CVTECH

THE ECONOMIC BENEFITS OF CAREER AND TECHNOLOGY EDUCATION PROVIDED BY CANADIAN VALLEY TECHNOLOGY CENTER

ECONOMICS CENTER
RESEARCH AND CONSULTING

Overview of Full-Time Programs for Secondary Students

Canadian Valley Technology Center provides specialized career training for full-time secondary and adult students as well as provides skills training through short-term courses. Canadian Valley Technology Center also serves business and industry stakeholders by encouraging business and job growth as well as providing education, skills, and training necessary for individuals. This analysis quantifies the economic benefits of career and technology education provided by Canadian Valley Technology Center by examining the projected earnings profile, increase in tax revenue, and return on investment for completers in the 2022-23 academic year. Additionally, the economic and fiscal impact of the expenditures necessary to provide career and technology education are quantified.

There were **1,197 secondary students** enrolled in full-time programs at Canadian Valley Technology Center in the 2022-23 academic year. The health careers program was the largest program among secondary students, representing 13.7 percent of enrollment. Based on enrollment, other popular programs among secondary students were pre-engineering (11.0%) and auto service technology (7.5%).

Follow-up results varied by program. Overall, **96.8 percent** of secondary students who were program completers or course concentrators in the 2022-23 academic year had a positive placement. Approximately 58.0 percent of program completers or course concentrators were continuing their education, while 30.3 percent were employed in a related field. Additionally, 6.3 percent of program completers or course concentrators were employed in an unrelated field and 2.2 percent were in the military.

Program	Enrollment	Completers & Course Concentrators	Percent Positive Placement	Percent Continuing Education	Percent Employed in a Related Field
Health Careers	164	91	98.9%	67.0%	27.5%
Pre-Engineering	132	65	98.5%	90.8%	6.2%
Auto Service Technology	90	60	100.0%	48.3%	41.7%
Biomedical Sciences	79	41	100.0%	87.8%	7.3%
Welding	79	41	100.0%	24.4%	73.2%
Cosmetology	65	26	100.0%	3.8%	69.2%
Early Care & Education	62	32	90.6%	50.0%	40.6%
Graphic Design	50	26	80.8%	46.2%	23.1%
Auto Collision Technology	44	21	95.2%	47.6%	38.1%
Heating, Ventilation, Air Conditioning & Refrigeration	43	24	100.0%	45.8%	25.0%
Precision Machining	37	21	100.0%	76.2%	14.3%
Multimedia Specialist	34	18	100.0%	88.9%	11.1%
Computer Information Systems	32	15	86.7%	40.0%	33.3%
Electrical Trades	29	16	93.8%	37.5%	43.8%
Service Careers - Building & Grounds	27	16	87.5%	43.8%	43.8%
Computer Programming	27	15	100.0%	73.3%	6.7%
Construction Trades	26	11	100.0%	36.4%	54.5%
Marketing Communications	26	13	100.0%	61.5%	38.5%
Diesel Technology	26	11	90.9%	36.4%	54.5%
Criminal Justice	24	15	100.0%	66.7%	13.3%
Administrative Assistant	23	12	100.0%	83.3%	16.7%
Computer Aided Drafting & Design	19	13	92.3%	53.8%	7.7%
Service Careers - Hospitality	18	6	83.3%	33.3%	50.0%
Aviation Maintenance Technology	14	6	100.0%	66.7%	0.0%
Industrial Automation	13	8	100.0%	50.0%	25.0%
Event Planning	9	5	80.0%	80.0%	0.0%
Patient Account Specialist	3	1	100.0%	100.0%	0.0%
Accounting Clerk	1	1	100.0%	100.0%	0.0%
Medical Assistant	1	1	100.0%	0.0%	100.0%
Total	**1,197**	**631**	**96.8%**	**58.0%**	**30.3%**

Annual Earnings of Full-Time Programs for Secondary Students (Nominal$)

