Professional/Technical & Customized Education Monitoring Report

2016 – 2020
(Cycle 22)

CORE THEME I: Workforce and Economic Development

Objective 1: Provide quality professional/technical education for employment, skills enhancement, and career development.

Objective 2: Partner with business, community groups, and other educational entities to provide workforce development and customized programs and services.

May 19, 2021

Professional/Technical & Customized Education Monitoring Report

Lower Columbia College's Key Performance Indicators were initially established in 1999 through a strategic planning process. The framework was updated in 2007, and revised in 2011 with the adoption of the Northwest Commission on Colleges and Universities new standards for accreditation.

Key Performance Indicators for Professional/Technical and Customized Education include:
- Student performance
- Demonstration of program competencies
- Licensure/exam rates
- Placement rate in the workforce
- Employer satisfaction
- Client assessment of programs and services

Enrollment data is also included in the report.

Some of the actions that have come about as a result of reviewing data in this report include:

- Through increased marketing with industry, K12, and community partners, enrollment increased in several areas.
- LCC saw a significant increase in the demand for apprenticeship programs offering a combination of academic and continuing education courses (approximately 80 new participants) in areas such as advanced manufacturing, machine trades, and early childhood education.
- Workforce Education programs continued to strengthen career and technical pathway alignment and relationships with K12 and industry through the integration of professional-technical advisory committees and CTE dual-credit offerings. The college and K12 CTE Directors partnered with business and industry to jointly develop agendas and establish strategic plans based on collaborative CLNA (comprehensive local needs assessment) work. This year, LCC maintained 112 articulated courses spanning 16 school districts.
- LCC is set to make history by graduating the first cohort of BAS students in the Teacher Education program. Local K12 and industry partners along with LCC's faculty have played a vital role in keeping the program strong during the pandemic meeting extensive mitigation plans and protocol as instruction converted from online to in-person mid-year.
- LCC was awarded a $200,000 Restart grant to support the reestablishment of professional and technical programs that were disrupted due to COVID-19 and to provide alternative and innovative methods of ensuring that career pathways are available to aid economic recovery in the state of Washington. Supported programs and activities include: virtual simulation for nursing students, CDL training, toolkits and equipment for diesel technology and personal protective equipment and health monitors for several additional programs including early childhood education.

PART 1: PROFESSIONAL/TECHNICAL

Key Performance Indicator: <u>Student Performance</u>
(Mission Fulfillment = 80% for all categories)
(Stretch Goal = 85% for all categories)

Table 1: Proportion of students receiving C grades or better in workforce classes numbered 100 and above. Grades excluded: I, N, R, NA, X and V.

	2015-16	2016-17	2017-18	2018-19	2019-20
C or better (Overall)	84.3%	85.7%	86.4%	87.3%	88.7%
Male	82.9%	85.9%	83.1%	80.5%	84.3%
Female	87.7%	88.8%	90.0%	89.4%	90.7%
Students of Color	84.6%	85.5%	87.1%	85.7%	85.0%
Economically Disadvantaged	83.6%	85.2%	85.4%	85.1%	86.4%

Source: Select Kind of Student = W from Student Table, link to Transcripts for relevant year where grades not like I, N, R, V, X or NA; select dept_div, course num is >=100, gr, gr_dec, item and yrq; link to Class table using item and yrq to select INSTIT_INTENT_RECAT = "V" (Workforce Courses) from Class table.
Note: as of 2017-18, P grades included as successful grade.

Key Performance Indicator: <u>Demonstration of Program Competencies</u>
(GOALS SET BY INDIVIDUAL PROGRAMS)

Attainment of Competencies for Individual Programs
As part of the college's established Curriculum & Program Review process, all programs are required to collect and analyze data for the purpose of improving student learning outcomes. Each program review plan is unique, and addresses competencies relevant for the specific discipline. Some plans, such as Nursing and Medical Assisting, are related to external accreditation and/or industry standards. Faculty perform quarterly activities for Curriculum & Program Review according to a schedule set by the Instructional Assessment Committee. A full Curriculum & Program Review cycle lasts two years, at which point the cycle starts again.

<p style="text-align: center; color: #a0392e;">Key Performance Indicator: <u>Licensure/Exam Rates</u></p>
<p style="text-align: center; color: #1aa7d8;">(Mission Fulfillment NCLEX = exceed state benchmark of 80%; WABO = 80%; MAERB = 80%)</p>
<p style="text-align: center; color: #1aa7d8;">(Stretch Goal NCLEX = 90%; WABO = 100%; MAERB = 90%)</p>

Nursing graduates must be licensed in order to work in the field. Nursing completers must pass the NCLEX – a national, standardized nursing test. Similarly, welding completers must pass the WABO test to earn their degree. Medical Assisting completers must pass the Medical Assisting Education Review Board exam. Rates are based on the calendar year.

