

## Coordinating Commission for Postsecondary Education Review of Existing Instructional Programs

**Institution:** Central Community College

**Program:** Medical Laboratory Technician

I certify the following:

- the information provided regarding this program is accurate
- the above named institution has in place a procedure for reviewing instructional programs
- such review took place and was presented to the institution's governing board on **May 16, 2024 PENDING**
- the governing board's action was: **Approved PENDING**

Signed: \_\_\_\_\_  
(Chief Academic Officer or designated representative)

\_\_\_\_\_  
(Date)

### Evidence of Demand and Efficiency

		18-19	19-20	20-21	21-22	22-23	5 yr avg
<b>Student Credit Hours (SCH)</b>		434	507	518	335	405	440
<b>Faculty Full-time Equivalency (FTE)</b>		2.13	2.10	1.55	1.65	3.11	2.11
<b>SCH/Faculty FTE</b>		203.76	241.43	334.19	203.03	130.18	<b>208.44</b>
<b>Number of Degrees and Awards</b>  <i>(list degrees/awards separately)</i>	<b>AAS</b>	10	9	7	9	10	9.0
	<b>Total Awards</b>	10	9	7	9	10	9.0
	<b>Total Graduates</b>	10	9	7	9	10	9.0

**Evidence of Need** (provide a detailed explanation below or attach documentation)

(See attached)

**Justification if the program is below either of the CCPE thresholds—complete page 2**

\_\_\_\_\_  
For CCPE use: reviewer/date

**Justification if the program is below CCPE thresholds—check one or more boxes and provide a detailed explanation or attach a document**

X	<p>Program is critical to the role and mission of the institution (detailed explanation).</p> <p>CCC's MEDT program has served a critical role by training students who work in local hospitals, clinics, and other facilities to provide skills necessary to operate. CCC's training and courses are fast, affordable, flexible and high-demand. Without the program, Nebraska employers would suffer shortages of medical laboratory technicians.</p>
X	<p>Program contains courses supporting general education or <b>other programs</b> (detailed explanation).</p> <p>This program utilizes a newly created phlebotomy course that has been popular as a course taken prior to starting many of the other health sciences programs at the institution. It is also serving as a stand-alone training for clinics and facilities who choose to give their students more skills in the phlebotomy arena.</p>
	<p>Interdisciplinary program (providing the program meets the requirements set in the existing policy for interdisciplinary programs) (explain).</p>
X	<p>Student or employer demand, or demand for intellectual property is high and external funding would be jeopardized by discontinuing the program (explain).</p>
X	<p>Program provides unique access to an underserved population or geographical area (explain).</p> <p>Growth in the CWE phlebotomy workshops will fill a critical entry-level gap in the medical laboratory for our service area while introducing the potential to use the MEDT program for continued professional development. The employment outlook continues to stay strong. Relationships with clinical sites and the advisory board remain very positive as they continue to advocate for the program by supporting our institution with qualified adjunct faculty and hiring our graduates. Mary Lanning, a local hospital partner recently has had such a demand for these positions in their laboratory, they partnered with an international agency to hire employees from other countries to fill gaps in their employment needs. These contracts are temporary but essential until enough students have graduated from institutions to fill the workforce need.</p> <p>Current programming at GISH is entering it's 2<sup>nd</sup> year in the process of offering medical laboratory technician courses in the high schools. CCC has developed a partnership that allows students to attend these classes and labs here on campus, while also utilizing an instructor at the GISH building for the online/didactic portions.</p>
X	<p>Program meets a unique need in the region, state, or nation (explain).</p> <p>Clinics and other medical facilities have reached out for training to assist their current staff in skills offered through programming and courses in the MEDT program. CCC's program provides lab and phlebotomy skills necessary for maintenance and gaps filled in clinics that serve children, prenatal, and infant populations.</p>
	<p>Program is newly approved within the last five years (no additional justification needed).</p>
	<p>Other (detailed explanation).</p>



## **Medical Laboratory Technician**

### **Coordinating Commission Seven-Year Review 2024**

*Information in this report reviewed and recommended to cabinet:*

Central Community College Educational Services, 04/25/2024

*Recommended continuation of programs without monitoring:*

Central Community College College Cabinet, 05/02/2024

Central Community College Board of Governors, 05/16/2024 **PENDING**

**Hailey Morrow** – Program Director  
**Janet Rasmussen** – Program Faculty

**Kerri Dey, M.S.** – Associate Dean of Instruction, Health Sciences  
**Sarah Kort, Ed.D.** – Associate Dean of Instruction, Health Sciences  
**Marcie Kemnitz, Ed.D.** – Division Vice President, Health Sciences

