louisiana’s, despite the state’s ITEP program.

Figure 3. Louisiana’s Personal Income Per Capita Relative to Other States, 1930 and 2022

	1930	2022
State rank in per capita personal income	39th	44th
Louisiana per capita personal income relative to the Southeast Region	14% higher	7.3% lower

Data Source: US Bureau of Economic Analysis (SAINC1)

This report presents strong, data-driven evidence that Governor Landry’s recent claim that “if you’re building something, you’re creating jobs, and you’re creating opportunity” isn’t always true (6). In reality, economic development policy is not that simple. If growing the economy was as straightforward as lavishing billions of dollars on large corporations, Louisiana’s economic and demographic rankings would not be so bleak.

When evaluating state-level job creation programs, it is important to consider the context across the state, since creating a new job does not guarantee a new worker with the necessary education or skills to occupy that job. Nor does simply creating a job

guarantee that the job pays good enough wages to attract workers. It is also possible to crowd out other economic activity when tax subsidies are disproportionately given to large businesses (7). In essence, tax exemptions for large corporations are anti-small business in practice. This is a crucial finding, since small businesses drive the vast majority of job growth across the county (see: *Small Businesses, Not Large Companies, Drive the Most Net New Job Growth*).

Small Businesses, Not Large Companies, Drive the Most Net New Job Growth

Business dynamism refers to how quickly new businesses are formed, expand, and finally leave the market at the end of their life cycle. This churn of business formation and job creation and destruction has important implications for productivity growth (8). Companies become more productive through competition, when resources are allocated to more productive and innovative companies, which expand, while less productive companies contract or exit the market. If fewer new businesses are formed, then this cycle slows and productivity can stagnate. There is strong evidence that this has been occurring in some capacity in the US since the 1980s.

The US Census Bureau tracks job and business creation and destruction via the Business Dynamics Statistics (BDS). A 2010 analysis of the BDS data by the Hoover Institute revealed that new businesses in their first year of operation created 3 million jobs, while all other businesses, from one to 200 years old, were net job destroyers. That is, while some older, large businesses can create jobs, those gains are offset by losses by other existing businesses. Given this, the study notes that “the common zero-sum attempts to incentivize firm relocation are oblivious to the important pattern of gross job creation revealed by the BDS.” That is, giving tax subsidies to large, existing companies represents a bet by the government that their chosen recipient will be one of the job creators and not destroyers in the long run. This is a risky bet, based on the data.

There is also evidence that small businesses and startups carry larger multiplier effects. Multiplier effects measure how many induced and indirect jobs a direct job helps to create in the broader economy.² Evidence from peer-reviewed studies suggest that local startups contribute more positively to economic growth because they tend to employ local workers, who spend their incomes locally and utilize local supply chains and services (9–11).

² Direct jobs are jobs created by a company or project, while indirect jobs are created in that company’s supply and logistics chain. Induced jobs are created in the broader economy by workers’ incomes being re-spent on goods and services.

By subsidizing large corporate projects that can vacuum up workers and drive up wages, the state may inadvertently be making it harder for local small businesses to compete for those same workers, unless the state's prime-age population is growing with new workers also migrating into the state or joining the workforce. This does not appear to be the case for Louisiana. As a recent report by the Louisiana State University (LSU) Center for Economics, Business and Policy Research explains, Louisiana's labor force participation is, in fact, declining due in part to a reliance on older workers, educational gaps, low wages, and lack of affordable child care options (12).

Additionally, job creation by itself may not contribute to overall economic growth if the type of job being created generates additional costs for the state and its residents. This is certainly the case for industries with large numbers of externalities, such as pollution, which can cause health and environmental costs to residents (higher healthcare expenses) and the state (enforcement and cleanup). Although politicians often portray a so-called "jobs versus environment" trade-off, there is little evidence that this trade-off exists in real data (13). Using plant-level data, economists have found that an increase in spending on the environment is not statistically associated with a loss of jobs. But there is evidence that the relationship does exist in the other direction – externalities, such as pollution, have long been understood by economists (14). Studies used by companies to convince politicians to award subsidies and tax incentives, such as those that utilize the popular input-output method popularized by commercial software like IMPLAN, do not account for these additional costs that the company does not pay (15). Thus, while economic jobs projections are almost always inflated, they are especially inflated for high-pollution industries that inflict additional, unaccounted for health, environmental, and regulatory costs onto residents, local governments, and state governments.

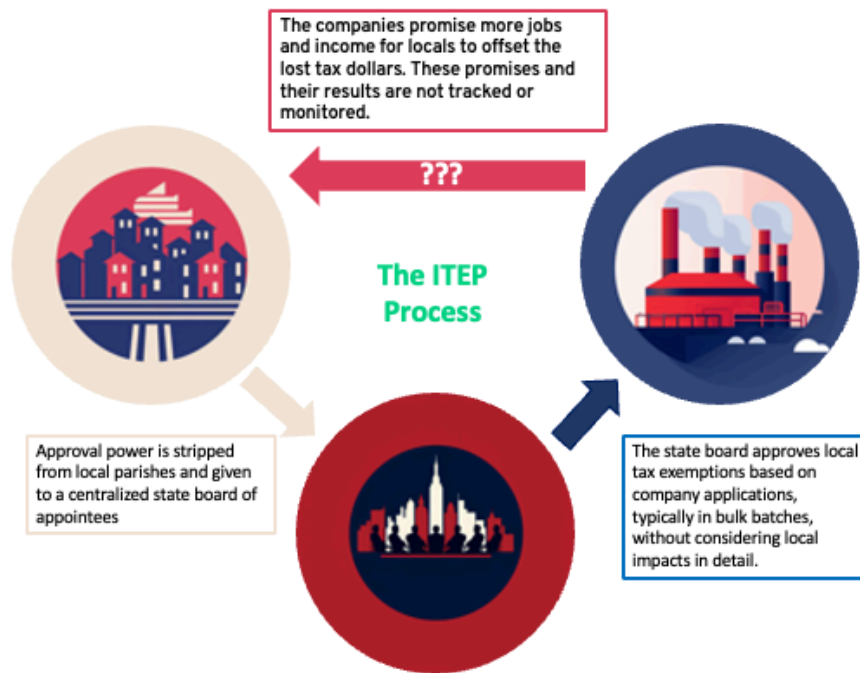
ITEP strips away local control over where dollars go.

