PARKLAND COLLEGE'S ECONOMIC IMPACTS AND STUDENT EMPLOYMENT OUTCOMES

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By

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The Parkland College's Economic Impacts report was prepared by the Center for Governmental Studies at Northern Illinois University (NIU) under agreement with the Illinois Community College Board (ICCB). Questions and inquiries regarding the contents of this report may be directed to Brian Richard at NIU (815/753-0162) or Nathan Wilson at ICCB (217/558-2067).

The findings and conclusions presented in this report are those of the NIU project team alone and do not necessarily reflect the views, opinions, or policies of the officers and/or trustees of Northern Illinois University nor those of the employees, officers, and/or trustees of the Illinois Community College System.

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Parkland College Operating Environment

The demographics and economic conditions in the regions where they operate impact community colleges offerings as well as the success of their program completers. Declining populations, especially in younger residents can affect enrollment. Economic conditions, especially job opportunities in specific industries, are directly related to the workforce outcomes of college completers.

This report is meant as a supplement to a statewide report, *Illinois Community Colleges' Economic Impacts and Student Employment Outcomes.* The statewide report summarizes important demographic and economic conditions in Illinois, provides statewide Illinois community college student outcomes and estimates the economic impacts of the combined operations of the community colleges in Illinois.

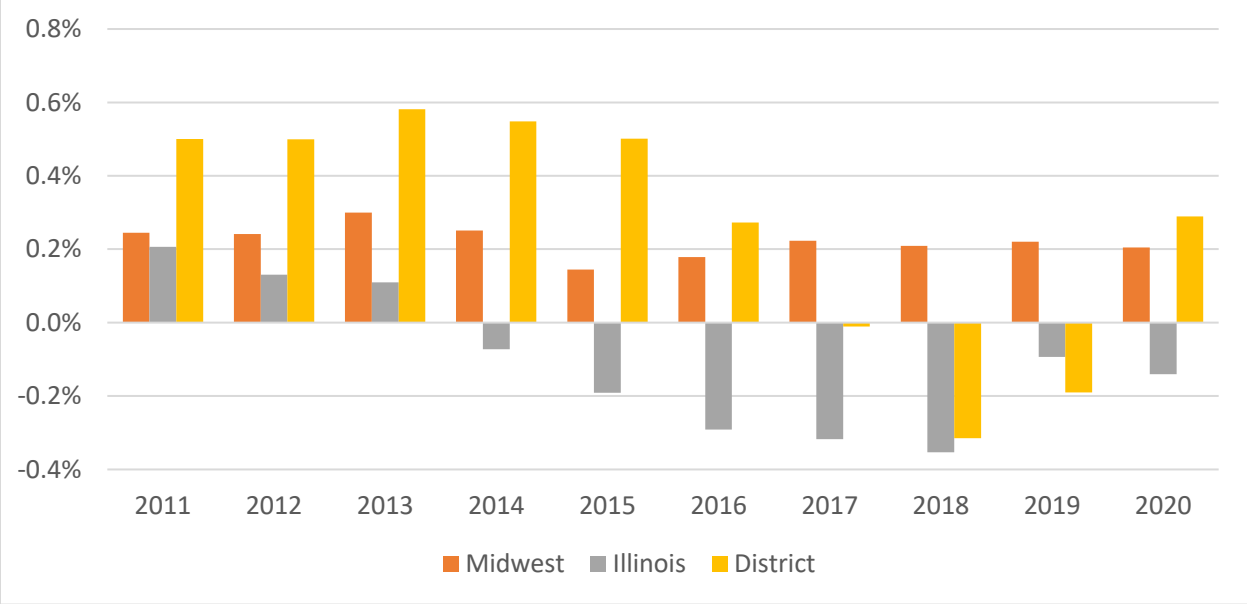
Demographic and economic data are not available for the exact Parkland College district boundaries. In the following charts and tables, the district is approximated by the region comprised of Champaign, Douglas, Ford, and Piatt Counties.

Population

The population loss experienced in Illinois since 2013 has been minimal but certainly noteworthy, as the rate of decline gradually increased through 2018, then began to reverse. Figure 1 shows the net change in population since 2011 for the Parkland College district, Illinois, and the Midwest. A decline in the birthrate, increase in the death rate, and changes in the patterns of international and domestic migration all contribute to these changes. The net loss of population in Illinois appears to have moderated in recent years.

The district gained population in seven of the ten years displayed. The district lost population between 2017 and 2019, but it gained population in 2020.

Figure 1. Net Change in Population, 2011-2020



Source: EMSI, 2020.

Race & Ethnicity Changes

The primary driver of population loss in Illinois has been the decrease in White and African American non-Latinx residents. Throughout this report, data reported for White and African American populations represent non-Latinx persons. The Latinx may contain multiple races. If it were not for the Asian, Other, and Latinx populations having higher birth rates or moving into Illinois, the population loss would be much greater. Figure 2 shows changes in race and ethnicity categories for Illinois and the Parkland district. Illinois has lost nearly 550,000 White and 68,000 African American residents since 2010. The Latinx population in Illinois grew by about 200,000. The Parkland district's loss of White residents was outweighed by growth in other racial and ethnic groups, leading to an increase in total population.

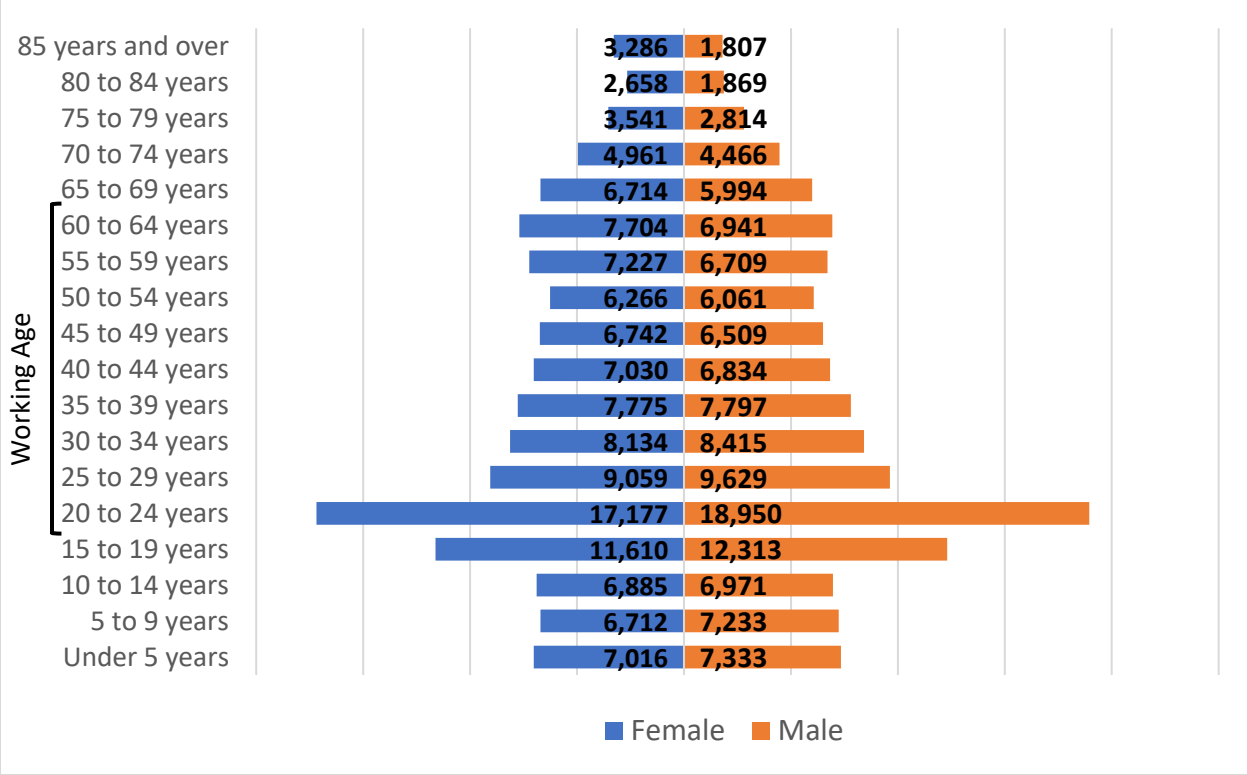
Figure 2. Race & Ethnicity Change in Population, 2010-2020

	Population Change	White	African American	Asian	Other	Latinx
Illinois	(221,803)	(544,675)	(67,721)	146,570	44,341	199,683
District	6,610	(7,146)	4,147	4,740	1,594	3,275

Source: EMSI, 2020.

Figure 3 shows the age and gender distribution of the district's population. Unlike the rest of the state, which faces an aging population, the Parkland district skews significantly younger, with the largest population age group being those in the traditional college age, because the district includes the University of Illinois at Urbana-Champaign.

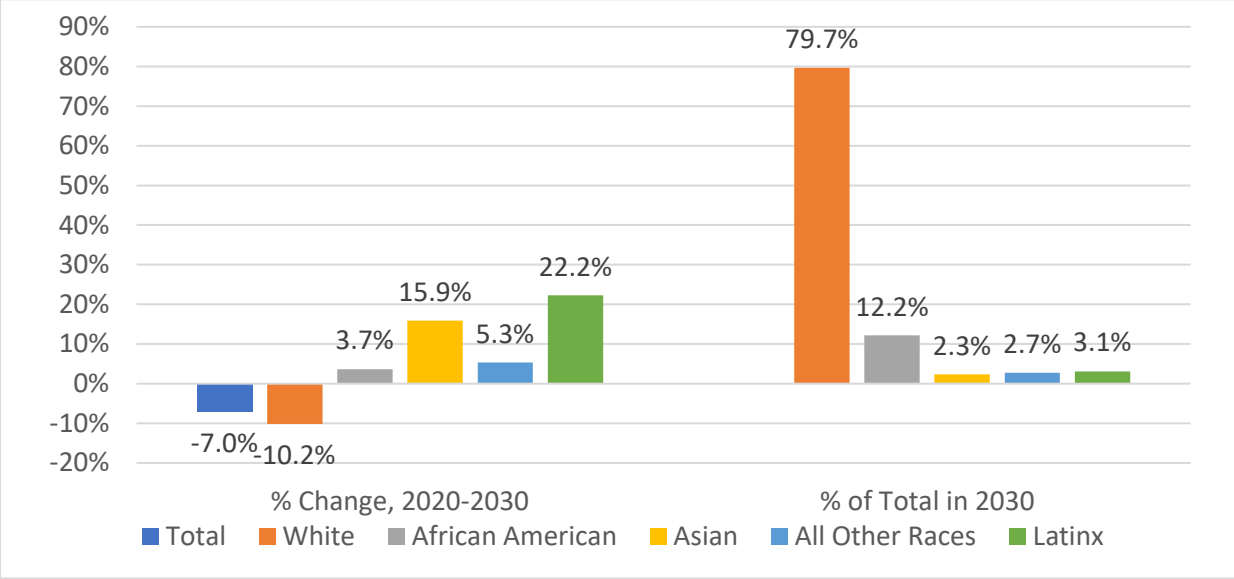
Figure 3. Age Pyramid for District, 2019



Source: EMSI, 2020.

The district population is projected to decline slightly in the next decade. As displayed in Figure 4, the White population is expected to decline. Offsetting those declines, all other racial groups are expected to grow. Offsetting those declines, Latinx, Asian, and other racial groups are expected to grow. By 2030, the White population is expected to decrease 10.2% while non-White populations are projected to increase.

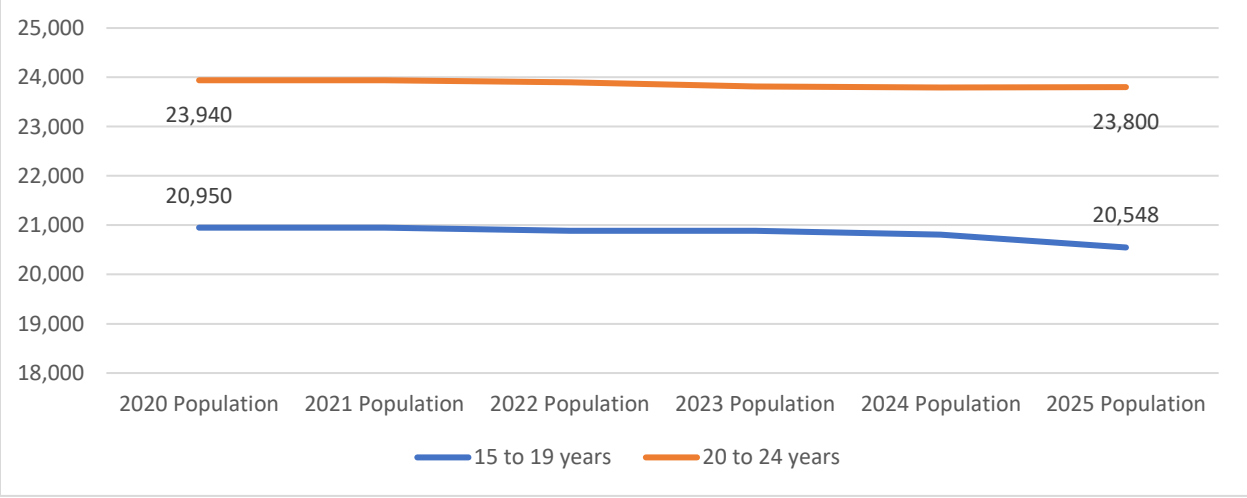
Figure 4. Population Projections by Race and Ethnicity, 2020-2030



Source: EMSI, 2020.

