St. Tammany Parish Louisiana
### Research Support for New Economic Development Strategic Plan
Economic Leadership LLC- November 4, 2018
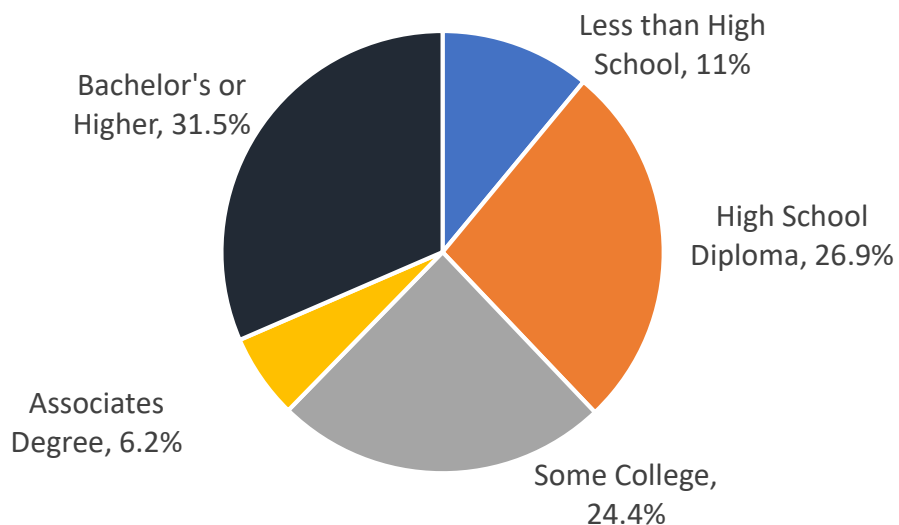

Overview

The following analysis creates a current economic and competitiveness overview of St. Tammany Parish, located in the New Orleans Louisiana Metropolitan Region. The population of the parish is nearing 260,000, with growth of about 17,500 over the past 5 years. Current estimates are that growth will continue, but slow down slightly between 2018-2023 with a projected net population gain of just fewer than 13,000. The parish is home to over 100,000 jobs, with strong growth of approximately 7,700 net new jobs added in the past five years and over 7,000 net new jobs projected for the next five.

Median household income is close to $64,000, significantly above the national average and among the highest in Louisiana. The chart to the right, from DataUSA shows median household income in the state.

Median Household Income By Parish

St. Tammany Parish

$21.1k $33.5k $43.5k $55.4k $71.8k
    $28k $38.3k $49k $63.7k
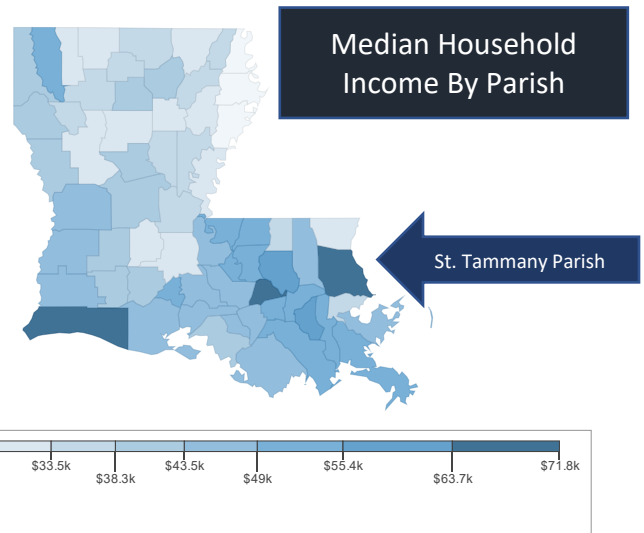
St. Tammany Parish is also among the top five most educated parishes in the state with educational attainment well above the Louisiana New Orleans Metro averages. The chart below shows the parish's educational attainment.

Educational Attainment

Bachelor's or Higher, 31.5%

Less than High School, 11%

High School Diploma, 26.9%

Some College, 24.4%

Associates Degree, 6.2%

St. Tammany Parish has grown as a bedroom community of New Orleans located on the north shore of Lake Pontchartrain. The population grew significantly from the resettling following Hurricane Katrina and has continued that growth in recent years. Consistent with other traditional American bedroom communities in major metropolitan areas, the parish is slightly older, less diverse, and has lower crime rates and higher performing schools than the nearby city. The parish is generally regarded as having a very high quality of life and being a great place to raise a family. This is reflected in the concentration of families with children.

% of Households with Children Under 18

	St Tammany	Orleans Parish	Jefferson Parish	New Orleans Metro	USA
%	29%	20%	26%	26%	28%
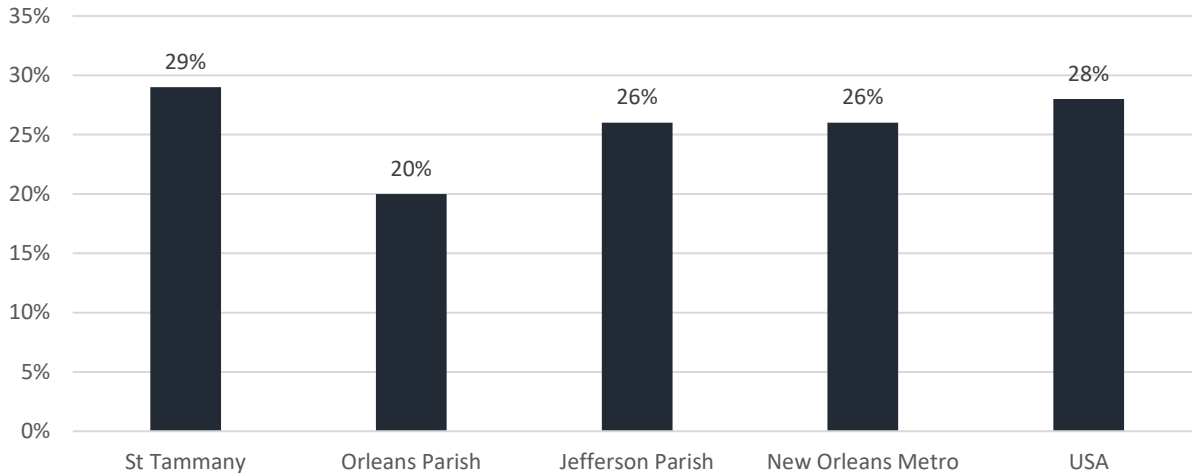
Source: The Data Center

The St. Tammany Parish has substantially less poverty than the other parishes in the metro with a poverty rate of only eight percent compared to a metro rate of 17 percent and a national rate of 14 percent. The difference is even more pronounced when analyzing children in poverty.

% Children in Poverty

	St Tammany	Orleans Parish	Jefferson Parish	New Orleans Metro	USA
%	7%	33%	26%	24%	19%
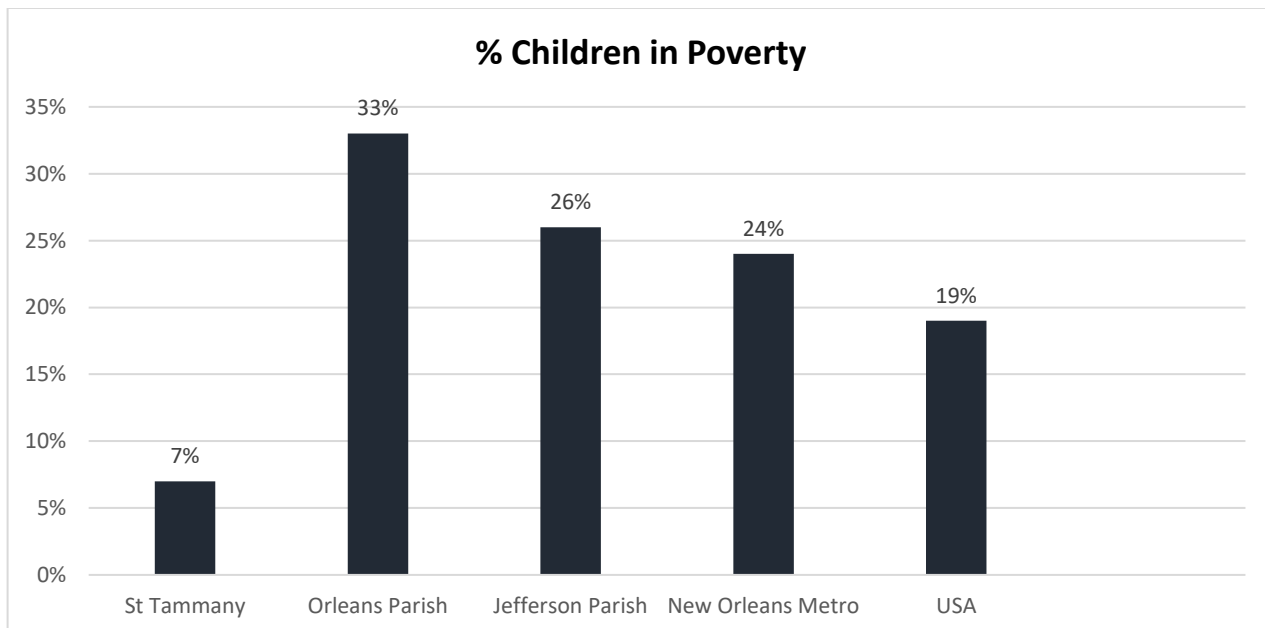
Source: The Data Center

St. Tammany also has fewer single person households, 24 percent compared to a regional average of 33 percent.

The economy has been dominated by service industries such as retail trade, health care, and food services. Trade industries like manufacturing, transportation, and finance have lower concentration levels than the national average. The primary reason is likely because a high percentage of the professional and industrial talents of the parish are commuting outside of the county for work. Most of the jobs located in the parish are serving the residents who live there, and not bringing in outside money, or increasing exports or innovation.

Map of St. Tammany Parish


The priority of St. Tammany Corp. is to diversify and expand their economy within the parish borders. As talent, wealth, and quality of life continues to concentrate in St. Tammany, certain industries will be more interested in locating there. Ten years ago, Chevron relocated its regional corporate headquarters from downtown New Orleans to an office park in St. Tammany Parish.
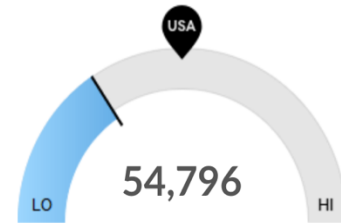
St. Tammany Parish Overview
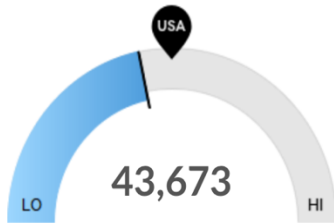
43,673
Millennials

St. Tammany Parish, LA has 43,673 millennials (ages 20-34). The national average for an area this size is 53,088.
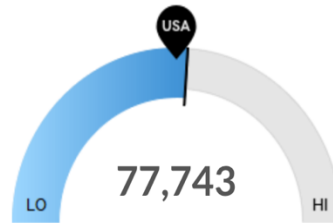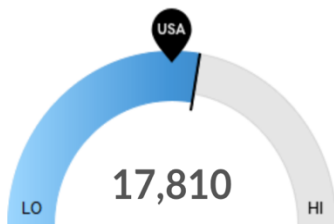
77,743
Retiring Soon

Retirement risk is about average in St. Tammany Parish, LA. The national average for an area this size is 73,070 people 55 or older, while there are 77,743 here.
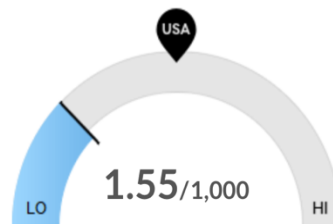
54,796
Racial Diversity

Racial diversity is low in St. Tammany Parish, LA. The national average for an area this size is 100,662 racially diverse people, while there are 54,796 here.

17,810
Veterans

St. Tammany Parish, LA has 17,810 veterans. The national average for an area this size is 15,268.

1.55/1,000
Violent Crime

St. Tammany Parish, LA has 1.55 violent crimes per 1,000 people. The national rate is 3.75 per 1,000 people.
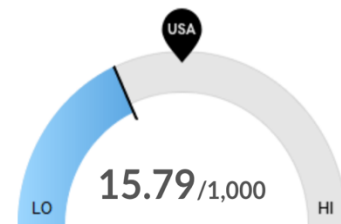
15.79/1,000
Property Crime

St. Tammany Parish, LA has 15.79 property crimes per 1,000 people. The national rate is 24.21 per 1,000 people.

Source: EMSI 2018.4

Labor Shed Analysis

While St. Tammany Corp. is focused on bringing jobs to the parish, often workers do not concern themselves with borders when choosing employment. As the labor market tightens across the country, one of the priorities when recruiting companies is to adequately demonstrate that your region, or parish, has a viable supply of labor. For this reason, we looked beyond the parish borders and created a labor shed based on acceptable drive time.

The analysis focuses on a labor shed that expands from the center of the parish with a maximum 70-minute drive time. This creates a labor shed that included workers who might currently commute over the Lake Pontchartrain Causeway into New Orleans as well as eastern Baton Rouge and across the Mississippi border as far as Gulfport. This indicates the available workforce that could be tapped for companies that chose to locate in St. Tammany Parish. To determine the labor supply within the labor shed, we used employment data from the zip codes that fell within the 70-minue drive time radius.

Labor Shed of St. Tammany Parish
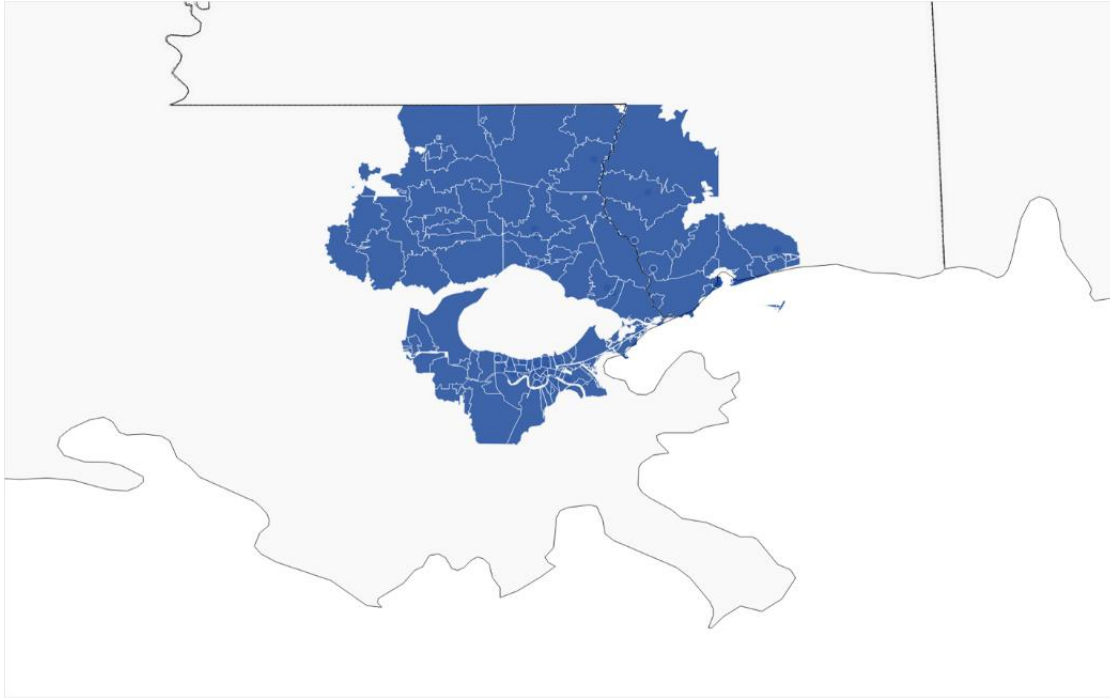
Largest Industries in St. Tammany Parish by Employment, 2018

Largest Industries

● Industry Jobs   ● National Average
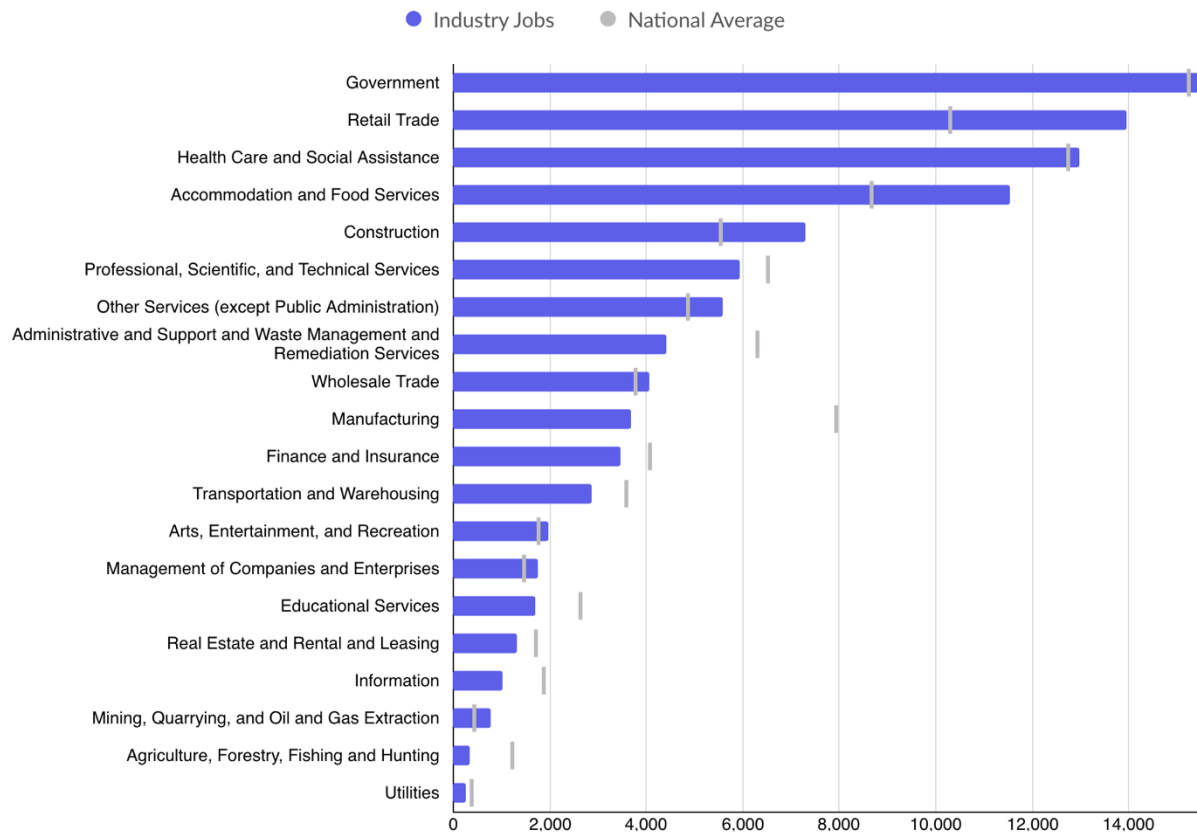
Source: EMSI 2018.4

Labor supply can come from many sources including resident workers, new residents and local graduates. We define the supply of talent by the following five categories:

- *Region Jobs* – Those who already work within the region.

- *Resident Workers* – Workers who live within the region, may work within or outside of the region.

- *Net-Commuters* – This refers to the difference between region jobs and resident workers, if negative then there are more workers commuting out of the region than workers employed in the region, making the region a net exporter of talent.

- *Local College Graduates & Migrants* – Potential source of additional workers often not collected within employment data. We calculate this portion of the labor force using migration data and educational program completions data from public sources.

- *Unemployed Workers* – Shows the number of workers who are frictionally out of work and are currently looking for work.