Table 2: Licensure Rates for Nursing, Welding, and Medical Assisting

	2016	2017	2018	2019	2020
NCLEX (National Council of State Boards of Nursing) – first time pass rate					
Registered Nurse	89%* (116/130)	85%* (77/91)	82%* (94/114)	95%* (95/100)	90% (113/126)
WABO (Washington Association of Building Officials) – first time pass rate beginning in 2018					
Welding (LCC students only)	100% (n=9)	100% (n=11)	96% (n=25)	88% (n=26)	81% (n=37)
MAERB (Medical Assisting Education Review Board) – pass rate					
Medical Assistant	100% (n = 13)	89% (n = 16)	92% (n = 12)	83% (n = 11)	**

Source: Nursing, Welding, and Medical Assisting Departments. *Numbers updated from previous monitoring reports, as of 2021 using [DOH NCLEX® School Reports](#) at www.doh.wa.gov/Portals/1/Documents/6000/669336.pdf.
**data not yet available

- NCLEX rates are by calendar year.
- MAERB rates by admission year.
- WABO rates are by calendar year.
- The number of welding students taking the WABO fluctuates for several reasons, including the fact that students decide when they want to test (whether or not their instructor thinks they are ready). Some people who are only able to be in the program for a short time opt to test sooner than others, sometimes before they're ready. Also, some student testers are only enrolled for a short refresher course (rather than a degree or certificate program) but appear in the student data nevertheless. Hiring trends can also affect students' decisions to test earlier rather than later in their program.

Key Performance Indicator: <u>Placement Rate in the Workplace</u>
(Mission Fulfillment = no more than 2% below system average for all categories)
(Stretch Goal = exceed system average for all categories)

The State Board for Community and Technical Colleges coordinates annually with Employment Security to match records of employed students to determine employment placement rates. Students who continue their education in the Washington system are excluded from totals.

Table 3: Employment Rates for Lower Columbia College
(Indicates year students were employed—having completed studies the prior year)
Percent of Completers Placed in UI-Covered Jobs or Continuing Education

	2015-16	2016-17	2017-18	2018-19	2019-20
LCC: Overall	**79%**	**80%**	**74%**	**86%**	**76%**
Male	73%	78%	69%	85%	65%
Female	84%	80%	77%	86%	81%
Students of Color	70%	79%	73%	86%	73%
System Average: Overall	77%	77%	76%	77%	77%
Male	76%	78%	74%	75%	74%
Female	77%	78%	77%	79%	79%
Students of Color	76%	77%	76%	79%	79%

Source: SBCTC After College Outcomes Dashboard, Prof/Tech Placement View, located at sbctc.edu/colleges-staff/research/data-public/after-college-outcomes-dashboard.aspx. Excludes those who are self-employed and work out of state.

Key Performance Indicator: <u>Employer Satisfaction</u>
(Mission Fulfillment = 90%)
(Stretch Goal = 100%)

Table 4: Employer ranking of LCC Graduates' professionalism

	2015-16	2016-17	2017-18	2018-19	2019-20
Professionalism is "Average" or "Above Average" ("Exceeds Expectations" or "Meets Standard" from Nursing survey; "Strongly Agree" or "Agree" from Medical Assisting survey)	98% (n = 93)	97% (n = 140)	99% (n=77)	99% (n=116)	100% (n=69)

Source: Employer Feedback Survey and Early Childhood Education (ECED) Employer Survey. Starting in 2015-16, included Nursing Graduate Employer Survey. Starting in 2018-19, included Medical Assisting Employer Survey.

- Survey methodology includes surveying members of LCC's Professional/Technical Advisory Committees in addition to other employers including employers of Nursing, Medical Assisting and Early Childhood Education graduates.

Professional/Technical Enrollment

The professional/technical enrollment summary presents the annualized FTE (Full Time Equivalent) of all state-funded professional/technical enrollments by Institutional Intent. Enrollment of Worker Retraining students has a major impact on Professional/Technical programs.

Table 5: Professional Technical Enrollment Summary (state funded only)
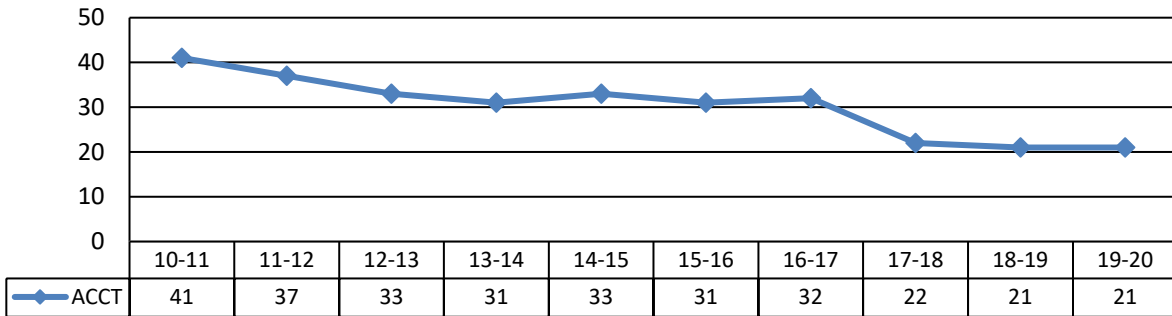
	Prof/Tech FTE	Worker Retraining FTE
2015-16	699	109
2016-17	606	103
2017-18	574	110
2018-19	548	165
2019-20	569	187
1 year change	+4%	+13%
5 year change	-19%	+72%

