

Equipping Leaders with a Framework for Equitable Access to Secondary CTE Programs

November 22, 2024
Presented by Emily Puccio



Purpose of Analysis and Reporting

Animal Science 2022 US Bureau of Labor Labor Force Statistics	
Industry	Veterinary Services
Total Employed (Count in thousands)	408
Female	83.2%
Male	16.8%
Black or African American	3.3%
Hispanic or Latinx	11.8%
Asian	2.2%
White	91.5%

How can we effectively use disaggregated enrollment district and industry data to reveal the trends and patterns impacting equity and access in CTE programs?

NY State Dept. of Labor Long-Term Occupational Employment Projections, 2020-2030 for Long Island						
Employment			Annual Average Openings		Annual Wages (\$) - 2023 ¹	
2020	2030	Percent Change	Total	Growth	Mean	Entry ² Experienced ³
1,310	1,550	18.3%	254	24	\$ 43,999	\$ 37,092 \$ 47,453
3,040	5,430	78.6%	849	239	N/A	N/A
530	660	24.5%	63	13	\$ 54,869	\$ 43,082 \$ 60,763
320	560	75.0%	74	24	\$ 60,166	\$ 35,710 \$ 72,395
2,710	4,880	80.1%	777	217	\$ 41,469	\$ 32,445 \$ 45,980
660	800	21.2%	34	14	\$ 152,187	\$ 97,615 \$ 179,472

Eastern Long Island Academy of Applied Technology Enrollment (11th & 12th)		
Total Students	Total	Percentage
Female	2,096	
Male	902	43.0%
American Indian or Alaska Native	1,194	57.0%
Black or African American	7	0.3%
Hispanic or Latinx	137	6.5%
Asian or Native Hawaiian/Other Pacific Islander	743	35.4%
White	32	1.5%
Multiracial	1,870	89.2%
ELL/LEP	50	2.4%
IEP	83	4.0%
	505	24.1%



Purpose of Analysis and Reporting

Provide a framework to develop, analyze, and use comprehensive data sets in order to identify underrepresented demographics of students in CTE programs

Through the examination of sample data sets, we can:

- Discover enrollment barriers contributing to inadequate access
- Implement targeted interventions to increase enrollment and participation among underrepresented student groups
- Demonstrate regional leadership at the intersection of DEI and CTE



Purpose of Analysis and Reporting

Internally

- Understand students we serve in our CTE programs
- Review and align program implementation to DEI initiatives
- Understand industries our programs serve (and what students may encounter when they enter the workforce)



Externally

- Provide accountability to component districts
- Create opportunity for component districts to consider practices for identifying student interests and granting access to programs
- Provide employment and earnings information



Goals for Analysis and Reporting

- Increase access to programs, particularly for members of marginalized communities and along non-traditional career paths
- Increase employment opportunities, particularly for members of marginalized communities and along non-traditional career paths
- Diversify local workforce





By communicating the value of CTE programs to school districts, parents, students and the community, we can better ensure that ALL student demographics are equipped with the tools and knowledge required to market themselves and succeed in a rapidly evolving and competitive job market.