Sources of Labor

Labor Supply				
Workers - Employed in Region	Resident Workers - Employed Outside of Region	Unemployed Workers	Local Graduates	New Migrants
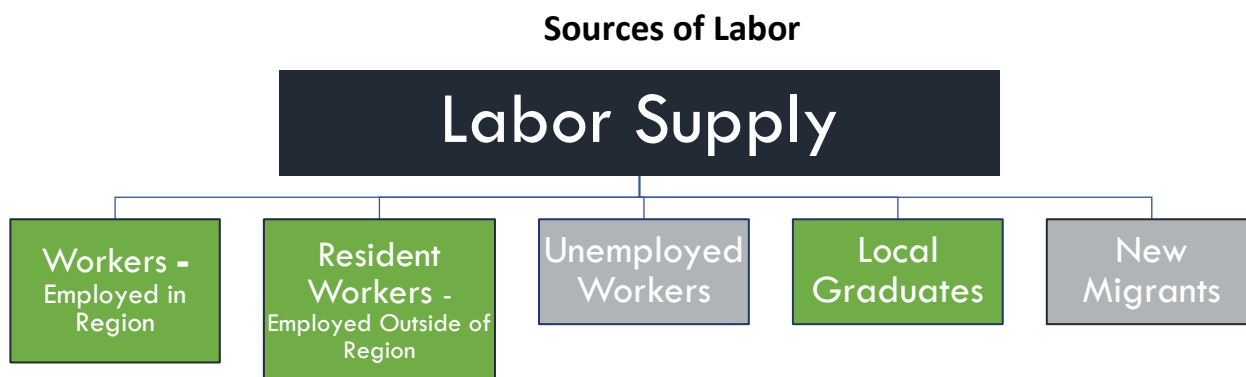
The sources of labor supply that are shaded green have data that can be collected at the zip code level. This data gives the most refined definition of the St. Tammany labor shed. For unemployment and migration data (shaded gray), data is only available at the county/parish level. For this data we use the counties and parishes that surround St. Tammany Parish as the best estimate for the labor shed.

The economic performance of the parish compared to the labor shed and the state of Louisiana is dramatic. The Parish has expanded employment by 49 percent since 2001. That growth is not reflected throughout the labor shed. The labor shed region suffered from Hurricane Katrina and despite gains has not yet fully recovered in terms of employment. The chart below benchmarks the employment level at 100 in 2001. Projections show continued steady growth for St. Tammany Parish over the next 10 years despite flat employment across the labor shed.

Employment Change from 2001 by Region
2001 Employment Level = 100

St. Tammany Parish — 149, 167

Louisiana — 102, 108

Labor Shed — 94, 99
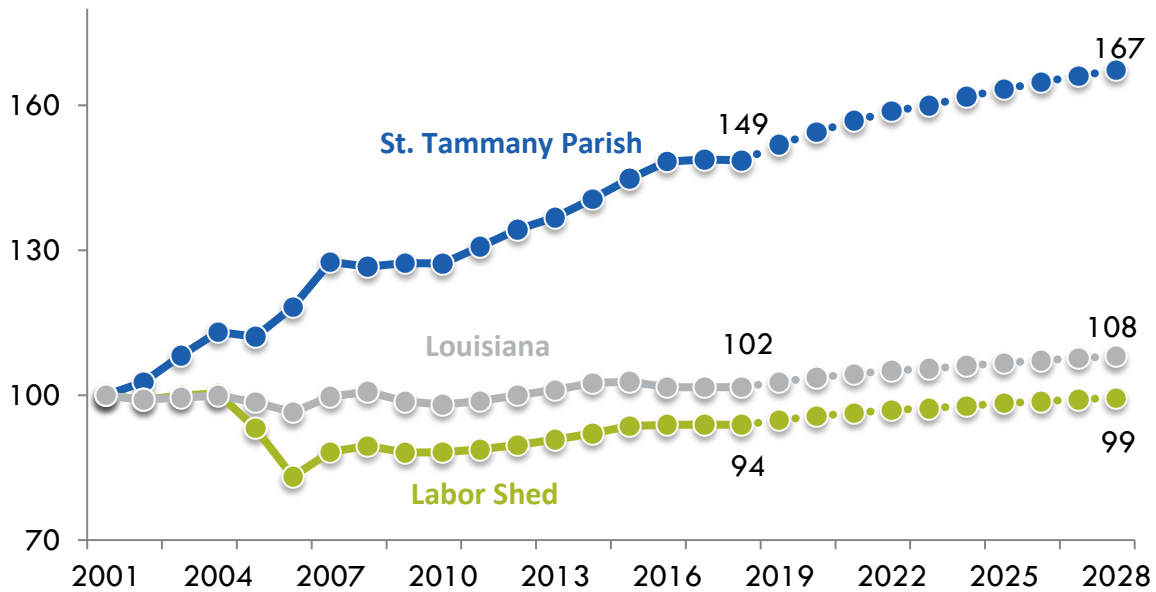
Source: EL calculations based on EMSI 2018.4

Workforce Supply – Currently Working

Over 104,360 workers live in St. Tammany Parish. There are almost 92,000 jobs currently located within St. Tammany Parish. This means that the Parish is exporting its talent with over 12,360 net commuters. This higher number of net commuters shows there is opportunity to create jobs for residents who already live in the parish but work outside. Commuting data shows that the number of net commuters has fallen in recent years, indicating that more workers are able to live and work within St. Tammany Parish.

Commuting Patterns of St. Tammany Parish

St. Tammany
91,997 Workers

12,367 Commuters
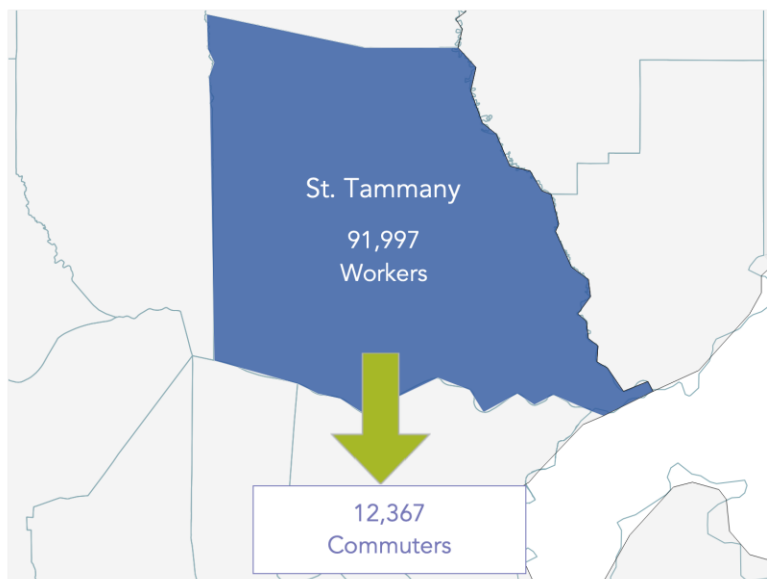
Source: EMSI 2018.4

According to the Federal Reserve the current mean commuting time for St. Tammany residents remains over 30 minutes.
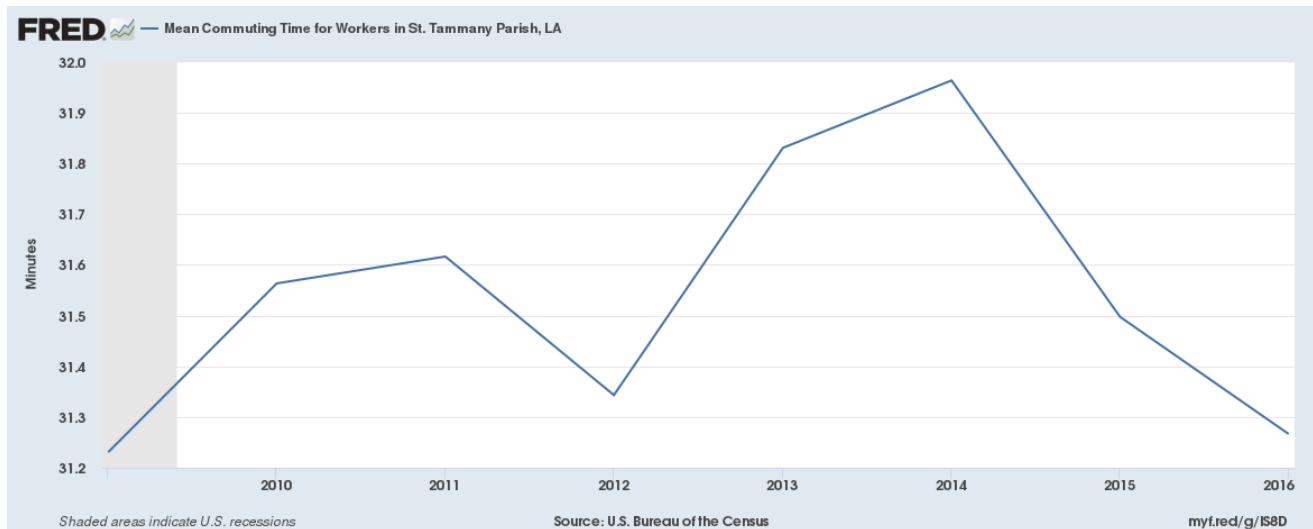
Source:
US Census Bureau. "On the Map Application." https://onthemap.ces.census.gov/

Looking at the greater labor shed drastically expands the workforce to about 717,180 active resident workers. The labor shed also is a net exporter of workers with about 13,215 of those workers driving to work outside of the labor shed, although the rates of out commuting are lower in the labor shed as compared to St. Tammany Parish.

St. Tammany Parish and its labor shed demonstrate several strengths in terms of labor supply. The parish has more workers than jobs which indicates a surplus of workers. The parish is located in a labor shed that includes major cities including New Orleans, Baton Rouge, and Gulfport, which are home to over 717,180 workers.

St. Tammany Parish Commuting Demographics
To get more detailed information on the commuting patterns for workers and residents of St. Tammany Parish we utilized the most recent data from the US Census Bureau. The data reveals that the number of in-commuters and out-commuters are on par with the number of people that live and work in the parish. The highest category is those who live in St. Tammany Parish but commute to work outside of the parish.

Map of St. Tammany Commuting Patterns, 2015

32,820		45,690
In-Commuters	46,020	Out-Commuters
	Live and Work	
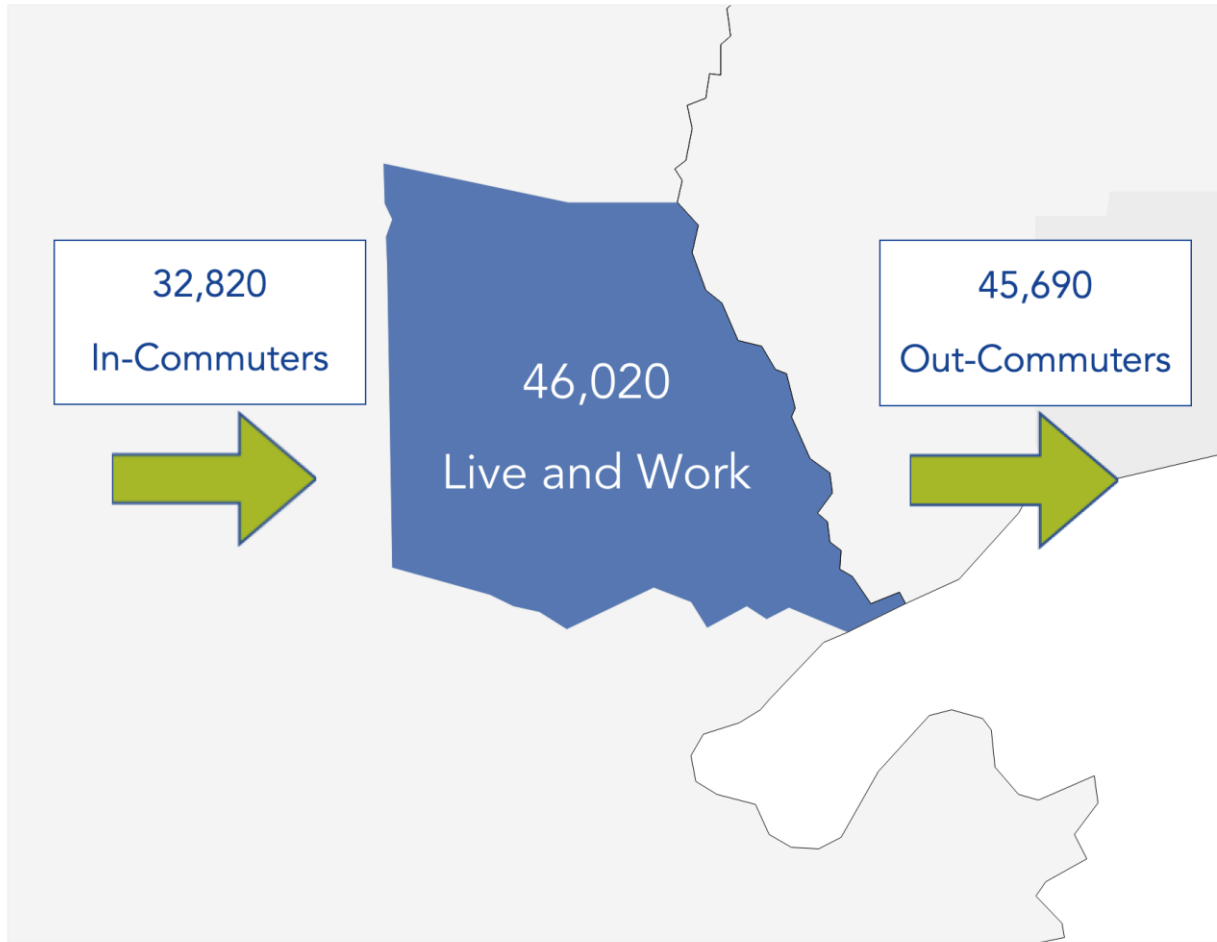
Source: US Census Bureau

The data was for a worker's primary job in 2015. The Census also provides demographic information for each category of commuter. Looking at the age of workers, out-commuters were more likely to be older. The in-commuters had higher percentages of workers age 29 or younger.

Age Demographics of Workers

Demographic	Out Commuters	In Commuters	Live and Work
Aged 29 or younger	20%	28%	23%
Aged 30 to 54	56%	54%	55%
Aged 55 or older	24%	18%	23%

Source: US Census Bureau

Out-commuters also had the highest percentage of workers earning a monthly wage of $3,333 or higher. People who live and work in the parish had the lowest percentage of high wage earners, but had the highest level of middle wage earners. In-commuters were more likely to earn wages lower than $1,250 per month than out-commuters.

Wage Demographics of Workers

Demographic	Out Commuters	In Commuters	Live and Work
Earning $1,250 per month or less	17%	23%	23%
Earning $1,251 to $3,333 per month	28%	36%	39%
Earning More than $3,333 per month	55%	41%	38%

Source: US Census Bureau

The commuting data also breaks the workers into three industry groups. Those who live and work within the parish were more likely to work in the broad services industry group and less likely to work in manufacturing. In-commuters had the highest percentage of workers in the trade, transportation, and utilities industry group. This is likely due to the high levels of retail trade jobs within the parish.

Type of Industry of Workers

Demographic	Out Commuters	In Commuters	Live and Work
"Goods Producing" Industry	18%	16%	11%
"Trade, Transportation, and Utilities" Industry	26%	32%	20%
"All Other Services" Industry	56%	51%	68%

Source: US Census Bureau

Generally, the out-commuting population tends to be older, higher income, and work for service or manufacturing employers. The population that commutes into St. Tammany Parish is more likely to be younger, work in retail trade, and earn less money. The live and work population is generally more diverse across wage, age, and industry affiliation.

St. Tammany Labor Shed Commuting Patterns
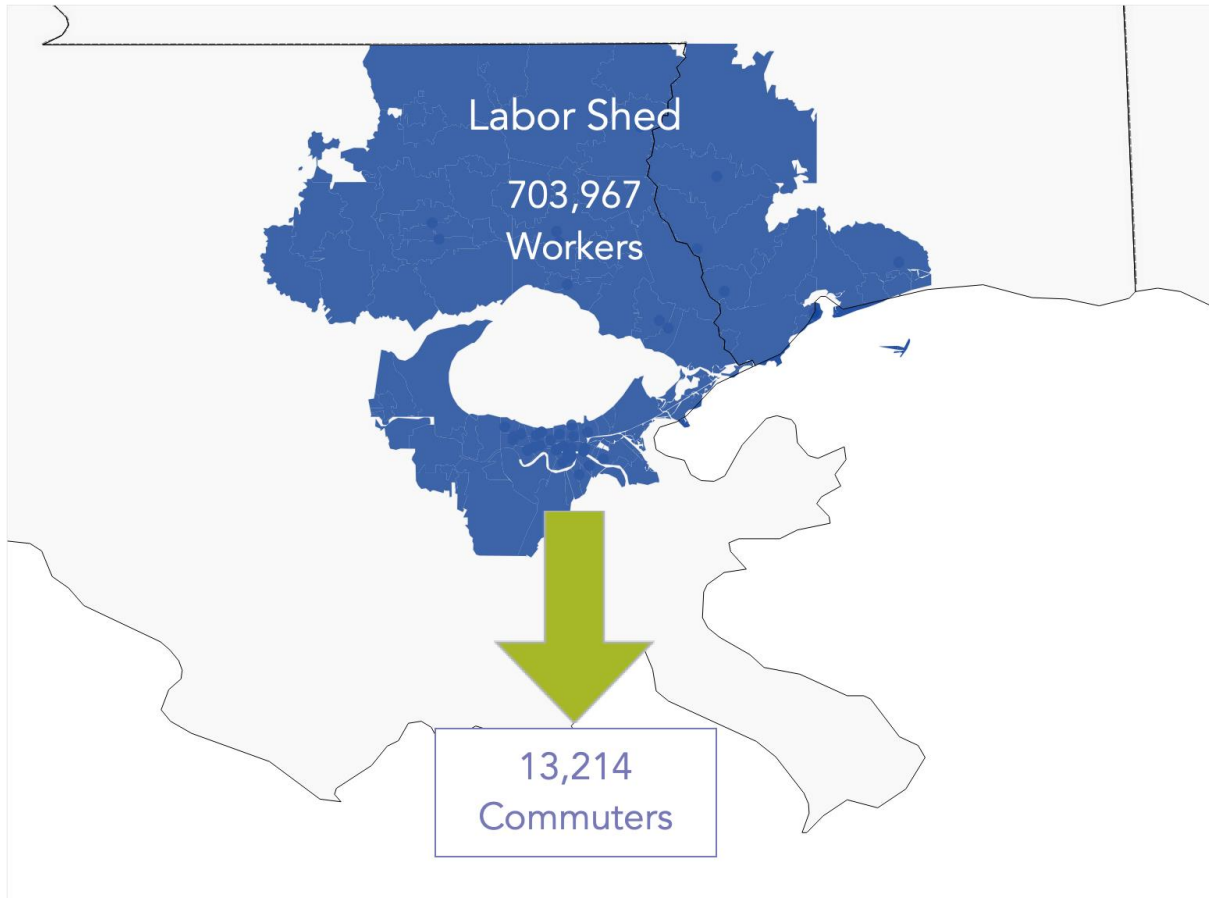
Source: EMSI 2018.4

Looking deeper into the labor shed we can see what type of work these resident workers are conducting. The chart below shows the top employing occupation groups in the labor shed. This type of data can be helpful for prospective clients interested in the supply of a specific type of labor. The labor supply can also be broken down on more granular levels. The results show that the labor shed has a diverse labor supply across many fields, with a particular concentration of administrative and sales workers.

St. Tammany Labor Shed Occupation Groupings of Resident Workers, 2018

Occupation	Workers
Office and Admin Support	101,433
Food Preparation and Serving	81,719
Sales	77,792
Transportation and Material Moving	50,659
Healthcare Practitioners	49,591
Education	45,380
Construction and Extraction	35,791
Management	32,253
Production	31,973
Installation, Maintenance, and Repair	31,789
Business and Finance	28,177
Personal Care and Service	25,541
Protective Service	23,369
Grounds Cleaning and Maintenance	22,374
Healthcare Support	17,751
Architecture and Engineering	11,430
Community and Social Service	11,254
Computer and Mathematics	10,562
Arts, Design, Entertainment, Sports, and Media	9,848
Legal	6,480
Military	6,018
Life, Physical, and Social Science	4,672
Farming, Fishing, and Forestry	1,324

Source: EMSI 2018.4

Regional Graduates

An additional potential source of labor are the students coming out of regional training programs each year. These students are an important part of the labor supply because they are usually looking to go to work and are recently trained. While there are only a small number of annual graduates in the Parish, the labor shed offers a strong supply. Within a 70-minute drive time there are 37 institutions that granted 22,578 certificates and degrees in 2017. This includes community colleges that train middle skills, including 355 welders annually. The labor shed also includes four-year degree granting institutions that produce, for example, 236 annual engineering graduates.

