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Analyzing the Economic Development Impacts of Truck Parking in Louisiana

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EXECUTIVE SUMMARY

The establishment of truck parking facilities in the New Orleans-Metairie and Baton Rouge Metropolitan Statistical Areas (MSAs) presents a significant opportunity to enhance economic growth, transportation efficiency, and roadway safety in Louisiana. These metropolitan areas serve as critical freight corridors, supporting major port operations and extensive interstate commerce. With Louisiana ranking among the top states in the nation for truck traffic and home to one of the largest port complexes by tonnage, efficient freight movement is essential for maintaining economic competitiveness. However, the shortage of truck parking facilities creates inefficiencies in supply chains, increases safety risks on highways, and contributes to environmental and economic costs.

Despite the growing demand for truck parking, developing these facilities requires substantial capital investment and often faces community resistance due to concerns about land use, noise, and environmental impact. The lack of adequate truck parking has been associated with increased unauthorized parking on road shoulders, fuel stations, and commercial lots, which can create hazardous conditions for both truck drivers and local communities. Moreover, insufficient parking disrupts the logistics network, reducing freight efficiency and increasing operating costs for trucking companies. Addressing this issue through strategic investment in truck parking infrastructure is vital for improving regional and national supply chain resilience.

This study employs input-output analysis in IMPLAN software to assess the economic impacts of the construction and operations of truck parking facilities in both MSAs. It also employs a cost-benefit analysis to evaluate the overall economic impacts of the projects for both the local communities and the state at large. The findings indicate that these projects would generate significant economic activity, providing job creation, business development, and tax revenue growth for the state of Louisiana. The construction phase alone would support numerous jobs, contribute to regional GDP, and produce substantial economic output. Additionally, once operational, the facilities would sustain long-term employment and tax revenue generation, reinforcing their economic viability. Over a 10-year period, the combined GDP impact of the facilities would be substantial, with tax revenues playing a crucial role in recouping the initial investment. The Net Present Value (NPV) of the projects is also highly positive, confirming that these investments would yield considerable long-term benefits.

From a financial sustainability perspective, the study finds that tax revenues generated by the facilities would take approximately 15 years to fully recover the initial development costs at a 4.1% discount rate. While this timeline suggests a moderate payback period, it also underscores the need to explore alternative funding mechanisms, such as public-private partnerships (PPPs) and federal grant programs, to ease the financial burden and accelerate project feasibility. The integration of smart parking technologies and sustainable design practices could also enhance the efficiency and attractiveness of these facilities, increasing their acceptance within local communities.

Beyond the direct economic benefits, well-planned truck parking infrastructure can address critical safety and environmental concerns. Designated truck parking facilities reduce fatigue-related accidents, prevent illegal roadside parking, and improve traffic flow around major freight corridors. Additionally, designated parking areas help reduce fuel consumption and improve efficiency. By providing secure, well-equipped parking options, these facilities would not only

benefit truck drivers and logistics companies but also enhance the quality of life for residents by reducing congestion and noise pollution.

The findings from this study provide valuable guidance for policymakers, investors, and transportation planners, offering a clear rationale for supporting investments in truck parking infrastructure. The long-term economic gains far outweigh the initial costs, making these projects a strategic investment in Louisiana's transportation future. By leveraging federal funding opportunities, engaging with private stakeholders, and incorporating community feedback, the successful implementation of truck parking facilities in the New Orleans-Metairie and Baton Rouge MSAs can enhance regional economic development, improve freight logistics, and enhance transportation safety and efficiency across the state.

ABSTRACT

This study explores the economic development impacts of establishing designated truck parking facilities in the New Orleans-Metairie and Baton Rouge Metropolitan Statistical Areas, two essential freight corridors in Louisiana. These regions play a critical role in port operations and interstate commerce, highlighting the need for improved intermodal infrastructure to enhance efficiency and safety. While the demand for truck parking continues to rise, developing these facilities requires significant investment and often faces community opposition due to concerns about local impacts. However, the shortage of truck parking spaces disrupts supply chains and increases highway safety risks, particularly near transportation hubs. Using input-output analysis in IMPLAN and a Cost-Benefit Analysis, this study evaluates the broader economic contributions of these projects. The findings indicate that both construction and operations would support economic growth by creating jobs, supporting businesses, and generating tax revenues. Moreover, the analysis confirms the long-term economic viability of these investments, reinforcing their potential to strengthen regional transportation networks. These insights can inform funding strategies and community engagement efforts, helping to build support for project implementation.

1.0 INTRODUCTION

In the complex landscape of economic development, infrastructure investments often serve as pivotal catalysts for regional growth. In Louisiana, this dynamic is particularly pronounced due to the state's strategic geographical positioning and its substantial role in the national and global logistics and transportation sectors. This study focuses on the economic development impacts of establishing dedicated truck parking facilities within Louisiana's two major Metropolitan Statistical Areas (MSAs): New Orleans-Metairie and Baton Rouge. These areas are significant freight corridors that host some of the busiest ports in the world and are central to the state's economic vitality. It also evaluates the economic viability of the investments involved to the state of Louisiana. Understanding the potential economic benefits and challenges of truck parking infrastructure in these regions is essential for informed decision-making and sustainable development.

The demand for dedicated truck parking facilities has become a pressing issue across the United States. According to the American Trucking Associations (2023), the trucking industry faces a severe shortage of safe and accessible parking spaces, with only one available space for every 11 drivers nationwide. This scarcity forces truckers to spend nearly an hour of each workday searching for parking, which reduces their driving time, and ultimately reduces their annual earnings by approximately $5,500, or 12% of their income (Walker, 2023). Similarly, this parking shortage further impacts truck drivers who are legally required to take rest breaks as a matter of safety under the Hours of Service (HOS) regulations enforced by the Federal Motor Carrier Safety Administration (FMCSA). HOS refers to the federal regulations set by the FMCSA that govern the maximum amount of time commercial motor vehicle (CMV) drivers can operate their vehicles to prevent fatigue-related accidents (Federal Motor Carrier Safety Administration, 2021). The lack of available parking not only affects driver compliance and safety but also impacts the efficiency of freight operations.

