

TRAMCON Career Pathway Evaluation

This report is intended to provide Miami Dade College and the TRAMCON program with an assessment of the TRAMCON Career Pathway's readability, clarity, accuracy, and ADA Compliance. The pathway is a product of the TAACCCT Round 4 grant received by Miami Dade College, Polk State College, Santa Fe College, and Seminole State College.

Thomas P. Miller and Associates (TPMA) approaches career pathway development and evaluation through the framework developed by the USDOL's Employment and Training Administration (DOLETA) and described in the *Career Pathway Toolkit*¹. The recommendations that follow are based upon our understanding of the framework as well as best and promising practices we have observed while working with community colleges and sector partnerships across the country.

Strengths

- **Industry Demand:** The TRAMCON Career Pathway begins with a clear and concise explanation of the Manufactured Construction Industry and the unique skill demands it faces. This important context will be useful in developing marketing and recruitment materials to inform parents and students about the opportunities available to TRAMCON students. It may be useful to add an overview of the specific competencies, skills, and tools students will be exposed to in this section.
- **Alignment to industry recognized credentials:** The TRAMCON pathway results in six industry-recognized credentials that carry value in manufacturing and construction sectors. Curriculum has been developed in alignment with the standards and competencies assessed by each credential, indicating that students will have meaningful opportunities to prepare for the credentialing exams throughout the program.
- **Stackable, short-term training:** Each module of the TRAMCON program stacks upon the previous module, allowing students to work toward short-term results (education outcomes and industry recognized credentials) while seeing a clear trajectory toward more advanced skills. Course schedules and duration (in weeks) are not specified in the pathway to offer the maximum amount of flexibility to each institution implementing the program.
- **Competency-Based Education:** Curriculum developers have incorporated Transformative Learning Centers (TLC) in the program to assess students' proficiency in specific areas, allowing students to learn at their own pace and gain greater understanding of industry specific competencies while also gaining exposure to innovative technologies and techniques. Using a "Fab Lab" concept, students complete projects using 3-D printers, laser engravers, and CNC machines. We recommend exploring how the industry recognized credentials may also align with the TLCs and/or work alongside them to provide additional opportunities for customized learning or pacing.

Opportunities

- **Occupations and Job Market Outcomes:** Although the connection to a specific industry is clear (as described above), the career pathway does not currently include information about specific occupations or job market outcomes (such as potential job titles, starting and average wages, actual and projected openings) that would be necessary when counseling potential students about the employment opportunities available as a result of the program. The pathway indicates that the consortium has developed relationships with employers such as Clayton Homes, Palm Harbor Homes, and Cavalier Homes. A review of these companies' websites indicates openings in the following positions:

1

Foundation / Basic Level	Advanced / Supervisor Level
Construction Worker	Drafter
Construction Team Member	Production Supervisor
Line Assembler	AutoCAD programmer

In order to provide region and sector specific job market data, we recommend surveying this group of employers to find out a) if the job titles listed above are appropriate outcomes for TRAMCON students, b) how many current openings exist for each occupation, c) how many additional openings they project over the next two to three years, and d) what the starting and average wages are for these occupations. This will allow students to see the real-world opportunities likely to face them after completion of the program. With this information, we also recommend updating the graphic on page 8 with specific job titles (to replace 1st job in Career Path, 2nd job in Career Path, etc.).

We also recommend supplementing this local data with information from third party data analytics, which scans national and private sources for aggregate labor market information and trends. For instance, the following table from Emsi, Inc., shows the projected growth across three key manufactured construction occupations over the next five years:

Occupation	2016 Jobs	2021 Jobs	Change	% Change
Construction Managers (11-9021)	25,295	24,037	-1,258	-5%
Construction Laborers (47-2061)	76,408	77,675	1,267	2%
Production Workers, All Other (51-9199)	8,714	8,961	247	3%

This table captures the total number of jobs, but does not reflect turnover or job openings created by retirements. Emsi data shows that almost 20 percent of individuals in the above occupations are 55 or older, suggesting that a large number of their jobs will become available in the next five to ten years. For more information from Emsi, please see the Appendix.