Top Schools in St. Tammany Labor Shed:
- Tulane University of Louisiana
- Delgado Community College
- Southeastern Louisiana University
- University of New Orleans
- Aveda Institute-Covington
- Northshore Technical Community College
- Loyola University New Orleans
- Louisiana State University Health Sciences Center-New Orleans
- Pearl River Community College
- Southern University at New Orleans
- Xavier University of Louisiana

In addition to current programming, the presence of several nearby institutions demonstrates the opportunity to continue to create new local training programs that may be needed by prospective companies looking for workforce development partners.

Top Programs Completed 2017

Program	Completions
Health Professions	5,545
Business, Management, and Marketing	2,961
Personal and Culinary Services	2,927
Liberal Arts, General Studies, Humanities	1,822
Biological and Biomedical Sciences	880
Engineering Technologies	777
Social Sciences	667
Psychology	551
Computer Information Sciences	530
Visual and Performing Arts	488
Education	480
Legal Professions	443
Precision Production	389
Theology and Religious Vocations	330
Public Administration and Social Service	326
Construction Trades	323
Protective Services	312
Mechanic and Repair Technologies	288
English and Literature	268
Philosophy and Religious Studies	265
Communication and Journalism	258
Mathematics and Statistics	252
Engineering	236
Family and Consumer Sciences	197
Interdisciplinary Studies	191
Physical Sciences	179
Parks, Recreation, Leisure, and Fitness Studies	160
Foreign Languages	157
History	138
Architecture	120
Area, Ethnic, Cultural, Gender, and Group Studies	44
Natural Resources and Conservation	44

Source: EMSI 2018.4

Unemployed Workers

In St. Tammany Parish there were 6,140 unemployed workers as of July 2018. These are workers who are unemployed due to frictional unemployment, meaning they are workers who are actively looking for work. This figure does not include workers who may be underemployed or discouraged job seekers, including these people would increase the labor supply but estimates are less reliable. The regional unemployment data and migration data is available only at the county/parish level. The counties and parishes that surround St. Tammany Parish were chosen. This region was designed to match the 70-minute drive time region as much as possible.

St. Tammany Surrounding Counties Region Map
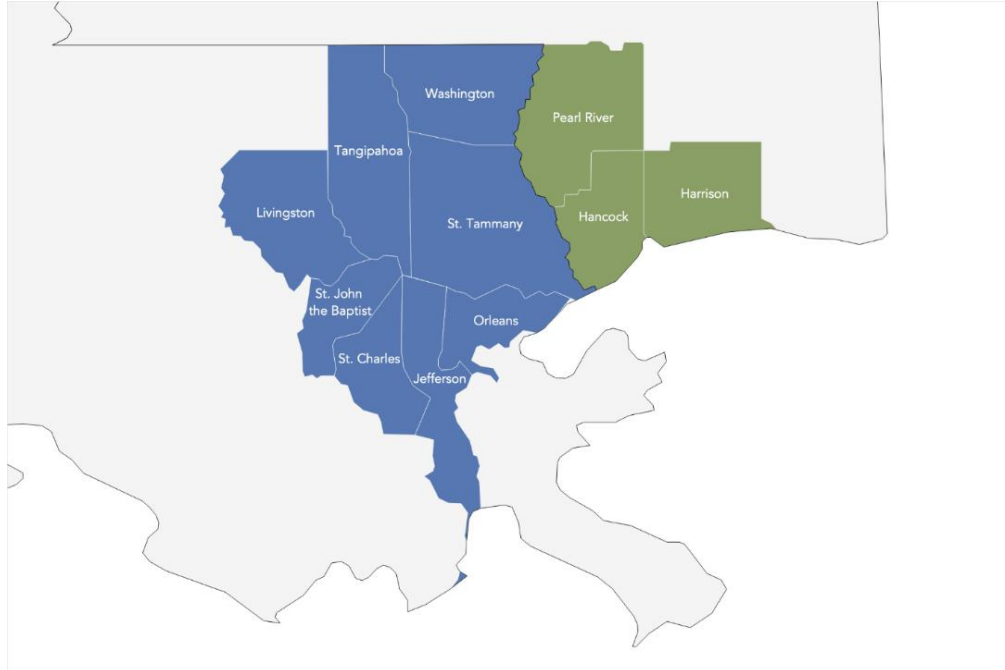
In the surrounding counties region, there are 46,780 unemployed workers. This marks a large labor supply potential. Of those unemployed workers, about 17 percent have no previous work experience, this is the highest percentage group. The next highest percentage group is workers with experience in health care or social services. The next two highest industries with unemployed workers are accommodations and food services and construction with 11 and 9 percent, respectively.

Unemployment in St. Tammany and Greater Region, July 2018
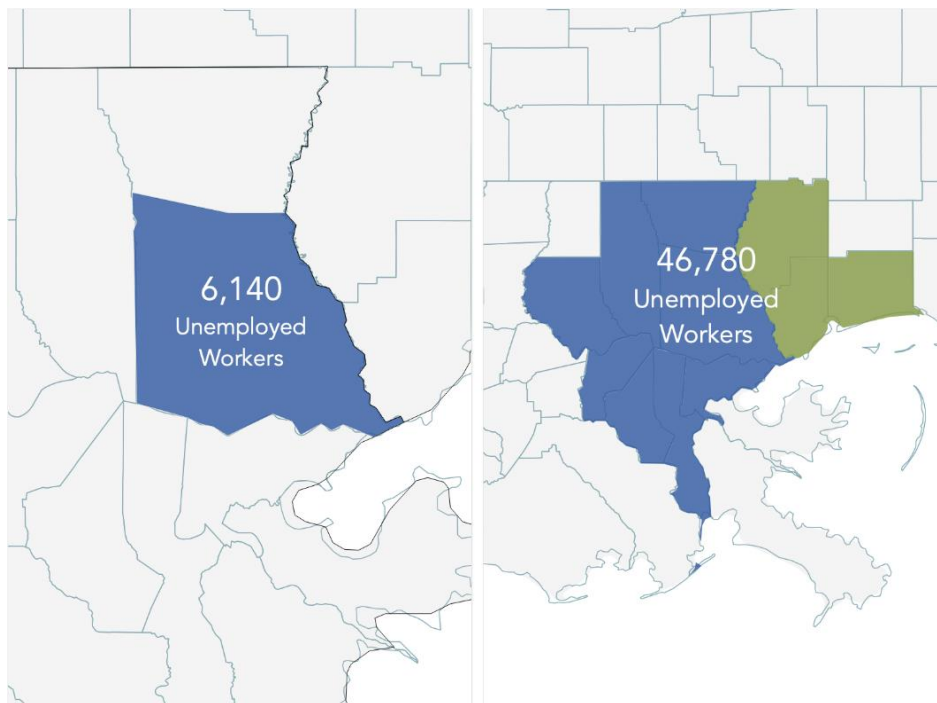
Source: EMSI 2018.4

Migration Patterns

In recent history, St. Tammany Parish saw a dramatic increase in residents and jobs after Hurricane Katrina as people were less willing to live in the lowest elevations near the Gulf of Mexico. The surrounding labor shed area did not fare so well and saw over 337,000 residents leave. The population level is just beginning to rebound to pre-Katrina levels. A large part of this rebound is coming from migration, foreign and domestic. From 2011 to 2015, about 76,900 people moved to the area. Meanwhile, only 63,386 people moved away. This means the region is seeing net immigration of over 11,660 people. This shows that people are willing to move to the region, and that the population trends of the area are on the rise. Often when people move they have work already lined up, but often spouses are looking for work once they arrive. Both are additions to the labor supply in the region.

St. Tammany Greater Region Migration Patterns, 2011 to 2015
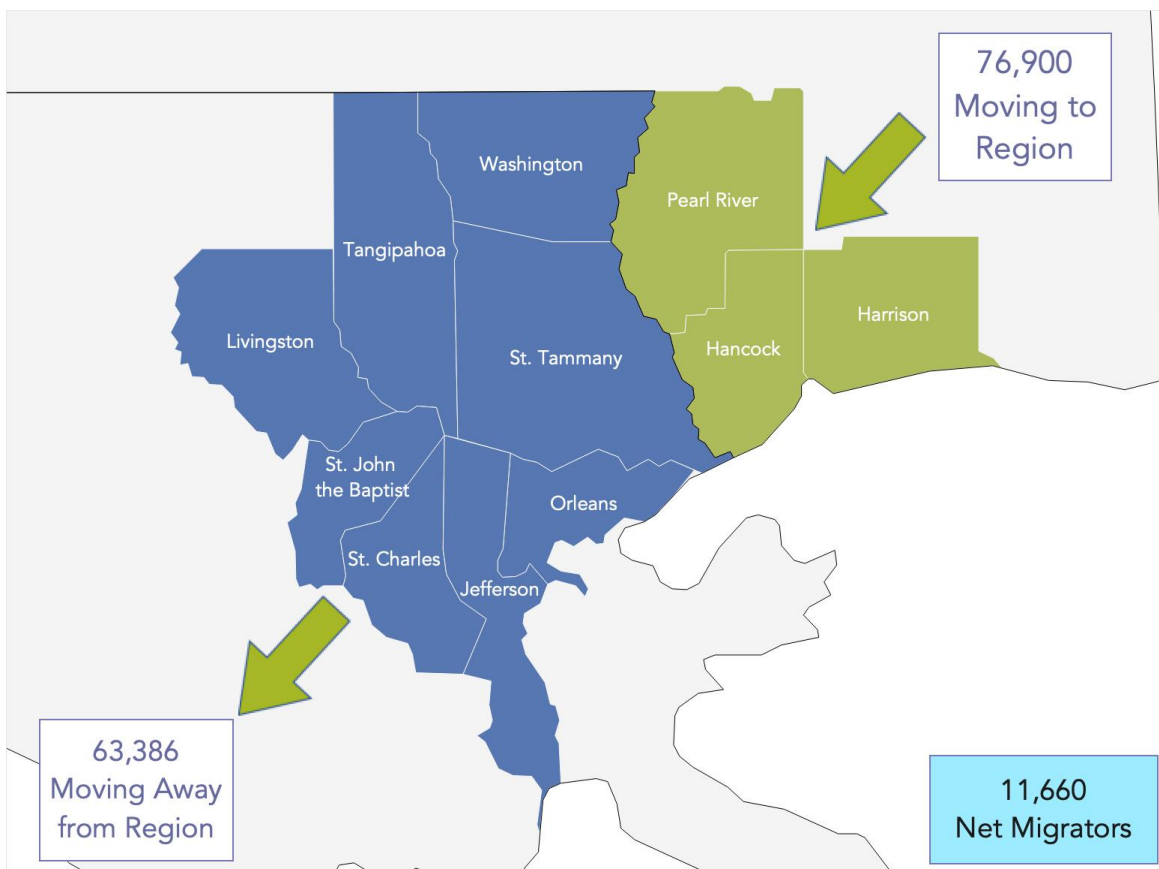
Source: US Census Bureau (2017)

Potential Sources of Labor

Labor Source Type	St. Tammany Parish	Labor Shed
Resident Workers	104,365	717,179
Graduates	1,964	22,578

Labor Source Type	St. Tammany Parish	Surrounding Counties	Region Total
Unemployed Workers	6,140	40,643	46,783
Net New Residents	3,022	8,612	11,660

Source: EL calculations based on EMSI 2018.4 and US Census Bureau (2017)
Note: Labor Shed and Region Total includes St. Tammany Parish. Resident Worker data for 2018, graduation data from 2017, unemployment data for July 2018, and migration data from 2011-2015. Some duplicates may exist therefore results are not tallied across labor supply type.

As a traditional bedroom community that is transitioning to a more rounded job center, St. Tammany Parish benefits from being located next to several major markets, particularly New Orleans. This grants the Parish access to a much greater labor shed of workers within a 70-minute drive time. This type of labor supply analysis can inform recruitment activities by St. Tammany Corp. to demonstrate a large workforce supply, usually one of the top investment decision factors.

Sources for Labor Shed Analysis:

Economic Modeling Specialist International (EMSI). 2018. "Analyst Tool: 2018.4 Class of Worker."
https://e.economicmodeling.com/analyst

US Census Bureau. 2017. "County-to-County Migration Flows: 2011-2015 ACS."
https://www.census.gov/topics/population/migration/guidance/county-to-county-migration-flows.html

St. Tammany Parish Cluster Analysis

Bringing money into an area, rather than just circulating money within the community, is the key to raising the local standard of living. Focusing economic development resources on increasing traded industries is a universally recognized best practice. Traded clusters are groupings of industries that serve markets outside of a region (internationally and/or domestically). Clusters also contain a supply chain that supports an industry such as suppliers, infrastructure and machinery. Focusing on clusters in an economic development strategy narrows efforts to those industries that are both most impactful and are most likely to thrive in a region. This is particularly important, as the competition for investment and jobs is intense. Studies have shown that assets that support a broader group of companies within a cluster are more efficient and cost effective than providing subsidies and solutions to individual companies.

According to Bloomberg, "What makes clusters unique is not just that companies with similar or complementary interests, competencies, and needs congregate around each other. It's that an entire value chain exists within a cluster: suppliers, manufacturers, distributors, academic institutions, researchers, and workforce training, as well as those who provide relevant support services."

Cluster: a regional concentration of related industries ⓘ

TRADED CLUSTERS

THE ENGINES OF REGIONAL ECONOMIES

- Serve markets in other regions or nations
- Concentrated in regions that afford specific competitive advantages
- Example industries: aircraft manufacturing, management consulting, iron ore mining

LEARN MORE →

LOCAL CLUSTERS

THE FOUNDATION OF LOCAL ECONOMIES

- Sell products and services primarily for the local market
- Located in every region
- Example industries: drug stores, physician offices, elementary schools, radio networks

LEARN MORE →

Traded vs. Local Share of the U.S. Economy

EMPLOYMENT	36%	64%
INCOME	50%	50%
PATENTS	96.5%	3.5%

Source: US Cluster Mapping

Traded clusters often account for less than 40 percent of a region's employment, however, they are usually responsible for more than half of a region's income and innovation.

To determine the current state of traded clusters in St. Tammany Parish we collected employment and wage data for over 680 six-digit NAICS code industries. These industries were then grouped into 53 traded clusters. The cluster groupings are very closely related to those provide by US Cluster Mapping, a project produced by the Harvard Business School. Those cluster groupings have not been updated to reflect the most recent iteration of NAICS codes. Therefore, we used EMSI's conversion of the Harvard clusters to 2017 NAICS codes. A few tech-related sectors were moved from the business services cluster to the technology cluster. These clusters were then evaluated on recent growth, location quotients, wages, and total employment. A cluster analysis of the greater St. Tammany labor shed, the zip codes within a 70-minute drive time, was also conducted to understand where the Parish's strengths could be aligned with the greater region.

In this analysis, the concentration and recent employment growth of clusters determine their significance. Location quotients (LQs) are the measure of employment concentration. LQs are the level of a cluster's employment in the region compared to national employment levels. A location quotient of 1.00 or greater demonstrates a higher concentration than what would be expected based on national levels. This can reveal what clusters are unique to St. Tammany Parish and are generating money from outside of the region through exporting.

LQs when mapped alongside employment growth can show which clusters are thriving or declining. The chart below demonstrates where a cluster may fall on the map and how it corresponds to its strength and growth over the past five years.

Example Chart for Cluster Mapping

St. Tammany Parish Cluster Map
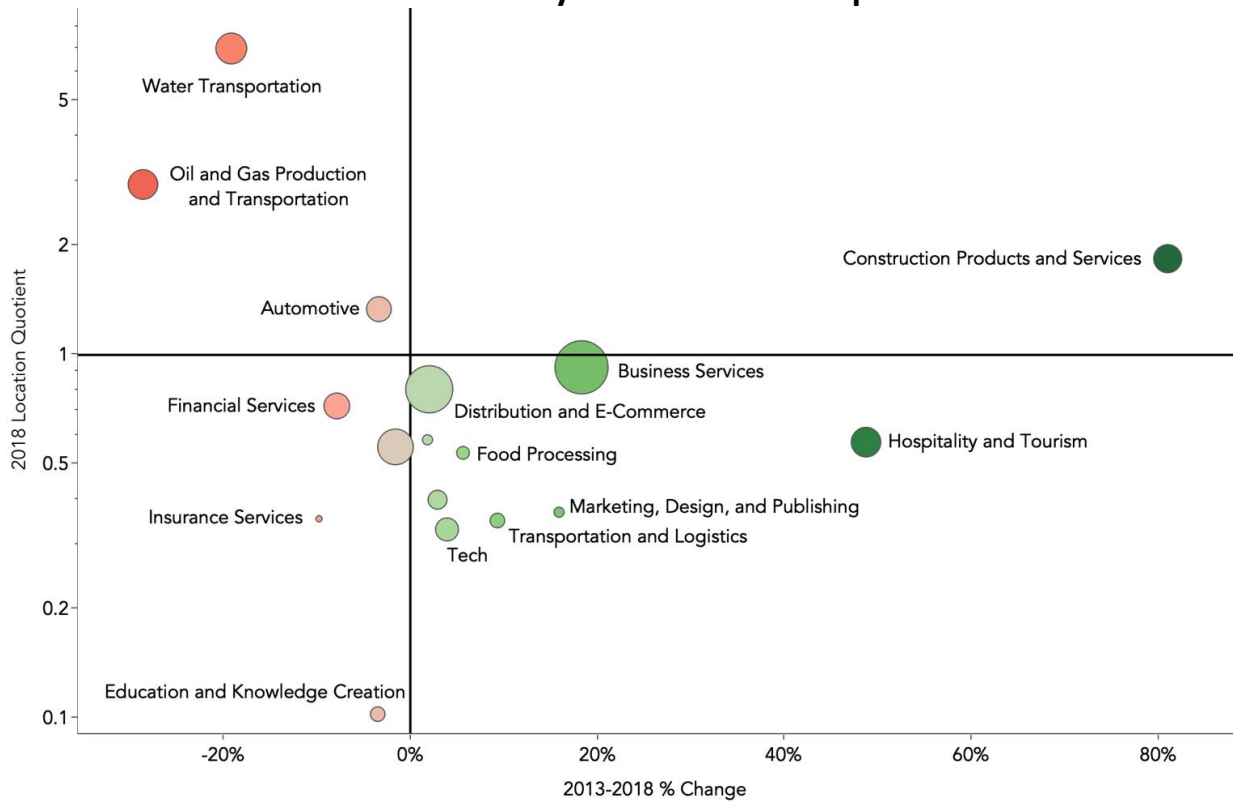
Source: EMSI 2018.4

Note: The size of each cluster bubble is determined by the size of 2018 employment levels. The color of each cluster is determined by the employment growth from 2013 to 2018.

The most striking takeaway from the analysis for the parish is the presence of only one asset cluster, construction products and services. This probably reflects strong building within the parish and new growth. There are several civil engineering construction firms located in the parish too. In the last five years, there have been several emerging clusters. Business services is a large employer and has increased employment by 20 percent. Hospitality and tourism was one of the fastest growing clusters, but low wages for this sector should be considered. The parish also has high concentrations in water transportation, oil and gas, and automotive manufacturing. These legacy sectors have been experiencing employment decline in the last five years and are becoming less impactful to the economy. The water transportation cluster also includes ship building and navigational services. Shipbuilder Trinity Marine Products is a large employer in the parish.

Business services are a top employer and growth cluster. These services include management, consulting, and accounting. As regional companies like Chevron look to locate near where their management live, we believe St. Tammany can position itself as an emerging regional hub for business services. The Parish is home to several management consulting companies that are included in this cluster.

