

WELCOME

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JPMorgan Chase is investing in the future of Miami-Dade County. In May 2014, we committed \$5 million over five years to help close the workforce skills gap in Miami. With its unique position as the gateway to the Americas, Miami-Dade County is poised to grow in national and international prominence. One of the challenges facing the county is ensuring that Miami's workforce is prepared to take advantage of job opportunities in the sectors that are fueling the region's economic growth. Smart investments in training will set job seekers on the road to economic mobility and build the skilled workforce that Miami will need to thrive.

This is why we are pleased to partner with The Beacon Council's *One Community One Goal* initiative. *One Community One Goal* is positioning the county for continued growth by developing a community-wide vision for Miami-Dade's future and an action-oriented roadmap for creating well-paying jobs in seven target industries. In this report, we profile two of these industries in depth: trade and logistics, and information technology. We hope the data presented here will support the work already under way in these industries and encourage additional efforts to build a pipeline of skilled workers for long-term careers.

This skills gap report for Miami-Dade County is the last in a series of reports that have examined labor market conditions in metropolitan regions across the United States, and in France, Germany, Spain and the United Kingdom. These reports provide data-driven solutions to address the mismatch between employer needs and the skills of current job seekers. They are a key component of *New Skills at Work*, JPMorgan Chase's five-year \$250 million global workforce readiness and demand-driven training initiative.

In these reports, we have sought to highlight data that will help policymakers, civic leaders, training providers and employers reduce the gap between the skilled workforce employers need to be competitive and the training opportunities available to job seekers. We focus on middle-skill jobs – well-paying jobs in high-growth fields that require a high school diploma and some postsecondary education and training, but not necessarily a four-year college degree. Aligning workforce training with the skills industries value will create new opportunities for workers, enable businesses to grow and compete, and promote economic growth.

We are proud to be working with leaders in Miami and in cities around the world to provide valuable data, catalyze important conversations and build strong workforce systems that contribute to broadly shared economic prosperity.



JAMIE DIMON
Chairman and Chief Executive Officer
JPMorgan Chase & Co.
Chair, Global Workforce Advisory Council

ACKNOWLEDGEMENTS

JPMorgan Chase & Co. is investing \$250 million over five years in a global initiative to help markets build a demand-driven workforce development system, and to prepare youth and adults for careers in high-demand, middle-skill occupations. To advance this work, we are supporting data analysis in domestic and international markets: Chicago, Columbus, Dallas-Fort Worth, Detroit, Houston, Los Angeles, Miami, New York City, San Francisco, France, Germany, Spain and the United Kingdom.

JPMorgan Chase deeply appreciates the work of partners in producing this report. **Jobs for the Future** (www.jff.org), which is a national partner in the *New Skills at Work* initiative, is serving as the lead intermediary for the U.S. reports. Founded in 1983, Jobs for the Future works to ensure that all underprepared young people and workers have the skills and credentials needed to succeed in our economy, by creating solutions that catalyze change in our education and workforce delivery systems. We are especially thankful for the work of the writers of this report: Gloria Mwase and Lucretia Murphy, as well as the data collection and analysis provided by Myriam Milfort Sullivan and research assistance by Monique Sheen. The report has been strengthened by insightful feedback from Maria Flynn and Steven Baker and by editing from Carol Gerwin and Sara Lamback.

Two national organizations provided the data and analysis for the U.S. reports: **Economic Modeling Specialists International**, a CareerBuilder company, turns labor market data into useful information that helps organizations understand the connection between economies, people and work (www.economicmodeling.com). **Burning Glass Technologies** develops leading technologies for matching people with jobs through pioneering solutions, and leverages a deep understanding of people and their careers in order to deliver superior workforce and marketplace insight (www.burning-glass.com).

Each report also relies on the insights and feedback of local stakeholders. We would like to express our appreciation to the employers and economic development and workforce development experts in Miami who informed report findings and reviewed drafts: Joseph Hovancak, Vice President, One Community One Goal, The Beacon Council; Jaap Donath, Senior Vice President for Research, The Beacon Council; Gary Goldfarb, Chief Strategy Officer, Interport; Ken Finneran, Chief People Officer, Hellmann Worldwide Logistics; Nicole Kaufman, Associate Vice Provost of Operations and Strategy Implementation, Florida International University; and Mark Needle, Education Specialist, Intergovernmental Affairs, Miami-Dade County Public Schools.

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We would also like to thank Melody Barnes, former Assistant to the President and Director of the White House Domestic Policy Council and Co-chair of the Global Workforce Advisory Council, for her insights, time and unwavering support throughout this process.



JOBS FOR THE FUTURE



EXECUTIVE SUMMARY

MIAMI-DADE COUNTY IS REBOUNDING FROM THE RECESSION

Miami-Dade County was hard hit by the recession, but its dynamic and diverse economy is now recovering. Seven sectors contribute significantly to growth: aviation, banking and finance, creative design, hospitality and tourism, information technology (IT), life sciences and healthcare, and trade and logistics (T&L).

Miami-Dade's unemployment rate was

6.3%

in May 2015, down from 12.5% from 2010¹

The Gross Regional Product (GRP) is

\$124 billion

- up \$7.7 billion from the bottom of the recession²

The region has added over

115,000 new jobs

since 2010

Jobs are expected to grow by

13%

from 2012-2022

Miami-Dade's population has grown at a rate of

8.1%

for the last five years

(Source: EMSI unless otherwise noted)

MIDDLE-SKILL JOBS ARE CENTRAL TO MIAMI-DADE'S ECONOMY

- 38% of Miami's 1.2 million jobs are in middle-skill occupations - jobs that require more than a high school credential and less than a Bachelor's degree.
- 22% are what this report refers to as "target middle-skill jobs"³ - high-demand occupations that also pay a living wage.⁴

Miami-Dade currently has nearly

270,743

target middle-skill jobs⁵

Target middle-skill jobs pay a median hourly wage of

\$24.90

- higher than the region's median wage of \$18.48 per hour

9,540

target middle-skill job openings are projected every year from 2014 to 2019

(Source: EMSI unless otherwise noted)

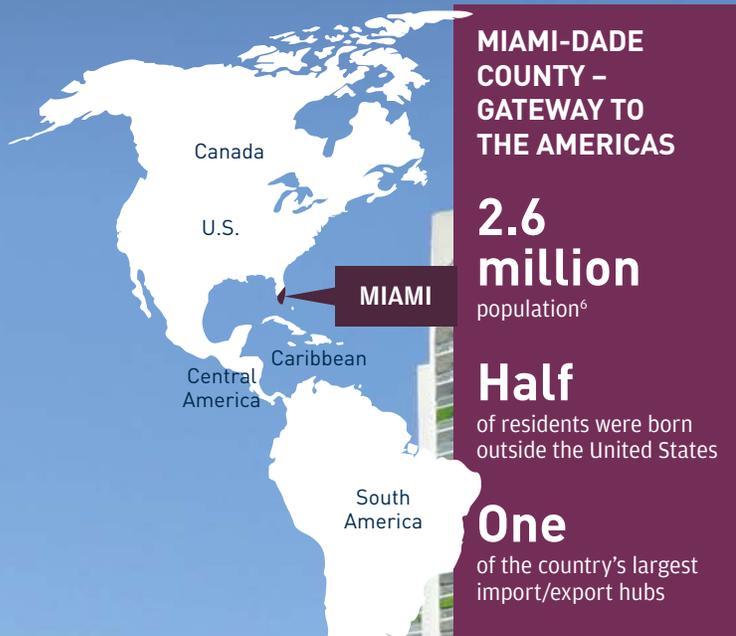
1 State of Florida Department of Economic Opportunity. (2015). "Local Area Unemployment Statistics." Retrieved from: <http://www.floridajobs.org/labor-market-information/data-center/statistical-programs/local-area-unemployment-statistics>.

2 Miami-Dade County, Department of Regulatory & Economic Resources, Economic Analysis and Policy. (2014). *Economic & Demographic Profile 2014*. Retrieved from: <http://www.miamidade.gov/business/library/reports/2014-economic-demographic-profile.pdf>.

3 See Appendix A for more information on the definition of target middle-skill jobs.

4 The living wage for this analysis is for a family of three (with two adults and one child), living in Miami-Dade County, as defined by the MIT Living Wage Calculator. For more information, see: <http://livingwage.mit.edu/>. Effective October 2014, the City of Miami and Dade County implemented a living wage ordinance affecting city and county employees and contractors. Based on the Consumer Price Index, the living wage rates for 2014-2015 are \$14.27 per hour for employers not offering qualifying health benefits and \$12.46 for employers that offer health benefits.

5 EMSI



MANY RESIDENTS ARE NOT BENEFITING FROM ECONOMIC GROWTH

Whether from unemployment, low educational attainment, or lack of technical skills, too many of the region's residents are not benefiting from the economic growth in Miami-Dade County.

- Unemployment among young people ages 16–19 is 27.4%; that is five times the overall unemployment rate (5.4%).⁷
- For those ages 20–24, the unemployment rate is as high as 19.9%.⁸
- Racial disparities persist. Regardless of age, African-Americans face significantly higher unemployment than other racial/ethnic groups and the region as a whole.⁹
- More than 20% of Miami-Dade residents lack a high school diploma or GED, the minimum educational requirement for employment in the T&L and IT sectors.¹⁰
- Of Miami-Dade County residents, regardless of whether they completed high school, 52% lack the basic literacy skills (reading, writing and math) needed to enter career pathways in high-growth sectors.¹¹

⁶ U.S. Census Bureau. (2015). "State and County QuickFacts: Miami-Dade County, Florida." Retrieved from: <http://quickfacts.census.gov/qfd/states/12/12086.html>.