Source: Data Warehouse, Access Monitoring Report for Prof/Tech FTE and Worker Retraining FTE. 2018-19 Worker Retraining FTE corrected from previous report.
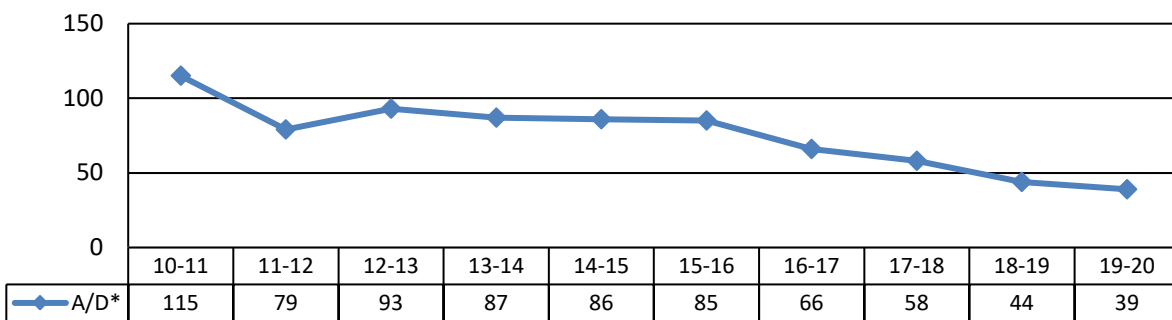
- In 2019-20, Professional/Technical and Worker Retraining enrollment increased.

Figure 6: Professional Technical Enrollment by Discipline (annual state funded FTE)
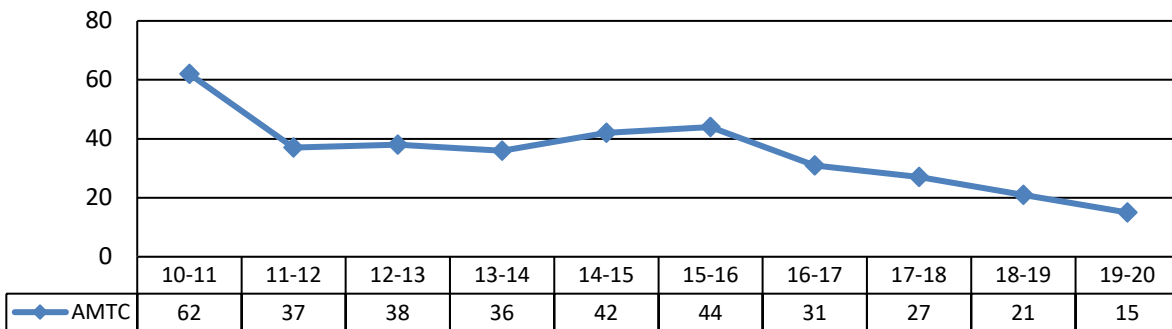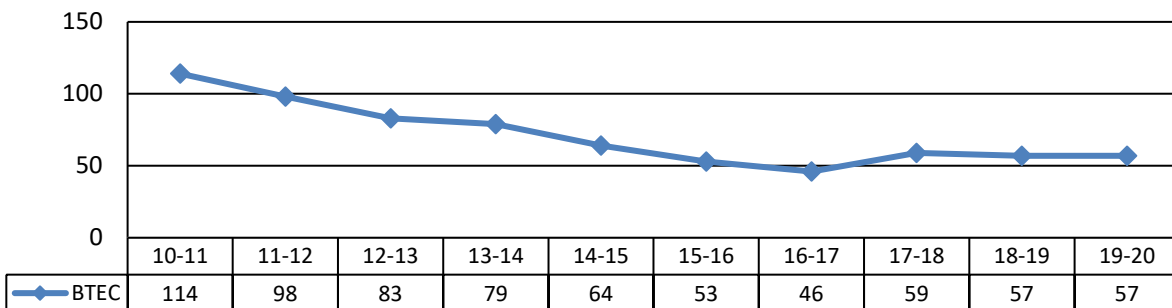
Accounting

	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20
ACCT	41	37	33	31	33	31	32	22	21	21

Auto/Diesel (combined; see also Automotive Tech and Diesel & Heavy Equipment)

	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20
A/D*	115	79	93	87	86	85	66	58	44	39

Automotive Technology

	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20
AMTC	62	37	38	36	42	44	31	27	21	15

Business Techology

	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20
BTEC	114	98	83	79	64	53	46	59	57	57

Business

	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20
BUS	150	137	132	125	109	106	94	99	91	79
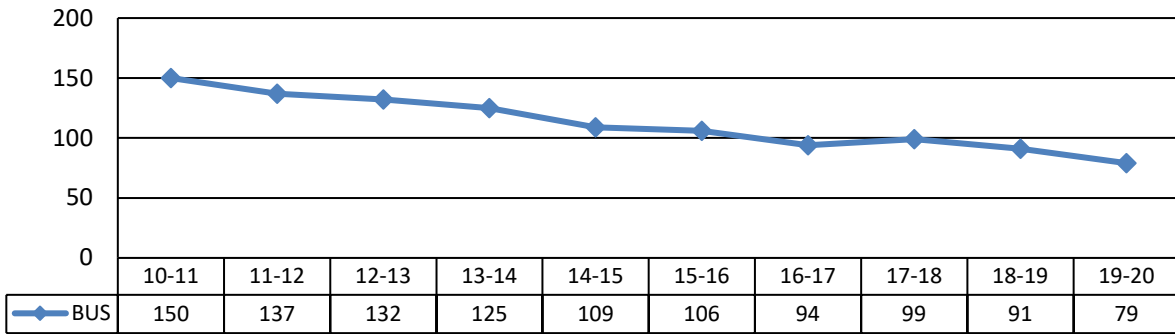
Chemical Dependency Studies

	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20
CDS	28	28	25	26	23	24	20	18	22	20