Top Traded Clusters by Employment in St. Tammany Parish

Cluster	2018 Employment	2013-2018 % Change	2018 Wages
Business Services	3,654	18%	$108K
Distribution and E-Commerce	2,856	2%	$106K
Federal Government Services	1,619	-2%	$43K
Water Transportation	1,226	-19%	$112K
Oil and Gas Production and Transportation	1,134	-29%	$160K
Hospitality and Tourism	1,114	49%	$26K
Construction Products and Services	1,030	81%	$106K
Financial Services	888	-8%	$112K
Automotive	828	-3%	$92K
Information Technology	733	4%	$94K
State Government Services	550	3%	$71K
Education and Knowledge Creation	411	-4%	$55K
Transportation and Logistics	411	9%	$86K
Food Processing and Manufacturing	370	6%	$81K
Marketing, Design, and Publishing	328	16%	$65K
Production Tech and Heavy Machinery	327	2%	$75K
Insurance Services	304	-10%	$90K
Plastics	212	172%	$68K
Agricultural Inputs and Services	175	36%	$32K
Printing Services	173	25%	$50K
Downstream Chemical Products	122	-13%	$131K
Communications Equipment and Services	113	-39%	$127K
Downstream Metal Products	108	-41%	$59K

Source: EMSI 2018.4

Fastest Growing Clusters in St. Tammany Parish

Cluster	2013-2018 % Change	2018 Employment	2018 Wages
Paper and Packaging	2,200%	23	$76K
Plastics	172%	212	$68K
Performing Arts	154%	66	$55K
Medical Devices	94%	31	$99K
Construction Products and Services	81%	1,030	$106K
Metalworking Technology	71%	53	$62K
Biopharmaceuticals	69%	22	$132K
Hospitality and Tourism	49%	1,114	$26K
Wood Products	48%	99	$43K
Agricultural Inputs and Services	36%	175	$32K
Printing Services	25%	173	$50K
Business Services	18%	3,654	$108K
Marketing, Design, and Publishing	16%	328	$65K
Lighting and Electrical Equipment	14%	40	$94K
Transportation and Logistics	9%	411	$86K
Food Processing and Manufacturing	6%	370	$81K
Information Technology	4%	733	$94K
State Government Services	3%	550	$71K
Distribution and E-Commerce	2%	2,856	$106K
Production Tech and Heavy Machinery	2%	327	$75K

Source: EMSI 2018.4

The automotive cluster is predicted to grow employment by 18 percent by 2023. This is good news for St. Tammany Parish because the cluster is one of the few that has a higher concentration in the Parish. Tech is another emerging cluster that could offer a future job growth direction for the parish. The high concentration of white-collar workers living nearby would be a competitive advantage and a

competitive differentiation within the region. Only seven cluster groupings are predicted to experience an employment loss during the next five years. Unfortunately, one of those shrinking clusters is oil and gas, which is a legacy cluster in the Parish.

Predicted Employment Change in St. Tammany Parish

Cluster	2018-2023 % Change
Wood Products	23%
Business Services	21%
Hospitality and Tourism	19%
Automotive	18%
Water Transportation	17%
Plastics	16%
Food Processing and Manufacturing	14%
Construction Products and Services	12%
Performing Arts	12%
Marketing, Design, and Publishing	12%
Printing Services	11%
Communications Equipment and Services	10%
Information Technology	9%
Transportation and Logistics	8%
Agricultural Inputs and Services	8%
Distribution and E-Commerce	5%
Financial Services	5%
Environmental Services	4%
Metalworking Technology	4%
Education and Knowledge Creation	3%
Federal Government Services	2%
Insurance Services	2%
Upstream Chemical Products	0%
Oil and Gas Production and Transportation	-3%
Upstream Metal Manufacturing	-4%
Production Tech and Heavy Machinery	-4%
Downstream Chemical Products	-7%
Downstream Metal Products	-11%
State Government Services	-14%
Vulcanized and Fired Materials	-17%

2018-2023 % Change

Source: EMSI 2018.4

Traded Clusters in the St. Tammany Labor Shed
To put St. Tammany Parish's cluster analysis into perspective and to see where local priorities may align with regional priorities, a cluster analysis of the labor shed region was conducted. The region consists of the zip codes that lie within a 70-minute drive time from the center of St. Tammany Parish. This labor shed includes most of New Orleans, areas in the east portion of Baton Rouge, and also Gulfport, Mississippi. It is our belief that St. Tammany Parish can continue to be a high quality of life alternative-living place for the broader area, and can take advantage of local labor force to entice super-regional businesses to locate within the Parish. The same cluster groupings and time periods were used for the data that was collected for the labor shed region.
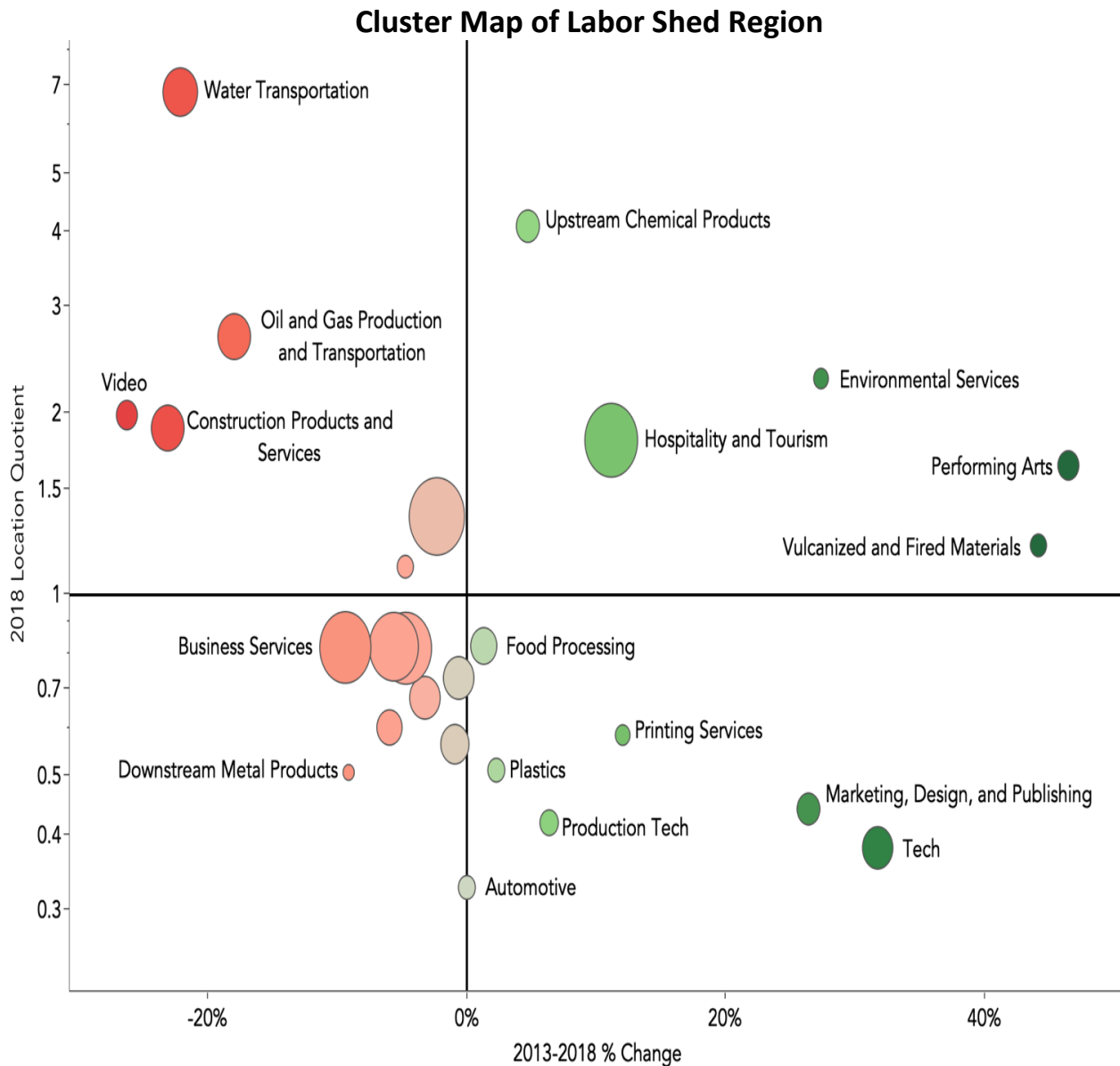
Cluster Map of Labor Shed Region

Source: EMSI 2018.4
Note: The size of each cluster bubble is determined by the size of 2018 employment levels. The color of each cluster is determined by the employment growth from 2013 to 2018.

The labor shed region benefits from several clusters that are highly concentrated. Many of these clusters are similarly concentrated in St. Tammany as well. The unique draw of New Orleans accounts for the presence of video production and performing arts clus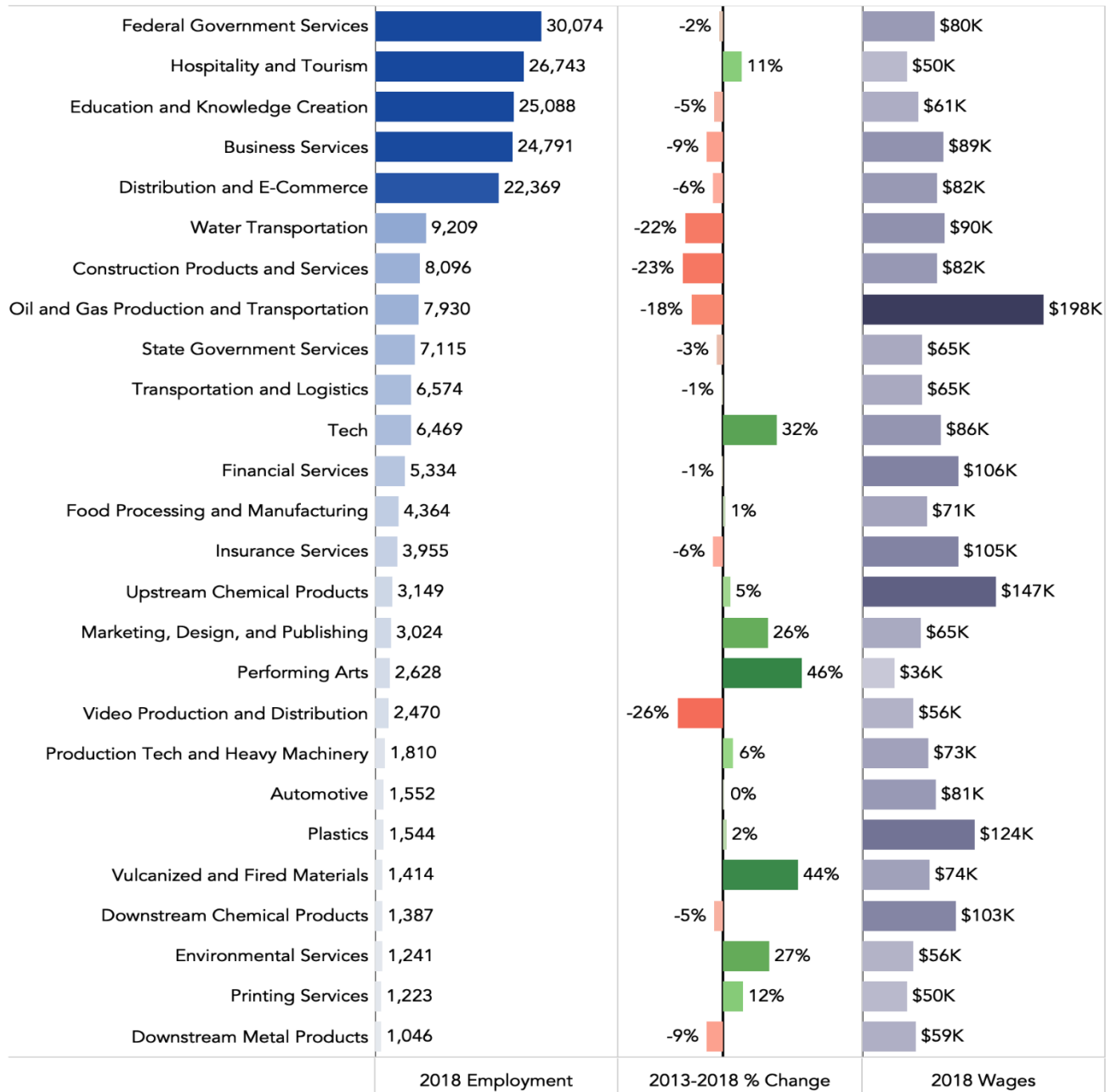ter specialties. Tech is also a high-growth cluster in the labor shed. While construction products and services was a shining star for the Parish, it has seen employment decline in the labor shed. The same is true for the business services cluster. With the John C. Stennis Space Center and other military facilities included in the labor shed, federal government is the top employer in the region.

Top Traded Clusters by Employment in the Labor Shed Region

Cluster	2018 Employment	2013-2018 % Change	2018 Wages
Federal Government Services	30,074	-2%	$80K
Hospitality and Tourism	26,743	11%	$50K
Education and Knowledge Creation	25,088	-5%	$61K
Business Services	24,791	-9%	$89K
Distribution and E-Commerce	22,369	-6%	$82K
Water Transportation	9,209	-22%	$90K
Construction Products and Services	8,096	-23%	$82K
Oil and Gas Production and Transportation	7,930	-18%	$198K
State Government Services	7,115	-3%	$65K
Transportation and Logistics	6,574	-1%	$65K
Tech	6,469	32%	$86K
Financial Services	5,334	-1%	$106K
Food Processing and Manufacturing	4,364	1%	$71K
Insurance Services	3,955	-6%	$105K
Upstream Chemical Products	3,149	5%	$147K
Marketing, Design, and Publishing	3,024	26%	$65K
Performing Arts	2,628	46%	$36K
Video Production and Distribution	2,470	-26%	$56K
Production Tech and Heavy Machinery	1,810	6%	$73K
Automotive	1,552	0%	$81K
Plastics	1,544	2%	$124K
Vulcanized and Fired Materials	1,414	44%	$74K
Downstream Chemical Products	1,387	-5%	$103K
Environmental Services	1,241	27%	$56K
Printing Services	1,223	12%	$50K
Downstream Metal Products	1,046	-9%	$59K

Source: EMSI 2018.4

Growth for some of the top employers in the labor shed has been down in the last five years. Most of the growth has been concentrated in the smaller clusters.

Fastest Growing Traded Clusters

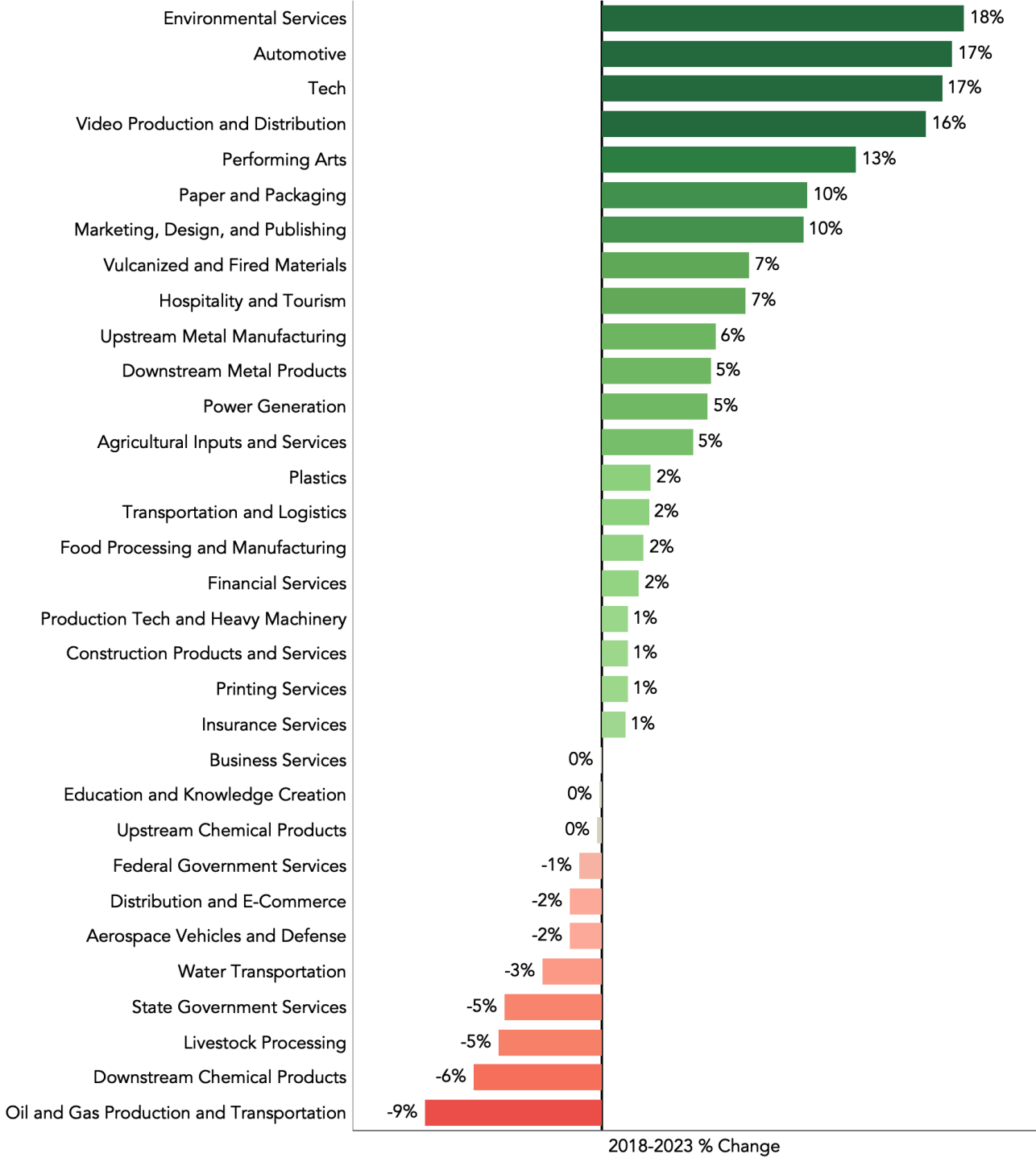| Cluster	2013-2018 % Change	2018 Employment	2018 Wages
Biopharmaceuticals	152%	305	$75K
Textile Manufacturing	139%	134	$51K
Leather and Related Products	79%	235	$41K
Performing Arts	46%	2,628	$36K
Vulcanized and Fired Materials	44%	1,414	$74K
Tech	32%	6,469	$86K
Environmental Services	27%	1,241	$56K
Fishing	27%	593	$67K
Marketing, Design, and Publishing	26%	3,024	$65K
Furniture	23%	447	$44K
Aerospace Vehicles and Defense	19%	891	$130K
Wood Products	17%	545	$53K
Metalworking Technology	14%	353	$62K
Paper and Packaging	12%	898	$77K
Printing Services	12%	1,223	$50K
Recreational and Small Electric Goods	12%	251	$66K
Hospitality and Tourism	11%	26,743	$50K
Agricultural Inputs and Services	7%	832	$41K
Production Tech and Heavy Machinery	6%	1,810	$73K
Upstream Chemical Products	5%	3,149	$147K
Plastics	2%	1,544	$124K
Power Generation	2%	983	$166K
Food Processing and Manufacturing	1%	4,364	$71K

Source: EMSI 2018.4

Looking forward, the trend of the large employing clusters seeing little to no employment growth will continue. However, several of the smaller clusters are expected to see strong growth in the next five years. This offers St. Tammany Parish an opportunity to position itself as a prime location for future growth, taking advantage of company prioritization of access to quality labor.

Predicted Future Employment Growth by Cluster in Labor Shed Region

Cluster	2018-2023 % Change
Environmental Services	18%
Automotive	17%
Tech	17%
Video Production and Distribution	16%
Performing Arts	13%
Paper and Packaging	10%
Marketing, Design, and Publishing	10%
Vulcanized and Fired Materials	7%
Hospitality and Tourism	7%
Upstream Metal Manufacturing	6%
Downstream Metal Products	5%
Power Generation	5%
Agricultural Inputs and Services	5%
Plastics	2%
Transportation and Logistics	2%
Food Processing and Manufacturing	2%
Financial Services	2%
Production Tech and Heavy Machinery	1%
Construction Products and Services	1%
Printing Services	1%
Insurance Services	1%
Business Services	0%
Education and Knowledge Creation	0%
Upstream Chemical Products	0%
Federal Government Services	-1%
Distribution and E-Commerce	-2%
Aerospace Vehicles and Defense	-2%
Water Transportation	-3%
State Government Services	-5%
Livestock Processing	-5%
Downstream Chemical Products	-6%
Oil and Gas Production and Transportation	-9%

Source: EMSI 2018.4

Comparing St. Tammany Parish with Labor Shed Region

Legacy Cluster in Both
- ❖ Water Transportation
- ❖ Oil and Gas Production and Transportation

Asset in Region, Emerging in St. Tammany
- ❖ Hospitality and Tourism

Specialty in St. Tammany, Emerging in Region
- ❖ Automotive

Asset in St. Tammany, Declining in Region
- ❖ Construction Products and Services

Emerging in St. Tammany, Declining in Region
- ❖ Business Services

Emerging in Both
- ❖ Tech
- ❖ Marketing, Design, and Publishing

While St. Tammany Parish is clearly part of the New Orleans Metro, the cluster trends of the Parish, and the broader labor shed, show some district differences. Some clusters are growing in one region, while declining in the other. There is opportunity to continue to support and grow the legacy clusters of water transportation and oil and gas. These clusters are unique to the area due to the region's geography. This means there are few areas where these types of firms could relocate. These types of companies will likely need workforce support in the coming years as their workers retire and there are fewer students coming out with the types of skills needed for this type of work.