Historically, the ITEP process has stripped local communities of decision-making power and centralized tax exemption authority with the state's appointed [Board of Commerce and Industry](#). This board approves applications for ITEP which are submitted by companies interested in receiving the tax benefits. Applications are generally approved in bulk packages without consideration of the economic, health, or environmental consequences of any specific project on its community. For example, in 2016 the board approved nearly 600 ITEP applications in just four meetings.

Any company that is classified as a 'manufacturer' is eligible for ITEP subsidizing 100% of its local property tax bill. In this case, "manufacturer" is a broad definition. Any company that falls under the North American Industry Classification System (NAICS) codes beginning with ["31", "32" or "33" qualifies for ITEP as a manufacturer](#). This has traditionally included massive, multinational petrochemical producers, including some who once outsourced their jobs overseas and then received tax breaks from ITEP to move them back to the state (16). Additionally, there is no mechanism that would preclude a company who is not a manufacturer from simply spinning off a subsidiary with a qualifying NAICS code in order to receive ITEP subsidies.

After the state's Board of Commerce and Industry approves an ITEP exemption, local communities forgo receiving the tax revenue that would otherwise be collected on the improvements to land other economic activity of the company. Prior to 2016, this included any maintenance and replacement of equipment that already existed at the site. **Figure 4** illustrates the idea of how the ITEP cycle allegedly works to benefit communities. As this report discusses, there is little evidence that communities see positive return on investment from ITEP exemptions.

Figure 4. The Flawed Idea Behind the ITEP Cycle



In exchange for this special treatment, companies promise to create new jobs and anchor growing industries. But prior to the 2016 ITEP reform, for over 75 years, there was no formal job creation requirement to receive ITEP funding equal to 100% of local taxes levied (17). In most cases, job creation was simply not tracked or reported and there are no clawback mechanisms in place for communities to reclaim lost dollars on failed projects. In 2016 a reform to the program instituted modest job requirements and created a process where local approval would be needed before taxes could be exempted. Newly elected governor Jeff Landry had long signaled his intention to repeal these jobs requirements and local input processes (6). On February 21, 2024, he signed an executive order that officially repealed both reforms, effectively restoring ITEP to its “wild west” status, where companies would not be accountable for proving that they create jobs to

receive subsidization (18). **Table 1** details the broad features of the ITEP program historically, under the 2016 reform.

Table 1. An Overview of the Industrial Tax Exemption Program & Its Reforms

ITEP Rules...	1936-2016	Under 2016 Reform (2016-2024)	Under Landry Repeal (2024)
Maximum Property Tax Exemption	100%	80%	80%
Qualifying Companies	Companies with NAICS code classification as a “manufacturer”	Companies with NAICS code classification as a “manufacturer”	Companies with NAICS code classification as a “manufacturer”
Qualifying Investments	Construction <u>and</u> <u>maintenance/ replacement</u> of equipment, machinery, buildings, and all property involved in the manufacturing process.	The governor <u>did not approve</u> exemptions for maintenance, replacement of existing equipment, or capital needed to comply with environmental regulations.	Unknown
Maximum Years Exempted	10	10	10
Job Requirements	None	All projects enter into an agreement with the state outlining job creation and specifying how the exemptions may be altered or eliminated if they fail to meet commitments.	None
Local Input	None	Requires parish council/police jury, municipal council, school board, and sheriff input and approval for each exemption.	Local approval is consolidated to a single board, but the state and governor have the ability to override their decision

Source: [https://revenue.louisiana.gov/Miscellaneous/LED%20Industrial%20Tax%20Exemption%20Program%20\(ITEP\)%20Overview.pdf](https://revenue.louisiana.gov/Miscellaneous/LED%20Industrial%20Tax%20Exemption%20Program%20(ITEP)%20Overview.pdf)

The typical sales pitch is that the company receiving the ITEP benefits will generate so much economic growth in a community that **net** tax collections may actually rise, despite their own tax exemptions. There is little to no statistical evidence to support this claim and, in fact, a 2024 review of data by the Institute on Taxation and Economic Policy found that “income disparities in Louisiana are larger after state and local taxes are collected” (19). Even less proof exists that Louisiana’s extreme approach to tax incentives

has produced any of the promised economic results statewide. Between 2017 and 2022, Louisiana still ranked 47th in GDP growth, 48th in population growth, and 40th in business growth (20).

Crucially, the tax dollars exempted by ITEP could otherwise support local residents' quality of life by funding law enforcement, fire departments, schools, parks, courts, libraries, mental and public healthcare services, and senior citizens' programs. **Table 2** shows the number of public service employees that could have been funded with dollars that were foregone to ITEP in 2017 alone. The table presents the statewide totals as well as highlights three parishes that consistently rank near the top in terms of their total ITEP-exempted dollars. Ascension and St. James Parishes are located in "Cancer Alley" near New Orleans and are home to long-standing petrochemical facilities. Cameron Parish is far more rural with a much lower population but has recently been the focus of intense debate surrounding a planned liquified natural gas (LNG) export facility, which received large ITEP exemptions (21). Conversely, even if you did not use any of the foregone ITEP revenue to hire additional service workers, you could significantly boost salaries for workers in the state. For example, in 2023 the median Louisiana teacher's salary was roughly \$12,000 below the national mean (22). Annual foregone ITEP revenue is more than twice as much as would be required to give every one of Louisiana's roughly 37,000 teachers a \$12,000 raise.