Criminal Justice

	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20
CJ	20	17	17	20	17	11	10	14	14	14
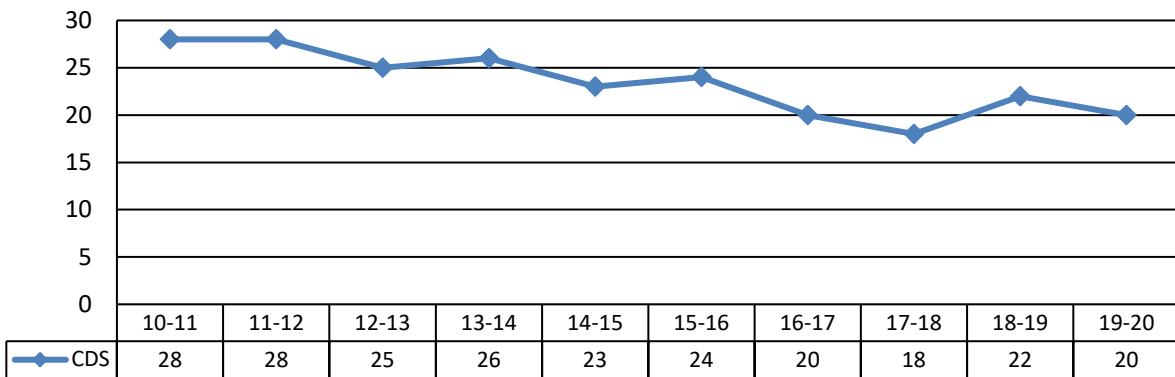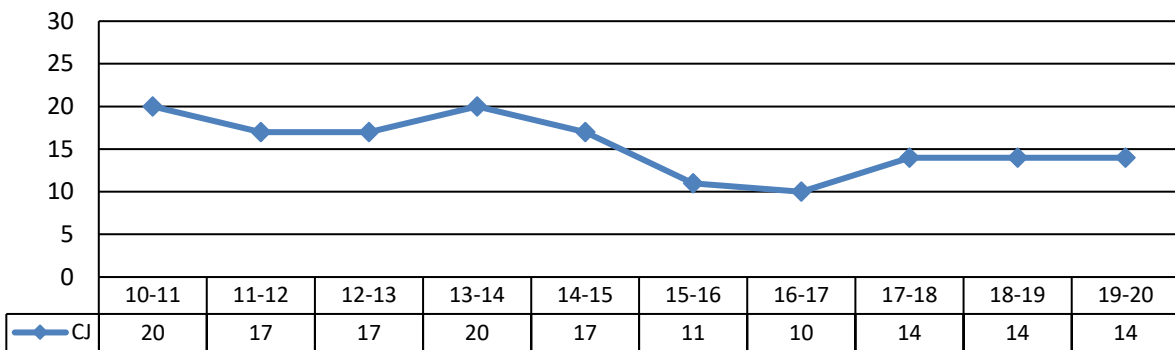
Diesel/Heavy Equipment Technology

	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20
DHET	53	42	55	52	44	42	35	31	23	24

Early Childhood Education

	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20
ECED	33	37	26	34	33	28	20	24	32	36

Education

	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20
EDUC	12	11	13	19	18	16	15	18	20	50
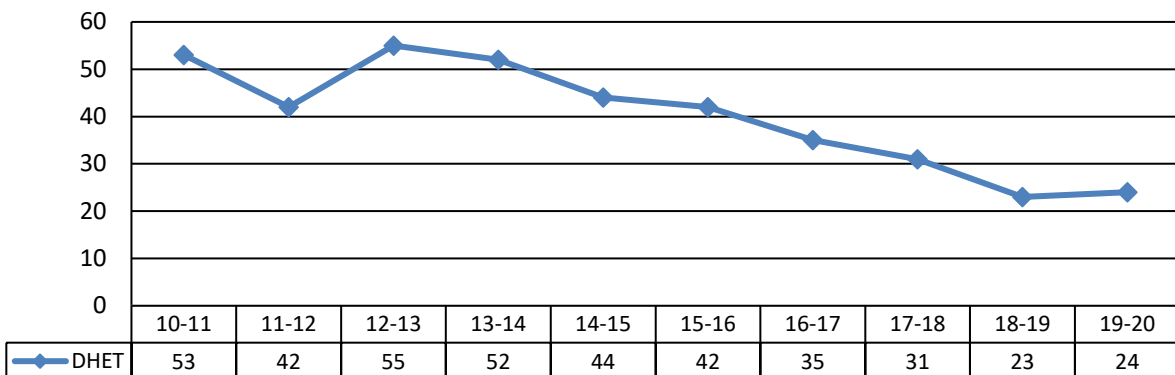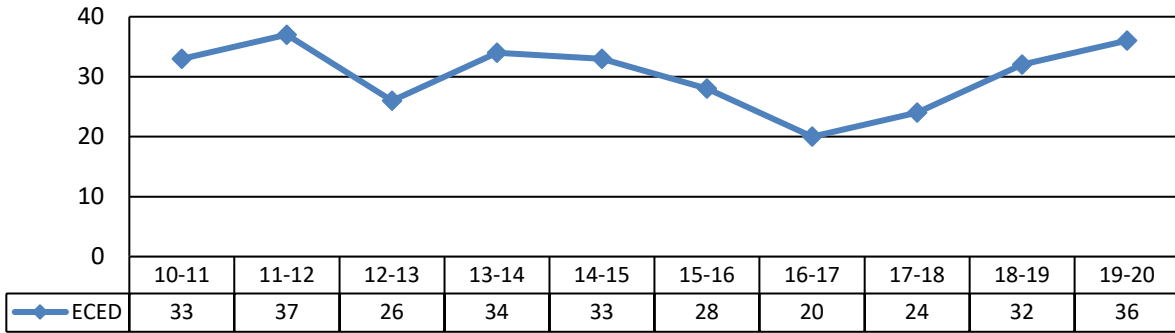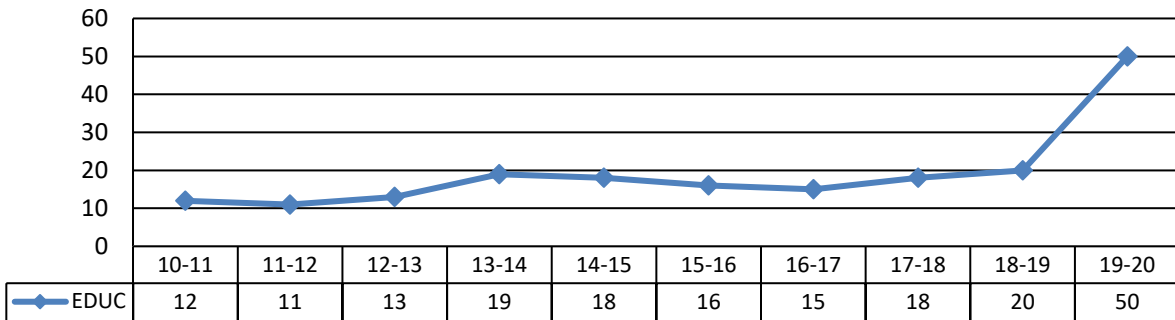
Information Technology / Computer Science

