

Greater New Orleans Jobs Report

PRESENTED BY





A word from Bank of America

As Bank of America has expanded its presence in the Greater New Orleans region over the past several years, GNO, Inc. has been a strong partner, and we are proud to continue our support of the Greater New Orleans Jobs Report.

In this year's report, you will find the current and projected middle and high skill occupational needs for five key industry sectors in the Greater New Orleans region—Advanced Manufacturing, Digital Media & Technology, Energy, Transportation & Logistics, and Health Sciences.

Workforce development is a priority for Bank of America and our clients. Working together, we can address workforce development and training needs that will help the region attract, retain, and expand businesses, create well-paying jobs, and grow revenues.

While the past two years have been challenging, we join GNO, Inc.'s staff, board, and partners in the belief that opportunities to drive this region forward are within our reach. We hope the findings help inform your company's talent attraction and retention strategies and lay the groundwork for the future of work in Greater New Orleans.

On behalf of our entire Bank of America team, we thank GNO, Inc. for their leadership, vision, and commitment to strengthening our local community, investing in NextGen talent, and elevating economic progress for the region.

Sincerely,

Jonathan MatessinoSenior Vice President of Global Commercial Banking Bank of America



A word from GNO, Inc.

At GNO, Inc., we believe that it is not simply enough to bring good jobs to Greater New Orleans. We must be deliberate in preparing our workforce with the necessary skills and education to access these high-wage, high-growth jobs.

With this in mind, GNO, Inc. released the inaugural Greater New Orleans Jobs report in 2019. This report provided an in-depth analysis of the jobs that would play a central role in the region's economy over the next decade. We then released the 2020 Greater New Orleans Jobs Report which, in light of the COVID-19 pandemic, examined the skills that would drive the economy as we began to recover.

The 2021 Greater New Orleans Jobs Report examines how our economy aligns with our educational institutions. It is our goal that this report will facilitate partnerships and collaboration between regional stakeholders to ensure that our workforce is developing the skills and education that align with high-wage, high-growth career opportunities.

Now more than ever, it is imperative that training programs in our region are aligned with demand. As our economy continues to evolve, we must remain nimble to ensure that our region's population has access to high-quality training programs in order to facilitate economic growth in an equitable manner.

I would like to give special thanks to Bank of America for providing the support that made it possible to publish the 2021 Greater New Orleans Jobs Report. As we work to prepare our workforce for the economy of the future, partnerships like this play a critical role.

Sincerely,

Michael Hecht President and CEO Greater New Orleans, Inc.



Contents

Introduction	5
Regional Outlook and Action Plan	
Industry Analysis	
Advanced Manufacturing	16
Digital Media and Technology	21
Energy	26
Health Sciences	31
Transportation and Logistics	36
Regional Higher Education and Training Providers	41

Introduction

As economic shifts continue to occur across the country and in the Greater New Orleans region, it is imperative that our region's workforce, and individuals preparing to enter the workforce, have the necessary training and education to access high-wage, high-growth careers. Not only is this important for ensuring the economy is able to grow, but it is a critical component in building an equitable economy. In the Greater New Orleans region, 76%¹ of all jobs require some form of education, training, or experience beyond solely a high school diploma.

Data indicates that the higher the level of training and education a worker has, the more likely they are to be insulated from job loss and benefit from higher earnings. In fact, according to the Bureau of Labor Statics (BLS), workers nationally with a bachelor's degree experienced median weekly earnings that were \$524 more than those with only a high school diploma. Further, according to the same data, the annual unemployment rate in 2020 for those with a bachelor's degree was 5.5% compared to 9% for those with only a high school diploma and 11.7% for those with less than a high school diploma.

However, in today's economy, it is equally important to ensure our region's workforce has the ability to access high-quality non-traditional training opportunities that provide workers with the necessary skills and credentials to access our region's jobs. These opportunities can include apprenticeships, on-the-job training, or rapid training programs (6-12 weeks or less). These types of programs play a critical role in building tangible skills amongst our region's workforce. In 2020, over 151,000 jobs in the Greater New Orleans region require a high school diploma and moderate- to long-term on-the-job training², some college with no degree, or a post-secondary nondegree³.

The BLS estimates that 24% of the civilian labor force in the United States possess some sort of certification or license.⁴ Similar to the data discussed above regarding unemployment and educational attainment levels, workers without a license or certification are more likely to be unemployed. While 25% of

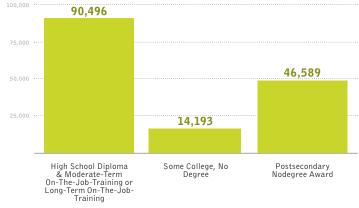
the employed workforce nationally held a license or certification, only 14% of unemployed workers possessed a certification or license. Further, for the population that possess a certification or license, median weekly earnings are \$276 more than those without a certification or license.

It is clear that increased levels of educational attainment and training lead to higher wages and employment stability. With all of this in mind, we must continue to work towards increasing training program participation rates across the board. Our region must be deliberate in aligning our degree programs, certifications, and credentials with our rapidly evolving economy, thus creating meaningful programs that provide access to high-wage, high-growth careers.

The 2021 Greater New Orleans Jobs Report sets out to examine the current training landscape in Greater New Orleans at both the high school and post-secondary levels. Further, this report provides in-depth analysis of the region's key industries and the jobs that are driving growth.

The data that follows is intended to serve as a tool for regional economic development, K-12, workforce development stakeholders, and higher education partners to help build meaningful training opportunities for individuals to access to high-wage, high-demand careers.

JOBS IN THE GNO REGION BY TYPICAL ENTRY LEVEL EDUCATION (2020)



Source: Emsi

¹ Source: GNO, Inc. analysis of Emsi 2021.3 data

² Note: Includes apprenticeships and internships

³ Source: GNO, Inc. analysis of Emsi 2021.3 data

⁴ Source: U.S. Bureau of Labor Statistics, 2020 Labor Force Statistics from the Current Population Survey

Greater New Orleans Education Outlook

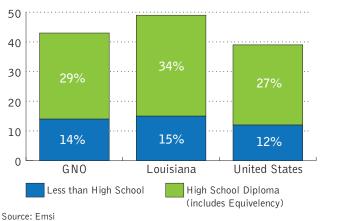
CURRENT LANDSCAPE

Economic growth and higher levels of education attainment have been shown to have a strong correlation. Education is not just a one-time event, but rather a lifelong process. As industry and environments change, so must education and learning. The Greater New Orleans region possesses a vast network of higher education, training providers, STEM learning organizations, and an ever-changing K-12 system. This network is a direct line to developing the workforce that provides economic mobility and prosperity. There is a clear need to examine the current educational landscape, especially as the region recovers from the continued impacts of the coronavirus pandemic that began in 2020. The pandemic exacerbated many of the education disparities that already existed in the region. The following sections seek to create a baseline of the current educational landscape in the region that will inform strategic planning and attainment goals to enhance systems improvements.

High School (Grades 9-12)

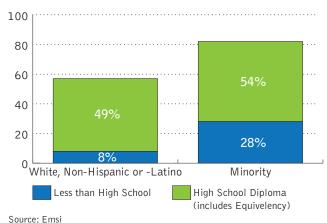
In the Greater New Orleans region, 29% of residents over the age of 25 possess a high school diploma, compared to 34% in Louisiana and 27% nationally.5 Although the region and the rest of the state have a higher percentage of high school graduates when compared nationally, the percentage of residents with a bachelor's degree or above is significantly smaller when compared nationally. In subsequent sections, this report will illustrate the disparity amongst post-high school educated residents.

% OF POPULATION WITH HIGH SCHOOL DIPLOMA OR LESS (2020)



For those residents in Greater New Orleans who have a high school diploma or less, half are minorities despite the fact that 44% of the population in Greater New Orleans over the age of 25 are minorities. Even within the population that has a high school diploma or less, significant disparities exist between those that have a high school diploma and those that hold no diploma. Minorities are more likely to have less than a high school diploma than white residents.

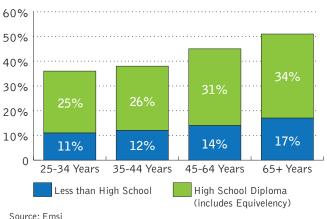
EDUCATIONAL ATTAINMENT BY RACE (2020)



There is a significant generational shift in terms of the region's residents who have a high school diploma or less. In fact, just 36% of the population in the region ages 25 to 34 years old

possess a high school diploma or less, compared to 45% of the region's residents aged 45 to 64 years old.7

EDUCATIONAL ATTAINMENT BY AGE (2019)



6 Source: Emsi 2021.3

Source: American Community Survey 5-Year Estimates,

7 Source: Emsi 2021.2

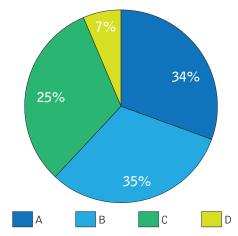
Over the past decade, retention levels have improved, which in turn has led to an increase in educational attainment across the region. According to latest estimates from the U.S. Census Bureau, 97% of Greater New Orleans residents aged 15 to 17 were enrolled in either public or private school.⁸ Meanwhile, at the onset of the decade, the figure stood at 95%.⁹

Further, according to Louisiana Department of Education data, 3.5% of high school students at a public school in Greater New Orleans dropped out during the 2019 – 2020 school year, compared 4.2% during the 2014-2015 school year.

However, it is not simply enough to ensure students are graduating. It is imperative that students receive access to quality education that prepares them for either post-secondary education or to enter the workforce.

Nearly 70% of public-high school students¹⁰ in the region attend an A- or B-rated school. Despite the large number of students who attend a highly rated school, significant disparity gaps exist. Amongst the students who attend an A- or B-rated school, half are minorities.

EDUCATIONAL ATTAINMENT BY LETTER GRADE (2019)

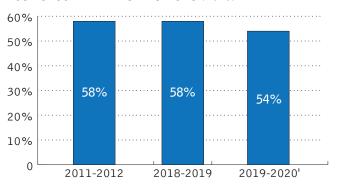


Source: Louisiana Department of Education

Meanwhile, at C- or D-rated schools, 80% of students are minorities. Additionally, 82% of students at C- or D-rated schools are considered economically disadvantaged compared to 57% at A- or B-rated schools.

For students who wish to pursue a post-secondary education, access to quality secondary education is critical. However, according to Louisiana Department of Education, only 54% of the region's graduating public-school students enrolled in a two or four-year school. Of those students, 76% enrolled in a four-year school and 24% enrolled in a two-year school. The number of students enrolling in post-secondary education has dropped significantly since 2012, when 58% of graduating seniors attended a post-secondary institution. Even prior to the pandemic, the figure of students attending post-secondary institutions upon graduation had remained stagnant.

PERCENT OF PUBLIC SCHOOL STUDENTS ENROLLING IN POST-SECONDARY INSTITUTIONS (2019)



Source: Louisiana Department of Education

It is important to note, however, that not all students graduating high school will pursue post-secondary education, making it all the more important that graduating high school students are provided with the skills and credentials necessary to enter the workforce. Career-ready classes such as welding technology, robotics, and nursing can play an essential role in introducing students to, and preparing them for, high-wage, high-growth middle-skill careers. However, as it stands, there is a significant gap amongst many of these career-ready programs and demonstrated job demand.