Table 2: The Number of Public Service Employee Equivalents that Could Have Been Funded with 2017 Foregone Property Tax Revenue Under ITEP

2017 ITEP Exemptions Could Fund Additional...	Louisiana	Ascension Parish	Cameron Parish	St. James Parish
Pre-school & Kindergarten Teachers	16,165	1,776	4,048	296
Elementary & Middle School Teachers	10,599	1,164	2,654	194
Post-Secondary Teachers	7,490	823	1,876	137
Special Education Teachers	10,270	1,128	2,572	188
Childcare Workers	24,349	2,675	6,097	446
Registered Nurses	651	57	1,418	20
EMS & Paramedics	1,289	113	2,809	40
Firefighters	2,682	87	439	25
Sheriff Deputies	4,021	279	1,933	111
Park Rangers & Security	2,150	0	1,174	11
Librarians	1,868	307	315	16
Miles of Road Maintained	1,293	0	817	44

Data Sources: Together Louisiana via LED Fastlane for ITEP Applications & US BLS May 2022 Occupational Employment and Wage Estimates. Per-mile maintenance cost of state-controlled roads was utilized from a [study](#) by the Reason Foundation.

Restoring Local Control Improved the Economy

There is already some evidence that restoring local control and allowing communities to decide whether to exempt their own tax revenues has brought economic improvement. According to a 2022 independent report by the Institute for Energy Economics and Financial Analysis, the 2016 reform which instituted additional approval steps by local government officials in the ITEP process effectively prevented millions of dollars from leaving local communities (23). That report finds that annual industrial property tax revenue grew in the state by more than \$280 million between 2016 and 2021, after the reforms were enacted. This included an additional \$113 million for schools, \$55 million for Louisiana law enforcement, and \$115 million for other parish services.

Now as Governor Landry has repealed the local control and job requirement reforms, this report examines whether ITEP exemptions actually, statistically contribute to job and income growth in the state, as is often claimed. This report conducts the most

rigorous statistical analysis to-date of the ITEP program by building an econometric model that tests the relationship between the amount of ITEP exemptions a parish experiences and the subsequent jobs and income growth in the parish. The model accounts for baseline economic conditions and demographic characteristics, such as education levels and racial composition. This way, differences that exist between parishes prior to the timeframe of the analysis are accounted for.

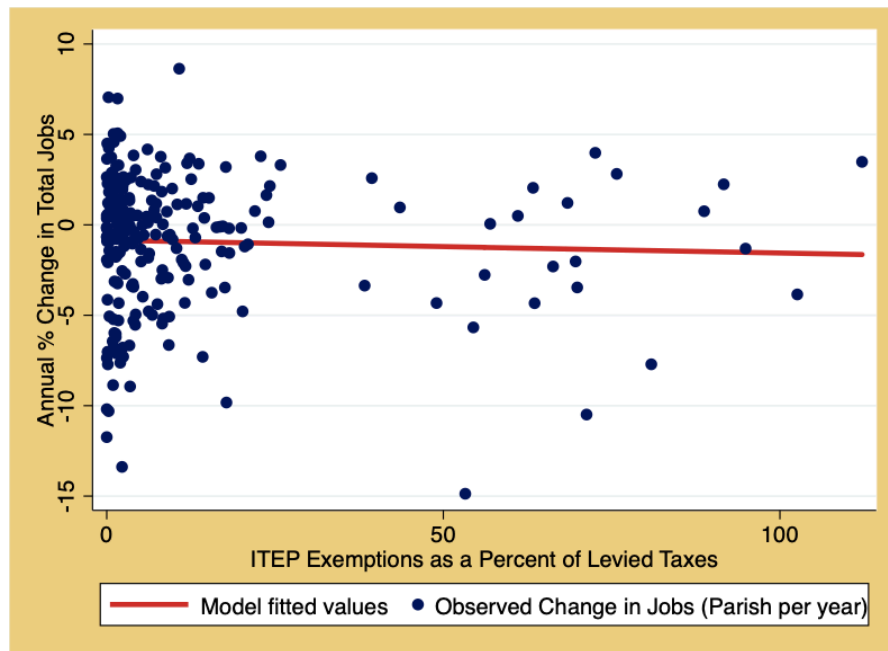
Additionally, the model includes what are known as fixed effects. These are variables that control for unobservable but constant factors. One fixed effect is known as a year fixed effect – this captures the effect of general time-based trends that impact all parishes in the same way, such as national events like the COVID-19 pandemic or broader global economic conditions. For example, a 2022 year fixed effect would account for the global price impact that the Russian invasion of Ukraine had on gas markets for that year, which would be experienced by all parishes in Louisiana. The other type of fixed effect in the model is known as a spatial fixed effect. This effect essentially captures time-invariant characteristics unique to each parish. For example, if a parish is located along the Mississippi, this influences its economic performance consistently every year, since the parish never moves away from the river. Spatial fixed effects ensure that the model accounts for these kinds of unchanging geographic differences between Louisiana’s parishes (24,25).

ITEP exemptions have no relationship with overall job growth.

To assess whether ITEP has been successful in generating job growth, this study conducts the most rigorous statistical report to date using real ITEP data and publicly available jobs and income data collected by US Bureau of Economic Analysis and US Bureau of Labor Statistics. Using ITEP data maintained in Louisiana Economic

Development (LED) fastlane database and collected and analyzed by Together Louisiana, this report links the dollars that were exempted by ITEP in each parish to jobs data in the parish over a period of years. To control for possible factors that could also influence job growth, we use an econometric model that includes baseline economic and demographic data. This includes the prevalence of different industries (and their associated economic impact) already in the parishes at the beginning of the study period as well as pre-existing race, education, and age demographics in the parishes. **Figure 5** visually presents the results of the model. Each data point represents a Louisiana parish in a given year of the study.

