Fox Valley TECHNICAL COLLEGE
Knowledge That Works

Performance Monitoring Report: Apprenticeship

February 15, 2022

Apprenticeship Purpose

Offer related academic and technical support courses for joint labor/management apprenticeship programs.

This report serves as partial evidence of FVTC compliance with HLC Criterion 2C.

Apprenticeship Report Details

Overview

Apprenticeship has been a cornerstone of technical education and a viable post-secondary learning option in Wisconsin for over a century. “On-the-job learning” of an employed apprentice, coupled with applied learning at the technical college, continues to be a productive way for employers to train their workforce and for employees to gain crucial knowledge and skills in their career field.

Apprenticeship enrollments decreased by 40 students in 2020-21 as compared to 2019-20. The projected data for 2020-21 show similar levels of apprenticeship enrollments to the prior year, with minor fluctuations.

What We Do

The Bureau of Apprenticeship Standards (BAS), a branch of the Wisconsin Department of Workforce Development, regulates the training and certification for apprenticed trades in conjunction with employers, the Wisconsin Technical College System, and trade advisory committees. Employers and local advisory committees sponsor apprentices in selected industrial, construction, and service trades for two to six years as paid employees and are responsible for teaching trade skills on the job.

Coursework is state-approved with an 80% common core curriculum.

Construction trades have local and/or regional advisory committees who review the progress of current apprentices toward the successful completion of requirements of their apprenticeship, review curriculum, discuss enrollments, and advise equipment purchases.

FVTC faculty and staff participate with the local advisory committees that are composed of equal numbers of employees (labor) and employers (contractors).

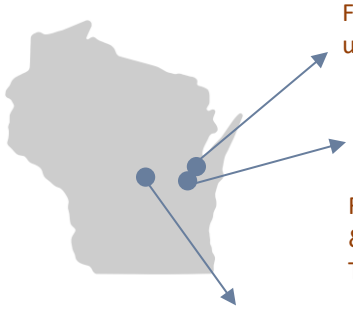
Employer advisory committees meet at least twice a year to discuss enrollments, curriculum, technology, and equipment purchases.

Training organizations that are directly involved with FVTC apprenticeships include:

- Pipe Trades UA Local 400
- Operating Engineers Local 139
- Associated Builders and Contractors (ABC) of Wisconsin

FVTC apprenticeship staff work to enhance the quality of apprenticeship through active partnerships. One important collaboration involves sharing instructional staff with other technical college districts. FVTC is also an active partner with training centers enhancing and maximizing the resources available for apprenticeship training.

Sustaining and growing the future workforce is a focal point in today's apprenticeship related trades. The replacement of aging workers in local companies looms as a critical concern voiced by representatives at advisory committee meetings and is evident in state policy directions.



Plumbing
FVTC provides related instruction under contract with NWTC.

Steamfitting, Plumbing, Steamfitting Service, Pipe Fabricator
FVTC provides instruction to FVTC & NWTC apprentices at Local 400 Training Center in Kaukauna.

Operating Engineer
FVTC courses are taught by Local 139 WTCS certified instructors to statewide apprentices at the Training Center in Coloma.