Program	Year 1	Year 5	Year 10
Health Careers	$31,200	$33,571	$36,536
Pre-Engineering*	N/A	N/A	N/A
Auto Service Technology	$33,280	$50,428	$55,462
Biomedical Sciences*	N/A	N/A	N/A
Welding	$41,600	$49,799	$54,698
Cosmetology	$24,960	$27,173	$29,940
Early Care & Education	$28,600	$30,566	$33,024
Graphic Design	$31,200	$33,576	$36,547
Auto Collision Technology	$29,120	$45,684	$49,524
Heating, Ventilation, Air Conditioning & Refrigeration	$27,040	$39,052	$42,564
Precision Machining	$32,240	$45,502	$49,107
Multimedia Specialist	$31,200	$33,207	$35,716
Computer Information Systems	$37,440	$40,238	$43,735
Electrical Trades	$31,200	$47,213	$50,745
Computer Programming	$22,880	$30,932	$45,090
Service Careers - Building & Grounds	$24,960	$32,820	$34,941
Construction Trades	$35,360	$44,538	$48,142
Diesel Technology	$40,560	$50,940	$55,752
Marketing Communications	$29,120	$31,731	$34,995
Criminal Justice	$41,600	$51,864	$68,325
Administrative Assistant	$33,280	$35,943	$39,271
Computer Aided Drafting & Design**	$36,251	$38,789	$41,961
Service Careers - Hospitality	$27,040	$29,082	$31,635
Aviation Maintenance Technology***	$49,250	$54,000	$59,938
Industrial Automation	$44,803	$47,494	$50,857
Event Planning***	$35,158	$38,080	$41,733
Patient Account Specialist***	$32,517	$35,193	$38,539
Accounting Clerk***	$26,728	$28,850	$31,502
Medical Assistant	$32,240	$34,787	$37,971
Weighted Average Secondary	**$32,676**	**$40,443**	**$44,319**
High School Graduate	**$19,874**	**$26,358**	**$35,938**

The economic benefit of completing career and technology education is represented by the potential earnings associated with full-time employment in a related field. The projected earnings for each program were compared to the baseline earnings for individuals with a high school diploma or equivalent. The difference in earnings represents the additional earnings potential resulting from specialized training and continued related employment.

In the first full year after entering employment in a related field, secondary students reported median annual earnings of approximately **$32,700**. This represents a potential earnings gain of $12,800 compared to individuals with a high school diploma or equivalent. By year five, secondary students who are employed in a related field are estimated to have annual earnings of **$40,400**, representing a potential earnings gain of $14,100 compared to the annual earnings of high school graduates. Median annual earnings for secondary students who are employed in a related field are projected to increase to **$44,300** by year 10, which is approximately $8,400 more than high school graduates.

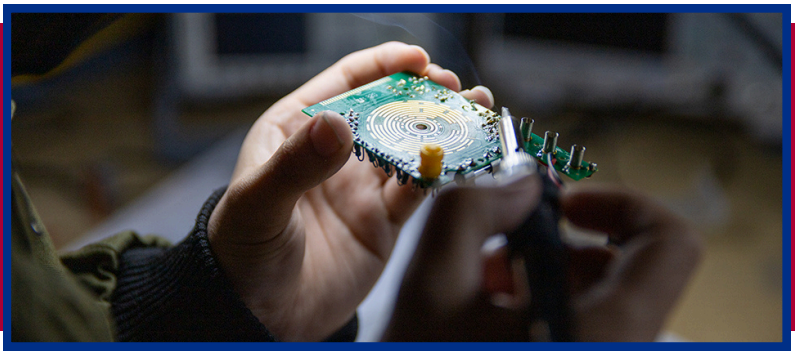
A career and technology education credential jumpstarts a student into a career pathway. The benefits accruing to students in the form of increased earnings highlight the importance of investing in one's education. It is important to note that the further into the future the earnings projections are the less accurate they become due to the numerous unknown factors that impact earnings such as job hopping, upward mobility into higher-paying occupations, the return to school, movement into an occupation in another field, and/or separation from and reattachment to the labor force. Therefore, the earnings profile detailed for secondary students is likely understated due to the lack of detailed follow-up information on the career pathways of completers.

**Earnings profiles were not constructed for these program since they are preparatory programs with the intention of continued education.*

***There were no reported wages for secondary students who were employed in a related field. Therefore, the annual earnings detailed represent the projected earnings assuming employment in a corresponding occupation. This program was excluded from the weighted average of annual earnings for secondary students employed in a related field.*

****There were no secondary students who were employed in a related field. Therefore, the annual earnings detailed represent the projected earnings assuming employment in a corresponding occupation. These programs were excluded from the weighted average of annual earnings for secondary students employed in a related field.*

Cumulative Earnings and Fiscal Impact of Full-Time Programs for Secondary Students (NPV$)



On average, the present value of cumulative earnings over five years is approximately **$156,600** for secondary students employed in a related field. This represents cumulative earnings over five years that exceed that of a high school graduate by approximately $57,600. The present value of cumulative earnings over 10 years is approximately **$300,700** for secondary students employed in a related field, which is approximately $94,700 more than cumulative earnings for a high school graduate. Collectively, secondary students employed in a related field are estimated to have cumulative earnings that exceed the earnings of a high school graduate by **$26.9 million** over 10 years, after factoring for the employment rate of high school graduates. This equates to an average of nearly **$2.7 million** per year for 10 years.

