



Program Exploration

GERONTOLOGY IN THE NORTH SUBREGION

North/Far North Center of Excellence
FEBRUARY 2021

Table of Contents

| | |
|---|----|
| Introduction | 2 |
| What is Gerontology, exactly? | 2 |
| California Master Plan for Aging | 2 |
| Aging Adults in Greater Sacramento | 2 |
| Methodology | 3 |
| Job Postings Analysis | 4 |
| Top Industries | 4 |
| Top Employers..... | 6 |
| Top Occupations | 7 |
| In-Demand Skill Clusters | 9 |
| Educational Awards and Supply | 10 |
| Community College Gerontology Programs | 10 |
| Four-Year Gerontology Programs..... | 12 |
| Conclusions and Recommendations | 12 |
| Recommendations | 13 |
| Appendix A. Data Sources | 14 |
| Appendix B. State List of Gerontology Programs..... | 15 |

COVID-19 Statement: This report includes employment projection data by EMSI. EMSI's projections are modeled on recorded (historical) employment figures and incorporate several underlying assumptions, including the assumption that the economy during the projection period will be at approximately full employment or potential output. To the extent that a recession or labor shock, such as the economic effects of COVID-19, can cause long-term structural change, they may impact the projections. At this time, it is not possible to quantify the impact of COVID-19 on projections of industry and occupational employment. Other measures such as unemployment rates and monthly industry employment estimates will reflect the most recent information on employment and jobs in the state and, in combination with input from local employers, may help validate current and future employment needs as depicted here.

If, for any reason, this document is not accessible or if you have specific needs for readability, please contact us, and we will do our utmost to accommodate you with a modified version. To make a request, Ebony Benzing by phone at (916) 563-3215 or by email at Ebony.Benzing@losrios.edu.

Introduction

The North/Far North Center of Excellence (NFN COE) was asked to provide labor market information for a program exploration of labor market needs related to gerontology in the North (Greater Sacramento) subregion. This report analyzes the labor market data for skills, occupations, employers, and industries related to gerontology in the Greater Sacramento area. This report seeks to understand and clarify the opportunities for gerontology-related training in the North and provide recommendations for modifications to existing career education programs.

What is Gerontology, exactly?

According to the Gerontological Society of America, gerontology is the study of aging, in processes and individuals, over a lifetime.¹ This includes examining physical, mental, and social changes in people as they age, as well as the impacts and implications of aging on societies and institutions. Therefore, gerontology is a multidisciplinary field that integrates knowledge from various study areas, including but not limited to biological, psychological, social, and policy. As a result of this interdisciplinary approach, professionals from diverse fields can call themselves gerontologists. Gerontologists focus on improving the quality of life and promoting the well-being of people as they age.

California Master Plan for Aging

In June 2019, Governor Gavin Newsom issued an executive order calling to create a Master Plan for Aging (Executive Order N-14-19).² This order calls for the prioritization of the health and well-being of older Californians and the need for plans and policies to prepare the state for significant demographic shifts. By 2030, older adults are projected to make up nearly one-fourth of the state's population - about 10.8 million adults aged 60 years and beyond.³

Then, in the late winter of 2020, the coronavirus pandemic hit California. The virus disproportionately harmed aging and other at-risk adults. Older adults in California died at unprecedented rates, particularly those in nursing homes and Black, Latino, and Asian and Pacific Islander communities.

The master plan is intended to provide a blueprint to ensure healthy aging for all Californians. There are five focus areas for 2030:⁴

1. Housing and transportation that is age-, disability-, climate-, and disaster-ready;
2. Health care that closes equity gaps and enhances the quality of life for aging adults;
3. Inclusion and equity strategies aimed at inclusion, learning, and safety;
4. Caregiving workforce and services to provide high-quality care and support; and,
5. Economic security through affordability and self-sufficiency.

Aging Adults in Greater Sacramento

In 2019, older adults aged 60 years and beyond represented just over one-fifth of the population in the Greater Sacramento region (Exhibit 1). The region's 60 and over cohort is projected to be the fastest-growing age group, increasing by nearly 14% - more than three times the average population growth rate in Sacramento. By 2024, older adults are projected to make up a quarter of Sacramento's population, with nearly 700,000 residents (Exhibit 2).