Existing Clusters to be supported:
- Water Transportation
- Oil and Gas Production and Transportation
- Automotive
- Construction Products and Services

Emerging Clusters to be explored:
- Business Services
- Tech
- Marketing, Design, and Publishing
- Hospitality and Tourism

While declining in the region, the Parish has an opportunity in construction, business services, and automotive clusters. These clusters have either strong concentrations or strong growth in the Parish.

Tech and marketing clusters also show promise for both the region and the Parish. As the Parish continues to be home to skilled workers, businesses in these professional fields may be attracted to locate near such talent.

CLUSTER DESCRIPTIONS

Water Transportation

Companies in this cluster manufacturer or operate transportation that moves people or goods over water.

Industries included:
- Ship Building
- Marine Transportation Services
- Water Passenger Transportation

Top Company in St. Tammany Parish: Trinity Marine Products

Oil and Gas Production and Transportation

Companies in this cluster are involved in the location, extraction, refinement, and transportation of oil and gas. Companies that manufacturer equipment used for these activities are also included.

Industries included:
- Petroleum Processing
- Support Activities
- Drilling Wells
- Oil and Gas Extraction
- Oil and Gas Machinery
- Pipeline Transportation

Top Company in St. Tammany Parish: Logg Experation

Automotive

This cluster contains all firms within the value chain for the manufacturing of cars and trucks.

Industries included:
- Automotive Parts
- Gasoline Engine and Engine Parts
- Motor Vehicles
- Metal Mills and Foundries

Construction Products and Services

Companies in this cluster supply construction materials, components, products, or services. It also includes companies that build industrial buildings.

Industries included:
- Industrial Building

- Civil Engineering
- Water, Sewage, and Other Systems
- Construction Materials

Top Company in St. Tammany Parish: Baker Pile Driving & Site Work LLC

Business Services

This cluster refers to the support of business operations. This includes headquarters as well as professional services such as architecture or placement.

Industries included:
- Corporate Headquarters
- Consulting Services
- Business Support Services
- Employment Placement
- Engineering Services
- Architectural and Drafting Services
- Ground Passenger Transportation

Top Company in St. Tammany Parish: M3 Engineering & Technology Corporation

Tech

The tech cluster includes the manufacturing of technologic components as well as computer services that support business activities (i.e. data hosting).

Industries included:
- Electronic Components
- Semiconductors
- Software Publishing
- Process and Laboratory Instruments

Top Company in St. Tammany Parish: Medtron Software Intelligence

Marketing, Design, and Publishing

Companies in this cluster produce design services, advertising, market research, and content. Publishing content includes hard copy and online.

Industries included:
- Advertising Related Services
- Marketing Related Services
- Design Services
- Public Relations
- Publishing

Top Company in St. Tammany Parish: Workboat Magazine

St. Tammany Parish- State and Regional Competitiveness

The process of an employer choosing a specific location to make an investment is a complicated, staged process. Today it is driven by data related to business climate including regulatory and legal environments; overall costs including labor, electricity, construction; access to qualified labor and education and training resources; infrastructure and access to markets, suppliers and customers, and quality of life factors including safety, housing, education and healthcare. The diagram, *the competitive funnel*, represents the location process, usually described as a process of elimination, beginning with many communities and ending with one. Currently the United States is ranked among the most competitive countries for business on almost every research ranking. As a client works their way through the process, different filters are used to eliminate potential locations.

United States

Louisiana

New Orlean's Metro

St. Tammany Parish

Specific City

Land or Building
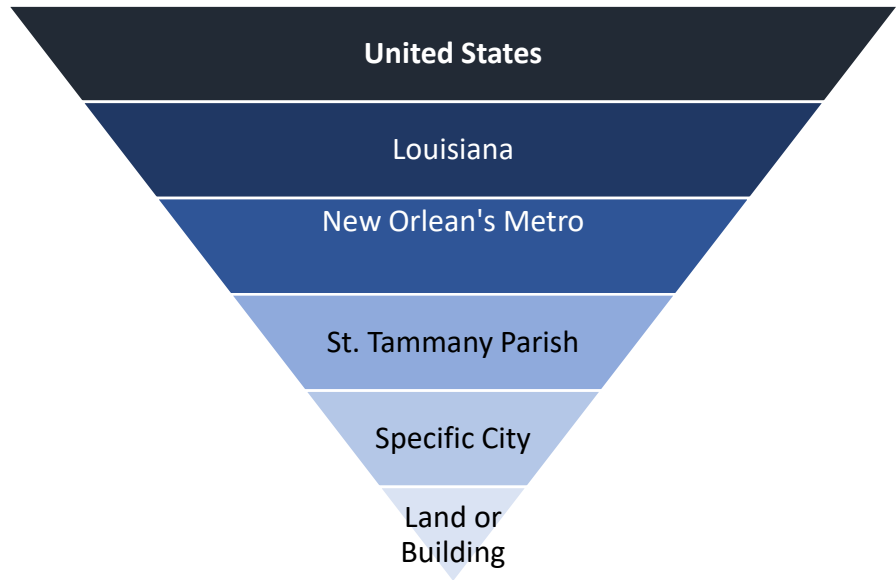
State Analysis

The state of Louisiana has many positive competitive attributes but is often ranked lower than other states (potential locations). Several publications produce an annual multifactor ranking of the 50 states, often titled "Best States for Business". While locational decisions are not made from these rankings, they are widely known and contribute the overall branding of the states. In 2018, Louisiana was ranked as the 40th best state by *Forbes*, 44th by CNBC, 33rd by *Chief Executive* magazine and Louisiana's tax climate was ranked 44th by the highly influential Tax Foundation. Within these publication's subcategories, the state often scored well for the cost of doing business, ranked in the top ten by both *Forbes* and CNBC. Conversely the labor or workforce ranking were generally in the bottom third.

Additional state factors could be important to a specific client. As the chart below shows, Louisiana is currently ranked among the lowest states for its overall fiscal condition, a factor that might send signals to a client of future costs.

OVERALL FISCAL CONDITION RANK — 2017 EDITION — MERCATUS CENTER, George Mason University

TOP FIVE
1. Florida
2. North Dakota
3. South Dakota
4. Utah
5. Wyoming

ABOVE AVERAGE
6. Nebraska
7. Oklahoma
8. Tennessee
9. Idaho
10. Montana
11. Missouri
12. Alabama

13. Ohio
14. Nevada
15. North Carolina
16. Indiana
17. Alaska
18. Virginia

AVERAGE
19. South Carolina
20. Arkansas
21. Oregon
22. Georgia
23. Texas
24. Minnesota
25. New Hampshire

26. Washington
27. Hawaii
28. Iowa
29. Wisconsin
30. Colorado
31. Delaware
32. Kansas

BELOW AVERAGE
33. Arizona
34. Mississippi
35. Maine
36. Michigan
37. Connecticut
38. Rhode Island

39. New York
40. Vermont
41. New Mexico
42. West Virginia
43. California
44. Louisiana
45. Pennsylvania

BOTTOM FIVE
46. Maryland
47. Kentucky
48. Massachusetts
49. Illinois
50. New Jersey

SOURCE: Eileen Norcross and Olivia Gonzalez, "Ranking the States by Fiscal Condition, 2017 Edition" (Mercatus Research, Mercatus Center at George Mason University, Arlington, VA, July 2017).

At the same time, this year, Louisiana was ranked as the #1 state for workforce training with workforce always a top priority and the most recent Site Selection Magazine Ranking had Louisiana #10 best business climate. While St. Tammany Parish has limited influence to address the factors in overall state rankings, the St. Tammany Corp.'s ultimate success will be impacted by those opportunities that will not materialize. To determine specific strategies the organization needs to match the factors where the state is competitive with specific industry needs.

Regional/Metro Analysis

As part of the New Orleans's Metropolitan Statistical area it is important to the Parish to completely understand how the metro compares with other U.S. metros. We developed a customized multifactor assessment to help the St. Tammany Corp. to better position itself as the site of choice in highly competitive economic development projects. We prepared an extensive database to identify competitive advantages for the New Orleans Metro, and to also identify any areas that need attention.

Given the diversity and strength of the local economy, New Orleans has a broad array of competitors, or cohort communities, with which to compare. Comparison metros were chosen for similar size populations in the south and mid-west, or because of geographic proximity. The following 23 metros were part of the analysis. No foreign competitors were included in the analysis. In addition to those metros that fell within the size parameters, Houston and Mobile were added based on the suggestion of the St. Tammany Corp.

- Baton Rouge, Louisiana
- Birmingham, Alabama
- Cape Coral, Florida
- Charleston, South Carolina
- Columbia, South Carolina
- El Paso, Texas
- Greensboro, North Carolina
- Greenville, South Carolina
- Houston, Texas
- Jacksonville, Florida

- Knoxville, Tennessee
- Little Rock, Arkansas
- Louisville, Kentucky
- Memphis, Tennessee
- Mobile, Alabama
- Nashville, Tennessee
- Oklahoma City, Oklahoma

- Omaha, Nebraska
- Raleigh, North Carolina
- Richmond, Virginia
- Sarasota, Florida
- Tulsa, Oklahoma
- Virginia Beach, Virginia

A database of 175 comparative metrics was developed covering the areas of cost, workforce/talent, educational attainment, demographics, innovation, and economic diversity. The data is a combination of some state-to-state comparisons where appropriate and extensive metro-to-metro comparisons were available.

The New Orleans metro did not rank highly on many factors, although it did score well on some important metrics. The database allows the professionals at St. Tammany Corp. to better shape their product promotion pitch and to identify strategic areas for product improvement. Some of the individual finding are worth specifically noting.

Metropolitan Population 2017
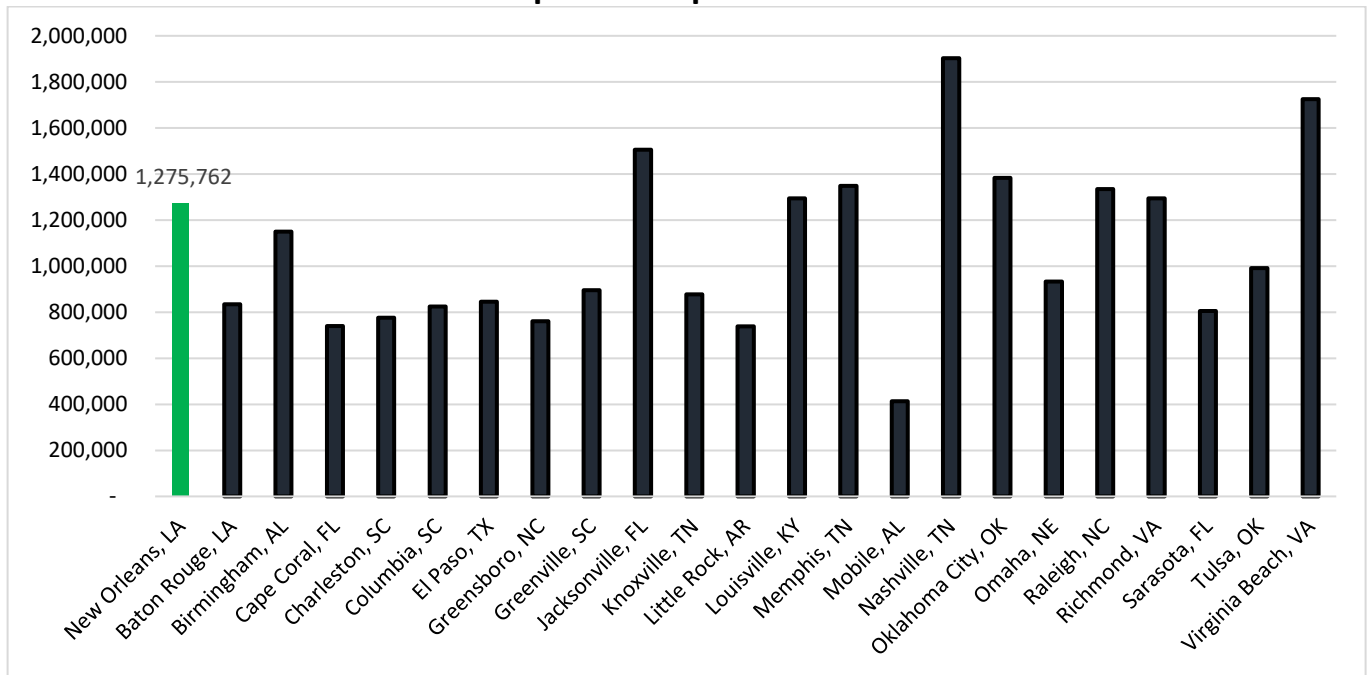
Source: U.S. Census

The New Orleans metro five-year (2012-2017) population growth rate of 3.9 percent is just above the U.S. rate of 3.7 percent and ranks 14th of the 24 metros in this analysis. St. Tammany Parish is growing much faster at 7.2 percent.

The projected population growth published by the U.S. Conference of Mayors for 2016 – 2046 forecasts a significant slowdown in population growth for the New Orleans region to 1.8 percent

over the next 30 years. This ranks the New Orleans metro behind all of the studied metros, except Mobile, AL, which is expected to lose population over the period.

Projected Percent Population Growth 2016 - 2046
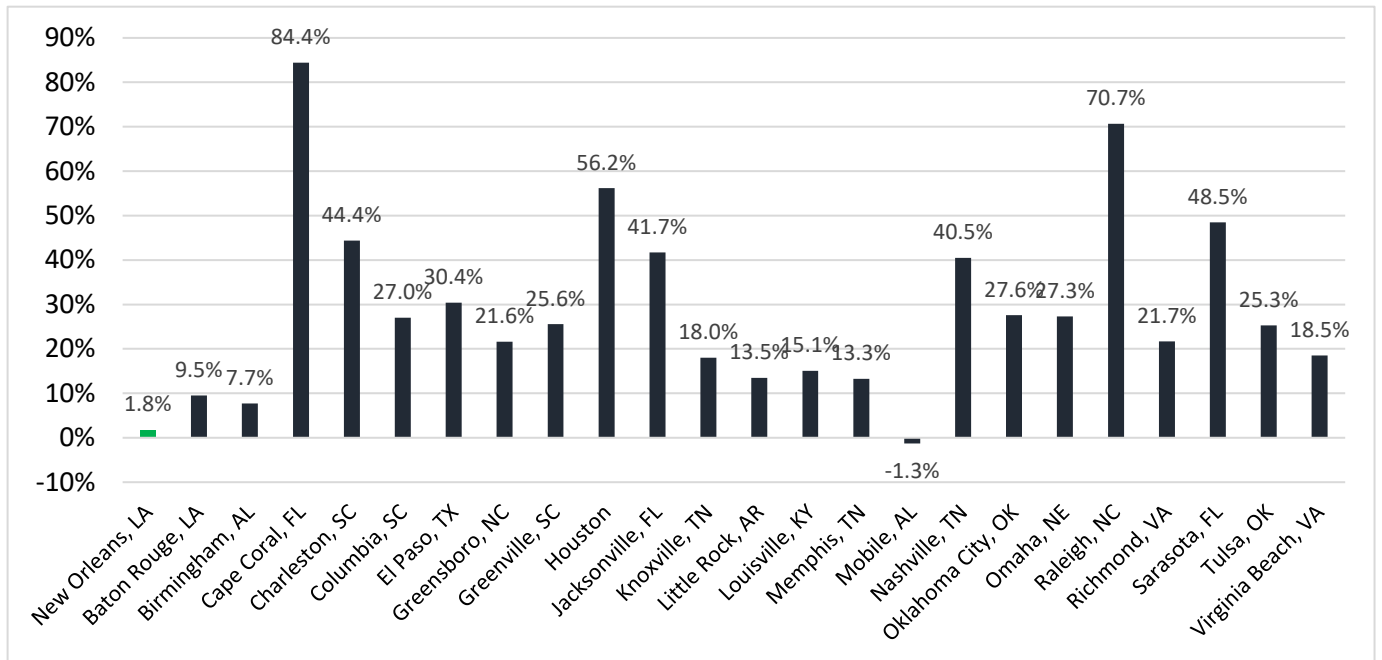
Source: U.S. Conference of Mayors

Many individual comparisons demonstrate the various strengths and weaknesses of the region, and as you would expect, the specific competition is a key factor. For example, New Orleans has the highest growth in Millennial Population behind only Virginia Beach and tied with Nashville. Well ahead of Tulsa, Sarasota and Memphis. In the category Growth of Export Supported Jobs, New Orleans is behind Charleston, Birmingham and Louisville, but ahead of Knoxville, Tulsa and Virginia Beach. No single indicator paints a complete competitive position.

Due to the volume and complexity of the data, Economic Leadership developed five indexes that aggregates multiple specific data points into easily comparable information. None of the choices were made to make the New Orleans region look better or worse.

The first, a **Cost of Doing Business Index**, allows St. Tammany Corp. to look at many cost factors combined, as a perspective client would. Individual clients might have a specific cost factor that is prioritized, such as energy costs or the cost of real estate, but most would begin with the overall cost of doing business. For this index, 11 data set were used, some that use third party rankings for the cost of doing business, legal, regulatory or tax climate and some that use specific data. The data sets, originally informed by business representatives, which were used were:

- "Cost of Doing Business" rankings
- "Legal Climate" rankings

- Individual Income Tax rankings
- Regulatory Policy Freedom Ranking
- Median Sales Price of Existing Homes
- Percentage of Renters Paying More than 35% of Income Toward Rent
- Metro Steel Frame Construction Cost Index
- Square Foot Cost of 40K sf office building
- Adjusted Hourly Wage for Private Sector Jobs
- Violent Crimes per 100,000 population
- Average retail electricity price for industrial customers

The combined results of this index show that the New Orleans metro is ranked 19th overall for the cost of doing business, tied with Mobile and Jacksonville. This does not mean that the New Orleans metro was higher for all factors, in fact for some data points the region is less expensive than most of the competitor regions.

The ranked metros scores are summarized in the table below (1 is the best rankings, 23 the worst). In some cases current data is not available (NA) for a specific metro area, and statistical adjustments were made. Detailed data on each index was developed for St. Tammany Corp. to allow them to piece together a specific analysis for each client.