## **Medical Laboratory Technician**

### *Program Review Summary – Dr. Sarah Kort*

The MEDT program prepares medical laboratory technician students for careers within the medical laboratory profession. The program is accredited by NAACLS (National Accrediting Agency for Clinical Laboratory Sciences) and prepares medical laboratory technician students with entry-level competencies as defined by NAACLS which are nationally accepted standards of practitioner roles and functions.

The program prides itself in responding to industry needs using the latest technology and state-of-the-art equipment in an attractive, safe laboratory environment that is well maintained and reflects a professional working environment. They value collaboration with other MLT programs, secondary schools, certified laboratories, and employers, as well as ongoing relationships with graduates as lifelong learners and supporters of the program.

The profession itself is in preparation for upcoming retirements of laboratory professionals. This information paired with continuing communications from the National Accrediting Agency for Clinical Laboratory Sciences and the College of American Pathologists, indicating the decreasing number of colleges offering medical laboratory technology programs, continues to reinforce the strong need for CCC's Medical Laboratory Technician program. Evidence supports the CCC service area will see a 7.1% increase in job demand, with the entire state looking at a 6.6% increase. This is an extreme positive for students seeking employment during and after obtaining their education through our doors.

In addition to increased job posting activity, the projected rise in compensation indicates wages and benefits continue to increase for laboratory professionals in our area, along with increased offerings of hiring bonuses, investment scholarships, and tuition reimbursement/assistance for new hires. The ESMI report Graduate Pipeline data continues to indicate that there are significantly more job openings in our area than program graduates.

The medical laboratory technician program continues to grow and expand. A recent emphasis on phlebotomy has given the program opportunity to add a phlebotomy worker training and a 12-credit certificate. The phlebotomy certificate ladders into the AAS degree and we anticipate the result being an additional demand for the program and awards. Additionally, several MEDT courses, including a Phlebotomy course, are offered at Grand Island High School as dual credit, creating a pipeline of students in future years. Students also have an opportunity to pursue higher educational goals and achieve additional awards with conversations and partnerships being developed with UNMC.

Based on the strong industry need in our 25 county area as well as new program opportunities and partnerships, we anticipate continued growth and expansion of the program. Healthcare facilities and partners also continue to demonstrate a need for medical laboratory technician employees who possess critical skills offered and earned here at Central Community College. With this, we recommend continuation of the program.

**Program: Medical Laboratory Technician**

**I. College Mission: Central Community College maximizes student and community success.**

**II. College Vision: To be the best choice in our service area for:**

Facilitating students' achievement of lifelong educational goals of a quality education provided by exceptional faculty and staff and leading to profitable employment options, successful credit transfer and continued learning. This can be done through individualized attention and valued as a positive return on investment.

Developing a skilled workforce through work-based learning partnerships and entrepreneurship opportunities while utilizing modern facilities, technologies and alumni advocates.

Advancing communities through public and private partnerships to create future civic contributors, economic developers and sustainability leaders.

**III. Program Mission Statement:**

The Medical Laboratory Technician (MLT) program will prepare students for employment in a variety of medical facilities such as medical, clinical, research and public health laboratories.

**IV. Program Vision Statement:**

The Medical Laboratory Technician program will be the educational choice for MLT students and employers in Nebraska. All graduates will attain the appropriate certification and employment in the laboratory field. The program will exceed the standards set forth by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS). (5600 N. River Road, Suite 720, Rosemont, IL 60018-5119, Phone 773-714-8880)

We value:

-The use of state-of-the-art equipment in an attractive, safe laboratory environment that is well maintained and reflects a professional working environment.

-Collaboration with other MLT programs, secondary schools, certified laboratories, and employers.

-Ongoing relationships with graduates as lifelong learners and supporters of the program.

# Lightcast (EMSI) Q4 2023 Data Set

Lightcast data is a hybrid dataset derived from official government sources such as the US Census Bureau, Bureau of Economic Analysis, and Bureau of Labor Statistics. Leveraging the unique strengths of each source, our data modeling team creates an authoritative dataset that captures more than 99% of all workers in the United States. This core offering is then enriched with data from online social profiles, resumés, and job postings to give you a complete view of the workforce.