Figure 5. Regression Model Results, Annual Change in Jobs vs. Annual Percentage of Levied Taxes Exempted by ITEP, 2018-2021



Data Source(s): US Bureau of Labor Statistics Quarterly Census of Employment and Wages (QCEW) & [Louisiana Legislative Auditor](#)

As the fitted model trend line shows in red, there is no positive relationship between the percentage of a parish's levied taxes that are exempted by the ITEP and the annual change in total jobs. The regression model coefficient on the ITEP variable was statistically insignificant at the 1%, 5%, and 10% levels. The full regression model is specified in **Appendix A**.

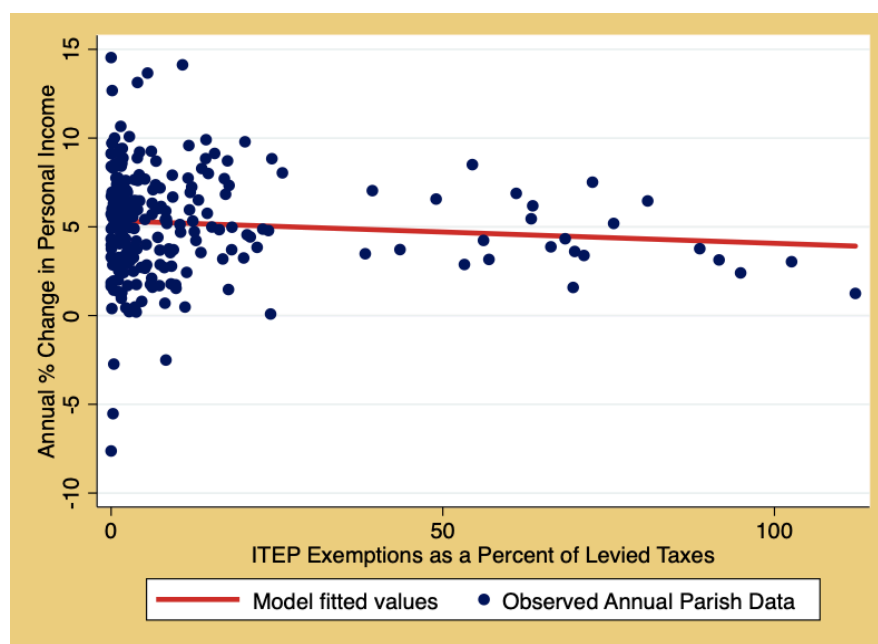
It is important to note that the model tests whether ITEP impacts *total* job growth within a parish. Proponents of ITEP may claim that this is an improper measure and that the model should test job creation within their industry that may not have previously existed. That approach, however, would not fully capture the *net* impact on the economy. It is possible (in fact, almost guaranteed) that all ITEP supported projects have at least one employee. What is less clear is whether those employees are occupying *net new* jobs in the economy. It is likely that many projects which “create jobs” may simply rearrange workers in the parish who may leave other jobs (for a variety of personal reasons) to take jobs with companies who are subsidized by ITEP. This may lead some proponents to claim that, even if they are not creating net-new jobs in the state, ITEP could be responsible for increasing worker wages and incomes. There is little data-based evidence for this claim either, as the regression analysis in **Figure 6** illustrates that personal income has not been correlated with ITEP either.

The finding that, if anything, ITEP might rearrange workers within (or between) parish(es) presents an additional negative possible consequence for local communities: companies subsidized by ITEP exemptions may directly compete with other local businesses—who are not subsidized—for workers. Given the evidence that small businesses have a higher economic multiplier effect than large corporations, ITEP could, in some parishes, be a negative for small businesses and self-employment. While the empirical small business and self-employment impacts of ITEP are beyond the scope of this study, it is a ripe area for further research.

ITEP exemptions have no relationship with personal incomes growth

Similarly, when the model is used to assess the relationship between personal income and ITEP exemptions, no statistically significant relationship is uncovered. Almost all parishes for which there is data observed between 2018 and 2021 have positive real personal income growth. However, the only parishes to experience near-double digit income growth exempted less than 15% of their levied taxes via ITEP. No parish that exempted more than 80% of their levied taxes in any given year exhibited more than 5% growth. Following Appendix A, the model again controls for baseline economic, demographic, and time-invariant geographic characteristics using 2017 data.

Figure 6. Regression Model Results, Annual Change in Real Personal Income vs. Annual Percentage of Levied Taxes Exempted by ITEP, 2018-2021