Reflecting declines at the national and state level, the population of typical college aged students will be decrease slightly in the coming years (Figure 5) in the Parkland College district. The population ages 15 to 19 is projected to decrease by 140 and the population ages 20 to 24 is projected to decrease by about 400.

Figure 5. College-Aged Population Projections, 2020-2025



Source: EMSI, 2020.

Meeting the Needs of Business and Industry

Illinois community colleges support local workforce and economic development services through employer and business engagement. Activities ranged from curriculum and apprenticeship development and review, contract training, internships, and professional development to job placement for graduating students.

Community colleges meet the demands of local business and industry needs and respond to the many changes in the workforce. Although the Great Recession officially ended in June 2009, the economic recovery in Illinois has been relatively weak when compared to the rest of the nation. While unemployment rates fell substantially in the years before the pandemic, labor force participation among key working aged populations continue to decline. This section looks at employment trends and the related demand for skills in Illinois. We examine employment conditions from the perspective of industry and occupation. *Industry* refers to the types of goods produced or services provided by the employer. *Occupation* refers to the work activities conducted by the employee. For example, registered nurse is an occupation in the health care industry.

Industry Employment Trends

Construction, manufacturing, and real estate were the fastest growing sectors in the district between 2010 and 2020 (Figure 6). Going forward, these growth patterns may be altered by the ongoing, perhaps permanent, impacts of the Coronavirus pandemic. See the discussion later in this document for more detail about these impacts.

Figure 6. Change in Industry Employment

	Employment		2010-2020 Change	
Description	2010	2020	Number	Percent
Agriculture, Forestry, Fishing and Hunting	1,420	1,340	-80	-5.6%
Construction	4,442	4,911	469	10.6%
Manufacturing	10,102	10,208	106	1.0%
Wholesale Trade	4,264	3,358	-906	-21.2%
Retail Trade	11,803	10,594	-1,209	-10.2%
Transportation and Warehousing	3,183	3,749	566	17.8%
Information	2,554	1,842	-713	-27.9%
Finance and Insurance	3,361	3,116	-245	-7.3%
Real Estate and Rental and Leasing	1,926	2,083	158	8.2%
Professional, Scientific, and Technical Services	4,759	4,257	-502	-10.5%
Management of Companies and Enterprises	468	128	-339	-72.6%
Admin, Support, Waste Mgmt and Remediation Svcs	3,314	4,968	1,654	49.9%
Educational Services	958	1,432	474	49.4%
Health Care and Social Assistance	13,726	16,464	2,738	19.9%
Arts, Entertainment, and Recreation	1,245	1,261	16	1.3%
Accommodation and Food Services	10,176	10,357	181	1.8%
Other Services (except Public Administration)	4,873	4,880	7	0.1%
Government	34,369	33,666	-703	-2.0%
Unclassified Industry	7	11	4	63.7%
Total	117,365	119,015	1,651	1.4%

Source: EMSI, 2020.

Currently Available Jobs

The demand for workers, as well as the required skills, credentials, and other attributes can now be assessed through web-based technologies that scan millions of job and applicant postings on popular sites such as Monster, SimplyHired, and Indeed or posted by various state and local employment bureaus.

Job Posting Analytics (JPA), developed by EMSI can help measure the demand for talent in a given region. It is more granular than traditional labor market information (LMI), providing details about the labor market (e.g. specific skills requested by employers) that LMI simply can't.

The top advertised occupations in the district cover a wide range of occupations, but show a strong demand for truck driving, nursing and other health care fields, and sales occupations (Figure 7).

Figure 7. Occupations by Number of Job Postings, 2020

Occupation	Unique Postings
Heavy and Tractor-Trailer Truck Drivers	12,439
Registered Nurses	4,205
First-Line Supervisors of Retail Sales Workers	1,478
Retail Salespersons	1,379
Customer Service Representatives	1,023
Light Truck Drivers	894
Insurance Sales Agents	891
Stockers and Order Fillers	885
Physicians, All Other; and Ophthalmologists, Except Pediatric	878
Postsecondary Teachers	819

Source: EMSI, 2020.

The high number of postings for truck drivers is reflective of the nationwide demand for professional drivers, as well as Illinois' position as an important transportation and distribution center. Job posting data can be useful in identifying immediate workforce needs of local employers. However, the number of postings may be either higher or lower than the number of actual hires. Further, analysis of total job postings does not necessarily reflect long-term career opportunities, to the extent that it includes temporary positions. Postings might outnumber hires when a company is trying hard to find talent, or postings may be significantly fewer than hires because certain types of jobs (e.g., roofers, welders, and other blue-collar jobs) aren't typically advertised online. When this happens, EMSI de-duplicates the postings as much as possible and then provides a realistic ratio of unique postings to hires.

Current Demand for Workers

Figure 8 displays the industries that have the greatest job posting activity in the district. The largest number of postings came from companies in the transportation and warehousing sector. Other sectors with significant hiring activity include administrative, support, waste management and remediation services, retail trade, and health care and social assistance.

Figure 8. Top Industries Seeking Employees, 2020

Industry	Unique Postings
Transportation and Warehousing	12,451
Administrative and Support and Waste Management and Remediation Svcs	7,769
Health Care and Social Assistance	6,591
Unclassified Industry	5,972
Retail Trade	5,492
Educational Services	3,266
Professional, Scientific, and Technical Services	3,078
Accommodation and Food Services	2,459
Manufacturing	2,019
Finance and Insurance	1,737

Source: EMSI, 2020.

When analyzing the top skills requested by employers, duplication is very evident as most job ads list multiple skillsets. Figure 9 gives a sense of the kinds of skills that employers in the district are seeking in new employees, although it is difficult to assess how, and to what degree, employers evaluate these skills (e.g., it could be based on the applicant's on-the-job experience, credentials obtained, pre-employment testing, etc.). However, 'soft-skills' or 'people skills' (such as customer service, customer contact, sales and relationship building) are highly valued for a wide range of jobs. These skills are more value-oriented but educational programs could integrate instilling values, such as ethics and professionalism. Furthermore, some aspects of customer service or sales also involve increased use of technology (e.g., social media marketing). Community colleges can recruit additional students by offering more credentialed courses for these skills.

Figure 9. Top Skills by Number of Job Openings, 2020

Skill or Qualification	Frequency in postings
Merchandising	5.9%
Flatbed Truck Operation	5.8%
Nursing	5.6%
Basic Life Support	4.9%
Warehousing	3.9%
Selling Techniques	3.5%
Restaurant Operation	3.3%
Auditing	3.0%
Cash Register	2.8%
Over-the-Road Driving	2.7%

Source: EMSI, 2020.

The certifications listed in Figure 10 were found within the job postings and are ranked according to the number of postings in which they appeared. Commercial driver's licenses dominates this list. This is not

surprising given truck driving's position at the top of the occupation demand list (Figure 7 above). Nurses and other related healthcare certifications appeared frequently as well.

Figure 10. Top Qualifications Sought by Employers, 2020

Skill or Qualification	Frequency in postings
Commercial Driver's License (CDL)	17.2%
Licensed Practical Nurse	1.0%
Certified Nursing Assistant	1.0%
Bachelor of Science in Nursing (BSN)	0.7%
Nurse Practitioner	0.6%
Hazmat Endorsement	0.6%
Transportation Worker Identification Credential (TWIC) Card	0.5%
Doubles Endorsement	0.4%
CDL Class B License	0.4%
Bachelor of Science in Business	0.4%

Source: EMSI, 2020.

Workforce Trends

Occupational Employment

Occupations in Illinois with expected annual openings that often require a career and technical education certificate and/or a professional license (typically defined as "some college no degree" by the US Census or "some college or postsecondary nondegree award" by US Department of Labor) are displayed in Figure 11. Example occupations include truck driving, emergency medical technicians, and hairstylists.

Medical and nursing assistants, truck drivers, and automotive service technicians are expected to be in high demand in coming years. While some of the hires will be from industry growth, these occupations experience large numbers of employees leaving their jobs each year. These employees may leave because the occupation is a poor fit for their skills or desired lifestyle or as they advance into other careers. Skills training for these occupations should be paired with education about the working conditions and pay levels that workers can expect when they enter these jobs.

Figure 11. Job Growth in Occupations that Often Require a Certificate and/or License

SOC	Description	2020 Jobs	2030 Jobs	Growth Rate	Annual Openings
31-9092	Medical Assistants	966	1,238	28.2%	137
31-1131	Nursing Assistants	1,197	1,242	3.8%	135
53-3032	Heavy Truck Drivers	965	998	3.4%	104
49-3023	Automotive Service Technicians and Mechanics	533	530	-0.5%	48
39-5012	Hairstylists, and Cosmetologists	378	395	4.6%	45
25-4031	Library Technicians	262	235	-10.1%	35
29-2061	Licensed Practical and Vocational Nurses	331	386	16.5%	32
49-9021	Heating, Air Conditioning, and Refrigeration Mechanics and Installers	209	255	22.0%	25

Source: EMSI, 2020.

Figure 12 displays occupations with more than 10 expected annual openings in the district that typically require an associate degree for entry. Some occupations that are expected to grow slowly or even decline still are expected to have significant numbers of openings. These openings will be due to retirements and incumbent workers being promoted to higher level occupations or changing careers. Projected job openings for occupations typically requiring a bachelor's degree, including registered nursing, are shown later in Figure 20.

Figure 12. Job Growth in Occupations that Typically Require an Associate Degree

SOC	Description	2020 Jobs	2030 Jobs	Growth Rate	Annual Openings
25-2011	Preschool Teachers, Except Special Education	501	556	0.11	53
15-1231	Computer Network Support Specialists	372	342	-0.08	24
29-2056	Veterinary Technicians	197	221	0.12	18
19-4099	Life, Physical, and Social Science Technicians, All Other	145	146	0.01	16
19-4011	Agricultural and Food Science Technicians	111	115	0.04	13
29-1292	Dental Hygienists	164	183	0.11	12
29-2031	Cardiovascular Technicians	181	203	0.12	11
15-1257	Web Developers and Digital Interface Designers	147	138	-0.06	10
29-2034	Radiologic Technicians	119	150	0.26	10

Source: EMSI, 2020.

The Aging of the Workforce

As the Baby Boomers age into retirement, many occupations will face significant departures. Figure 13 displays occupations that typically require an associate degree for entry that have the highest percentages of workers over the age of 55. Many of these occupations are in the architecture and engineering (Standard Occupation Codes or SOCs beginning with 17-) and health practitioner (SOC 29-) fields.

*Figure 13. Employment Distribution by Age: Occupations that Typically Require an Associate Degree**

SOC	Description	2020 Jobs	Age 25-34	Age 35-44	Age 45-54	Age 55-64	Age 65+
17-3023	Electrical and Electronic Engineering Technicians	92	16	18	20	22	0
29-1126	Respiratory Therapists	85	24	22	18	16	0
17-3098	Calibration Technicians and Engineering Technicians, Except Drafters, All Other	64	12	13	13	11	0
23-2011	Paralegals and Legal Assistants	82	18	18	19	14	0
29-1292	Dental Hygienists	164	45	43	36	25	0
29-2031	Cardiovascular Technicians	181	56	45	34	28	0

Source: EMSI, 2020.

* Only top ranked occupations by the share of workers age 55 years and older are shown.