## REPORT PARAMETERS

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### 1 Occupation

#### Clinical Laboratory Technologists and Technicians (SOC 29-2018):

This occupation includes the 2018 SOC occupations 29-2011 Medical and Clinical Laboratory Technologists and 29-2012 Medical and Clinical Laboratory Technicians.

**Sample of Reported Job Titles:** Microbiology Technologist, Cytogenetics Technologist, Cytotechnologist, Histotechnologist, Specimen Processor, Histology Technician

**Related O\*NET Occupations:** Medical and Clinical Laboratory Technologists (29-2011.00), Cytogenetic Technologists (29-2011.01), Cytotechnologists (29-2011.02), Histotechnologists (29-2011.04), Medical and Clinical Laboratory Technicians (29-2012.00), Histology Technicians (29-2012.01)

## EXECUTIVE SUMMARY

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Light Job Posting Demand Over a Thin Supply of Regional Jobs



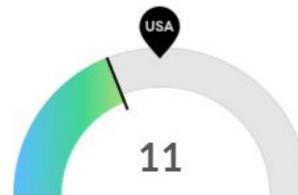
Jobs (2023)

Your area is not a hotspot for this kind of job. The national average for an area this size is 361\* employees, while there are 260 here.



Compensation

Earnings are about average in your area. The national median salary for Clinical Laboratory Technologists and Technicians is \$57,418, compared to \$56,603 here.



Job Posting Demand

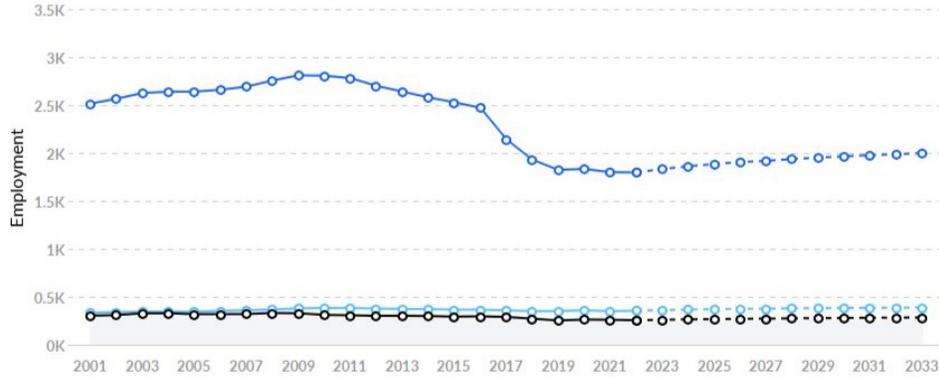
Job posting activity is low in your area. The national average for an area this size is 17\* job postings/mo, while there are 11 here.

\*National average values are derived by taking the national value for Clinical Laboratory Technologists and Technicians and scaling it down to account for the difference in overall workforce size between the nation and your area. In other words, the values represent the national average adjusted for region size.

# JOBS

## Regional Employment Is Lower Than the National Average

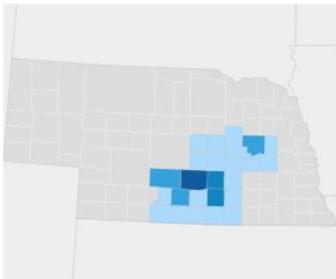
An average area of this size typically has 361\* jobs, while there are 260 here. This lower than average supply of jobs may make it more difficult for workers in this field to find employment in your area.



Region	2023 Jobs	2028 Jobs	Change	% Change
● CCC Service Area	260	275	15	5.7%
● National Average	361	379	17	4.8%
● Nebraska	1,833	1,937	104	5.7%

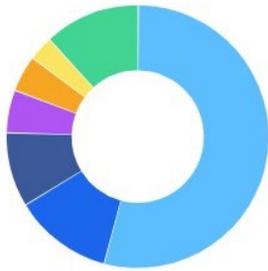
\*National average values are derived by taking the national value for Clinical Laboratory Technologists and Technicians and scaling it down to account for the difference in overall workforce size between the nation and your area. In other words, the values represent the national average adjusted for region size.