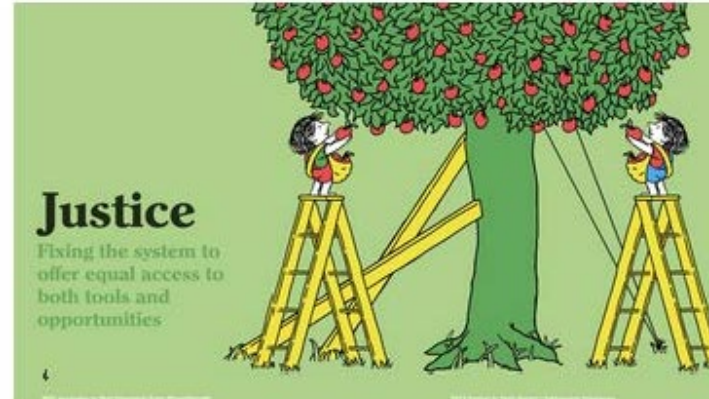
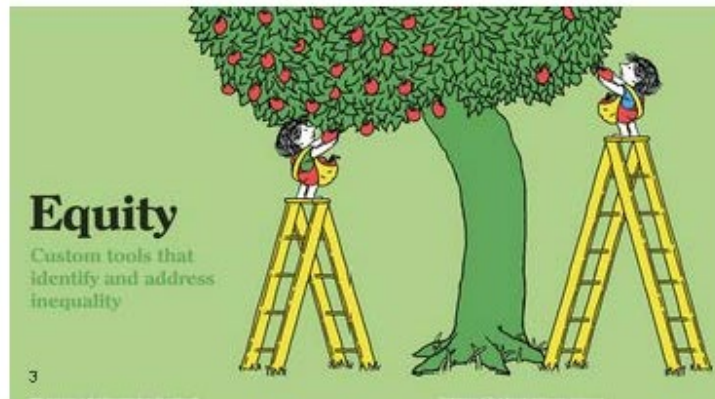
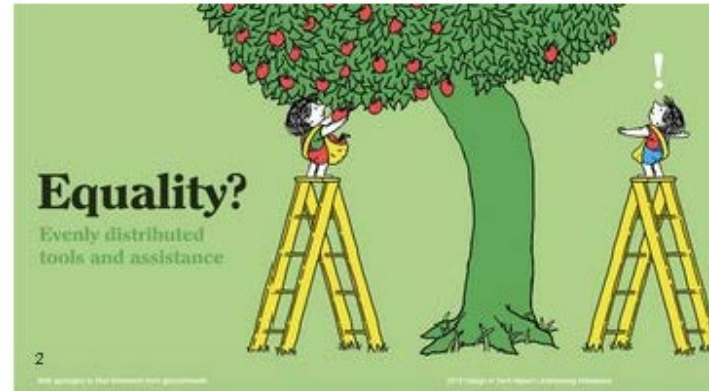
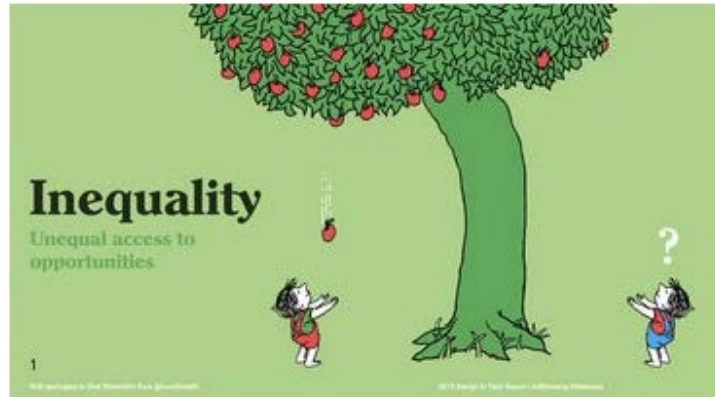


Why Is This Important?

- Provide state-of-the-art training in industries that are critical to the local and regional economies
- Integrate academic and technical skills required to be successful in the industry
- Promote transferrable skills that AI cannot duplicate
- Implement acquired skills in authentic work-related settings
- Prepare students for college and career in alignment with the Blue Ribbon Commission recommendations and NYSED's portrait of a graduate



Goals for Analysis and Reporting



Essential Data Parameters & Sources

- Enrollment: 2022-2023 school year
- Students enrolled in CTE programs
- Academy CTE program enrollment data – from Student Management System (SMS)
- District enrollment data – from SIRS Warehouse (Level 1)
- Labor and Occupational data – from USBLS (<https://bls.gov>) and NYS Department of Labor for Long Island (<https://dol.ny.gov>)



Enrollment Data by Program

2022-2023 Program Enrollment			Plumbing*				2022-2023 Eastern Long Island Academy of Applied Technology		
Plumbing and Heating	Total	Percentage	Industry	Hardware, Plumbing and Heating Equipment, and Supplies Merchant Wholesalers	Construction	Water, Steam, Air-Conditioning, and Irrigation Systems	Enrollment	Total	Percentage
Total Students	48		Total Employed (Count in thousands)	164	11,790	270	Total Students	2,096	
Female	0	0%	Female	20.3%	10.9%	21.4%	Female	902	43%
Male	48	100%	Male	79.7%	89.1%	78.6%	Male	1,194	57%
American Indian or Alaska Native	0	0%					American Indian or Alaska Native	7	0%
Black or African American	2	4%	Black or African American	8.5%	6.7%	11.7%	Black or African American	137	7%
Hispanic or Latinx	13	27%	Hispanic or Latinx	19.9%	34.2%	19.7%	Hispanic or Latinx	743	35%
Asian or Native Hawaiian/ Other Pacific Islander	0	0%	Asian	3.0%	2.1%	2.8%	Asian or Native Hawaiian/ Other Pacific Islander	32	2%
White	46	96%	White	87.0%	87.3%	83.9%	White	1,870	89%
Multiracial	0	0%					Multiracial	50	2%
ELL/LEP	0	0%					ELL/LEP	83	4%
IEP	17	35%					IEP	505	24%
FRL	16	33%					FRL	903	43%