⁸ U.S. Census Bureau, 2019 American Community Survey 5-Year Estimates

⁹ U.S. Census Bureau, 2019 American Community Survey 5-Year Estimates

Source: Louisiana Department of Education, 2019; data does not include alternative schools and does include "combination schools" which may include students outside of high school

Calculations were based on the following criteria: 1) Total Graduates were calculated based on LDOE Student Information System (SIS) End-of-Year where "GraduateFIg = "Y" and graduates from Student Transcript System (STS) with official graduate date, 2) # enrolled 1st Fall after graduation was based on Enrollment Beginning Date < = 10/31/2020.

Skill	2019 Student Enrollment	Jan - Jun 2021 Job Postings	Top Occupation Associated with Skill	Median Hourly Earnings
Advanced Javascript	10	515	Software Developers and Software Quality Assurance Analysts and Testers	\$42.60/hr
Welding Related	716	327	Welder	\$23.98/hr
Pipefitting	58	59	Plumbers, Pipefitters, and Steamfitters	\$25.97/hr
Pharmacy Technician	27	400	Pharmacy Technician	\$17.37/hr
Studio 3-D Design	55	86	Mechanical Engineer	\$49.13/hr

The above is intended to highlight opportunities that exist to further align high school programming with the economic trends of the region and to increase career readiness amongst our region's high school students. As we see, job demand across several key skills in the first six months of 2021 outpaced the supply of regional public high schools. While not all of these jobs can be filled immediately by high school students, and may also be filled by college students or the existing workforce, we can begin to understand opportunities for growth in high school skills training programs.

For students who do not pursue a four- or two-year degree, it is critical that they receive high-quality training through credentials, certifications, and apprenticeships that are necessary to excel in today's economy. These programs are not only beneficial for high school students and recent graduates, but they can also play an important role for upskilling incumbent workers and workers interested in career transition.

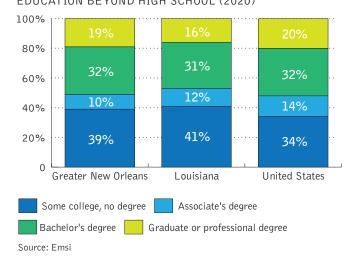
GREATER NEW ORLEANS HIGHER EDUCATION

In Greater New Orleans, 57% percent of residents over the age of 25 have pursued some form of education beyond a high school diploma, compared to 52% in Louisiana and 62% nationally. Of the approximately 580,000 residents who have an educational degree above high school, 39% have some college experience, but no degree, meaning someone who has pursued some postsecondary education or training, has not completed a degree and is no longer enrolled.

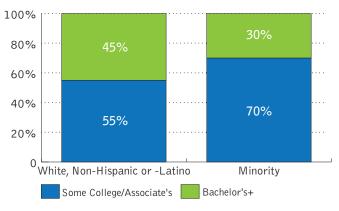
Similar to the race and age disparities that are present in high school attainment levels, post-secondary attainment disparities in the region are also evident. Of the residents in the region who have some form of educational attainment above a high school diploma, just 34% are minorities according to Emsi data. Further, minorities in the region are less likely to have completed a four-year degree or higher.

In terms of age discrepancies, Greater New Orleans residents under the age of 45 are more likely to have obtained some form of education beyond high school.¹³

EDUCATIONAL ATTAINMENT FOR THOSE WITH EDUCATION BEYOND HIGH SCHOOL (2020)



EDUCATIONAL ATTAINMENT BY RACE (2020)



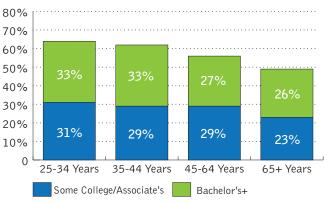
¹² Source: American Community Survey 5-Year Estimates, 2019

13

Source: Emsi

Source: American Community Survey 5-Year Estimates, 2019

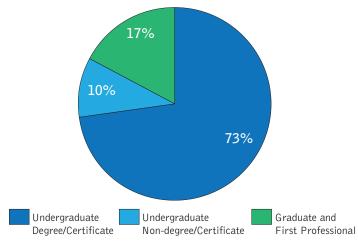
EDUCATIONAL ATTAINMENT BY AGE (2020)



Source: Emsi

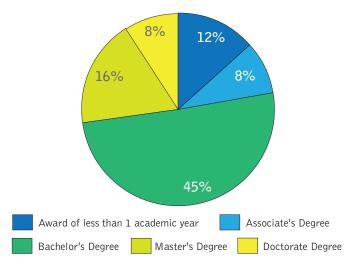
The region's 13 higher education colleges and universities¹⁴ play a critical role in supplying a talent pipeline of college educated students for regional employers to access. Home to nearly 74,000 students,¹⁵ three-quarters of the student body is pursuing an undergraduate degree or certificate programs.¹⁶ Further, in 2020, there were 15,243 completions¹⁷, with bachelor's degrees accounting for 45% of all completions in the region.

TYPE OF DEGREE BY STUDENT (2020)



Source: Louisiana Department of Education

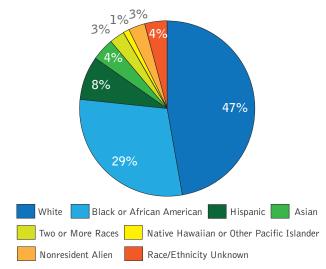
COMPLETIONS BY LEVEL (2020)



Source: Louisiana Department of Education

The 74,000 students that study at a Greater New Orleans' college or university are even more diverse in their racial makeup than the region. In fact, 52% of the student body at post-secondary institutions in Greater New Orleans are minorities compared to 44% of the region's population 25 years or older being a minority.¹⁸

STUDENT ENROLLMENT BY RACE (2020)



Source: Louisiana Department of Education

¹⁴ Note: This does not include seminaries, for-profit universities, or majority online universities

¹⁵ Source: National Center for Education, Fall 2020 Enrollment (preliminary figures)

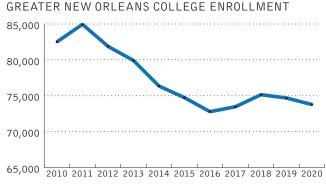
Note: Includes bachelors and associates degree programs

¹⁷ Source: GNO, Inc. analysis of Emsi data; does not include distance-related completions

¹⁸ Source: GNO, Inc. analysis of Emsi 2021.3 data

Despite the diverse student population and significant number of students enrolled in the region's post-secondary institutions across Greater New Orleans, overall enrollment figures have experienced a steady decline over the past decade, having contracted by 11% from 2010 to 2020. However, this trend is not unique to Greater New Orleans. According to data from the National Student Clearinghouse Research Center, enrollment across the country has declined by 12% from Fall 2010 to Fall 2020.

Similar to high-school programming, it is vital that programs at post-secondary institutions align with the regional needs of the economy. However, as evidenced in the data below, job demand across the region's key industries is far outpacing the supply of students at post-secondary institutions.²⁰



Source: National Center for Education

Occupation Cluster	2020 Completions in Related Programs	Jan - Jun 2021 Job Postings
Biological and Biomedical Services, Health-Related Knowledge and Skills, Health Professions, and Medical Residency	3,972	28,451
Transportation and Material Moving	1	21,635
Engineering and Engineering Technologies, Science Technologies, and Precision Production	963	3,037
Computer and Information Sciences and Support Services	699	33,860
Studio 3-D Design	55	86

The data above is a sample intended to highlight opportunities that exist to further align higher education programming with the economic needs of the region. While not all these job postings will be filled immediately by recent graduates, and may also be filled by the existing workforce or students without a college degree, we can begin to understand the opportunities for further growth and alignment of curricula and degree programs with demand.

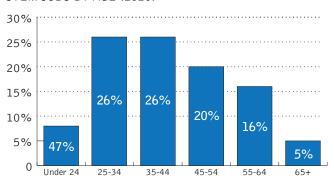
¹⁹ Source: National Center for Education

²⁰ Source: GNO, Inc. analysis of Emsi data

GNO STEM: GROWING AN EQUITABLE STEM WORKFORCE

One of the most in-demand segments of the Greater New Orleans economy are STEM-related occupations. In fact, there are over 89,000 STEM jobs across the region. Additionally, these jobs offer increased access to high-wage career paths. The median hourly salary associated with STEM jobs in Greater New Orleans is \$28.79/hr., compared to \$17.94/hr. across all jobs in the region.21

STEM JOBS BY AGE (2020)

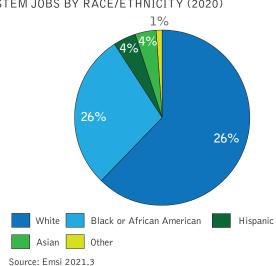


Source: Emsi 2021.3

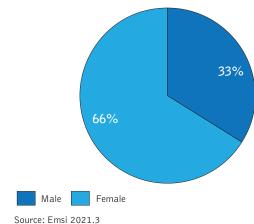
In Greater New Orleans, over half of all STEM jobs in 2020 were held by those under the age of 44. Further, a significant majority of STEM jobs were held by white residents and although 66% of STEM jobs were held by women, 43% of all STEM jobs held by women are in a nursing related occupation.

If nursing and other health care support occupations such as medical assistants and MRI technicians are removed, women account for 30% of STEM jobs. What's more, only 27% of these non-nursing, non-health care support STEM jobs are held by minorities.

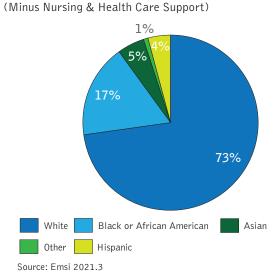
STEM JOBS BY RACE/ETHNICITY (2020)



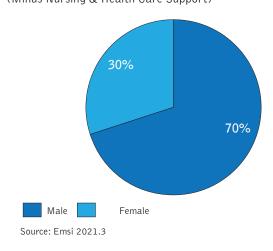
STEM JOBS BY GENDER (2020)



STEM JOBS BY RACE/ETHNICITY (2020)

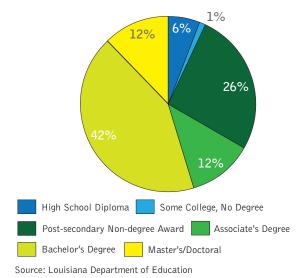


STEM JOBS BY GENDER (2020) (Minus Nursing & Health Care Support)



Although STEM-related occupations account for a significant number of jobs and are associated with comparatively higher wages, often these jobs are only accessible to workers with higher levels of education and training. In fact, 94% of STEM jobs in the region are associated with some form of education beyond a high school diploma.