- **Articulation Agreements:** In the narrative sections titled “Stacked and Latticed Credentials” and “Transferability and Articulation,” links to two- and four-year degree programs are discussed, as are statewide articulation and transfer agreements. It is not entirely clear, however, how many credits a student may articulate into an associate’s degree program and whether or not those credits align to specific, required courses. We also recommend adding some indication of these agreements to the pathway table on page 6.

ADA Compliance

- **Text to Speech (TTS) Functionality:** For Accessibility, all documents must contain TTS functionality. Microsoft Word has built-in TTS functionality; to ensure all text is converted, we recommend reformatting Table 1 and Table 2.

- **Structural Markup and Navigation:** In order to be ADA compliant, the pathway must use headings for structural outline reading and navigation. At this time, the pathway does not use Microsoft Word styles; adding headings for each section will correct this.²
- **Tables:** Tables must contain heading fonts for column and row headers for structural markup purposes. Add row headers to Table 1.
- **Hyperlinks:** There are no hyperlinks accessible within the document, but if there were, they must be functional and clickable.
- **Color:** Color contrast between text and background complies.
- **Image Descriptions:** Under Format Picture> Alternate Text > there must be a description of the picture in the 'Description' field. An image description is needed for Figure 1.

² Add a heading in a Word document (From Microsoft Help)

1. Select the text you want to use as a heading.
2. On the **Home** tab, move the pointer over different headings in the **Styles** gallery. Notice as you pause over each style, your text will change so you can see how it will look in your document. Click the heading style you want to use.

Parameters

Occupations

Code	Description
11-9021	Construction Managers
47-2061	Construction Laborers
51-9199	Production Workers, All Other

Regions

Code	Description
12	Florida

Timeframe

2016 - 2021

Datarun

2016.3 – QCEW Employees, Non-QCEW Employees, and Self-Employed



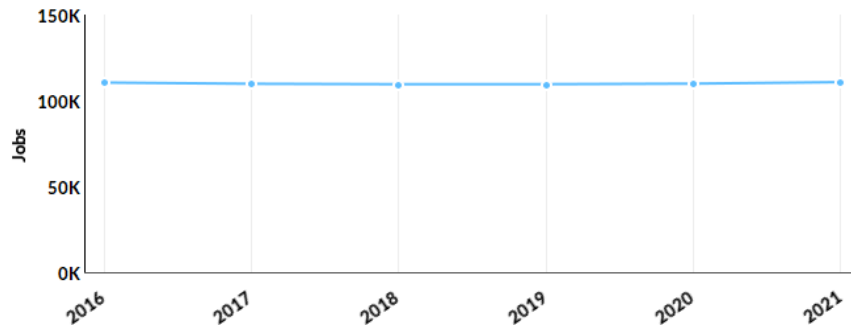
THOMAS P. MILLER & ASSOCIATES

Occupation Summary for 3 Occupations

110,418 Jobs (2016) 3% below National average	0.2% % Change (2016-2021) Nation: 1.9%	\$16.99/hr Median Hourly Earnings Nation: \$18.78/hr
--	---	---

Growth

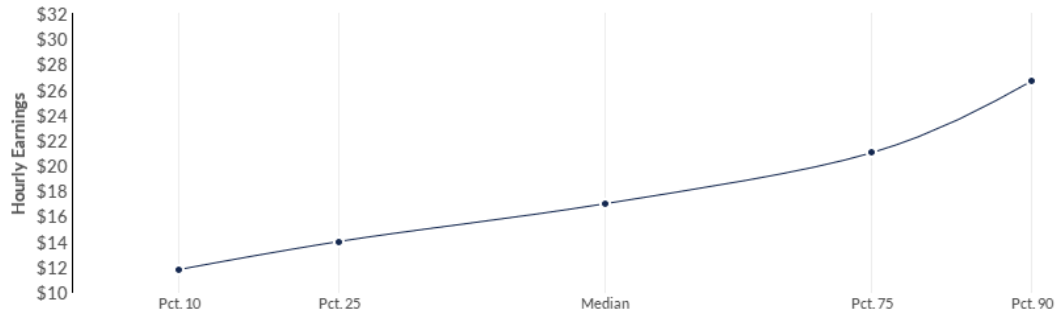
110,418 2016 Jobs	110,674 2021 Jobs	256 Change (2016-2021)	0.2% % Change (2016-2021)
-----------------------------	-----------------------------	----------------------------------	-------------------------------------