These benefits do not account for the compounding effect of the additional earnings among students completing career and technology education in prior years. Assuming the characteristics of students in prior cohorts are similar to the characteristics of students in the 2022-23 academic year, the average additional earnings per year above that of a high school graduate will be similar for prior cohorts.

The career and technology education pursued by secondary students leads to a higher earnings potential, on average, compared to individuals with at most a high school diploma or equivalent. The additional earnings potential generates fiscal impacts for state and local governments through increased income tax revenue resulting from higher earnings and increased sales tax revenue resulting from the spending of earnings. Collectively, secondary students who are employed in a related field are estimated to generate an additional **$1.4 million** in tax revenue over 10 years, or an average of **$142,400** per year. The fiscal impact per secondary student who is employed in a related field is **$7,800** over 10 years, or approximately **$780** per year.

Secondary students incur no tuition costs for enrollment in career and technology education in the State of Oklahoma. Additionally, secondary students would otherwise be attending high school full time, therefore, there are no opportunity costs in the form of lost wages. This means there is no quantifiable investment by secondary students to enroll in career and technology education; therefore, the return on investment for secondary students is not able to be calculated.

**Earnings profiles were not constructed for these program since they are preparatory programs with the intention of continued education.*

***There were no reported wages for secondary students who were employed in a related field. Therefore, the cumulative earnings detailed represent the projected earnings assuming employment in a corresponding occupation. This program was excluded from the weighted average of cumulative earnings for secondary students employed in a related field.*

****There were no secondary students who were employed in a related field. Therefore, the cumulative earnings detailed represent the projected earnings assuming employment in a corresponding occupation. These programs were excluded from the weighted average of cumulative earnings for secondary students employed in a related field.*

Program	Year 5	Year 10
Health Careers	$139,689	$258,778
Pre-Engineering*	N/A	N/A
Auto Service Technology	$177,111	$357,133
Biomedical Sciences*	N/A	N/A
Welding	$196,201	$373,837
Cosmetology	$112,400	$209,511
Early Care & Education	$127,622	$235,578
Graphic Design	$139,699	$258,817
Auto Collision Technology	$157,849	$319,525
Heating, Ventilation, Air Conditioning & Refrigeration	$140,328	$278,983
Precision Machining	$165,323	$325,925
Multimedia Specialist	$138,941	$255,909
Computer Information Systems	$167,529	$310,157
Electrical Trades	$165,925	$332,159
Computer Programming	$114,751	$245,381
Service Careers - Building & Grounds	$123,418	$238,319
Construction Trades	$171,073	$328,421
Diesel Technology	$198,967	$380,283
Marketing Communications	$131,193	$244,657
Criminal Justice	$200,229	$406,220
Administrative Assistant	$149,275	$277,078
Computer Aided Drafting & Design**	$161,856	$298,957
Service Careers - Hospitality	$121,037	$224,171
Aviation Maintenance Technology***	$222,569	$416,414
Industrial Automation	$199,125	$365,975
Event Planning***	$157,923	$293,575
Patient Account Specialist***	$146,006	$271,315
Accounting Clerk***	$119,854	$222,399
Medical Assistant	$144,544	$268,166
Weighted Average Secondary	**$156,634**	**$300,675**
High School Graduate	**$99,011**	**$205,980**

Overview of Full-Time Programs for Adult Students

There were **653 adult students** enrolled in full-time programs at Canadian Valley Technology Center in the 2022-23 academic year. The practical nursing program was the largest program among adult students, representing 26.5 percent of enrollment. Follow-up results varied by program. Overall, approximately **90.3 percent** of adult students who were program completers or course concentrators in the 2022-23 academic year had a positive placement. Approximately 65.4 percent of program completers or course concentrators were employed in a related field, while an additional 9.7 percent were employed in an unrelated field. Additionally, 14.3 percent of program completers or course concentrators were continuing their education and 0.9 percent were in the military.