	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20
CS/IT	109	92	85	85	83	77	71	43	24	19
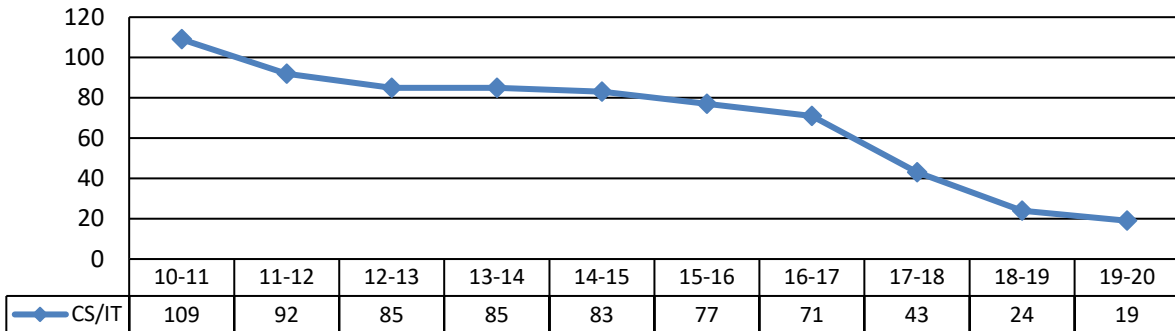
Note: includes IT FTEs beginning 2017-18.

Machine Trades

	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20
MASP	19	19	22	22	17	15	21	18	17	19

Medical Assisting

	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20
MEDA	27	28	27	28	30	33	32	35	29	20
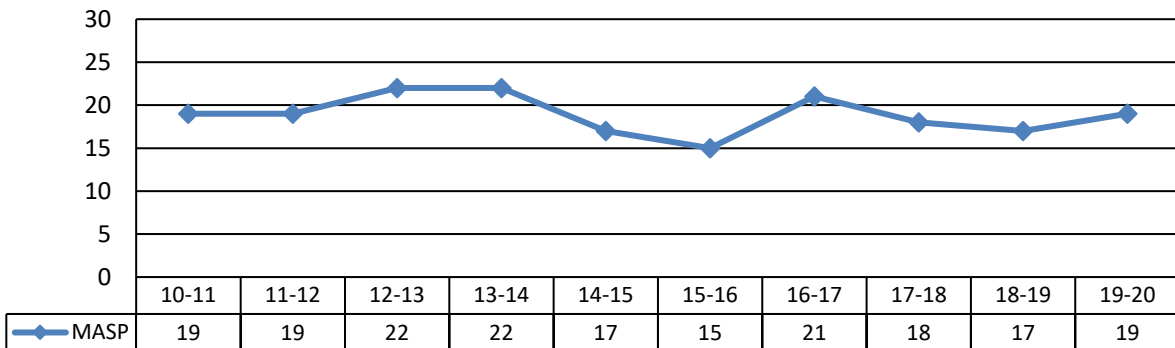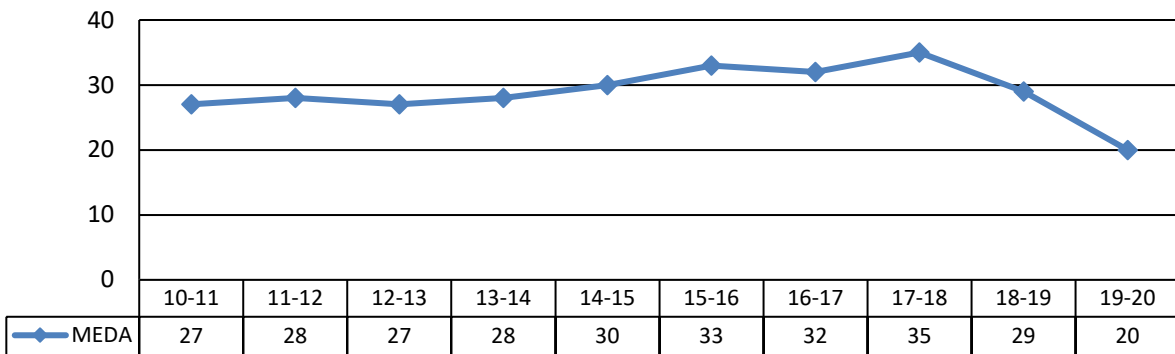
Manufacturing/Process Manufacturing (previously PULP)

