

LABOR MARKET ANALYSIS

FOR PROGRAM RECOMMENDATION



CENTERS OF EXCELLENCE
FOR LABOR MARKET RESEARCH

BARBERING & COSMETOLOGY IN THE GREATER SACRAMENTO REGION

North (Greater Sacramento)
Center of Excellence

JANUARY 2024

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SUMMARY

The North (Greater Sacramento) of Excellence for Labor Market Research prepared this report to provide a labor market analysis of educational supply and occupational demand for middle-skilled careers in the North (Greater Sacramento) subregion. This report aims to determine if demand in the local labor market is unmet by the supply from existing community college programs and other postsecondary training providers.

This report primarily focuses on training that leads to jobs in middle-skilled occupations - jobs that typically require education beyond a high school diploma but less than a bachelor's degree - but may include higher-skilled occupations for training pathways that lead to a bachelor's degree. Lowered skilled occupations are rarely considered in this analysis due to the lessened barriers for entry-level work, such as no formal education and fewer on-the-job training requirements.

Key findings include:

- The Greater Sacramento subregion held 9,193 barbering and cosmetology jobs in 2022. These jobs are projected to increase by 14% over the next five years, adding 1,270 new jobs to the subregion by 2027.
- In 2022, 82% of barbers and 66% of hairdressers/hairstylists were self-employed. In the same year, only 20% of manicurists and pedicurists were self-employed.
- Analysis of wage data shows that barbering and cosmetology occupations earn entry-level wages below the single adult living wage of \$18.72 per hour.
- Awards data analysis shows that North (Greater Sacramento) training providers conferred an average of 791 awards (certificates and associate degrees) in barbering and cosmetology programs over the last three academic years.

Recommendations include:

- Given that 82% of barbers and 66% of hairdressers/hairstylists are self-employed, the Center of Excellence recommends community colleges incorporate entrepreneur skills and coursework into barbering and cosmetology programs.
- The North (Greater Sacramento) Center of Excellence recommends moving forward with creating new programs and modifying existing ones in cosmetology and barbering.

INTRODUCTION

The North (Greater Sacramento) Center of Excellence (COE) was asked to provide labor market information for a proposed program at a regional community college. This report focuses on the following Standard Occupational Classification (SOC) occupations and codes:

- Barbers (39-5011)
- Hairdressers, Hairstylists, and Cosmetologists (39-5012)
- Manicurists and Pedicurists (39-5092)

A review of related programs revealed the following Taxonomy of Programs (TOP) title(s) and code(s) are proper for inclusion in this report:

- Cosmetology and Barbering (3007.00)

The corresponding Classification of Instructional Program (CIP) title(s) and code(s) are:

- Cosmetology/Cosmetologists, General (12.0401)
- Barbering/Barber (12.0402)
- Hair Styling/Stylist and Hair Design (12.0407)
- Nail Technician/Specialist and Manicurist (12.0410)

OCCUPATIONAL DEMAND

Exhibit 1 summarizes the five-year projected job growth for the studied occupations in North (Greater Sacramento)¹, North/Far North, and California.

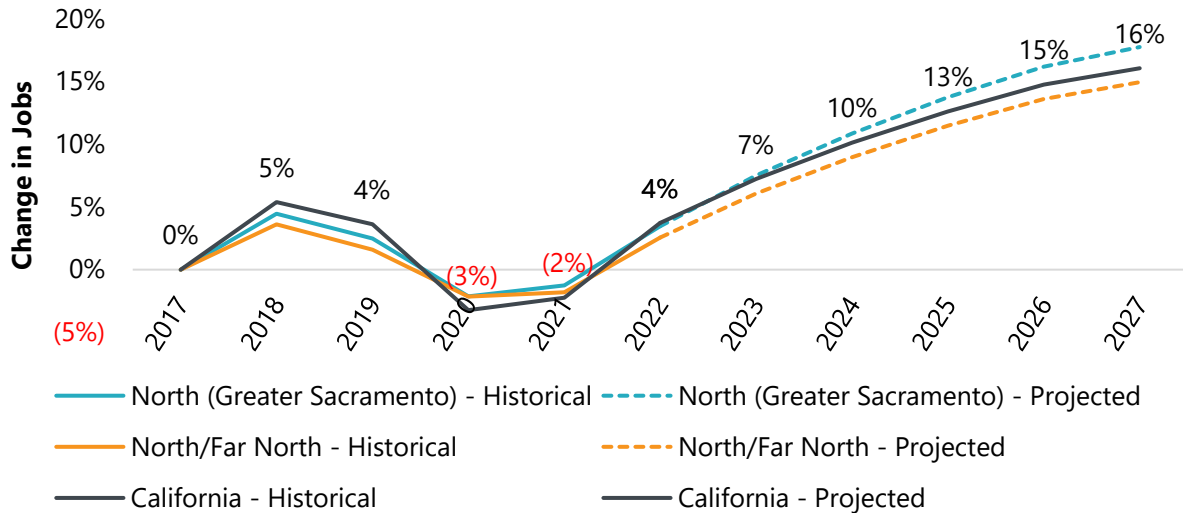
Exhibit 1. Employment and projected demand, 2022-2027