Data Sources: US BEA & Louisiana Legislative Auditor

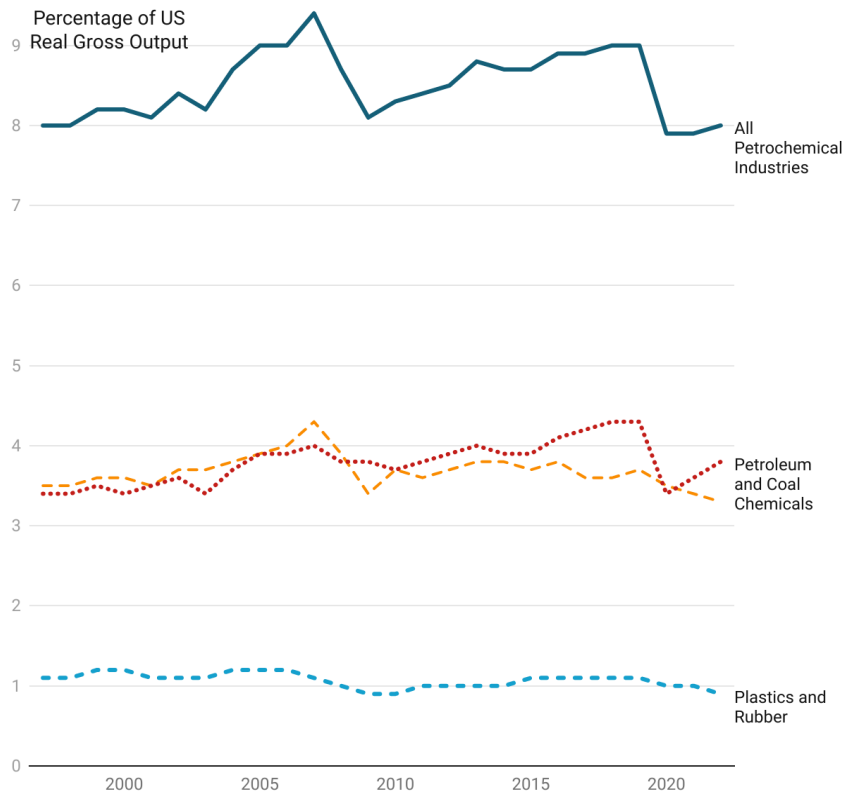
Why hasn't ITEP contributed to more jobs and rising incomes?

There are multiple reasons why massive tax exemptions via ITEP have not produced detectable job or income results. One has been briefly discussed; ITEP may effectively just allow the state government committee members to pick “winners and losers” and rearrange employment within the state. While some companies gain jobs and workers, such as those supported by ITEP, other companies and local businesses lose workers. This does little to move the needle for the state in overall competitiveness. In fact, if anything, the ITEP policy may induce parishes to compete with their neighbors for workers and residents, shifting population and employees around the state. This is comparable to the old adage of “rearranging the deck chairs on a sinking ship”.

Another possible reason that ITEP has failed to produce meaningful net jobs and income gains for Louisiana, even after reform, is that many of the exemptions are granted to industries already broadly experiencing declining employment. Industries can experience declining employment for a variety of reasons, including reduced consumer demand. For example, if consumers become more environmentally conscious, single-use plastics demand may decline (26). Industries can also experience declining or changing employment due to automation and new technology, in which case they may require either fewer workers or workers with more advanced skill sets to complement new technology (27,28).

Figure 7 illustrates that this is very likely the case for petrochemical industries (as classified by the North American Industry Classification System, NAICS). There has not been sizable growth in the petrochemical industry as a percentage of US output. That is, the share of the petrochemical industry has not increased.

Figure 7. Petrochemical Industries' Percentages of US Real Gross Output



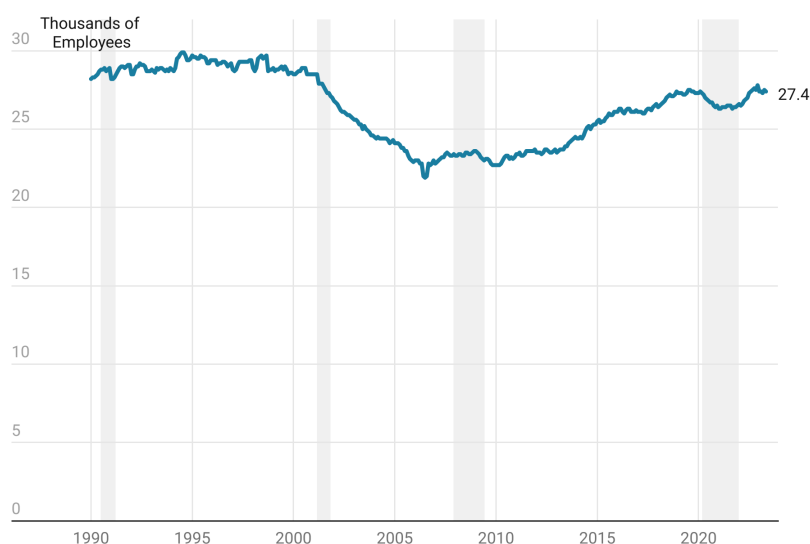
Data Source: US Bureau of Economic Analysis (BEA)

By investing in the industry, ITEP helps to further concentrate the industry in the state. In boom times, this can be an economic boon for the state that masks the fact that underlying wages and prosperity have not generally filtered down to residents. Additionally, during busts (such as the 2008 recession or COVID-19 pandemic), the state becomes more susceptible and is hit harder by shocks to the petrochemical industry and global price trends due to its less diversified economy. In fact, evidence shows that Louisiana has indeed ranked among the slowest states to recover economically from the pandemic (29).

Figure 8 further illustrates how ITEP, in many cases, may be a bet by the state that it can grow its share of a shrinking pie. Fewer workers were employed in the chemical industry in 2023 than in 1990. Despite the relatively stable share of US output, the

petrochemical industry is generally using fewer workers as technology and automation become more proficient, more affordable, and more cost-effective. Further, Louisiana [ranks 42nd in the nation](#) in a 2022 study of the best and worst states for workers, based on wage policy, worker protections, and right to organize (30). A poor environment for workers likely means that whatever jobs the petrochemical industry does create will also likely not be shielded long-term from industry trends or particularly high-wage. In fact, Louisiana’s status as a so-called “right to work” state likely exacerbates problems by reducing labor share of income further (31).