In Louisiana, the need for truck parking facilities is particularly acute given the high volume of freight traffic and the strategic importance of its ports. Adequate truck parking facilities can help alleviate congestion, reduce the risk of accidents, and improve the overall efficiency of the transportation system. However, the development of these facilities is capital-intensive and often encounters resistance from local communities who may view these installations as a nuisance. Common concerns include increased traffic and noise pollution (Mahmud, Hernandez, & Mitra, 2021; American Transportation Research Insitute, 2025). Addressing these concerns is crucial for gaining community support and ensuring the successful implementation of truck parking projects. Therefore, it is necessary to highlight the potential economic benefits of these facilities. Truck parking areas can stimulate local economies by creating jobs, generating revenue, and supporting local businesses. For instance, truck stops, and rest areas often include amenities such as restaurants, convenience stores, and maintenance services, which can attract business and create employment opportunities (Dowell, et al., 2022). Moreover, improved freight efficiency can enhance the competitiveness of local industries, contributing to broader economic growth.

1.1 Description of Study Area

Louisiana's economy is deeply intertwined with its transportation infrastructure. The state is home to five major ports that collectively form the largest port complex in the world by tonnage and vital national gateways for the movement of goods (Figure 1). The Port of New Orleans ranks in the top 20 U.S. container ports by Twenty-foot Equivalent Units (TEUs) and 13th in the U.S. on the Liner Shipping Connectivity Index (LSCI), serving a vital role in both national and international trade (Bureau of Transportation Statistics, 2024). Louisiana's ports play a crucial role in the state's economy, providing employment for about 525,000 people, roughly one-fifth of the state workforce. These ports also generate $32.9 billion in annual wages, surpassing the oil and gas industry by producing 40–45% more direct jobs. Their impact extends beyond transportation, driving economic growth and stability across local communities (Canlas & Kania, 2023). Consequently, the efficiency of freight operations in these areas is of paramount importance. The features of the five ports are shown in Table 1.

Figure 1. Lower Mississippi River Port Complex: Five Major Ports of Louisiana

Source: (Green, 2013)

The New Orleans-Metairie and Baton Rouge MSAs are central to Louisiana's freight network. The New Orleans–Metairie Metropolitan Statistical Area is a region in southeastern Louisiana that includes eight parishes including Jefferson, Orleans, Plaquemines, St. Bernard, St. Charles, St. James, St. John the Baptist, and St. Tammany Parishes (Figure 2). These parishes are centered around the city of New Orleans. The Baton Rouge MSA is comprised of nine parishes, including Ascension, East Baton Rouge, East Feliciana, Iberville, Livingston, Pointe Coupee, St. Helena, and West Baton Rouge, (Figure 3). These regions are characterized by high volumes of truck traffic, and the value of freight shipped to and from sites in Louisiana by truck is expected to increase by 112% (adjusted for inflation) by 2045 (TRIP, 2021). This heavy reliance on trucking underscores the need for adequate infrastructure to support the safe and efficient movement of goods. Truck parking facilities are a critical component of this infrastructure, providing essential rest areas for truck drivers and contributing to overall road safety and operational efficiency.

Table 1. Features of Louisiana Ports

Louisiana Ports/Location	Features
Port of South Louisiana- BRMA	• Imports/Exports nearly 300 million tons annually
St. Bernard Port, Harbor and Terminal District - NMSA	• Ships 36% of U.S. ferro alloys
Plaquemines Port Harbor and Terminal District- NMSA	• Ranked 13th among U.S. ports by waterborne tonnage handled.
Port of Greater Baton Rouge- BRMA	• Ranked 8th among U.S. ports by waterborne tonnage. • Largest grain elevator on the Mississippi River.
Port of New Orleans- NMSA	• The only international container port in Louisiana. • The only deepwater port in the U.S. served by all 6 Class 1 railroads. • Ranked 20th among U.S. container ports by TEUs; 1 million TEU capacity. • Ranked 7th in U.S. by waterborne tonnage.

Source: (Louisiana Department of Transportation and Development, 2024; Louisiana Legislative Auditor, 2024)