¹ <https://www.geron.org/about-us/purposes-and-mission/what-is-gerontology>

² Executive Department, State of California, Master Plan for Aging, Accessed January 2021, <https://www.gov.ca.gov/wp-content/uploads/2019/06/6.10.19-Master-Plan-for-Aging-EO.pdf>

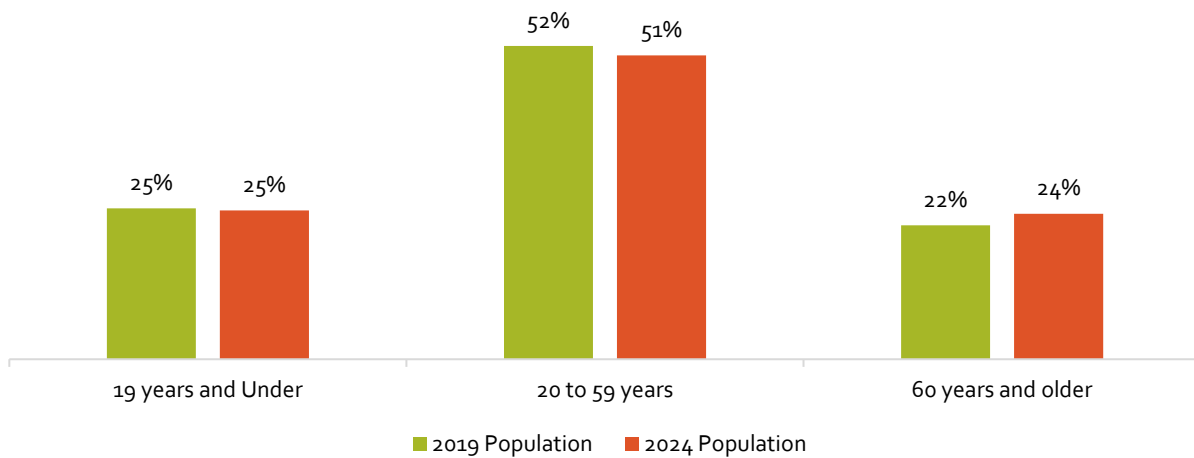
³ California Department of Finance, projections

⁴ CA Master Plan for aging, <https://www.aging.ca.gov/download.ashx?IE0rcNUV0zYXf9JtT7jkAg%3d%3d>

Exhibit 1. North (Greater Sacramento) Population Estimates, 2019-2024⁵

| Age Cohort | 2019 Population | 2024 Population | 2019 to 2024 Projected Change | 2019 to 2024 Projected % Change |
|--|------------------|------------------|-------------------------------|---------------------------------|
| Under 19 years | 665,693 | 686,401 | 20,708 | 3.1% |
| 60 to 64 years | 1,382,366 | 1,402,341 | 19,975 | 1.4% |
| 65 years and over | 591,065 | 671,181 | 80,116 | 13.6% |
| North (Greater Sacramento) Totals | 2,639,124 | 2,759,923 | 120,799 | 4.6% |

Exhibit 2. Distribution of Greater Sacramento Population by Age Group, 2019-2024⁶



Methodology

This report seeks to understand the size and composition of the labor market for gerontology jobs in the North (Greater Sacramento) subregion. Given that gerontology has such a broad scope, the NFN COE realized that a traditional labor market analysis would not suffice to understand the opportunities for training in the Greater Sacramento region. Gerontology stretches across many industries and occupations, and there is no particular industry or occupation that defines the field. As a result, this report's analysis heavily relies on keyword searches conducted using Burning Glass Labor Market Insight tools.

The NFN COE used five keywords or phrases - elder care, geriatrics, gerontologist, gerontology, and senior care - to find jobs posted online over the last five years (January 1, 2016, through December 31, 2020) in the Greater Sacramento region. These keywords were used to identify the industries, occupations, and skills closely related to gerontology and job posting trends in the local area. The COE selected a five-year timeline to understand how gerontology is considered in the local labor market. The COE also

⁵ Emsi 2020.4; QCEW Employees, Non-QCEW Employees and Self-Employed.

⁶ Ibid.