Cost of Doing Business Index - 11 factors

MSA	Median Sales Price of Existing Home (Q1, 2018) METRO	Metro Steel Frame Construction Cost Index As Percent of US Cost (July 2017) METRO	Square Foot Cost 40K sf office building construc- tion (2018) METRO	Cost-of- Living Adjusted Hourly Wage For Private Sector Jobs (2017) METRO	Percent of Renters Paying More Than 35% of Income Toward Rent (2016) METRO	Violent Crime per 100,000 populati on (2017) METRO	Average Retail Electricity Price for Industrial Customers, Cents Per KwH (July 2018) STATE	Regula- tory Policy Freedom Ranking (2018) STATE	Legal Climate Ranking (2017) STATE	Busi- ness Cost Ranking (2017) STATE	Individ- ual Income Tax Ranking (2019) STATE	Average Rank
Knoxville	11	not available	7	3	8	11	7	5	4	12	6	7.4
Oklahoma City	3	9	13	7	5	14	1	9	7	5	17	8.2
Tulsa	6	not available	10	11	3	18	1	9	7	5	17	8.7
Raleigh	24	14	2	4	2	1	17	14	9	1	9	8.8
El Paso	4	1	3	24	9	6	10	21	15	3	4	9.1
Greensboro	5	not available	1	16	12	8	17	14	9	1	9	9.2
Omaha	10	8	23	12	1	7	24	1	1	7	12	9.6
Memphis	7	5	19	2	21	24	7	5	4	12	6	10.2
Nashville	20	7	20	6	7	21	7	5	4	12	6	10.5
Louisville	9	10	24	10	4	10	3	11	17	11	11	10.9

Little Rock	1	1	12	18	5	23	6	8	14	10	24	11.1
Houston	17	3	21	1	10	19	10	21	15	3	4	11.3
Greenville	15	not available	4	17	11	13	14	2	11	15	19	12.1
Columbia	8	11	5	20	14	16	14	2	11	15	19	12.3
Baton Rouge	14	not available	8	9	16	15	4	23	23	7	15	13.4
Charleston	23	12	6	19	18	9	14	2	11	15	19	13.5
Richmond	21	15	16	8	15	2	19	12	2	20	22	13.8
Birmingham	12	6	22	5	13	22	12	19	18	18	13	14.5
New Orleans	**13**	**4**	**18**	**15**	**24**	**17**	**4**	**23**	**23**	**7**	**15**	**14.8**
Mobile	2	not available	9	14	23	20	12	19	18	18	13	14.8
Jacksonville	18	12	11	13	17	12	21	16	20	22	1	14.8
Virginia Beach	16	not available	15	22	20	4	19	12	2	20	23	15.3
Cape Coral	19	not available	14	21	19	3	21	16	20	22	1	15.6
Sarasota	22	not available	17	23	22	5	21	16	20	22	1	16.9

The second index created was the **Talent Index**. The availability of skilled labor continues to be a top priority for both existing companies and those considering the region for relocation or expansion. Current talent, and the ability to grow and attract talent, were considerations for the 10 factors included in this index:

- Projected population growth 2016-2046
- Percentage of population born in a different state
- Millennials change in population 2010-2016
- Population over age 25 with a Bachelor's or advanced degree
- Population over age 25 with post-secondary education
- "Best Cities for Professional Opportunities"
- Percentage of people working from home
- State average ACT scores
- State average SAT scores
- Change in state spending per student for higher education 2008-2018

Talent Index - 10 factors

MSA	Projected Population Growth (2016 - 2046) METRO	Percent of Population That Was Born in Different State (2016) METRO	Millennial Change in Share of Total Population (2010-2016) METRO	Best Cities for Professional Opportunity (2018) METRO	Percent of People Working From Home (2016) METRO	Population Over Age 25 With post-secondary education (2017) METRO	Population Over Age 25 With Bachelor's and/or Advanced Degree (2017) METRO	State Average ACT scores (2018) STATE	State Average SAT scores (2017) STATE	Change in State Spending Per Student For Higher Education, Inflated Adjusted (2008-2018) STATE	average rank
Nashville	7	7	2	9	4	9	5	10	3	2	5.8
Raleigh	2	6	9	3	1	1	1	18	13	13	6.7
Omaha	10	11	12	11	15	2	2	6	1	1	7.1

Richmond	14	14	4	6	6	5	3	1	11	9	7.3
Virginia Beach	16	3	1	19	13	3	9	1	11	9	8.5
Sarasota	4	1	22	not available	2	10	8	7	22	5	9.0
Jacksonville	6	4	15	13	4	7	10	7	22	5	9.3
Charleston	5	5	17	1	6	4	4	22	15	16	9.5
Houston	3	20	4	10	12	14	7	3	20	11	10.4
Columbia	11	10	4	2	18	6	6	22	15	16	11.0
Knoxville	17	12	18	4	9	21	16	10	3	2	11.2
Cape Coral	1	2	21	17	3	20	22	7	22	5	12.0
Louisville	18	18	4	15	13	15	17	5	2	15	12.2
Oklahoma City	9	15	9	7	15	8	11	14	18	19	12.5
Little Rock	19	16	4	18	21	10	13	13	6	8	12.8
Greensboro	15	17	14	12	8	15	15	18	13	13	14.0
Memphis	20	8	18	22	23	18	20	10	3	2	14.4
Tulsa	13	13	15	8	11	13	21	14	18	19	14.5
El Paso	8	24	12	14	19	24	24	3	20	11	15.9
New Orleans	**23**	**22**	**2**	**20**	**19**	**17**	**12**	**16**	**7**	**23**	**16.1**
Birmingham	22	21	18	5	21	12	14	18	9	21	16.1
Greenville	12	9	23	not available	15	19	19	22	15	16	16.7
Baton Rouge	21	23	9	16	24	22	18	16	7	23	17.9
Mobile	24	19	24	21	10	23	23	18	9	21	19.2

For this index the New Orleans metro ranked as the 20th, tied with Birmingham. The New Orleans metro ranked high on the change of millennial population in recent years and State Average SAT scores.

The data set arms the St. Tammany Corp. with many ways to evaluate and sell the region's ability to meet the talent needs of clients. The chart below measures each region's change in Millennial population against the population with at least a bachelor's degree. The combination is a good quick look at a place's ability to attract talent and shows a marketable strength for the region.

Ability to Attract Highly Educated Talent
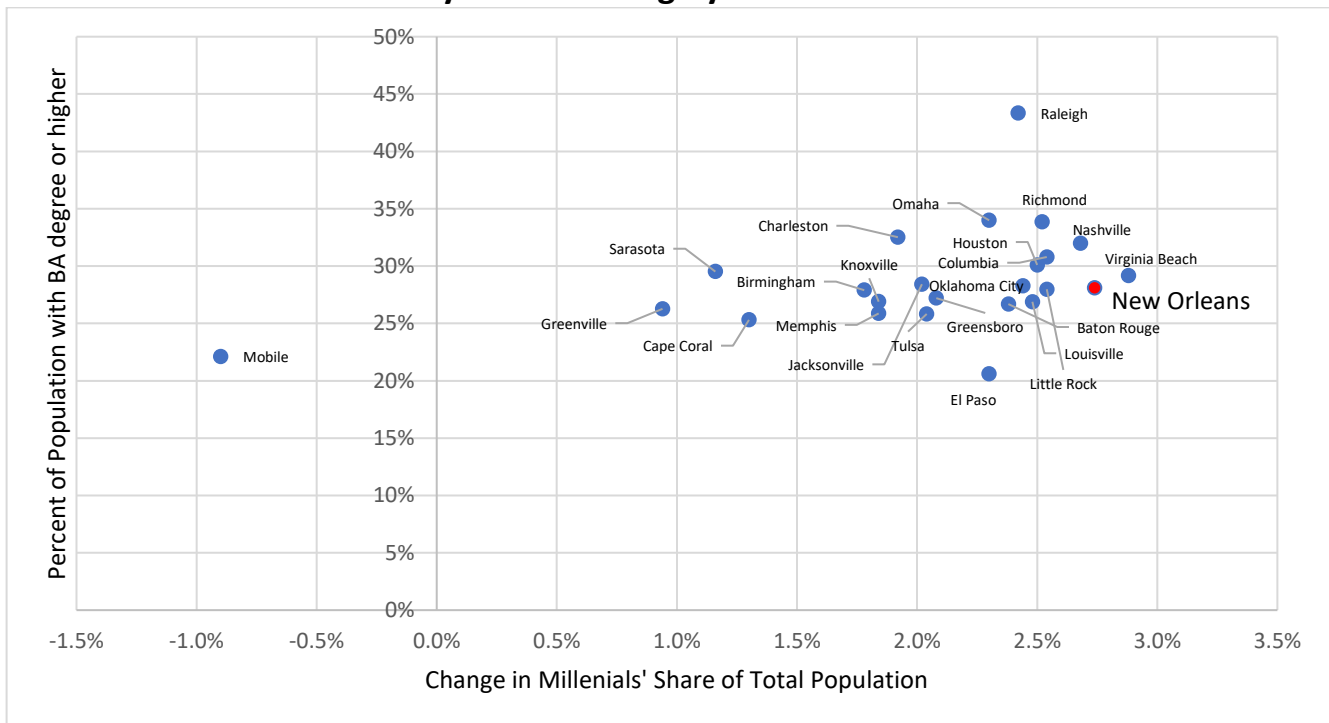
Because metropolitan areas are facing rapid globalization, their ability to attract Foreign Direct Investment, engage in international trade and appeal to highly skilled foreign-born talent is of critical importance. The third index is a **Global Engagement Index** which has the following six factors:

- Total 5-year export growth
- Export share of GDP
- Growth in total export supported jobs
- Export supported jobs as percent of total jobs
- Percentage of population foreign born
- Employment in U.S. subsidiaries of foreign companies as a percentage of Employment

For this index the New Orleans metro ranked as the 8th best. Only Raleigh, Houston, Charleston, Nashville, Louisville, Baton Rouge and Greenville, SC ranked ahead of New Orleans.

Global Engagement Index - 10 factors

MSA	Total International Exports 5 Year Growth Rate (2012-2017) METRO	Export Share of GDP (2017) METRO	Growth in Total Export Supported Jobs (2003-2017) METRO	Total Export Supported Jobs as Percent of Total Jobs (2017) METRO	Percent of Population That Was Foreign Born (2016) METRO	Employment of US Subsidies As Percentage of Total Employment (2015) STATE	Average Rank
Raleigh	7	10	2	7	5	6	6.2
Houston	19	3	1	1	2	13	6.5
Charleston	1	7	4	9	18	3	7.0
Nashville	3	11	5	9	9	8	7.5
Louisville	10	6	7	6	16	2	7.8
Baton Rouge	4	1	3	3	23	20	9.0
Greensboro	21	4	15	2	6	6	9.0
New Orleans	**6**	**2**	**13**	**5**	**10**	**20**	**9.3**
El Paso	2	12	20	15	1	13	10.5
Greenville	13	5	23	4	15	3	10.5
Columbia	5	13	19	13	19	3	12.0
Cape Coral	9	22	11	16	3	17	13.0
Omaha	12	15	8	11	12	22	13.3
Knoxville	16	8	21	8	20	8	13.5
Birmingham	11	17	5	19	20	11	13.8
Memphis	14	14	18	14	17	8	14.2
Little Rock	18	18	9	20	20	1	14.3
Richmond	20	19	12	18	11	13	15.5
Virginia Beach	8	21	22	17	13	13	15.7
Tulsa	24	9	16	11	14	23	16.2
Jacksonville	22	20	10	22	7	17	16.3
Sarasota	17	23	14	23	4	17	16.3
Mobile	15	not available	not available	not available	24	11	16.7
Oklahoma City	23	16	17	21	8	23	18.0

The fourth index, the **Momentum Index**, was developed to measure current economic activity, and includes common factors such as population, gross metropolitan product, wages and productivity.

The 10 factors are listed below:

- Change in average weekly wage – 10 years
- Total employment growth – 10 years
- Metro GDP growth – one year
- Projected metro GDP growth
- Population change – 5 years
- Advanced industry output annual growth
- Metro Gross Domestic Product per capita

- Change in real productivity – 5 years
- Age 25-44 population growth
- Change in state spending per student

Momentum Index - 10 factors

MSA	Real GDP Per Capita (2017) METRO	Real Gross Metro Product Growth Rate (2016-2017) METRO	Projected Annual Average GDP Growth Rate (2015 - 2021) METRO	Change in Average Weekly Wage (2007-2017) METRO	Total Employment Growth Rate (2007 - 2017) METRO	Population Change (2012-2017) METRO	Advanced Industry Output Annual Growth (2015-2017) METRO	Change in Real Productivity (2011-2016) STATE	Age 25-44 Population Growth (2011-2016) STATE	Change in State Spending Per Student For Higher Education, Inflated Adjusted (2008-2018) STATE	Average Rank
Nashville	2	2	4	7	2	6	4	5	18	2	5.2
Charleston	14	1	3	2	4	5	1	10	13	16	6.9
Raleigh	6	4	2	4	3	2	5	15	16	13	7.0
Houston	1	19	4	15	5	4	23	3	1	11	8.6
Oklahoma City	10	7	11	1	12	8	24	1	3	19	9.6
Omaha	3	16	11	8	13	10	17	8	10	1	9.7
Knoxville	19	9	15	6	6	15	6	5	18	2	10.1
Jacksonville	17	3	7	20	9	7	10	20	5	5	10.3
Greenville	20	5	11	11	1	9	9	10	13	16	10.5
Cape Coral	23	10	1	24	7	1	12	20	5	5	10.8
Richmond	5	5	11	21	16	12	8	18	11	9	11.6
Sarasota	22	7	4	19	17	3	15	20	5	5	11.7
Baton Rouge	7	22	9	3	15	19	2	23	8	23	13.1
Columbia	18	21	7	10	11	11	14	10	13	16	13.1
El Paso	24	18	16	17	8	22	13	3	1	11	13.3
Tulsa	4	24	17	13	18	13	22	1	3	19	13.4
Louisville	9	10	17	9	14	17	3	17	24	15	13.5
Little Rock	15	14	10	23	19	18	18	9	18	8	15.2
Memphis	16	17	17	18	21	23	16	5	18	2	15.3
Greensboro	13	10	21	16	24	16	11	15	16	13	15.5
Virginia Beach	12	14	22	11	20	20	18	18	11	9	15.5
New Orleans	**8**	**23**	**17**	**22**	**10**	**14**	**21**	**23**	**8**	**23**	**16.9**
Mobile	21	20	22	5	23	24	7	13	22	21	17.8
Birmingham	11	13	22	14	22	21	20	13	22	21	17.9

For this index the New Orleans metro ranked 22nd among the 24 competitors. Only Mobile and Birmingham ranked behind New Orleans. This reflects the recent slowdown in the region's overall economic activity.

The fifth and final index, the **Future Index**, was developed to help the St. Tammany Corp. staff anticipate future economic success. The 10 factors listed below focus on overall economic strength, growth in the industries expected to increase in the coming years, anticipated infrastructure

demands, and the dependence ratios of the population.

- Economic strength ranking
- Prosperity rankings
- Percentage change in professional and business services
- Roads in poor conditions
- Congestion delays
- Patents issued
- Concentrations of high-tech industries
- Advanced industry employment growth
- Households with people over 65
- R&D in Science and Engineering

Future Index - 10 factors

MSA	Policom Economic Strength Rankings (2018) METRO	Pros-perity - (2011-2016) Brookings Metro Monitor 2018 report METRO	Percent Change in Profes-sional & Business Services Jobs (2007 - 2017) METRO	Households with 1 or More People Over Age 65 (2016) METRO	Percent of Roads in Poor Condition (2015) METRO	Traffic Congenstion - overall % increase in travel time due to congestion (2016) METRO	Total Patents Issued (2000-2015) METRO	Milken High Tech Indus-tries with LQ >=1 (2016) METRO	Advanced Industry Employment Annual Growth (2015-2017) METRO	Higher Education R&D in S&E Fields as a Percentage of GDP (FY2015 - 2018 report) STATE	Average Rank
Raleigh	2	5	5	1	5	13	2	1	4	1	3.9
Nashville	1	3	2	4	6	18	6	4	2	6	5.2
Knoxville	8	13	1	22	3	2	7	4	6	6	7.2
Greenville	19	8	4	20	12	13	3	2	8	9	9.8
Charleston	6	11	3	9	3	21	21	13	3	9	9.9
Houston	3	2	7	2	15	20	1	17	24	12	10.3
Louisville	11	6	12	15	13	10	8	13	1	16	10.5
Omaha	5	4	10	3	23	3	17	17	18	5	10.5
Richmond	4	15	11	15	17	3	5	13	11	14	10.8
Columbia,	10	10	9	8	8	6	20	17	14	9	11.1
Greensboro	23	20	17	17	10	1	14	2	9	1	11.4
Memphis,	16	14	14	7	18	10	4	13	12	6	11.4
Jacksonville	13	17	8	17	1	13	12	8	9	19	11.7
Oklahoma City	9	1	13	4	22	7	11	17	21	23	12.8
Mobile	24	not available	19	20	not available	not available	9	8	13	3	13.7
Birmingham	12	12	22	19	10	9	18	17	17	3	13.9
Virginia Beach	15	19	18	12	15	13	10	8	16	14	14.0
El Paso	22	9	15	11	14	10	24	4	20	12	14.1
Cape Coral	18	16	6	23	2	17	23	17	5	19	14.6
Little Rock	17	18	20	10	9	7	22	4	19	22	14.8
Tulsa	14	7	23	14	21	5	13	8	22	23	15.0
Sarasota	21	21	24	24	6	not available	15	8	7	19	16.1
Baton Rouge	7	22	21	6	19	22	19	17	15	16	16.4
New Orleans	**20**	**23**	**16**	**13**	**19**	**18**	**16**	**17**	**22**	**16**	**18.0**

New Orleans is ranked as the last place metro, at 24th, for these factors, with no individual rankings in the top half of the selected metros.

When looking to the future, measuring the growth of advanced industries is of particular importance. The Brookings Institute identified a group of 50 research and development and STEM (science-technology-engineering-mathematics) worker-intensive industries. The chart below measures both the advanced industry output, and employment growth in recent years, and shows communities that have grown their advanced industries in recent years.

Advanced Industry Growth 2015-2017
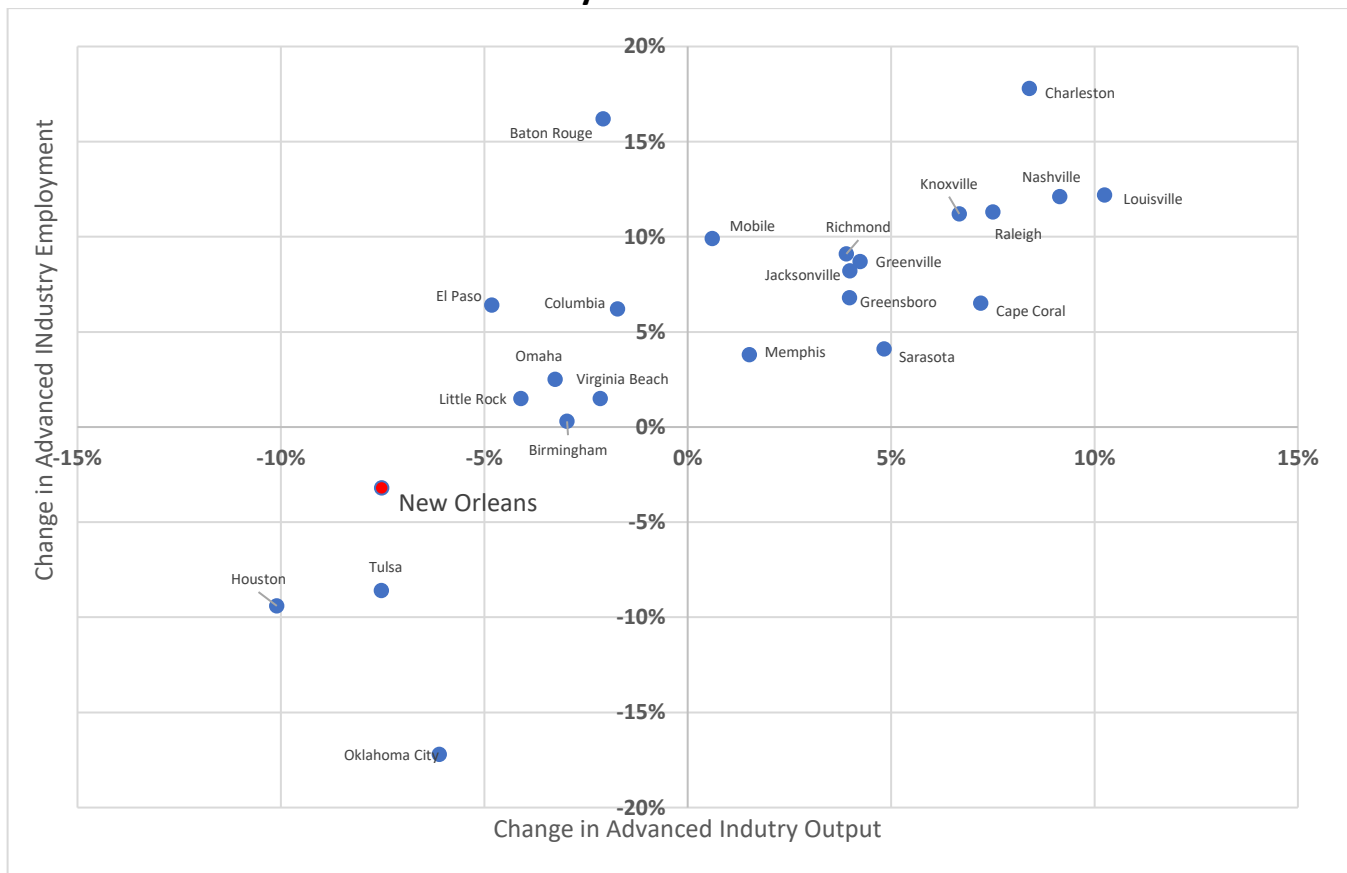
Finally, Economic Leadership combined the five indexes into an aggregate score to allow the St. Tammany Corp. staff to get a general idea of the strongest competitors. The New Orleans metro and each of the competitor regions were ranked based on the combined data points. The New Orleans metro was ranked 22nd, tied with Birmingham among the 23 metros evaluated.