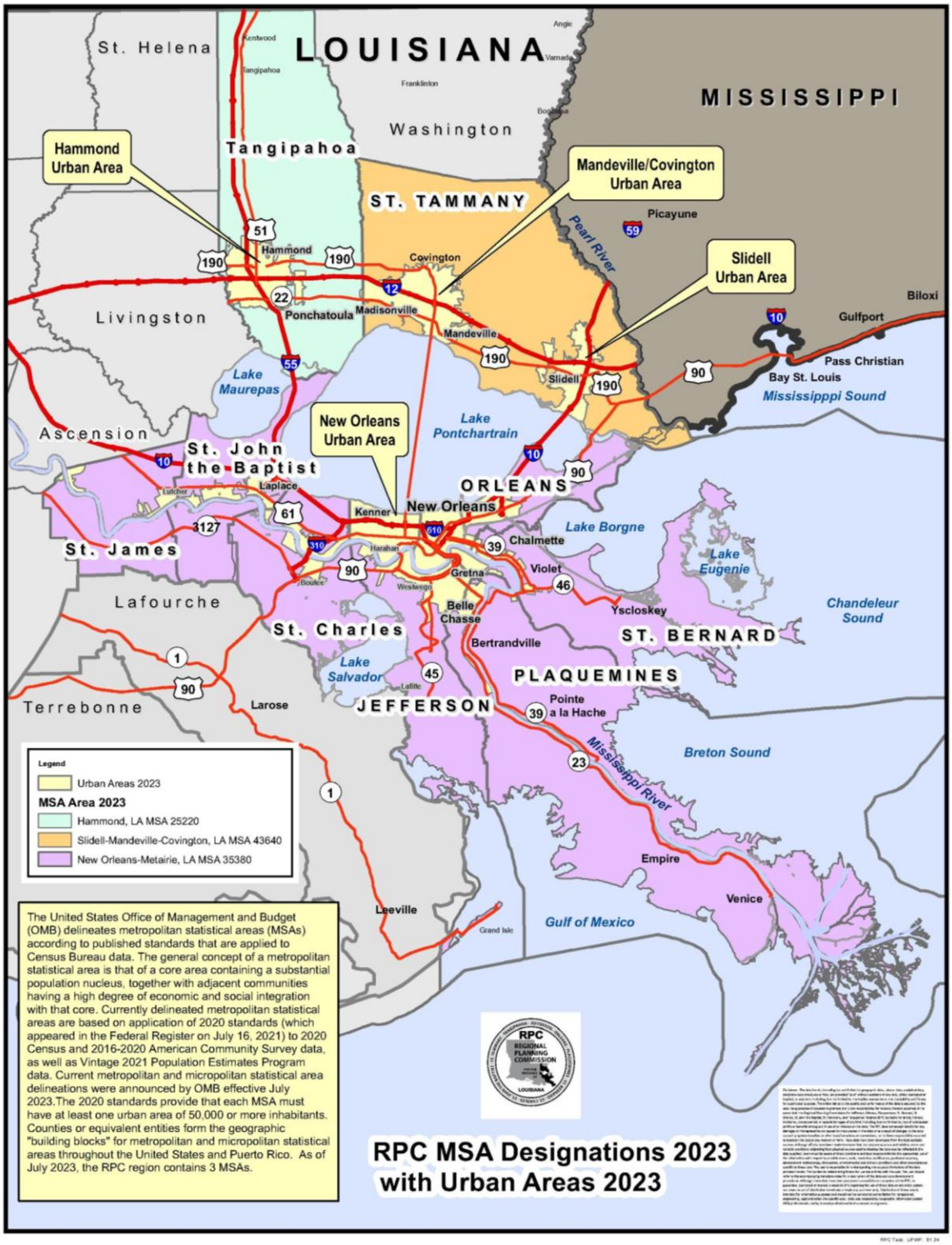

Figure 2. New Orleans-Metairie Metropolitan Statistical Area

Source: (New Orleans Regional Planning Commission, 2023)

Figure 3. Baton Rouge Metropolitan Statistical Area

Source: (Baton Rouge Area Chamber, 2025)

Plans are currently underway to expand the Port of Plaquemines Harbor and Terminal District with a new container terminal and additional handling services for bulk, break bulk, and specialty products. The terminal, encompassing 200 acres on Plaquemines Parish's West Bank, will feature on-dock rail and a berth for the largest Panama Canal container ships. Built with sustainable practices and advanced technology, APM Terminals will fund its $500 million construction under a 30-year lease from the port. Expansion options extend up to 900 acres (APM Terminals, 2024). Additionally, the Port of New Orleans is developing the $1.8 billion Louisiana International Terminal in Violet, St. Bernard Parish. Construction is scheduled to begin in 2025, with phased openings starting in 2028, to accommodate the Gulf's largest ships (Louisiana International Terminal, 2025). As of July 2023, the Lower Mississippi River ship channel has been deepened to 50 feet between Mile 175 AHP and the Southwest Pass Sea Buoy, advancing a broader initiative to deepen the route from Baton Rouge to the Gulf of Mexico. Deepening the channel lowers transportation costs, improves efficiency, and will accommodate larger ships to meet growing shipping demands (Abbott, 2024; U.S. Army Corps of Engineers, 2024). These initiatives aim to improve cargo handling efficiency and increase cargo volumes

flowing through the ports. This will likely also lead to increased truck movements within the study area and additional need for dedicated truck parking facilities.

Furthermore, Louisiana Governor Jeff Landry has underscored the importance of fostering collaboration across Louisiana's ports to strengthen and better integrate infrastructure and drive economic growth. He advocates harnessing the expertise of the private sector to streamline operations and address the challenges posed by fragmented agencies and competition between ports. This initiative aims to create a more cohesive and efficient port system that operates swiftly and effectively (Murray, 2024). In addition, Governor Landry formed the Infrastructure Transition Council to pinpoint critical issues impacting the industry and recommend solutions that improve government efficiency and reduce obstacles to economic progress. By bringing together diverse viewpoints and consulting a wide array of stakeholders, the council is working to craft unified infrastructure strategies that will enhance Louisiana's competitiveness and support long-term economic development.

2.0 LITERATURE REVIEW

Several studies have documented the challenges associated with truck parking, highlighting both the demand and supply-side issues. Fleger et al. (2002) noted that the lack of available truck parking spaces is a persistent problem, exacerbated by increasing freight volumes and inadequate infrastructure investment. According to a study by ATRI (2021), the shortage of truck parking spaces is one of the top concerns for truck drivers, affecting their safety and productivity. The study highlights the need for strategic investments in truck parking infrastructure to address this critical issue. Truck drivers are mandated by the FMCSA to adhere to HOS regulations, which require rest breaks to prevent fatigue-related accidents. ATRI identifies the shortage of truck parking as one of the top issues facing the trucking industry, impacting driver compliance with HOS regulations and overall road safety (American Transportation Research Institute, 2021).

Similarly, research has shown that truck drivers often face difficulties finding safe and legal parking spaces, leading to unauthorized parking on highway shoulders and ramps, which can pose safety hazards (Federal Highway Administration, 2020). This situation not only endangers drivers but also affects the efficiency of freight operations, as drivers spend significant time searching for parking. Increased availability of dedicated parking can improve efficiency and lead to cost savings for shippers and carriers, which can be passed on to consumers in the form of lower prices (Rodrigue, 2020). Greater efficiency is particularly important in high-traffic freight corridors, such as those in Louisiana, where congestion and delays can have significant economic repercussions.

The relationship between freight transportation infrastructure and economic development has been well-documented. Investments in transportation infrastructure, including truck parking facilities, can lead to significant economic benefits, such as job creation, increased productivity, and enhanced regional competitiveness (Banister & Berechman, 2003). According to Rodrigue (2020), efficient freight transportation systems are essential for supporting industrial activities, reducing logistics costs, and attracting investment. A study conducted by the Texas Department of Transportation (TxDOT) (2020) emphasizes the economic benefits of truck parking facilities, noting that these facilities can reduce transportation costs, improve supply chain efficiency, and enhance the overall competitiveness of the logistics sector. The TxDOT study also points out that

truck parking facilities can generate significant economic activity in local communities, particularly through the development of ancillary services such as retail and maintenance.

Despite the economic benefits, the development of truck parking facilities often faces resistance from local communities. Common concerns include increased traffic and noise pollution. A study by Mahmud et al. (2021) examines community opposition to truck parking facilities, noting that these concerns can impede the siting and development of new parking areas. To address these concerns, it is essential to involve community stakeholders as early as possible in the planning process to identify issues and develop and implement mitigation strategies. The Federal Highway Administration (FHWA) suggests measures such as sound barriers, landscaping, and the use of environmentally friendly technologies to reduce the negative impacts of truck parking facilities (Federal Highway Administration, 2000). Effective communication of the potential economic benefits and safety improvements can also help garner community support.

However, there are other studies that point to the significance of the location of a truck parking facility in communities. Utilizing a spatial-autoregressive model with autoregressive disturbances to assess their impact on commercial and industrial land values, Mahmud et al. (2021) contended that proximity to truck parking facilities significantly enhances local land values. These findings suggest that strategically locating truck parking facilities can yield substantial economic benefits for local communities. The results can inform transportation agencies and truck stop operators in their planning and decision-making processes, optimizing the placement of such facilities to maximize positive economic outcomes while minimizing adverse impacts.