JOBS BY TYPICAL ENTRY LEVEL EDUCATION (2020)

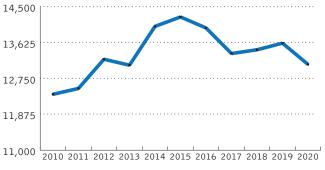


The higher levels of education and training associated with STEM jobs enhances the need for students graduating from high school and post-secondary institutions to have the necessary skills to access these jobs. In Greater New Orleans, there were 13,092 completions in 2020 across programs that may train for STEM occupations.²²

While the number of students completing a program related to a STEM occupation is significant, there is still a deficit in the number of graduates needed to matching the job demand in the region. Through the first six months of 2021, there were 37,642 online job postings for STEM occupations.²³ Of the nearly 20,000 job postings that explicitly listed an educational requirement, 78% required some form of education beyond a high school diploma. STEM-related job postings in the region show no signs of slowing – postings through the first six months of 2021, were already 3% higher than they were in 2017.

Despite the increased demand for STEM occupations across the region, graduates in related fields have gradually declined since 2015.

STEM RELATED TRAINING COMPLETIONS



Source: National Center for Education

In Greater New Orleans, there are a wide-range of STEM training providers and higher education institutions that play a central role in preparing the region's workforce with the skills necessary to access the high-wage, high-growth jobs associated with STEM. There is a significant disparity among minorities and women in STEM careers outside of nursing and health care support. Additionally, there is a deficit in the number of graduates needed to fill the growing job demands. All of these factors are critical to address in order to create equitable opportunities to close the gap of minorities and women participation in these fields. The Greater New Orleans region has made significant strides to creating equitable opportunities in STEM, especially within the digital media and technology sectors. According to Emsi data, when ranked against the 50 largest U.S. metro areas, the New Orleans-Metairie-Kenner MSA ranks #5 for the percentage of African Americans and #6 for the percentage of women in tech jobs (18% and 30%) respectively). The diversity achieved is the result of nearly a decade of intentional, equity-aligned initiatives from K-12, higher education, non-profit, and industry partners.

REGIONAL ATTAINMENT GOALS

There is a direct correlation between higher levels of education attainment and earnings. Higher levels of education equate to economic prosperity. Education comes in many different forms and while the "traditional" education pathways are one route, innovative and industry-driven training programs are another key avenue to successful workforce growth.

As seen in the sections above, there are clear disparities among minorities when it comes to accessing educational opportunities from high school to a post-secondary level. From the data, it is clear there are gaps and opportunities to creating a diverse workforce that possesses increased educational attainment that leads to long term economic mobility opportunities.

Source: Emsi; includes for profit and nonprofit colleges

²³ Source Emsi; does not mean 18,000 jobs did not require any educational credentials; rather it indicates that the job posting did not indicate the educational credentials required

In 2019, the Louisiana Board of Regents launched Louisiana Prospers: Driving Our Talent Imperative Master Plan. The Master Plan calls for an ambitious attainment goal of 60% of working age adults to hold a postsecondary credential by 2030. This shared vision for our state requires a broad spectrum of stakeholders, from executive agencies focused on economic development, corrections, and social services, to private employers and industries, to work together to build a stronger economy and a ready workforce.

The Greater New Orleans region must build upon the Louisiana Board of Regents' Louisiana Prospers goals and set attainment goals that increase education growth that leads to economic prosperity for all. We must continue to build partnerships, create industry-driven programming, and develop an inclusive workforce. To increase educational attainment that creates strong talent pipelines in high wage, high demand career pathways, GNO, Inc. seeks to partner with local, regional, and state workforce partners to increase, advocate, and monitor the following:

- Continue increasing high school graduation rates
- Increase the number of HiSet/GED attainment
- Increase enrollment of minorities in postsecondary education and non-traditional training programs
- Increase the alignment of graduates to industry demand
- Increase minority and women participation in STEM related occupations

GNO. INC. ACTION PLAN

From the data captured in this report, there are significant gaps that exist in the regional workforce that have been exacerbated due to the coronavirus pandemic. The Greater New Orleans region must place a strong emphasis on awareness of and access to education and training opportunities, for all. With 13 higher education partners in Greater New Orleans, a statewide focus on high school career readiness via the new Fast Forward Program and Jump Start, a statewide rapid training response via Louisiana Community and Technical College System's Mike J. Foster Promise Program, and various training providers targeting in-demand industry sectors, the region is well-positioned to leverage our resources to create robust, equitable workforce pipelines.

With equity in mind, there are many barriers that continue to interfere with access to education and training, many exacerbated by the coronavirus pandemic including affordability, time, transportation, and childcare. Another key gap that the region must address is outmigration, or the "brain drain," of our local talent, including alumni and professionals from regional four-year colleges and universities.

Additionally, there are persistent disparities among minority educational attainment, a decrease in post-secondary enrollment, diverse representation in STEM occupations, and a systemic need for adult foundational literacy to be integrated within educational pathways. Based on this regional context and findings illustrated herein, GNO, Inc. is focusing on several core initiatives in the workforce development sphere.

Each of the following efforts is designed to augment educational attainment gaps through market awareness, clear communication around industry demand, skills analyses, industry trends, and evolving technologies:

Alignment Between Higher Education and Industry

Ensure industry needs are reflected in higher education curriculum and that demand-driven, custom-built programming is available at university, community college, and non-profit training partners.

GNO, Inc. Signature Initiative: GNOu

Awareness of Career and Training Opportunities in Greater New Orleans

Produce a suite of resources that highlight accurate data around the quality and quantity of regional occupations. Promote these efforts through robust outreach and engagement.

GNO, Inc. Signature Initiatives: GNOCareerGuide.org, Greater New Orleans Jobs Report, and Employer Connection Roundtables

Attraction to Regional Higher Education Institutions

Position the Greater New Orleans region as a premier destination for workforce training and education—at both two-year schools and four-year colleges and universities. GNO, Inc. Signature Initiative: StudyNOLA.com

Retention of Graduates in Greater New Orleans

Connect job seekers to employment opportunities in the region through engagement and resources guiding job seekers to regional opportunities.

GNO, Inc. Signature Initiatives: Employer Connections Roundtables, DestinationGNO.com, and WorkNOLA.com

Economic Mobility in Greater New Orleans

Alignment of initiatives that focused on community and workforce challenges that lead toward a shared goal of inclusive economic access and prosperity.

GNO, Inc. Signature Initiative: Economic Mobility Action Plan

Workforce Development Partnerships

Connect and align regional workforce development professionals, nonprofit service providers, training and technical skills providers, and higher education to ensure individuals are knowledgeable of the opportunities that lead to career growth.

GNO, Inc. Signature Initiative: GNOCareerGuide.org

Growing an Equitable STEM Workforce

Reduce STEM disparity gaps within our community by creating an interconnected ecosystem with K-12, higher education, and business and industry to develop a robust, talented pipeline of highly skilled workers that will retain and attract business to the Greater New Orleans region.

GNO, Inc. Signature Initiative: GNO Region One Center for STEM (GNOrocs)

Integrate Adult Education and HiSET/GED

Ensure adult education/literacy and HiSET/GED scores and attainment rates increase in the region that provide foundational skills for individuals to grow along the educational ladder and provides a strong workforce for regional employers. GNO, Inc. Signature Initiatives: GNOu and Economic Mobility Action Plan

Greater New Orleans Region One Center for STEM (GNOrocs)

To continue building on the success of an inclusive tech workforce and to close the disparity gaps within STEM occupations, GNO, Inc. launched the Greater New Orleans Region One Center for STEM (GNOrocs). In January 2021, GNO, Inc. received the designation as the Region 1 STEM Network Center by the Louisiana Board of Regents LaSTEM Advisory Council and will represent Southeast Louisiana as the convening body to advance STEM growth. GNO, Inc. is one of nine regional STEM Network Centers, which operate as a system of STEM leadership entities strategically positioned across Louisiana to improve access to STEM education, participation, and advancement. This includes closing the opportunity gap for underserved and underrepresented populations to engage in Louisiana's STEM workforce.

GNOrocs will focus on three main pillars:

- 1. **STEM Advocacy:** GNOrocs is part of a statewide initiative focused on promoting STEM training and implementation to build strong and prepared workforce pipelines for jobs of today, and of tomorrow
- 2. Regional Partnership: GNOrocs engages with a robust group of diverse partners representing education assets, industry presence, and support organizations aligned with the mission of creating an equitable STEM talent pipeline
- 3. **STEM Programming:** GNOrocs seeks to create programs that will support regional partners and provide innovative opportunities to increase participation in STEM careers and education

The goal of GNOrocs is to reduce the STEM gap within our community by creating an interconnected ecosystem with K-12, higher education, and business and industry to develop a robust, talented pipeline of highly skilled workers that will retain and attract business to the Greater New Orleans region.

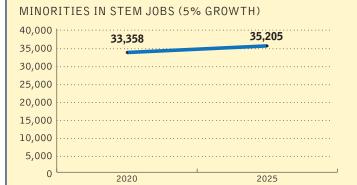
GNOrocs is built upon the following foundational beliefs:

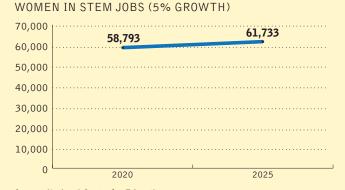
- 1. STEM literacy transcends across all learning and should be a focus area for all students.
- 2. STEM education transcends the confines of school buildings and is an integral part of our current and future community.
- 3. Our success depends upon developing a cohesive ecosystem between educators, students, families, postsecondary providers, legislators, businesses, and industry.

Source: National Center for Education

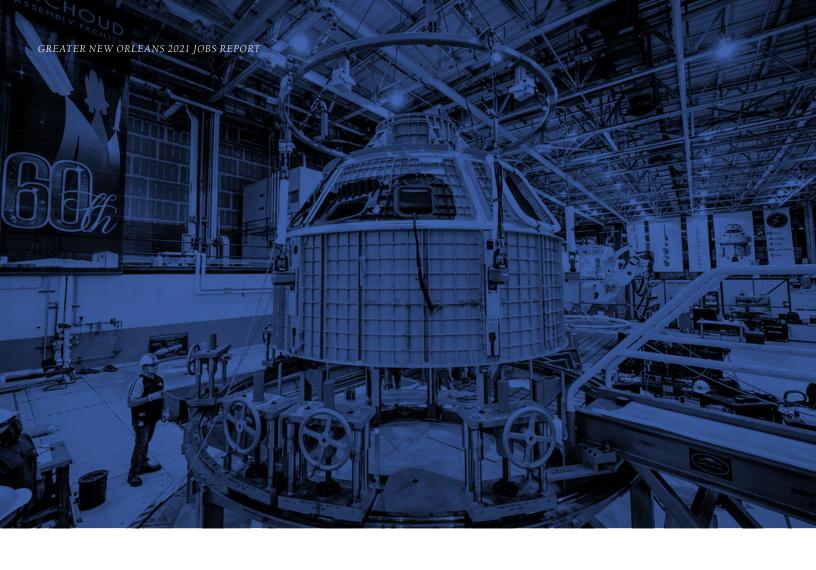
GNOrocs is dedicated to creating initial programming that will close the disparity gaps among minorities and women participation in STEM careers, such as the HBCU STEM Connect Internship Program and Women in the STEM Economy (WISE Women) Mentorship Program—both launching in 2022—to build work-based learning and mentorship opportunities for students pursuing STEM careers.