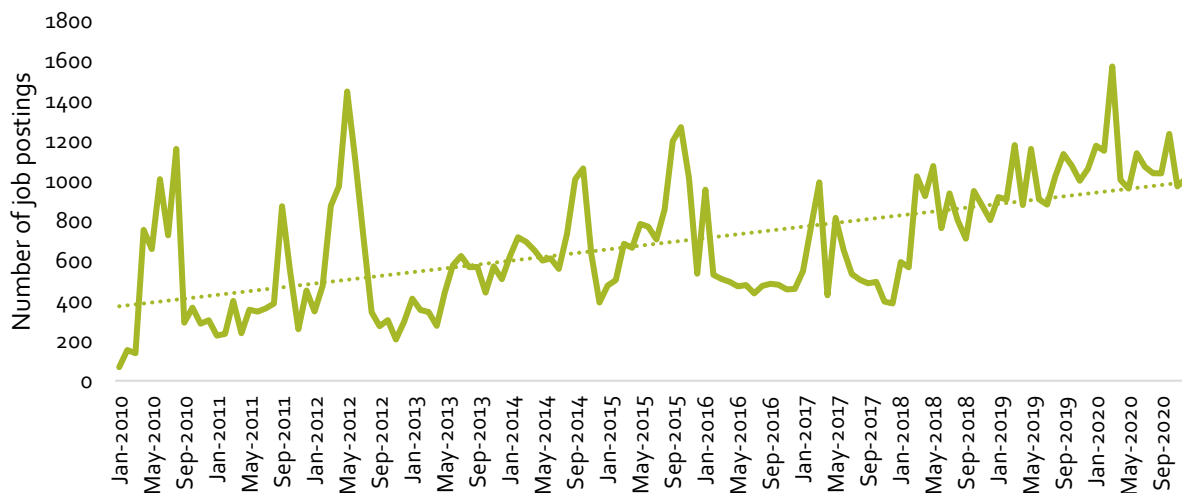
examined the five-year trends to identify training opportunities in community college gerontology programs.

Job Postings Analysis

Since professionals working in gerontology can be found across a broad spectrum of industries and occupations, this section of the report utilizes job postings data to examine labor market demand for gerontology-related jobs in the North (Greater Sacramento) region. The data in this section of the report comes from Burning Glass Labor Insights, an online job postings aggregator tool. To search for gerontology-related jobs, the NFN COE used related keywords and phrases to find jobs posted online over the last five years in the Greater Sacramento region. These keywords were used to identify the industries, occupations, and skills closely related to gerontology and job posting trends in the local area.

The NFN COE identified 48,846 jobs posted online between January 1, 2016, and December 31, 2020, that contained the words or phrases elder care, geriatrics, gerontologist, gerontology, and senior care. Exhibit 5 shows the movement of job postings over time. Since January 1, 2016, postings for gerontology-related jobs have increased more than ten-fold, from a low of 68 job postings in January 2016 to a high of 1,012 postings in December 2020.

Exhibit 5. Job postings trend, January 1, 2016, through December 31, 2020⁷

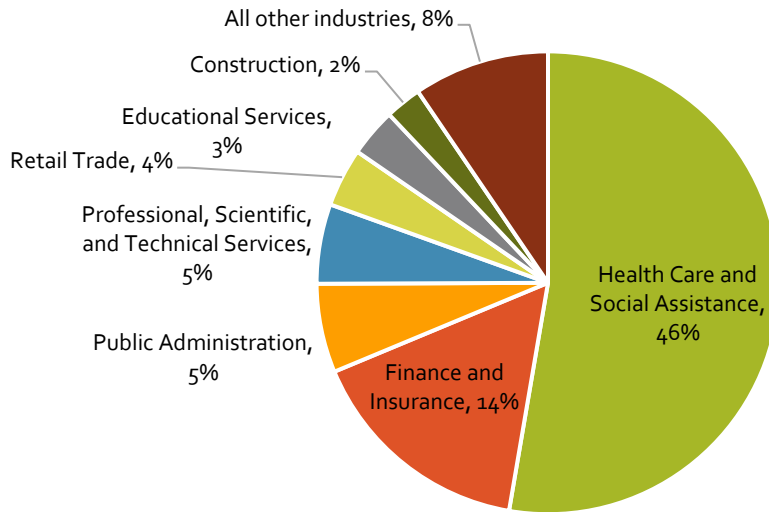


Top Industries

Exhibits 6 and 7 show the top industries for gerontology-related jobs in the North (Greater Sacramento) subregion. The industries are identified using the North American Industry Classification System (NAICS) codes. Over the last five years, nearly 80% of gerontology-related jobs posted online were linked to seven industries: health care (NAICS 62), finance and insurance (NAICS 52), public administration (NAICS 92), professional services (NAICS 54), retail trade (NAICS 44-45), educational services (NAICS 61), and construction (NAICS 23) (Exhibit 6). Please note that 13% of job postings were not assigned to an industry.

⁷ Burning Glass Labor Insights, accessed January 5, 2021, <http://www.burning-glass.com>.

Exhibit 6. Top gerontology-related industries⁸



An examination of industry data at the three-digit NAICS code level reveals a nuanced depiction of gerontology industries in the Greater Sacramento region. While 46% of jobs were related to healthcare at the two-digit NAICS sector level, there was a more extensive distribution of jobs at the three-digit NAICS subsector level (Exhibit 7). About 50% of gerontology-related jobs posted online in the last five years were found in six industries: nursing and residential care facilities (NAICS 623), insurance carriers (NAICS 524), hospitals (NAICS 622), ambulatory health care services (NAICS 621), government support (NAICS 921), and professional services (NAICS 541).

