

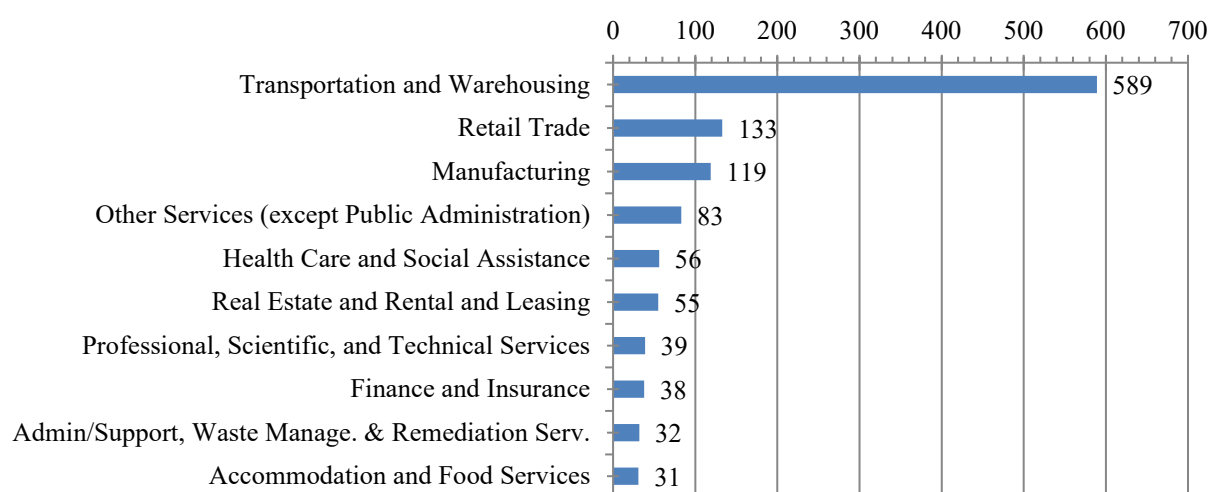
CTE LABOR MARKET TOOL

OVERVIEW: THIS RESOURCE PROVIDES DATA SNAPSHOTS AND INSIGHTS ABOUT THE AUTOMOTIVE & TRANSPORTATION LABOR MARKET,* AND SOME GUIDING QUESTIONS TO HELP APPLY THE DATA TO YOUR SCHOOL'S CTE PROGRAM.

Why use this resource?

- Use as a critical tool with your school's self study group to guide program planning and improvement aligned to labor market data
- Use as a critical tool to prepare students for postsecondary planning towards high-demand careers
- Feel prepared and confident when responding to NYSED questions about incorporating labor market data into your work

Chart 1: Types of organizations doing the most entry-level hiring in automotive & transportation, NYC, number of job ads, 10/1/2020 - 3/31/2021**



The chart above shows the many different kinds of NYC organizations hiring professionals in the automotive and transportation fields.

The chart below shows the long-term employment projections for these fields. As you can see, they are both expected to grow between 2016 - 2026, with transportation and material moving continuing to be the larger field. It's important to keep in mind that even though these predictions help us understand the labor market's trajectory, things like new technologies or innovations, shifts in the economy, or major unexpected shocks like the COVID-19 pandemic, can impact the accuracy of these predictions.