Through regional partnerships, industry engagement, and programmatic development, GNOrocs has the overarching goal of supporting the increase in minority and women participation in the regional STEM workforce by 5% respectively over the next 5 years.





Source: National Center for Education



Advanced Manufacturing

The Greater New Orleans region has a rich history when it comes to advanced manufacturing. Home to NASA Michoud Assembly Facility, major high-tech manufacturers, and legacy food manufacturers, the sector provides thousands of high-wage, high-growth jobs across the region.

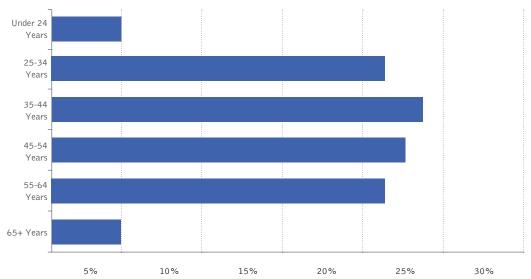
The region is primed for growth in a number of emerging sub-sectors of the manufacturing industry, including renewable energy products and mechatronics/robotics.

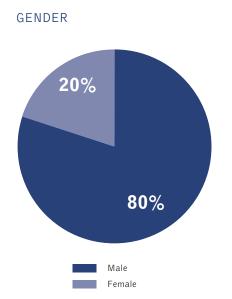
The advanced manufacturing industry in the Greater New Orleans region benefits from one of the nation's most integrated transportation infrastructures, providing easy access to the rest of the world. The region's multimodal transportation system and the availability of land with deep-water port access make Greater New Orleans competitive on the global marketplace.

As was highlighted in the 2020 Greater New Orleans Jobs Report, it is imperative that workers have the appropriate education and training to meet "legacy skills," such as welding and machining, but are also able to meet emerging trends such as automation or computer science.

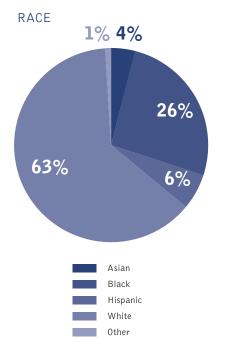
DEMOGRAPHICS

AGE





Source: Emsi



INDUSTRY OVERVIEW

17,083

Average Salary \$74,864

Recent Graduates

496

Skill Level

Basic: 14% Middle: 69%

High: 17%

Source: Emsi, 2020

Top Occupations²⁴

FIRST-LINE SUPERVISORS OF PRODUCTION AND OPERATING WORKERS

Directly supervise and coordinate the activities of production and operating workers, such as inspectors, precision workers, machine setters and operators, assemblers, fabricators, and plant and system operators.

Employed in Industry Group (2020): 870

2014 - 2019 % Growth: 13%

Typical Entry Level Education: High School Diploma or Equivalent

Median Hourly Earnings: \$33.67

Online Job Postings Across All Industries (10/20 – 9/21): 1,096

2020 Related Graduates: 14

Top Certifications by Job Posting (10/20 – 9/21)

- Transportation Worker Identification (TWIC)
- Commercial Driver's License
- ServSafe Certification
- Bachelor of Science in Business
- American Society for Quality (ASQ Certificed)

SALES REPRESENTATIVES, WHOLESALE AND MANUFACTURING, EXCEPT TECHNICAL AND SCIENTIFIC PRODUCTS

Sell goods for wholesalers or manufacturers to businesses or groups of individuals. Work requires substantial knowledge of items sold.

Employed in Industry Group (2020): 494

2014 - 2019 % Growth: 7%

Typical Entry Level Education: High School Diploma or Equivalent

Median Hourly Earnings: \$29.85

Job Postings Across All Industries (10/20 – 9/21): 872

2020 Related Graduates: 2,947

Top Certifications by Job Posting (10/20 - 9/21)

- Bachelor of Science in Business
- Automotive Service Excellence (ASE) Certification
- Licensed Insurance Producer
- ASE Parts Specialist
- Commercial Driver's License

Top Occupations are defined as requiring education between a high school diploma and a bachelor's degree, have a median hourly wage above \$18.93 and experienced job growth from 2014 to 2019.

INDUSTRIAL MACHINERY MECHANICS



Repair, install, adjust, or maintain industrial production and processing machinery or refinery and pipeline distribution systems. May also install, dismantle, or move machinery and heavy equipment according to plans.

Employed in Industry Group (2020): 450

2014 - 2019 % Growth: 23%

Typical Entry Level Education: High School Diploma or Equivalent

Median Hourly Earnings: \$28.43

Job Postings Across All Industries (10/20 – 9/21): 430

2020 Related Graduates: 35

Top Certifications by Job Posting (10/20 – 9/21)

- National Center for Construction Education & Research (NCCER) Certification
- Commercial Driver's License (CDL)
- Transportation Worker Identification Credential (TWIC) Card
- PA 608 Technician Certification
- Security Clearance

AIRCRAFT STRUCTURE, SURFACES, RIGGING, AND SYSTEMS ASSEMBLERS



Assemble, fit, fasten, and install parts of airplanes, space vehicles, or missiles, such as tails, wings, fuselage, bulkheads, stabilizers, landing gear, rigging and control equipment, or heating and ventilating systems.

Employed in Industry Group (2020): 363

2014 - 2019 % Growth: 288%

Typical Entry Level Education: High School Diploma or Equivalent

Median Hourly Earnings: \$20.57

Job Postings Across All Industries (10/20 – 9/21): 8

2020 Related Graduates: 25

PETROLEUM PUMP SYSTEM OPERATORS, REFINERY OPERATORS, AND GAUGERS



Operate or control petroleum refining or processing units. May specialize in controlling manifold and pumping systems, gauging, or testing oil in storage tanks, or regulating the flow of oil into pipelines.

2020 Industry Jobs: 223 2014 – 2019 % Growth: 21%

Typical Entry Level Education: High School Diploma or Equivalent

Median Hourly Earnings: \$25.74

Job Postings Across All Industries (10/20 – 9/21): 21

2020 Related Graduates: 0

Top Certifications by Job Posting (10/20 – 9/21)

- Transportation Worker Identification Credential (TWIC) Card
- · Certified First Responder

SEPARATING, FILTERING, CLARIFYING, PRECIPITATING, AND STILL MACHINE SETTERS, OPERATORS, AND TENDERS

Set up, operate, or tend continuous flow or vat-type equipment; filter presses; shaker screens; centrifuges; condenser tubes; precipitating, fermenting, or evaporating tanks; scrubbing towers; or batch stills. These machines extract, sort, or separate liquids, gases, or solids from other materials to recover a refined product. Includes dairy processing equipment operators.

Employed in Industry Group (2020): 222

2014 - 2019 % Growth: 40%

Typical Entry Level Education: High School Diploma or Equivalent

Median Hourly Earnings: \$25.74

Job Postings Across All Industries (10/20 – 9/21): 11

2020 Related Graduates: 0

PERSONAL SERVICE MANAGERS, ALL OTHER

All personal service managers not listed separately. Includes Regulatory Affairs Managers, Compliance Managers, and Supply Chain Managers.

Employed in Industry Group (2020): 222

2014 - 2019 % Growth: 165%

Typical Entry Level Education: Bachelor's Degree

Median Hourly Earnings: \$37.20

Job Postings Across All Industries (10/20 – 9/21): 1,192

2020 Related Graduates: 6,152

Top Certifications by Job Posting (10/20 – 9/21)

- Project Management Professional Certification
- Bachelor Of Science in Business
- Master Of Business Administration (MBA)
- Secret Clearance
- Certified Public Accountant

CHEMICAL PLANT AND SYSTEM OPERATORS

Control or operate entire chemical processes or system of machines

Employed in Industry Group (2020): 211

2014 - 2019 % Growth: 26%

Typical Entry Level Education: High School Diploma or Equivalent

Median Hourly Earnings: \$33.26

Job Postings Across All Industries (10/20 – 9/21): 26

2020 Related Graduates: 0

INDUSTRIAL ENGINEERS



Design, develop, test, and evaluate integrated systems for managing industrial production processes, including human work factors, quality control, inventory control, logistics and material flow, cost analysis, and production coordination.

Employed in Industry Group (2020): 199

2014 - 2019 % Growth: 11%

Typical Entry Level Education: Bachelor's Degree

Median Hourly Earnings: \$43.79

Job Postings Across All Industries (10/20 – 9/21): 729

2020 Related Graduates: 0

Top Certifications by Job Posting (10/20 – 9/21)

- Transportation Worker Identification Credential (TWIC) Card
- Licensed Professional Engineer
- Security Clearance
- Master Of Business Administration (MBA)
- Secret Clearance

ENGINEERS, ALL OTHER



All engineers not listed separately. Includes, Manufacturing Engineers, Photonics Engineers, and Mechatronics Engineers.

Employed in Industry Group (2020): 188

2014 - 2019 % Growth: 76%

Typical Entry Level Education: Bachelor's Degree

Median Hourly Earnings: \$49.01

Job Postings Across All Industries (10/20 - 9/21): 94

2020 Related Graduates: 312

Top Certifications by Job Posting (10/20 – 9/21)

- Bachelor Of Science in Business
- · Professional Engineer
- Licensed Professional Engineer



= Occupational growth within the industry during the pandemic (2019 - 2020)



= STEM Occupation as determined by the Bureau of Labor Statistics

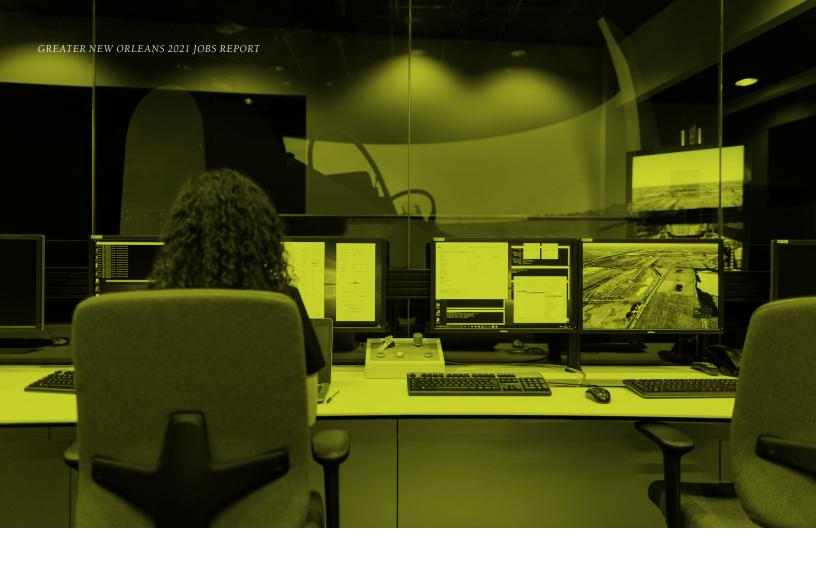
Note: Certain programs may prepare graduates for multiple occupations, as such the related graduates for the top occupations may not align with the related graduates listed on the previous page.