Several case studies highlight successful approaches to addressing truck parking challenges. For example, the Mid America Association of State Transportation Officials (MAASTO) developed a regional truck parking information management system to help drivers find available parking spaces in real-time (Figure 4) (Denoyer, 2017).

Figure 4. A Typical Parking Information Management System

Source: (Denoyer, 2017)

This system has improved parking efficiency and reduced unauthorized parking in participating states (National Operations Center of Excellence, 2020). A similar case study was conducted of the Florida Department of Transportation's Truck Parking Availability System (TPAS) which monitors and communicates real-time parking availability across 74 public facilities statewide. TPAS enhances driver safety and significantly reduces parking search times through real-time information that ultimately improves efficiency in freight movement. (Arora and Associates, P.C., 2022). This system covers the entire Florida interstate network, including significant portions of the National Highway Freight Network. The Kansas Department of Transportation has implemented a similar Truck Parking Information Management System (TPIMS) along the I-70 corridor which provides truck drivers with real-time data on parking availability at rest areas, enabling them to make informed decisions about when and where to stop. The initiative has enhanced safety by reducing instances of unauthorized parking and has improved compliance with HOS regulations (Arora and Associates, P.C., 2022).

In its Freight Mobility Plan, the Louisiana Department of Transportation and Development underscores the importance of the state's ports and freight corridors for regional economic development. The plan emphasizes the persistent issue of inadequate truck parking withing the state and calls for developing new strategies to address truck parking development within the state, including public-private partnerships, real-time information systems, and legislative approaches (Louisiana Department of Transportation and Development, 2024). Based on the literature, several policy recommendations can be made to address the truck parking shortage and its associated challenges. First, increased investment in truck parking infrastructure is essential. This can be achieved through public-private partnerships, leveraging federal and state grants and public funding programs, and incentivizing private sector investment. Second, integrating truck parking considerations into land use and transportation planning can help address the spatial mismatch between demand and supply. Planners should prioritize the

development of truck parking facilities in suitable strategic locations, such as near major highways and freight corridors, where they can improve efficiency while limiting community impacts. Third, leveraging technology to provide real-time information on parking availability can enhance the efficiency of existing facilities. Intelligent transportation systems (ITS) and mobile applications can help drivers find available parking spaces quickly, reducing the time spent searching, and improving efficiency and overall safety. As noted earlier, leveraging technology to provide real-time parking information has emerged as a promising solution. ITS, which integrates sensors, GPS, and data analytics, can enhance the efficiency of existing parking facilities by monitoring space availability and sharing updates with drivers through digital platforms (Janowski, Hüsrevoğlu, & Renigier-Bilozor, 2024). Mobile applications and dynamic message signs (DMS) have been shown to reduce search times, lower fuel consumption, and improve safety by minimizing unauthorized roadside parking (Sarker, Gia, Dhaou, & Westerlund, 2020). Furthermore, pilot projects implementing smart parking systems in high-traffic corridors have demonstrated measurable reductions in congestion and driver stress. These projects should account for current traffic volumes as well as the potential for future growth when planning and developing truck parking facilities (Figure 5). The proposed expansion of the Port of New Orleans container terminal in St. Bernard Parish, for example, is likely to increase truck traffic in the region. Despite advancements, challenges such as data accuracy, infrastructure investment, and driver acceptance rates remain barriers to widespread ITS implementation. Additional research should also focus on how public-private partnerships can be structured to finance ITS deployment and enhance system interoperability across states and regions.

Figure 5. Truck Parking Lot on Interstate 4, Being Constructed in Such a Way That it Can Be Expanded To 250 Spots.

Source: (Fletcher, 2024)

3.0 METHODOLOGY

This study employs the input-output method using IMPLAN (Impact Analysis for Planning) software to assess the economic development impacts of establishing truck parking facilities in the New Orleans-Metairie and Baton Rouge MSAs. IMPLAN is a widely used economic modeling tool that allows for detailed analysis of how specific investments affect regional economies. IMPLAN economic impact analyses are based on the input-output (I-O) model, which relies on multipliers (Demski, 2025). These multipliers quantify the rate of change in the economy, showing how a change in one industry affects the broader economic landscape.

3.1 Steps for IMPLAN Analysis

Input-output analysis using IMPLAN involves several steps to model the economic impacts of various activities. They are:

- Define the geographic boundaries for the analysis (e.g., a specific county/parish, region, state, or group of states).
- Clearly outline the purpose of the analysis, such as assessing the economic impact of a new infrastructure project, policy change, or industry expansion.
- Collect relevant data on the economic activity to be analyzed. This may include data on expenditures, employment, output, and other economic variables related to the project or activity.
- Ensure the data is compatible with IMPLAN's input requirements. This may involve organizing the data into categories such as industry sectors, commodities, and institutions.
- Build the IMPLAN Model
- Choose the IMPLAN dataset that corresponds to the year of the data being analyzed. IMPLAN datasets are available for different years and geographic levels.
- Set up the IMPLAN model by selecting the study area and the appropriate data year within the IMPLAN software.
- Enter the direct effects into the IMPLAN model. Direct effects represent the initial economic activities being analyzed, such as the amount of money spent on a project, or the number of jobs created.
- IMPLAN automatically generates multipliers based on the input-output tables for the specified study area. These multipliers estimate the indirect and induced effects of direct economic activities.
- Execute the model to calculate the total economic impacts, which include direct, indirect, and induced effects.
- Review the model outputs, which typically include impacts on employment, labor income, value-added, and output across different sectors of the economy.
- Analyze the results to understand the broader economic implications. Pay attention to how the impacts are distributed across different sectors and regions.
- Conduct sensitivity analysis to test the robustness of the results. This may involve varying key assumptions and inputs to see how they affect the outcomes.
- Summarize the findings in a comprehensive report. Include an explanation of the methodology, data sources, assumptions, and the economic impacts identified by the analysis.

3.2 Evaluating Economic Viability of the Projects

To evaluate the economic viability of the truck parking facilities in the New Orleans-Metairie MSA and Baton Rouge MSA, a combination of cost-benefit analysis, and payback period estimation was employed (Boardman, Greenberg, Vining, & Weimer, 2018). First, the total construction costs were compared against the economic output and GDP contribution to determine short-term financial impact. Secondly, the long-term benefits of annual operations, including job creation, GDP impact, and tax revenue—were projected over a 10-year period using the Net Present Value (NPV) formula. Lastly, a payback period analysis was performed by dividing total investment by annual tax revenue at a U.S. Office of Management and Budget recommended discount rate of 4.1% at 10-year period of investment recovery (Office of Management and Budget, 2024). These methods provided a comprehensive assessment of the projects' economic sustainability and potential for maximizing public and private benefits.