## Regional Breakdown



County	2023 Jobs
Buffalo County, NE	66
Adams County, NE	52
Hall County, NE	43
Platte County, NE	24
Dawson County, NE	16

### Most Jobs are Found in the General Medical and Surgical Hospitals Industry Sector

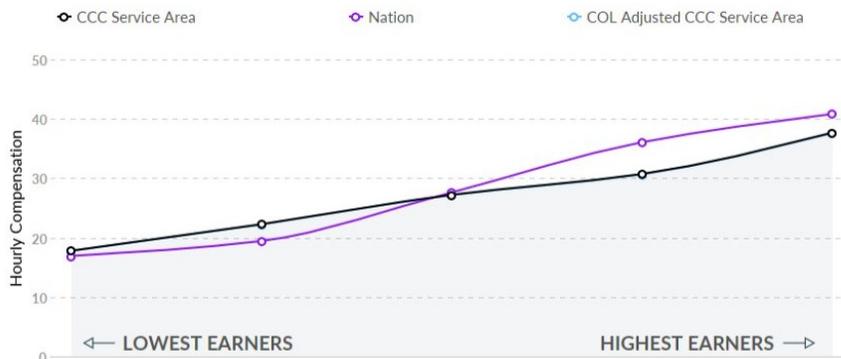


Industry	% of Occupation in Industry (2023)
General Medical and Surgical Hospitals	54.1%
Education and Hospitals (Local Government)	12.2%
Offices of Physicians	9.2%
Education and Hospitals (State Government)	5.3%
Medical and Diagnostic Laboratories	4.5%
Outpatient Care Centers	3.1%
Other	11.8%

## COMPENSATION

### Regional Compensation Is 1% Lower Than National Compensation

For Clinical Laboratory Technologists and Technicians, the 2022 median wage in your area is \$27.21/hr, while the national median wage is \$27.60/hr.



## JOB POSTING ACTIVITY



### 126 Unique Job Postings

The number of unique postings for this job from Jan 2023 to Nov 2023.



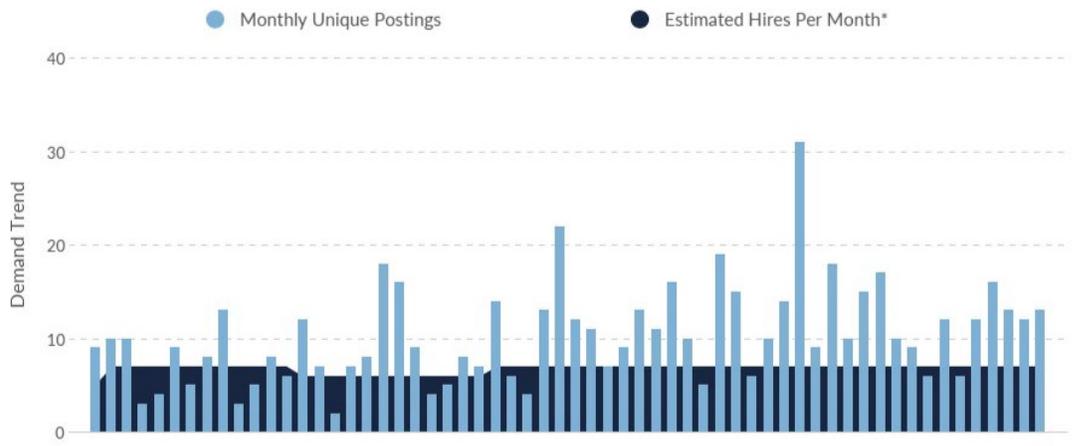
### 47 Employers Competing

All employers in the region who posted for this job from Jan 2023 to Nov 2023.



### 23 Day Median Duration

Posting duration is 2 days shorter than what's typical in the region.



Occupation	Avg Monthly Postings (Jan 2023 - Nov 2023)	Avg Monthly Hires (Jan 2023 - Nov 2023)
Clinical Laboratory Technologists and Technicians	11	7

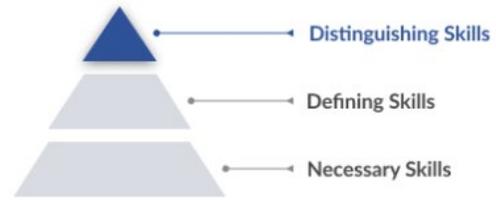
\*A hire is reported by the Quarterly Workforce Indicators when an individual's Social Security Number appears on a company's payroll and was not there the quarter before. Lightcast hires are calculated using a combination of Lightcast jobs data, information on separation rates from the Bureau of Labor Statistics (BLS), and industry-based hires data from the Census Bureau.