MSA	COST OF DOING BUSINESS	TALENT	FUTURE	GLOBAL	MOMENTUM	TOTAL OF SCORES	RANKING
Raleigh	4	2	1	1	3	11	1
Nashville	9	1	2	4	1	17	2
Houston	12	9	6	2	4	33	3
Charleston	16	8	5	3	2	34	4
Knoxville	1	11	3	14	7	36	5T
Omaha	7	3	7T	13	6	36	5T
Louisville	10	13	7T	5	17	52	7
Greenville	13	22	4	9T	9	57	8
Columbia	14	10	10	11	13T	58	9
Greensboro	6	16	11T	6T	20T	59	10T
Oklahoma City	2	14	14	24	5	59	10T
Richmond	17	4	9	18	11	59	10T
El Paso	5	19	18	9T	15	66	13
Jacksonville	19	7	13	21T	8	68	14
Memphis	8	17	11T	16	19	71	15
Cape Coral	23	12	19	12	10	76	16
Tulsa	3	18	21	20	16	78	17
Baton Rouge	15	23	23	6T	13T	80	18
Little Rock	11	15	20	17	18	81	19
Virginia Beach	22	5	17	19	20T	83	20
Sarasota	24	6	22	21T	12	85	21
New Orleans	**19T**	**20T**	**24**	**8**	**22**	**93**	**22T**
Birmingham	18	20T	16	15	24	93	22T
Mobile	19T	24	15	23	23	104	24

🟩	TOP 6 RANKING
🟥	BOTTOM 6 RANKING

Conclusions

The state and metro competitiveness analysis combined with the cluster assessment, shows that St. Tammany Parish needs to focus on specific sectors and opportunities where there are reasons for a company to consider investment. The region has strong infrastructure, a global engagement history and specific strengths in energy and water. The parish can play an important regional role as a center for white collar business services and finance jobs that would allow businesses to locate close to a

desired residential location. Emerging technology sectors, broadly defined, offer an opportunity to exploit the sectors new regional momentum.
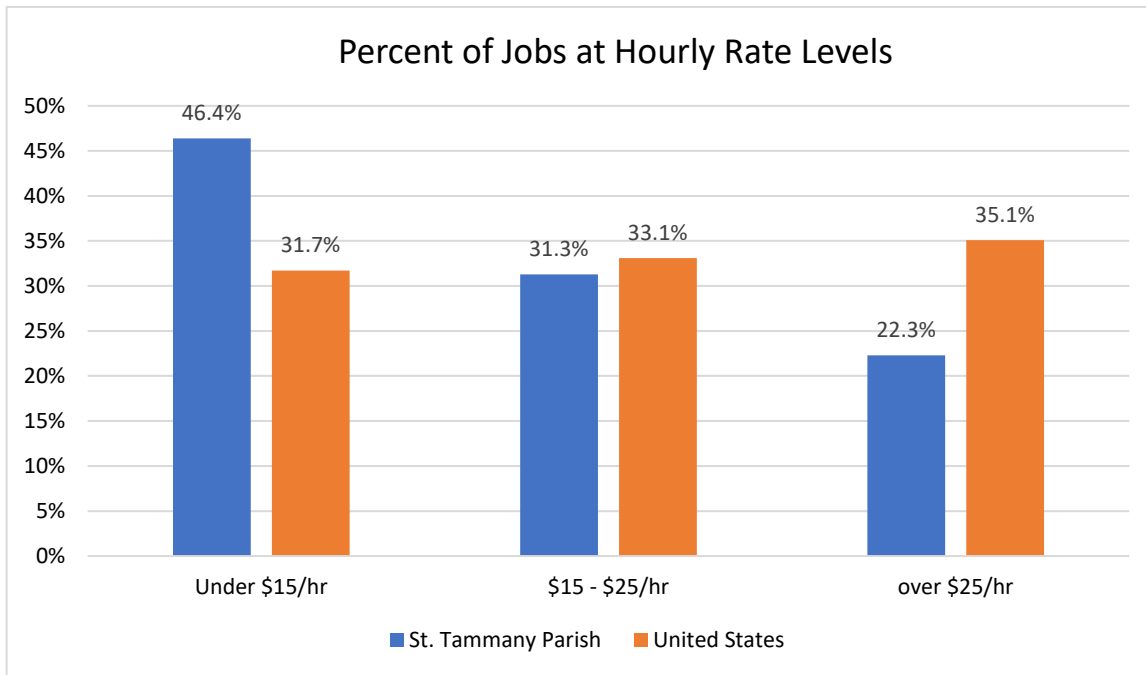
Job Quality in St. Tammany Parish
Another priority of the St. Tammany Corp. is to increase the quality of employment opportunities within the Parish. By offering more high wage jobs within the Parish, there is potential for local citizens to forgo long commutes, and the current strains on local road infrastructure to be mitigated.

2017 Jobs by Wages
An analysis of the jobs by average wages per hour shows the diversity of job quality across the Parish. Just under half (47%) of the jobs pay $15 per hour or less, about $30,000 per year or less. At the other extreme, just under a quarter of all jobs (22%), pay over $25/Hour, approximately over $50,000 annually. Job quality varies within the different cities with a higher percentage of lower paying jobs in Slidell and a higher percentage of higher paying jobs in Covington. The information for average household income for the Parish, combined with out-commuting numbers, suggests that many residents out commute each day for higher paying jobs.

St. Tammany Parish

over $25/Hour
22%

under $15/Hour
47%
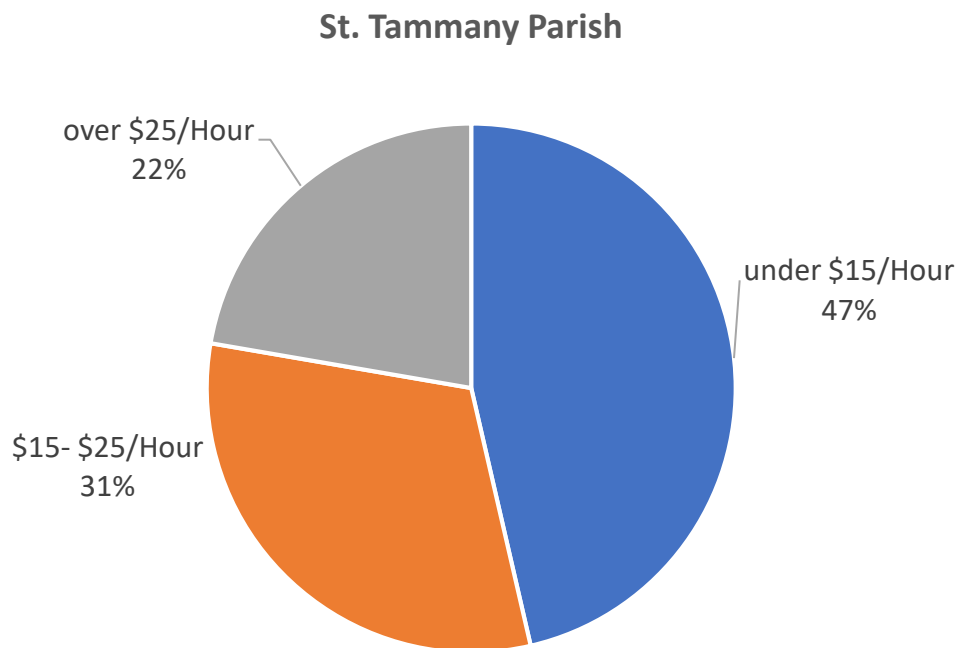
$15- $25/Hour
31%

2017 Occupations	St. Tammany	Slidell	Mandeville	Covington	LaCombe
Under $15/Hour	46%	53%	49%	44%	48%
$15-$25/Hour	31%	27%	30%	30%	30%
Over $25/Hour	22%	20%	21%	25%	22%
Jobs Analyzed	92,102	27,782	17,275	37,520	1,589

Percent of Jobs at Hourly Rate Levels

Legend: St. Tammany Parish, United States

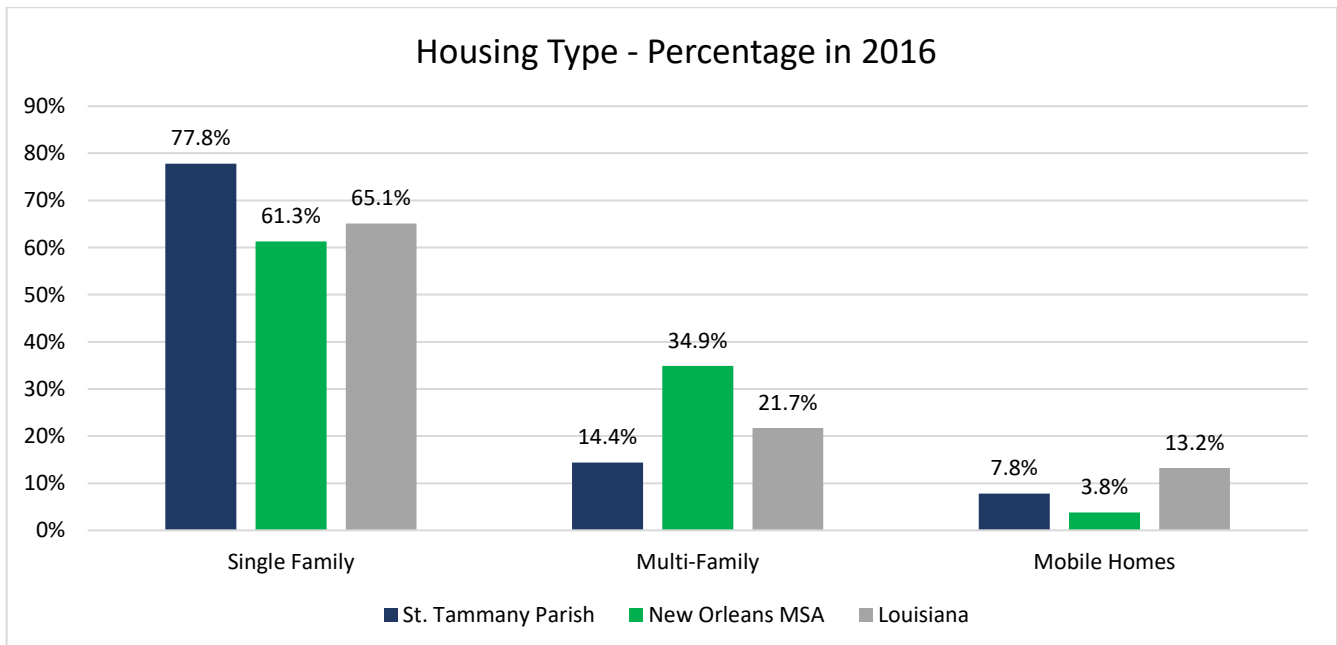|	Under $15/hr	$15 - $25/hr	over $25/hr
St. Tammany Parish	46.4%	31.3%	22.3%
United States	31.7%	33.1%	35.1%

St. Tammany Parish Housing Assessment

St. Tammany Parish had 103,364 housing units in 2017 (US Census, Annual Estimates of Housing Units). The Parish has had steady growth in the housing market from 2010 through 2017. The local 8.3 percent increase from 2010-2017 is greater than the housing unit growth in Louisiana of 4.7 percent and the U.S. of 4.2 percent.

St. Tammany Parish Number of Housing Units

95,577 ... **103,364**

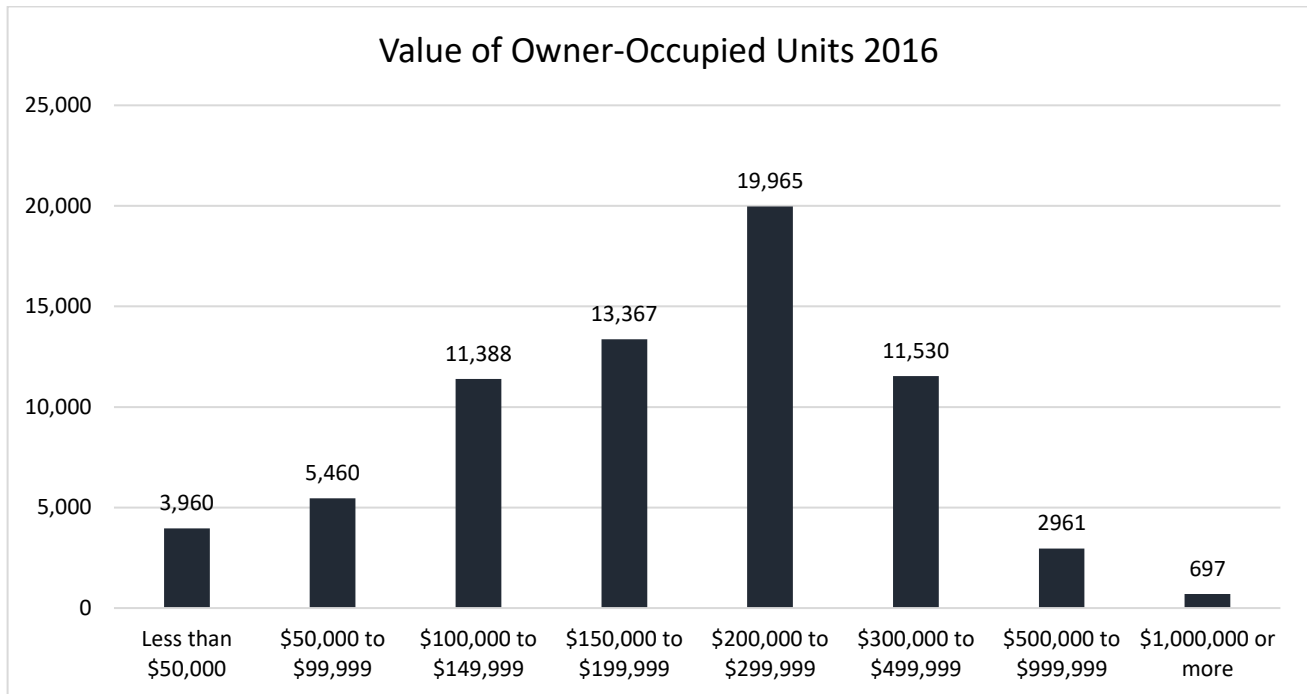2010 2011 2012 2013 2014 2015 2016 2017
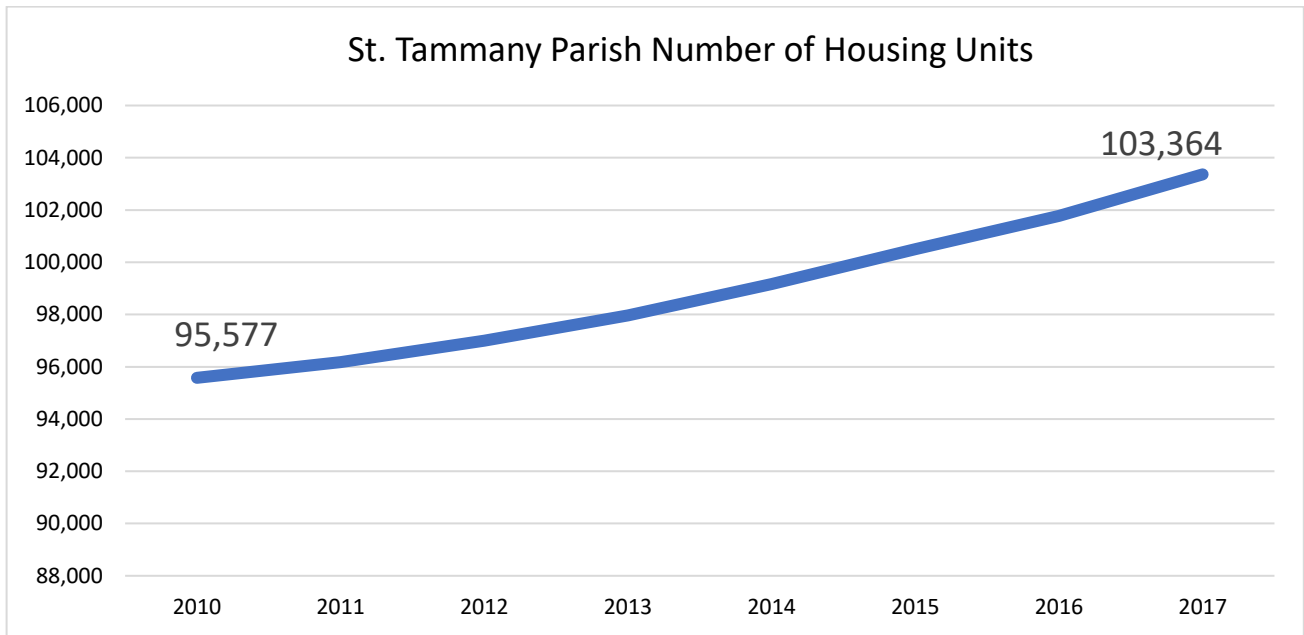
Source: US Census, 2017. Annual Estimate of Housing Units

The U.S. Census produces two different estimates of housing units. The 5 Year American Community Survey (ACS) estimates only include housing units that are part of the current housing supply, and do not include derelict, abandoned or units that are withheld from the market. The ACS 5 Year 2016 estimates 98,916 housing units. All of the comparative data presented here is based on this survey. Of the nearly 100,000 housing units in 2016, most, 77.8 percent, are single-family detached, which is greater that the New Orleans MSA where 61.3 percent are single-family detached. Fourteen percent of the St. Tammany Parish housing stock is multi-family units and 7.8 percent is mobile homes. Renter-occupied housing accounts for 22.9 percent of total housing units, and 77.1 percent is owner-occupied. Louisiana's owner-occupied rate is more than ten percent lower, 65.4 percent.
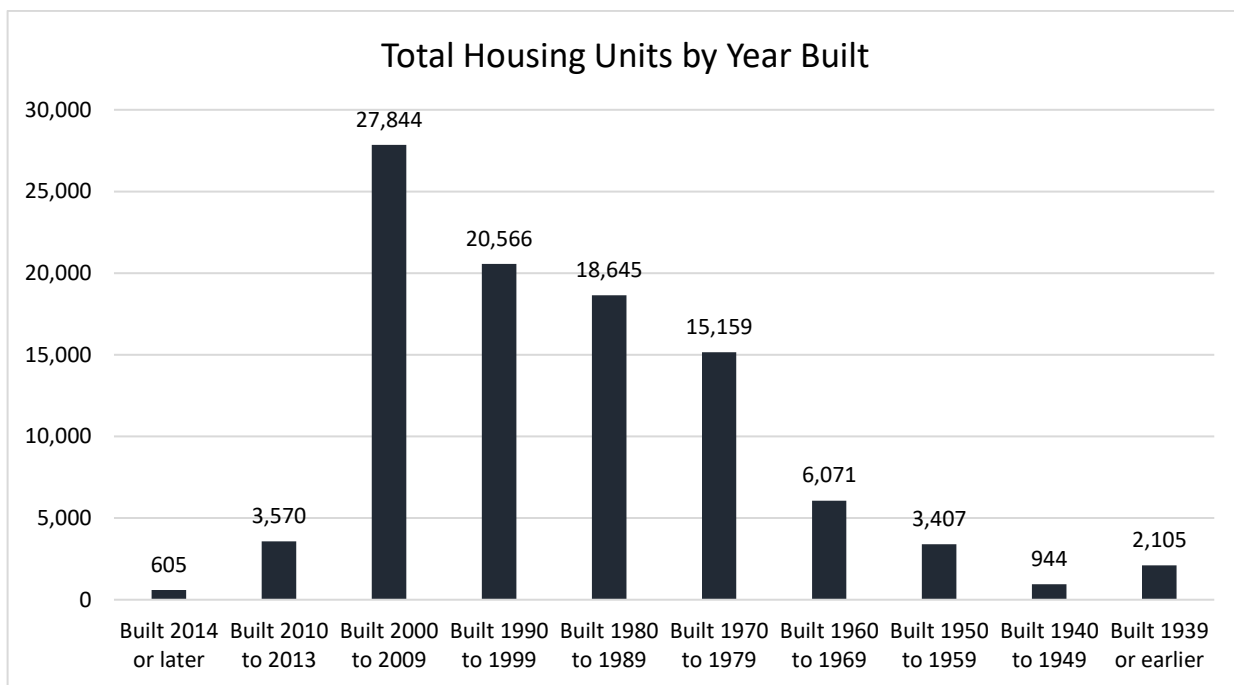
Housing Type - Percentage in 2016

	St. Tammany Parish	New Orleans MSA	Louisiana
Single Family	77.8%	61.3%	65.1%
Multi-Family	14.4%	34.9%	21.7%
Mobile Homes	7.8%	3.8%	13.2%

Information from Zillow research for property sales from August 2017 to August 2018 shows that there were 5,028 sales of single-family houses, condos & townhouses. Homes were sold for an average of $203,142. Based on financial norms, this average price home is affordable for a family earning $63,000 a year. Just over half of St. Tammany Parish households have an income over $60,000 a year.