4.0 ANALYSIS

This study utilized IMPLAN 2022 data and the IMPLAN calculation process to estimate the economic impact resulting from the construction and operations of two truck parking facilities in the New Orleans-Metairie and Baton Rouge MSA regions. Our benchmark for land acquisition and construction costs is based on the USDOT RAISE grants of $10.5 million awarded to Louisiana for purchasing land and constructing a truck parking facility in Caldwell Parish, with a capacity of 50 commercial trucks, 100 cars, and electric vehicle charging stations that will supply auxiliary power for truck cab heating and cooling without idling the engine while also recharging the trucks (U.S. Department of Transportation, 2023). Drawing from insights provided by real estate professionals across the state, urban property values are assumed to be higher and at least double those of rural land in Louisiana (Mossy Oak Properties, 2024). Consequently, land acquisition and construction costs were estimated to be $21 million for the New Orleans-Metairie region and $10.5 million for the Baton Rouge MSA region. The financial expenditures and assumptions underpinning the results presented in this report were inputted and processed through IMPLAN. All results are expressed in 2025 dollars.

4.1 Economic Impact of Truck Parking Development in the New Orleans-Metairie MSA Region

Result Highlights:[1]

The construction of the **New Orleans MSA Truck Parking Facility** would support **105** jobs with an associated Labor Income of **$6.9 million**, contribution to GDP of **$11 million**, Output of **$37.5 million**, and taxes of **$2.5 million**.

The annual operations of the proposed **New Orleans MSA Truck Parking Facility** would support a total of **30** average annual jobs across the **New Orleans-Metairie, LA MSA** region.

$3.3 million in Labor Income would be supported in **New Orleans-Metairie, LA MSA** due to annual operations of the **New Orleans MSA Truck Parking Facility**.

The annual spending on operations would support **$4.7 million** in contribution to GDP and **$10.3 million** in Output across the **New Orleans-Metairie, LA MSA**.

Approximately **$1.1 million** in local, state, and federal tax revenue would be generated by annual operations, including sales tax and income tax.

[1] See Appendix for definition of terms.

Construction (Year 2025)

The construction cost of the New Orleans MSA Truck Parking Facility in 2025 is assumed to be $21 million, which includes land acquisition. Direct spending by the developer in the construction industry would support an additional 35 jobs, $2.1 million in Labor Income, $2.5 million in contribution to GDP, and $21 million in Output for the duration of the construction phase in the New Orleans-Metairie, LA MSA economy. This results in a total one-time economic impact of 105 jobs earning $6.9 million in Labor Income, $11 million in contribution to GDP, and $37.5 million in Output to the region (Table 2).

Table 2. Economic Impact of Construction Year 2025,[2] New Orleans-Metairie MSA Region

	Employment	Labor Income	Contribution to GDP	Output
Direct	35	$2,100,000	$2,510,549	$21,000,000
Indirect	48	$3,563,940	$6,018,840	$12,379,963
Induced[3]	23	$1,281,823	$2,437,751	$4,166,570
Total	105	$6,945,764	$10,967,139	$37,546,533

[2] All dollar values are presented in 2025 USD.

[3] Induced effects may vary depending on the nature of the workforce used to complete construction activities. Companies sometimes hire traveling crews that only stay in the region during the construction phase, which changes the local impact.

The construction of the parking facility would also generate tax revenues during the construction phase. The total impact for sub-gulf[4] general taxes (city/township) is estimated at $132,505. Sub-parish special district taxes (police, fire, schools, etc.) are estimated at $229,669. Parish taxes are estimated at $185,004. State taxes are estimated at $560,770. Federal taxes are estimated at $1.4 million. This totals $2.5 million in supported tax revenues from the construction phase of the project (Table 3).

Table 3. Tax Impact of Construction Year 2025,[5] New Orleans-Metairie MSA Region

	Sub-Parish General	Sub-Parish Special District	Parish	State	Federal	Total
Direct	$42,034	$72,859	$58,690	$168,908	$391,466	$733,957
Indirect	$58,467	$101,323	$81,618	$261,829	$713,419	$1,216,657
Induced	$32,004	$55,486	$44,696	$130,032	$274,115	$536,333
Total	$132,505	$229,669	$185,004	$560,770	$1,379,000	$2,486,948

[4]A system-defined area in IMPLAN covering part of southern Louisiana, especially areas near or related to Gulf of Mexico port activity, including New Orleans and Baton Rouge MSAs.
[5] All dollar values are presented in 2025 USD.

Operations (2025 - 2035)

Operations have a direct output value of $5 million; $1.8 million is paid in Labor Income to the estimated 16 average annual employees and $3.1 million is spent on purchasing goods and services. This represents a total economic impact of 30 job years earning $3.3 million in Labor Income, $4.7 million in contribution to GDP, and $10.3 million in Output to the New Orleans-Metairie, LA MSA economy (Table 4).

Table 4. Economic Impact of Operations[6], New Orleans-Metairie MSA Region

	Employment	Labor Income	Contribution to GDP	Output
Direct	16	$1,793,059	$1,859,169	$4,983,046
Indirect	8	$946,277	$1,715,364	$3,331,004
Induced	6	$609,374	$1,158,885	$1,980,775
Total	30	$3,348,711	$4,733,418	$10,294,825

[6] All dollar values are presented in 2025 USD.

The total impact on sub-parish general taxes (city/township) is estimated at $54,950. Sub-parish special district taxes (police, fire, schools, etc.) are estimated at $95,228. Parish taxes are estimated at $76,708. State taxes are estimated at $237,726. Federal taxes are estimated at $644,311. This totals $1.1 million in supported taxes due to operations between 2025 and 2035 (Table 5).

Table 5. Tax Impact of Operations 2025-2035[7], New Orleans-Metairie MSA Region

	Sub-Parish General	Sub-Parish Special District	Parish	State	Federal	Total
Direct	$12,522	$21,663	$17,450	$70,041	$315,733	$437,410
Indirect	$27,213	$47,186	$38,010	$105,869	$198,265	$416,543
Induced	$15,215	$26,378	$21,248	$61,817	$130,313	$254,971
Total	$54,950	$95,228	$76,708	$237,726	$644,311	$1,108,923

[7] All dollar values are presented in 2025 USD.

Operations (Year 2025)

Operations have a direct output value of $4.1 million; $1.1 million is paid in Labor Income to the estimated 22 employees and $2.6 million is spent on purchasing goods and services. This represents a total economic impact of 42 jobs earning $2.2 million in Labor Income, $3.8 million in contribution to GDP, and $8.2 million in Output to the New Orleans-Metairie, LA MSA economy (Table 6).