Occupation	2016 Jobs	2021 Jobs	Change	% Change
Construction Managers (11-9021)	25,295	24,037	-1,258	-5%
Construction Laborers (47-2061)	76,408	77,675	1,267	2%
Production Workers, All Other (51-9199)	8,714	8,961	247	3%

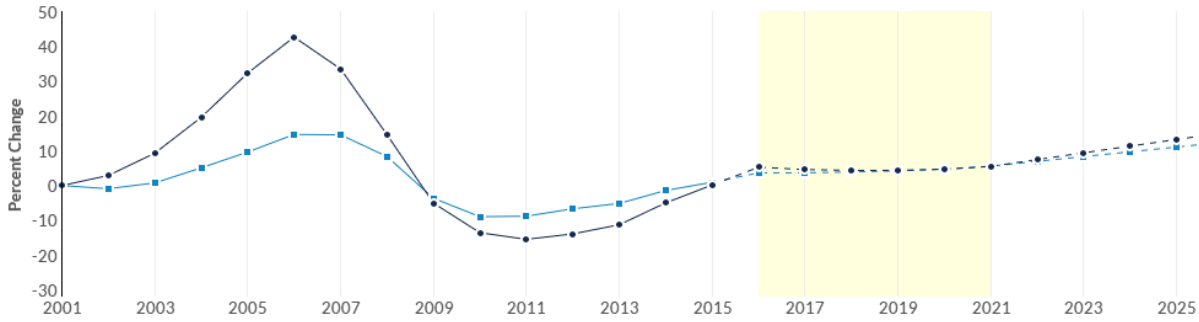
Percentile Earnings

\$14.01/hr 25th Percentile Earnings	\$16.99/hr Median Earnings	\$21.01/hr 75th Percentile Earnings
---	--------------------------------------	---



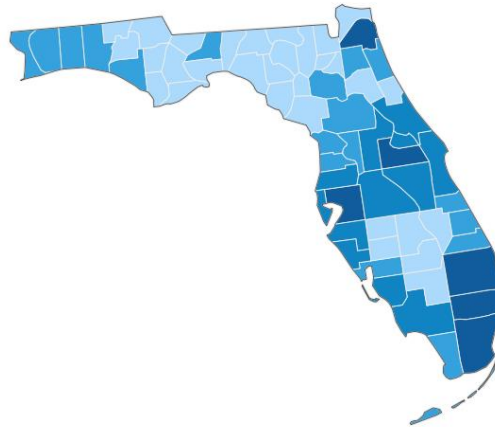
Occupation	25th Percentile Earnings	Median Earnings	75th Percentile Earnings
Construction Managers (11-9021)	\$24.97	\$32.12	\$42.65
Construction Laborers (47-2061)	\$10.75	\$12.54	\$14.53
Production Workers, All Other (51-9199)	\$9.76	\$10.79	\$13.11

Regional Trends



	Region	2016 Jobs	2021 Jobs	Change	% Change
●	Region	110,418	110,674	256	0.2%
●	Nation	1,971,139	2,007,980	36,841	1.9%

Regional Breakdown



County	2021 Jobs
Miami-Dade County, FL	17,117
Broward County, FL	10,645
Orange County, FL	8,938
Hillsborough County, FL	8,213
Palm Beach County, FL	7,445

Occupation Gender Breakdown



	Gender	2016 Jobs	2016 Percent
•	Males	100,868	91.4%
•	Females	9,550	8.6%

Occupation Age Breakdown



	Age	2016 Jobs	2016 Percent
•	14-18	819	0.7%
•	19-24	7,312	6.6%
•	25-34	22,355	20.2%
•	35-44	27,784	25.2%
•	45-54	30,195	27.3%
•	55-64	17,400	15.8%
•	65+	4,553	4.1%

Industries Employing 3 Occupations

Industry	Occupation Group Jobs in Industry (2016)	% of Occupation Group in Industry (2016)	% of Total Jobs in Industry (2016)
All Other Specialty Trade Contractors	9,979	9.0%	26.9%
Commercial and Institutional Building Construction	9,725	8.8%	24.2%
New Single-Family Housing Construction (except For-Sale Builders)	8,162	7.4%	23.0%
Residential Remodelers	7,100	6.4%	24.9%
Temporary Help Services	6,129	5.6%	3.9%

Data Sources and Calculations

Location Quotient

Location quotient (LQ) is a way of quantifying how concentrated a particular industry, cluster, occupation, or demographic group is in a region as compared to the nation. It can reveal what makes a particular region unique in comparison to the national average.