| Occupation | 2022 Jobs | 2027 Jobs | 2022-2027 Change | 2022-2027 % Change | 2022-2027 Annual Openings |
|--|----------------|----------------|------------------|--------------------|---------------------------|
| Hairdressers, Hairstylists, and Cosmetologists | 5,211 | 5,838 | 627 | 12% | 876 |
| Manicurists and Pedicurists | 3,532 | 4,136 | 604 | 17% | 564 |
| Barbers | 451 | 489 | 39 | 9% | 58 |
| North (Greater Sacramento) | 9,193 | 10,463 | 1,270 | 14% | 1,498 |
| Hairdressers, Hairstylists, and Cosmetologists | 6,610 | 7,240 | 630 | 10% | 1,076 |
| Manicurists and Pedicurists | 4,080 | 4,767 | 687 | 17% | 649 |
| Barbers | 536 | 575 | 39 | 7% | 67 |
| North/Far North | 11,226 | 12,582 | 1,356 | 12% | 1,793 |
| Hairdressers, Hairstylists, and Cosmetologists | 72,817 | 79,916 | 7,098 | 10% | 11,876 |
| Manicurists and Pedicurists | 48,676 | 56,401 | 7,725 | 16% | 7,640 |
| Barbers | 6,826 | 7,254 | 429 | 6% | 859 |
| California | 128,319 | 143,571 | 15,252 | 12% | 20,375 |

¹ The North (Greater Sacramento) subregion covers seven counties, including El Dorado, Nevada, Placer, Sacramento, Sutter, Yolo, and Yuba.

Exhibit 2 compares the net changes in jobs between 2017 through 2022 and the projected changes through 2027. The rate of change is indexed to the total number of jobs in 2017.

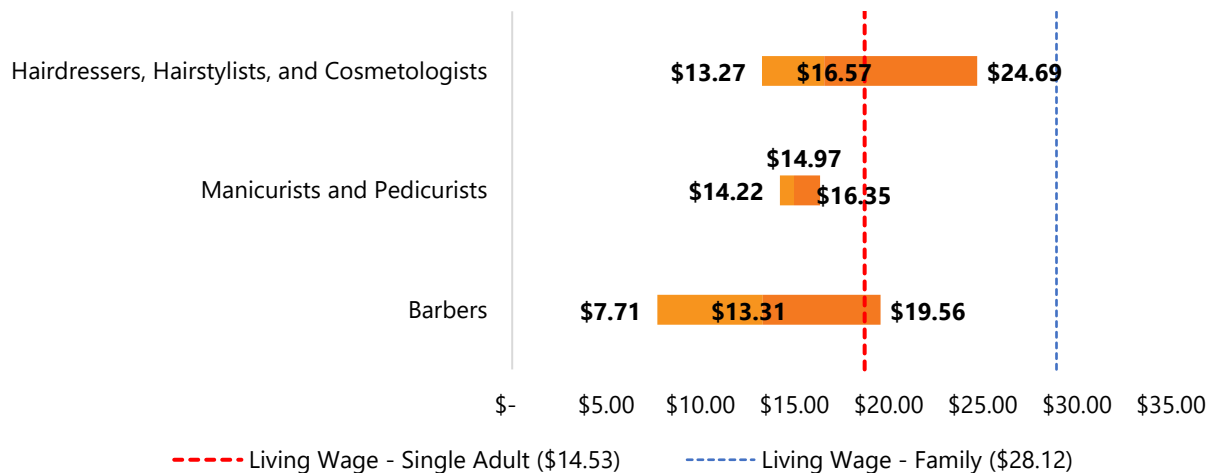
Exhibit 2. Changes in employment, 2017-2027



Wages

Exhibit 3 compares the 25th percentile, median, and 75th percentile hourly wages for the selected occupations to the Greater Sacramento living wage for one working adult (\$18.72 per hour) and a small family (\$28.91 per hour).^{2,3} The 25th and 75th percentile hourly wages are used to estimate entry-level and experienced worker wages.