Figure 8. US Employment in Chemical Manufacturing, Jan 1990-May 2023

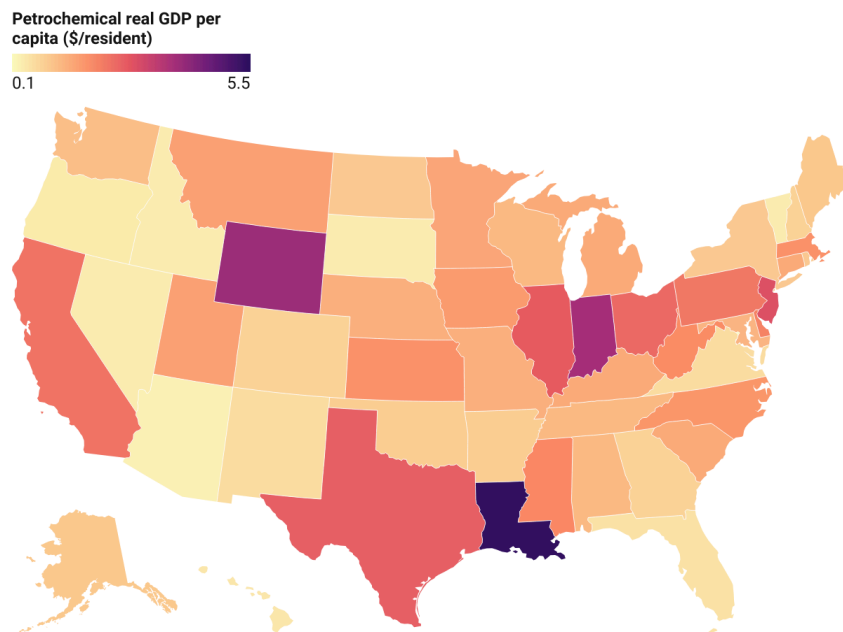


Data Source: US Bureau of Labor Statistics (BLS)

ITEP has made Louisiana more reliant on volatile industries

Sound investment advice generally involves diversification, and economic development strategies are no different (32). When an economy is heavily reliant on one industry, it is more vulnerable to booms and busts, which economists call shocks, within that industry (33). Perhaps no industry exemplifies the boom and bust cycle more than the volatile petrochemical industry, which is highly susceptible to global events and financial shocks. **Figure 9** reveals that Louisiana is more reliant on petrochemicals than any other state in the nation, adjusted for its population. While other states like Texas and California produce more raw volume of petrochemical products, their economies are significantly more diverse and their populations growing significantly in the last decade.

Figure 9. Petrochemical GDP per capita (\$/resident)



Data Source: US Bureau of Economic Analysis

What is more, Louisiana may be a strong competitor for many of the projects that receive ITEP subsidies even if ITEP did not exist. In 2019, the East Baton Rouge Parish School Board denied an ITEP request by ExxonMobil, after being empowered to do so by the 2016 reform (34). ExxonMobil proceeded with an investment anyway, without the ITEP exemption.

Louisiana's workers don't share in the value of petrochemical facilities

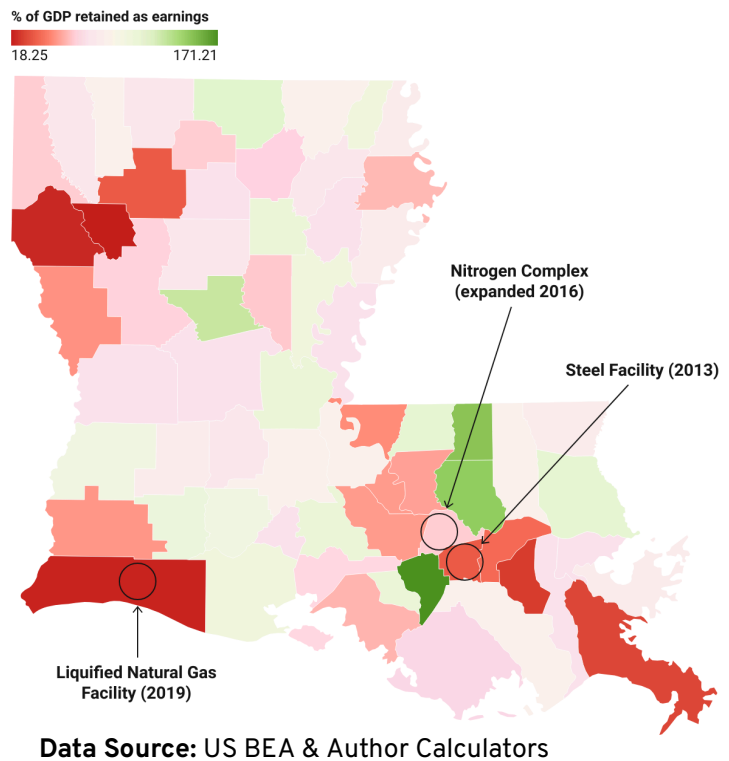
The petrochemical industry generally has low worker earnings measured as a share of GDP (35). Simply put, it is a capital-intensive industry and not a labor-intensive one. While fossil fuel extraction, refinement, and chemical production all yield products that may be high in value, a smaller fraction of that value is paid out to workers. This means that less of the value remains in the parish and in the state in the form of income that is re-spent into the local economy to support others.

Figure 10 shows the percentage of real GDP retained as worker earnings (paychecks) across the state. At the low end, some parishes retain less than 20% of their real GDP as worker earnings. At the high end, residents in some more affluent and suburban parishes have higher (more than 100%) earnings than the GDP produced within their parish. This is because these residential parishes are not where oil, gas, and chemical factories are located but where income is claimed by residents who likely commute.

This map calls into question the equity of ITEP as well as other state programs that aim to encourage large industrial development. It is often claimed that these tax exemptions are worth it for local communities because the companies that receive them will create new jobs that will more than offset the lost tax revenue. However, as the map shows, it is possible that the workers who take any new jobs do not live in the same community where the taxes are exempted. As such, parishes in what is sometimes called “Cancer Alley” along the river may exempt millions of dollars in revenue that would

otherwise flow to schools, healthcare, and safety services to attract businesses that employ workers who then spend their money purchasing houses, goods, and services neighboring parishes. In those neighboring parishes, schools and services give up no local tax revenue and residents do not suffer the same degree of environmental and health consequences as the parishes where the factories are actually located.