Program	Enrollment	Completers & Course Concentrators	Percent Positive Placement	Percent Continuing Education	Percent Employed in a Related Field	Tuition	Average Financial Aid
Practical Nursing	173	62	95.2%	1.6%	91.9%	$3,080	$2,451
Cosmetology	63	33	90.9%	9.1%	66.7%	$3,000	$1,789
Welding	43	15	73.3%	13.3%	53.3%	$1,736	$1,352
Surgical Technologist	39	19	94.7%	0.0%	68.4%	$2,712	$1,703
Computer Information Systems	35	23	95.7%	34.8%	39.1%	$1,920	$1,285
Heating, Ventilation, Air Conditioning & Refrigeration	34	28	96.4%	3.6%	85.7%	$2,000	$592
Electrical Trades	33	24	87.5%	0.0%	75.0%	$2,000	$2,067
Aviation Maintenance Technology	29	9	66.7%	11.1%	55.6%	$3,960	$3,779
Auto Service Technology	24	15	100.0%	13.3%	66.7%	$1,800	$287
Graphic Communications	23	14	92.9%	28.6%	42.9%	$1,920	$1,290
Administrative Assistant	17	13	92.3%	46.2%	30.8%	$1,920	$1,485
Precision Machining	17	12	100.0%	0.0%	83.3%	$1,369	$1,352
Medical Assistant	16	8	87.5%	0.0%	87.5%	$1,760	$1,298
Patient Account Specialist	15	10	90.0%	60.0%	30.0%	$1,786	$3,034
Auto Collision Technology	13	12	83.3%	0.0%	75.0%	$1,920	$1,635
Computer Programming	13	7	100.0%	42.9%	57.1%	$1,920	$1,511
Computer Aided Drafting & Design	11	9	88.9%	44.4%	22.2%	$1,920	$1,807
Industrial Automation	11	4	50.0%	0.0%	50.0%	$1,920	$1,587
Multimedia Specialist	11	6	83.3%	66.7%	16.7%	$1,920	$764
Diesel Technology	8	8	100.0%	0.0%	100.0%	$1,920	$1,573
Service Careers - Building & Grounds	6	3	100.0%	33.3%	66.7%	$1,920	$774
Accounting Clerk	5	4	100.0%	25.0%	50.0%	$1,920	$3,361
Construction Trades	5	5	80.0%	40.0%	20.0%	$1,920	$2,352
Early Care & Education	3	3	66.7%	0.0%	66.7%	$1,920	$160
Service Careers - Hospitality	3	3	0.0%	0.0%	0.0%	$1,920	$630
Marketing Communications	2	1	100.0%	100.0%	0.0%	$1,920	$1,200
Event Planning	1	0	N/A	N/A	N/A	$1,920	$1,920
Total	**653**	**350**	**90.3%**	**14.3%**	**65.4%**	**$2,440**	**$1,829**

Annual Earnings of Full-Time Programs for Adult Students (Nominal$)

The economic benefit of completing career and technology education is represented by the potential earnings associated with full-time employment in a related field. The projected earnings for each program were compared to the baseline earnings for individuals with a high school diploma or equivalent. The difference in earnings represents the additional earnings potential resulting from specialized training and continued related employment.

In the first full year after entering employment in a related field, adult students reported median annual earnings of approximately **$39,200**. This represents a potential earnings gain of $14,100 compared to individuals with a high school diploma or equivalent. By year five, adult students who are employed in a related field are estimated to have annual earnings of **$47,500**, representing a potential earnings gain of $15,000 compared to the annual earnings of high school graduates. Average annual earnings for adult students who are employed in a related field are projected to increase to **$51,800** by year 10, which is approximately $10,800 more than high school graduates.

A career and technology education credential jumpstarts a student into a career pathway. The benefits accruing to students in the form of increased earnings highlight the importance of investing in one's education. It is important to note that the further into the future the earnings projections are the less accurate they become due to the numerous unknown factors that impact earnings such as job hopping, upward mobility into higher-paying occupations, the return to school, movement into an occupation in another field, and/or separation from and reattachment to the labor force. Therefore, the earnings profile detailed for adult students is likely understated due to the lack of detailed follow-up information on the career pathways of completers.