Top Companies	Unique Postings	Top Job Titles	Unique Postings
Bryan Health	14	Laboratory Technicians	33
Actalent	12	Medical Technologists	18
Chapman University	12	Medical Laboratory Techniciar	15
United States Department of \	5	Travel Cath Lab Technologists	7
Mars Incorporated	4	Asphalt Laborers	4
Werner Construction	4	Cath Lab Technicians	4
ADM	3	Laboratory Assistants	4
Brodstone Memorial Hospital	3	Operating Room Assistants	3
CorTech	3	Research Laboratory Manager	3
Agricultural Research Service	2	Travel Medical Technologists	3

# TOP SKILLS

## Top Distinguishing Skills by Demand

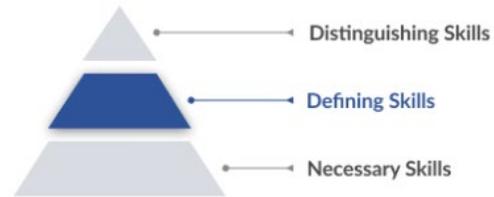
An occupation's Distinguishing Skills are the advanced skills that are called for occasionally. An employee with these skills is likely more specialized and able to differentiate themselves from others in the same role.



Skill	Salary Boosting	Job Postings Requesting
Cath Lab	✗	15
Blood Banking	✓	14
Immunology	✗	14
Laboratory Techniques	✗	3
Urinalysis	✗	2
Histology	✗	1
Laboratory Safety	✗	0
Specimen Preparation	✗	0
Specimen Handling	✗	0

### Top Defining Skills by Demand

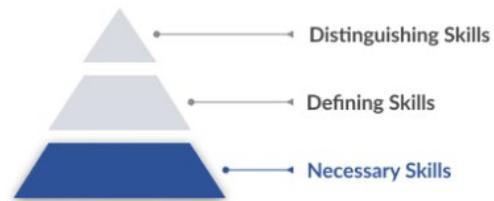
An occupation's Defining Skills represent the day-to-day tasks and responsibilities of the job. An employee needs these skills to qualify for and perform successfully in this occupation.



Skill	Salary Boosting	Job Postings Requesting
Medical Laboratory	✘	43
Laboratory Equipment	✔	42
Laboratory Testing	✘	29
Biology	✘	26
Chemistry	✘	21
Microbiology	✘	17
American Society For Clinical Pathology (ASCP) Certification	✘	16
Hematology	✘	14
Health Technology	✘	12
Laboratory Procedures	✘	10

### Top Necessary Skills by Demand

An occupation's Necessary Skills are the specialized skills required for that job and relevant across other similar jobs. An employee needs these skills as building blocks to perform the more complex Defining Skills.



Skill	Salary Boosting	Job Postings Requesting
Basic Life Support (BLS) Certification	✘	24
Phlebotomy	✘	8
Data Entry	✘	7
Standard Operating Procedure	✘	0

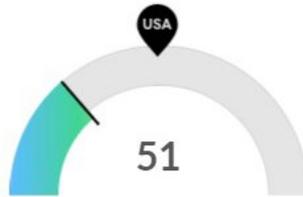
# DEMOGRAPHICS

Retirement Risk Is About Average, While Overall Diversity Is Low



**Retiring Soon**

Retirement risk is about average in your area. The national average for an area this size is 60\* employees 55 or older, while there are 57 here.



**Racial Diversity**

Racial diversity is low in your area. The national average for an area this size is 110\* racially diverse employees, while there are 51 here.