Equity

The Illinois Community College System and ICCB are committed to create, support, and expand workforce training opportunities in high-need communities focused on specific sectors with identified workforce gaps. The recently implemented Workforce Equity Initiative (WEI) in 2019 is evidence of Illinois community college efforts on improving education and employment opportunities in at-risk communities. The ICCB granted $18.7 million dollars to community colleges throughout Illinois to help address education and unemployment gaps in the African American and other minority communities. The funding will be used across 17 community colleges throughout the state that serve larger African American populations under Illinois' Workforce Equity Initiative, now in its second year. Programs within WEI accelerate the time to enter and succeed in education/training programs. Illinois community colleges and ICCB are devoted to initiatives like WEI and others to promote gainful employment for underrepresented populations.

There are several state and federal initiatives that the Illinois Community College System and ICCB are committed to and collaborating on with state agency and business/workforce partners. One of Governor Pritzker's earliest actions was to issue Executive Order 2019-03 (EO3), focused on strengthening the state's commitment to workforce development and job creation. EO3 directed the Department of Commerce and Economic Opportunity (DCEO) to deliver a report containing three components: identifying target growth industries, review of effective and efficient investment in targeted industries, and report on improving alignment of workforce resources for disenfranchised communities. That final component stated the report should contain "comprehensive recommendations for improving the alignment of workforce resources for communities that have been disenfranchised, including rural and urban communities."

The report prepared in response by DCEO in cooperation with Departments of Employment Security and Human Services and the Illinois Community College Board includes three *Action Areas* (An Action Agenda, p. 3-4):

- Action Area 1. Unite workforce development partners around regional cluster strategies: Regional cluster strategies will focus resources on the industries with the highest potential to add jobs and increase prosperity in regions across Illinois. These strategies bring together the public and private sectors in each region to build on their unique strengths.
- Action Area 2. Prepare Illinois workers for a career, not just their next job: Regardless of background, life circumstances, or education level, Illinois workers can be prepared for high-demand careers by developing core academic, technical, and essential employability skills throughout their lifetimes.
- Action Area 3. Connect job seekers with employers: Illinois businesses can find the productive workers they need through more efficient training and better services for job seekers and employers.

Action Area 2 included a strategy focused on equity: *Establish and support equity goals*. "Preparing workers to meet the needs of business while connecting them to viable career pathways in Illinois' most vibrant industries will lead to economic prosperity at all levels. An important focus of these efforts must be ensuring that disenfranchised populations have access to these employment opportunities" (An Action Agenda, p. 15). This strategy had several Action Steps, including (An Action Agenda, p. 16):

- Disaggregate data by race, gender, and target population to reveal where disparities and inequities exist in policies and programs.
- Compel advisory and oversight boards/councils to set equity goals and prepare action plans to achieve them.

Subsequent to the release of the EO3 report, a number of economic, education and workforce development plans have been developed and released. These plans have increasingly placed an importance on equity issues. The Illinois economic development plan includes an Aspirational Goal focused on equity (A Plan to Revitalize, p. 3):

> Reduce the Equity Gap by investing in, providing support to, and taking down barriers for economically disadvantaged populations. We will track our progress toward this goal by tracking average earnings relative to the statewide average for the following populations:
>
> - Women
> - Rural residents
> - People of color
> - People with disabilities
> - Veterans
> - Justice-impacted populations
> - Immigrant populations

The Illinois Perkins V plan includes a *Foundational Tenet* focused on increasing educational equity for members of special populations (Illinois' Perkins V State Plan, p. 5):

> Illinois aims to place equity at the forefront of decisions made regarding career and technical education (CTE) programming, acknowledging that opportunity and achievement gaps exist for members of special populations. Perkins V affords Illinois the opportunity for an increased focus on meeting the needs of members of special populations by improving systems to identify and understand equity gaps, aligning resource systems, and providing professional learning to support the implementation of CTE programs that are accessible and effective for all students.

Similarly, the Illinois Workforce Innovation Board guided the development of the Illinois Workforce Innovation and Opportunity Act (WIOA) Unified State Plan, which includes a set of principles as part of its vision statement. One focuses on equity:

> Equitable Access and Opportunity for All Populations - Connecting individuals with relevant supports, such as transportation, child care and transition services will enable the system to be responsive to the workforce readiness needs of all individuals and help targeted populations prepare for and advance along a career pathway.

While these plans place an importance on equity issues, only the economic development plan provides guidance on how equity should be quantified and tracked. There are other resources that suggest metrics for tracking progress on equity. The Center for Urban Education states that "Effective state attainment goals are based on an understanding of for whom and by how much higher education access and success must improve" (Making Equity Part, p. 4). This understanding answers these questions:

- Which populations have the lowest rates of postsecondary attainment historically?

- Which populations are the fastest-growing in the state?
- What career fields and occupations in the state have strong labor market demand currently? In five, 10, 15 years? What are the levels of educational attainment required for those jobs? What are the projected shortfalls of adults with those credentials?
- At current rates of educational attainment, will some populations in the state be disproportionately excluded from opportunities in high-wage, high-demand jobs?

Similarly, a report from Education Trust cites degree attainment as an important regional measure of equity. Based on an analysis of social mobility (the ability of people to achieve higher incomes than their parents), the authors conclude that education is a way out of poverty. Thus, they suggest three ways of looking at educational attainment (Del Pilar & Berger, p. 16):

- Overall degree attainment
- Growth in degree attainment
- Gaps in degree attainment

The Office of Community College Research and Leadership at University of Illinois at Urbana-Champaign also suggests metrics for ensuring programs align with labor market needs and demands, with a particular focus on equity (Welton & James-Gallaway, p. 9-11). These includes using data to identify inequitable employment outcomes.

Regional Equity Indicators

Income and Poverty

Racial and ethnic income disparities are significant and persistent in Illinois and in the district. White workers earn significantly more than African American, Asian and Latinx workers. Consequently, African American, Asian and Latinx households are more likely to be in poverty.

Information on African American household incomes is limited in most of the district, but in Champaign County, African American households have slightly more than half the income of White households, and the gap remained constant between 2010 and 2019.

Latinx households tend to have higher incomes than African American households, but still earn significantly less that White households in most counties in the district. However, in Piatt county, Latinx households had higher incomes than White households. In Ford County, Latinx households had more income in 2010, but not in 2019. Care must be taken when comparing incomes for Latinx households, since Latinx ethnicity can include any race.

Figure 14. Median Household Income by Race, 2010 and 2019

	Champaign County		Douglas County		Ford County	
	2010	2019	2010	2019	2010	2019
All Households	$45,262	$52,797	$46,941	$56,714	$48,667	$52,092
Non-Latinx White	$51,267	$60,886	$46,782	$57,337	$48,184	$52,761
African American	$25,737	$31,395				
Asian	$30,036	$27,273				
Latinx	$32,299	$42,578	$36,719	$37,250	$61,442	$45,278

	Piatt County		Menard County	
	2010	2019	2010	2019
All Households	$55,752	$70,849	$56,230	$74,684
Non-Latinx White	$55,772	$71,093	$56,436	$76,021
African American				
Asian	$65,938			
Latinx	$66,875	$88,125	$47,292	

Source: American Community Survey, 5 year estimates

The percentage of persons with income below the poverty level in the district remained at 18% between 2010 and 2019 (Figure 15). White persons are significantly less likely to be low income by this measure. The percentage of African American and Latinx persons in poverty decreased significantly while the percentage of Asian persons in poverty increased. African American and Asian persons were twice as likely as White persons to be in poverty.

Figure 15. Percentage of Persons with Income Below the Poverty Level by Race, 2010 and 2019

	2010	2019
All Households	18.0%	18.0%
Non-Latinx White	13.5%	13.7%
African American	37.9%	29.7%
Asian	30.7%	36.6%
Latinx	31.9%	21.4%

Source: American Community Survey, 5 year estimates

Based on the review of state education and workforce development plans and higher education equity research, two main indicators of workforce equity were chosen to give broad insight into the racial and ethnic income disparities. As Del Pilar & Berger (2019) assert, education is a way out of poverty. Thus, educational attainment is an important indicator. Welton & James-Gallaway, (2019) suggest using data to identify inequitable employment outcomes. Occupational employment and wage rates by race are the best available measure of employment outcomes.

Educational Attainment

While White residents of the district were slightly more likely than African American residents to complete high school or a four-year degree program in 2010 (Figure 16). Asian persons were significantly more likely to continue their educations past high school. About one-third of White persons had at least some college or an associate degree. An additional 35% had a bachelor's degree or higher. Less than 10% failed to finish high school.

The percentage of African American persons that earned a high school diploma but did not continue their education was about 31%, slightly less than the rate of White persons. A slightly higher percentage of African American persons (32%) than Whites had some college or and associate degree. However, African American persons were significantly less likely to earn a bachelor's degree or higher than Whites. Over 15% of African American persons had not earned a high school diploma or equivalent.

Latinx persons had significantly lower attainment rates than the other groups. One third had not completed high school in 2010.

Figure 16. 2010 Educational Attainment by Race and Ethnicity for Population Age 25 and Over

	Total	White	African American	Asian	Latinx
Total	145,213	118,921	11,915	8,333	4,729
Less than high school diploma	9.2%	7.7%	17.8%	4.6%	34.3%
HS graduate (incl equivalency)	27.1%	28.6%	30.9%	7.0%	15.2%
Some college or associate deg	27.9%	29.0%	32.4%	9.1%	18.3%
Bachelor's degree or higher	35.9%	34.7%	18.9%	79.3%	32.2%

Source: American Community Survey, 5 year estimates

All racial and ethnic groups had improved their attainment rates by 2019 (Figure 17). For all persons over 25 years old, the percentage at least completing high school improved by 3 percentage points and the percentage of those obtaining a bachelor's degree or higher improve by about 4 percentage points. About 69% of had had furthered their education beyond high school, compared with about 66% in 2010.

The percentage of African American persons who did not complete high school decreased by 5 percentage points and the percentage with a bachelor's degree or higher increased slightly. Similarly, the percentage of Latinx persons without a high school diploma was reduced by half, and the percentage with a four-year degree increased by 4 points. The percentage of Asian persons who did not complete high school increased slightly, while the percentage with a postsecondary degree decreased by less than one point.

Figure 17. 2019 Educational Attainment by Race and Ethnicity for Population Ages 25 and Over

	Total	White	African American	Asian	Latinx
Total	155,948	121,769	14,565	10,601	6,688
Less than high school diploma	6.3%	5.2%	12.2%	6.1%	16.7%
HS graduate (incl equivalency)	24.7%	25.4%	32.6%	5.8%	24.6%
Some college or associate deg	28.8%	30.0%	34.9%	9.3%	22.4%
Bachelor's degree or higher	40.2%	39.4%	20.3%	78.8%	36.3%

Source: American Community Survey, 5 year estimates

Occupational Employment

There were about 119,000 jobs in the district in 2020[1]. Overall, about 50% of jobs were held by women, 26% held by non-White persons, and 7% held by Latinx persons. Figure 18 displays data for occupations employing at least 300 in the district that have a typical entry education level of 'Some College or Postsecondary Nondegree Award' according to the U.S. Department of Labor. Example occupations include truck driving, emergency medical technicians, and hairstylists.

[1] The data in Figures 18-20 display numbers of jobs. A single person can hold more than one job. According to the US Bureau of Labor Statistics, the total number of persons employed In Illinois in 2019 was just under 6.2 million.

Occupations in this category tend to have very low gender diversity. All occupations either employ 3/4ths males or 3/4ths females. Both occupations offering more than $25/hour are male-dominant. The two occupations with earnings below $16/hour are female-dominant.

Jobs in those occupations held by higher percentages of non-White persons also tended to be lower paying. Both occupations with earnings below $16/hour included more than 25% nonWhite persons. Similarly, Latinx persons are underrepresented in most of the occupations in this category. Despite making up about 7% of the workforce, Latinx persons only exceeded 10% of the workforce in one occupation: teaching assistants, the lowest-paying occupation in this category.

Figure 18. Employment for Occupations Often Require a Certificate and/or License

SOC	Description	2020 Jobs	Avg. Annual Openings	Pct Female	Pct Non-White	Pct Latinx	Median Hourly Earnings
31-1131	Nursing Assistants	1,197	135	89%	39%	5%	$14.07
43-3031	Bookkeeping, Accounting, and Auditing Clerks	1,145	120	87%	16%	5%	$19.79
25-9045	Teaching Assistants	1,087	117	90%	29%	12%	$13.43
31-9092	Medical Assistants	966	137	90%	27%	7%	$17.52
53-3032	Heavy and Tractor-Trailer Truck Drivers	965	104	4%	16%	5%	$19.39
49-3023	Automotive Service Technicians and Mechanics	533	48	Insf. Data	15%	8%	$18.71
15-1232	Computer User Support Specialists	451	30	25%	28%	5%	$26.53
39-5012	Hairdressers, Hairstylists, and Cosmetologists	378	45	95%	19%	6%	$10.55
29-2061	Licensed Practical and Licensed Vocational Nurses	331	32	92%	29%	4%	$23.30
33-2011	Firefighters	319	19	6%	22%	9%	$34.52

Source: EMSI, 2020.