Exhibit 3. Hourly wages by occupation, 2022

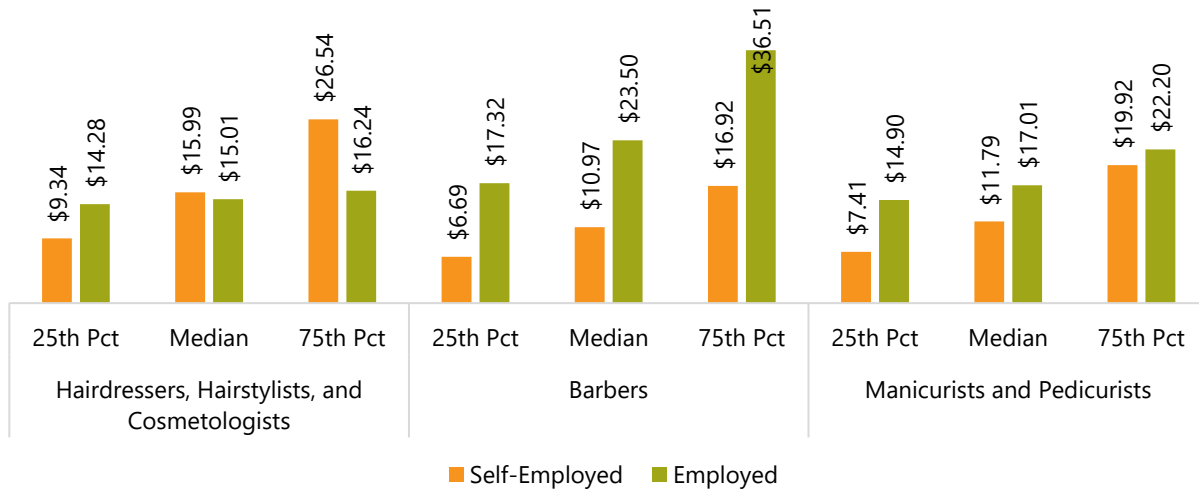


² Living wage is defined as the level of income one working adult with no children must earn to meet basic needs, including food, housing, transportation, healthcare, taxes, and other miscellaneous basic needs. Please note that the 25th-percentile and 75th-percentile hourly wages are used as proxy for entry-level and experienced-level wages.

³ A small family is defined as one working adult and one school aged child (between the ages of 5 and 12 years).

Exhibit 4 compares the entry-level (25th percentile), median, and experienced (75th percentile) hourly wages of employed and self-employed barbers and cosmetologists.

Exhibit 4. Employed vs. self-employed hourly wages by occupation, 2022.



JOB POSTINGS

About Job Postings Analysis

This section analyzes recent data from online job postings. Online job postings may provide more insight into recent changes in the labor market that are not captured by historical trends. However, please note that job postings are not the same as labor market demand; demand is based on projected annual openings. Job postings should be used to support inform community college curriculum development and to find potential employers for targeted experiential learning opportunities.

Please note that there are several limitations to analyzing and interpreting online job postings. Employers may post a position multiple times to increase the number of job applicants. Job postings may remain online after a business chooses not to fill a position. Employers may advertise one posting to fill multiple vacancies. And not all jobs are posted online.

The North COE found 768 online job postings for the selected occupations in the seven-county Greater Sacramento subregion. Job posting data comes from Lightcast (formerly Emsi Burning Glass) and covers unique advertisements newly posted online during the last 12 months, from January 2023 through December 2023.

Top Employers and Job Titles

Exhibit 5 details the number of online job postings for the selected occupations.

Exhibit 5. Job postings by occupation

| Occupation | Unique Job Postings | Share of Job Postings |
|--|---------------------|-----------------------|
| Hairdressers, Hairstylists, and Cosmetologists | 722 | 94% |
| Barbers | 25 | 3% |
| Manicurists and Pedicurists | 21 | 3% |
| Total Job Postings | 768 | 100% |

Exhibit 6 shows the top 10 relevant job titles with the most job postings.

Exhibit 6. Top jobs titles

| Job Title | Number of Job Postings |
|------------------------------|------------------------|
| Hair Stylists | 403 |
| Stylists | 132 |
| Licensed Hair Stylists | 32 |
| Stylists/Cosmetologists | 20 |
| Wax Specialists | 19 |
| Hair Stylists/Cosmetologists | 16 |
| Cosmetologists/Hairstylists | 14 |
| Stylists/Barbers | 13 |
| Barbers | 12 |
| Nail Technicians | 11 |

Exhibit 7 shows the top 10 relevant employers with the most job postings for the selected occupations.

Exhibit 7. Top Employers

| Employer | Number of Job Postings |
|---|------------------------|
| Great Clips | 265 |
| Supercuts | 96 |
| Regis Corporation (Supercuts) | 95 |
| Sport Clips | 55 |
| Disability Solutions (Ulta Beauty) | 25 |
| Ulta Beauty | 19 |
| JCPenney | 14 |
| Great Group (Great Clips) | 13 |
| Wax Center Partners (European Wax Center) | 11 |
| European Wax Center | 6 |

Top Skills and Qualifications

Exhibit 8 shows the most relevant certifications requested by employers for the selected occupations.