Occupation Data

Emsi occupation employment data are based on final Emsi industry data and final Emsi staffing patterns. Wage estimates are based on Occupational Employment Statistics (QCEW and Non-QCEW Employees classes of worker) and the American Community Survey (Self-Employed and Extended Proprietors). Occupational wage estimates also affected by county-level Emsi earnings by industry.

CareerBuilder/Emsi Job Postings

Job postings are collected from various sources and processed/enriched by Careerbuilder to provide information such as standardized company name, occupation, skills, and geography. Emsi performs additional filtering and processing to improve compatibility with Emsi data.

Completers Data

The completers data in this report is taken directly from the national IPEDS database published by the U.S. Department of Education's National Center for Education Statistics.

Institution Data

The institution data in this report is taken directly from the national IPEDS database published by the U.S. Department of Education's National Center for Education Statistics.

State Data Sources

This report uses state data from the following agencies: Alabama Department of Industrial Relations; Alaska Department of Labor and Workforce Development; Arizona Department of Administration, Office of Employment and Population Statistics; Arkansas Department of Workforce Services; California Labor Market Information Department; Colorado Department of Labor and Employment; Connecticut did not provide us with a data source; Delaware Office of Occupational and Labor Market Information, Delaware Wages 2004; District of Columbia Department of Employment Services; Florida Department of Economic Opportunity; Georgia Department of Labor, Workforce Information and Analysis, Occupational Information

Services Unit; Hawaii Department of Labor and Industrial Relations, Research and Statistics Office; Idaho Department of Labor; Illinois Department of Employment Security, Employment Projections; Indiana Department of Workforce Development; Iowa Workforce Development; Kansas Department of Labor, Labor Market Information Services, Kansas Wage Survey; Kentucky Office of Employment and Training; Louisiana Department of Labor; Maine did not provide us with a data source; Maryland Department of Labor, Licensing and Regulation, Office of Labor Market Analysis and Information; Massachusetts Executive Office of Labor and Workforce Development; Michigan Department of Labor and Economic Growth, Bureau of Labor Market Information and Strategic Initiatives; Minnesota Department of Employment and Economic Development; Mississippi Department of Employment Security; Missouri Department of Economic Development; Montana Department of Labor and Industry, Research and Analysis Bureau; Nebraska Workforce Development; Nevada Department of Employment, Training and Rehabilitation, Information Development and Processing Division, Research and Analysis Bureau; New Hampshire Department of Employment Security; New Jersey Department of Labor and Workforce Development; New Mexico Department of Labor, Bureau of Economic Research and Analysis; New York Department of Labor, Division of Research and Statistics; North Carolina Department of Commerce, Labor and Economic Analysis Division; North Dakota Job Service, Labor Market Information Center; Ohio Department of Job and Family Services, Labor Market Information Division; Oklahoma Employment Security Commission; Oregon Employment Department, Oregon Labor Market Information System; Pennsylvania Department of Labor and Industry, Center for Workforce Information and Analysis; Rhode Island did not provide us with a data source; South Carolina Employment Security Commission, Labor Market Information Department; South Dakota Department of Labor, Labor Market Information Division; Tennessee Department of Labor and Workforce Development, Research and Statistics Division; Texas Workforce Commission; Utah Department of Workforce Services; Vermont did not provide us with a data source; Virginia Employment Commission, Economic Information Services; Washington State Employment Security Department, Labor Market and Economic Analysis Branch; West Virginia Bureau of Employment Programs, Research Information & Analysis Division; Wisconsin Department of Workforce Development, Bureau of Workforce Information; Wyoming Department of Employment, Research and Planning