Figure 19 displays employment in the district for occupations that typically require an associate degree. Statewide, diversity is generally more balanced for these occupations relative to the lower skilled occupations in Figure 18. However, significant challenges remain in some occupations to increase diversity.

The occupations requiring an associate's degree have a mostly even mix of male-dominant and female-dominant occupations. The lowest-paying occupation, preschool teachers, was predominately female. Among the three occupations offering at least $30 hourly, two were female-dominant and one was male-dominant.

Data are not available for these occupations at the local level to make significant conclusions about Latinx representation.

Figure 19. Occupational Employment, Associate Degree Typical Entry Level Education

SOC	Description	2020 Jobs	Avg. Annual Openings	Pct Female	Pct Non-White	Pct Latinx	Median Hourly Earnings
25-2011	Preschool Teachers, Except Special Education	501	53	97%	26%	8%	$13.97
15-1231	Computer Network Support Specialists	372	24	25%	26%	5%	$29.29
29-2056	Veterinary Technicians	197	18	77%	12%	Insf. Data	$20.75
29-2031	Cardiovascular Technicians	181	11	70%	14%	Insf. Data	$22.28
29-1292	Dental Hygienists	164	12	96%	9%	Insf. Data	$30.64
15-1257	Web Developers and Digital Interface Designers	147	10	31%	21%	Insf. Data	$30.54
19-4099	Life, Physical, and Social Science Technicians, All Other	145	16	45%	33%	Insf. Data	$23.73
29-2034	Radiologic Technicians	119	10	71%	14%	Insf. Data	$28.24
19-4011	Agricultural and Food Science Technicians	111	13	33%	21%	Insf. Data	$21.84
29-2035	Magnetic Resonance Imaging Technologists	93	6	69%	13%	Insf. Data	$33.50

Source: EMSI, 2020.

Information about occupations employing more than 550 in the district that typically require a bachelor's degree for entry are displayed in Figure 20. It should be noted that while U.S. Department of Labor identifies a bachelor's degree as the 'typical' entry level education required, there are pathways to occupations on this list that do not require a bachelor's degree. For example, it is possible to become a registered nurse without earning a bachelor's degree.

As with the lower skilled occupations, those with higher pay tend to be male dominated. Of the three occupations with median wages above $35/hour, two employ more than 2/3rds males. Only project management is majority female.

Only two of the occupations in this category have higher percentages of non-White persons than the average of all occupations (26%). Software development is the highest-paying occupation in this category, and it has the highest percentage of nonWhite workers.

Again, reflecting their lower than average educational attainment, Latinx persons are underrepresented in all occupations in this category.

Figure 20. Occupational Employment, Bachelor's Degree Typical Entry Level Education

SOC	Description	2020 Jobs	Avg. Annual Openings	Pct Female	Pct Non-White	Pct Latinx	Median Hourly Earnings
29-1141	Registered Nurses	2,274	161	91%	16%	2%	$28.67
11-1021	General and Operations Managers	1,775	144	29%	12%	4%	$38.03
25-2021	Elementary School Teachers	1,035	80	81%	17%	6%	$25.11
15-1256	Software Developers and Quality Assurance Analysts	929	55	20%	38%	3%	$42.65
25-9044	Teaching Assistants	817	60	46%	31%	6%	$16.57
13-1198	Project Management and Business Operations Specialists, All Other	790	76	58%	27%	6%	$35.15
25-2031	Secondary School Teachers	701	53	62%	16%	6%	$25.37
13-2011	Accountants and Auditors	654	60	60%	21%	4%	$31.38
25-2022	Middle School Teachers	575	44	81%	17%	6%	$25.11
11-1031	Legislators	558	33	37%	16%	5%	$10.38

Source: EMSI, 2020.

Coronavirus Pandemic

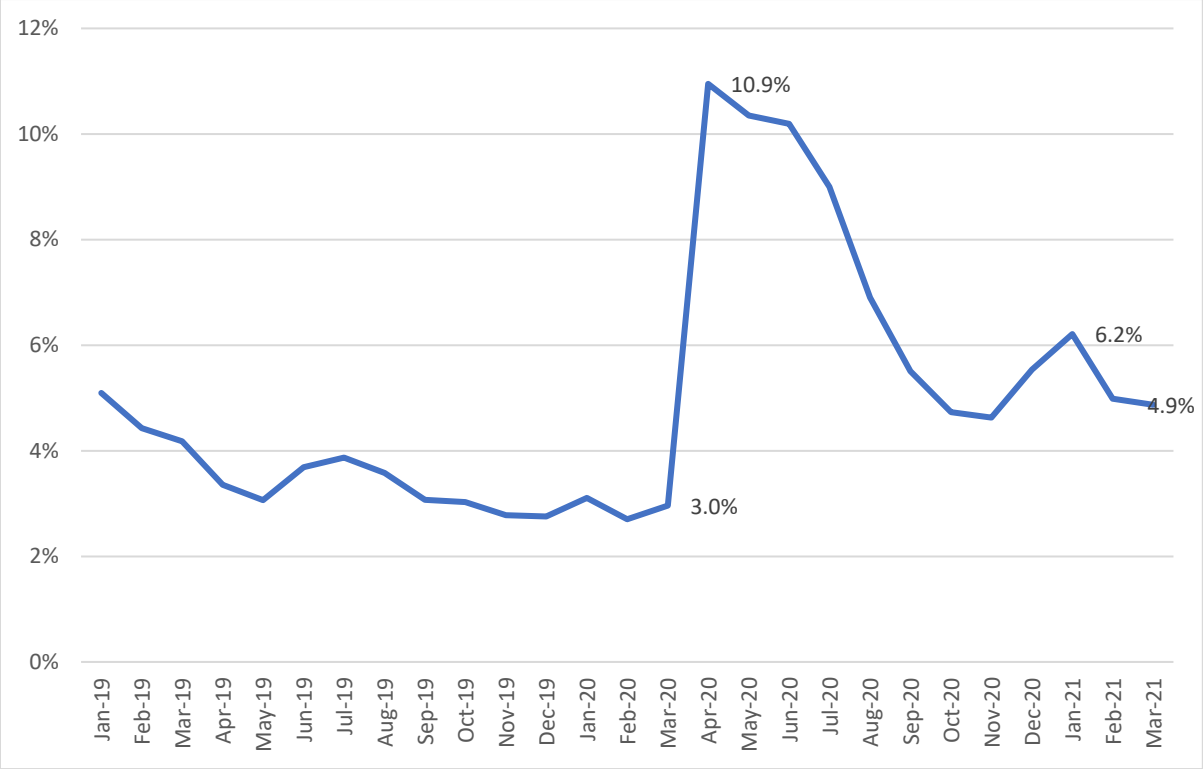
In early 2020 the Coronavirus pandemic disrupted the social and economic structures of communities worldwide. Government regulations such as stay-at-home orders and restrictions on business operations changed the way many businesses could operate. In addition, individuals changed their spending habits to avoid contracting the virus. The impact on employment was rapid and severe, with many businesses laying off employees or completely closing their doors. While significant recovery occurred by early 2021, employment levels remained below 2019 averages.

In late 2019 Illinois unemployment rates had fallen below 4%, hitting a low of just 3.4% in February 2020. Between February and April 2020, about 1.1 million out of about 6.2 million Illinois workers lost their jobs. The unemployment rate soared to 17.2%.

About 600,000 workers had regained their jobs by January 2021, bringing the unemployment rate below 8%. By comparison, during the 'Great Recession' of 2008-2009 the Illinois unemployment rate peaked at 11.3%. During the Coronavirus pandemic, the U.S. unemployment rate peaked at 14.7% in April and fell to 8% by October 2020.

In the district, the monthly unemployment rate peaked at almost 11% April 2020 (Figure 21). The rate declined steadily, falling below 5% in late 2020. After increasing to over 6% in January it declined to about 5% in March 2021. Unemployment trends in the district were largely consistent with the state.

Figure 21. District Unemployment Rate Trend



Source: Illinois Department of Employment Security, Economic Information and Analysis

The pandemic had uneven impacts. The U.S. Bureau of Labor Statistics publishes national unemployment rates by various demographic groups. Figure 22 displays national quarterly unemployment rates (this level of detail is not available at the county level). The rate for all persons 16 and over rose from 3.5% in 2019 to 12.9% in 2020. The rate for youth 16-19 rose from an already significant 13.4% to 28.7% and for those 20-24 years it rose from 6.5% to 22.7%. Those in older age brackets fared better but still experienced rates above 11%. Women were impacted to a greater degree than men, with an unemployment rate reaching 14% vs. just under 12% for men.

Unemployment rates for White workers were slightly lower than the overall averages for all age groups and genders. African Americans, already experiencing higher unemployment rates than other races experienced an unemployment rate of over 16% during the height of the pandemic. Their unemployment rates were higher than the overall averages for all age groups. African American male unemployment rates rose higher than females, which was not the case for other races/ethnicities.

Asians had lower unemployment rates prior to the pandemic than the overall averages. However, their rates increased to above the rates for White workers for all age groups and genders. Asians aged 20-24 were especially hard hit, rising from 4% to nearly 30% unemployment rates.

Latinx workers had unemployment rates similar to the overall averages in 2019. The pandemic caused their rates to rise more significantly than White workers. Latinx youth aged 16-19 years had the highest rate of any group examined, with 1 out of 3 being unemployed.

Figure 22. National Quarterly Unemployment Rates by Gender, Race, and Ethnicity

	2020				2021
	1st	2nd	3rd	4th	1st
White					
Total, 16 Years and Over	3.3	12.2	7.8	6	5.5
Men, 20 Years and Over	3.1	10.7	7.2	5.8	5.4
Women, 20 Years and Over	3	12.8	7.9	5.6	5.1
Both Sexes, 16 to 19 Years	11	27.2	15.9	13.6	13.1
African American					
Total, 16 Years and Over	6.3	16.3	13.1	10.3	9.6
Men, 20 Years and Over	6.2	15.8	13.6	11	9.8
Women, 20 Years and Over	5.2	15.7	12	8.9	8.7
Both Sexes, 16 to 19 Years	23.4	29.3	21.7	22.1	18.4
Asian					
Total, 16 Years and Over	3.2	14.4	10.5	6.7	5.9
Latinx					
Total, 16 years and over	4.9	17	11.2	8.9	8.3
Men, 20 years and over	3.9	14.8	9.9	8.3	7.6
Women, 20 years and over	5.1	18.1	11.8	8.8	8.2
Both sexes, 16 to 19 years	15.4	33.2	20.8	16.6	17

Source: U.S. Bureau of Labor Statistics, *Labor Force Statistics from the Current Population Survey*, 2020.

National research by the Pew Research Center found that the true impacts on employment were more significant than the government unemployment statistics suggest. Their analysis estimated that the true national unemployment rate in May 2020 was 16%, higher than the 'official' rate calculated from U.S. Census Bureau's Current Population Survey (CPS) of 13% (Kochhar, 2020). The discrepancy was largely due to the fact that millions of workers were listed as 'employed but absent from work' in the unemployment survey. These workers were not counted as unemployed. They found that the rate for women was nearly 18% (higher than the 14.3% CPS estimate) and about 20% for African Americans, Asians, and Latinx persons (16.6%, 14.9%, and 17.2% CPS estimates respectively).

Data from Illinois indicate that the impacts on various demographic groups have been mostly similar to the rest of the nation. Figure 23 displays averages of initial unemployment claims in the district for 2019 (pre-pandemic), the 2nd quarter of 2020 (pandemic impact peak) and the first quarter of 2021 (most recent available). Claims increase by nearly70% at the height of the pandemic impacts. By early 2021, claims had actually fallen below 2019 levels.

As indicated by the national unemployment statistics, youth were impacted to a greater degree. Claims by workers aged 16-24 increased by more than 400%, from less than 700 in 2019 to over 3,000 at the height of the impacts in Q2 2020. Workers aged 45-64 had the smallest initial increase, about 20% from 2019 to Q2 2020.

White workers experienced a slightly lowerr initial increase in claims compared to the overall total. African American and Latinx workers had a slightly larger increase in claims. Asians had the highest percentage increase in claims.

The increases in claims in the district appears to be driven almost entirely by female workers. The number of male claims increased 25%, compared to a 132% increase for females. The national data also indicate that women were more severely impacted by the pandemic.