Exhibit 8. Most in-demand certifications

| Certification | Number of Job Postings |
|---------------------|------------------------|
| Barber License | 454 |
| Cosmetology License | 37 |
| Esthetician License | 11 |

Exhibit 9 shows the top 10 skills across three categories for the studied occupations: specialized, essential, and software skills.⁴

Exhibit 9. Most in-demand skills

| Specialized Skills | Common Skills | Software Skills |
|------------------------|------------------------------|-----------------|
| Cosmetology | Customer Service | N/A |
| Cosmetics | Interpersonal Communications | -- |
| Ear Piercing | Cleanliness | -- |
| Business Development | Communication | -- |
| Wax | Lifting Ability | -- |
| Housekeeping | Verbal Communication Skills | -- |
| Manicure | Detail Oriented | -- |
| Professional Hair Care | Professionalism | -- |
| Pedicure | Management | -- |
| Nail Care | Administrative Functions | -- |

⁴ Specialized skills are those primarily required to perform specific tasks in an occupation. Essential skills are typically related to employability. These are skills that are prevalent across many occupations and include both interpersonal attributes and learned skills (aka "soft skills"). Software skills are specific to any software tool or programming component used to support a job.

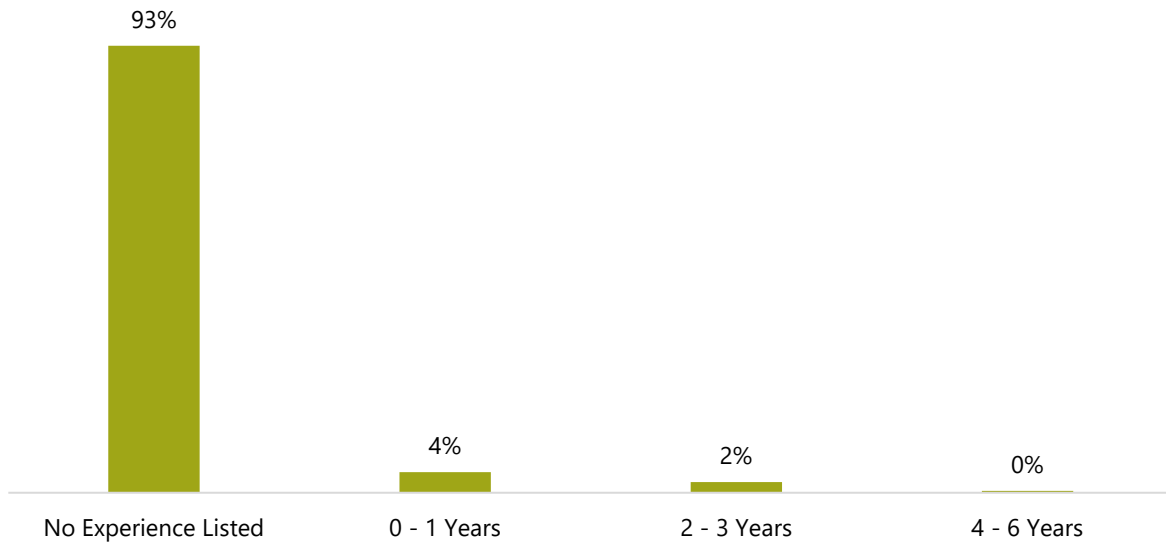
Exhibit 10 shows the minimum level of education, preferred by employers, for related job postings in the Greater Sacramento subregion.⁵

Exhibit 10. Employer-preferred education



Exhibit 11 shows the minimum level of experience, preferred by employers, for related job postings in the Greater Sacramento subregion.⁶