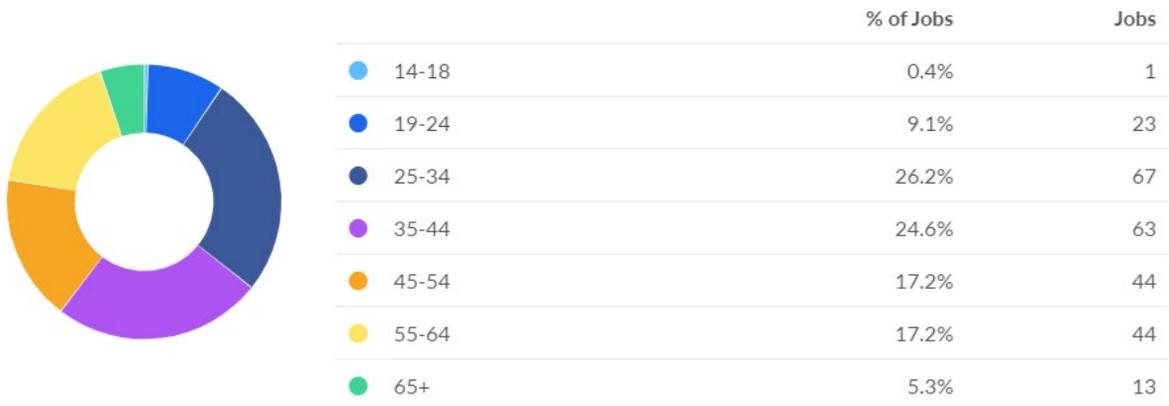


**Gender Diversity**

Gender diversity is high in your area. The national average for an area this size is 186\* female employees, while there are 208 here.

\*National average values are derived by taking the national value for Clinical Laboratory Technologists and Technicians and scaling it down to account for the difference in overall workforce size between the nation and your area. In other words, the values represent the national average adjusted for region size.

## Occupation Age Breakdown



## Occupation Race/Ethnicity Breakdown

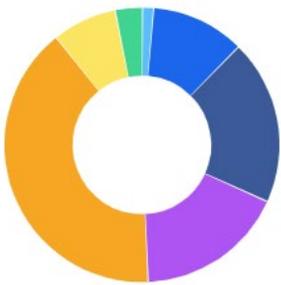


### Occupation Gender Breakdown



	% of Jobs	Jobs
Males	18.4%	47
Females	81.6%	208

### National Educational Attainment



	% of Jobs
Less than high school diploma	1.3%
High school diploma or equivalent	11.0%
Some college, no degree	19.4%
Associate's degree	17.5%
Bachelor's degree	40.0%
Master's degree	7.6%
Doctoral or professional degree	3.2%

## GRADUATE PIPELINE



1 Program

Of the programs that can train for this job, 1 has produced completions in the last 5 years.

CIP Code      Top Programs

51.1004      Clinical/Medical Laboratory Technician

Top Schools

Central Community College



9 Completions (2022)

The completions from all regional institutions for all degree types.



22 Openings (2022)

The average number of openings for an occupation in the region is 29.

Completions (2022)

9

Completions (2022)

9

### 2024 Summary of Lightcast Q4 2023 Data Set:

#### Jobs

The projected rise in compensation and job posting activity from the summary of EMSI Q4 2022 data can be seen in the EMSI Q4 2023 data. Wages and benefits continue to increase for laboratory professionals in our area, along with increased offerings of hiring

bonuses, investment scholarships, and tuition reimbursement/assistance for new hires. The EMSI report Graduate Pipeline data continues to indicate that there are significantly more job openings in our area than program graduates, with 22 openings in Q4 2023 for 9 graduates.

### *Compensation*

Wage increases driven by the national medical laboratory staffing crisis have decreased the gap between national wages and wages in our area from a 3% disparity down to 1%. As the need for staffing continues in our area, it is expected that wages will continue to increase. The inclusion of other hiring benefits seen in 2022 are also rising which could offset the remaining 1% disparity in wages for CCC graduates.

### *Job Posting Demand*

As noted in Q4 2022, the EMSI shows low job posting activity in our area that this could be due to the wide variety of job titles in use through the various sites, which could cause difficulty in accurate data collection.

Just as in the Q4 2022 report, it can be noted that the top companies listed in the EMSI report include a high number of postings from our larger area employers but again does not reflect all the sparse number postings from smaller clinics and rural access hospitals in our area. The needs of these many smaller facilities still create a substantial portion of the need in our area.