Figure 23. District Initial Unemployment Claims by Age, Gender, Race, and Ethnicity

	Initial UI Claims			% Change	
	2019	Q2 2020	Q1 2021	2019 vs Q2 2020	Q2 2020 vs Q1 2021
TOTAL	12,885	21,527	9,855	67.1%	-54.2%
Age 16-24	611	3,306	1,175	441.1%	-64.5%
Age 25-44	6,276	10,713	4,716	70.7%	-56.0%
Age 45-64	5,334	6,397	3,440	19.9%	-46.2%
Age 65 and Older	656	1,101	523	67.8%	-52.5%
RACE/ETHNICITY					
White/Not of Latinx Origin	8,542	13,514	5,586	58.2%	-58.7%
Share of total	66.3%	62.8%	56.7%		
African American/Not of Latinx Origin	3,054	5,281	3,111	72.9%	-41.1%
Share of total	23.7%	24.5%	31.6%		
Asian or Pacific Islander	139	734	187	428.1%	-74.5%
Share of total	1.1%	3.4%	1.9%		
Latinx Origin	521	1,017	504	95.2%	-50.4%
Share of total	4.0%	4.7%	5.1%		
GENDER					
Male	7,920	9,960	5,902	25.8%	-40.7%
Female	4,922	11,457	3,928	132.8%	-65.7%
Female Share	38.2%	53.2%	39.9%		

Source: Illinois Department of Employment Security, Characteristics of Unemployment Insurance Claimants by State and County, 2021 (data are averages of monthly levels).

Due to their high levels of person-to-person interaction, employment in service industries were impacted the greatest by the pandemic. Retail trade, education and health services, leisure and hospitality, and other services all had greater than 100% increases in unemployment claims (Figure 24). Moving in to early 2021, claims in most sectors had fallen below 2019 levels. A major exception was mining, but there are very few jobs in this sector in the district.

Figure 24. District Initial Unemployment Claims by Industry Sector

	Initial UI Claims			% Change	
	2019	Q2 2020	Q1 2021	2019 vs Q2 2020	Q2 2020 vs Q1 2021
Agriculture, forestry, fishing and hunting	64	33	35	-48.4%	6.1%
Mining	21	3	9	-85.7%	200.0%
Construction	3,021	1,456	1,742	-51.8%	19.6%
Manufacturing	1,410	2,166	675	53.6%	-68.8%
Wholesale trade	544	557	336	2.4%	-39.7%
Retail trade	1,002	2,536	932	153.1%	-63.2%
Transp, Warehousing, and Utilities	634	635	463	0.2%	-27.1%
Information	249	297	91	19.3%	-69.4%
Financial Activities	554	559	325	0.9%	-41.9%
Professional and Business Services	1,763	1,919	1,521	8.8%	-20.7%
Educational and Health Services	1,309	3,069	1,300	134.5%	-57.6%
Leisure and Hospitality	1,222	5,382	1,230	340.4%	-77.1%
Other Services	283	776	231	174.2%	-70.2%
Public administration	363	308	188	-15.2%	-39.0%

Source: Illinois Department of Employment Security, Characteristics of Unemployment Insurance Claimants by State and County, 2021 (data are averages of monthly levels).

As would be expected, service occupations were the most impacted by the pandemic (Figure 25). Personal care occupations had the highest increase in unemployment claims in the 2nd Quarter 2020, followed by arts, food preparation, and health care practitioner occupations. Food preparation occupations also represented the largest number of initial claims.

Job losses in some of these sectors may be permanent. Using data from the Federal Reserve Bank of Atlanta/Chicago Booth/Stanford Survey of Business Uncertainty (SBU), Barrero, Bloom, and Davis (2020) estimate that 42% of the jobs lost in the U.S. will be permanently eliminated. "But even as many firms were shedding workers, some were hiring. The April SBU showed that the COVID-19 shock caused three new hires in the near term for every 10 layoffs. A restaurant server, for instance, might take a job with a delivery service or a clothing store clerk might go to work in an online retailer's distribution center."

As long-term changes to the economy become more apparent, community colleges and other parts of the workforce development system can help retrain those that have permanently lost their jobs.

Figure 25. Parkland Community College District Initial Unemployment Claims by Occupation

	Initial UI Claims			% Change	
	2019	Q2 2020	Q1 2021	2019 vs Q2 2020	Q2 2020 vs Q1 2021
Management	1,196	2,042	1,113	70.7%	-45.5%
Bus. & Fin. Operations	297	319	229	7.4%	-28.2%
Computer & Math.	156	123	93	-21.2%	-24.4%
Architecture & Eng.	102	101	78	-1.0%	-22.8%
Life Phys. & Soc. Sci.	30	98	28	226.7%	-71.4%
Comm. & Social Service	100	164	69	64.0%	-57.9%
Legal	26	34	26	30.8%	-23.5%
Edu. Training & Library	256	738	188	188.3%	-74.5%
Art Ent. Sport & Media	59	355	58	501.7%	-83.7%
Healthcare Pract. & Tech.	250	1,097	338	338.8%	-69.2%
Healthcare Support	310	648	314	109.0%	-51.5%
Protective Service	85	112	66	31.8%	-41.1%
Food Prep. & Serving	1,017	4,446	1,285	337.2%	-71.1%
Building & Grounds Maint.	651	942	487	44.7%	-48.3%
Personal Care	152	915	186	502.0%	-79.7%
Sales & Related	1,053	2,707	890	157.1%	-67.1%
Office & Admin. Support	905	1,150	455	27.1%	-60.4%
Farm Fishing & Forestry	175	84	109	-52.0%	29.8%
Const. & Extraction	2,795	1,402	1,833	-49.8%	30.7%
Instal. Maint. & Repair	717	741	344	3.3%	-53.6%
Production	1,492	2,097	932	40.5%	-55.6%
Transportation	889	1,099	646	23.6%	-41.2%

Source: Illinois Department of Employment Security, Characteristics of Unemployment Insurance Claimants by State and County, 2021 (data are averages of monthly levels).

Parkland College Student Outcomes

Illinois community colleges are multipurpose institutions with the capacity to offer short- and long-term certificate programs for high demand jobs, associate's degrees for career preparation or transfer to bachelor's degree programs, college preparatory courses, and noncredit continuing education. Community colleges are diverse throughout Illinois and exist to meet the needs of the communities they serve.

Community college programs prepare individuals for high-skill, in-demand employment that furthers Illinois' global competitiveness. Education programs offer flexible scheduling, work-based learning, and stackable credentials that provide a pathway from education to employment not only for recent high school graduates, but also for returning adults, veterans, and incumbent workers. Success in education programs like Career and Technical Education areas of study are amplified by academic support services, work-based learning opportunities, and business engagement. CTE's reach in Illinois' workforce continues to be expansive; in academic year 2020, there are over 4,300 different CTE program offerings across the community college system.

Figure 26. Academic Year 2020 Illinois Community College Annual Headcount Enrollments by Instructional Program Area

Area of Instruction	Academic Year 2020
General Associate	28,346
Baccalaureate/Transfer	249,146
Career & Technical Education	119,269
Vocational Skills	27,898
ABE/ASE/ESL	46,603
General Studies Cert	1,216
Total	472,478

Figure 27. Annual Duplicated Headcount for Continuing Noncredit Education by Category of Activity

Category of Activity	Academic Year 2020
Business and Industry Contract	8,066
Professional/Vocational Development	21,244
Personal and Social Development	92,415
Youth Programs	18,083
Total	139,808

Most students attend college to improve skills that will be valuable to employers. The following section details workforce outcomes of community college completers. It begins by calculating the return on investment of a typical Illinois community college completers. It then details program completion rates by various academic programs and student groups. Finally average annual earnings for various demographic groups and program types are presented.

Student Return on Investment

Obtaining a credential at a community college is an investment. The time and money invested in education results in higher earnings after completion. Students attending college pay for their education in both cash and in foregone earnings. The net cash price is the cost of tuition, fees, books, and room and board. Foregone earnings result when a student spends time going to school and studying in place of earning money at work.

The analysis in this section focuses on the return on investment of students aged 20 to 29 that completed a two year program that was not focused on transfer to a 4-year institution (AAS or long-term certificate) in FY2018. The cost of attending school during the FY2017 and FY2018 school years is compared with projected earnings over a 40 year post graduation time frame. The results are net present value (NPV) and internal rate of return (IRR) estimates for the average completer in FY2018. Within the community college system, a considerable portion of the student population is non-traditional (older population) and may be working in a career job already as they are upskilling. However, for this particular model the focus is more on the traditional matriculation of high school to college and full-time status within the community college system. There are many different paths to completing a community college credential. This analysis focuses on a student that completes their program within two years in their early 20s, and does not work during their time in school. After completion, the calculations assume a 40 year working career.

There are many different paths to completing a community college credential. This analysis focuses on a student that completes their program within two years in their early 20s, and does not work during their time in school. After completion, the calculations assume a 40 year working career.

If a student works while in school this may reduce their initial investment (by reducing opportunity costs), thereby increasing the ROI and NPV. If a student takes longer than 2 years to complete their degree this may increase their initial investment, thereby reducing the ROI and NPV.

The net cash price of attending school was obtained from the National Center for Education Statistics' College Navigator tool. College Navigator employs Integrated Postsecondary Education Data System (IPEDS) data from the National Center for Education Statistics to calculate the *average net price*[2] for annual attendance at each school. The statewide figure is the average (weighted by student enrollment counts) of individual Illinois community colleges.

The other major cost for college attendees is their foregone earnings, often referred to as the 'opportunity cost' of attending college. The estimate for foregone earnings is based on average high school graduate earnings levels. In Illinois, average earnings for a 20-year old high school graduate is $9,751[3], increasing to $10,919 for a 21 year old. These values are used as the estimates for the opportunity costs of attending a community college in the ROI calculations.

[2] "Average net price is generated by subtracting the average amount of federal, state/local government, or institutional grant or scholarship aid from the total cost of attendance. Total cost of attendance is the sum of published tuition and required fees (lower of in-district or in-state), books and supplies, and the weighted average for room and board and other expenses." (Source: National Center for College Statistics, COLLEGENavigator. https://nces.ed.gov/collegenavigator/)

[3] Source: U.S. Census Bureau, 2014-2018 American Community Survey.

The major benefit of completing college is the resulting increased earnings. Earnings data for ICCS completers in a 2014 study showed that earnings gains for statewide completers totaled about 31% of post-completion earnings. This is very similar to the earnings difference between associates degree holders and high school graduates for persons in their early 20s. Thus, first year earnings gains are estimated as 31% of post-completion earnings of $2,459, or $10,062. Other studies[4], as well as Census data on earnings by age, indicate that earnings gains from educational attainment grow significantly in the first decade of a worker's career, and subsequently flatten. Based on these data, earnings gains from credential attainment are assumed to grow by 7% per year in the 10 years following completion then remain stable.

Figure 28 presents the net return analysis based on the calculations noted above. The total cost during the two years the student is in school, including out of pocket expenses and foregone earnings is $36,440. The return on investment occurs over a 40 year working life, where increased earnings for a degree completer are estimated to total more than $620,000 (compared to someone not attending community college).

Figure 28. Estimate Net Return for AAS Degree and Long-Term Certificate Completers

Year	Net Price	Opportunity Cost	Total Cost	Post Completion Earnings Gains	Discounted Cash Flow
-1	$7,973	$9,751	$17,724		-$18,433
0	$7,797	$10,919	$18,716		-$18,716
1				$10,062	$9,660
2				$10,767	$9,923
3				$11,520	$10,192
4				$12,327	$10,470
5				$13,190	$10,754
6				$14,113	$11,047
7				$15,101	$11,347
8				$16,158	$11,656
9				$17,289	$11,973
10				$17,289	$11,494
⋮				⋮	⋮
38				$17,289	$3,665
39				$17,289	$3,518
40				$17,289	$3,378
		Total Increased Earnings		$621,904	NPV $244,538
					IRR 24.6%

[4] See for example *Ranking ROI Of 4,500 US Colleges And Universities* from the Georgetown Center on Education and the Workforce.

The net present value of investing in a Parkland College associate degree or long-term certificate is nearly $245,000. The internal rate of return on their investment is 24.6%. In other words, if a student put $36,440 in an investment that returned 40 annual payments equivalent to the earnings gains from an associate degree/long-term certificate, they would earn interest at a rate of 24.6%.