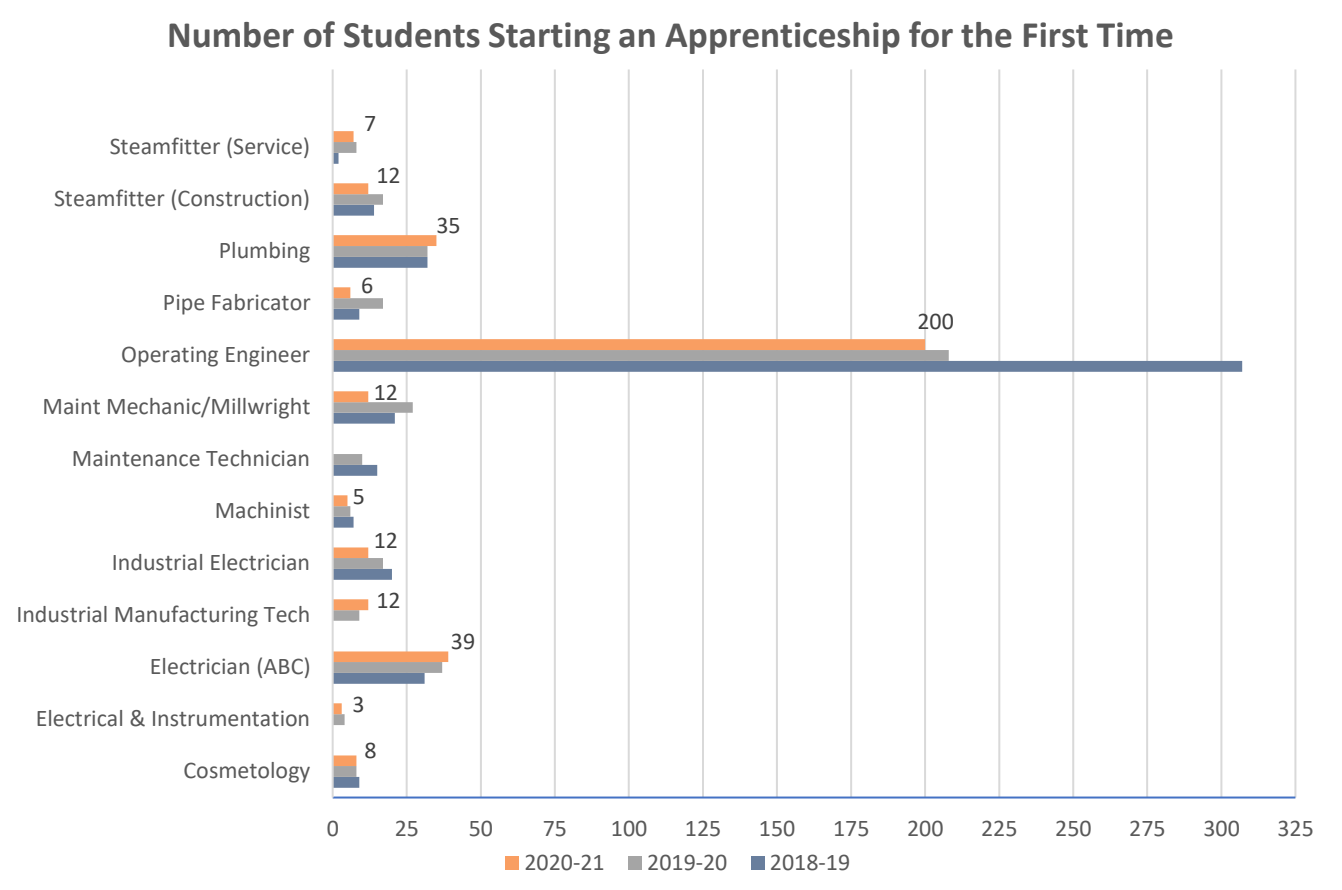
For Whom

Overall, the number of employers served increased by 1.3%, while total students served decreased by 2.7%. The below tables outline enrollment details of apprenticeship programs for the past three years and the total number of new apprenticeship students per year.

Number of FVTC Apprenticeship Students by Program

Apprenticeship Programs	Students			% Change
	2018-19	2019-20	2020-21	2018-19 to 2020-21
50-423-7 - Lubrication Technician	1	1	3	200%
50-420-9 - Industrial Manufacturing Tech	-	13	28	115%
50-502-1 - Cosmetology	14	24	21	50%
50-414-2 - Electrical & Instrumentation	-	13	18	38%
50-413-9 - Electrician (ABC)	120	137	149	24%
50-435-4 - Steamfitter (Service)	28	34	34	21%
50-427-5 - Plumbing	124	140	145	17%
50-413-1 - Industrial Electrician	99	106	114	15%
50-423-1 - Maintenance Mechanic/Millwright	103	117	115	12%
50-447-1 - Operating Engineer	581	576	557	-4%
50-464-1 - Maintenance Technician	62	73	60	-3%
50-423-3 - Millwright – Pipefitter (not on web)	18	14	15	-17%
50-435-2 - Steamfitter (Construction)	101	97	78	-23%
50-420-2 - Machinist	44	36	28	-36%
50-442-2 - Pipe Fabricator	86	69	51	-41%
50-435-1 - Pipefitting	11	5	6	-45%
50-439-3 - Tool & Die Maker	2	7	1	-50%

Source: Student counts from WTCS Client Reporting Cube. Employer counts provided by FVTC's Apprenticeship Office.