⁷ Florida Department of Economic Opportunity, Bureau of Labor Statistics. Retrieved from: <http://www.floridajobs.org/labor-market-information/data-center/statistical-programs/local-area-unemployment-statistics>.

⁸ *Ibid.*

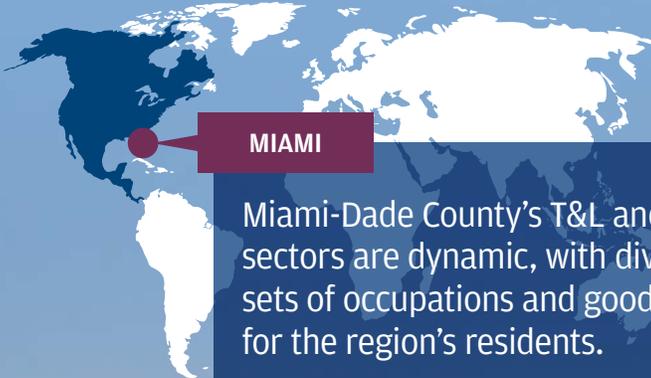
⁹ U.S. Census Bureau. (2014). *American Community Survey*. 2013 estimates. Prepared by Florida Department of Economic Opportunity, Bureau of Labor Statistics.

¹⁰ EMSI

¹¹ U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy.

EXECUTIVE SUMMARY CONT.

TRADE AND LOGISTICS AND INFORMATION TECHNOLOGY PROVIDE MIDDLE-SKILL JOB OPPORTUNITIES



MIAMI

Miami-Dade County's T&L and IT sectors are dynamic, with diverse sets of occupations and good jobs for the region's residents.

TRADE AND LOGISTICS

T&L has a broad reach in the region, creating jobs in the port, airport, and many distribution and supply chain enterprises that connect the region to the nation and the world.

More than

52,000

jobs in this sector in 2013

1,300

annual openings projected (2014-2019)



INFORMATION TECHNOLOGY

IT's impact as an economic driver is growing significantly.

More than

8,800

jobs in this sector in 2013

610

annual openings projected (2014-2019)



(Source: EMSI and Burning Glass)



TRADE AND LOGISTICS

14%

projected employment growth through 2022



INFORMATION TECHNOLOGY

43%

projected employment growth through 2022

Projected high-growth occupations 2012-2022:

- Logistics and supply chain jobs (34%)
- Warehouse and distribution jobs (17%)
- Transportation jobs (10%)

- Computer Systems Analyst (33%)
- Web Developer (26%)
- Computer User Support Specialist (18%)

\$23.75

median hourly wage

\$22.24

median hourly wage

(Source: EMSI)

ONE COMMUNITY ONE GOAL: A ROADMAP FOR ECONOMIC GROWTH

Through The Beacon Council's *One Community One Goal* initiative, education, business, workforce, and nonprofit organizations collaborate to advance the twin goals of job creation and development of skilled workers to fill these jobs. These efforts have created strengths on which future efforts can build, which are highlighted in this report.

In addition to T&L and IT, the region's other high-priority sectors are:



AVIATION



INTERNATIONAL BANKING
AND FINANCE



CREATIVE DESIGN



HOSPITALITY AND
TOURISM



LIFE SCIENCES AND
HEALTHCARE

CAPACITY GAPS POSE A CHALLENGE

Yet the education and workforce development system has capacity gaps that threaten its ability to scale up talent development in response to employer demand.

- Despite strong collaboration among some business leaders in the Targeted Industry Committees, many IT and T&L employers perceive that the region's skilled talent supply is insufficient to meet demand, resulting in a barrier to hiring local job seekers.
- Lack of clarity about employer skill requirements make it difficult to align education and training programs with these needs.
- Lower-skilled young people and adults find it difficult to access high-demand occupations. On-ramp programs in the T&L and IT sectors do not exist or are not clearly articulated with the next steps in education and training pathways, and adult education programs are not well aligned with technical education to support smooth transitions.
- The infrastructure and mechanisms to scale up effective talent development programs in response to employer demand do not yet exist. This includes sufficient staffing at The Beacon Council to support and expand the significant voluntary efforts under way.

OPPORTUNITIES TO EARN MORE OVER TIME THROUGH EDUCATION AND TRAINING



CAREER ADVANCEMENT IN TRADE AND LOGISTICS

	Occupation	Median Hourly Wage 2014
High-Skill	Procurement/Sourcing Manager	\$54.60
	Transportation Manager	\$43.36
	Logistics/Supply Chain Manager	\$42.68
Middle-Skill	Buyer/Purchasing Agent	\$23.41
	Transportation Planner/Analyst	\$37.89
	Logistician/Supply Chain Specialist	\$27.35
Entry-Level	Purchasing Assistant	\$14.20
	Shipping/Receiving Clerk	\$12.58
	Scheduler/Operations Coordinator	\$19.07

Source: EMSI and Burning Glass



CAREER ADVANCEMENT IN INFORMATION TECHNOLOGY

	Occupation	Median Hourly Wage 2014
High-Skill	Database Administrator	\$34.44
	Network Administrator	\$28.92
	Information Security Analyst	\$37.69
Middle-Skill	Help Desk Manager	\$30.94
	Network Support	\$22.72
	Advanced Computer Support	\$25.79
Entry-Level	Help Desk	\$22.44

Source: EMSI and Burning Glass

EXECUTIVE SUMMARY CONT.

OUR RECOMMENDATIONS

Through the leadership of The Beacon Council and *One Community One Goal* stakeholders, the region has built impressive employer leadership and strengths in its educational and workforce systems. The county now faces an important opportunity to integrate existing strategies into a comprehensive career pathways system that can scale efforts to prepare residents for middle-skill T&L and IT jobs, expanding to other sectors over time.

Recommendation

1. Develop contextualized “bridge” programs to prepare low-skilled youth and adults for success in T&L and IT pathways.

Adult basic education and postsecondary remedial programs can explicitly link their academic instruction with job training in these high-demand industries. Given regional demand for multilingual employees, programs teaching English language skills can also design strategies to develop native language skills in technical areas as well.

Recommendation

2. Develop employer-endorsed standards and assessments for employability skills.

Targeted Industry Committees can develop a set of uniform, employer-endorsed standards for core employability skills that can be incorporated into instruction in T&L and IT pathway programs. These can include assessments of the ability to apply these skills in work-based scenarios.

Recommendation

3. Develop a marketing and outreach campaign to increase awareness about middle-skill IT and T&L careers.

The Beacon Council can work with employers and educational institutions to develop and disseminate consistent information about middle-skill career opportunities – and how to access them – to students, job seekers and career counselors. Using mass media, social media and grassroots tactics, the campaign can include strategies for engaging populations underrepresented in these sectors, such as women, people of color, returning veterans, the unemployed and the underemployed.

Recommendation

4. Support and scale T&L and IT training programs.

The Beacon Council, in collaboration with the Targeted Industry Committees and the Academic Leaders Council, can identify a set of talent supply benchmarks for each industry that is aligned with the hiring priorities of employers that can help guide the scale of educational programming. Targeted Industry Committees can help identify the strengths and weaknesses of education and training options, which The Beacon Council can then use to develop targeted technical assistance and disseminate promising practices.

Recommendation

5. Increase the capacity of The Beacon Council to serve as the intermediary to help scale and sustain the work.

The Beacon Council can engage with *One Community One Goal* stakeholders in efforts to “make the case” to public and private donors about the need for expanding intermediary capacity to scale up activities. County stakeholders can also contribute to the implementation of *One Community One Goal* by offering their time, expertise or resources to this effort.

Through the *New Skills at Work* initiative, JPMorgan Chase will contribute resources and expertise to accelerate this work to help transform lives and strengthen the Miami-Dade economy.

INTRODUCTION

Known as the “Gateway to the Americas,” Miami-Dade County is one of the country’s largest import/export hubs, a magnet for bringing businesses, goods, services and people to the region. Though hard hit during the recession, **Miami-Dade’s** **1** economy is rebounding and gaining momentum across a range of industries.

The Beacon Council, the region’s economic development partnership, started planning a roadmap for growth in 2011. Its **One Community One Goal** **2** (OCOG) initiative brought together hundreds of stakeholders and identified seven industries as economic drivers: aviation, banking and finance, creative design, hospitality and tourism, information technology (IT), life sciences and healthcare, and trade and logistics (T&L). Working with business, education and community leaders, the OCOG’s goal is to accelerate job growth in high-demand industries and build an educational ecosystem that prepares Miami-Dade residents for jobs in those sectors.

This *New Skills at Work* report deepens OCOG’s efforts. The report focuses on two of its high-priority sectors: T&L and IT. Using real-time data drawn from online job postings, traditional labor market information, and input from local stakeholders and employers, it provides an overview of middle-skill job prospects in these industries, and the challenges and opportunities for creating an inclusive talent pipeline to meet the demand for middle-skill workers. It also offers recommendations for developing a demand-driven **career pathways system** **3** that can bridge the opportunity gap and skills mismatch so that the workforce can help to fuel the region’s economic growth.