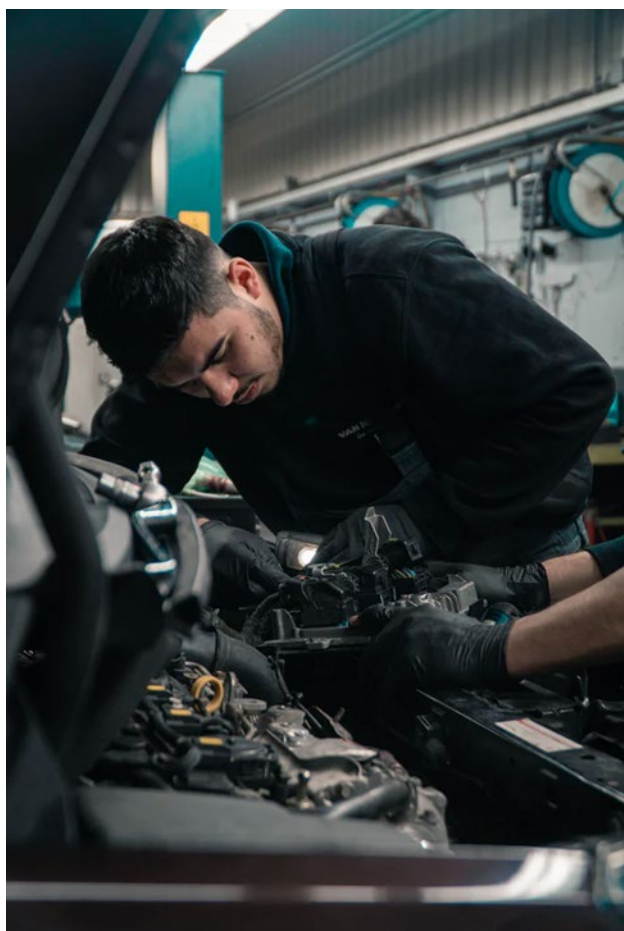


Chart 2: Long-term employment projections for these fields, NYC, 2016-2026***

	Projected NYC employment:		Change over time:	
	2016	2026	Net	Percent
Transportation and Material Moving Occupations	220,190	241,170	20,980	9.5%
Vehicle and Mobile Equipment Mechanics, Installers, and Repairers	21,530	23,000	1,470	6.8%

IN THIS RESOURCE...

LOOKING DEEPER: WHO'S WORKING IN THIS FIELD? (P.2)

DEMYSTIFYING DEMAND: EMPLOYER PRIORITIES (P.3)

WHAT NEXT? GUIDING QUESTIONS & WEB RESOURCES (P.4)

Looking Deeper: Who Works in this Field?

- Most people working in these fields in NYC do not have a significant amount of formal education and do not earn above a living wage.
- For the majority of occupations in these fields (78%), the most commonly-held educational credential by workers in NYC is a high school diploma.
- There is significant opportunity in these fields for people who are just starting out their career. Almost all recent hiring in NYC sought candidates with 5 years or less of experience (94% of job ads during the six-month period of October 2020 – March 2021).
- Median wages for these occupations are below \$45,285, the 2021 living wage for a single adult in New York City*****.

Chart 3: Years of experience of people being hired in these fields, based on job ads, NYC, 10/1/2020 - 3/31/2021**