Source: FVTC Data Warehouse

Some employers hold instruction for their apprentices at off-campus training centers, while others have apprentices participate in instruction on the FVTC campus. All instruction is delivered by FVTC-certified instructors.

Employers with the Highest Number of Apprentices (2020-21 Academic Year)

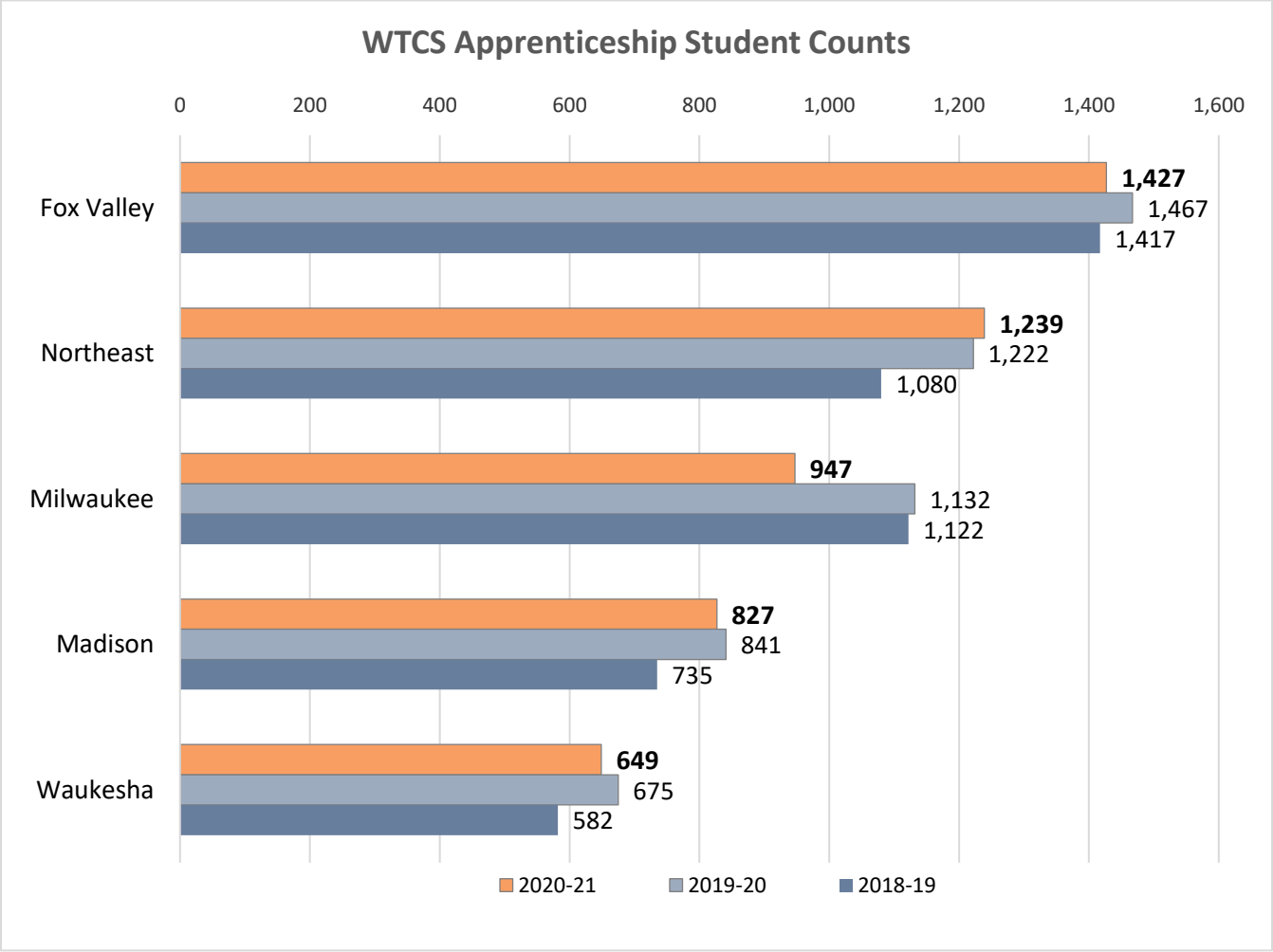
Instruction at Training Centers	
Employer	**Number of Apprentices**
Northeast Asphalt	76
August Winter & Sons	35
New Berlin Grading	32
Payne and Dolan Inc.	30
Ryan Inc Central	30
Tweet-Garot Mechanical Inc.	29
Dawes Rigging & Crane	28
Edgerton Contractors	26
Bassett Mechanical	25
Hoffman Construction Inc.	24