Student Employment Outcomes

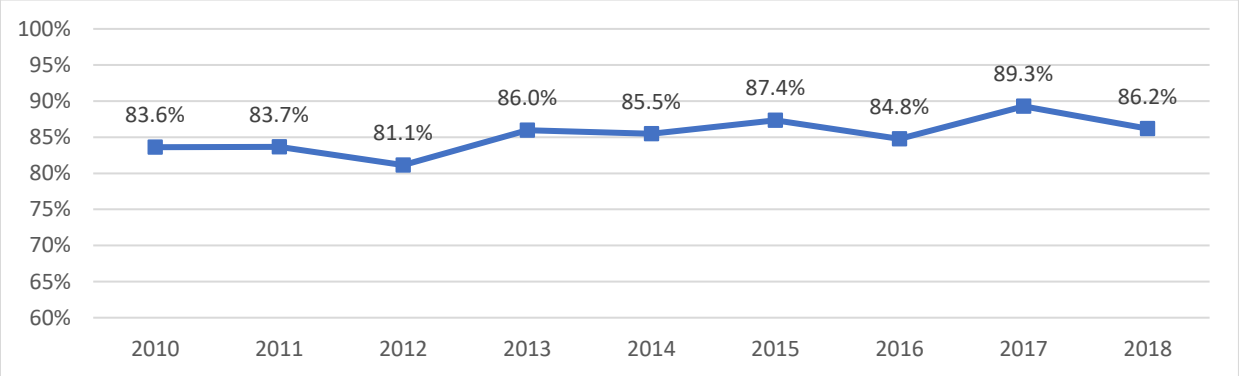
Information on student outcomes derives from the Institutional Researcher (IR) Tool dataset, which connects individual-level data from ICCB and Illinois Department of Employment Security ((DES) administrative data systems to generate student outcomes on employment and wages. The IR dataset includes information on ICCS completers who completed a credential in 2009 through spring 2018, including their earnings and employment status before and after completion.

In this study, a mix of panel data and snapshot data provide information about student outcomes from multiple angles. Panel data shows outcomes for the same group of completers over time. For example, we use panel data to show the trajectory or earnings for students who completed in 2009. Snapshot data shows the characteristics of students that completed each year, such as the employment rate for the class of 2009, the employment rate for the class of 2010 and so on. Next, student outcomes are examined in terms of employment rates, postsecondary enrollment, and earnings. All information is presented on a fiscal year basis, with the year corresponding to the calendar year of the spring semester, e.g., FY2018 begins with the summer 2017 term and ends with the spring 2018 term.

Employment

According to ICCB data, in recent years more than 80% of completers of long-term certificate programs or Associate in Applied Science programs at Parkland College are employed in career jobs within a year of graduation. This trend was consistent for completers each fiscal year through FY2018, which includes those who completed programs in the spring of 2018. Completers of short-term and transfer programs are excluded from the one-year employment rates because they typically pursue further education in the year after completion. The career job employment rate for Parkland College completers improved between FY2012 and FY2018.

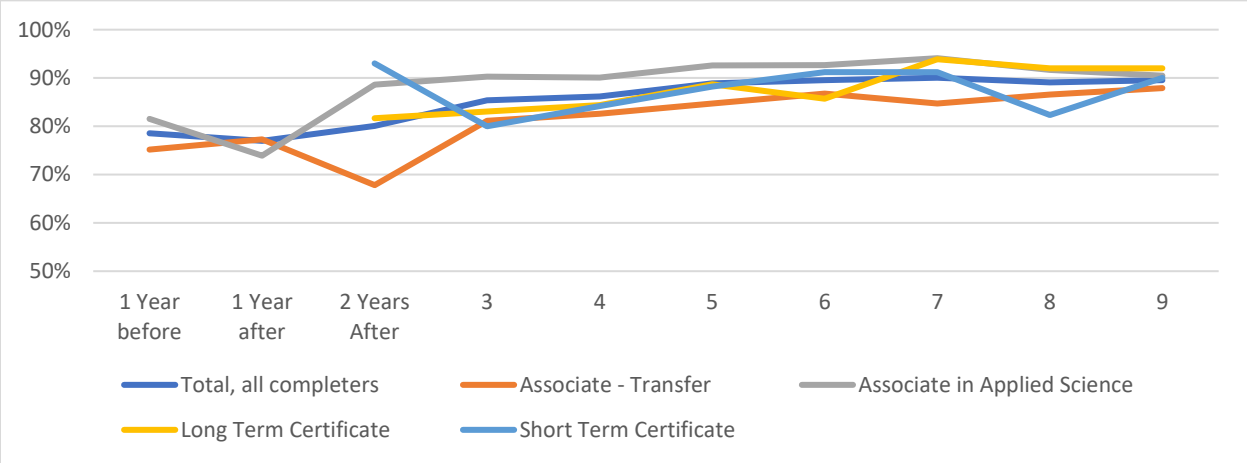
Figure 29. Career Job Employment Rate One Year After Completion (Long-Term Certificates and Associate in Applied Science Completers)



Career job employment rates typically improve for Parkland College completers over time. Among those who completed programs in 2009, 77.0% were employed one year after graduating, and 89.5%

were employed in career jobs after 10 years. Starting two years after completion, AAS completers had the highest employment rate.

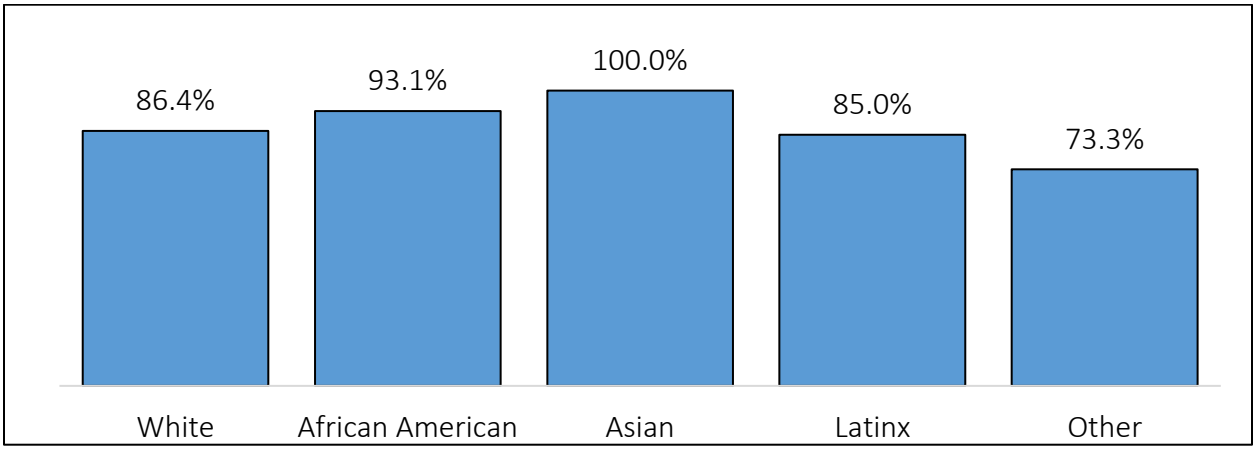
*Figure 30. Career Job Employment Rate for 2009 Completers**



*Career job employment rate is excluded for short-term certificate completers, and long term certificate completers 1 year after, due to insufficient data.

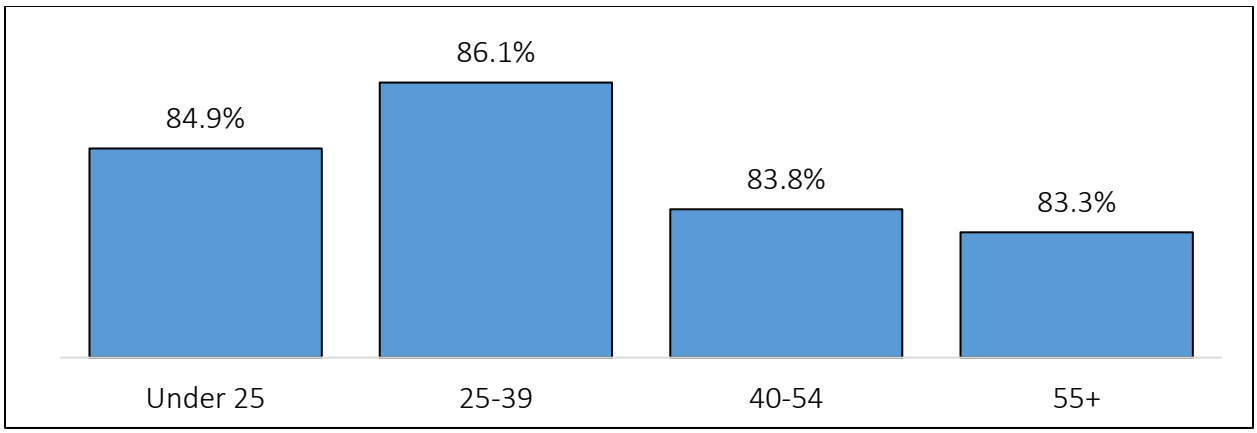
Employment rates varied by race and ethnicity for those who completed Parkland College programs in FY2018 (latest full year available). African American completers represented the largest minority group by share of completers and they had a career job employment rate of 93.1%. Relatively fewer completers were Asian or Latinx, but Asian completers had an employment rate of 100%, and 85.0% of Latinx completers were employed. The majority of completers were White, so their employment rate was consistent with the average. Care must be taken when comparing employment rates because they can be skewed by the employment status of students before they graduate. The IR dataset shows employment status up to one year before graduation, but employment rates before *enrollment* would show a stronger indication of growing employment opportunities.

Figure 31. Career Job Employment Rate One Year After Completion by Race/Ethnicity (Long-Term Certificates and Associate in Applied Science Completers)



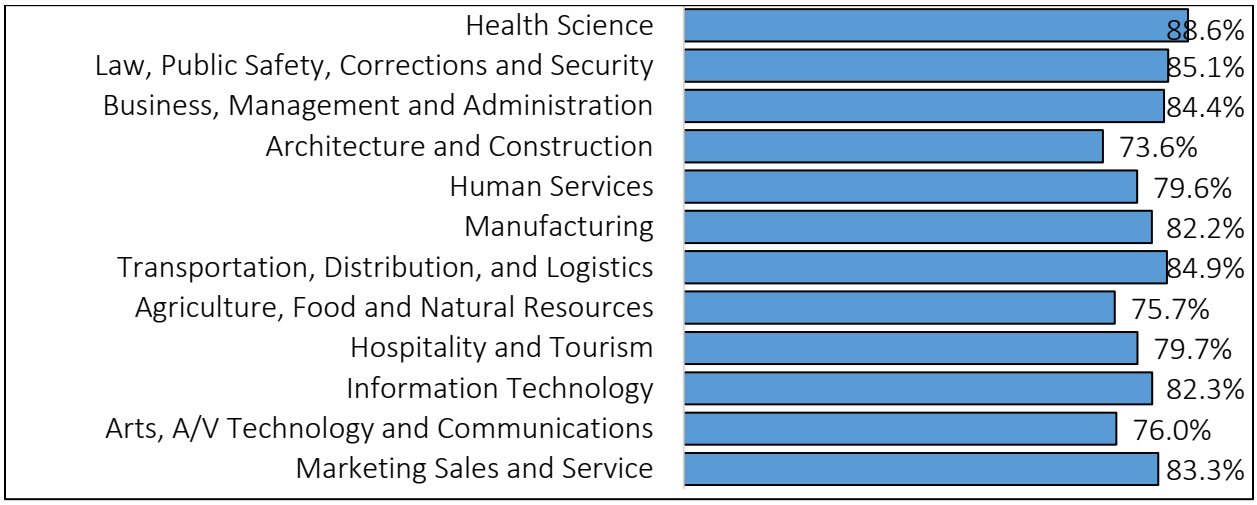
Unsurprisingly, mid-career aged students have a higher employment rate when they graduate. About 84.9% of completers of long-term certificate programs or AAS programs in the traditional college age, under age 25, were employed in career jobs six months after graduating. About 86.1% of completers in the 25-39 age range were employed in career jobs. In some cases, the employment rate is lower because completers defer working full-time to pursue a university degree. Employment rates fall significantly for the oldest (55+) completers.

Figure 32. Career Job Employment Rate One Year After Completion by Age (Long-Term Certificates and Associate in Applied Science Completers)



Employment rates also varied considerably by the career clusters that completers studied for. The highest career job employment rates were for those who studied for health science. The lowest career job employment rates were for architecture.