Exhibit 11. Employer-preferred job experience



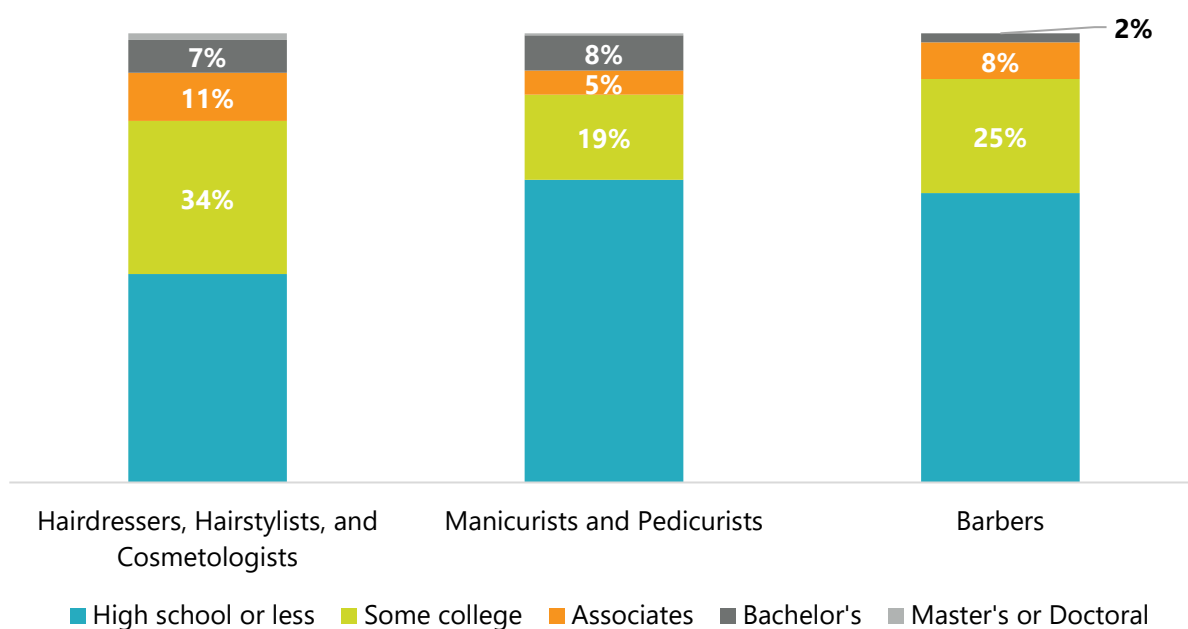
⁵ Employers may include more than one level of education as a hiring requirement in a job posting. As a result, the values in exhibit 9 may sum to greater than 100%.

⁶ Employers may include more than one level of experience as a hiring requirement in a job posting. As a result, the values in exhibit 10 may sum to greater than 100%.

EDUCATION AND TRAINING REQUIREMENTS

The U.S. Census Bureau collects data on the highest education level achieved by workers across all occupations. Exhibit 12 shows California's educational attainment of the current workforce in the selected occupations.

Exhibit 12. California educational attainment for selected occupations, 2019



The U.S. Bureau of Labor Statistics (BLS) uses a categorical system to assign typical entry-level education and job requirements to each occupation for which the BLS publishes projection data. These categories include entry-level education, work experience in a related occupation, and on-the-job training. Exhibit 13 shows the selected occupations' typical entry-level job requirements.

Exhibit 13. Typical entry-level job requirements

| Occupation | Entry-level Education Requirements | Work Experience Requirements | On-The-Job Training Requirements |
|--|------------------------------------|------------------------------|----------------------------------|
| Hairdressers, Hairstylists, and Cosmetologists | Postsecondary nondegree award | None | None |
| Manicurists and Pedicurists | Postsecondary nondegree award | None | None |
| Barbers | Postsecondary nondegree award | None | None |

EDUCATIONAL SUPPLY

Educational supply for an occupation can be estimated by analyzing the number of awards issued in related Taxonomy of Programs (TOP) or Classification of Instructional Programs (CIP) codes. Exhibit 14 shows the TOP and CIP codes for educational programs related to the selected occupations.

Exhibit 14. TOP and CIP codes for training programs related to the selected occupations.

| TOP Programs and Codes | Aligned CIP Programs and Codes |
|-------------------------------------|---|
| Cosmetology and Barbering (3007.00) | Cosmetology/Cosmetologist, General (12.0401) |
| | Barbering/Barber (12.0402) |
| | Hair Styling/Stylist and Hair Design (12.0407) |
| | Nail Technician/Specialist and Manicurist (12.0410) |

Community College Supply

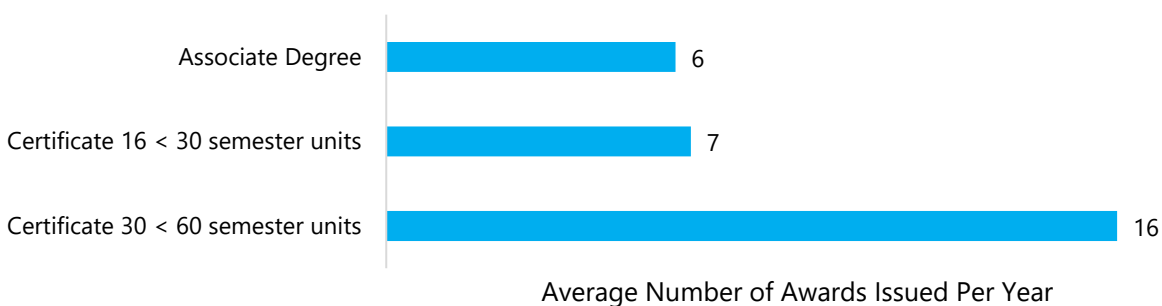
Exhibits 15 and 16 compare the average number of certificates and degrees from selected Greater Sacramento community college programs over the last three academic years.