Credential to Career Pathways

Credentials can serve as a steppingstone to a high-wage, high growth career in the industry and in many cases are mandatory for entry into the workforce. From October 2020 through September 2021, over 200 different credentials were present in job postings across the advanced manufacturing sector ranging from Certified Forklift Operator to CompTIA Certification. What follows is an overview of select certifications in the industry and how they translate to high-wage jobs. This section is not intended to be exhaustive, rather it sets out to illustrate how obtaining a diverse set of credentials can create pathways to opportunities for the region's workforce across all industries.

EDUCATION & SKILLS

CERTIFICATION/CREDENTIAL	TOP OCCUPATIONS (ACROSS ALL INDUSTRIES)
CDL Class B License	- Heavy and Tractor-Trailer Drivers*
	- Bus and Truck Mechanics and Diesel Engine Special-ists*
	- First-Line Supervisors of Transportation and Materi-al Moving Workers, Except Aircraft Cargo Handling Supervisors*
Certified Forklift Operator	- Industrial Truck and Tractor Operators*
	- First-Line Supervisors of Transportation and Materi-al Moving Workers, Except Aircraft Cargo Handling Supervisors*
	- Heavy and Tractor-Trailer Truck Drivers*
EPA 608 Technician Certification	- First-Line Supervisors of Mechanics, Installers, and Repairers*
	- Industrial Machinery Mechanics*
	- Mechanical Engineers
Project Management Professional	- Industrial Engineers
Certification	- First-Line Supervisors of Production and Operating Workers*
	- Industrial Engineering Technologists and Techni-cians*
NICET Level II Certification	- Computer Occupations, All Other
	- Personal Service Managers, All Other; Entertain-ment and Recreation Managers, Except Gambling; and Managers, All Other*
	- Computer and Information Systems Managers



Over the past decade, the Greater New Orleans region has experienced historic success in the Digital Media sector. From home-grown companies to multi-national technology companies, the region is home to a diverse range of employers.

Digital Media and Technology

Although the tech industry itself is comprised of just over 6,600 regional jobs, tech-related occupations and competencies can be found across virtually every industry. While many jobs in the digital media sector are associated with a bachelor's degree or higher, employers in the region have indicated that a strong portfolio and experience are equally important.

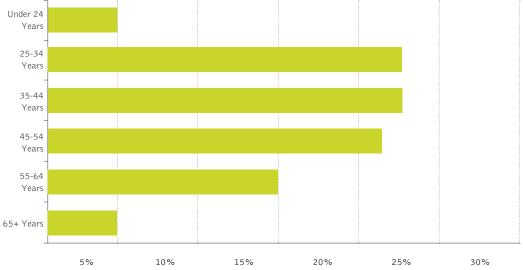
The emphasis on experience and tangible skills in the tech industry makes it more urgent to ensure that the tech workforce, especially those without a bachelor's degree, are provided with the necessary skills needed to enter the industry.

Regional and national growth in the video game development sector is expected to experience continued growth as also highlighted in the 2020 Greater New Orleans Jobs Report. According to market intelligence firm Mordor Intelligence, the global gaming market is expected to grow by over \$140 billion from 2021 to 2026. More specifically, the growth of this sub-sector in Greater New Orleans was highlighted by the announcement of Possibility Space, a new video game development studio that will be headquartered in New Orleans and will result in 75 new jobs with an average annual salary of \$100,000.

Other sub-sectors highlighted in the 2020 report such as software development and information technology are projected to continue their growth.

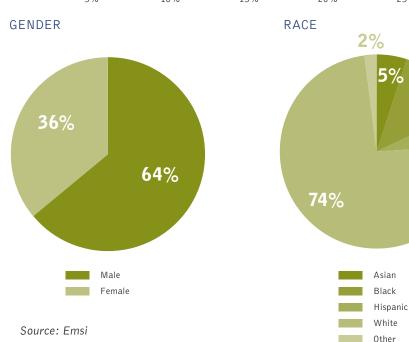
DEMOGRAPHICS





13%

6%



INDUSTRY Overview

5,639

Average Salary \$75,886

Related Graduates

694

Skill Level

Basic: 1%

Middle: 30%

High: 69%

Note: Although a significant number of jobs in the industry are "high-skill," employers have indicated a willingness to higher employees without a college degree, if the potential employee has a strong portfolio.

Source: Emsi, 2020

Top Occupations

COMPUTER OCCUPATIONS, ALL OTHER



All computer occupations not listed separately. Includes Data Warehousing Specialists, Video Game Designers, Database Architects.

Employed in Industry Group (2020): 454

2014 - 2019 % Growth: 168%

Typical Entry Level Education: Bachelor's degree

Median Hourly Earnings: \$34.40

Online Job Postings Across All Industries (10/20 – 9/21): 1,570

2020 Related Graduates: 1,949

Top Certifications by Job Posting (10/20 – 9/21)

- Project Management Professional Certification
- Secret Clearance
- · Certified Scrum Master

SOFTWARE DEVELOPERS AND SOFTWARE () QUALITY ASSURANCE ANALYSTS AND TESTERS

Research, design, and develop computer and network software or specialized utility programs. Analyze user needs and develop software solutions, applying principles and techniques of computer science, engineering, and mathematical analysis.

Employed in Industry Group (2020): 441

2014 – 2019 % Growth: 4%

Typical Entry Level Education: Bachelor's degree

Median Hourly Earnings: \$42.60

Online Job Postings Across All Industries (10/20 – 9/21): 1,744

2020 Related Graduates: 291

Top Certifications by Job Posting (10/20 – 9/21)

- Security Clearance
- CompTIA Security+
- Certified Information Systems Security Professional

COMPUTER SYSTEMS ANALYSTS





Analyze science, engineering, business, and other data processing problems to develop and implement solutions to complex applications problems, system administration issues, or network concerns.

Employed in Industry Group (2020): 349

2014 – 2019 % Growth: 61%

Typical Entry Level Education: Bachelor's degree

Median Hourly Earnings: \$42.74

Online Job Postings Across All Industries (10/20 - 9/21): 1,024

2020 Related Graduates: 804

Top Certifications by Job Posting (10/20 – 9/21)

- Security Clearance
- Bachelor of Science in Business
- Master of Business Administration

PROJECT MANAGEMENT SPECIALISTS AND (N) BUSINESS OPERATIONS SPECIALISTS, ALL OTHER

Analyze and coordinate the schedule, timeline, procurement, staffing, and budget of a product or service on a per project basis.

Lead and guide the work of technical staff.

Employed in Industry Group (2020): 323

2014 - 2019 % Growth: 138%

Typical Entry Level Education: Bachelor's degree

Median Hourly Earnings: \$30.83

Online Job Postings Across All Industries (10/20 - 9/21): 1,038

2020 Related Graduates: 4,272

Top Certifications by Job Posting (10/20 – 9/21)

- Bachelor of Science in Business
- Master of Business Administration
- Security Clearance

COMPUTER PROGRAMMERS





Create, modify, and test the code and scripts that allow computer applications to run. Work from specifications drawn up by software and web developers or other individuals.

Employed in Industry Group (2020): 318

2014 – 2019 % Growth: 12%

Typical Entry Level Education: Bachelor's

Median Hourly Earnings: \$33.46

Online Job Postings Across All Industries (10/20 – 9/21): 218

2020 Related Graduates: 734

Top Certifications by Job Posting (10/20 - 9/21)

- Security Clearance
- Microsoft Certified Developer
- AVIXA Certified Technology Specialist

GENERAL AND OPERATIONS MANAGERS



Plan, direct, or coordinate the operations of public or private sector organizations, overseeing multiple departments or locations.

Employed in Industry Group (2020): 239

2014 - 2019 % Growth: 13%

Typical Entry Level Education: Bachelor's

Median Hourly Earnings: \$50.09

Online Job Postings Across All Industries (10/20 – 9/21): 2,348

2020 Related Graduates: 4,110

Top Certifications by Job Posting (10/20 – 9/21)

- Master of Business Administration
- Bachelor of Science in Business Administration

COMPUTER USER SUPPORT SPECIALISTS



Provide technical assistance to computer users. Answer questions or resolve computer problems for clients in person, via telephone, or electronically.

Employed in Industry Group (2020): 238

2014 - 2019 % Growth: 10%

Typical Entry Level Education: Some college, no degree

Median Hourly Earnings: \$22.26

Online Job Postings Across All Industries (10/20 – 9/21): 2,129

2020 Related Graduates: 3,219

Top Certifications by Job Posting (10/20 – 9/21)

• Secret Clearance

- · CompTIA Security+
- IAT Level II Certification

SALES REPRESENTATIVES OF SERVICES, EXCEPT ADVERTISING, INSURANCE, FINANCIAL SERVICES, AND TRAVEL

Sell services to individuals or businesses. May describe options or resolve client problems.

Employed in Industry Group (2020): 225

2014 - 2019 % Growth: 40%

Typical Entry Level Education: High school diploma or equivalent

Median Hourly Earnings: \$25.26

Online Job Postings Across All Industries (10/20 – 9/21): 1,534

2020 Related Graduates: 0

Top Certifications by Job Posting (10/20 – 9/21)

- Bachelor of Science in Business
- Master of Business Administration
- Salesforce Certification

COMPUTER AND INFORMATION SYSTEMS MANAGERS





Plan, direct, or coordinate activities in such fields as electronic data processing, information systems, systems analysis, and computer programming.

Employed in Industry Group (2020): 224

2014 – 2019 % Growth: 55%

Typical Entry Level Education: Bachelor's degree

Median Hourly Earnings: \$55.85

Online Job Postings Across All Industries (10/20 – 9/21): 684

2020 Related Graduates: 1,600

Top Certifications by Job Posting (10/20 – 9/21)

- Certified Information Systems Security Professional
- Certified Information System Auditor
- Master of Business Administration

PERSONAL SERVICE MANAGERS, ALL OTHER



All personal service managers not listed separately. Includes Compliance Managers, Regulatory Managers, and Supply Chain Manager.

Employed in Industry Group (2020): 215

2014 – 2019 % Growth: 140%

Typical Entry Level Education: Bachelor's degree

Median Hourly Earnings: \$37.20

Online Job Postings Across All Industries (10/20 – 9/21): 1,199

2020 Related Graduates: 6,152

Top Certifications by Job Posting (10/20 – 9/21)

- Project Management Professional Certification
- Master of Business Administration
- Bachelor of Science in Business



= Occupational growth within the industry during the pandemic (2019 - 2020)



= STEM Occupation as determined by the Bureau of Labor Statistics

Note: Certain programs may prepare graduates for multiple occupations, as such the related graduates for the top occupations may not align with the related graduates listed on the previous page.

Credential to Career Pathways

In an industry where experience and a strong portfolio is highly valued, credentials can help illustrate that a worker has the skills necessary to enter the industry. Credentials in the sector vary depending on what a worker specializes in. While a cyber security specialist may need to obtain credentials such as CompTIA Security+ or Cisco Certified Security Professional, a professional who specializes in user support may need to be a Microsoft Certified Systems Administrator.

What follows is an overview of select certifications in the industry and how they translate to high-wage jobs. This section is not intended to be exhaustive, rather it sets out to illustrate how obtaining a diverse set of credentials can create pathways to opportunities for the region's workforce across all industries.