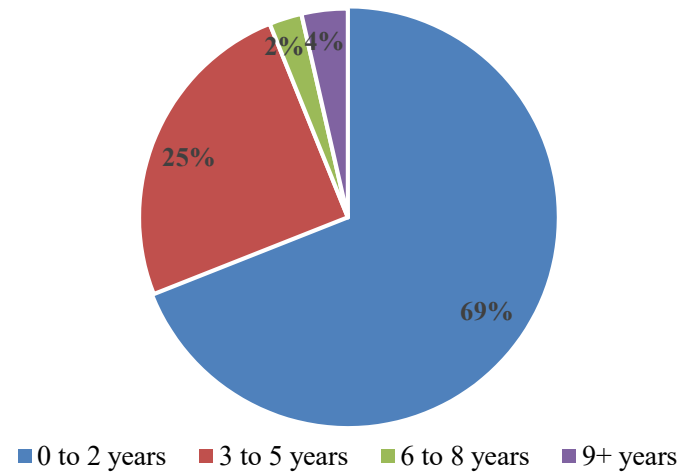


Chart 4: Median wages in these fields by experience**, NYC**

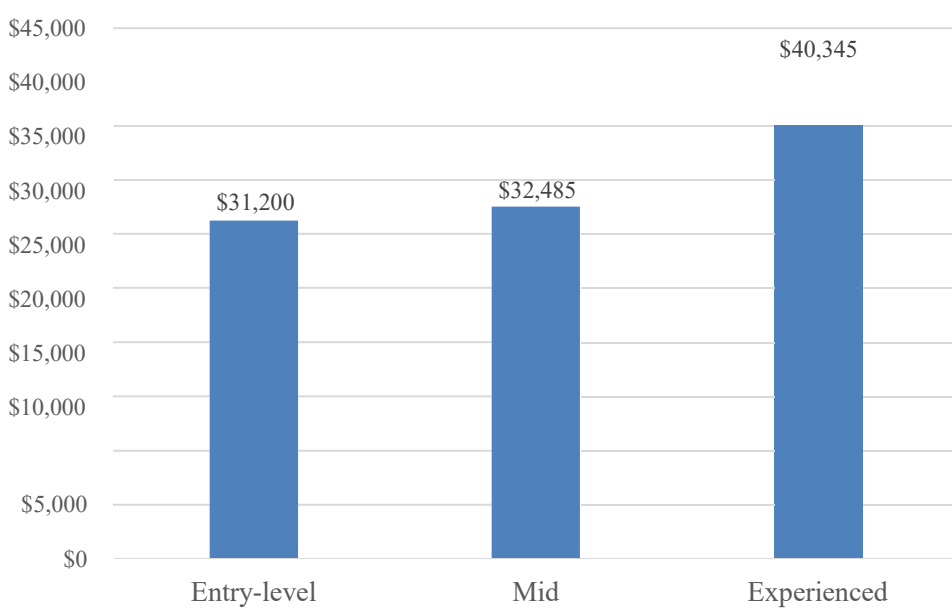
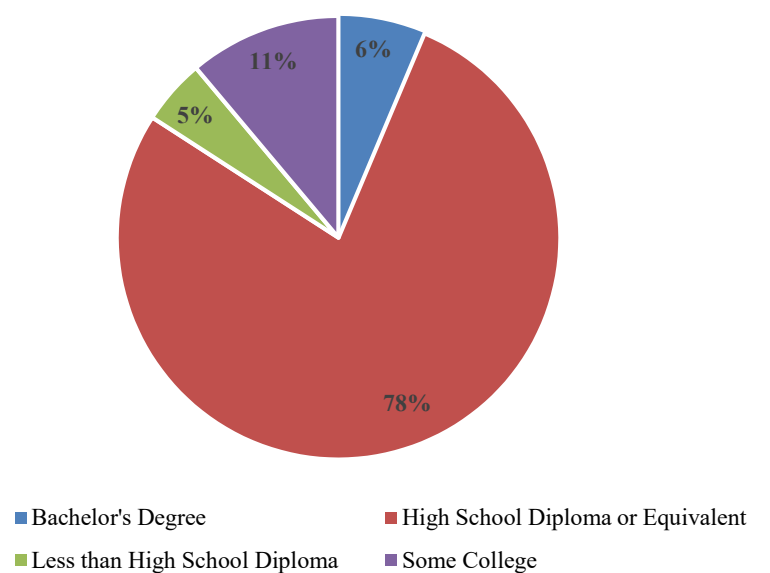


Chart 5: Most commonly-held educational credential for these fields, NYC*****



The chart below reflects the gender and ethnicity of people who work in three occupations of CTE focus in these fields in NYC*****. Demographic distributions reflect a set of occupations that are almost entirely held by men.

Chart 6: Gender and ethnicity distributions for 3 occupations of CTE focus in these fields in NYC

Occupation	NYC Emp.	Ethnicity %						Gender %	
		American Indian/Alaska Native	Asian/Pacific Islander	Black	Hispanic	White	Multi-ethnic/Other	Female	Male
Automotive Service Technicians and Mechanics	7,640	1	11	23	40	19	7	2	98
Aircraft Mechanics and Service Technicians	1,940	0	6	18	41	33	2	5	95
Captains, Mates, and Pilots of Water Vessels	1,210	0	2	3	1	93	1	3	97

Demystifying Demand: Employer Priorities

- In these fields, education credentials may be less important than training and certifications for entry-level employees to secure a job in NYC.
- The majority of employers seeking to hire an entry-level professional in these fields are seeking someone with at least a high school diploma or vocational training.
- Employers across fields are interested in entry-level workers having skills that emphasize foundational computer literacy, communication, and collaboration.
- Most employers (66%) included at least one certification in their job posting. Licenses to operate vehicles/machines were most common.