Figure 10. Percentage of 2021 GDP Retained as Worker Earnings



Given the fact that factories tend to be located in the low-income and/or minority neighborhoods within parishes, the ITEP policy raises severe racial, economic, and environmental justice concerns and very likely exacerbates deep, structural inequality within the state by redistributing wealth to already affluent suburban parishes at the expense of public services in others (36).

Conclusion

Louisiana's Industrial Tax Exemption Program (ITEP) has a long history of offering corporations large tax exemptions in exchange for the promise of economic prosperity. Little prosperity has been shared with the state's residents over the lifetime of the program. Using data dating back to 1998 and conducting the most rigorous statistical analysis of the connection between job growth, income growth, and ITEP exemptions, this study finds that there is no statistical correlation between the parishes that exempt the most tax dollars with ITEP and those that experience the highest economic growth.

Since 1998, the state has exempted over \$20 billion in local tax revenues via a centralized state committee with little oversight to companies who, as of 2016, are only minimally accountable for fulfilling their economic promises. Tax exemptions divert what would otherwise be revenue for public services to corporate activities. Unfortunately, many of the projects supported by ITEP are petrochemical projects in industries that are largely shrinking due to either declining domestic investment or increasing automation. Additionally, the cost-benefit analysis of ITEP does not account for environmental and health costs incurred by residents from industries generally associated with high volumes of pollution. As such, Louisiana's economic development strategy can be summed up as that of trying to win a larger piece of a shrinking pie at the expense of its public services, environment, and residents' health. The result has been unsatisfactory, with Louisiana still losing population each year and still ranking near the bottom of the list in business formation, job creation, and economic growth despite abating such vast sums of money to try and reverse declining trends.

This study also found that Louisiana is more reliant on the petrochemical industry, proportional to its population, than any other state in the US. Accordingly, the state's economy is less resilient and, indeed, more vulnerable to the volatile swings in prices of oil, gas, and chemicals as well as subject to the fallout from global events that impact petrochemical commodity markets.

Finally, ITEP has likely played a large role in furthering inequality within the state by redistributing economic value from parishes where factories are built and taxes are exempted to more affluent parishes where high-income workers are more likely to live and commute from. Generally, parishes with large ITEP exemptions retain less than 50% (and many less than 25%) of the value of their production in the form of worker earnings. This makes it difficult to gain any economic momentum from the investments, since dollars only multiply and grow the economy if they are re-spent back into it to support other local businesses and jobs.

Appendix A: Regression Model

$$\Delta Jobs_{pt} = \beta_1 ITEP_{pt} + \beta_2 D_{pt} + \beta_3 E_p + \alpha_t + \alpha_p + \varepsilon_{pt}$$

In the model above:

Variable	Description	Data Source(s)
$\Delta Jobs_{pt}^*$	The change in total jobs in a parish (p) in a particular year (t)	<ul style="list-style-type: none"> US Bureau of Labor Statistics Quarterly Census of Employment and Wages (QCEW) US Bureau of Economic Analysis (BEA)
$ITEP_{pt}$	ITEP dollars exempted as a percentage of total levied taxes in a parish (p) in each year (t)	<ul style="list-style-type: none"> Louisiana Economic Development (LED) Together Louisiana
D_{pt}	A vector of demographic variables including population, population education levels (% of population with higher education, etc), and racial share in each parish (p) in each year (t)	<ul style="list-style-type: none"> US Census Bureau American Community Survey (ACS)
E_{pt}	A vector of economic variables, including industry shares of GDP in each parish (p) using 2017 as the baseline to account for pre-existing economic activity in the parish prior to the analysis years.	<ul style="list-style-type: none"> US BLS QCEW
α_t	Time fixed effect which captures all factors in a given year (t) that impact all parishes	NA
α_p	Spatial (geographic) fixed effect that captures all time-invariant features of each individual parish (p), such as their proximity to water, natural amenities, etc.	NA

* $\Delta Jobs_{pt}$ is replaced by change in personal income in the second iteration of the model. The other control variables remain in the model.

References

1. Smiroldo C. A Review of the Louisiana Industrial Tax Exemption Program. Louisiana State Univ Sch Repos [Internet]. 2021;Honors Theses 1311. Available from: https://repository.lsu.edu/cgi/viewcontent.cgi?article=2356&context=honors_etd
2. Louisiana T. Giving Away the Farm: A Cost Benefit Analysis of the Industrial Tax Exemption Program in East Baton Rouge Parish, 1998-2017. 2017; Available from: https://d3n8a8pro7vhmx.cloudfront.net/togetherbr/pages/2303/attachments/original/1503346818/Final_TBR_Giving_away_the_farm_8-17-2017.pdf?1503346818
3. Tiebout C. A Pure Theory of Local Expenditures. *J Polit Econ*. 1956;64(5):416–24.
4. Banzhaf SH, Walsh PR. Do People Vote with Their Feet? An Empirical Test of Tiebout's Mechanism. *Am Econ Rev*. 2008;98(3):843–63.
5. Austin JC, Weinstein A, Hicks M, Wornell E. Improving quality of life --not just business--is the best path to Midwestern rejuvenation [Internet]. Brookings; 2022 Jan. Available from: <https://www.brookings.edu/articles/improving-quality-of-life-not-just-business-is-the-best-path-to-midwestern-rejuvenation/>
6. Paterson B. Jeff Landry wants to make a big change to Louisiana's tax breaks for new industry. *NOLA.com*. 2024 Feb 7;
7. Denes M, Duchin R, Hackney J. Does Size Matter? The Real Effects of Subsidizing Small Business [Internet]. SSRN; 2023. Available from: https://papers.ssrn.com/sol3/Papers.cfm?abstract_id=3451424
8. Decker R, Haltiwanger J, Jarmin RS, Miranda J. Declining business dynamism: Implications for productivity? [Internet]. Brookings; 2016. Available from: <https://www.brookings.edu/articles/declining-business-dynamism-implications-for-productivity/>
9. Fleming AD, Goetz JS. Does Local Firm Ownership Matter? *Econ Dev Q*. 2011;25(3):277–81.
10. Tsvetkova A, Partridge M, Betz M. Self-employment effects on regional growth: a bigger bang for a buck? *Small Bus Econ*. 2018;52:27–45.
11. Deller SC. Spatial variations in the role of microenterprises in economic growth. *Rev Reg Stud*. 2010;40(1):71–9.
12. Peralta A, Terrell D, Fuller A, Thornton J. Understanding Trends in Louisiana Labor Force Participation [Internet]. Louisiana State University Center for Economics,