Value of Owner-Occupied Units 2016

Category	Value
Less than $50,000	3,960
$50,000 to $99,999	5,460
$100,000 to $149,999	11,388
$150,000 to $199,999	13,367
$200,000 to $299,999	19,965
$300,000 to $499,999	11,530
$500,000 to $999,999	2961
$1,000,000 or more	697

Total Housing Units by Year Built

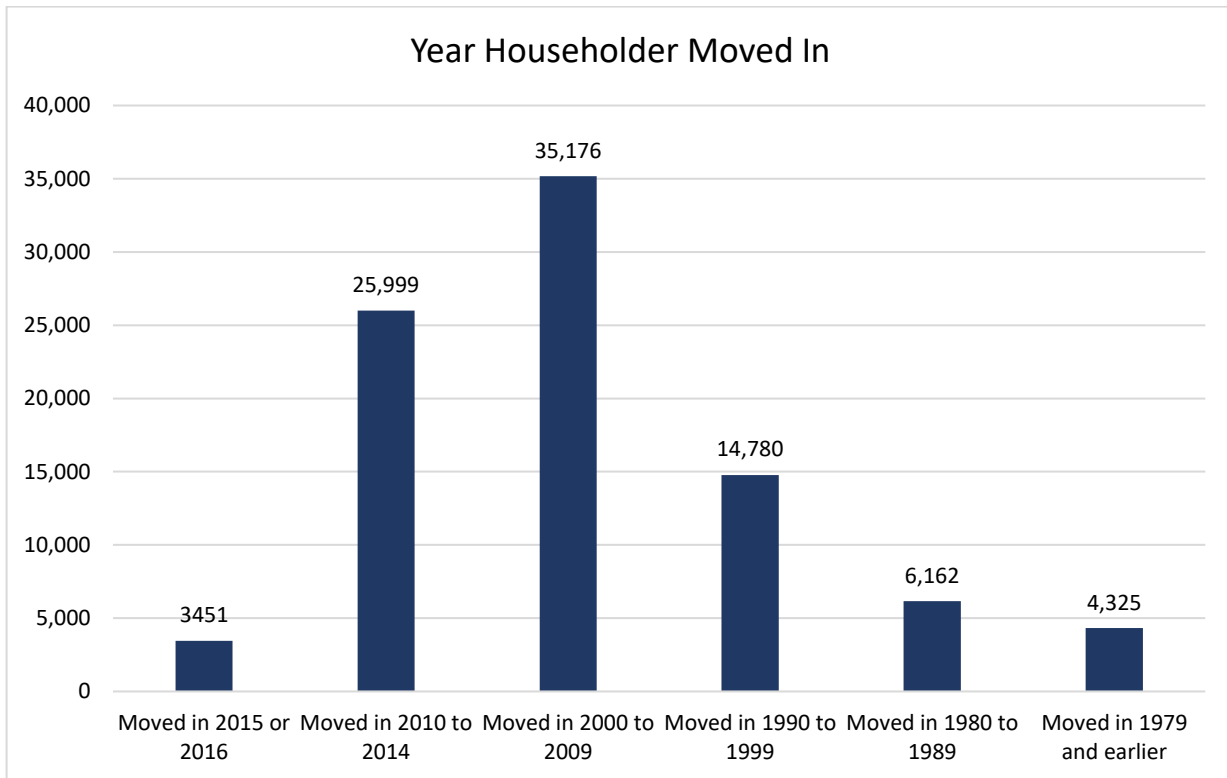| Category	Value
Built 2014 or later	605
Built 2010 to 2013	3,570
Built 2000 to 2009	27,844
Built 1990 to 1999	20,566
Built 1980 to 1989	18,645
Built 1970 to 1979	15,159
Built 1960 to 1969	6,071
Built 1950 to 1959	3,407
Built 1940 to 1949	944
Built 1939 or earlier	2,105

The following section contains building permit data that is only for St Tammany Parish unincorporated areas and will need to be revised at a later date. St. Tammany Corp. staff is doing more research on building permit data in the towns.

Overall 95.8 percent of occupied housing in the Parish was built before 2010. The "built date" is from the original build and is not updated or changed to reflect houses that have undergone extensive renovations or additions. The growth in overall housing units per the ACS 5 YR 2016 data is 5,337 units from 2010-2016. This is consistent with the housing permit data provided by the St. Tammany Parish Department of Permits, which records 5,424 single family new construction building permits issued from 2009-2015. The one-year difference in time period accounts for construction time.

Single Family Residential Building Permits Issued by Year

Year	Permits
2004	2,920
2005	2,255
2006	2,238
2007	1,310
2008	799
2009	535
2010	549
2011	624
2012	736
2013	952
2014	1,011
2015	1,017
2016	1,163
2017	1,236
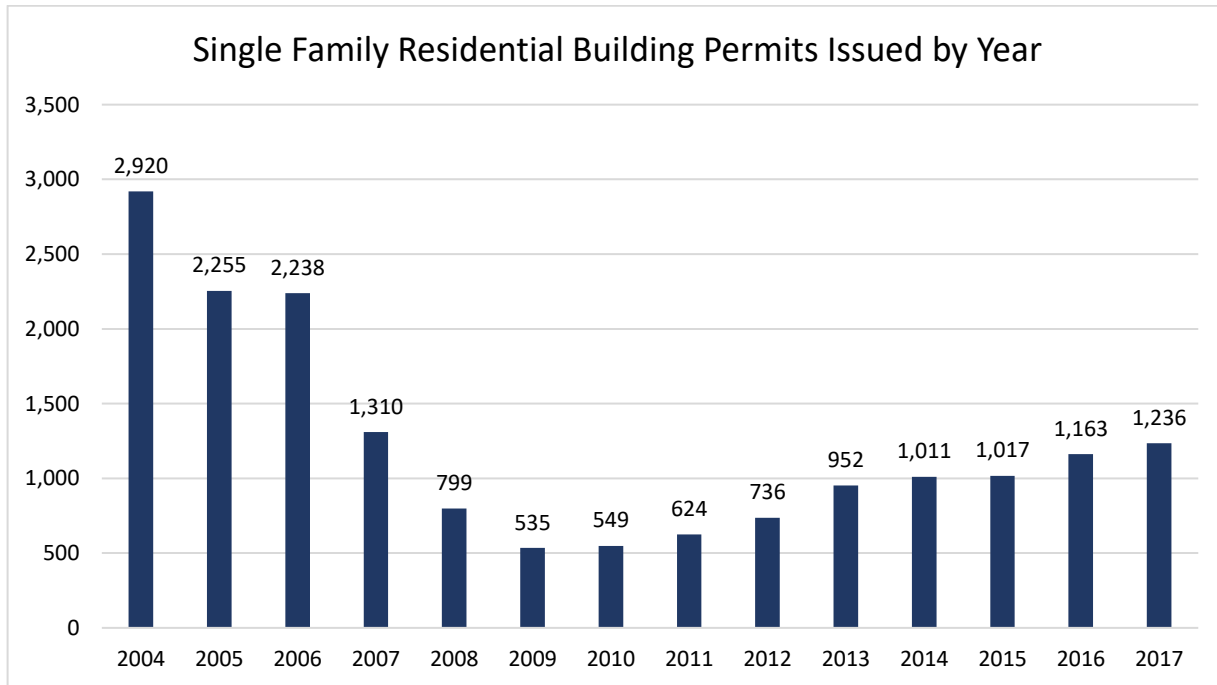
Source: St Tammany Parish Department of Permits

Considering the age of the housing stock, it is likely that the older existing homes, about half of which were built between 1990-2010, do not include the current trends in amenities and floorplans sought after by young professionals. There has been an influx of new households with almost 40 percent of current household moving into their homes between 2000 and 2009. Almost one third of households have moved into their homes since 2010.

Year Householder Moved In

Category	Value
Moved in 2015 or 2016	3451
Moved in 2010 to 2014	25,999
Moved in 2000 to 2009	35,176
Moved in 1990 to 1999	14,780
Moved in 1980 to 1989	6,162
Moved in 1979 and earlier	4,325

Source: US Census, ACS 5 YR 2016

Housing affordability for owner-occupants with household incomes between $35,000 and $100,000 should be very attractive to families. The chart below shows housing affordability at various income levels by the income needed to qualify for a conventional 30-year mortgage with a five percent down payment. 42.9 percent of St. Tammany Parish households have incomes between $35,000 and $100,000, and can qualify for houses priced between $120,000 to $355,000. Homes in this price range account for 66 percent of the existing owner-occupied homes. There is less choice at the upper and lower ends of the household income spectrum.

Housing Affordable to St. Tammany Parish Households by Income

under $67K	$67K to $120K	$120K to $175K	$175K to $262K	$262K to $355K	over $355K

— % of Households by Income
— % of Owner-Occupied Homes by Value

28.3%
29.1%
22.3%
15.4%
15.2%
14.4%
13.6%
17.8%
13.0%
12.1%
10.7%
8.0%

Household Income: under $20,000 | $20,000 to $34,999 | $35,000 to $49,999 | $50,000 to $74,999 | $75,000 to $99,999 | over $100,000
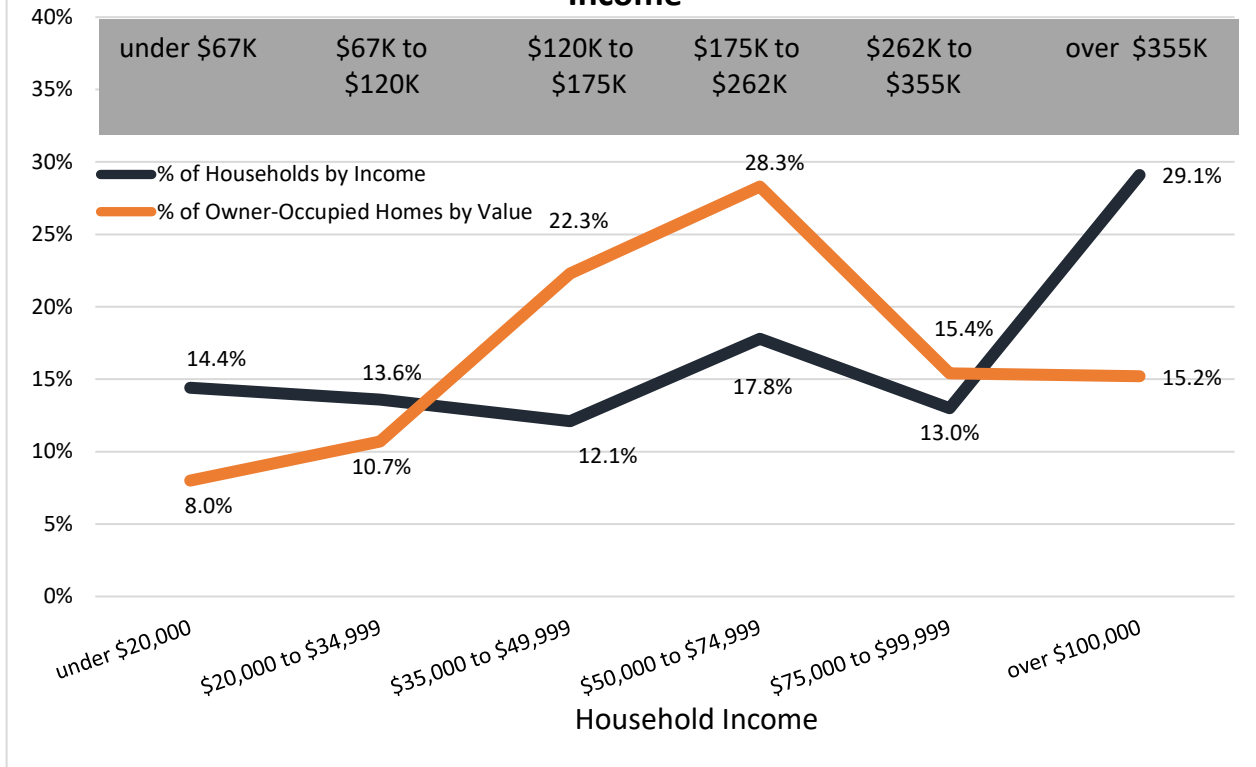
Source: US Census, ACS 5 YR 2016

Only 22.9 percent of St. Tammany Parish's occupied housing units are renter-occupied. According to the U.S. Census ACS 5 YR 2016 survey, the rental vacancy rate was 9.5 percent, and the median rent for occupied units was $998. The chart below shows the monthly rental rate by unit size.
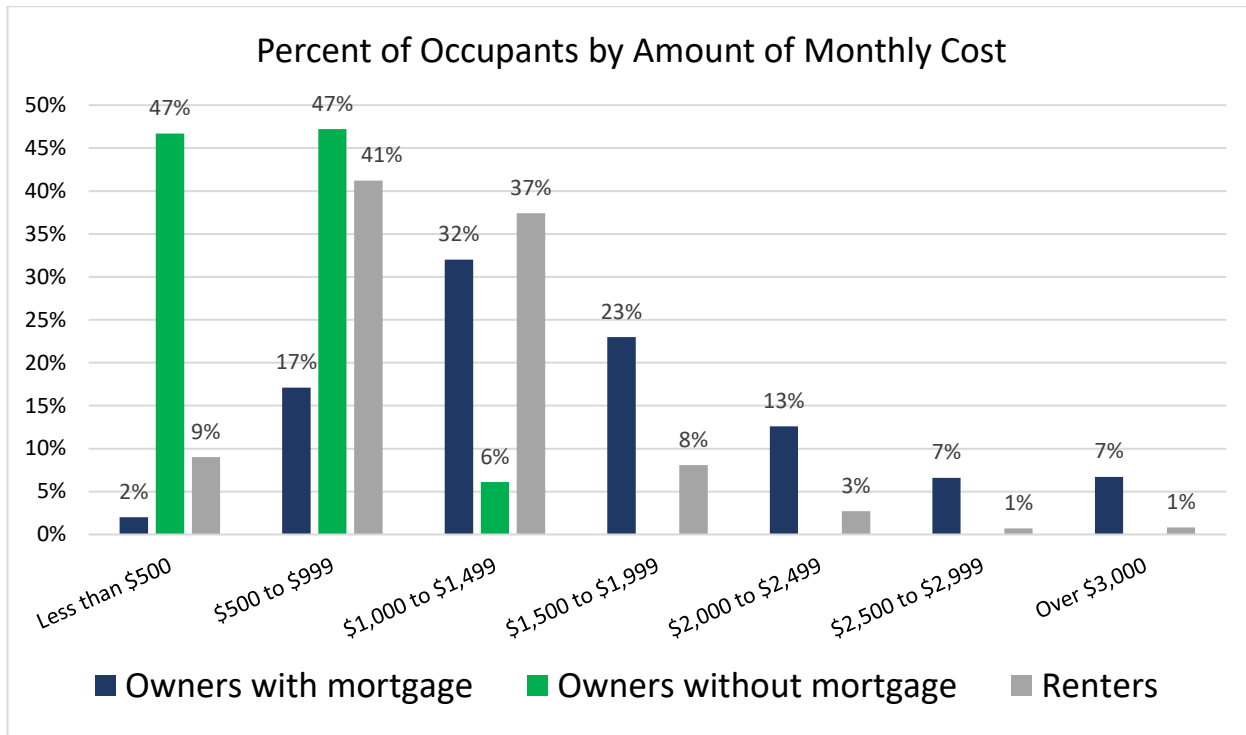
Rental Rates	Studio/No Bedroom	One Bedroom	Two Bedroom	3 Bedroom
Less than $300	5.9%	7.8%	1.8%	0.5%
$300 to $499	36.1%	8.3%	5.9%	4.0%
$500 to $749	19.7%	28.5%	16.0%	7.4%
$750 to $999	11.0%	37.7%	34.2%	11.7%
$1,000 to $1,499	11.6%	13.1%	31.4%	43.3%
$1,500 or more	12.9%	2.4%	4.2%	19.0%
No cash rent	2.8%	2.2%	6.4%	14.2%

Source: www.towncharts.com based on US Census, ACS 1 YR 2017
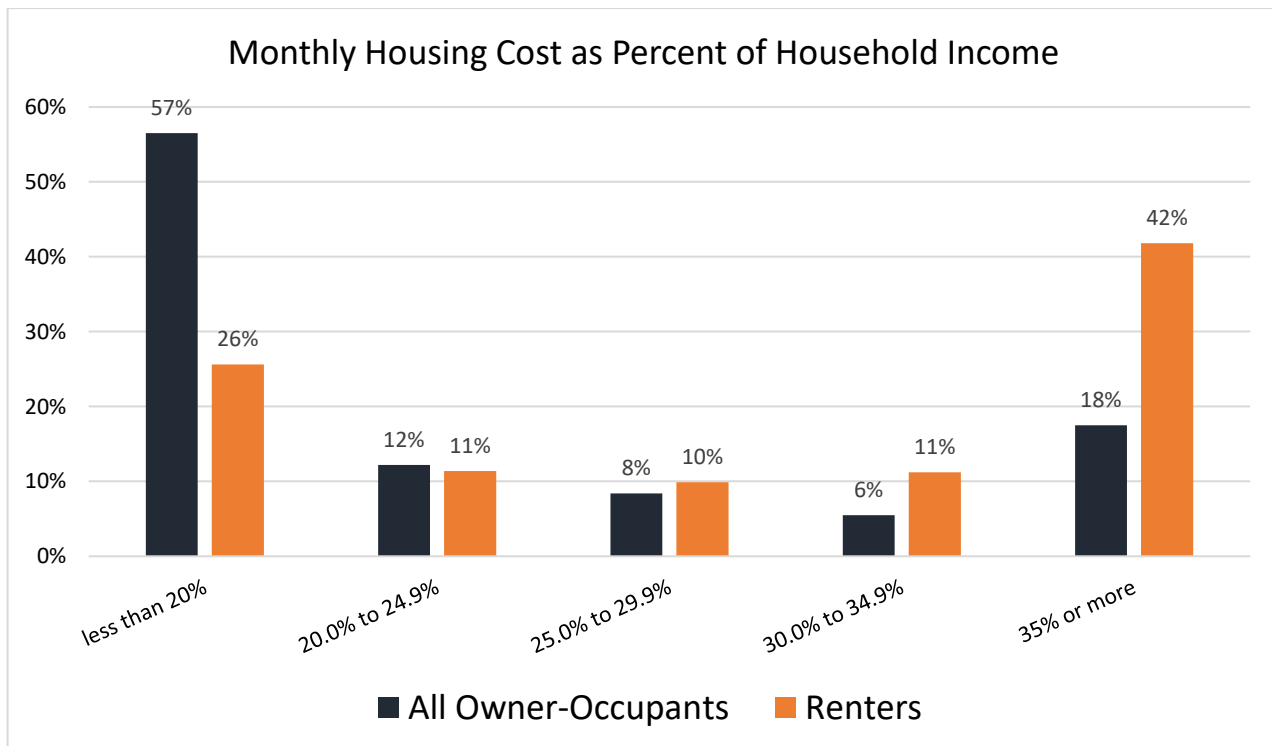
As the two charts below show, renters tend to spend more of their household income on housing costs than do all owner-occupants, while owner-occupants with a mortgage spend more in actual

dollars on housing. About a third of all owner-occupants in St. Tammany Parish do not have a mortgage.

Percent of Occupants by Amount of Monthly Cost

Monthly Cost	Owners with mortgage	Owners without mortgage	Renters
Less than $500	2%	47%	9%
$500 to $999	17%	47%	41%
$1,000 to $1,499	32%	6%	37%
$1,500 to $1,999	23%		8%
$2,000 to $2,499	13%		3%
$2,500 to $2,999	7%		1%
Over $3,000	7%		1%

■ Owners with mortgage   ■ Owners without mortgage   ■ Renters

Source: US Census, ACS 5 YR 2016

Monthly Housing Cost as Percent of Household Income

Percent of Income	All Owner-Occupants	Renters
less than 20%	57%	26%
20.0% to 24.9%	12%	11%
25.0% to 29.9%	8%	10%
30.0% to 34.9%	6%	11%
35% or more	18%	42%

■ All Owner-Occupants   ■ Renters

Source: US Census, ACS 5 YR 2016