Chart 7: Minimum education levels sought in automotive & transportation for entry-level workers, number of job ads, NYC, 10/1/2020 -3/31/2021**

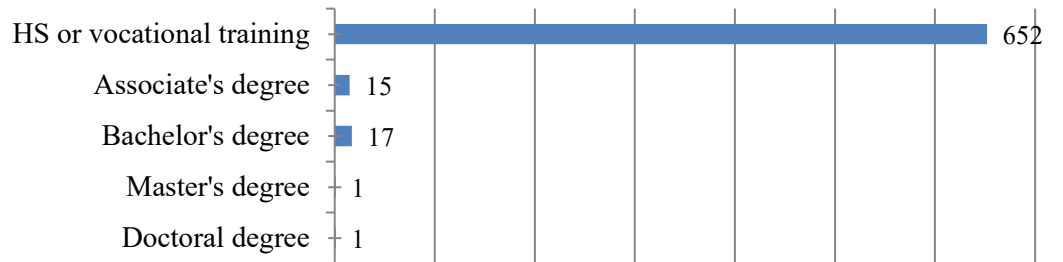


Chart 8: In-demand transferable*** skills, entry-level job ads**, NYC, 10/1/2020 - 3/31/2021**

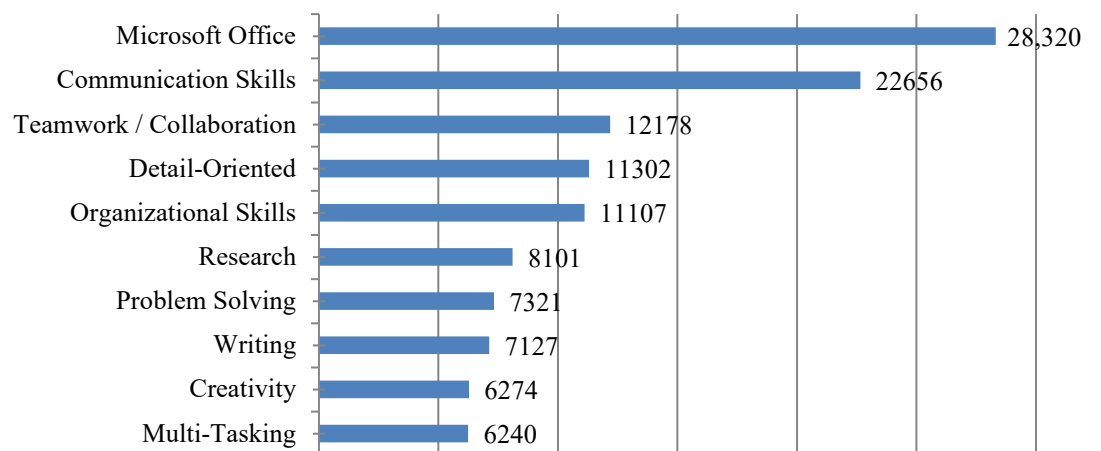
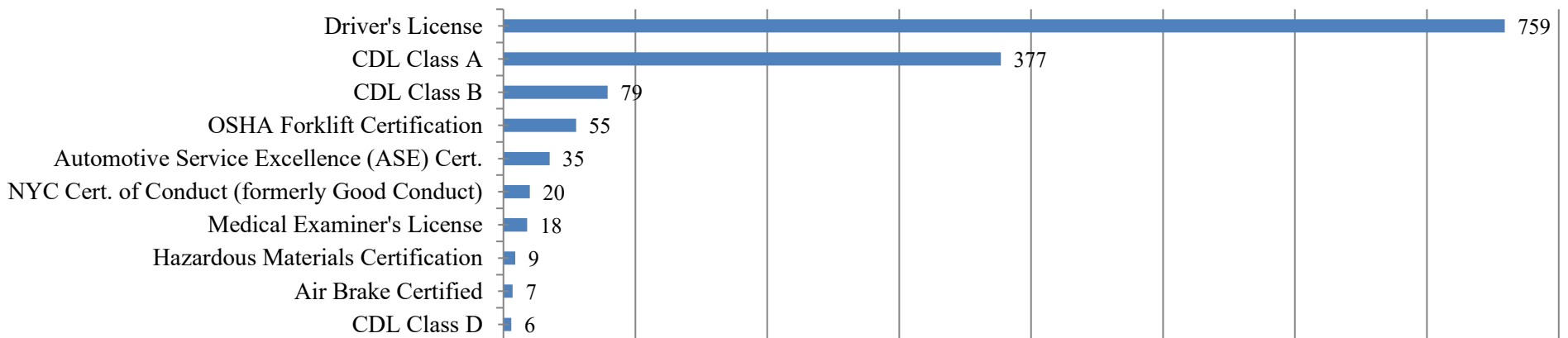