**Due to outliers in reported earnings of adult students employed in a related field, the annual earnings detailed represent the projected earnings assuming employment in a corresponding occupation. This program was excluded from the weighted average of annual earnings for adult students employed in a related field.*

***There were no adult students who were employed in a related field. Therefore, the annual earnings detailed represent the projected earnings assuming employment in a corresponding occupation. This program was excluded from the weighted average of annual earnings for adult students employed in a related field.*

Program	Year 1	Year 5	Year 10
Practical Nursing	$54,080	$58,503	$64,031
Cosmetology	$24,960	$27,173	$29,940
Welding	$37,960	$49,799	$54,698
Surgical Technologist	$41,200	$44,864	$49,443
Computer Information Systems	$31,200	$33,532	$36,446
Heating, Ventilation, Air Conditioning & Refrigeration	$35,360	$52,715	$57,455
Electrical Trades	$34,320	$51,934	$55,820
Aviation Maintenance Technology	$52,000	$64,689	$68,972
Auto Service Technology	$32,240	$50,428	$55,462
Graphic Design	$31,200	$33,576	$36,547
Administrative Assistant	$31,200	$33,696	$36,817
Precision Machining	$36,244	$44,614	$47,956
Medical Assistant	$33,800	$36,471	$39,809
Patient Account Specialist	$39,520	$42,965	$47,271
Auto Collision Technology	$30,160	$45,684	$49,524
Computer Programming	$41,600	$45,023	$49,302
Computer Aided Drafting & Design*	$35,884	$39,452	$44,415
Industrial Automation	$44,616	$47,295	$50,644
Multimedia Specialist	$33,010	$34,623	$36,639
Diesel Technology	$39,520	$50,940	$55,752
Service Careers - Building & Grounds	$21,840	$32,820	$34,941
Accounting Clerk	$24,960	$27,140	$29,864
Construction Trades	$37,440	$47,157	$50,974
Early Care & Education	$32,053	$34,256	$37,011
Service Careers - Hospitality**	$29,593	$31,828	$34,622
Marketing Communications**	$33,898	$36,854	$40,548
Event Planning**	$35,158	$38,080	$41,733
Weighted Average Adult	**$39,214**	**$47,461**	**$51,753**
High School Graduate	**$25,117**	**$32,453**	**$40,915**

Cumulative Earnings and Fiscal Impact of Full-Time Programs for Adult Students (NPV$)

Program	Year 5	Year 10
Practical Nursing	$242,769	$451,008
Cosmetology	$112,400	$209,511
Welding	$187,481	$365,117
Surgical Technologist	$185,554	$345,911
Computer Information Systems	$139,607	$258,464
Heating, Ventilation, Air Conditioning & Refrigeration	$186,577	$373,740
Electrical Trades	$182,517	$365,375
Aviation Maintenance Technology	$250,012	$476,687
Auto Service Technology	$174,483	$354,505
Graphic Design	$139,699	$258,817
Administrative Assistant	$139,945	$259,761
Precision Machining	$173,337	$330,428
Medical Assistant	$151,538	$281,142
Patient Account Specialist	$177,846	$331,259
Auto Collision Technology	$160,478	$322,154
Computer Programming	$186,789	$347,096
Computer Aided Drafting & Design*	$162,297	$304,982
Industrial Automation	$198,293	$364,446
Multimedia Specialist	$145,951	$266,731
Diesel Technology	$196,955	$378,271
Service Careers - Building & Grounds	$115,722	$230,623
Accounting Clerk	$112,332	$209,248
Construction Trades	$181,137	$347,740
Early Care & Education	$143,029	$264,019
Service Careers - Hospitality**	$132,467	$245,340
Marketing Communications**	$152,548	$284,143
Event Planning**	$157,923	$293,575
Weighted Average Adult	**$185,885**	**$354,444**
High School Graduate	**$123,158**	**$250,797**

On average, the present value of cumulative earnings over five years is approximately **$185,900** for adult students employed in a related field. This represents cumulative earnings over five years that exceed that of a high school graduate by approximately $62,700. The present value of cumulative earnings over 10 years is approximately **$354,400** for adult students employed in a related field, which is approximately $103,600 more than cumulative earnings for a high school graduate. Collectively, adult students employed in a related field are estimated to have cumulative earnings that exceed the earnings of a high school graduate by nearly **$34.1 million** over 10 years, after factoring for the employment rate of high school graduates. This equates to an average of **$3.4 million** per year for 10 years.

These benefits do not account for the compounding effect of the additional earnings among students completing career and technology education in prior years. Assuming the characteristics of students in prior cohorts are similar to the characteristics of students in the 2022-23 academic year, the average additional earnings per year above that of a high school graduate will be similar for prior cohorts.

The career and technology education that adult students receive leads to a higher earnings potential, on average, compared to individuals with at most a high school diploma or equivalent. The additional earnings potential generates fiscal impacts for state and local governments through increased income tax revenue resulting from higher earnings and increased sales tax revenue resulting from the spending of earnings. Collectively, adult students who are employed in a related field are estimated to generate an additional **$1.9 million** in tax revenue over 10 years, or an average of **$188,200** per year. The fiscal impact per adult student who is employed in a related field is **$8,300** over 10 years, or approximately **$830** per year.