1 Defining Region

Miami-Dade County is the most populous county in Florida and home to more than 2.6 million people.¹² The region encompasses 35 cities, including Miami, Miami Beach, Coral Gables, Doral and Hialeah.¹³

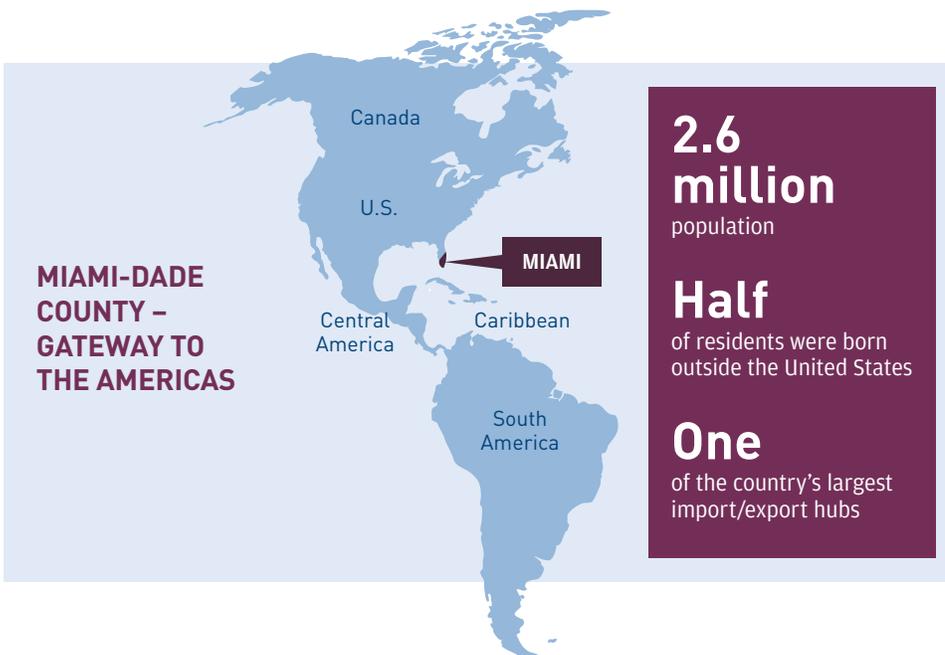
2 One Community One Goal

In 2011, The Beacon Council – in collaboration with industry, education, workforce development, community and political leaders – re-launched the *One Community One Goal* initiative¹⁴ to build a roadmap for economic development that will benefit all residents of Miami-Dade County.

Targeted Industry Committees, representing each of the region’s seven high-demand industries, and the Academic Leaders Council (ALC), comprised of the region’s K-12 and higher education leaders, have worked collaboratively to create and begin implementing a slate of strategies to build on the county’s assets and address its gaps. JPMorgan Chase is supporting this ongoing effort as part of its *New Skills at Work* initiative.

3 What Are Career Pathways?

Career pathways are education and training programs that offer a well-articulated sequence of courses and work experiences that align with employer demand. They lead to the completion of “stackable” credentials that offer multiple entry and exit points for education and training as students progress toward an Associate’s degree or the highest industry credential required for a specific occupation.



¹²U.S. Census Bureau. [2015]. “State and County QuickFacts: Miami-Dade County, Florida.” Retrieved from: <http://quickfacts.census.gov/qfd/states/12/12086.html>.

¹³See <http://www.uflib.ufl.edu/fefdl/cities/miamidadecities.html>.

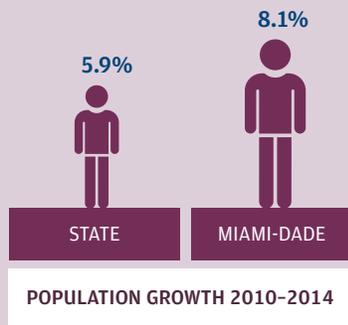
¹⁴This year-long, community-wide assessment was led by The Beacon Council and conducted by Avalanche Consulting, McCallum Sweeny Consulting and the Council for Adult and Experiential Learning. For information about *One Community One Goal*, see <http://www.beaconcouncil.com/what-we-do/one-community-one-goal>.

THE OPPORTUNITIES

MIAMI-DADE COUNTY IS KNOWN FOR ITS DIVERSITY

As the “center of the Western Hemisphere” Miami-Dade County brings the world, especially Latin and South America, to the region. Its diverse population feeds its international image and Miami’s status as an international port city.

- The Miami Metropolitan Statistical Area, which includes Miami-Dade, Broward and Palm Beach counties, is home to 5.9 million – making it the eighth largest metropolitan area in the United States.¹⁵
- Miami-Dade’s population has grown at a rate of 8.1% for the last five years compared to 5.9% for the state.¹⁶



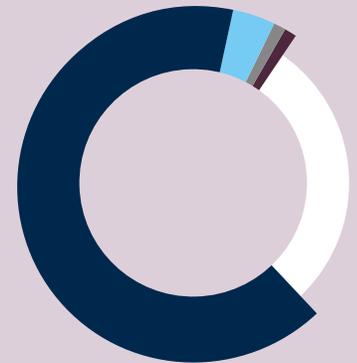
- Nearly half of the nation’s Cuban population (48%) lives in Miami-Dade County.¹⁸ It is also home to the nation’s largest Colombian, Honduran and Peruvian communities.¹⁹ A significant number of residents also identify their ancestry as West Indian, Italian, German, English or Polish.²⁰

72%

of Miami-Dade residents speak a language other than English at home.²¹

THIS INCLUDES:

- 64% Spanish
- 4% French Creole – mainly Haitian Creole
- 1% French
- 1% Portuguese



- Miami-Dade is one of the most diverse counties in the country. According to the Census Bureau, 51% of the county’s residents were born outside the United States, compared to the state’s foreign-born population of 19.3%.¹⁷

- This diversity is a strong economic asset for the county. Miami’s multilingual workforce, which includes speakers of more than 130 languages and has broad experience with countries in Central America, Europe and Asia, has helped to attract over 1,400 multi-national corporations to the region.²²

¹⁵EMSI

¹⁶*Ibid.*

¹⁷U.S. Census Bureau. (2015). “State and County QuickFacts: Miami-Dade County, Florida.” Retrieved from: <http://quickfacts.census.gov/qfd/states/12/12086.html>.

¹⁸Motel, Seth & Patten, Eileen. (2012). *The 10 Largest Hispanic Origin Groups: Characteristics, Rankings, Top Counties*. Pew Hispanic Center. Retrieved from: <http://www.pewhispanic.org/files/2012/06/The-10-Largest-Hispanic-Origin-Groups.pdf>.

¹⁹Zambrano, Vanessa. (2013). “County Population Rise in Year.” Miami Today News. Retrieved from: <http://www.miamitodaynews.com/news/130718/story4.shtml>.

²⁰U.S. Census Bureau. *American Community Survey*. 2009–2013 Estimates.

²¹U.S. Census Bureau. *American Community Survey*. Five-year estimates: 2009–2013 and Modern Language Association Data Center Results of Miami-Dade County, Florida.

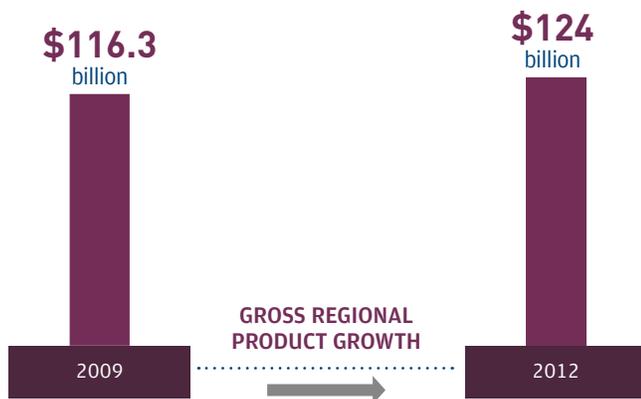
²²*World Trade Center Miami. Miami: Trade and Logistics Hub of the Americas*. Retrieved from: http://www.worldtrade.org/sites/default/files/pdf/2014_Trade_Logistics.pdf.

DIVERSITY FUELS ECONOMIC GROWTH AND DEMAND FOR MIDDLE-SKILL WORKERS

Miami-Dade County has a diverse economy, and growth in several industries is driving the region's recovery and future economic growth.

- Miami-Dade County's unemployment rate was consistently below the nation's rate in the years before the 2008 recession.²³
- However, the region was disproportionately hit by the recession – unemployment peaked at 12.5% in 2010 compared to the national rate of 9.6%.²⁴

The region is recovering. With strong trade in goods and services helping to promote its growth, the Gross Regional Product (GRP) grew by \$7.7 billion since the bottom of the recession²⁵ to \$124 billion in 2012 (the most recent year for which data are available).



- The region has added over 115,000 new jobs since 2010 and is expected to fully recover all job losses from the recession by the end of 2015.²⁶
- Much of this upsurge is being driven by the industries identified as “target sectors” by the *One Community One Goal* initiative: aviation, banking and finance, creative design, hospitality and tourism, information technology (IT), life sciences and healthcare, and trade and logistics (T&L).²⁷

- The two sectors of focus for this report – T&L and IT – reflect the region's long-held status as a hub of international trade and commerce, and its recent positioning as an innovation hub. For example, Miami International Airport is the premier U.S. airport for international cargo import and exports, distributing diverse items ranging from perishable goods and high-tech products to pharmaceuticals and industrial machinery.²⁸



MIDDLE-SKILL JOBS ARE CENTRAL TO MIAMI-DADE'S ECONOMIC GROWTH

- Thirty-eight percent of the 1.2 million jobs in Miami-Dade County are middle-skill occupations – jobs that require more than a high school diploma but less than a Bachelor's degree.²⁹
- Of these, 22% are “target middle-skill jobs,” which offer a living wage and are expected to grow in number.
- Target middle-skill occupations are projected to produce an average of 9,540 job openings per year through 2019.³⁰
- Target middle-skill occupations offer a median wage of \$24.90, which is 35% higher than the region's overall average median wage.³¹
- In addition, these targeted middle-skill jobs are expected to produce 6% of all job growth from 2014–2019.³²

²³EMSI

²⁴*Ibid.*

²⁵Miami-Dade County, Department of Regulatory & Economic Resources, Economic Analysis and Policy. (2014). *Economic & Demographic Profile 2014*. Retrieved from: <http://www.miamidade.gov/business/library/reports/2014-economic-demographic-profile.pdf>.