Chart 9: Certifications in greatest demand for entry-level workers in automotive and transportation fields, number of mentions in job ads, NYC, 10/1/2020 - 3/31/2021**



Charts 10-12: Entry-level opportunities in these fields, job ads, 4/1/2020 – 3/31/2021**

Chart 10: Job ads in these fields, growth by metropolitan statistical area (MSA):

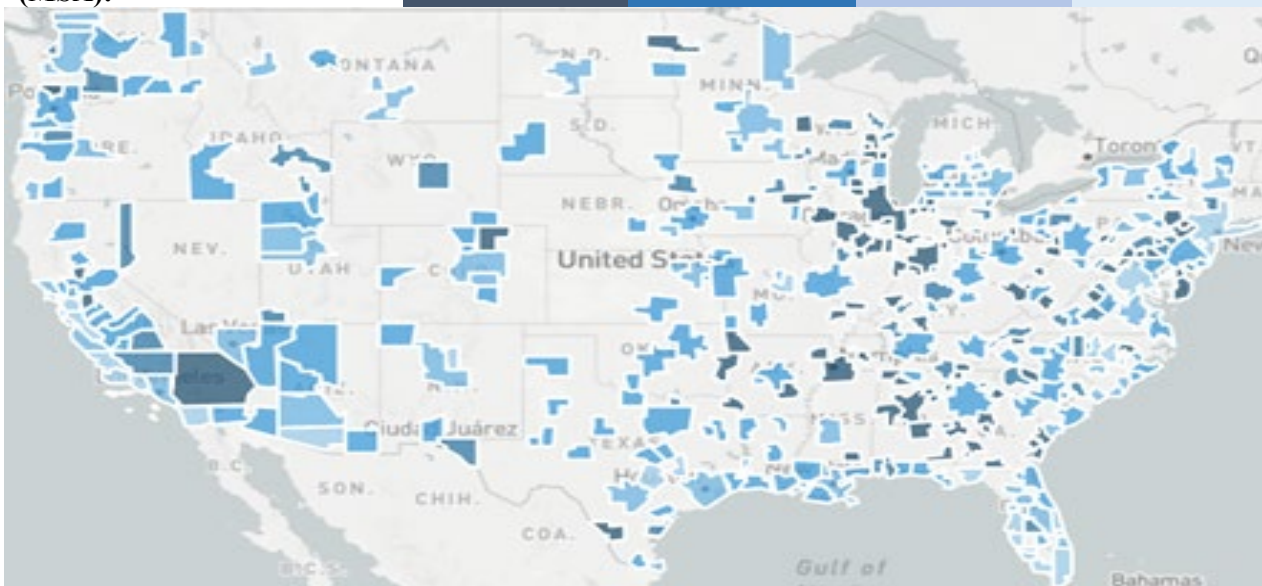


Chart 11: MSAs with most employers posting ads overall

Metro Statistical Area	Job Ads
Chicago-Naperville-Elgin, IL-IN-WI	50,906
Los Angeles-Long Beach-Anaheim, CA	30,445
Dallas-Fort Worth-Arlington, TX	29,899

Chart 12: Occupations with most ads in these fields

Occupation	Job Ads
Heavy and Tractor-Trailer Truck Drivers	520,168
Laborers and Freight, Stock, and Material Movers, Hand	180,849
Driver/Sales Workers	75,663

What Next? Guiding Questions & Web Resources

“Describe how current labor market data has informed program design and choice of technical assessment.”