**Due to outliers in reported earnings of adult students employed in a related field, the cumulative earnings detailed represent the projected earnings assuming employment in a corresponding occupation. This program was excluded from the weighted average of cumulative earnings for adult students employed in a related field.*

***There were no adult students who were employed in a related field. Therefore, the cumulative earnings detailed represent the projected earnings assuming employment in a corresponding occupation. This program was excluded from the weighted average of cumulative earnings for adult students employed in a related field.*

Return on Investment of Full-Time Programs for Adult Students

Obtaining career and technology education has both explicit and implicit costs that are often incurred at the beginning of the program, while the benefits are not immediate. Therefore, obtaining career and technology education is often considered an investment that delivers future returns in the form of additional earnings. The benefits refer to the increased earnings potential that results from attaining additional education relative to individuals with a high school diploma or equivalent. The costs include the cost of tuition as well as the opportunity cost of pursuing a certificate, which refers to the earnings a student foregoes as a result of the decrease in hours worked in order to pursue career and technology education. Additionally, financial aid is incorporated into the return on investment as a benefit which offsets the costs incurred by students.

On average, career and technology education for adult students at Canadian Valley Technology Center has a return on investment of **560.1 percent** after five years and **1,007.4 percent** after 10 years. The certificate programs with the highest return on investment after 10 years were construction trades (2,551.1%), diesel technology (2,435.4%), industrial automation (2,327.4%), welding (2,102.8%), and precision machining (2,030.1%). Twenty-five of the 27 full-time adult programs have a positive return on investment after 10 years. This means that a completer of each of these programs is expected to have earnings that recoup the cost of their career and technology education and result in earnings above that of a high school graduate.

**Due to outliers in reported earnings of adult students employed in a related field, the return on investment detailed represents the projected earnings assuming employment in a corresponding occupation. This program was excluded from the weighted average return on investment for adult students employed in a related field.*

***There were no adult students who were employed in a related field. Therefore, the return on investment detailed represents the projected earnings assuming employment in a corresponding occupation. This program was excluded from the weighted average return on investment for adult students employed in a related field.*

Program	Year 5	Year 10
Practical Nursing	332.9%	647.7%
Cosmetology	-74.0%	-202.5%
Welding	1,168.9%	2,102.8%
Surgical Technologist	238.4%	412.0%
Computer Information Systems	299.8%	333.3%
Heating, Ventilation, Air Conditioning & Refrigeration	706.8%	1,439.7%
Electrical Trades	795.9%	1,602.3%
Aviation Maintenance Technology	626.2%	1,180.1%
Auto Service Technology	968.8%	1,987.1%
Graphic Design	402.2%	508.5%
Administrative Assistant	315.1%	362.2%
Precision Machining	1,281.4%	2,030.1%
Medical Assistant	541.6%	687.8%
Patient Account Specialist	859.6%	1,294.8%
Auto Collision Technology	712.5%	1,430.9%
Computer Programming	1,237.8%	1,989.9%
Computer Aided Drafting & Design*	725.6%	1,131.4%
Industrial Automation	1,464.0%	2,327.4%
Multimedia Specialist	471.1%	596.5%
Diesel Technology	1,360.7%	2,435.4%
Service Careers - Building & Grounds	28.9%	65.3%
Accounting Clerk	-113.5%	-434.8%
Construction Trades	1,448.7%	2,551.1%
Early Care & Education	380.6%	496.5%
Service Careers - Hospitality**	171.5%	133.2%
Marketing Communications**	484.9%	688.7%
Event Planning**	809.3%	1,214.4%
Weighted Average Adult	**560.1%**	**1,007.4%**

Overview of Workforce and Economic Development Programs

Through its workforce and economic development (WED) programs, Canadian Valley Technology Center provides safety training, industry-specific training, and adult and career development training. During the 2022-23 academic year, Canadian Valley Technology Center had **14,445 enrollments** in WED programs. More than half (58.9%) of enrollments were in safety-related programs. Industry programs represented 22.8 percent of enrollments, while adult and career development programs represented 18.3 percent of enrollments in the 2022-23 academic year.