	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20
MFG/PMFG	21	14	17	14	9	11	9	8	13	16
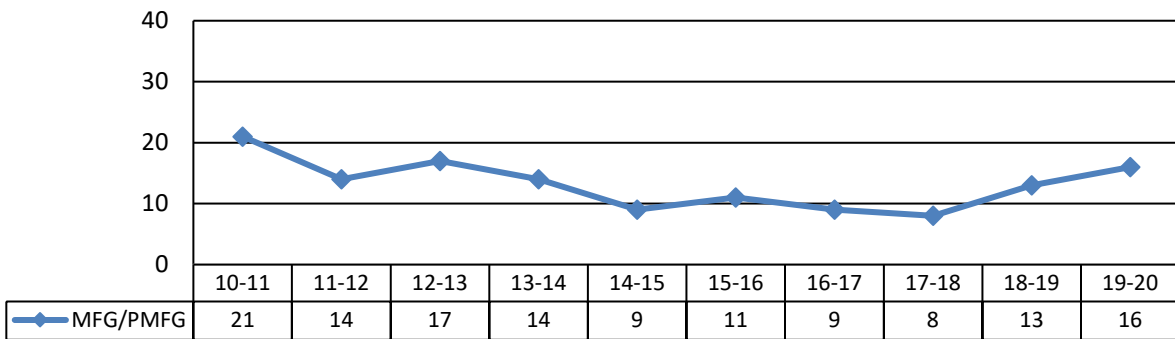
Nursing (including RN, LPN and Nursing Assistant)

	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20
NURS	206	185	167	170	171	150	137	133	127	129

Welding

	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20
WELD	59	55	49	50	45	42	33	28	26	30
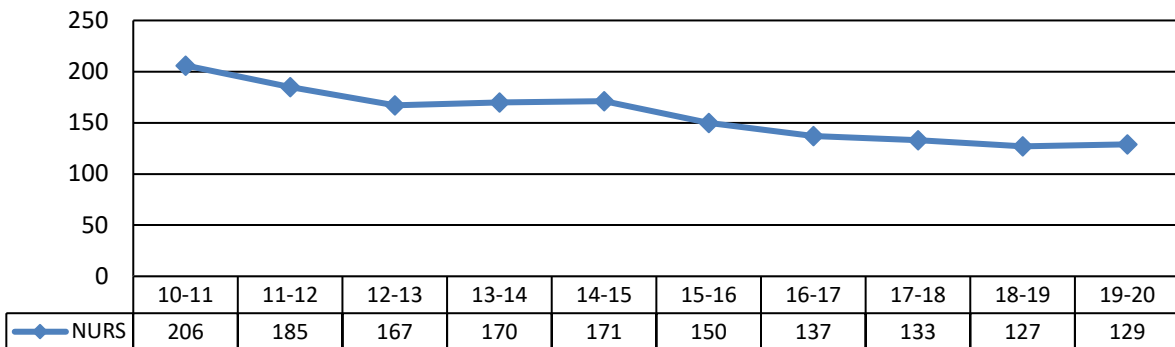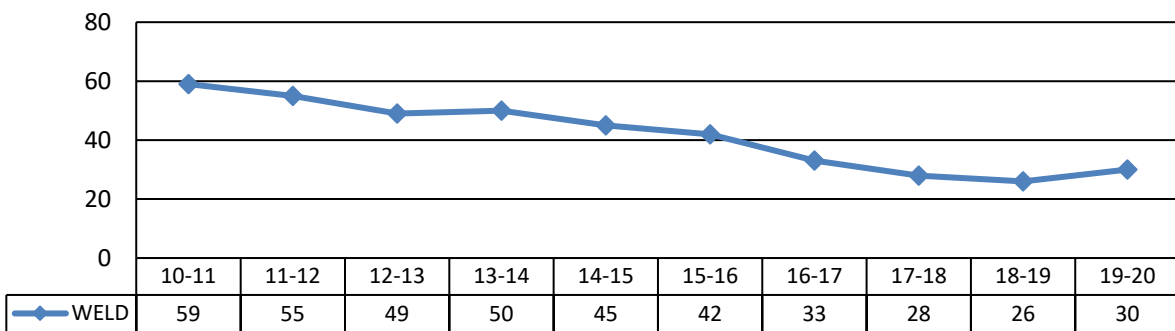
Source: Data Warehouse, Class Table (DEPT_DIV, COURSE_NUM, ITEM, YRQ, FTES_STATE/3).

College Level English & Math Completion (Professional Technical Students)

Table 7a: College Level English Completion in First Year

	2015-16	2016-17	2017-18	2018-19	2019-20
LCC Rate: Overall	**35%**	**37%**	**24%**	**27%**	**34%**
Full-time	48%	50%	33%	39%	47%
Part-time	19%	25%	15%	16%	23%
Male	26%	33%	19%	25%	24%
Female	38%	38%	25%	29%	38%
Need-Based Aid*	36%	46%	22%	31%	33%
System Rate^: Overall	27%	27%	26%	27%	29%
Full-time	33%	32%	31%	31%	35%
Part-time	18%	20%	18%	19%	20%
Male	25%	26%	24%	25%	28%
Female	29%	28%	27%	28%	30%
Need-Based Aid*	36%	35%	33%	33%	36%

Source: SBCTC First-Time Entering Student Outcomes Dashboard, located at https://www.sbctc.edu/colleges-staff/collegeaccess/research-data/first-time-entering-student-outcomes-dashboard.aspx. Credit Milestones View (All cohorts, Professional Technical students, summer/fall start). See dashboard for "n" size, college access only.