²⁶EMSI

²⁷See <http://www.beaconcouncil.com/media-library/ocog-target-industries>.

²⁸*World Trade Center Miami. Miami: Trade and Logistics Hub of the Americas*. Retrieved from: http://www.worldtrade.org/sites/default/files/pdf/2014_Trade_Logistics.pdf.

²⁹EMSI

³⁰*Ibid.*

³¹*Ibid.*

³²*Ibid.*



OPPORTUNITIES IN TRADE AND LOGISTICS

THE TRADE AND LOGISTICS INDUSTRY IS RESPONSIBLE FOR THE REGION'S PROMINENCE AS A NATIONAL AND INTERNATIONAL HUB

- The Miami region's tremendous geographic, infrastructure and intermodal assets for trade has earned it the moniker the "Gateway to the Americas."³³
- Florida handles 53% of the U.S. exports to Central America, as well as significant trade to the Caribbean (49%) and South America (43%).³⁴
- Miami is the center of Florida's Pan-American trade.³⁵ The majority of Latin American (83%) and Caribbean (81%) trade moves through Miami.³⁶
- The Port of Miami exports more than \$117 billion in goods serving as an import/export hub for goods and services to the Americas, the Far East, Europe and Middle East.³⁷
- The anticipated growth of the state's transportation sector – 13% by 2022 – is increasing demand across the T&L occupations in the county. This includes middle-skill positions, which were 16% of all Miami-Dade jobs in this industry in 2014.⁴² (See Table 3 in Appendix B for a list of in-demand occupations in T&L.)
- Population increases in the county are also expected to increase T&L demand as household demand for goods and services increases.⁴³
- T&L occupations are grouped around a range of primary functional skills⁴⁴ including mechanical repair, logistics and supply chain, procurement, transportation, and warehouse and distribution. With an average median hourly wage of \$23.75, these occupations exceed the region's living wage of \$20.41 and more than satisfy the requirements of the living wage ordinance.⁴⁵ (See Table 1.)



Miami has the

11th
busiest airport in
the world³⁸

More than

4.4 billion
pounds of cargo is moved
annually by The Miami
International Airport

Of this

3.9 billion
pounds are
international
cargo³⁹

- Middle-skill T&L occupations already make up 10% of all middle-skill demand in Miami.⁴⁰
- With an expected 1,031 annual openings from 2014 to 2019 and 2,159 middle-skill job postings in 2014, demand is growing.⁴¹ This need is likely understated, however, as many smaller companies do not advertise position openings via online postings. (See Table 3 in Appendix B for a list of in-demand occupations in the T&L industry.)



³³Inbound Logistics. (2004). "Florida: Gateway to the Americas." <http://www.inboundlogistics.com/cms/article/florida-gateway-to-the-americas>.

³⁴Ibid.

³⁵Ibid.

³⁶Forsythe-Stephens, Keri. (2014). "Logistics Infrastructure." *Global Trade*. Retrieved from: <http://www.globaltrademag.com/list/logistics-infrastructure>.

³⁷See <http://www.miamidade.gov/portmiami/cargo-facts.asp>.

³⁸See <http://www.globaltrademag.com/list/logistics-infrastructure>.

³⁹Martin Associates. (2015). *The Economic Impact of Miami International Airport and the General Aviation Reports in the Miami-Dade County Airport System*.

⁴⁰Burning Glass

⁴¹EMSI, Burning Glass

⁴²EMSI

⁴³Tomer, Adie and Kane, Joseph. (2014). *Mapping Freight: The Highly Concentrated Nature of Goods Trade in the US*. Global Cities Initiative, Brookings Institution. Retrieved from: http://www.brookings.edu/~media/research/files/reports/2014/11/freight-networks/srvy_gcifreightnetworks_oct24.pdf.

⁴⁴Import and export is another functional area that members of the T&L Targeted Industry Committee identified. Occupations such as Import and Export Clerk, Import and Export Manager, and Sales Manager would be included in this area. While these occupations are included in this sector, the traditional and real-time labor methodologies do not capture them as discrete functional areas and occupations because the BLS occupational taxonomies that these methodologies are based on lag behind changes in job titles.

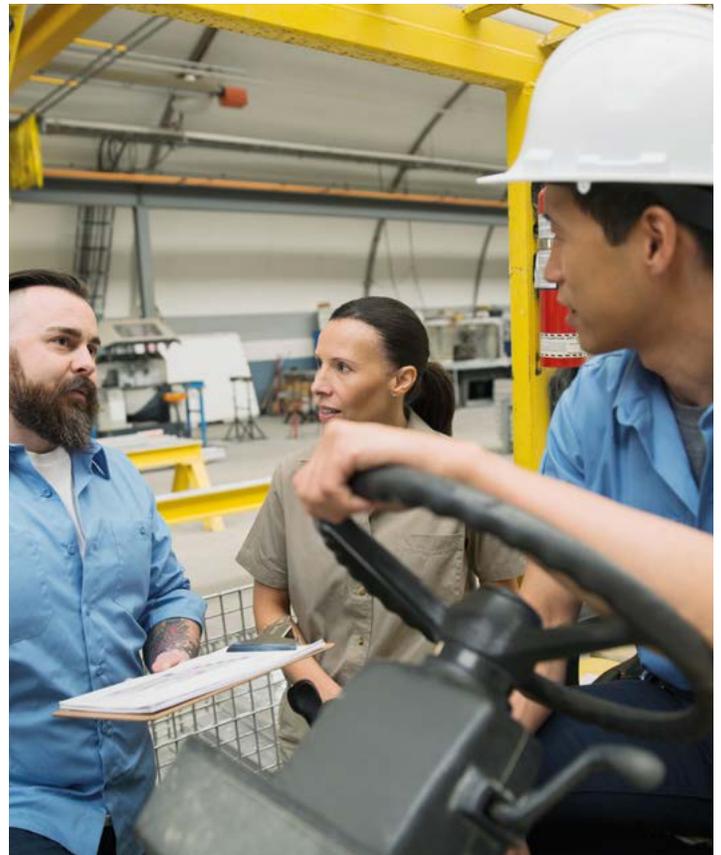
⁴⁵Effective October 2014, the City of Miami and Dade County implemented a living wage ordinance affecting city and county employees and contractors. Based on the Consumer Price Index, the living wage rate for 2014–2015 is \$14.27 per hour for employers not offering qualifying health benefits and \$12.46 for employers that offer health benefits.

Table 1. Wages and Growth for Selected Middle-Skill Occupations in T&L Functional Groups, 2014

Functional Group	Middle-Skill Occupations	Projected Growth 2014–2022	Wages
Logistics and Supply Chain	Logistics/Supply Chain Analyst Logistician/Supply Chain Specialist	34%	\$27.41
Transportation	Transportation Supervisor Transportation Planner/Analyst	10%	\$26.66
Procurement	Buyer/Purchasing Agent Purchasing Assistant	8%	\$23.80
Warehouse and Distribution	Warehouse/Distribution Supervisor	17%	\$21.97
Mechanical Repair	Automotive Service Technician/Mechanic Diesel Mechanic Aircraft/A&P Mechanic Heavy Equipment Mechanic Maintenance/Service Supervisor	7%	\$21.81

Source: Burning Glass

- Occupations within the logistics and supply chain functional group have the highest nine-year projected growth rate (34%) and the second highest hourly wage (\$27.41).
- Positions in the mechanical repair functional group, such as auto repair, account for 55% of job postings in the trade and logistics sector. Procurement-related roles account for 20% of postings.⁴⁶
- The importance of T&L occupations is seen across industries. For example, the manufacturing industry commands the most demand for middle-skill T&L roles in Miami-Dade County (17%). Other industries also have strong demand, such as transportation and warehousing (14%); retail trade (13%); and real estate, rental and leasing (10%).⁴⁷
- Drivers, such as tractor-trailer truck drivers, are in significant demand in the Miami-Dade area. For job seekers with limited experience or education, these roles offer a reasonable salary, provide the opportunity to acquire experience and transferable skills on the job, and can open the door to higher-wage middle-skill occupations.
- According to the U.S. Census Bureau, 20% of the people currently employed in the trade and logistics sector have a Bachelor’s degree or higher, while 32% have some college or an Associate’s degree and 48% have a high school diploma or less.⁴⁸
- Occupations in the trade and logistics sector offer opportunities for career progression as workers gain additional skills. (See examples of career pathways that follow).



⁴⁶Burning Glass

⁴⁷Ibid.

⁴⁸Data downloaded from QWI Explorer Application (qwexplorer.ces.census.gov).