Instruction on Campus	
Employer	**Number of Apprentices**
Suburban Electrical Engineers	41
Northland Electrical Services	24
Ahlstrom-Munksjo	23
Quad	23
Ariens	22
Neenah Foundry	22
Walker Forge	20
Essity	19
Grande Cheese	12
Kimberly Clark	9

Source: FVTC's Apprenticeship Office

FVTC continues to serve more total apprentices than any other WTCS district. The larger Wisconsin urban centers served by Milwaukee Area Technical College and Madison College combined had 25% of the total WTCS apprenticeship headcount, with Milwaukee serving 947 students, and Madison serving 827 students.

With a total of 1,427 students, FVTC served 20% of the statewide apprenticeship total. These totals include students who enrolled in an apprenticeship course but were not formally enrolled in an apprenticeship program.



Source: WTCS Client Reporting Cube

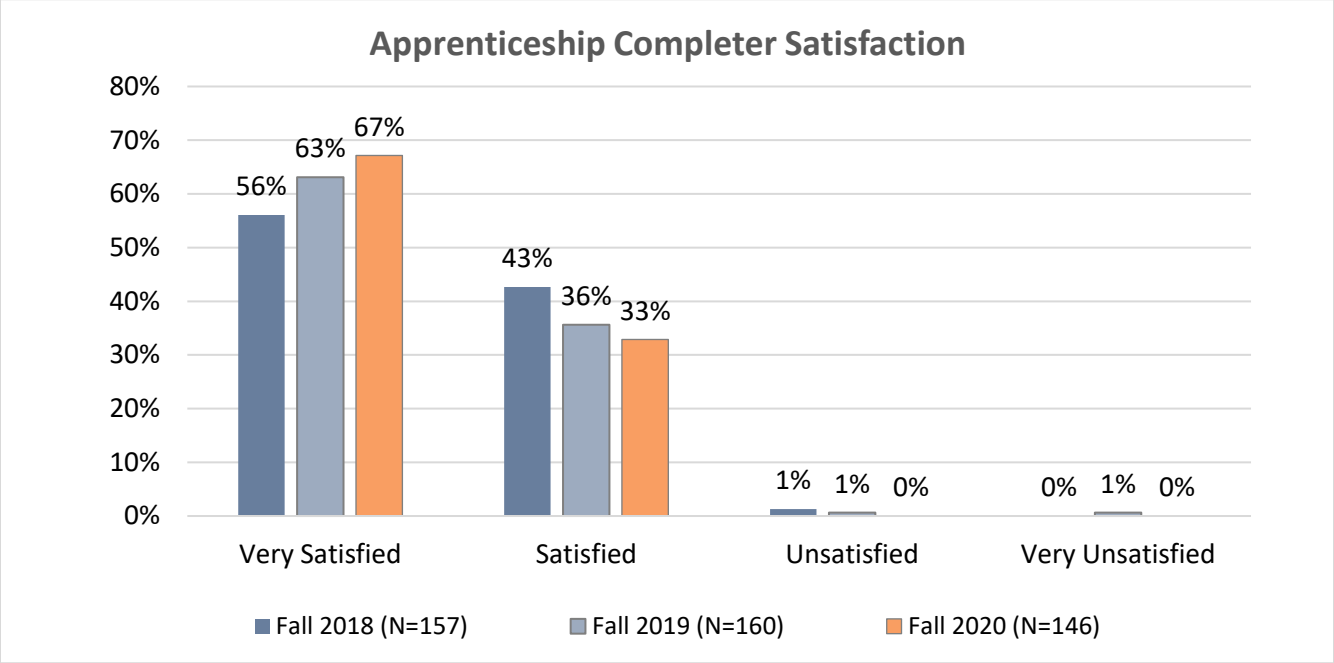
FVTC apprenticeship completers reported wages averaging $84,802 annually, which reflects an 11% increase over average wages reported in 2019-20, with an average workweek of approximately 49 hours.