EDUCATION & SKILLS

CERTIFICATION/CREDENTIAL	TOP OCCUPATIONS (ACROSS ALL INDUSTRIES)
CompTIA Security+	- Network and Computer Systems Ad-ministrators
	- Computer User Support Specialists*
	-Information Security Analysts
Certified Information Systems Security	- Information Security Analysts
Professional	- Computer and Information Systems Managers
	- Network and Computer Systems Ad-ministrators
IAT Level II Certification	- Network and Computer Systems Ad-ministrators
	- Computer User Support Specialists*
	- Software Developers and Software Quality Assurance Analysts and Testers
Microsoft Certified Systems Administrator	- Network and Computer Systems Ad-ministrators
(MCSA)	- Computer User Support Specialists*
	- Database Administrators and Architects
Cisco Certified Network Associate	- Network and Computer Systems Ad-ministrators
	- Information Security Analysts
	- Computer User Support Specialists*

Note: Certification/credential and posting data is limited to the digital media industry, however the top occupations are across all industries

^{*} Denotes a job that requires less than a bachelor's degree.





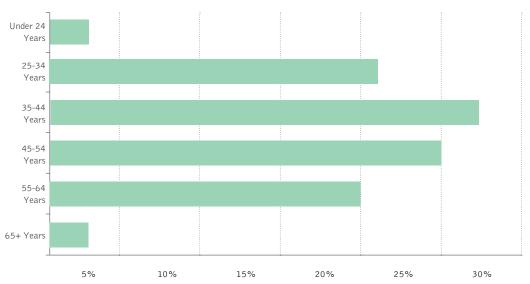
Greater New Orleans is one of the world's leading markets for energy production, processing, and transportation. The region is also home to a burgeoning alternative energy sector, including advances in wind energy. Boosted by direct access to the Mississippi River and connected infrastructure, the energy sector provides high-wage opportunities for thousands of Greater New Orleans residents.

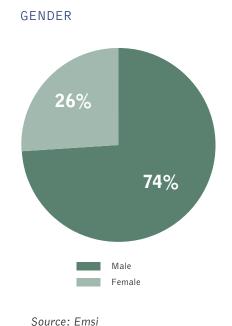
The energy industry is unique in that it offers significantly higher wages than the regional average, and there are a number of opportunities in the industry for workers without a bachelor's degree. This presents a notable opportunity to build equity and wealth across the region.

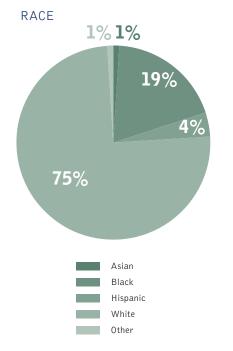
Although nearly 80% of the jobs in the industry are not associated with a bachelor's degree, workers still need to possess a certain set of skills and certifications to access these high-wage jobs. It is also important to note, that although the job posting data that follows is limited, this does not equate to no demand. For many middle and basic-skill occupations in the region, job openings are spread by word of mouth as opposed to online. Therefore, for sectors like energy, the online job posting demand may not accurately reflect demand.

DEMOGRAPHICS

AGE







INDUSTRY OVERVIEW

17,500

Average Salary \$131,347

Recent Graduates

688

Skill Level

Basic: 6%

Middle: 70%

High: 24%

Source: Emsi, 2020

Top Occupations

PETROLEUM PUMP SYSTEM OPERATORS, REFINERY OPERATORS, AND GAUGERS

Operate or control petroleum refining or processing units. May specialize in controlling manifold and pumping systems, gauging, or testing oil in storage tanks, or regulating the flow of oil into pipelines.

Employed in Industry Group (2020): 1,951

2014 - 2019 % Growth: 5%

Typical Entry Level Education: High school diploma

Median Hourly Earnings: \$30.21

Online Job Postings Across All Industries (10/20 - 9/21): 21

2020 Related Graduates: 0

Top Certifications by Job Posting (10/20 – 9/21)

- Transportation Worker Identification Credential (TWIC) Card
- · Certified First Responder

CHEMICAL PLANT AND SYSTEM OPERATORS

Control or operate entire chemical processes or system of machines.

Employed in Industry Group (2020): 1,148

2014 - 2019 % Growth: 11%

Typical Entry Level Education: High school diploma

Median Hourly Earnings: \$33.26

Online Job Postings Across All Industries (10/20 - 9/21): 50

2020 Related Graduates: 0

Top Certifications by Job Posting (10/20 – 9/21)

- Transportation Worker Identification Credential (TWIC) Card
- Hazmat Endorsement
- · Certified Forklift Operator

PETROLEUM ENGINEERS



Devise methods to improve oil and gas extraction and production and determine the need for new or modified tool designs. Oversee drilling and offer technical advice.

Employed in Industry Group (2020): 661

2014 - 2019 % Growth: 13%

Typical Entry Level Education: Bachelor's degree

Median Hourly Earnings: \$59.88

Online Job Postings Across All Industries (10/20 – 9/21): 48

2020 Related Graduates: 65

Top Certifications by Job Posting (10/20 – 9/21)

- Transportation Worker Identification Credential (TWIC) Card
- Standards Of Training Certification and Watchkeeping
- Security Clearance

CHEMICAL EQUIPMENT OPERATORS AND TENDERS



Operate or tend equipment to control chemical changes or reactions in the processing of industrial or consumer products. Equipment used includes devulcanizers, steam-jacketed kettles, and reactor vessels.

Employed in Industry Group (2020): 356

2014 - 2019 % Growth: 84%

Typical Entry Level Education: High school diploma

Median Hourly Earnings: \$32.34

Online Job Postings Across All Industries (10/20 – 9/21): 3

2020 Related Graduates: 0

GAS PLANT OPERATORS



Distribute or process gas for utility companies and others by controlling compressors to maintain specified pressures on main pipelines.

Employed in Industry Group (2020): 352

2014 - 2019 % Growth: 91%

Typical Entry Level Education: High school diploma

Median Hourly Earnings: \$37.34

Online Job Postings Across All Industries (10/20 – 9/21): 7

2020 Related Graduates: 0

HAZARDOUS MATERIALS REMOVAL WORKERS



Identify, remove, pack, transport, or dispose of hazardous materials, including asbestos, lead-based paint, waste oil, fuel, transmission fluid, radioactive materials, or contaminated soil.

Employed in Industry Group (2020): 308

2014 - 2019 % Growth: 126%

Typical Entry Level Education: High school diploma

Median Hourly Earnings: \$20.54

Online Job Postings Across All Industries (10/20 – 9/21): 3

2020 Related Graduates: 0

ELECTRICAL AND ELECTRONICS REPAIRERS, POWERHOUSE, SUBSTATION, AND RELAY

'

Inspect, test, repair, or maintain electrical equipment in generating stations, substations, and in-service relays.

Employed in Industry Group (2020): 252

2014 - 2019 % Growth: 360%

Typical Entry Level Education: Postsecondary nondegree award

Median Hourly Earnings: \$36.39

Online Job Postings Across All Industries (10/20 – 9/21): 20

2020 Related Graduates: 261

PERSONAL SERVICE MANAGERS, ALL OTHER



Employed in Industry Group (2020): 246

2014 - 2019 % Growth: 62%

Typical Entry Level Education: Bachelor's degree

Median Hourly Earnings: \$37.20

Online Job Postings Across All Industries (10/20 – 9/21): 1,199

2020 Related Graduates: 6,152

Top Certifications by Job Posting (10/20 – 9/21)

- Project Management Professional Certification
- Master Of Business Administration (MBA)
- · Bachelor Of Science in Business

CALIBRATION TECHNOLOGISTS AND TECHNICIANS AND ENGINEERING TECHNOLOGISTS AND TECHNICIANS, EXCEPT DRAFTERS, ALL OTHER

Execute or adapt procedures and techniques for calibrating measurement devices, by applying knowledge of measurement science, mathematics, physics, chemistry, and electronics, sometimes under the direction of engineering staff.

Employed in Industry Group (2020): 156

2014 - 2019 % Growth: 75%

Typical Entry Level Education: Associate's degree

Median Hourly Earnings: \$34.49

Online Job Postings Across All Industries (10/20 - 9/21): 73

2020 Related Graduates: 333

Top Certifications by Job Posting (10/20 – 9/21)

- ASNT Non-Destructive Tester
- Industry Radiography Radiation Safety Personnel
- Security Clearance

UNDERGROUND MINING MACHINE OPERATORS AND EXTRACTION WORKERS, ALL OTHER



All underground mining machine operators and extraction workers not listed separately. Includes, Longwall Shearer Operator and Shale Planer Operator.

Employed in Industry Group (2020): 143

2014 - 2019 % Growth: 146%

Typical Entry Level Education: High school diploma

Median Hourly Earnings: \$25.66 2020 Related Graduates: 0



= Occupational growth within the industry during the pandemic (2019 - 2020)



= STEM Occupation as determined by the Bureau of Labor Statistics

Note: Limited online job postings do not indicate zero demand. For many middle- and basic-skill jobs, openings are spread via word of mouth.

Note: Certain programs may prepare graduates for multiple occupations, as such the related graduates for the top occupations may not align with the related graduates listed on the previous page.

Credential to Career Pathways

While there are several difference credentials workers may need to enter the energy sector, often, these credentials center around safety related competencies. Credentials can vary depending on the occupation. For example, those transporting combustible liquids may need a hazmat endorsement, while those responsible for maintaining the electric grid may need be a journey lineman.

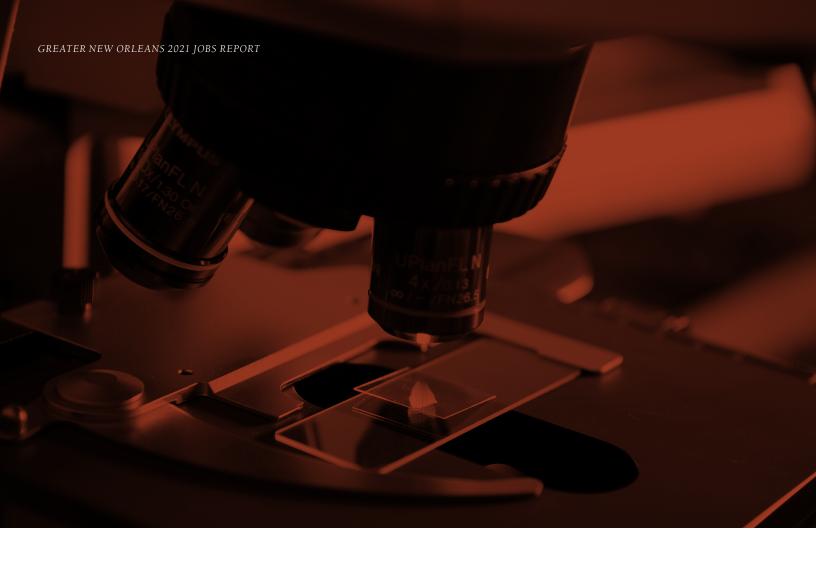
What follows is an overview of select certifications in the industry and how they translate to high-wage jobs. This section is not intended to be exhaustive, rather it sets out to illustrate how obtaining a diverse set of credentials can create pathways to opportunities for the region's workforce across all industries.