Figure 33. Career Job Employment Rate One Year After Completion by Career Cluster (Long-Term Certificates and Associate in Applied Science Completers)

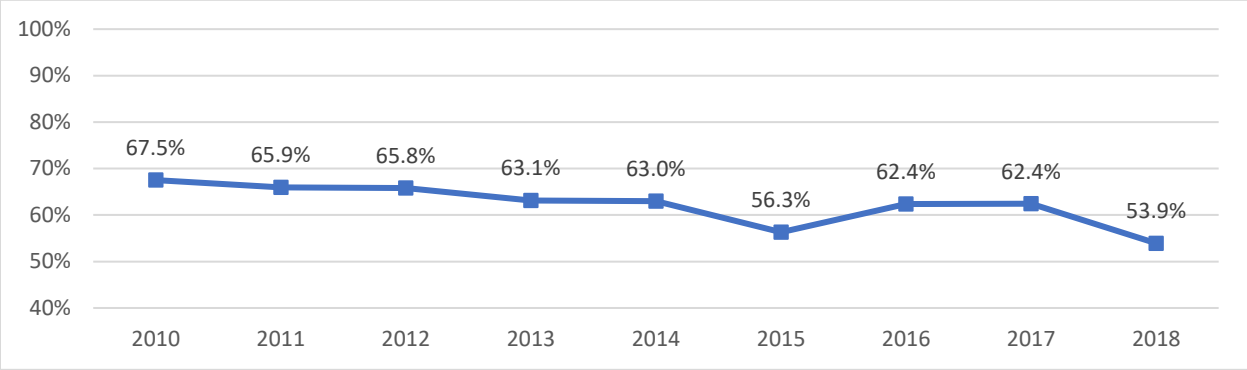


Postsecondary Enrollment

A fairly substantial number of Parkland College completers continue their education in the same institution or another 2- or 4-year educational institution within a year after graduating. Students sometimes complete CTE programs as part of a sequence of credentials that can be accumulated or are

"stackable" over time to build up an individual's qualifications and help them to move along a career pathway or up a career ladder to different and potentially higher-paying jobs. Students in associate degree transfer programs, of course, also continue education in their path to a Bachelor's degree The postsecondary enrollment rate, the percentage of completers who enroll in a four-year degree program within a year of completion, for Parkland College completers varied slightly from year to year, although the general trend shows a slight decline. These figures do not include completers who pursue further education after their first year out of community college. They also exclude completers who pursue shorter-term training or education, such as additional credentials in the ICCB system. Postsecondary enrollment rates have decreased from 67.5% for FY2010 to 53.9% in spring 2018.

*Figure 34. Postsecondary Enrollment Rate by Year of Completion**

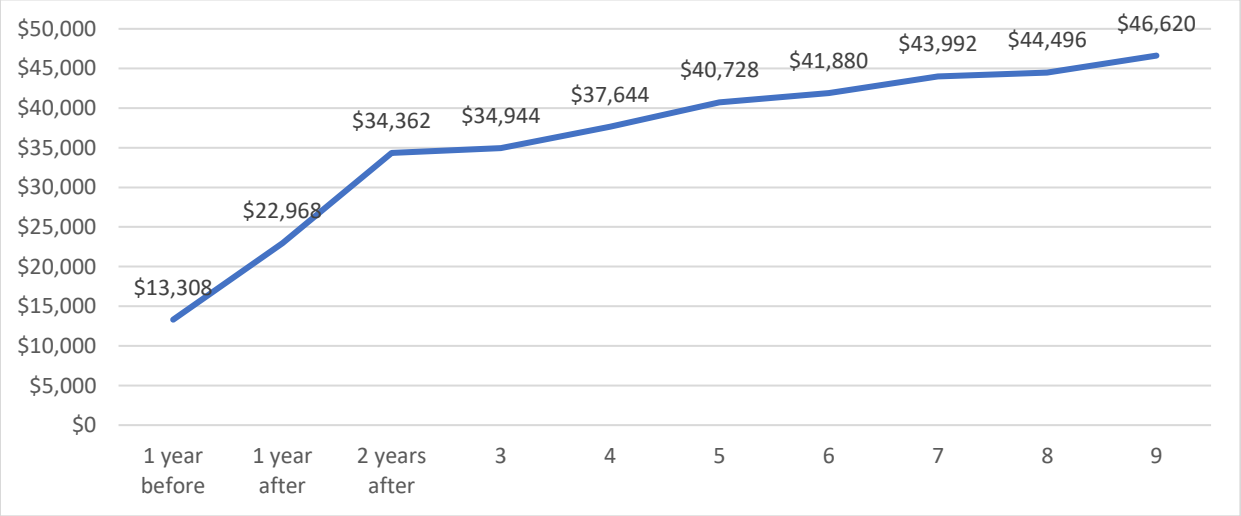


*Spring only for 2018.

Earnings

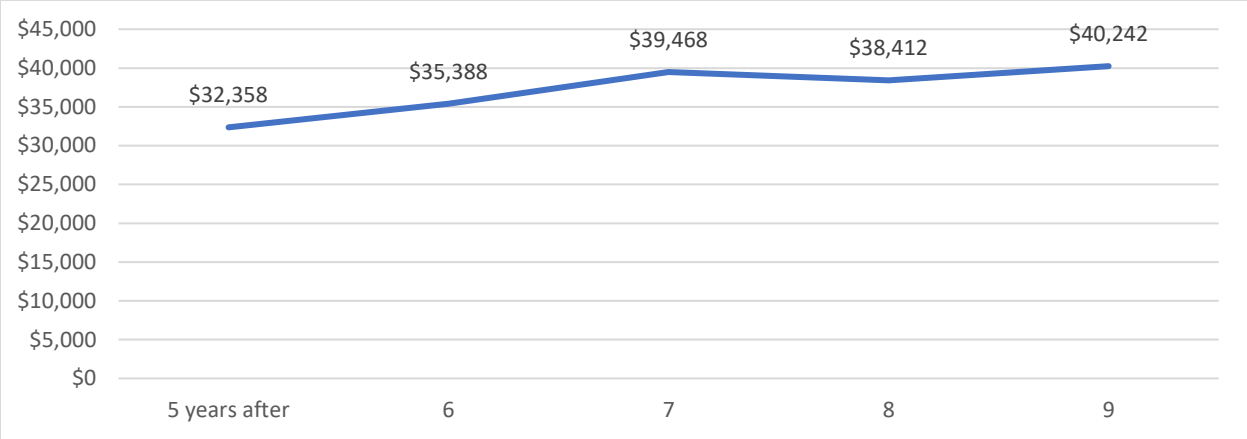
Looking at a longer time horizon, the class of 2009 earned $46,620 nine years after graduating, representing an average annual growth rate of 25.0%. The earnings growth is most significant in the first few years after graduation. Some of the earnings growth in the first year include transitioning from part-time to full-time employment.

Figure 35. Average Earnings Over Time for 2009 Completers (Long-Term Certificates and Associate in Applied Science Completers)



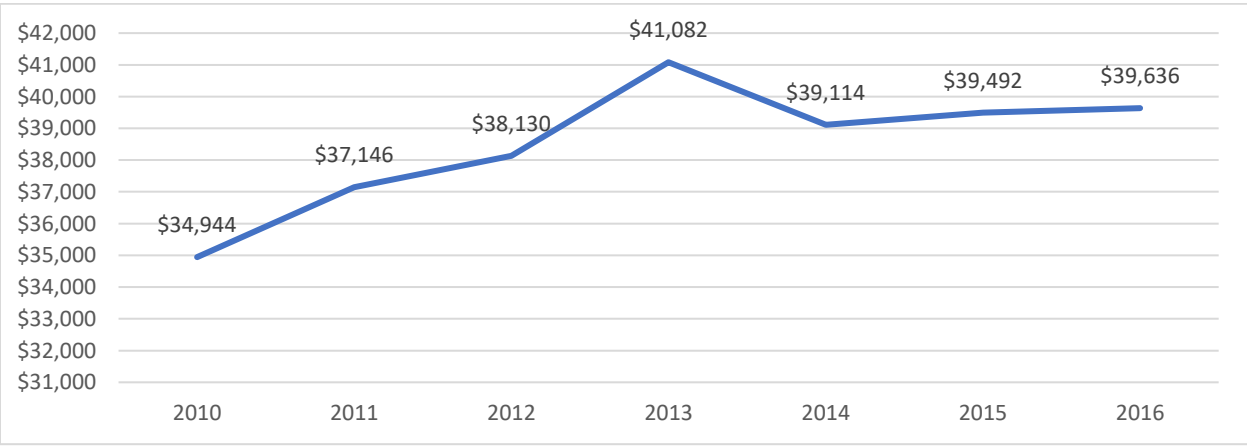
Completers of associate degrees for transfer to other institutions earned a median of $32,358 five years after completing their program at Parkland College. Ten years after completion, the median earnings were $40,242, which represented a 4.9% increase each year. Earnings for the first five years are excluded because these completers are still finishing their four-year degrees at this time. Statewide, earnings for associate transfer completers are typically lower than for AAS and long-term certificate completers.

Figure 36. Median Earnings Over Time for 2009 Completers (Associate - Transfer Completers)



The earnings of Parkland College completers varied slightly by year of completion. Those who completed their program in FY2010 earned a median of $34,944 after three years. For FY 2016, completers earned a median of $39,636 after three years. Median earnings were somewhat lower for completers in FY2014, but they increased for FY2015 onward.

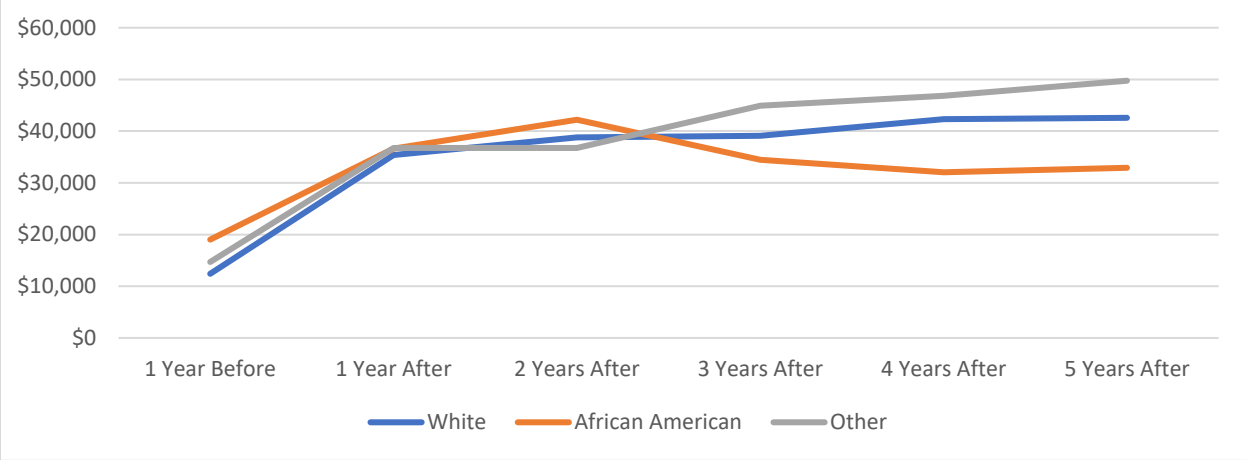
Figure 37. Median Annual Earnings 3 Years After Graduation, by Year of Graduation (Long-Term Certificates and Associate in Applied Science Completers)



Information on earnings trajectories by race for Parkland College completers is limited due to few completers in several minority groups. African American completers had somewhat higher earnings than White completers for the first two years after graduation, but White completers had higher earnings from the third year onward. The "Other" race/ethnicity category is difficult to generalize because it includes those with multiple races and nonresident exchange students. It is not possible to

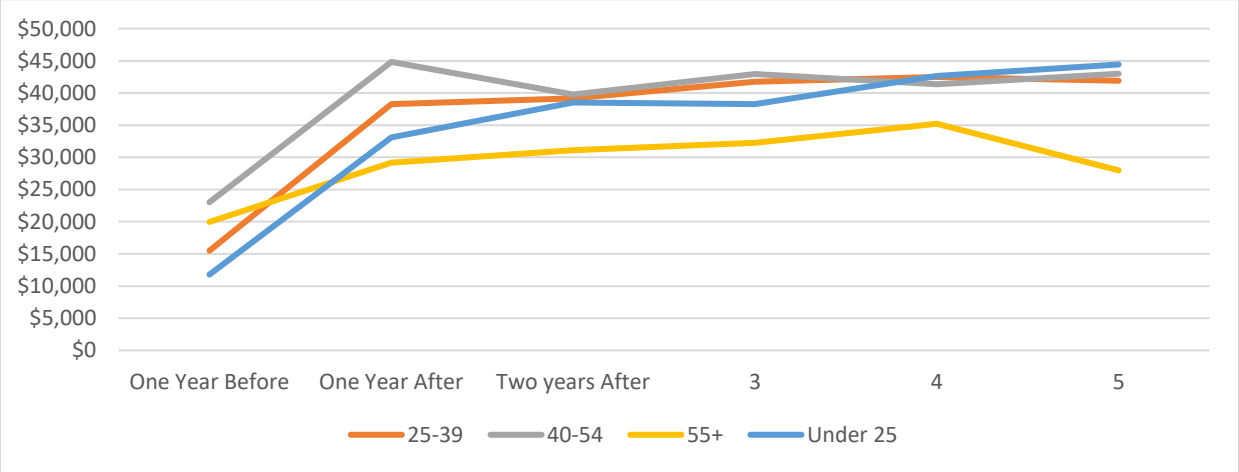
dissect earnings further within the "other" category due to limited data over time for completers in each sub-category.