Exhibit 7. Top detailed industries for gerontology-related jobs⁹

| NAICS Code | Industry | Job Postings | Share of postings |
|------------|--|--------------|-------------------|
| 623 | Nursing and Residential Care Facilities | 7,167 | 15% |
| 524 | Insurance Carriers and Related Activities | 5,939 | 12% |
| 622 | Hospitals | 5,356 | 11% |
| 621 | Ambulatory Health Care Services | 2,850 | 6% |
| 921 | Executive, Legislative, and Other General Government Support | 1,492 | 3% |
| 541 | Professional, Scientific, and Technical Services | 1,487 | 3% |
| 611 | Educational Services | 1,414 | 3% |
| 624 | Social Assistance | 1,285 | 3% |
| 561 | Administrative and Support Services | 751 | 2% |
| 446 | Health and Personal Care Stores | 640 | 1% |
| 522 | Credit Intermediation and Related Activities | 429 | 1% |
| 445 | Food and Beverage Stores | 403 | 1% |
| 722 | Food Services and Drinking Places | 389 | 1% |

⁸ Ibid.

⁹ Ibid.

| NAICS Code | Industry | Job Postings | Share of postings |
|------------|--|--------------|-------------------|
| 325 | Chemical Manufacturing | 370 | 1% |
| 922 | Justice, Public Order, and Safety Activities | 331 | 1% |
| 928 | National Security and International Affairs | 306 | 1% |
| 452 | General Merchandise Stores | 294 | 1% |
| 531 | Real Estate | 262 | 1% |

Top Employers

Exhibit 8 provides a list of the top 20 employers, according to the number of jobs posted online over the last five years. Insurance providers, hospital groups, and senior living facilities represent a significant share of employers looking for workers in gerontology-related jobs in the Greater Sacramento area.

Exhibit 8. Top 20 employers for gerontology-related jobs, 2016-2020¹⁰

| Employer | Job Postings | Share of Postings |
|---------------------------------------|--------------|-------------------|
| Anthem Blue Cross | 2,414 | 5% |
| Atria Senior Living | 1,952 | 4% |
| State of California | 1,658 | 3% |
| Blue Cross Blue Shield of California | 1,523 | 3% |
| Dignity Health | 1,247 | 3% |
| Sutter Health | 1,157 | 2% |
| Brookdale Senior Living | 967 | 2% |
| Sunrise Senior Living, Inc. | 948 | 2% |
| Universal Health Services, Inc. | 825 | 2% |
| TJG Civil Engineers And Land Planners | 752 | 2% |
| County of Sacramento | 743 | 2% |
| Oakmont Senior Living | 616 | 1% |
| Kaiser Permanente | 600 | 1% |
| University of California | 519 | 1% |
| Home Instead Senior Care | 489 | 1% |
| UnitedHealth Group | 457 | 1% |
| Vsp Global | 438 | 1% |
| Mutual of Omaha Company | 338 | 1% |
| Carlton Senior Living | 338 | 1% |
| University of California, Davis | 337 | 1% |

¹⁰ Ibid.

Top Occupations

While 3% of job postings were not aligned to an occupation, the remaining 47,387 job postings were distributed across most occupational groups (except for military-specific careers) and 476 detailed occupations. Exhibit 9 summarizes the share of job postings by major occupational groups. Over the last five years, just over half of gerontology-related job postings in the Greater Sacramento region fell into four major occupational groups: healthcare practitioners, management, personal care, and computer/mathematical occupations.

Exhibit 9. Job postings by major occupational group, 2016-2020¹¹

| SOC Code | Major Occupational Group | Job Postings | Share of Postings |
|--|--|---------------|-------------------|
| 29 | Healthcare Practitioners | 8,052 | 17% |
| 11 | Management | 7,719 | 16% |
| 39 | Personal Care | 5,284 | 11% |
| 15 | Computer and Mathematical | 4,218 | 9% |
| 13 | Business and Financial Operations | 3,876 | 8% |
| 43 | Office and Administrative Support | 2,964 | 6% |
| 17 | Architecture and Engineering | 2,351 | 5% |
| 41 | Sales and Related | 1,951 | 4% |
| 31 | Healthcare Support | 1,797 | 4% |
| 35 | Food Preparation and Serving | 1,540 | 3% |
| 21 | Community and Social Service | 1,352 | 3% |
| 19 | Life, Physical, and Social Service | 1,348 | 3% |
| 49 | Installation, Maintenance, and Repair | 1,035 | 2% |
| 37 | Building and Grounds Cleaning and Maintenance | 958 | 2% |
| 25 | Education, Training, and Library | 591 | 1% |
| 33 | Protective Services | 589 | 1% |
| 23 | Legal | 546 | 1% |
| 53 | Transportation and Material Moving | 464 | 1% |
| 27 | Arts, Design, Entertainment, Sports, and Media | 334 | 1% |
| 51 | Production | 257 | 1% |
| 47 | Construction and Extraction | 127 | 0.3% |
| 45 | Farming, Fishing, and Forestry | 34 | 0.1% |
| North (Greater Sacramento) Totals | | 47,387 | 100% |

¹¹ Ibid.