EDUCATION & SKILLS

CERTIFICATION/CREDENTIAL	TOP OCCUPATIONS (ACROSS ALL INDUSTRIES)
Tanker Endorsement	- Heavy and Tractor-Trailer Truck Drivers*
	- First-Line Supervisors of Transportation and Material Moving Workers, Except Aircraft Cargo Handling Supervisors*
	- Bus and Truck Mechanics and Diesel Engine Specialists*
Hazmat Endorsement	- Heavy and Tractor-Trailer Truck Drivers*
	- Bus and Truck Mechanics and Diesel Engine Specialists*
	- Service Unit Operators, Oil and Gas*
Certified Safety Profession	- Health and Safety Engineers, Except Mining Safety Engineers and Inspectors
	- Occupational Health and Safety Specialists
	- Project Management Specialists and Business Operations Specialists, All Other
Certified Industrial Hygienist	- Occupational Health and Safety Spe-cialists
	-Health and Safety Engineers, Except Mining Safety Engineers and Inspectors
	- Compliance Officers
Journeyman Lineman	- Electrical Power-Line Installers and Repairers*
	- Telecommunications Line Installers and Repairers*

Note: Certification/credential and posting data is limited to the energy industry, however the top occupations are across all industries.

^{*} Denotes a job that requires less than a bachelor's degree.



Health Sciences

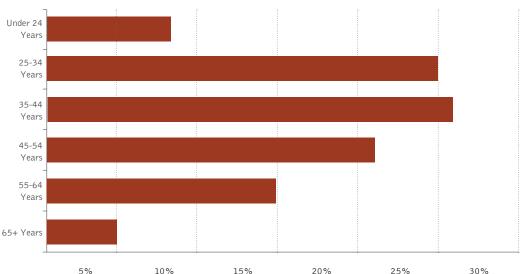
Over the past decade, the health sciences sector in the region has been one of the fastest growing sectors. Home to a network of highly regarded hospitals, multiple colleges and universities with strong biotech-related programs, and high-tech research facilities, the health sciences industry employs over 80,000 residents in Greater New Orleans.

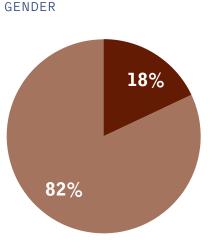
While many jobs in the sector were in highdemand pre-pandemic, the pandemic has further highlighted the importance of these jobs for both the welfare of the residents in the region and the strength of the economy. The 2020 Greater New Orleans Jobs Report highlighted the importance of health care jobs in both the near- and long-term, which remains true today. Jobs such as respiratory therapists, registered nurses, and lab technicians have all experienced significant growth in terms of online job postings since the release of the previous report. In fact, from October 2020 to September 2021, registered nurses were the highest-demand occupation in terms of total number of online job postings.

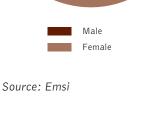
Additionally, telehealth continues to play a central role in the future of health care and is projected to continue growing as outlined in the 2020 report. According to McKinsey & Company, telehealth utilization has stabilized at levels 38 times higher than before the pandemic and 40% of survey participants said that they will continue to use telehealth, up from 11% of consumers using telehealth prior to the pandemic.

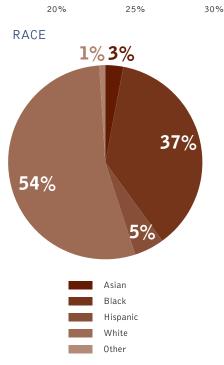
DEMOGRAPHICS

AGE









INDUSTRY Overview

30,363

Average Salary \$60,830

Recent Graduates

4,526

Skill Level

Basic: 6%

Middle: 56%

High: 38%

Source: Emsi, 2020

Top Occupations

MEDICAL DOSIMETRISTS, MEDICAL RECORDS SPECIALISTS, AND HEALTH TECHNOLOGISTS AND TECHNICIANS, ALL OTHER



Generate radiation treatment plans, develop radiation dose calculations, communicate, and supervise the treatment plan implementation, and consult with members of radiation oncology team. Compile, process, and maintain medical records of hospital and clinic patients in a manner consistent with medical, administrative, ethical, legal, and regulatory requirements of the healthcare system. Classify medical and healthcare concepts, including diagnosis, procedures, medical services, and equipment, into the healthcare industry's numerical coding system. Includes medical coders.

Employed in Industry Group (2020): 1,525

2014 - 2019 % Growth: 6%

Typical Entry Level Education: Postsecondary nondegree award

Median Hourly Earnings: \$19.32

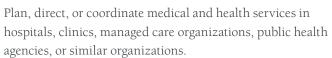
Online Job Postings Across All Industries (10/20 - 9/21): 768

2020 Related Graduates: 506

Top Certifications by Job Posting (10/20 – 9/21)

- Patient Care Technician
- Certified Coded Specialist
- Registered Health Information Technician

MEDICAL AND HEALTH SERVICES MANAGERS



Employed in Industry Group (2020): 1,332

2014 – 2019 % Growth: 71%

Typical Entry Level Education: Bachelor's degree

Median Hourly Earnings: \$49.61

Online Job Postings Across All Industries (10/20 - 9/21): 1,724

2020 Related Graduates: 1,206

Top Certifications by Job Posting (10/20 - 9/21)

- Medical License
- Bachelor of Science in Nursing
- Master of Business Administration

FIRST-LINE SUPERVISORS OF OFFICE AND ADMINISTRATIVE SUPPORT WORKERS



Directly supervise and coordinate the activities of helpers, laborers, or material movers, hand. Directly supervise and coordinate activities of material-moving machine and vehicle operators and helpers. Supervise and coordinate activities of passenger attendants.

Employed in Industry Group (2020): 1,332

2014 – 2019 % Growth: 36% Typical Entry Level Education: Median Hourly Earnings: \$23.15

Online Job Postings Across All Industries (10/20 – 9/21): 3,123

2020 Related Graduates: 3,144

Top Certifications by Job Posting (10/20 – 9/21)

- · Bachelor of Science in Business
- Certified Pharmacy Technician
- Commercial Driver's License

HEALTH INFORMATION TECHNOLOGISTS, MEDICAL REGISTRARS, SURGICAL ASSISTANTS, AND HEALTHCARE PRACTITIONERS AND TECHNICAL WORKERS



Apply knowledge of healthcare and information systems to assist in the design, development, and continued modification and analysis of computerized healthcare systems. Abstract, collect, and analyze treatment and follow-up information of patients. May educate staff and assist in problem solving to promote the implementation of the healthcare information system. May design, develop, test, and implement databases with complete history, diagnosis, treatment, and health status to help monitor diseases. Assist in operations, under the supervision of surgeons. May, in accordance with state laws, help surgeons to make incisions and close surgical sites, manipulate or remove tissues, implant surgical devices or drains, suction the surgical site, place catheters, clamp or cauterize vessels or tissue, and apply dressings to surgical site. All healthcare practitioners and technical workers not listed separately.

Employed in Industry Group (2020): 1,106

2014 - 2019 % Growth: 123%

Typical Entry Level Education: Postsecondary nondegree award

Median Hourly Earnings: \$22.33

Online Job Postings Across All Industries (10/20 - 9/21): 9

2020 Related Graduates: 0

RADIOLOGIC TECHNOLOGISTS AND TECHNICIANS



Take x-rays and CAT scans or administer nonradioactive materials into patient's bloodstream for diagnostic or research purposes.

Includes individuals who specialize in other scanning modalities.

Employed in Industry Group (2020): 1,042

2014 - 2019 % Growth: 41%

Typical Entry Level Education: Associate's degree

Median Hourly Earnings: \$27.12

Online Job Postings Across All Industries (10/20 – 9/21): 1,021

2020 Related Graduates: 44

Top Certifications by Job Posting (10/20 – 9/21)

- American Registry of Radiologic Technologists (ARRT) Certified
- Certified Radiologic Technologist/Technician
- Certified Nuclear Medicine Technologist



RESPIRATORY THERAPISTS

Assess, treat, and care for patients with breathing disorders. Assume primary responsibility for all respiratory care modalities, including the supervision of respiratory therapy technicians. *Employed in Industry Group (2020): 944*

2014 - 2019 % Growth: 49%

Typical Entry Level Education: Associate's degree

Median Hourly Earnings: \$27.03

Online Job Postings Across All Industries (10/20 – 9/21): 1,208

2020 Related Graduates: 17

Top Certifications by Job Posting (10/20 – 9/21)

- Registered Respiratory Therapist
- Respiratory Care Practitioner
- Neonatal/Pediatric Specialty (Credential For Respiratory Therapists)

SURGICAL TECHNOLOGISTS





Assist in operations, under the supervision of surgeons, registered nurses, or other surgical personnel.

Employed in Industry Group (2020): 758

2014 - 2019 % Growth: 8%

Typical Entry Level Education: Associate's degree

Median Hourly Earnings: \$20.69

Online Job Postings Across All Industries (10/20 – 9/21): 962

2020 Related Graduates: 50

Top Certifications by Job Posting (10/20 – 9/21)

- · Certified Surgical Technologist
- Licensed Practical Nurse
- Certified Registered Nurse Anesthetist (CRNA)

EMERGENCY MEDICAL TECHNICIANS AND PARAMEDICS





Assess injuries and illnesses and administer basic emergency medical care. May transport injured or sick persons to medical facilities. Administer basic or advanced emergency medical care and assess injuries and illnesses.

Employed in Industry Group (2020): 738

2014 – 2019 % Growth: 53%

Typical Entry Level Education: Postsecondary nondegree award

Median Hourly Earnings: \$19.83

Online Job Postings Across All Industries (10/20 – 9/21): 360

2020 Related Graduates: 84

Top Certifications by Job Posting (10/20 – 9/21)

- National Registry Emergency Medical Technician
- · Advanced Life Support
- · Certified First Responder

SUBSTANCE ABUSE, BEHAVIORAL DISORDER, AND MENTAL HEALTH COUNSELORS

Counsel and advise individuals with alcohol, tobacco, drug, or other problems, such as gambling and eating disorders. May counsel individuals, families, or groups or engage in prevention programs.

Employed in Industry Group (2020): 732

2014 - 2019 % Growth: 44%

Typical Entry Level Education: Bachelor's degree

Median Hourly Earnings: \$19.68

Online Job Postings Across All Industries (10/20 – 9/21): 457

2020 Related Graduates: 839

Top Certifications by Job Posting (10/20 – 9/21)

- Licensed Professional Counselor (LPC)
- Licensed Clinical Social Worker (LCSW)
- Licensed Marriage and Family Therapist (LMFT)

DENTAL HYGIENISTS





Administer oral hygiene care to patients. Assess patient oral hygiene problems or needs and maintain health records. Advise patients on oral health maintenance and disease prevention *Employed in Industry Group (2020): 678*

2014 - 2019 % Growth: 32%

Typical Entry Level Education: Associate's degree

Median Hourly Earnings: \$35.62

Online Job Postings Across All Industries (10/20 – 9/21): 142

2020 Related Graduates: 37



= Occupational growth within the industry during the pandemic (2019 - 2020)



= STEM Occupation as determined by the Bureau of Labor Statistics

Note: Certain programs may prepare graduates for multiple occupations, as such the related graduates for the top occupations may not align with the related graduates listed on the previous page.