The highest levels of enrollment were in general safety courses (38.1%); basic life support, first aid, and CPR courses (14.3%); hazard communication and safety courses (7.8%); personal protective equipment courses (7.7%); and equipment operations and safety courses (5.9%). Collectively, these five course types represented 73.9 percent of enrollments in WED programs at Canadian Valley Technology Center during the 2022-23 academic year.

Enrollment by Course Classification

Safety	Basic Life Support, First Aid, & CPR	Hazard Communication & Safety	Personal Protective Equipment	Equipment Operations & Safety	Other
5,509	2,066	1,130	1,110	854	3,776

Total: 14,445

Because of their customized nature, WED programs are varied in their duration and intended outcome. This variability, in combination with data limitations, prevented the Economics Center from quantifying a monetary benefit associated with the WED programs offered by Canadian Valley Technology Center. However, prior research indicates that investments in health and safety training for workers reduce workplace injuries and illnesses, resulting in positive returns.*

*U.S. Occupational Safety and Health Administration. 2012. Injury and Illness Prevention Programs: White Paper. U.S. Department of Labor, Washington, D.C.: Occupational Safety and Health Administration.

National Safety Council. 2013. Journey to Safety Excellence: The Business Case for Investment in Safety - A Guide for Executives. Itasca: National Safety Council.

Huang, Yueng-Hsiang, Tom B. Leamon, Theodore K. Courtney, Sarah DeArmond, Peter Y. Chen, and Michael F. Blair. 2009. "Financial Decision Makers' Views on Safety: What SH&E Professionals Should Know." American Society of Safety Engineers 54 (4): 36-42.

Economic and Fiscal Impact of Operations and Capital Expenditures (Nominal$)

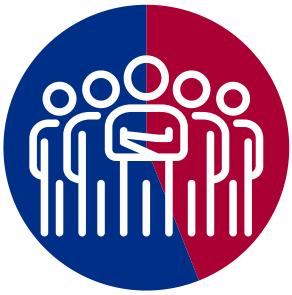
To provide career and technology education, Canadian Valley Technology Center incurs expenses related to operations and capital projects. Operations expenditures represent the day-to-day expenses such as the salaries paid to provide instructional and support services, supply purchases, and other services, among other things. Canadian Valley Technology Center also incurs expenses related to capital projects such as building expansion, equipment, or information technology upgrades. These expenditures are associated with a specific project and are generally a one-time expenditure, as opposed to ongoing.

The expenditures made by Canadian Valley Technology Center on operations and capital generate economic output in the State of Oklahoma. These expenditures in turn stimulate additional economic output for the businesses and industries that provide goods and services to Canadian Valley Technology Center. The direct impact is the amount spent directly by Canadian Valley Technology Center that was retained in the State of Oklahoma after accounting for economic leakage. Economic leakage refers to the percentage of purchases for products and services that cannot be met immediately within the local economy, and thus must be imported from outside the local economy. The indirect impact is the additional impact resulting from the inter-industry linkages. Direct impacts also have ripple effects known as induced impacts as a result of the increases in household income and spending. Induced impacts are reported within indirect impacts. In total, the expenditures of Canadian Valley Technology Center generated **$51.9 million** in economic output, supported **500 jobs**, and generated **$25.5 million** in wages in the State of Oklahoma during fiscal year 2023.

Economic Output
Total: $51,926,897

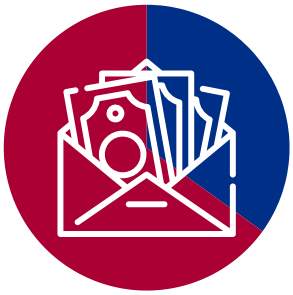
Direct **$28,655,248**
Indirect **$23,271,649**