*Students who received need-based aid.   ^All Other Colleges.

Table 7b: College Level English Completion in First Year by Race/Ethnicity

	2015-16	2016-17	2017-18	2018-19	2019-20
LCC Rate: Overall	**35%**	**37%**	**24%**	**27%**	**34%**
American Indian or Alaska Native	50%	41%	*	20%	46%
Asian	24%	43%	19%	13%	30%
Black or African American	25%	*	24%	*	33%
Hispanic or Latino	36%	45%	38%	38%	30%
Native Hawaiian or other Pacific Islander	*	*	*	*	*
White	34%	37%	24%	28%	37%
System Rate^: Overall	27%	27%	26%	27%	29%
American Indian or Alaska Native	27%	25%	27%	29%	29%
Asian	25%	26%	24%	25%	29%
Black or African American	24%	24%	24%	22%	25%
Hispanic or Latino	31%	28%	30%	30%	32%
Native Hawaiian or other Pacific Islander	25%	25%	25%	26%	31%
White	28%	28%	27%	28%	30%

Source: SBCTC First-Time Entering Student Outcomes Dashboard, located at https://www.sbctc.edu/colleges-staff/collegeaccess/research-data/first-time-entering-student-outcomes-dashboard.aspx. Credit Milestones View (All cohorts, Professional Technical students, summer/fall start). See dashboard for "n" size, college access only.

*Less than 10 students; redacted to protect student privacy.   ^All Other Colleges.

Table 8a: College Level Math Completion in First Year

	2015-16	2016-17	2017-18	2018-19	2019-20
LCC Rate: Overall	**21%**	**23%**	**28%**	**26%**	**24%**
Full-time	29%	29%	35%	40%	31%
Part-time	11%	17%	21%	13%	18%
Male	20%	19%	28%	36%	20%
Female	21%	25%	28%	23%	26%
Need-Based Aid*	19%	25%	28%	32%	25%
System Rate^: Overall	17%	17%	17%	19%	19%
Full-time	21%	21%	21%	22%	23%
Part-time	12%	12%	12%	13%	13%
Male	19%	19%	18%	20%	20%
Female	16%	16%	16%	18%	19%
Need-Based Aid*	21%	20%	21%	22%	23%

Source: SBCTC First-Time Entering Student Outcomes Dashboard, located at https://www.sbctc.edu/colleges-staff/collegeaccess/research-data/first-time-entering-student-outcomes-dashboard.aspx. Credit Milestones View (All cohorts, Professional Technical students, summer/fall start). See dashboard for "n" size, college access only.
*Students who received need-based aid.   ^All Other Colleges.

Table 8b: College Level Math Completion in First Year by Race/Ethnicity

	2015-16	2016-17	2017-18	2018-19	2019-20
LCC Rate: Overall	**21%**	**23%**	**28%**	**26%**	**24%**
American Indian or Alaska Native	19%	6%	*	20%	23%
Asian	52%	14%	38%	40%	15%
Black or African American	6%	*	12%	*	17%
Hispanic or Latino	14%	32%	21%	26%	21%
Native Hawaiian or other Pacific Islander	*	*	*	*	*
White	20%	24%	27%	27%	25%
System Rate^: Overall	17%	17%	17%	19%	19%
American Indian or Alaska Native	14%	15%	16%	16%	18%
Asian	19%	20%	17%	18%	22%
Black or African American	11%	11%	12%	14%	14%
Hispanic or Latino	15%	15%	17%	19%	18%
Native Hawaiian or other Pacific Islander	11%	14%	16%	17%	20%
White	19%	19%	19%	20%	21%

Source: SBCTC First-Time Entering Student Outcomes Dashboard, located at https://www.sbctc.edu/colleges-staff/collegeaccess/research-data/first-time-entering-student-outcomes-dashboard.aspx. Credit Milestones View (All cohorts, Professional Technical students, summer/fall start). See dashboard for "n" size, college access only.
*Less than 10 students; redacted to protect student privacy.   ^All Other Colleges.

PART 2: CUSTOMIZED EDUCATION

Key Performance Indicator: Client assessment of programs and services
(Mission Fulfilment = 90%)
(Stretch Goal = 100%)

Table 9: Evaluation of Corporate & Continuing Education

The following evaluations were administered across a variety of Corporate & Continuing Education courses in 2019-20 (including 146 responders). Respondents ranked each category on the following scale: Exceeded Expectations, Met Expectations, or Needs Improvement.

	2015-16	2016-17	2017-18	2018-19	2019-20
Percent indicating that overall expectations were met or exceeded.	99%	98%	98%	99%*	99%**

Source: Corporate & Continuing Education Office. *In 2018-19, students were counted toward this metric if they answered "Yes" to "Overall, were you satisfied with the course?" **In 2019-20, students were counted toward this metric if they answered "Yes" to "Overall, were you satisfied with the course?" or answered "Excellent" or "Good" to "Please indicate the rating that best reflects your overall evaluation of this session."