Table 6. Economic Impact of Operations Year 2025,[8] New Orleans-Metairie MSA Region

	Employment	Labor Income	Contribution to GDP	Output
Direct	21	$1,080,677	$1,543,354	$4,113,080
Indirect	13	$750,697	$1,424,802	$2,774,256
Induced	8	$417,724	$794,464	$1,357,803
Total	42	$2,249,098	$3,762,620	$8,245,140

[8] All dollar values are presented in 2025 USD.

The total impact on sub-parish general taxes (city/township) is estimated at $47,809. Sub-parish special district taxes (police, fire, schools, etc.) are estimated at $82,876. Parish taxes are estimated at $66,759. State taxes are estimated at $199,258. Federal taxes are estimated at $454,568. This totals $851,269 in supported taxes due to operations (Table 7).

Table 7. Tax Impact of Operations Year 2025,[9] New Orleans-Metairie MSA Region

	Sub-Parish General	Sub-Parish Special District	Parish	State	Federal	Total
Direct	$12,184	$21,101	$16,997	$61,335	$205,172	$316,790
Indirect	$25,196	$43,693	$35,196	$95,548	$160,064	$359,697
Induced	$10,429	$18,082	$14,565	$42,375	$89,331	$174,783
Total	$47,809	$82,876	$66,759	$199,258	$454,568	$851,269

[9] All dollar values are presented in 2025 USD.

Operations (Year 2035)

Operations have a direct output value of $869,966. $712,382 is paid in Labor Income to the estimated 11 employees and $554,150 is spent on purchasing goods and services. This represents a total economic impact of 18 jobs earning $1.1 million in Labor Income, $970,798 in contribution to GDP, and $2 million in Output to the New Orleans-Metairie, LA MSA economy (Table 8).

Table 8. Economic Impact of Operations Year 2035,[10] New Orleans-Metairie MSA Region

	Employment	Labor Income	Contribution to GDP	Output
Direct	11	$712,382	$315,815	$869,966
Indirect	3	$195,580	$290,561	$556,748
Induced	4	$191,650	$364,421	$622,971
Total	18	$1,099,612	$970,798	$2,049,685

[10] All dollar values are presented in 2025 USD.

The total impact on sub-parish general taxes (city/township) is estimated at $7,141. Sub-parish special district taxes (police, fire, schools, etc.) are estimated at $12,352. Parish taxes are estimated at $9,950. State taxes are estimated at $38,468. Federal taxes are estimated at $189,743. This totals $257,654 in supported taxes due to operations (Table 9).

Table 9. Tax Impact of Operations Year 2035,[11] New Orleans-Metairie MSA Region

	Sub-Parish General	Sub-Parish Special District	Parish	State	Federal	Total
Direct	$339	$562	$453	$8,706	$110,561	$120,620
Indirect	$2,017	$3,493	$2,814	$10,321	$38,201	$56,846
Induced	$4,785	$8,296	$6,683	$19,442	$40,981	$80,188
Total	$7,141	$12,352	$9,950	$38,468	$189,743	$257,654

[11] All dollar values are presented in 2025 USD.

4.2 Economic Impact of Truck Parking Development in the Baton Rouge MSA Region

Result Highlights:[12]

The construction of the **Baton Rouge MSA Truck Parking Facility** would support **70** jobs with an associated Labor Income of **$4.5 million**, contribution to GDP of **$6.4 million**, Output of **$18 million**, and taxes of **$1.4 million**.

The annual operations of the proposed **Baton Rouge MSA Truck Parking Facility** would support a total of 60 average annual jobs across the Baton Rouge, LA MSA region.

$6.1 million in Labor Income would be supported in **Baton Rouge, LA MSA** due to annual operations of the **Baton Rouge MSA Truck Parking Facility**.

The annual spending on operations would support **$8.5 million** in contribution to GDP and **$17.8 million** in Output across the **Baton Rouge, LA MSA**.

Approximately **$1.9 million** in local, state, and federal tax revenue would be generated by annual operations, including sales tax and income tax.

[12] See Appendix for definition of terms.

Construction (Year 2025)

Construction cost of the Baton Rouge MSA Truck Parking Facility in 2025 is assumed to be $10.5 million. This direct spending by the developer of the facility in the construction industry would support an additional 35 jobs, $2.3 million in Labor Income, $2.5 million in contribution to GDP, and $10.5 million in Output for the duration of the construction phase in the Baton Rouge, LA MSA economy. This results in a total one-time economic impact of 69 jobs generating $4.5 million in Labor Income, $6.4 million in contribution to GDP, and $18 million in Output to the region (Table 10).

Table 10. Economic Impact of Construction Year 2025,[13] Baton Rouge MSA Region

	Employment	Labor Income	Contribution to GDP	Output
Direct	35	$2,329,985	$2,542,042	$10,500,000
Indirect	19	$1,390,603	$2,314,783	$4,915,948
Induced[14]	15	$771,416	$1,510,402	$2,619,112
Total	69	$4,492,005	$6,367,227	$18,035,060

[13] All dollar values are presented in 2025 USD.

[14] Induced effects may vary depending on the nature of the workforce used to complete construction activities. Companies sometimes hire traveling crews that only stay in the region during the construction phase, which changes the local impact.

The construction of Baton Rouge MSA Truck Parking Facility would also generate tax revenues during the construction phase. The total impact for sub-parish general taxes (city/township) is estimated at $79,499. Sub-parish special district taxes (police, fire, schools, etc.) are estimated at $117,472. Parish taxes are estimated at $42,257. State taxes are estimated at $303,956. Federal taxes are estimated at $879,375. This totals $1.4 million in tax revenues generated from the construction phase of the project (Table 11).

Table 11. Tax Impact of Construction Year 2025,[15] Baton Rouge MSA Region

	Sub-Parish General	Sub-Parish Special District	Parish	State	Federal	Total
Direct	$24,608	$36,361	$13,080	$108,339	$429,166	$611,553
Indirect	$26,791	$39,587	$14,240	$102,472	$282,638	$465,728
Induced	$28,101	$41,524	$14,937	$93,146	$167,571	$345,279
Total	$79,499	$117,472	$42,257	$303,956	$879,375	$1,422,559

[15] All dollar values are presented in 2025 USD.