Wage Data for 2019-20 Apprenticeship Completers

Apprenticeship Programs	Hourly Wage	Annual Wage	Hours Per Week
Pipe Fabricator	$ 51.92	$ 107,995	43
Steamfitter (Construction)	$ 46.84	$ 97,429	44
Plumbing	$ 42.34	$ 88,058	43
Operating Engineer	$ 41.50	$ 86,317	54
Maintenance Technician	$ 38.79	$ 80,673	43
Maintenance Mechanic/Millwright	$ 38.22	$ 79,496	48
Industrial Electrician	$ 35.76	$ 74,389	48
Electrician (ABC)	$ 32.52	$ 67,652	41
Machinist	$ 30.63	$ 63,714	44

Source: Apprenticeship Completer Survey conducted Fall 2021

Apprenticeship completers continue to be satisfied with the training they receive through FVTC. Approximately 99% of apprenticeship students reported being “Satisfied” or “Very Satisfied” with FVTC’s paid-related apprenticeship instruction.



Source = 2018, 2019, & 2020 Apprenticeship Completer Surveys

Where do FVTC apprenticeship completers work?

93% work in Wisconsin

72% work in FVTC’s District

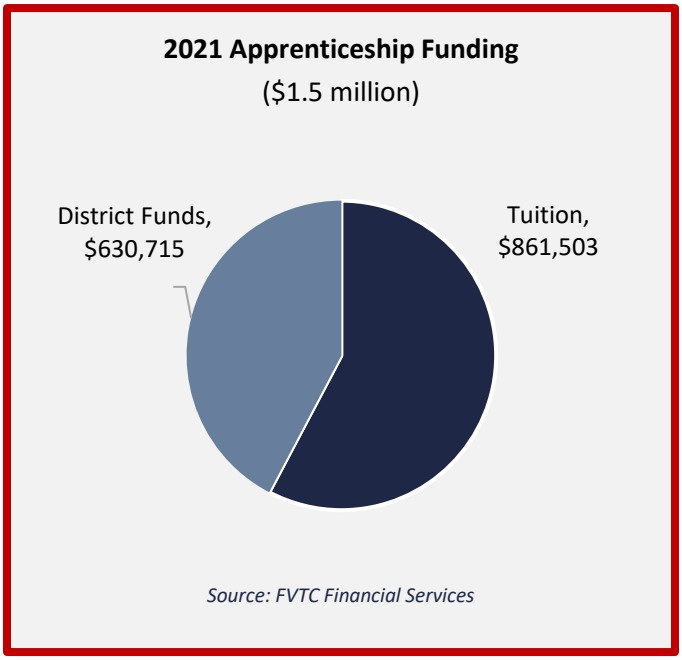
(excludes Operating Engineers)