The prompts below are designed to promote discussion and ideas for program planning, and to help you answer the question above from the CTS self study tab and the NYSED CTE application (Part 2, Section C).

How can we incorporate this report’s data insights into our...	Data points to consider:
<i>...program content?</i>	Charts 2, 4, 5, 8, 9
<i>...employability profile?</i>	Charts 8, 9
<i>...articulation agreement and, if applicable, affiliation agreement?</i>	Charts 5, 7, 9
<i>...work-based learning?</i>	Charts 1, 8
<i>...technical assessments?</i>	Chart 9
<i>...faculty certification and, if applicable, professional licensures?</i>	Charts 8, 9

Consider the questions below keeping in mind the labor market data points you’ve explored in this report and the questions that you’ve answered above.

Select three ways that you might adjust your program in response to labor market data:

- Program content
 Employability profile
 Articulation agreement
 Technical assessments
 Work-based learning
 Faculty certification
 Other: _____

Which one of these three adjustments could most easily be implemented this school year?

Which one of the three would make the biggest difference for the quality of our program? Why?

Curious to explore more? Check out these web resources:

- CTE NYC website: www.cte.nyc
- CTE Industry Commission resources: bitly.com/CTEIndustryEngagement
- CTE College and Career Planning Team's postsecondary milestones toolkit: bit.ly/2O2QIGn
- CareerOneStop labor market data explorer: www.careeronestop.org

Technical Notes & Data Sources:

* “Automotive and transportation” occupations have been operationalized as occupations with a 2010 Standard Occupation Classification (SOC) code starting with the two-digit "53-XXXX" (“Transportation and Material Moving Occupations”) or with the three-digit “49-3XXX” (“Vehicle and Mobile Equipment Mechanics, Installers, and Repairers”).

** These analyses were conducted using the Burning Glass Labor Insight proprietary web-based research platform. The data include job ads posted by recruiting firms.

*** New York City 2016-2026 long-term employment projections are determined by New York State Department of Labor (NYSDOL).

**** NYSDOL, Occupational Employment Statistics (OES) estimates for New York City, first quarter of 2020 (May 2020 release). NYSDOL operationalizes “Entry Wage” as the average of the bottom third of wages, “Mid” as median wages, and “Experienced Wage” as the average of the top two thirds of wages.

***** U.S. Census, American Community Survey (ACS) estimates, NYC 2015-2019 5-year sample, IPUMS release February 2021.

***** Massachusetts Institute of Technology’s (MIT) Living Wage calculator, 2021 estimates for New York City

***** Demographics based on U.S. Census, American Community Survey (ACS) estimates, NYC 2015-2019 5-year sample, IPUMS release February 2021. Employment estimates are from NYSDOL OES (May 2020 release).

The chart below reflects the gender and ethnicity of people who work in the largest three occupations within these fields in NYC. Demographic distributions reflect a set of occupations that are primarily held by men of color.

Gender and ethnicity distributions for top 3 occupations in these fields in NYC									
Occupation	NYC Emp.	Ethnicity %						Gender %	
		American Indian/Alaska Native	Asian/Pacific Islander	Black	Hispanic	White	Multi-ethnic/Other	Female	Male
Laborers and Freight, Stock, and Material Movers, Hand	69,390	1	9	24	40	24	2	13	87
Bus Drivers (School or Special Client); Taxi Drivers and Chauffeurs	49,170	0	5	45	31	18	1	30	70
Light Truck or Delivery Services Drivers	48,130	1	13	24	40	20	2	4	96

***** “Transferable skills” are defined as “skills used in one job or career that can also be used in another” (Cambridge Business English Dictionary, <https://dictionary.cambridge.org/us/dictionary/english/>)