Exhibit 10 shows the top gerontology-related occupations by the occupational group at the detailed SOC level. Eighty percent of gerontology-related job postings fell into nine occupational groups, which are represented below. The occupations included in each group represent those with the most job postings.

Exhibit 10. Top gerontology-related occupations by group, 2016-2020¹²

| SOC Code | Healthcare Practitioners | Job Postings | Share of Postings |
|----------|---|--------------|-------------------|
| 29-1141 | Registered Nurses | 2,327 | 4.8% |
| 29-2061 | Licensed Practical and Licensed Vocational Nurses | 714 | 1.5% |
| 29-1063 | Internists, General | 607 | 1.2% |
| 29-1171 | Nurse Practitioners | 481 | 1.0% |
| 29-1123 | Physical Therapists | 474 | 1.0% |
| SOC Code | Management | Job Postings | Share of Postings |
| 11-9111 | Medical and Health Services Managers | 2,347 | 4.8% |
| 11-9199 | Managers, All Other | 1,606 | 3.3% |
| 11-2022 | Sales Managers | 586 | 1.2% |
| 11-1021 | General and Operations Managers | 508 | 1.0% |
| 11-3031 | Financial Managers | 382 | 0.8% |
| SOC Code | Personal Care | Job Postings | Share of Postings |
| 39-9021 | Personal Care Aides | 3,711 | 7.6% |
| 39-9011 | Childcare Workers | 972 | 2.0% |
| 39-9032 | Recreation Workers | 363 | 0.7% |
| SOC Code | Computer and Mathematical | Job Postings | Share of Postings |
| 15-1199 | Computer Occupations, All Other | 1,439 | 2.9% |
| 15-1132 | Software Developers, Applications | 903 | 1.8% |
| 15-1121 | Computer Systems Analysts | 431 | 0.9% |
| SOC Code | Business and Financial Operations | Job Postings | Share of Postings |
| 13-1111 | Management Analysts | 777 | 1.6% |
| 13-2011 | Accountants and Auditors | 738 | 1.5% |
| 13-2051 | Financial Analysts | 368 | 0.8% |
| SOC Code | Office and Administrative Support | Job Postings | Share of Postings |
| 43-4051 | Customer Service Representatives | 404 | 0.8% |
| 43-6014 | Secretaries and Administrative Assistants, Except Legal, Medical, and Executive | 383 | 0.8% |
| SOC Code | Architecture and Engineering | Job Postings | Share of Postings |
| 17-2051 | Civil Engineers | 967 | 2.0% |

¹² Ibid.

| SOC Code | Sales and Related | Job Postings | Share of Postings |
|----------|--|--------------|-------------------|
| 41-4012 | Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products | 767 | 1.6% |
| SOC Code | Healthcare Support | Job Postings | Share of Postings |
| 31-1014 | Nursing Assistants | 701 | 1.4% |
| 31-1011 | Home Health Aides | 629 | 1.3% |

In-Demand Skill Clusters

Skill clusters represent groups of related skills in a single category, such as Information Technology: Microsoft Office and Productivity Tools and Health Care: Basic Living Activities Support. Skill clusters all for group analyses of job postings, which are useful for understanding demand for jobs and curriculum development.

Exhibit 11 shows the top 20 skill clusters most in-demand related to gerontology in the North (Greater Sacramento) subregion. Of the roughly 200 skill clusters analyzed, health care (n=40), information technology (n=33), and business (n=17) skill clusters have emerged as the most in-demand clusters for jobs related to gerontology.¹³