CAREER ADVANCEMENT



TRADE AND LOGISTICS

	Occupation	Median Hourly Wage 2014	Skill Group	Industry-Valued Certifications Skills and Competencies
High-Skill	Procurement/Sourcing Manager Bachelor's degree with five years or more experience	\$54.60	Procurement	Industry-Valued Certifications: Advanced Six Sigma Certificate; ISM Certificate for Supply Chain Management Common Skills: sourcing and procurement strategies, vendor relations, performance and supplier management
	Transportation Manager High school diploma or equivalent with five years or more experience	\$43.36	Transportation	Industry-Valued Certifications: N/A Common Skills: contract management, logistics, optimization and process improvement, business development
	Logistics/Supply Chain Manager Bachelor's degree or higher	\$42.68	Logistics and Supply Chain	Industry-Valued Certifications: Certified Professional in Supply Management, Certified Production and Inventory Management Certification, Certified Supply Chain Professional Common Skills: Logistics and supply chain management, business and employee management, budgeting, quality assurance and control
Middle-Skill	Buyer/Purchasing Agent High school diploma or equivalent with long-term on-the-job training	\$23.41	Procurement	Industry-Valued Certifications: Certified Procurement Manager, APICS Certification, Certified Professional in Supply Management Common Skills: invoice processing, contract preparation and negotiation, price negotiation, strategic sourcing, manufacturing resource planning
	Transportation Planner/Analyst Bachelor's degree	\$37.89	Transportation	Industry-Valued Certifications: AICP Certification Common Skills: transportation planning, transportation management systems, business process, forecasting, data analysis
	Logistician/Supply Chain Specialist Bachelor's degree	\$27.35	Logistics and Supply Chain	Industry-Valued Certifications: Certified Professional Logistician Common Skills: logistics and supply chain knowledge, general business skills, productivity software
Entry-Level	Purchasing Assistant High school diploma or equivalent	\$14.20	Procurement	Industry-Valued Certifications: Purchasing Certification (e.g. CPP, CPPM) Common Skills: purchase order preparation, invoice processing, supplier management, data entry, accounts payable/receivable
	Shipping/Receiving Clerk High school diploma or equivalent with short-term on-the-job training	\$12.58	Transportation	Industry-Valued Certifications: N/A Common Skills: sorting and packaging, hand truck maintenance, forklift operation, hand truck operation
	Scheduler/Operations Coordinator High school diploma or equivalent with moderate-term on-the-job training	\$19.07	Logistics and Supply Chain	Industry-Valued Certifications: APICS Certification Common Skills: production and processing, administration and management, accounting software, communication

Source: Burning Glass⁴⁹

⁴⁹Although the BLS reports a Bachelors' degree for several occupations on the target list, we have included these positions as middle-skill occupations because Census data show a significant number of employed people in these positions have less than a Bachelor's degree. For example, according to the 2011 ACS, 20% of logisticians had a high school diploma or less.



OPPORTUNITIES IN INFORMATION TECHNOLOGY

INFORMATION TECHNOLOGY'S PROMINENCE IN THE MIAMI-DADE REGION IS GROWING

- Miami-Dade County is aggressively positioning itself as a center for technology and innovation – highlighting the favorable business tax climate, international networks and multilingual workforce.⁵⁰
- Leaders have recruited major technology companies such as Microsoft to the region. In addition, the municipalities have developed centers to support innovation and entrepreneurship in technology such as the Microsoft Innovation Center, Venture Hive, Refresh Miami, the Idea Center at Miami Dade College, the Launch Pad at the University of Miami and Lab Miami for creative and technology professionals.⁵¹
- Technology conferences like eMerge Americas, Start Up City, Sime MIA and Black Tech Week are bringing national and international technology leaders to the region and increasing the visibility of the innovation environment in Miami-Dade County.⁵²
- Middle-skill IT occupations are projected to be among the fastest growing middle-skill occupations in Miami-Dade County over the next five years.
- With 1,623 middle-skill job postings in this sector, IT occupations account for 12% of middle-skill job postings in the county.⁵³ (See Table 3 in Appendix B for a list of in-demand occupations in the IT industry.)
- IT positions are in demand across all industries, not just in the technology sector. Nearly a third of these occupations are in the professional, scientific and technical industries, followed by 10% in manufacturing, 9% in finance and banking, 8% in education services and 7% in healthcare.
- A 2014 analysis by the Florida Department of Economic Opportunity notes shortages across IT occupations in Miami-Dade County, with annual gaps ranging from 54 skilled workers in computer programming and 401 skilled workers in computer support occupations. (See Table 2.)

TABLE 2. IT SUPPLY AND DEMAND IN MIAMI-DADE COUNTY, 2014

Occupation	Total Supply	Short-Term Demand	Supply Gap or Overage	Ratio of Supply to Demand	2014 Employment	Entry Wage	Median Wage	Experienced Wage
Computer Systems Analysts	123	481	-358	0.26	2,553	\$29.41	\$42.72	\$51.36
Computer Programmers	111	165	-54	0.67	1,951	\$27.14	\$39.93	\$50.04
Computer Support (entry-level)	85	486	-401	0.17	1,125	\$19.95	\$31.25	\$35.78
Computer Occupations, All Other	351	494	-143	0.71	444	\$26.04	\$42.13	\$46.87

Source: Florida Department of Economic Opportunity

⁵⁰The Beacon Council. (2015). *Miami Business Profile and Location Guide*. Retrieved from <http://beaconcouncil.customtravelmags.com/publication/?m=9304&l=1>.

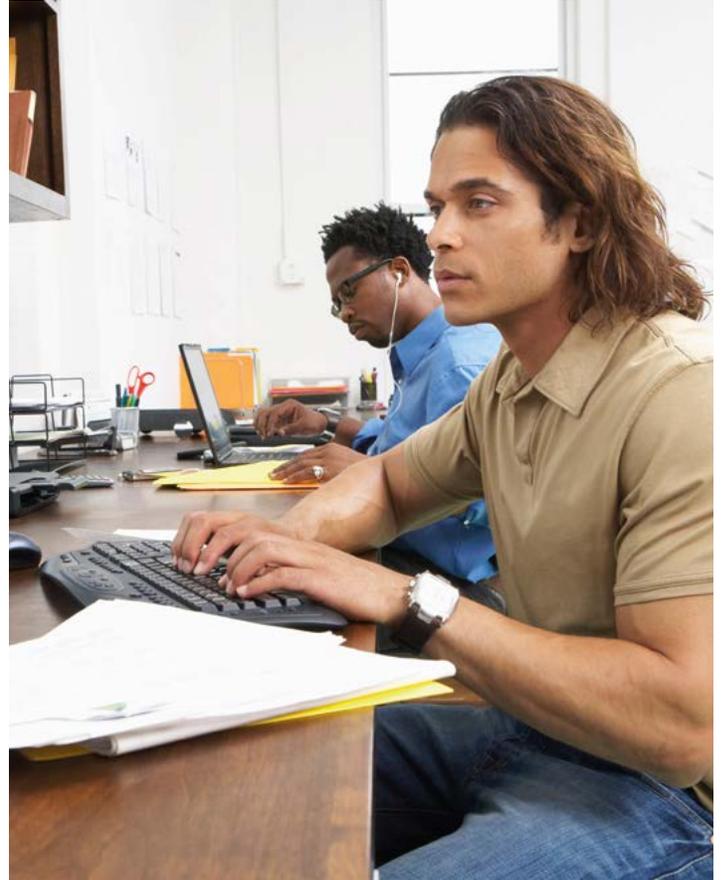
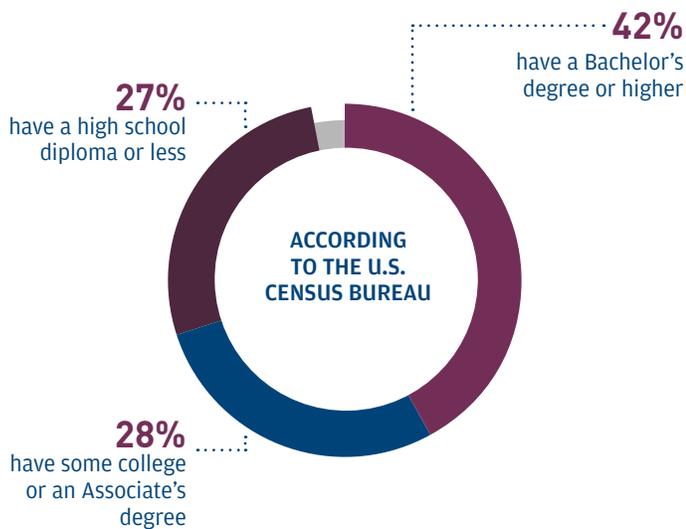
⁵¹*Ibid.* The John S. and James L. Knight Foundation has been a significant contributor to the development of the information technology and innovation infrastructure in the region.

⁵²*Ibid.*

⁵³Burning Glass

- At an average of \$22.24 an hour, middle-skill IT jobs pay good wages that exceed the living wage for Miami of \$20.41.⁵⁴
- Yet more than half of job postings for help desk roles, the largest middle-skill IT occupation, request a Bachelor's degree.⁵⁵

Nearly 60% of current IT workers have less than a Bachelor's degree:



- On the one hand, employers note that these increased educational requirements by businesses may represent more complex responsibilities that may need to be bundled into this help desk role (i.e., ability to apply technical skills to business operations).
- On the other hand, they may suggest that employers are not finding workers with the right level of skills and are "hedging their bets" in the hiring process by requesting the Bachelor's degree as a proxy for these skills.
- Strong engagement with employers will be essential to ensure that education and training providers have sufficient knowledge about employer needs to equip Miami-Dade County residents with the skills necessary for employment in this field.
- IT occupations provide multiple options for advancement as workers gain more skills and experience. (See examples of career pathways that follow).

⁵⁴MIT Living Wage Calculator
⁵⁵Burning Glass

CAREER ADVANCEMENT



INFORMATION TECHNOLOGY

Advanced Roles:

Typically require a BA and substantial experience.