Jobs
Total: 500



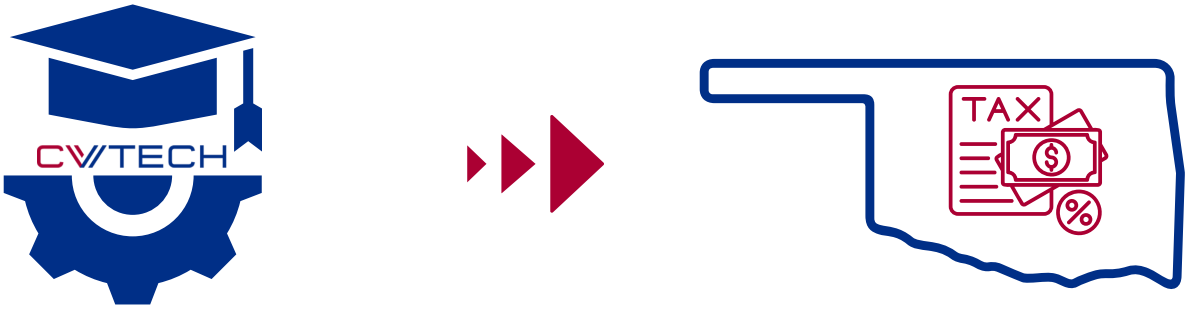
Direct **280**
Indirect **220**

Wages
Total: $25,533,696



Direct **$16,609,363**
Indirect **$8,924,333**

Additionally, the operations and capital expenditures of Canadian Valley Technology Center generate fiscal impacts for state and local governments. The fiscal impact includes the income tax revenue resulting from the wages generated by operations and capital expenditures as well as the sales tax revenue resulting from the spending of those wages. In total, the expenditures of Canadian Valley Technology Center generated **$1.7 million** in tax revenue for state and local governments in fiscal year 2023. Income tax revenue totaled **$1.1 million**, while sales tax revenue totaled **$610,000**



Total Tax Revenue: $1,728,547

Summary

By providing career and technology education, Canadian Valley Technology Center generates economic benefits for its service area, including Canadian, Grady, and Oklahoma Counties in Oklahoma. The career and technology education provided to students leads to additional earnings potential, on average, for program completers and course concentrators. This additional earnings potential also leads to fiscal impacts for state and local jurisdictions. Through its full-time programs, Canadian Valley Technology Center served **1,197 secondary students** and **653 adults** during the 2022-23 academic year. Canadian Valley Technology Center also provided career and technology education for its **14,445 enrollments** in WED programs.

Of the 631 program completers and course concentrators in the 2022-23 academic year, 191 secondary students were employed in a related field. On average, the present value of cumulative earnings for secondary students is **$156,600** after five years and **$300,700** after 10 years. Secondary students who are employed in a related field are estimated to have a present value of cumulative earnings that exceed the earnings of a high school graduate by **$26.9 million** over 10 years, or an average of **$2.7 million** per year. These additional earnings will result in **$1.4 million** in income and sales tax revenue for state and local governments over 10 years, or an average of **$142,400** per year.

Of the 350 program completers and course concentrators in the 2022-23 academic year, 229 adult students were employed in a related field. On average, the present value of cumulative earnings for adult students is **$185,900** after five years and **$354,400** after 10 years. Adult students who are employed in a related field are estimated to have a present value of cumulative earnings that exceed the earnings of a high school graduate by nearly **$34.1 million** over 10 years, or an average of **$3.4 million** per year. These additional earnings will result in nearly **$1.9 million** in income and sales tax revenue for state and local governments over 10 years, or an average of **$188,200** per year. Additionally, career and technology education for adult students at Canadian Valley Technology Center has an average return on investment of **560.1 percent** after five years and **1,007.4 percent** after 10 years.

Annual Earnings Differential

Per Student
- Secondary: $14,676
- Adult: $15,008

Cumulative
- Secondary: $2,685,665
- Adult: $3,406,811
- Total: $6,092,476

Annual Tax Differential

Per Student
- Secondary: $778
- Adult: $829

Cumulative
- Secondary: $142,429
- Adult: $188,248
- Total: $330,677

Additionally, Canadian Valley Technology Center incurred expenditures related to operations and capital improvements in order to provide career and technology education. In fiscal year 2023, the operations and capital expenditures of Canadian Valley Technology Center generated **$51.9 million** in economic output and supported **500 jobs** with **$25.5 million** in wages in the State of Oklahoma. The wages supported by the operations and capital expenditures of Canadian Valley Technology Center generated a total of **$1.1 million** in income tax revenue, while the spending of the wages resulted in approximately **$610,000** in sales tax revenue. Canadian Valley Technology Center created a total of **$1.7 million** in tax revenue for state and local jurisdictions in fiscal year 2023 as a result of its operations and capital expenditures.

CVTECH

Since 1970, Canadian Valley Technology Center has provided full-time skills training for in-demand careers to high school students and adults, short-term evening courses, and customized workforce and economic development training for companies. With campuses in Chickasha, El Reno, and Yukon, Canadian Valley Technology Centers prepares people to succeed through quality career and technical education and services.

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The Research and Consulting division of the Alpaugh Family Economics Center at the University of Cincinnati provides tools to help clients make better financial, policy, and economic and workforce development decisions. Our dynamic approach and critical data analyses empower business and civic leaders to respond to changing economic conditions, strengthen local economies, and improve the quality of life for their communities.