NY State Dept. of Labor Long-Term Occupational Employment Projections, 2020-2030 for Long Island										
	Employment			Annual Average Openings		Annual Wages (\$) - 2023 ¹			Employment Prospects ⁴	NYS Growth Rate ⁵
	2020	2030	Percent Change	Total	Growth	Mean	Entry ²	Experienced ³		
Plumbers, Pipefitters, and Steamfitters	6,760	8,370	23.8%	921	161	\$ 92,972	\$ 52,675	\$ 113,121	Very Favorable	21.6%
Helpers--Installation, Maintenance, and Repair Workers	1,040	1,440	38.5%	190	40	\$ 42,667	\$ 31,665	\$ 48,168	Very Favorable	33.4%
Septic Tank Servicers and Sewer Pipe Cleaners	280	390	39.3%	51	11	\$ 53,446	\$ 39,088	\$ 60,625	Very Favorable	34.7%
Installation, Maintenance, and Repair Workers, All Other	980	1,170	19.4%	129	19	\$ 59,480	\$ 41,250	\$ 68,595	Favorable	21.2%



Corresponding Workforce Data

2022-2023 Program Enrollment			Plumbing*				2022-2023 Eastern Long Island Academy of Applied Technology		
Plumbing and Heating	Total	Percentage	Industry	Hardware, Plumbing and Heating Equipment, and Supplies Merchant Wholesalers	Construction	Water, Steam, Air-Conditioning, and Irrigation Systems	Enrollment	Total	Percentage
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Male	48	100%	Male	79.7%	89.1%	78.6%	Male	1,194	57%
American Indian or Alaska Native	0	0%					American Indian or Alaska Native	7	0%
Black or African American	2	4%	Black or African American	8.5%	6.7%	11.7%	Black or African American	137	7%
Hispanic or Latinx	13	27%	Hispanic or Latinx	19.9%	34.2%	19.7%	Hispanic or Latinx	743	35%
Asian or Native Hawaiian/ Other Pacific Islander	0	0%	Asian	3.0%	2.1%	2.8%	Asian or Native Hawaiian/ Other Pacific Islander	32	2%
White	46	96%	White	87.0%	87.3%	83.9%	White	1,870	89%
Multiracial	0	0%					Multiracial	50	2%
ELL/LEP	0	0%					ELL/LEP	83	4%
IEP	17	35%					IEP	505	24%
FRL	16	33%					FRL	903	43%

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Installation, Maintenance, and Repair Workers, All Other	980	1,170	19.4%	129	19	\$ 59,480	\$ 41,250	\$ 68,595	Favorable	21.2%



Academy Enrollment Data

2022-2023 Program Enrollment			2022 US Bureau of Labor Labor Force Statistics				2022-2023 Eastern Long Island Academy of Applied Technology		
Plumbing and Heating	Total	Percentage	Industry	Hardware, Plumbing and Heating Equipment, and Supplies Merchant Wholesalers	Construction	Water, Steam, Air-Conditioning, and Irrigation Systems	Enrollment	Total	Percentage
Total Students	48		Total Employed (Count in thousands)	164	11,790	270	Total Students	2,096	
Female	0	0%	Female	20.3%	10.9%	21.4%	Female	902	43%
Male	48	100%	Male	79.7%	89.1%	78.6%	Male	1,194	57%
American Indian or Alaska Native	0	0%					American Indian or Alaska Native	7	0%
Black or African American	2	4%	Black or African American	8.5%	6.7%	11.7%	Black or African American	137	7%
Hispanic or Latinx	13	27%	Hispanic or Latinx	19.9%	34.2%	19.7%	Hispanic or Latinx	743	35%
Asian or Native Hawaiian/ Other Pacific Islander	0	0%	Asian	3.0%	2.1%	2.8%	Asian or Native Hawaiian/ Other Pacific Islander	32	2%
White	46	96%	White	87.0%	87.3%	83.9%	White	1,870	89%
Multiracial	0	0%					Multiracial	50	2%
ELL/LEP	0	0%					ELL/LEP	83	4%
IEP	17	35%					IEP	505	24%
FRL	16	33%					FRL	903	43%

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Septic Tank Servicers and Sewer Pipe Cleaners	280	390	39.3%	51	11	\$ 53,446	\$ 39,088	\$ 60,625	Very Favorable	34.7%
Installation, Maintenance, and Repair Workers, All Other	980	1,170	19.4%	129	19	\$ 59,480	\$ 41,250	\$ 68,595	Favorable	21.2%