Business, and Policy Research; 2023. Available from:
https://www.laworks.net/Downloads/LMI/LaborForceTrends_2023.pdf

13. Morgenstern DR, Pizer AW, Shih JS. Jobs Versus the Environment: An Industry-Level Perspective. *J Environ Econ Manag*. 2002;43(3):412–36.
14. Dahlman JC. The Problem of Externality. *J Law Econ*. 1979;22(1):141–62.
15. Partridge MD, Messenger N. A Bigger Bang Approach to Economic Development. The Ohio River Valley Institute; 2023.
16. Sneath, Sara. Chemical Companies Are Building Their Plants Overseas and Shipping Them Back In. They Still Get State Tax Breaks. *The Times-Picayune* [Internet]. 2019 Dec 6; Available from:
<https://www.propublica.org/article/chemical-companies-are-building-their-plants-overseas-and-shipping-them-back-in-they-still-get-state-tax-breaks>
17. Muller, Wesley. Local tax break authority could be consolidated to parish industrial boards. *Louisiana Illuminator* [Internet]. 2024 Feb 1; Available from:
<https://lailuminator.com/2024/02/01/tax-break/>
18. Lowe D. Gov. Landry signs executive order killing ITEP job creation requirements. *Greater Baton Rouge Business Report* [Internet]. 2024 Feb 21; Available from:
<https://www.businessreport.com/business/gov-landry-signs-executive-order-killing-itep-job-creation-requirements>
19. Louisiana: Who Pays? 7th Edition [Internet]. Institute on Taxation and Economic Policy; 2024 Jan. Available from:
<https://sfo2.digitaloceanspaces.com/itep/itep-whopays7-Louisiana.pdf>
20. Louisiana - State Economic Profile [Internet]. IBIS World; 2024. Available from:
<https://www.ibisworld.com/united-states/economic-profiles/louisiana/>
21. Friedman L. Biden Administration Pauses Approval of New Gas Export Terminals. *The New York Times* [Internet]. 2024 Jan 26; Available from:
<https://www.nytimes.com/2024/01/26/climate/biden-1ng-pause-climate.html>
22. Louisiana teacher salaries still lag behind Southern, US average. *Louisiana Illuminator*. 2023 Jul 5;
23. Sanzillo T. Louisiana Industrial Tax Exemption Program (ITEP): 2016 Reforms Net Parish Governments \$282 Million [Internet]. Institute for Energy Economics and Financial Analysis; 2022. Available from:
https://ieefa.org/sites/default/files/2022-10/Louisiana%20Industrial%20Tax%20Exemption%20Reforms%20Net%20Parish%20Governments%20%24282%20Million_

October%202022_0.pdf

24. Arellano M. Panel data econometrics. OUP Oxford; 2003.
25. Elhorst JP. Spatial Panel Data Models. In: Spatial Econometrics [Internet]. Berlin, Heidelberg: Springer Berlin Heidelberg; 2014 [cited 2024 Feb 22]. p. 37–93. (SpringerBriefs in Regional Science). Available from: https://link.springer.com/10.1007/978-3-642-40340-8_3
26. Ajayi V, Reiner D. Consumer Willingness to Pay for Reducing the Environmental Footprint of Green Plastics. 2020 Nov 24 [cited 2024 Feb 22]; Available from: <https://www.repository.cam.ac.uk/handle/1810/315731>
27. Autor DH. Why Are There Still So Many Jobs? The History and Future of Workplace Automation. *J Econ Perspect*. 2015 Aug 1;29(3):3–30.
28. Hémons D, Olsen M. The Rise of the Machines: Automation, Horizontal Innovation, and Income Inequality. *Am Econ J Macroecon*. 2022 Jan 1;14(1):179–223.
29. Henderson T. Louisiana among worst states for personal income growth since the pandemic. *Louisiana Illuminator*. 2023 Oct 31;
30. Henderson K. Best and Worst States to Work in America 2022. Oxfam; 2022.
31. Chava S, Danis A, Hsu A. The economic impact of right-to-work laws: Evidence from collective bargaining agreements and corporate policies. *J Financ Econ*. 2020 Aug;137(2):451–69.
32. Brown L, Greenbaum RT. The role of industrial diversity in economic resilience: An empirical examination across 35 years. *Urban Stud*. 2017 May;54(6):1347–66.
33. Tsvetkova A, Partridge MD. Economics of modern energy boomtowns: Do oil and gas shocks differ from shocks in the rest of the economy? *Energy Econ*. 2016 Sep;59:81–95.
34. Lussier C. ExxonMobil seeks big tax break, opponents focus on potential impact on Baton Rouge Schools. *The Advocate*. 2023 Oct 16;
35. Manyika J, Mischke J, Bughin J, Woetzel J, Krishnan M, Cudre S. A new look at the declining labor share of income in the United States. McKinsey Global Institute; 2019.
36. The More Things Change, the More They Remain the Same: Living and Dying in Cancer Alley (1990-2023). Deep South Center for Environmental Justice; 2023.