Upward Roles:

Require more technical IT skills or experience and offer a viable transition upward from help desk roles.



Help Desk Roles:

Important entry point into IT workforce. Account for nearly three quarters (71%) of middle-skill IT jobs in Miami.



Lateral Off-Ramp Roles: Roles leveraging similar knowledge and skills outside of the IT field.

■ Entry-Level Roles
 ■ Middle-Skill Roles
 ■ High-Skill Roles
 * Average advertised salaries in Miami-Dade region

(Source: Burning Glass)

Middle-Skill Roles:

The most requested credentials, technical skills and baseline skills for the help desk/computer support occupations in the industry sectors.

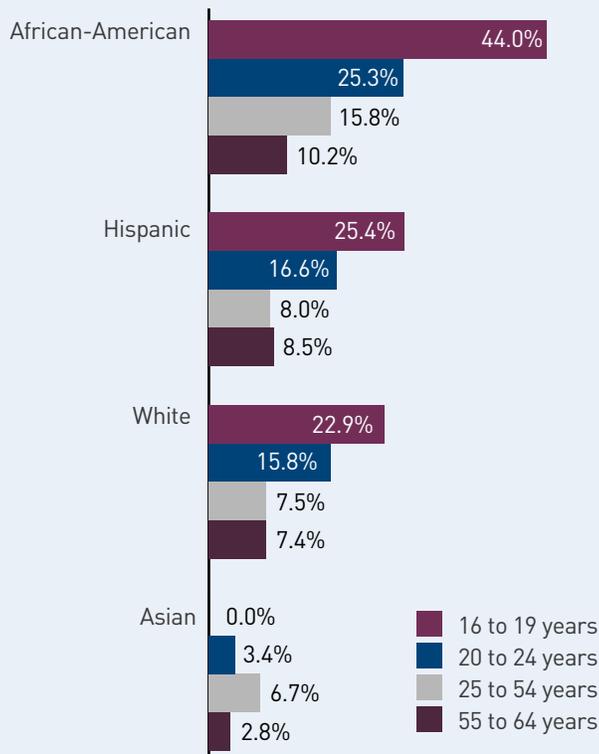
Certifications	Technical Skills	Baseline Skills
<ul style="list-style-type: none"> A+ Technician Network Microsoft-Certified Systems Engineer Cisco-Certified Network Associate Security 	<ul style="list-style-type: none"> Help Desk Computer Repair Hardware and Software Installation System and Network Configuration Basic Troubleshooting Microsoft Office Applications VPN 	<ul style="list-style-type: none"> Communication Customer Service Writing Problem Solving Organization Multi-Tasking Detail-Oriented

THE CHALLENGES

Too many residents are not benefiting from Miami-Dade’s economic growth.

- While the unemployment rate is diminishing across the county, it remains much higher for those residents with low skills. The unemployment rate for residents 25 years and older without a high school diploma was 15% in 2013 compared to 9.5% for those with some college or an Associate’s degree.
- Unemployment rates were also especially high for young adults (ages 16–24) in 2013 regardless of race, and for working-age African-Americans, regardless of age.
- The longer residents are unemployed, the more difficult it is to find a job. In February 2015, nearly 28,000 residents were estimated to be **unemployed 4** for more than 27 weeks in Miami-Dade County.⁵⁶
- Lacking strong connections to the workforce, 17% of residents ages 18–64 had incomes that fell below the poverty level in the last 12 months. County residents with less than a high school diploma are 2.4 times more likely to be in poverty than those with some college or an Associate’s degree.⁵⁷
- In addition, Miami-Dade County has a population of working poor. Nearly 9% of workers (or almost 97,000 residents) in the county are living below the poverty level. Twenty percent of this group worked part time in the last 12 months, suggesting the need to increase skills and expand full-time employment opportunities to increase income levels.⁵⁸

UNEMPLOYMENT BY GENDER, RACE, ETHNICITY AND AGE IN MIAMI-DADE COUNTY, 2013



Source: US Bureau of Census, *American Community Survey*, 2013 estimates. Prepared by the Florida Department of Economic Opportunity, Bureau of Labor Statistics, 2014

4 Using Incentives to Re-Employ Miami-Dade County Residents

Getting the long-term unemployed back to work is a priority across the country. Through its national *New Skills at Work* initiative, JPMorgan Chase is helping local stakeholders better understand the needs of the long-term unemployed and implement best practices to get more Americans back to work.

CareerSource South Florida (CSF), the Workforce Investment Board that covers Miami-Dade County, works with a group of eligible training providers to train and place residents into high-demand occupations. Providers receive \$650 per person for training and supportive services, with additional financial incentives for training providers working with long-term unemployed job seekers. Using this approach, CSF has placed over 42,000 residents to date, increased placement by 27% and decreased costs by 25%.

⁵⁶ Estimates for the long-term unemployed in Miami-Dade County are calculated using the ratio of state residents who are long-term unemployed provided by the Florida Department of Economic Opportunity. In February 2015, the percentage of long-term unemployed for Florida was 38.3%. If you multiply the number of unemployed in Miami-Dade County (72,435) by 38.3%, the estimate of the number of long-term unemployed in Miami-Dade County would be 27,743.

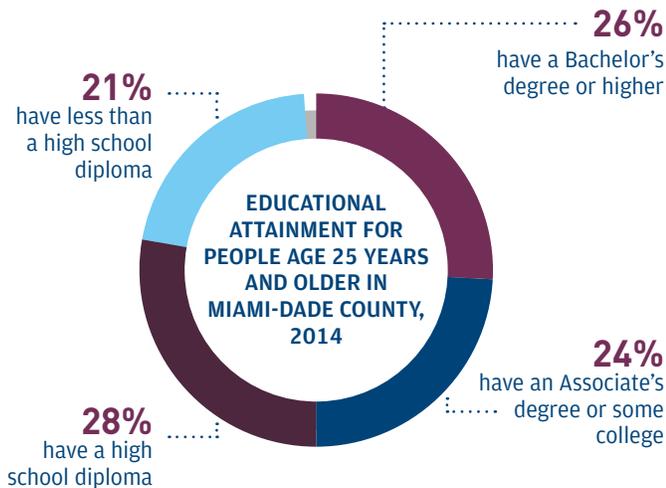
⁵⁷ U.S. Census Bureau. *American Community Survey*. Five-year estimates: 2009–2013. Retrieved from: <http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=CF>. See also <http://www.miamidade.gov/planning/library/reports/at-a-glance/2012-poverty.pdf>.

⁵⁸ U.S. Census Bureau. *American Community Survey*. Five-year estimates: 2009–2013. Retrieved from: <http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=CF>.

MANY PEOPLE ARE NOT READY TO TAKE ADVANTAGE OF MIDDLE-SKILL JOB OPPORTUNITIES

Many Miami-Dade residents lack the education required to obtain good middle-skill jobs.

- More than 20% of Miami-Dade residents (or 432,000 adults) lack a high school diploma or GED.



(Source: U.S. Census Bureau, Quarterly Workforce Indicators)

- This **high school dropout rate** **5** is higher for black non-Hispanic (25%) and Hispanics of any race (24%), compared to white non-Hispanic (6%) and Asian non-Hispanic (14%).⁵⁹
- Many Miami-Dade County residents lack English language proficiency, with 72% speaking a language other than English at home. Some of those with low English proficiency also have low educational attainment rates. Nearly 24% of adults 25 years and older who primarily speak a language other than English at home do not have a high school credential.⁶⁰
- At the same time, many youth and adults, regardless of high school completion status, do not have the basic skills necessary to access career pathways in the target industry sectors. For example, 52% of Miami-Dade County residents lack basic literacy skills.⁶¹
- Employers note that residents lack clear understanding of the range of middle-skill career opportunities available in the trade and logistics and IT sectors.
- Employers and educators also note that job seekers often have insufficient **work readiness skills** **6**, which is a significant barrier to employment.
- Some Miami city residents confront transportation challenges in accessing the employment opportunities available in the county.

5 Collaborating to Strengthen Educational Attainment

The Education Effect, a partnership between Florida International University and Miami-Dade County Public Schools, aligns university expertise, resources and research-based intervention programs, such as dual enrolment, to increase high school retention and credential attainment of the students at Miami Northwestern Senior High School (MNW) and its feeder schools. Prior to The Education Effect, MNW was branded as one of the nation's "dropout factories." After four years, MNW's school performance grade improved from a "D" to a "B," graduation rates increased from 64% to 76%, and the number of students earning a 3.0 grade point average and above increased by 15%. In addition, the Education Effect has enhanced the welding program at MNW, expanding access to this middle-skill career for high school students and adults in the community. JPMorgan Chase Foundation has invested \$1.6 million in this initiative.⁶²

6 Technical Skills Are Not Enough

Technical skills are required for middle-skill work, but employers need new hires to have solid workforce readiness skills: teamwork, collaboration, written and oral communication, professionalism, time management, critical thinking, and problem solving.⁶³ In addition, trade and logistics and IT employers in Miami-Dade County emphasize a need for stronger basic skills (reading and math), more sophisticated technology skills, an entrepreneurial mindset, knowledge and appreciation of diverse cultures, and even proficiency in multiple languages as employability skills that make job seekers especially competitive for work. Unfortunately, too many job seekers and workers do not have these integral employability skills.⁶⁴ By integrating workforce readiness instruction into their adult basic education and technical training programs, education and training providers can better prepare individuals for success in the workplace.

59 EMSI

60 U.S. Census Bureau. *American Community Survey*. Five-year estimates: 2009–2013. Retrieved from: <http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=CF>.