### *Demographics*

The Q4 2022 report indicated a higher increase in upcoming retirements for laboratory professionals than the Q4 2023 report. This is in slight contrast with anecdotal evidence from industry partners who state they are still concerned about the size of their staff entering eligibility for retirement. This information paired with continuing communications from the National Accrediting Agency for Clinical Laboratory Sciences and the College of American Pathologists, indicating the decreasing number of colleges offering medical laboratory technology programs, continues to reinforce the strong need for CCC's Medical Laboratory Technician program.

Central Community College's strategies to increase diversity and support all students have successfully improved the noted lack of racial diversity in our area workforce, seen in the change from 35 to 51 racial diverse employees. While there is still a significant difference between diversity in our area and the national average. It is expected that these strategies will continue to increase the diversity of our graduates and the area's workforce.

**A. Supporting Data**

The CCC service area will see a 7.1% increase in job demand, with the entire state looking at a 6.6% increase. The hourly wage for the profession keeps the profession in high demand.

Degree/ Credential Awarded	2018-19	2019-20	2020-21	2021-22	2022-23	5-yr avg
AAS	10	9	7	9	10	9.0
Diploma						
Certificate						
Total Awards	10	9	7	9	10	9.0
# of Graduates	10	9	7	9	10	9.0

**2024 Summary of Awards (2022-23 data):**

The 2022-2023 academic year finds the new hybrid program becoming well-established on the Grand Island campus. All ten students in the cohort completing their final clinical courses in July 2023 were awarded degrees as anticipated in the 2023 Summary of Awards. Academic performance in current coursework supports the expectation that all ten students will be awarded degrees in the 2023-2024 academic year.

The program recently added a focus on phlebotomy by creating a Phlebotomy Certificate that will be implemented in the Fall of 2024 which will ladder into the AAS degree. Additionally, several MEDT courses, including a Phlebotomy course, are offered at Grand Island High School as dual credit, creating a pipeline of students in future years.

The cohort starting in the Fall of 2023 includes 10 students. Through support from administrative leadership, the program introduced a Spring cohort, which allowed four more students to begin the program's first year. This brings the total number of students within the program to 22. All students are engaged and successful, leading to anticipation that all 14 students, starting in the 2023-2024 academic year, will be awarded degrees.

While the 5-year degree average for the program is less than the expected 10 awards, it is expected that this will increase with these innovative additions to the program.

**a. Student Credit Hours Produced per Faculty FTE**

	2018-19	2019-20	2020-21	2021-22	2022-23	5 yr avg*
Student Credit Hours (SCH)	434	507	518	335	405	440
Faculty Full-time Equivalency (FTE)	2.13	2.10	1.55	1.65	3.11	2.11
SCH/Faculty FTE	203.76	241.43	334.19	203.03	130.18	208.44

Source: Program Stats by Alpha and Instructor-Student FTE reports.

*\*By term analysis combined to conduct an annual review. Numbers reported reflect 3 negotiated contract periods (FA17-SU20, FA20-SU22, FA22-SU25). Numbers for 22-23 FTE reflect updated tracking method for part-time instructors.*

### **2024 Summary of the Student Credit Hours per Faculty FTE (2022-23 data):**

As forecasted in the 2023 Summary of the Student Credit Hours per Faculty FTE report, the complete transition to the curriculum in the 2022-2023 academic year with the implementation to offer all MEDT courses both Fall and Spring semester, facilitating the start of multiple cohorts during the academic year, has reduced waiting times for entry and increased flexibility for students. This has increased the attractiveness of the MEDT program to potential students and lead to an increase in students currently enrolled in the program.

While the program did not meet the 275 threshold, it did increase the number of credits taken from the previous year, which necessitated additional adjunct instructors.

### **2024 Summary Statement:**

The opportunity to begin the program with the Spring cohort and the flexibility to customize an educational plan continues to be incredibly attractive for students, as indicated by the maintenance of recruitment, retention, and graduation rates. Innovation in technologies and teaching methods are targeted to improve less successful areas of the employer and graduate surveys. Improvement efforts will also target the participation of employers and graduates in those surveys.

The new Phlebotomy certificate option will allow laddering and increased recruitment for the program. Multiple students graduating from the inaugural GISH Phlebotomy program have already applied to start the MEDT program in the next fall cohort. Growth in the CWE phlebotomy workshops will fill a critical entry-level gap in the medical laboratory for our service area while introducing the potential to use the MEDT program for continued professional development. The employment outlook continues to stay strong. Relationships with clinical sites and the advisory board remain very positive.