Exhibit 15. Annual average community college awards by program

| Program - TOP Code | College | Annual Awards 2020-21 | Annual Awards 2021-22 | Annual Awards 2022-23 | 3-Yr Annual Awards Average |
|-------------------------------------|--------------------|-----------------------|-----------------------|-----------------------|----------------------------|
| Cosmetology and Barbering (3007.00) | Sacramento City | 15 | 48 | 22 | 28 |
| | Yuba | 0 | 1 | 1 | 1 |
| | Grand Total | 15 | 49 | 23 | 29 |

Note: Values may not sum due to rounding.

Exhibit 16. Annual average community college awards by type, 2019-20 through 2021-22



Other Postsecondary Supply

Exhibit 17 compares the average number of degrees that non-community college training providers conferred in the Greater Sacramento subregion over the last two academic years. Please note that non-community college data often lags by one year.

Exhibit 17. Other postsecondary awards by program

| Program - CIP Code | Provider | Annual Awards 2019-20 | Annual Awards 2020-21 | Annual Awards 2021-22 | 3-Yr Annual Awards Average |
|--|---|-----------------------|-----------------------|-----------------------|----------------------------|
| Cosmetology/Cosmetologist, General-12.0401 | MTI College | 84 | 92 | 130 | 102 |
| | Paul Mitchell-Sacramento | 40 | 61 | 61 | 54 |
| | Federico Beauty Institute | 48 | 55 | 71 | 58 |
| | My Le's Beauty College | 27 | 33 | 28 | 29 |
| | Hoss Lee Academy | 20 | 29 | 45 | 31 |
| | Citrus Heights Beauty College | 62 | 28 | 20 | 37 |
| | Cosmo Beauty Academy | 14 | 14 | 8 | 12 |
| | MIXED Institute of Cosmetology & Barber | 16 | 3 | 13 | 11 |
| | Paul Mitchell-North Tahoe | -- | 3 | 6 | 5 |
| | Subtotal | 311 | 318 | 382 | 339 |
| Hair Styling/Stylist and Hair Design-12.0407 | N/A | -- | -- | -- | -- |
| | Subtotal | -- | -- | -- | -- |

| Program - CIP Code | Provider | Annual Awards 2019-20 | Annual Awards 2020-21 | Annual Awards 2021-22 | 3-Yr Annual Awards Average |
|---|---|-----------------------|-----------------------|-----------------------|----------------------------|
| Barbering/Barber-12.0402 | Paul Mitchell-Sacramento | 30 | 37 | 24 | 30 |
| | Federico Beauty Institute | 52 | 35 | 50 | 46 |
| | MIXED Institute of Cosmetology & Barber | 10 | 16 | 17 | 14 |
| | MTI College | 6 | 15 | 38 | 20 |
| | Paul Mitchell-North Tahoe | | 5 | 13 | 9 |
| | Subtotal | 98 | 108 | 142 | 119 |
| Nail Technician/Specialist and Manicurist-12.0410 | My Le's Beauty College | 229 | 160 | 186 | 192 |
| | Cosmo Beauty Academy | 48 | 96 | 96 | 80 |
| | MIXED Institute of Cosmetology & Barber | 10 | 18 | 38 | 22 |
| | Citrus Heights Beauty College | 6 | 13 | 14 | 11 |
| | Subtotal | 293 | 287 | 334 | 305 |
| | Grand Total | 702 | 713 | 858 | 762 |

Note: Values may not sum due to rounding.

FINDINGS

This report focuses on three occupations in the barbering and cosmetology pathway: Barbers (39-5011), Hairdressers, Hairstylists, and Cosmetologists (39-5012), and Manicurists and Pedicurists (39-5092).

Occupational Demand

- The Greater Sacramento subregion held 9,193 barbering and cosmetology jobs in 2022. These jobs are projected to increase by 14% over the next five years, adding 1,270 new jobs to the subregion by 2027.
- In 2022, 82% of barbers and 66% of hairdressers/hairstylists were self-employed. In the same year, only 20% of manicurists and pedicurists were self-employed.
- Overall, barbering and cosmetology jobs are projected to grow faster in the Greater Sacramento subregion than in California.
- Over the next five years, barbering and cosmetology jobs are projected to have nearly 1,500 annual openings in the Greater Sacramento subregion.