61 U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Adult Literacy, 2003.

62 O'Neill, Deborah. (2012). "The Education Effect." *Florida International University Magazine*. Also, Ellis, Amy. (2015). "FIU's Education Effect Joins Chase to Bridge the Skills Gap in Liberty City." *Florida International University News*.

63 These skills are identified by a variety of names, ranging from "21st Century skills" to "soft skills," with various definitions, but generally include basic professional competencies.

64 Wright, Mary and Cassner-Lott, Jill. *The Ill-Prepared US Workforce*. (2009). The Conference Board.

ADVANCING TOWARD ONE GOAL: A STRONGER ECONOMY AND A SKILLED WORKFORCE

Thanks to the accomplishments of the *One Community One Goal* partners, Miami-Dade County can build on a number of strengths to address the region's middle-skill talent gap. These include:

- **Strong employer engagement** – Targeted Industry Committees in seven priority sectors led by top executives engage industry peers in articulating talent supply needs, developing sector-based workforce development strategies and planning activities to strengthen and expand their respective industries.
- **Strategies to grow businesses and expand the workforce** – The T&L Targeted Industry Committee, with the Miami Free Zone, is launching the Trade and Logistics Accelerator to provide small T&L businesses with space, business development services and connections.
- **Initiatives to engage directly with the emerging workforce** – The T&L Targeted Industry Committee created a single regional professional association – the Trade and Logistics Society – for postsecondary students across participating colleges and universities to join Targeted Industry Committee meetings, participate in networking, and learn about regional employment opportunities.
- **Collaboration among educational institutions to address workforce demands** – The Academic Leaders Council (ALC), which is currently led by Florida International University and includes presidents from Miami Dade College, Barry University, Florida Memorial University, St. Thomas University, and University of Miami and the Miami-Dade County Public Schools superintendent,⁶⁵ works with the Targeted Industry Committees to identify educational assets and gaps and plan new curricula for these sectors.⁶⁶
- **Online platform to publicize work-based learning opportunities** – The ALC designed the Talent Development Network to provide an efficient, centralized online platform to which employers post open positions, and on which high school, college, and graduate students can review and apply for internships and apprenticeships.
- **Close alignment between career and technical education and target sectors** – Public high school career academies, sponsored by the National Academy Foundation,⁶⁷ support skill development and career awareness across target industries. In two IT career academies, for example, students receive industry certification and participate in IT-focused paid internships during the summer before their senior year. Two T&L-focused academies are planned for fall 2015.⁶⁸
- **Alternative pathways to middle-skill careers** – LaunchCode offers an alternative pathway to full-time coding jobs for people who lack the required college degree and three to five years of work experience that most employers seek. Participants who meet minimum skill levels are placed in full-time, \$15-per-hour apprenticeships for 12 weeks with a regional IT business. Ninety percent of apprenticeships end in full-time employment.⁶⁹ A unique partnership between LaunchCode, Harvard University and Miami Dade College helps students without the minimum required programming skills gain them.⁷⁰ Similarly, the International Air Transport Association uses flexible programming to help incumbent workers obtain needed certifications that can be “stacked” into higher-level degrees.
- **Strategies to re-engage opportunity youth in middle-skill careers** – Ready to Work Miami provides low-income young people ages 14–21 with the opportunity to enhance their work readiness skills while also earning income. After completing training, young people take the Florida Ready to Work Credential exam. In its two-year history, the program has awarded nearly 50,000 work readiness credentials.
- **Programs to strengthen diversity in high-demand middle-skill careers** – Various organizations have developed programs to engage more women and minorities in IT, for example. **Girls Who Code** engages middle and high school girls in pursuing IT careers, while **Code Fever** involves underserved minority youth in coding and developing technology. Code Fever also hosts an annual **Black Tech Week** to raise the visibility of African-American contributors to technology innovation and inspire new enterprises.⁷¹ Similarly, in the T&L sector, the **Organization of Women in Trade** seeks to engage more women in international trade and commerce in the South Florida area.

⁶⁵ Florida International University. (2014). *ALC One Community One Goal Update*.

⁶⁶ *Ibid.*

⁶⁷ Seven of the MDCPS 51 career academies have received distinction as national model programs by National Academy Foundation. The Academy of Information Technology is a “distinguished” National Academy Foundation program.

⁶⁸ Information gathered from interviews with Jean Friedman and Helen Branch, National Academy Foundation (December 2014); Lupe Diaz, Career and Technical Education, Miami-Dade Public Schools (April and May 2015); and Davyre Gibson-Smith, Academy of Information Technology, Miami Central Senior High School (May 2015). See also <http://dcte.dadeschools.net/naf.html>.

⁶⁹ See www.launchcode.org. Additional information gathered through interviews with Mariana Rego, South Florida Hub Director, LaunchCode (April 2015), and Daven Farham, CS50 Instructor, Harvard University (May 2015).

⁷⁰ See www.launchcode.org.

⁷¹ Other programs such as Wyncode and IronHack also offer intensive boot camps for job seekers looking for alternatives to more formal programs in higher education institutions.

MORE WORK IS NEEDED TO EFFECTIVELY CONNECT LOWER-SKILLED ADULTS TO MIDDLE-SKILL JOBS

County stakeholders must address a number of system capacity issues to advance and expand efforts to fill middle-skill jobs.

- Negative employer perceptions about the availability of skilled workers in the county create a barrier to stronger employer engagement in talent development efforts and hiring of local job seekers.
- Especially in T&L, employment opportunities that are often communicated “word of mouth” without much formal outreach hinder potential women and minority candidates that are outside of the T&L networks.
- Real-time labor market information demonstrates that different employers sometimes request different education levels for the same occupation. Lack of clarity makes it difficult for the ALC to ensure programs confirm to the skills, competencies, and credentials that employers seek and ensure programs effectively incorporate these skills.
- **On-ramp programs** **7** in the T&L and IT sectors do not exist or are not clearly articulated with the next steps in education and training pathways. For example, there is no clear articulation from the various programs expanding awareness and access in the IT sectors with the formal credentialing programs at MDCPS, Miami Dade College or the participating universities in the county. Similar programs (either formal or informal) do not yet exist in the trade and logistics sector.
- Many of the high-demand T&L and IT occupations require higher-level reading and math skills, to pursue college credit-level certificates and degrees or industry-based credentials. Yet state legislation allows entering students needing additional academic preparation to reject this assistance, so the postsecondary system is struggling to **prepare students** **8** for these more rigorous courses. This limits the potential supply of workers for those industries.
- Adult education programs that could help increase academic, language, and technology skills are not well aligned with high-demand career pathways. These programs – housed in the Miami-Dade County Public Schools and Miami Dade College – are building capacity to integrate occupational content and strengthen transitions to higher-level training and careers; but these programs are not well connected to the larger ALC initiatives.

- Miami-Dade County has a diverse range of innovative programs that are developing organically in response to the identified needs. Yet, the infrastructure and mechanisms to scale up effective talent development programs in response to the magnitude of employer demand do not yet exist.

7 Mapping Educational Programs in Key Sectors

The ALC has determined that four of the seven academic institutions have current programs in Trade and Logistics, including four certificate programs, one Associate’s degree program, three Bachelor’s degree programs, one Master’s degree program and one Doctorate program. This includes a new Bachelor’s program in Supply Chain Management at Miami Dade College.⁷² Similarly, the ALC found that all seven academic institutions offer programs in Information Technology, including 13 certificate programs, 12 Associate’s degree programs, and a host of Bachelor’s, Master’s and Doctorate programs. The largest numbers of IT programs are at Miami Dade College and Florida International University.⁷³

8 Miami Dade College: Addressing the Needs of Academically Underprepared Students

With state legislation allowing students to choose whether they utilize developmental education, Miami Dade College is offering multiple strategies to help academically underprepared students be successful: free “boot camps,” intensive “mini-mesters” to build college readiness skills, supplemental instruction outside the classroom, widely accessible technology-based skill-building programs, and tutors embedded in classes where students struggle most. Advisers and counselors support students in addressing life challenges and use predictive indicators to advise students on their likelihood of success without accessing academic skills supports (reading, writing and math assistance). In addition, over 300 students have been engaged as coaches to provide one-on-one peer mentoring and support.

⁷² See *Report on Educational Assets in Miami-Dade County: Trade and Logistics*. Academic Leaders Council. (2015).

⁷³ See *Report on Educational Assets in Miami-Dade County: Information Technology*. Academic Leaders Council. (2015).

RECOMMENDATIONS

Through the leadership of The Beacon Council and *One Community One Goal* stakeholders, the region has developed employer leadership and strengthened its education and workforce systems. The county now has the opportunity to integrate existing strategies into a comprehensive career pathways system, scale efforts to prepare residents for middle-skill T&L and IT jobs and expand workforce development activities in other sectors.

Recommendation

1. Develop contextualized “bridge” programs to prepare low-skilled youth and adults for success in T&L and IT pathways.

While a number of education and training programs exist in these sectors, there remains a need for bridge programs that connect the region’s many low-skilled youth and adults to the technical programs.

- Adult basic education and postsecondary remedial programs can link their academic instruction with job training (e.g., integrating basic academic skills (reading, writing and math) with occupational content and aligning exit standards for basic skills and remedial courses with entry into technical pathways) to ensure successful transitions.
- Being multilingual is an employment advantage in Miami-Dade’s immigrant population. Language development programs can be dual language focused: ensure that English language learners increase their English proficiency and develop technical literacy in the native language. At the same time, native English speakers need programs that help them learn technical literacy in foreign languages.
- The capacity of adult education providers can be built by engaging them in the ALC’s sector working groups to learn which skills are needed in the sectors and by developing partnerships with sector-focused CTE programs (both credit-bearing and continuing education divisions).
- Targeted Industry Committees can use their “bully pulpits” to emphasize for job seekers that enhanced academic skills are essential job requirements for middle-skill opportunities.