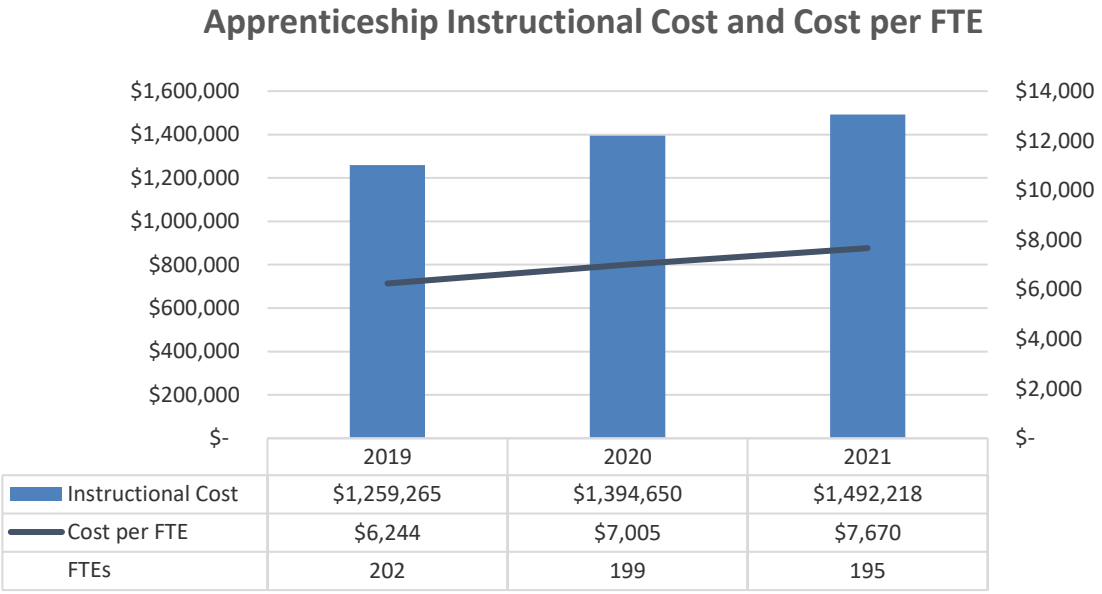
At What Cost

From 2019-20 to 2020-21, there was a 2% decrease in apprenticeship FTEs, from 199 to 195 FTEs. The cost per FTE increased by 9.5% in the same timeframe. This increase in cost per FTE was due to offerings an increased number of lecture-based class sections with fewer student enrollments per section due to pandemic safety guidelines.

Apprenticeship costs include instructional supplies as well as instructional staff. Staffing for apprenticeship programs reflects:

- 12 FVTC full-time apprenticeship instructors teaching in a variety of programs
- 7 FVTC full-time instructors with apprenticeship classes as part of their teaching load
- 62 instructors employed through training centers supported through a reimbursement arrangement (Local 139 and Local 400) and certified with FVTC





	2019	2020	2021
Instructional Cost	$1,259,265	$1,394,650	$1,492,218
Cost per FTE	$6,244	$7,005	$7,670
FTEs	202	199	195

Source: Internal Staff Accounting (Instructional Expenditures)

FVTC supports ongoing investments to maintain state-of-the-art dedicated laboratory facilities for apprenticeship programs. This level of service for district apprentice trades is frequently referenced as an effective model of apprenticeships and helps FVTC remain a leader among apprentice programs in the WTCS.

Challenges and Opportunities

As we look to the future of apprenticeships, the strategic challenges and opportunities include:

- **Instructional Coverage and Expense/Revenue**: *Challenge:* Wisconsin Department of Workforce Development (DWD) determines required Related Instruction (RI) hours for each apprenticeship program. In addition, local governing committees are authorized to establish requirements for Unpaid RI that is typically satisfied by students attending night classes. The Appleton Joint Apprenticeship committee requires apprentices to complete an additional 270 hours of RI hours in the form of night classes during the four years. FVTC offers class sections to ensure all apprentices can complete their requirements. With the construction industry booming, recruiting industry experts to serve as adjunct at pay rate of $40 per hour continues to be a challenge. To address this challenge, the RI classes make up a significant percentage of the instructional load for our full-time instructors. This is a high-cost solution to a low-revenue offering. *Opportunity:* While the College continues to serve in this integral role to meet student and industry educational needs, there are opportunities to review and adjust the adjunct instructor pay rate to attract strong adjunct candidates, as well as consider additional educational and industry partnerships to meet the RI hour needs in a more cost-effective way.
- **Flexibility in Programming**: *Challenge:* Some employers would prefer to have their employees trained in various blends of our current state-sanctioned programs. For instance, they might want 25% electrical and 75% mechanical maintenance skills. As a college, we can accommodate the requests similar to our Individualized Technical Studies AAS offering. The state DWD would need to provide for this flexibility. *Opportunity:* On January 28, 2022, the DWD appointed new Bureau of Apprenticeship Standards Director, David Polk. He most recently worked as Director of Apprenticeship and Trade at Milwaukee Area Technical College. With David's technical college background, we look forward to engaging in further discussion regarding providing flexible options in apprenticeship credentialing.
- **Non-Traditional Apprenticeship:** *Challenge:* Employers report hiring individuals with less than fully developed skills across many industries because of a competitive hiring climate. *Opportunity:* Utilize the College's strength in developing and delivering traditional apprenticeship training to expand these opportunities in areas like information technology, health care, and other occupational areas.
- **Youth Apprenticeship to Registered Apprenticeship:** *Challenge:* The current system of Youth Apprenticeship does not connect well to Registered Apprenticeship resulting in lost opportunities for students and employers. *Opportunity:* Identify specific pathways in which we can serve as the catalyst for bridging Youth Apprenticeship and Registered Apprenticeship resulting in quicker entry to apprenticeships for students.