Figure 38. Average Earnings Over Time for 2013 Completers by Race/Ethnicity (Long-Term Certificates and Associate in Applied Science Completers)



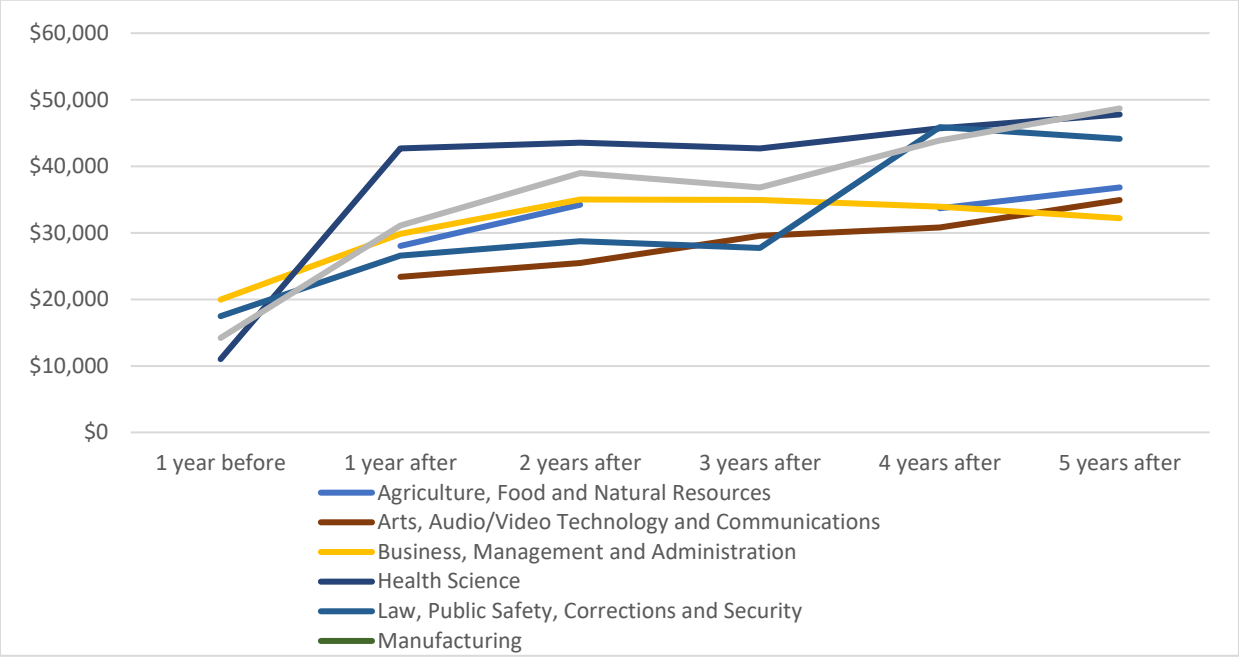
Unsurprisingly, 1st-year earnings increased with graduate age. Completers in the 25-39 age group typically earned more than completers under age 25. Earnings are affected by work experience and hours worked. Earnings over time for completers over age 54 were lower, but this group was broadly defined and includes people who work shorter hours as they transition to retirement.

Figure 39. Average Earnings Over Time for 2013 Completers by Age (Long-Term Certificates and Associate in Applied Science Completers)



Earnings for Parkland completers depend on the types of jobs held after completion. Continuous earnings data for Parkland College completers in specific career clusters is limited, but the highest earnings after five years was for those with degrees in health science or transportation. The lowest earnings were for arts.

Figure 40. Career Job Earnings Over Time for 2013 Completers by Career Cluster Age (Long-Term Certificates and Associate in Applied Science Completers)

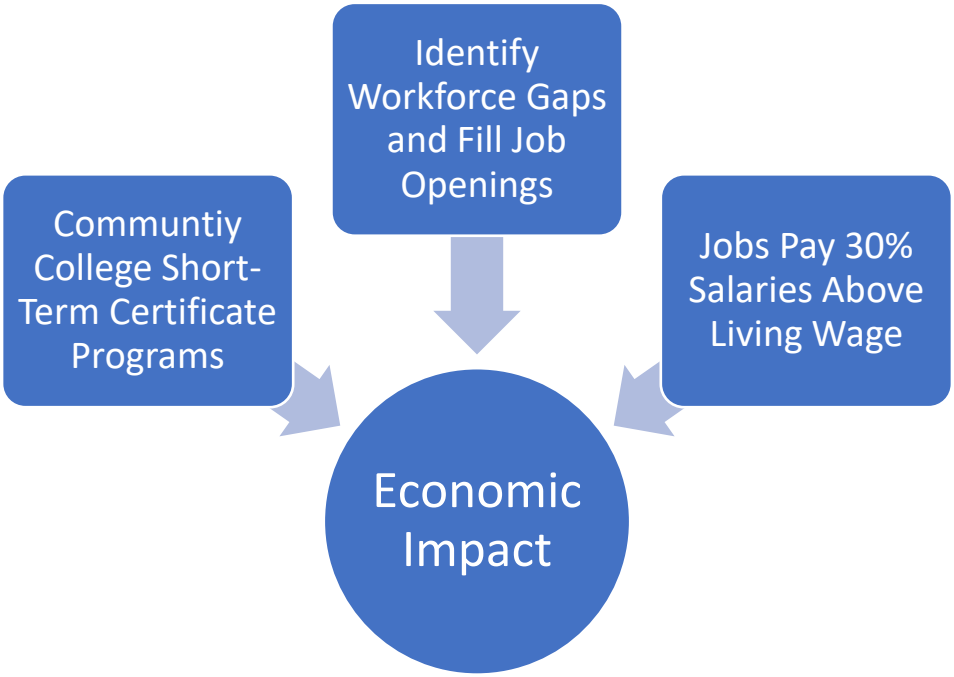


Short-Term Certificate Student Employment Outcomes

Illinois community colleges are committed to continuing growth in short-term certificate opportunities particularly in high-need communities focused on areas specific sectors with identified workforce gaps. The Workforce Equity Initiative (WEI) in particular, is evidence of Illinois community college efforts on short-term certificate expansion in high demand-careers. In addition, WEI also targets low-income individuals, those living in high crime and high poverty areas, and unemployed individuals and minorities. Illinois community colleges are leaders in workforce development and WEI, with its evidence-based model, even further economically impacts students, particularly underrepresented groups. The figure below illustrates WEI's model of developing short-term certificate programs in high-demand occupations that provide a salary 30% above a living wage within that region.

The Illinois community college system's commitment to strengthening job creation and workforce development is evident in the alignment of the short-term certificate graduate instructional areas (Figure 41) and many of the occupations with considerable job openings and/or growth rates projected through 2029 in Figure 11.

Figure 41. Illinois Community College Workforce Equity Initiative (WEI) Model



Illinois community colleges offer a variety of associate degrees and certificate programs of varying lengths. Short-term certificates (under 30 credit hours) provide students with a quick and focused program of study that can lead to immediate employment. Examples of short-term certificates include Truck Driving, Welding Web Design, HVAC Technician, Electrician, and Firefighting. Many of the short-term certificates allow students to enter the workforce but then are also embedded in a program of student that allows continued education toward an advanced certificate or full associate degree that allows even further expansion in career opportunities.

Earnings for completers of short-term certificates can vary widely by program. The figure below shows the top short-term programs by median earnings after three years, and the number of completers between FY2014 and FY2016. There may be other programs associated with high earnings, however data cannot be displayed for those with less than 10 completers. Certificate programs with the highest earnings include computer programming, ground transportation, and computer systems.

Figure 42. Median Earnings Three Years After Completion, FY2014-2016 Short-Term Completers

Curriculum	No. of Completers With Earnings, FY14-16	Median Earnings After 3 Years
Computer Programming	15	$48,057
Ground Transportation	81	$43,057
Computer Systems Networking and Telecommunications	16	$38,370
Allied Health and Medical Assisting Services	185	$30,169
Vehicle Maintenance and Repair Technicians	98	$29,392
Business Operations Support and Assistant Services	22	$28,937
Practical Nursing, Vocational Nursing and Nursing Assistants	441	$26,525
Sports, Kinesiology, and Physical Education/Fitness	10	$25,659
Computer/Information Technology Administration and Management	12	$25,484
Allied Health Diagnostic, Intervention, and Treatment Professions	21	$24,497

The occupations linked to short-term certificate programs at Parkland College are expected to gain employment in the district between 2020 and 2030. Employment for truck drivers is projected to increase 3.4% in the district, including 104 annual job openings. Employment for supervisors of office workers is projected to increase 4.2%, including 78 job openings. These employment projections are conservative, given that completers are not strictly limited to employment opportunities in the district they studied in, and completers can pursue stackable credentials for further employment opportunities.

Figure 43. Job Growth in Occupations Related to Short-Term Certificate Programs

SOC	Description	2020 Jobs	2030 Jobs	Growth rate	Annual Openings
53-3032	Heavy Truck Drivers	965	998	3.4%	104
43-1011	First-Line Supervisors of Office and Administrative Support Workers	774	807	4.2%	78
39-9031	Exercise Trainers & Fitness Instructors	215	382	77.5%	62
29-2061	Licensed Practical and Vocational Nurses	331	386	16.5%	32
49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers	317	325	2.5%	27
11-3021	Computer and Information Systems Managers	331	311	-6.1%	21
15-1251	Computer Programmers	155	108	-30.5%	8
31-9099	Healthcare Support Workers, All Other	34	43	27.7%	5
29-2032	Diagnostic Medical Sonographers	45	62	37.2%	4

Source: EMSI, 2020.

Economic Impacts

Parkland College is an important source of expenditures and employment for the region. As part of their day-to-day operations, each college purchases goods and services, many of them from the local economy. They also pay their employees, who in turn spend their wages and salaries in the local economy. Additionally, the college invest in site improvements, remodeling, and new construction that generate additional expenditures and jobs.

Any change in economic activity, such as the purchase of a commodity or a service, has direct and indirect effects. The direct effects are the employment, payroll and purchases of goods and services directly by the colleges. The indirect effects occur through a variety of channels. For example, when a community college hires a local printer to produce its catalogues and brochures, these orders contribute directly to the income of the local printing industry. The printers' employees spend at least some of their income locally, and these purchases contribute to the employment and the income of other local industries and services. The printers spend part of their income from the community college's orders on the supplies that they need to run their businesses. To the extent that these purchases are local, they contribute to the incomes of employees in other industries, who in turn spend their incomes on still other goods and services with these effects again induced by the college's initial purchase.

IMPLAN Pro economic modeling software was used to produce estimates of the indirect economic impacts of Parkland College, based on the direct impacts. Direct impacts are simply the set of expenditures or employment applied to the predictive model for impact analysis. Indirect impacts are then derived as additional effects caused by industries purchasing from other industries. Induced impacts take into account the spending in the local economy of the new income generated by the new employment produced from the impact.

Data provided by Parkland College to the Illinois Community College Board (including wages, salaries, and capital costs) identified $53.7 million in operating expenditures during fiscal year 2020. Parkland College paid over $37.7 million in wages and benefits to their 1,024 employees that lived in the region. These direct impacts rippled through the economy creating additional jobs, payrolls, and other economic activity. These impacts are summarized below in Figure 44. About 1,244 jobs in the district could be attributed to the college operations. These operations were associated with about $85.7 million in economic output (equivalent to total sales of a business or total spending of a government enterprise). Value added, which is a measure similar to Gross State Product, totaled over $58.7 million.

Figure 44. Parkland Community Colleges' Operational Expenditures Output and Employment Impact - FY2020

Impact Type	Direct Effect	Indirect Effect	Total Effect
Employment	1,024	220	1,244
Output	$53,719,879	$31,945,236	$85,665,115
Total Value Added	$39,552,791	$19,165,916	$58,718,708
Employee Compensation	$37,700,430	$9,855,484	$47,555,915

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