Operations (2025 - 2035)

Operations have a direct output value of $9.2 million; $3.6 million is paid in Labor Income to the estimated 29 average annual employees and $5.3 million is spent on purchasing goods and services. This represents a total economic impact of 53 job years earning $6.1 million in Labor Income, $8.5 million in contribution to GDP, and $17.8 million in Output to the Baton Rouge, LA MSA economy (Table 12).

Table 12. Economic Impact of Operations 2025 – 2035, Baton Rouge MSA Region

	Annual Average Employment	Labor Income	Contribution to GDP	Output
Direct	30	$3,605,204	$3,902,940	$9,197,319
Indirect	13	$1,475,340	$2,536,491	$5,084,964
Induced	10	$1,029,310	$2,014,986	$3,494,619
Total	53	$6,109,855	$8,454,417	$17,776,902

The total impact on sub-parish general taxes (city/township) is estimated at $110,709. Sub-parish special district taxes (police, fire, schools, etc.) are estimated at $163,589. Parish taxes are estimated at $58,846. State taxes are estimated at $416,245. Federal taxes are estimated at $1.2 million. This totals $1.9 million in supported taxes due to operations between 2025 and 2035 (Table 13).

Table 13. Tax Impact of Operations, Baton Rouge MSA Region

	Sub-Parish General	Sub-Parish Special District	Parish	State	Federal	Total
Direct	$25,079	$37,058	$13,330	$132,009	$665,986	$873,462
Indirect	$48,131	$71,122	$25,584	$159,946	$306,173	$610,956
Induced	$37,498	$55,410	$19,932	$124,290	$223,577	$460,707
Total	$110,709	$163,589	$58,846	$416,245	$1,195,736	$1,945,125

Operations (Year 2025)

Operations have a direct output value of $7.2 million. $2.1 million is paid in Labor Income to the estimated 33 employees and $4 million is spent on purchasing goods and services. This represents a total economic impact of 65 jobs earning $3.9 million in Labor Income, $6.5 million in contribution to GDP, and $13.4 million in Output to the Baton Rouge, LA MSA economy (Table 14).

Table 14. Economic Impact of Operations Year 2025,[16] Baton Rouge MSA Region

	Employment	Labor Income	Contribution to GDP	Output
Direct	33	$2,144,556	$3,271,910	$7,236,023
Indirect	19	$1,069,471	$1,958,244	$3,901,848
Induced	13	$664,162	$1,300,219	$2,254,916
Total	65	$3,878,189	$6,530,373	$13,392,788

[16] All dollar values are presented in 2025 USD.

The total impact on sub-parish general taxes (city/township) is estimated at $90,927. Sub-parish special district taxes (police, fire, schools, etc.) are estimated at $134,359. Parish taxes are estimated at $48,332. State taxes are estimated at $329,423. Federal taxes are estimated at $808,145. This totals $1.4 million in supported taxes due to operations (Table 15).

Table 15. Tax Impact of Operations Year 2025,[17] Baton Rouge MSA Region

	Sub-Parish General	Sub-Parish Special District	Parish	State	Federal	Total
Direct	$24,078	$35,579	$12,798	$112,203	$436,513	$621,170
Indirect	$42,654	$63,028	$22,672	$137,023	$227,367	$492,743
Induced	$24,195	$35,753	$12,861	$80,198	$144,265	$297,272
Total	$90,927	$134,359	$48,332	$329,423	$808,145	$1,411,185

[17] All dollar values are presented in 2025 USD.

Operations (Year 2035)

Operations have a direct output value of $2 million; $1.5 million is paid in Labor Income to the estimated 25 employees and $1.3 million is spent on purchasing goods and services. This represents a total economic impact of 39 jobs earning $2.2 million in Labor Income, $1.9 million in contribution to GDP, and $4.4 million in Output to the Baton Rouge, LA MSA economy (Table 16).

Table 16. Economic Impact of Operations Year 2035,[18] Baton Rouge MSA Region

	Employment	Labor Income	Contribution to GDP	Output
Direct	25	$1,460,649	$631,029	$1,961,296
Indirect	7	$405,869	$578,247	$1,183,116
Induced	7	$365,147	$714,767	$1,239,702
Total	39	$2,231,665	$1,924,044	$4,384,114

[18] All dollar values are presented in 2025 USD.

The total impact on sub-parish general taxes (city/township) is estimated at $19,782. Sub-parish special district taxes (police, fire, schools, etc.) are estimated at $29,231. Parish taxes are estimated at $10,515. State taxes are estimated at $86,822. Federal taxes are estimated at $387,590. This totals $533,940 in supported taxes due to operations (Table 17).

Table 17. Tax Impact of Operations Year 2035,[19] Baton Rouge MSA Region

	Sub-Parish General	Sub-Parish Special District	Parish	State	Federal	Total
Direct	$1,001	$1,479	$532	$19,806	$229,473	$252,292
Indirect	$5,478	$8,094	$2,912	$22,923	$78,806	$118,213
Induced	$13,303	$19,657	$7,071	$44,093	$79,312	$163,436
Total	$19,782	$29,231	$10,515	$86,822	$387,590	$533,940

[19] All dollar values are presented in 2025 USD.

4.3 Economic Viability of the New Orleans-Metairie and Baton Rouge MSA Truck Parking Projects to Louisiana State

To assess the economic viability of these truck parking facilities for Louisiana, we compare construction costs against economic benefits using key metrics such as GDP contribution, and tax revenues.

1. Construction Costs vs. Economic Output

- New Orleans-Metairie MSA: $21 million investment → $37.5 million in economic output
- Baton Rouge MSA: $10.5 million investment → $18 million in economic output
- Total Investment: $31.5 million
- Total Economic Output from Construction: $55.5 million

Result:

- The economic output exceeds the investment cost, indicating strong short-term economic activity and job creation.

2. Long-Term Economic Benefits from Annual Operations

$$NPV = \frac{\text{Sum of Expected Benefits}}{(1 + \text{Discount Rate})^{\text{Period (years)}}} - \text{Initial Investments}$$

Where:

Expected Annual Benefits = $28.1 million (Total Annual Economic Output) – $3.1 million in estimated annual Operations & Maintenance (O&M) costs[20] = $25 million.

r (Discount Rate) = 4.1%

t (Years) = 1 to 10

Initial Investment = $31.5 million

Result:

The Net Present Value (NPV) of the 10-year economic benefits from annual operations is approximately $170.27million after deducting the initial investment of $31.5 million. Since the NPV is highly positive, this confirms that the truck parking facilities are economically viable, generating substantial long-term benefits for Louisiana.