Exhibit 11. Top 20 skill clusters, 2016-2020¹⁴

| Skill Cluster | Skill Cluster Postings | Share of Postings |
|---|------------------------|-------------------|
| Information Technology: Microsoft Office and Productivity Tools | 9,737 | 20% |
| Health Care: Basic Living Activities Support | 9,190 | 19% |
| Customer and Client Support: Basic Customer Service | 8,363 | 17% |
| Business: People Management | 7,569 | 15% |
| Finance: Budget Management | 7,334 | 15% |
| Business: Project Management | 7,325 | 15% |
| Administration: Scheduling | 7,191 | 15% |
| Health Care: Medical Support | 6,046 | 12% |
| Health Care: Basic Patient Care | 5,927 | 12% |
| Health Care: General Medicine | 5,638 | 12% |
| Business: Business Process and Analysis | 5,222 | 11% |
| Health Care: Geriatrics | 5,167 | 11% |
| Health Care: Emergency and Intensive Care | 4,746 | 10% |
| Administration: General Administrative and Clerical Tasks | 4,635 | 9% |
| Business: Business Strategy | 4,096 | 8% |
| Health Care: Advanced Patient Care | 4,070 | 8% |
| Sales: General Sales | 4,055 | 8% |
| Business: Business Management | 3,493 | 7% |

¹³ Ibid.

¹⁴ Ibid.

| Skill Cluster | Skill Cluster Postings | Share of Postings |
|---|------------------------|-------------------|
| Personal Care and Services: Food and Beverage Service | 3,284 | 7% |
| Information Technology: Telecommunications | 3,258 | 7% |

Educational Awards and 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 12 shows the TOP and CIP codes related to the selected occupations.

Exhibit 12. Related TOP and CIP programs and codes for the selected occupations¹⁵

| TOP Programs and Codes | Aligned CIP Programs and Codes |
|------------------------|---------------------------------------|
| Gerontology (1309.00) | Adult Development and Aging (19.0702) |

Community College Gerontology Programs

North subregion community colleges are three of 13 community colleges offering gerontology programs throughout the state; most programs are located in Southern California, with one other program located in the Central Valley. Exhibit 13. shows the current gerontology programs and awards offered in the North (Greater Sacramento) subregion. Please see Appendix B. for a full listing of gerontology programs throughout the state.

Exhibit 13. North (Greater Sacramento) Community College gerontology training programs¹⁶

| College | Program Title | Award Offered |
|-----------------|---|---|
| American River | Gerontology: Environmental Design | <ul style="list-style-type: none"> • A.A. • Certificate |
| | Gerontology: Business | |
| | Gerontology: Case Management/Social Services | |
| | Gerontology: Health Care | |
| | Gerontology: Recreation | |
| | Gerontology: Social Policy/Advocacy | |
| Folsom Lake | Interdisciplinary Studies: Social and Behavioral Sciences | <ul style="list-style-type: none"> • A.A. • Certificate |
| | Social Work/Human Services, General | |
| | Social Work/Human Services, Home Caregiver Certificate | |
| Sacramento City | Gerontology | <ul style="list-style-type: none"> • A.S. • Certificate |

¹⁵ "Taxonomy of Programs," California Community Colleges Chancellor's Office, June 2012, 6th Edition, accessed January 5, 2021, <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.ashx>

¹⁶ "The Chancellor's Office Curriculum Inventory System (COCI)," COCI 2.0, Accessed January 18, 2021. <https://coci2.cccotechcenter.org/>.

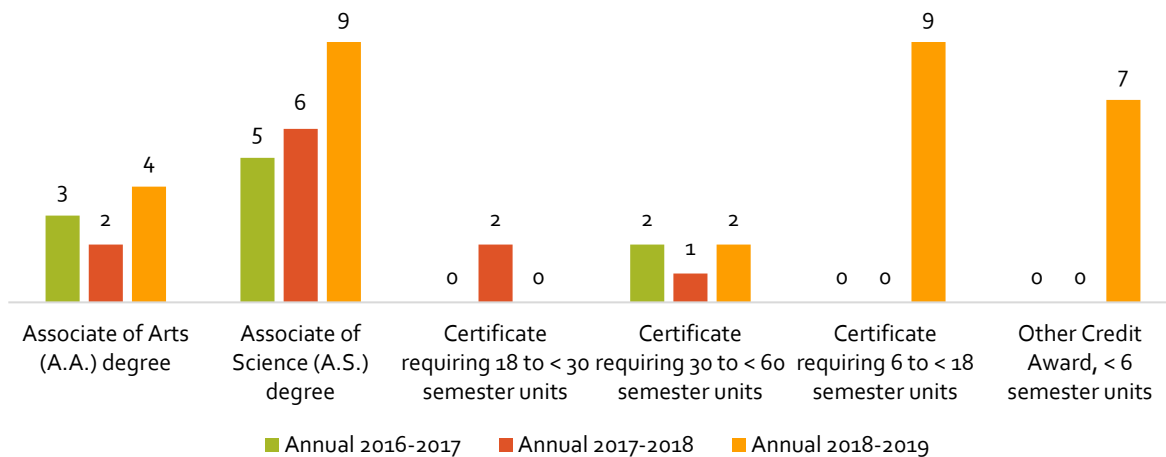
Exhibit 14 compares the annual number of gerontology awards conferred by North community colleges between 2017-2018 and 2019-2020. Over the last three academic years, community colleges in the Greater Sacramento area issued an average of 18 certificates and degrees per year.