Recommendation

2. Develop employer-endorsed standards and assessments for employability skills.

IT and T&L employers consistently report the regions middle-skill job seekers lack of basic workforce readiness skills, but providers lack clear definitions or standards for these skills.

- Targeted Industry Committees can develop a set of uniform, employer-endorsed standards for core employability skills, such as effective communication, critical thinking, and problem solving; and work with The Beacon Council’s staff to disseminate the information to education and training providers.
- Providers can incorporate the standards into T&L and IT pathway program instruction, and collaborate with employers to develop work-based scenarios to assess students’ application of these skills.

Recommendation

3. Develop a marketing and outreach campaign to increase awareness about middle-skill IT and T&L careers.

- The Beacon Council can work with employers and educational institutions to develop and disseminate consistent information about middle-skill career opportunities in T&L and IT and their minimum skill requirements to potential students and job seekers.
- Education institutions can align career possibilities with their most effective educational options so job seekers understand the paths to these opportunities.
- The marketing campaign should include grassroots, outreach strategies for engaging populations underrepresented in these sectors, such as women, people of color, returning veterans, the unemployed and the underemployed.
- Employers can help to publicize these resources through their HR vehicles and other dissemination strategies.

Recommendation

4. Support and scale T&L and IT training programs.

While educational institutions have developed new programs to meet the needs of these businesses, more work is needed to ensure the quantity and quality of skilled workers.

- The Beacon Council, in collaboration with the Targeted Industry Committees and the ALC, should identify a set of talent supply benchmarks for each industry that is aligned with the hiring priorities of employers that can help to guide the scale of educational programming.
- The Targeted Industry Committees should develop a framework to assess the strengths and weaknesses of education and training options for the T&L and IT sectors. This can help to coordinate the development of programs (and the college and industry-based credentials they offer) to reduce duplication and strategically address gaps.
- The Beacon Council and other stakeholders can identify effective practices being implemented by successful programs and develop targeted technical assistance to enhance the capacity and performance of all programs and replicate promising practices and models to address middle-skill demand.
- Similarly, the T&L and IT Targeted Industry Committees can identify promising practices for expanding talent supply and share these with The Beacon Council to disseminate across all the Targeted Industry Committees.

Recommendation

5. Increase the capacity of The Beacon Council to serve as the intermediary to help scale and sustain the work.

One Community One Goal benefits from the active engagement and enthusiasm of senior industry and educational leadership, but The Beacon Council will need increased staffing capacity to grow, support and sustain this work beyond these exemplary voluntary activities.

- The Beacon Council can engage with OCOG stakeholders in efforts to “make the case” to public and private donors about the need for expanding intermediary capacity to expand scale existing activities.
- County stakeholders can contribute to the implementation of *One Community One Goal* by offering their time, expertise or resources to this effort.



CONCLUSION

The Miami-Dade region is advancing, with strong support from industry, educational, workforce and philanthropic leaders who are working collaboratively to develop a skilled workforce and strengthen regional competitiveness. Many middle-skill jobs exist in the seven target sectors driving the region's economic growth. Yet additional efforts are needed to ensure that all Miami-Dade residents can access these economic opportunities by gaining the skills that employers seek. The good news is that strong efforts are already under way to address these challenges through *One Community One Goal*.

Through the *New Skills at Work* initiative, JPMorgan Chase proposes to help enhance these efforts by providing guidance on how to develop a demand-driven career pathways system to launch young people and low-skilled adults into good jobs with advancement potential. Starting with the middle-skill occupations open in the trade and logistics and information technology sectors - and then extending to the five other target industries - creates a targeted opportunity to implement this strategy in Miami-Dade County to strengthen the regional economy and help realize the goal that all residents access good jobs that enable them to support themselves and their families.

APPENDIX A – Methodology

All data in this report are provided for Miami-Dade County.

To provide a picture of the economy (e.g., description of employment, unemployment, productivity, workforce and education), the report draws on EMSI's data aggregated from over 90 federal, state and private sources. EMSI applies proprietary methods to remove suppressions and include data for proprietors to yield a comprehensive representation of the regional workforce.

The report also includes analytical information from Burning Glass Technologies, which provides real-time labor market information (RT LMI) from online job postings. Burning Glass' patented parsing and data extraction capabilities can extract, derive and infer more than 70 data elements from any online job posting, providing in-depth insights into employers' demand for skills and credentials.

Methodology to Identify “Middle-Skill” Occupations

Four criteria were used to identify middle-skill occupations, as follows:

1. Selected occupations must require at least a high school diploma and some on-the-job training experience (to filter out low-skill jobs requiring a high school diploma and no training).
2. Selected occupations must also require less than a Bachelor's degree, or employ at least 25% of workers with “some college” or an Associate's degree according to the BLS: http://www.bls.gov/emp/ep_table_111.htm.

Methodology to Identify “Target Middle-Skill” Occupations

3. In addition to the above criteria, 25% or more of the workforce for each target occupation must surpass the living wage for families with two adults and one child (\$20.41).
4. Occupations with limited annual openings or low total employment are filtered out. The term “middle-skill” typically refers to the level of education required by a job. These target occupations expand the common definition by adding three additional criteria.

This expanded approach will make sure selected occupations are not only middle skill but also provide a living wage and viable employment opportunities in the region.

Sector Definitions

The information technology, and trade and logistics sectors are defined using the industry sector classifications of the North American Industry Classification System (NAICS).⁷⁴

Limitations

When assessing a phenomenon as complex as a local economy, gaps in our analysis and understanding remain. While traditional labor market information (LMI) offers the best data available to capture historical industry and occupational trends, it is infrequently updated and does not adequately account for future macroeconomic or microeconomic shifts in supply or demand. Some of the federal and state data sources EMSI uses contain non-disclosed or “suppressed” data points created by the government organizations that publish the data products in order for them to comply with laws and regulations that are in place to help protect the privacy of the businesses that report to them. In some cases, EMSI utilizes proprietary algorithms to replace suppressions with mathematically educated estimates.

RT LMI complements the traditional LMI with more recent information on employers' skills, education and credential demand. However, a common limitation of job postings data is that it can only access information that is indeed posted online. To control for duplicate job listings Burning Glass employs an advanced parsing engine that considers the actual job functions and skills described by the employer rather than just the text. Burning Glass focuses on the content of the posting, not simply the words or basic fields.

Some of the limitations from both traditional and RT LMI will be ameliorated through qualitative interviews with employers, educators, policymakers and workforce intermediaries whose on-the-ground experience can fill in gaps about both future employer skill demand and participant supply. Overall, data can be a useful starting point, but the intricacies of talent shortages and job openings will need to be verified locally.

⁷⁴Information technology includes NAICS codes 51120, 518210, 519130, 519190, 541511, 541512, 541513 and 541519. Trade and logistics includes NAICS codes 481112, 481212, 488111, 488119, 488190, 483111, 484121, 484122, 484230, 488310, 488320, 488330, 488390, 488490, 488510, 488991, 492110, 493110, 493120, 493130 and 493190.

APPENDIX B – Data Charts Referenced in Report

TABLE 3. SELECTED HIGH-DEMAND OCCUPATIONS IN TRADE AND LOGISTICS AND INFORMATION TECHNOLOGY SECTORS

Description	2014 Jobs	2024 Jobs	Average Annual Openings	2014 Job Postings	Median Hourly Earnings
Information Technology Occupations					
Computer Occupations, All Other	472	526	16	3,955	\$37.36
Software Developers, Applications	2,259	2,829	90	3,598	\$34.20
Customer Service Representatives	26,320	27,553	867	2,835	\$13.50
Computer Systems Analysts	2,503	3,089	103	1,508	\$41.74
Computer User Support Specialists	3,998	4,540	123	1,190	\$20.91
Web Developers	1,251	1,477	44	1,144	\$25.83
First-Line Supervisors of Office and Administrative Support Workers	11,912	12,906	397	1,086	\$24.36
Network and Computer Systems Administrators	1,752	1,946	50	901	\$36.18
Database Administrators	753	843	24	892	\$37.72
Computer Programmers	1,652	1,780	58	436	\$44.43
Information Security Analysts	335	437	16	434	\$30.02
Computer Network Support Specialists	805	841	18	78	\$26.43
Trade and Logistics Occupations					
Heavy and Tractor-Trailer Truck Drivers	11,930	13,079	315	1,394	\$15.38
Logisticians	839	1,016	29	453	\$27.35
Purchasing Agents, Except Wholesale, Retail and Farm Products	2,203	2,286	51	338	\$23.41
Transportation, Storage and Distribution Managers	756	815	24	307	\$43.36
Shipping, Receiving and Traffic Clerks	7,553	7,634	219	286	\$12.58
Purchasing Managers	292	316	9	130	\$54.60
Procurement Clerks	443	471	20	66	\$17.91
First-Line Supervisors of Helpers, Laborers, and Material Movers, Hand	1,603	1,755	61	57	\$20.88
First-Line Supervisors of Transportation and Material-Moving Machine and Vehicle Operators	1,531	1,642	55	50	\$26.32
Air Traffic Controllers	566	609	31	26	\$63.21

Source: U.S. Bureau of Labor Statistics, EMSI and Burning Glass

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