Credential to Career Pathways

For a significant number of health science occupations, credentials are mandatory in order to ensure patient safety. While proof of knowledge of competencies such as basic or advanced life support are common across many occupations, there are also specialized credentials depending on the career path.

What follows is an overview of select certifications in the industry and how they translate to high-wage jobs. This section is not intended to be exhaustive, rather it sets out to illustrate how obtaining a diverse set of credentials can create pathways to opportunities for the region's workforce across all industries.

EDUCATION & SKILLS

TOP OCCUPATIONS (ACROSS ALL INDUSTRIES)
- Licensed Practical and Licensed Vocational Nurses*
- Registered Nurses
- Medical and Health Services Managers
- Medical Dosimetrists, Medical Records Specialists, and Health Technologists and Technicians, All Other*
- Registered Nurses
- Emergency Medical Technicians and Paramedics*
- Registered Nurses
- Emergency Medical Technicians and Paramedics*
- Medical and Health Services Managers
- Respiratory Therapists*

Note: the certification/credential and posting data is limited to the health sciences industry, however the top occupations are across all industries.

^{*} Denotes a job that requires less than a bachelor's degree.



Transportation and Logistics

The Greater New Orleans region offers unparalleled infrastructure access for transportation and logistics companies. Home to multiple deep draft ports, six Class I railroads, and a top ranked international airport, the transportation and logistics industry supports well-paying jobs for thousands of Greater New Orleans residents.

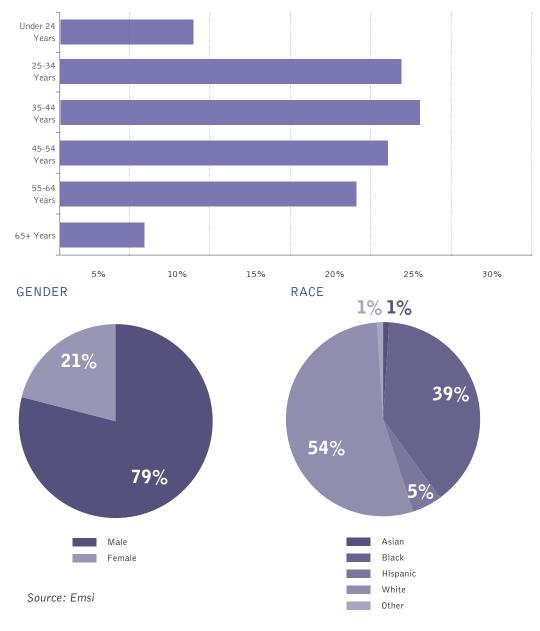
The industry is unique in that over 90% of the jobs do not require a four-year college degree. Low barriers to entry coupled with wages above the regional average, present a significant opportunity to build wealth locally. This does not mean that workers do not need to learn skills and obtain credentials to access jobs. In fact, the data demonstrates that many of the region's top jobs require credentials to ensure both safety and efficiency.

What's more, a quarter of the industry's workforce is nearing retirement. The impending retirement boom makes it more critical to ensure that workers have the necessary credentials and certifications to fill the retirement gap.

The 2020 Greater New Orleans Jobs Report placed specific attention on the increased demand in the warehousing sub-sector. Although online job postings in this sub-sector have decreased from their pandemic high, postings are still double what they were prepandemic, indicating sustained demand in the sector.

DEMOGRAPHICS

AGE



ĪNDUSTRY OVERVIEW

26,686

Average Salary \$63,579

Recent Graduates

67

Skill Level

Basic: 28%

Middle: 66%

High: 6%

Source: Emsi, 2020

Top Occupations

CAPTAINS, MATES, AND PILOTS OF WATER VESSELS

Command or supervise operations of ships and water vessels, such as tugboats and ferryboats. Required to hold license issued by U.S. Coast Guard.

Employed in Industry Group (2020): 1,853

2014 - 2019 % Growth: 9%

Typical Entry Level Education: Postsecondary nondegree award

Median Hourly Earnings: \$50.75

Online Job Postings Across All Industries (10/20 – 9/21): 73

2020 Related Graduates: 1

Top Certifications by Job Posting (10/20 – 9/21)

- Standards Of Training Certification and Watchkeeping
- Transportation Worker Identification Credential (TWIC) Card

Note: Workers are required to hold proper licenses issued by the U.S. Coast Guard; this is not a recognized credential in the Emsi database.

BUS AND TRUCK MECHANICS AND DIESEL ENGINE SPECIALISTS

Diagnose, adjust, repair, or overhaul buses and trucks, or maintain and repair any type of diesel engines. Includes mechanics working primarily with automobile or marine diesel engines.

Employed in Industry Group (2020): 313

2014 - 2019 % Growth: 31%

Typical Entry Level Education: High school diploma

Median Hourly Earnings: \$24.73

Online Job Postings Across All Industries (10/20 – 9/21): 863

2020 Related Graduates: 22

Top Certifications by Job Posting (10/20 – 9/21)

- Commercial Driver's License (CDL)
- Automotive Service Excellence (ASE) Certification
- CDL Class B License

FIRST-LINE SUPERVISORS OF OFFICE AND ADMINISTRATIVE SUPPORT WORKERS

Directly supervise and coordinate the activities of clerical and administrative support workers.

Employed in Industry Group (2020): 301

2014 - 2019 % Growth: 11%

Typical Entry Level Education: high school diploma

Median Hourly Earnings: \$23.15

Online Job Postings Across All Industries (10/20 – 9/21): 3,123

2020 Related Graduates: 3,144

Top Certifications by Job Posting (10/20 – 9/21

- Bachelor of Science in Business
- · Certified Pharmacy Technician
- Commercial Driver's License

AIRCRAFT MECHANICS AND SERVICE TECHNICIANS

Diagnose, adjust, repair, or overhaul aircraft engines and assemblies, such as hydraulic and pneumatic systems.

Employed in Industry Group (2020): 263

2014 - 2019 % Growth: 45%

Typical Entry Level Education: Postsecondary nondegree award

Median Hourly Earnings: \$30.25

Online Job Postings Across All Industries (10/20 – 9/21): 169

2020 Related Graduates: 25

Top Certifications by Job Posting (10/20 – 9/21)

- Security Clearance
- Security Identification Display Area (SIDA) Badge
- Qualified Rigger

MOTORBOAT OPERATORS



Operate small motor-driven boats. May assist in navigational activities.

Employed in Industry Group (2020): 220

2014 - 2019 % Growth: 163%

Typical Entry Level Education: Postsecondary nondegree award

Median Hourly Earnings: \$45.42

Online Job Postings Across All Industries (10/20 – 9/21): 0

2020 Related Graduates: 1

AIRLINE PILOTS, COPILOTS, AND FLIGHT ENGINEERS

Pilot and navigate the flight of fixed-wing aircraft, usually on scheduled air carrier routes, for the transport of passengers and cargo. Requires Federal Air Transport certificate and rating for specific aircraft type used.

Employed in Industry Group (2020): 194

2014 - 2019 % Growth: 158%

Typical Entry Level Education: Bachelor's degree

Median Hourly Earnings: \$48.83

Online Job Postings Across All Industries (10/20 - 9/21): 22

2020 Related Graduates: 0

Top Certifications by Job Posting (10/20 – 9/21)

- FAA First Class Medical Certificate
- Airline Transport Pilot License
- · Commercial Pilot License

PERSONAL SERVICE MANAGERS, ALL OTHERS

All personal service managers not listed separately. Includes Regulatory Affairs Managers, Compliance Managers, and Supply Chain Managers.

Employed in Industry Group (2020): 152

2014 - 2019 % Growth: 29%

Typical Entry Level Education: Bachelor's degree

Median Hourly Earnings: \$37.20

Job Postings Across All Industries (10/20 – 9/21): 1,192

2020 Related Graduates: 6,152

Top Certifications by Job Posting (10/20 – 9/21)

- Project Management Professional Certification
- Bachelor Of Science in Business
- Master Of Business Administration (MBA)
- Secret Clearance
- Certified Public Accountant



= Occupational growth within the industry during the pandemic (2019 - 2020)

Credential to Career Pathways

Like other industries discussed in this report, credentials and certifications are necessary for many occupations. Not only are credentials necessary to ensure the safety of others, but are also critical for the efficient movement of goods.

What follows is an overview of select certifications in the industry and how they translate to high-wage jobs. This section is not intended to be exhaustive, rather it sets out to illustrate how obtaining a diverse set of credentials can create pathways to opportunities for the region's workforce across all industries.

EDUCATION & SKILLS

CERTIFICATION/CREDENTIAL	TOP OCCUPATIONS (ACROSS ALL INDUSTRIES)
Commercial Driver's License	- Heavy and Tractor-Trailer Truck Drivers*
	- First-Line Supervisors of Transportation and Material Moving Workers, Except Aircraft Cargo Handling Supervisors*
	- Bus and Truck Mechanics and Diesel En-gine Specialists*
Doubles Endorsement	- Heavy and Tractor-Trailer Truck Drivers*
	- Bus Drivers, Transit and Intercity*
Automotive Service Excellence Awards	- Bus and Truck Mechanics and Diesel Engine Specialists*
	- Automotive Body and Related Repair-ers*
	- First-Line Supervisors of Mechanics, Installers, and Repairers*
Advanced Life Support	- Registered Nurses
	- Emergency Medical Technicians and Paramedics*
	- Medical and Health Services Managers
Standards Of Training Certification and Watchkeeping	- Sailors and Marine Oilers*
	- Captains, Mates, and Pilots of Water Vessels*
	- Stationary Engineers and Boiler Operators*

Note: the certification/credential and posting data is limited to the transportation and logistics industry, however the top occupations are across all industries.

^{*} Denotes a job that requires less than a bachelor's degree.

Regional Higher Education & Training Providers

The long-term success of the Greater New Orleans region is predicated on our ability to expand and sustain a skilled workforce available to our region's growing industry sectors. The region's K-12, higher education, and nonprofit training providers play a critical role in economic development and industry growth. These partners are key to fueling the knowledge economy and creating economic prosperity.

The Greater New Orleans region is home to 13 universities and colleges, including three HBCUs, three MBA programs, two medical schools, two law schools, an architecture school, and a dental school. These world class institutions make Greater

GREATER NEW ORLEANS HIGHER EDUCATION PARTNERS

New Orleans a true center of higher education excellence.

The region is also equipped with a robust, diverse ecosystem of training and technical skills providers that offer employability skills and industry-driven training programs. Focus areas include youth programming, upskilling adult education, and industry driven workforce readiness courses.

With a strong higher education and training provider network, the region is well positioned to close disparity gaps and reach education attainment goals that will create strong economic growth opportunities for all.



























ADDITIONAL TRAINING & TECHNICAL SKILLS PARTNERS

