Wages

- Analysis of wage data shows that barbering and cosmetology occupations earn entry-level wages below the single adult living wage of \$18.72 per hour.
- A deeper dive into wages for employed and self-employed barbering and cosmetology occupations reveals contrasting impacts of employment status on wages.
 - All three occupations tend to earn an hourly wage close to or more than minimum wage when employed (ranging from \$14.28 per hour for hairdressers to \$17.32 per hour for barbers).
 - However, hairdressers have higher earning potential through self-employment as they gain more experience. The 75th percentile hourly wage for self-employed hairdressers is \$26.54 versus \$16.24 for employees.
 - The opposite is true for barbers. Hourly wages are higher for barbers if they pursue employment through a local business. The 75th percentile hourly wage for employed barbers is \$36.51 versus \$16.92 for employees.
 - The same is true for manicurists and pedicurists. Individuals in this occupation tend to earn higher wages when employed instead of being self-employed.

Job Postings

- In the last 12 months, there were 768 online job postings for barbering and cosmetology occupations. Most job postings – about 94% - were for hairdressers, hairstylists, and cosmetologists.
- Employers with the most job postings included Great Clips, Supercuts, Sport Clops, and Ulta Beauty.
- Most job postings did not include an educational or experience requirement.

Education and Training Requirements

- Between 24% and 45% of incumbent workers in barbering and cosmetology occupations have either attended some college or earned an associate degree, which is an educational attainment consistent with community college offerings. Another 2% to 8% of workers in these occupations hold a bachelor's degree.

Postsecondary Supply

- Two Greater Sacramento community colleges offer degrees and certificates in programs related to barbering and cosmetology. These programs conferred an average of 29 awards (certificates and associate degrees) in barbering and cosmetology programs over the last three academic years (2020-21 through 2022-23).
- Multiple local non-community college postsecondary training providers also offer training related to the studied occupations. Between 2019-20 and 2021-22, non-community college training providers conferred an average of 762 awards in barbering and cosmetology programs over the last three years. Please note that non-community college awards data often lags by one year.

RECOMMENDATIONS

- Based on a comparison of annual openings to average annual awards in the Greater Sacramento subregion, there seems to be an undersupply of workers in barbering and cosmetology.
 - Community colleges and other postsecondary training providers issued an average of 791 awards over the last three years.
 - There are 1,498 projected annual openings for barbering and cosmetology jobs.
- Given that 82% of barbers and 66% of hairdressers/hairstylists are self-employed, the Center of Excellence recommends community colleges incorporate entrepreneur skills and coursework into barbering and cosmetology programs.
- The North (Greater Sacramento) Center of Excellence recommends moving forward with creating new programs and modifying existing ones in cosmetology and barbering.

| New Program Recommendation | | |
|--|-----------------------------|---|
| Move forward with the new program | Proceed with caution | A new program is not recommended |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

| Program Modification | |
|--|--|
| Move forward with program modifications | Program modifications are not recommended |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> |

APPENDIX A. METHODOLOGY AND SOURCES

This report identified Occupations using the Center of Excellence TOP-to-CIP-to-SOC crosswalk and O*Net OnLine. This report's findings were decided using labor market data from the Bureau of Labor Statistics (BLS), U.S. Census Bureau data from Emsi, and jobs posting data from Burning Glass.

"The Chancellor's Office Curriculum Inventory System (COCI)." California Community Colleges Curriculum Inventory (COCI), 2023. <https://coci2.ccctechcenter.org/>.

Glasmeier, Amy K. "Living Wage Calculator." Living Wage Calculator, 2023. <https://livingwage.mit.edu/>.

Integrated Postsecondary Education Data System (IPEDS). National Center for Education Statistics. U.S. Department of Education. <https://nces.ed.gov/ipeds/>.

Labor Market Information Division. California Employment Development Department. <https://labormarketinfo.edd.ca.gov/>.

Lightcast (Formerly EMSI/Burning Glass) 2023.4; QCEW Employees, Non-QCEW Employees, and Self-Employed. <https://www.economicmodeling.com/>. (Note: EMSI occupational employment data are based on final EMSI industry data and final EMSI staffing patterns. Wage estimates are based on Occupational Employment Statistics (QCEW and Non-QCEW Employees classes of worker) and the American Community Survey (Self-Employed and Extended Proprietors)).

Management Information Systems (MIS) Data Mart. California Community Colleges Chancellor's Office. <https://datamart.cccco.edu/>.

O*NET OnLine. U.S. Department of Labor/Employment and Training Administration (DOL ETA). <https://www.onetonline.org/>.