3. Tax Revenue Payback Period

We determine how long it takes for tax revenues to recoup the initial investment:

Payback Period = Time required for annual tax revenues of $3 million at a discount rate of 4.1% to equal $31.5 million in initial costs = 14 years

[20] Annual O&M costs are assumed to be 10% of total construction costs.

Result:

While tax revenues alone take 14 years to equal the Present Value of the initial investment, the broader economic gains (GDP, jobs, output) make the project beneficial much sooner.

5.0 DISCUSSION, SUMMARY, AND CONCLUSION

Analyzing the economic development impacts of truck parking facilities in Louisiana's New Orleans-Metairie and Baton Rouge MSAs essential for improving transportation efficiency, safety, and sustainability. Using the input-output methodology within IMPLAN, this study provides a comprehensive assessment of the economic benefits associated with these facilities. The results offer valuable insights for policymakers, stakeholders, and community members, fostering data-driven decision-making and collaborative efforts toward sustainable infrastructure development.

Louisiana's economy is closely tied to its role as a major freight corridor, particularly within the New Orleans-Metairie and Baton Rouge MSAs. These regions are critical due to their five major ports, including the Port of New Orleans, and their strategic position within the national freight network.

The construction and operation of truck parking facilities in the New Orleans-Metairie MSA and Baton Rouge MSA present significant economic benefits for Louisiana. The combined construction phase will support **175 jobs**, contribute **$17.4 million in GDP**, and produce **$55.5 million in economic output**, exceeding the total investment of **$31.5 million** ($21M in New Orleans-Metairie and $10.5M in Baton Rouge). Additionally, annual operations will sustain **82 jobs**, contribute **$8.5 million to GDP**, and yield **$3 million in tax revenue**. While tax revenue alone would take **14 years to recover costs**, the broader economic gains, job creation, and transportation efficiency benefits make the projects economically viable. To reduce the state and local costs of building and operating these facilities, public-private partnerships (PPP) and federal funding opportunities should be explored. Depending on the type of PPP chosen, there are a range of options available to define the level of private involvement, the allocation of risk between the public and private partners, and how the private partner will recoup its investment. This can be direct user fees paid by truckers, or fees paid by the state to the private partner based on utilization or availability. Although this is a broader issue and beyond the scope of the present study, PPPs and federal funding opportunities can reduce the direct financial burden on the state, accelerate project completion, and limit the state's exposure to financial and operational risk, making them options worthy of further investigation.

Although the economic benefits of the proposed parking facilities are substantial, securing community support remains crucial for their successful implementation. Presenting the findings of this study to impacted communities may help improve their understanding of the impacts of such projects which could lead to better community support for the projects. Similarly, involving communities early in the process and addressing their concerns through strategies such as integrating green spaces, incorporating noise-reduction measures, among others can help emphasize the positive impact of these facilities (Mahmud, Hernandez, & Mitra, 2021). It is essential to expand this study to examine additional critical aspects, such as the impact of truck parking on surrounding communities. Key areas for further research include safety considerations, transportation efficiency in relation to economic costs, optimal site selection, and

the integration of digital technologies, including artificial intelligence, to enhance operational efficiency at truck parking facilities.

Establishing truck parking facilities in Louisiana's key freight corridors presents a significant opportunity to enhance transportation infrastructure and stimulate regional economic growth. By highlighting the critical need for truck parking and quantifying its economic impact, this study contributes to the advancement of a more efficient and resilient freight system in Louisiana. Through rigorous analysis and effective communication of findings, this research supports the successful implementation of truck parking projects, ensuring a balance between economic development, community well-being, and long-term resilience. These facilities have delivered significant benefits in other states as highlighted in the literature review, and Louisiana can do the same.

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APPENDIX

Economic Indicators

There are five key economic indicators that IMPLAN reports. Each is based on the production function for a given industry in the selected region in a given year or years, which demonstrates the interconnectedness of the economy.

Employment

An industry-specific mix of full-time, part-time, and seasonal employment which is an annual average that accounts for seasonality. Employment is not equal to full-time equivalents.

Labor Income

All forms of employment income, including Employee Compensation (wages and benefits) and Proprietor Income.

Contribution to GDP

The difference between an Industry's or establishment's total Output and the cost of its Intermediate Inputs is the value added to an economy. It is also known as a contribution to Gross Domestic Product (GDP).

Output

The value of industry production; in IMPLAN these are annual production estimates for the year of the dataset. In most instances, Output is equal to sales or revenue. In this analysis, Output was modeled as total operating expenditures.

Tax

Taxes are reported at the sub parish general (city/township), sub parish special district (fire, police, school), parish, state, and federal levels based on effective tax rates in the Region.

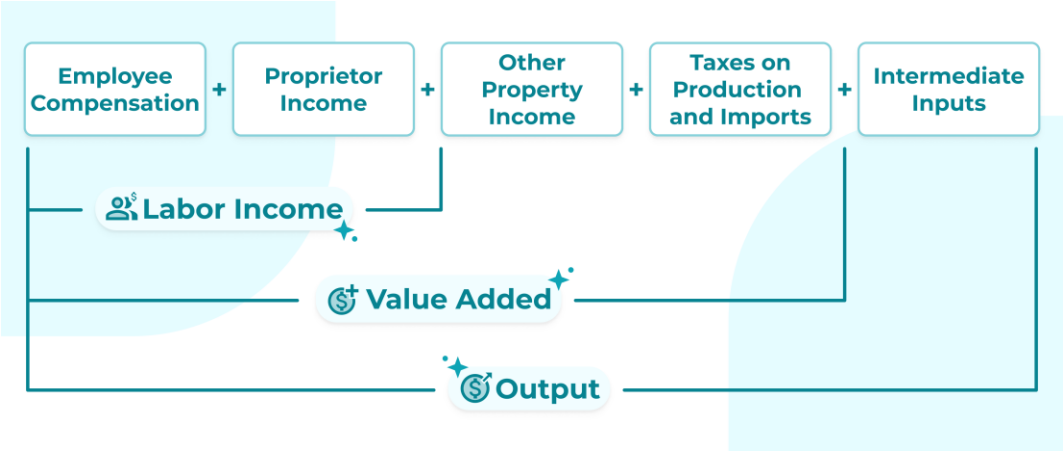

Figure 6. IMPLAN Economic Indicators

Source: (IMPLAN, 2025)

Types of Effects

Direct Effects are the initial effects to a local industry or industries due to the activity or policy being analyzed.

Indirect Effects are the effects stemming from business-to-business purchases in the supply chain taking place in the state.

Induced Effects are the effects in the state stemming from household spending of labor income, after removal of taxes, savings, and commuters.

Source: (IMPLAN, 2025)