Exhibit 14. North subregion gerontology awards by college, 2016-2017 through 2018-2019¹⁷

| College | 2016-2017 | 2017-2018 | 2018-2019 | Three-Year Average |
|--|-----------|-----------|-----------|--------------------|
| American River | 5 | 3 | 21 | 10 |
| Folsom Lake | 0 | 0 | 1 | 0 |
| Sacramento City | 5 | 8 | 9 | 7 |
| North (Greater Sacramento) Totals | 10 | 11 | 31 | 17 |

Exhibit 15 compares the annual number of gerontology awards conferred by type between 2016-2017 and 2018-2019.

Exhibit 15. Community college gerontology awards by type, 2016-2017 through 2018-2019¹⁸



¹⁷ Management Information Systems (MIS) Data Mart, California Community Colleges Chancellor's Office, accessed December 17, 2021, <https://datamart.cccco.edu/>.

¹⁸ Ibid.

Four-Year Gerontology Programs

Both California State University, Sacramento, and the University of California, Davis offer bachelor's degree programs relevant to gerontology.¹⁹ Exhibit 16 shows the average number of awards conferred over the last three academic years.

Exhibit 16. Bachelor degree awards in gerontology, 2016-2017 through 2018-2019²⁰

| College | Program | 2016-2017 Awards | 2017-2018 Awards | 2018-2019 Awards | Three-Year Average |
|----------------|---|------------------|------------------|------------------|--------------------|
| CSU Sacramento | Gerontology (CIP 30.1101) | 77 | 52 | 72 | 67 |
| UC Davis | Human Development and Family Studies, General (CIP 19.0702) | 320 | 279 | 298 | 299 |
| Totals | | 397 | 331 | 370 | 366 |

Conclusions and Recommendations

Older adults are projected to be one of the North's fastest-growing populations over the next five years.

- In 2019, adults aged 60 years and older made up 16% of the Greater Sacramento resident population. This group is projected to increase in size over the next five years, adding 71,000 more individuals to the cohort and will represent nearly one-fourth of the total population by 2024. Significant growth among older adults implies that there will be a greater need for services targeted to and beneficial for this group.

Based on analysis of job postings data from the last five years, gerontology is mostly confined to the health care and social assistance industry in the Greater Sacramento region.

- About 46% (n= 22,421) of gerontology-related jobs were found in health care and social assistance. Thirty-seven percent of those jobs (n = 18,066) were found in nursing and residential care facilities, hospitals, ambulatory health care, and social service.
- Top employers of gerontology-related jobs represented health insurance providers, hospital groups, local and state government, and senior living facilities.
- Opportunities for gerontology-related training seemed to emerge in three areas: health care, social assistance, and caregiving. Occupations most in-demand were personal care aides, medical and health services managers, and nurses.
 - a. Jobs in health care, both practitioners and support, represent about one-fifth of gerontology-related job postings. This is not surprising because health care tends to dominate job postings in the Greater Sacramento region (see job posting trends from bimonthly NFN COE economic updates).

¹⁹ CSUS program: <https://www.csus.edu/college/social-sciences-interdisciplinary-studies/gerontology-studies/>

UCD program: <https://www.ucdavis.edu/majors/human-development/>

²⁰ Integrated Postsecondary Education Data System (IPEDS), National Center for Education Statistics, U.S. Department of Education, Accessed February 1, 2021, <https://nces.ed.gov/ipeds/>.

- b. Similarly, personal care occupations - like personal care aides and other caregiving occupations - have emerged as in-demand occupations. This again is not surprising, given the need for these types of jobs in nursing and residential care facilities and increased demand during the pandemic. However, hourly wages for these occupations should concern colleges because they tend to fall below the minimum living wage for a single adult.
 - c. What is interesting is the inclusion of management-level jobs as a top occupational group for gerontology-related jobs. Management-level jobs can be found across multiple industries. Medical and health services managers had the second-most number of job postings (n = 2,347), following personal care aides.
 - d. Another exciting find is the demand for community and social service occupations (SOC group 21). While job postings for community and social service occupations only represented 3% of all job postings, these are important roles because they often connect community members to services. These jobs also tend to meet or exceed the living wage threshold by paying hourly wages above \$13.18 per hour.
- The skill clusters most in-demand are in line with regional industry and occupational needs. Employers seek workers with skills and knowledge of Microsoft Office productivity tools, living activities support for aging adults, and customer service skills.