Self-Sufficiency Standard Tool for California. The University of Washington. <http://www.selfsufficiencystandard.org/>

"Taxonomy of Programs." California Community Colleges Chancellor's Office. June 2012, 6th Edition. <https://www.cccco.edu/-/media/CCCCO-Website/About-Us/Divisions/Educational-Services-and-Support/Academic-Affairs/What-we-do/Curriculum-and-Instruction-Unit/Files/TOPmanual6200909corrected12513pdf.aspx>

"TOP-CIP-SOC Crosswalk." Centers of Excellence for Labor Market Research. June 2021 Edition. <http://coecc.net/>

APPENDIX B. GLOSSARY

| Key Terms | Definition |
|-----------------------------------|---|
| Occupation | <p>Occupation refers to a category of jobs, careers, or professions that are similar in the work performed and the skills the workers have. Workers who perform essentially the same tasks are in the same occupation, whether in the same industry. Some occupations are concentrated in a few industries, while others are found in many industries.</p> <p>Occupations differ from jobs in that jobs show the number of positions held in each occupation.</p> |
| Jobs | <p>A job is a specific instance of employment and includes any position where a worker supplies labor for monetary compensation.</p> <p>Job numbers include employees (those who work for businesses) and proprietors (those who work for themselves). Full- and part-time jobs are included and counted equally (i.e., not adjusted to full-time equivalents). Data for jobs, or employment, are annual averages.</p> |
| Employment | <p>Employment refers to filled jobs, whether full- or part-time, temporary or permanent. The scope of "who" is counted as employed is noted in Appendix A. Methodology and Sources.</p> |
| Job Change | <p>Job change is the net increase or decrease of jobs over a given period.</p> |
| Job Opening | <p>Job openings are the projected number of positions available for workers entering an occupation.</p> <p>Openings include growth and replacement job counts. Growth job counts are the positive change in the total number of workers employed. Replacement job counts are the estimates of new workers needed to replace workers permanently leaving the occupation.</p> |
| Percentile Wage (or wages) | <p>A percentile wage is the value of a wage at which a certain percentage of workers falls below. For example, a 25th percentile hourly wage of \$15.00 means that 25% of workers earn less than \$15.00, while 75% earn more. Percentile wages are specific to the geography shown in the report.</p> <p>The 25th-percentile and 75th-percentile hourly wages are used as a proxy for entry-level and experienced-level wages.</p> |
| Living Wage | <p>The living wage is the level of income a single, working adult with no children must earn to meet basic needs. The living wage is calculated using basic allowances for food, housing, transportation, healthcare, taxes, and other miscellaneous basic needs, and assumes full-time employment (40 hours per week, 52 weeks a year).</p> |

| Key Terms | Definition |
|--|---|
| | Beginning in 2023-24, NFN COE adopted the MIT calculations for a living wage better aligned to the economic conditions following the pandemic. For more information, please visit https://livingwage.mit.edu/ . |
| Educational Attainment | Educational attainment is the highest level of education achieved by workers in an occupation. The data include workers aged 25 years and older. |
| Typical Entry-level Education | <p>The education level most workers need to gain employment in an occupation. Categories range from "no formal educational credential" and "high school diploma or equivalent" to "doctoral or professional degree." The types most relevant to community training are "some college, no degree," "postsecondary nondegree award," and "associate degree."</p> <p>The typical entry-level education may differ from the actual educational levels reached by workers employed in an occupation.</p> |
| Typical Work Experience | The relevant prior experience a worker needs to gain employment in an occupation. Categories include "5 years or more", "less than five years," and "none." |
| Typical On-The-Job (OTJ) Training | The level of on-the-job training a worker needs to obtain for competency in the skills needed for an occupation. Categories include "none," "short-term (1 month or less)," "moderate term (more than one month but less than 12 months)," "long-term (more than 12 months)," "apprenticeship," and "internship/residency." |
| Awards | Awards are the number of certificates and degrees conferred for a specific course of study each year. Awards count "papers" and, as a result, may be greater than the number of students who complete a program. |

Funding Acknowledgement: This report was made available with Strong Workforce Program funding from the North Far North Regional Consortium.

COVID-19 Statement: This report includes employment projection data produced by Lightcast (formerly EMSI). Employment projections are developed using models based on historical data, which in this set of projections covers the period through 2021. Most input data, therefore, precedes the pandemic. Employment projections are long-term projections intended to capture structural changes in the economy, not cyclical fluctuations. As such, projections data are not intended to capture the impacts of the recession that began in February 2020. Cyclical fluctuations, like recessions, impact projections when they become part of the historical data set.

Important Disclaimer: All representations included in this report have been produced from primary research and/or secondary review of publicly and/or privately available data and/or research reports. Efforts have been made to qualify and validate the accuracy of the data and the reported findings; however, neither the Centers of Excellence, COE host District, nor California Community Colleges Chancellor's Office are responsible for applications or decisions made by recipient community colleges, or their representatives based upon components or recommendations contained in this study.

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Centers of Excellence for Labor Market Research, Economic and
Workforce Development Program



CENTERS OF EXCELLENCE
FOR LABOR MARKET RESEARCH

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