- Client satisfaction remains strong.

EDUCATION, TRAINING AND TESTING ACTIVITIES

Table 10: Continuing Education Enrollment: Duplicated Headcount

2015-16	2016-17	2017-18	2018-19	2019-20	1 yr Δ	5 yr Δ
2,131	2,018	2,109	1,842	892	-52%	-58%

Source: Fact Book/Continuing Education office. Winter 2019 – Unable to continue Better Bones and Balance due to loss of facility funding.

- Enrollment in Continuing Education activities is trending down.
- Due to COVID-19, most Spring 2020 classes were canceled.

Table 11: Pre-Employment Testing (Work Keys, etc.) Unduplicated Headcount

2015-16	2016-17	2017-18	2018-19	2019-20	1 yr Δ	5 yr Δ
294	455	332	385	130	-66%	-56%

Source: Fact Book/Testing Office/Continuing Ed Office.

- Numbers are lower for 2019-20 due to disruptions in testing caused by relocating the testing center, which also required recertification with Pearson and Castle, as well as Covid-19 interrupting testing beginning in March 2020.

Table 12: Other Testing Exams: Duplicated Headcount

Exam	2015-16	2016-17	2017-18	2018-19	2019-20
Pre-Employment Testing (Work Keys)	294	455	332	385	130
NREMT (EMT Test)	151	166	165	159	31
Educator Licensing Exams (NES, West-B, ORELA)	259	232	289	304	115
Automotive Service Excellence (ASE)	281	206	125	154	43
ASE Student Entry-Level Certification	**	**	**	26	11
CLEP (Prior Learning Assessment)	25	25	45	23	15
Certiport (Microsoft Office Certification)	146	251	200	202	93
Pesticide Testing (Washington State Department of Agriculture)	241	327	379	455	62
IT Exams (Comptia, Cisco, Microsoft, Juniper Networks)	43	41	41	45	24
ParaPro (certification exam for paraprofessional educators)	*	103	91	84	61
Castle Worldwide (ACE certification, BPS, certification, and others)	*	17	17	14	10
Medical Certification Exams (Pharmacy Tech, ACSM, PTI)	**	**	**	15	4
GED Passer Reports	50	97	100	87	45

Source: Fact Book/Testing Office. *Data not available because test newly offered in 2016-17. **Data not available because test newly offered in 2018-19.

Numbers are lower for 2019-20 due to disruptions in testing caused by relocating the testing center, which also required recertification with Pearson and Castle, as well as Covid-19 interrupting testing beginning in March 2020.

Lower Columbia College
Professional/Technical Monitoring Report
Analysis from the Review Team

Members include: Tamra Gilchrist & Karen Joiner, co-chairs, Randy Byrum, Leszek Cromwell, Dana Cummings, Liz Engel, Sarah Griffith, Heidi Hamer, Elissa Loren, Anita Quirk, Connie Ramos, Stefan Rijnhart, David Rosi, Vicky Soladey, Stefanee Sorgenfrei, Dani Trimble, Nonnie Weaver, Ann Williamson, Jill Yates.

1) **Based on the data in this report, what are LCC's strengths in providing professional/technical preparation and customized education?**
    - Student performance is a strength.
    - Our female student employment rate is higher than the system average.
    - The rate of employer satisfaction is very high, and we met our stretch goal for the first time.
    - The addition of the Bachelor of Science in Teacher Education (BAS-TE) program resulted in large enrollment gains for education.
    - Completion of college level English in the first year is strong, both in terms of comparison to the system average and our own increase between last year and the year before.
    - We are higher than the state in terms of college level math completion in the first year, even though we are down slightly from the prior year.

2) **Based on the data in this report, what are LCC's weaknesses in providing professional/technical preparation and customized education?**
    - Our male student employment rate is substantially below the state average, which also dropped between last year and the year before.
    - We are below the state rate for males, economically disadvantaged and Hispanic students in terms of college level English completion in the first year.
    - Although "n" size may be an issue, college level math completion in the first year is a concern for Asian students.
    - Although heavily impacted by the pandemic in 2019-20, the downward enrollment trend in continuing education is concerning.

3) **Based on the data in this report, what are LCC's opportunities for providing professional/technical preparation and customized education?**
    - The only demographic group that fell below our stretch goal for student performance was male students. There may be an opportunity to increase male student participation in support programs and services.
    - The new career navigator position creates an opportunity to provide better career planning and engagement with diverse student populations.
    - Although the results are extremely strong, we may be able to increase the number of respondents to our employer satisfaction survey. One strategy is to increase direct faculty engagement with employers, to encourage them to provide feedback about our graduates via the survey.

- We should continue to try to attract new students to our workforce programs, and work with employers to better understand industry needs and trends.
- Developing additional strategic Bachelor of Applied Science (BAS) pathways could result in increased enrollment.
- Given the downward enrollment trend in continuing education, we should continue to strive for the perfect balance between community need and financial sustainability.
- The new vocational building, recently approved for the design phase by the Washington Legislature, creates a number of opportunities for LCC in terms of workforce programs.
- The increase in popularity of apprenticeships provides several opportunities for pathway development, including for paraeducators.

4) **Based on the data in this report, what are LCC's threats for providing professional/technical preparation and customized education?**
   - The pandemic and our subsequent economic recovery pose a potential threat, as recovery may be inconsistent across industry sectors and demographic groups. We may see some major impacts on our employment rate in future years.

Board Plus/Delta

"What is good about this report and what would you like to see changed?"

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