Catchment Enrollment Data

Eastern Long Island Academy of Applied Technology Enrollment (11th & 12th)	Total	Percentage
Total Students	2,096	
Female	902	43.0%
Male	1,194	57.0%
American Indian or Alaska Native	7	0.3%
Black or African American	137	6.5%
Hispanic or Latinx	743	35.4%
Asian or Native Hawaiian/Other Pacific Islander	32	1.5%
White	1,870	89.2%
Multiracial	50	2.4%
ELL/LEP	83	4.0%
IEP	505	24.1%
FRL	903	43.1%

ESBOCES Catchment Enrollment (11th & 12th)	Total	Percentage
Total Students	26,737	
Female	12,604	47.1%
Male	14,133	52.9%
American Indian or Alaska Native	1,016	3.8%
Black or African American	2,795	10.5%
Hispanic or Latinx	10,426	39.0%
Asian or Native Hawaiian/Other Pacific Islander	1,363	5.1%
White	22,428	83.9%
Multiracial	519	1.9%
ELL/LEP	2,842	10.6%
IEP	3,723	13.9%
FRL	11,571	43.3%



School District Enrollment in Academy

Academy student population data for your district

Sample District - Academy Enrollment	Total	Percentage
Total Students	128	
Female	84	65.6%
Male	44	34.4%
American Indian or Alaska Native	0	0.0%
Black or African American	7	5.5%
Hispanic or Latinx	111	86.7%
Asian or Native Hawaiian/Other Pacific Islander	2	1.6%
White	116	90.6%
Multiracial	2	1.6%
ELL/LEP	11	8.6%
IEP	15	11.7%
FRL	104	81.3%

Corresponding data for all district 11th & 12th graders

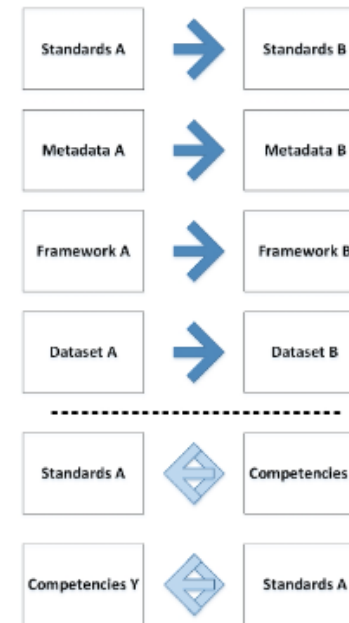
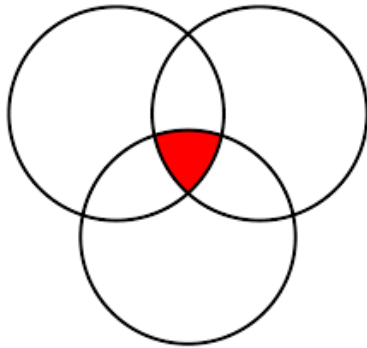
Sample District - Enrollment (11th & 12th)	Total	Percentage
Total Students	3,161	
Female	1,457	46.1%
Male	1,704	53.9%
American Indian or Alaska Native	442	14.0%
Black or African American	361	11.4%
Hispanic or Latinx	2,683	84.9%
Asian or Native Hawaiian/Other Pacific Islander	112	3.5%
White	2,267	71.7%
Multiracial	7	0.2%
ELL/LEP	737	23.3%
IEP	381	12.1%
FRL	2,582	81.7%



Crosswalk Analysis

Ability to crosswalk data multi-directionally:

- Region
- District/School
- Academy Program
- Industry
- State



Sharing Data

Internally

- Shared Decision-Making Teams
- Program Approval/Self-Study Teams
- Cluster Meetings
- District Contact Meetings



Externally

- Curriculum Council
- District Contact Meetings



Outcomes and Actions

Expected Outcome

- Advance career opportunities along non-traditional career paths
- Advance career opportunities for historically marginalized student population
- Utilize CTE programs to improve graduation outcomes

Action Steps

- Assess processes for identifying student career interests
- Develop implementation model for student career plans
- Analyze internal requisites for applying to CTE programs



Questions for Discussion

- What questions or feedback do you have?
- What other avenues for sharing would you recommend?
- What other information could be included in future reporting?
- What supports would be helpful for utilizing data to meet the goals below?
 - ❖ Increase access to programs, particularly for marginalized communities
 - ❖ Diversify local workforce
 - ❖ Create opportunities for traditional and non-traditional career pathways





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