Greater Sacramento gerontology programs are varied, with community colleges targeting different focuses. The California State University, Sacramento, and the University of California at Davis offers a four-year degree program, which could serve as part of a transfer pathway for the community colleges.

- North community colleges conferred an average of 17 certificates and degrees in gerontology programs between 2016-2017 and 2018-2019. During the same time, four-year universities issued an average of 366 bachelor degrees, which more than two-thirds came from UC Davis' human development program.

Recommendations

- Community colleges should work with employers and industry advisors to adapt existing curriculum and create a new curriculum that aligns with the California Master Plan for Aging goals.
 - The master plan outlines five ambitious goals to achieve by 2030, including having the workforce to support and achieve objectives. Caregivers are explicitly mentioned in the plan, and community colleges can play a role in training the caregiving workforce.
- Community colleges should work with employers and industry advisors to develop better-paid and articulated career pathways to well-paying gerontology jobs.
 - One of the challenges with caregiving is low wages. Workers are often paid low wages for intensive labor, and these wages often fail to meet self-sufficiency for a single adult, let alone a family. As individuals age in the region, the demand for caregivers is likely to increase. Therefore, community colleges should work with employers to set goals for student outcomes to meet program funding objectives while meeting employers' needs.
 - Community colleges should also work with industry partners to map career advancement opportunities related to gerontology. While multidisciplinary, career pathways in gerontology are unclear.

Appendix A. Data Sources

Sources used for data analysis purposes in this report include:

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

"Labor Insight Real-Time Labor Market Information Tool." Burning Glass Technologies. <http://www.burning-glass.com>.

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

Occupational Employment Statistics (OES). Bureau of Labor Statistics. <https://www.bls.gov/oes/home.htm>.

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

Self-Sufficiency Standard Tool for California. Living Insight Center for Community Economic Development. <https://insightcced.org/tools-metrics/self-sufficiency-standard-tool-for-california/>.

"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.ashx>.

Appendix B. State List of Gerontology Programs

How each college organizes its gerontology program within a department provides for the curricular focus. While many programs are still housed under the CCC's traditional system in family and consumer sciences (ARC and East L.A.), some have transitioned or aligned to other areas such as social and behavioral sciences (Chaffey and Coastline), health care (L.A. Mission), or interdisciplinary studies (FLC). Where able, hyperlinks to each college's program have been provided.

Table B. List of Active Gerontology Programs across California, as of January 2021

| College | Program Title | Award Offered |
|--------------------------------|---|--|
| American River | Gerontology: Environmental Design | <ul style="list-style-type: none"> • A.A. • Certificate (30-60 semester units) |
| | Gerontology: Business | |
| | Gerontology: Case Management/Social Services | |
| | Gerontology: Health Care | |
| | Gerontology: Recreation | |
| | Gerontology: Social Policy/Advocacy | |
| Chaffey | Gerontology | <ul style="list-style-type: none"> • A.S. • Certificate (16-30 sem. Units) • Certificate (8-16 sem. Units) • Noncredit |
| | Community Caregiver | |
| | Caregiving Essentials | |
| Coastline | Gerontology | <ul style="list-style-type: none"> • A.A. • Certificate (16-30 sem. Units) |
| Cypress | Gerontology | <ul style="list-style-type: none"> • Certificate (8-16 sem. Units) |
| East L.A. | Gerontology - Health | <ul style="list-style-type: none"> • Certificate (12-18 sem. Units) |
| Folsom Lake | Interdisciplinary Studies: Social and Behavioral Sciences | <ul style="list-style-type: none"> • A.A. |
| | Social Work/Human Services, General | |

| College | Program Title | Award Offered |
|------------------------|--|--|
| | Social Work/Human Services, Home Caregiver Certificate | <ul style="list-style-type: none"> • Certificate (12-18 sem. Units) |
| <u>Fresno City</u> | Elder Care Human Services | <ul style="list-style-type: none"> • Certificate (16-30 sem. Units) |
| <u>L.A. Mission</u> | Gerontology | <ul style="list-style-type: none"> • A.A. • Certificate (18+ sem. units) |
| Mt. San Jacinto | Gerontology | <ul style="list-style-type: none"> • A.S. • Certificate (16-30 sem. Units) |
| <u>Pasadena City</u> | Gerontology | <ul style="list-style-type: none"> • A.S. • Certificate (18+ sem. units) |
| <u>Sacramento City</u> | Gerontology | <ul style="list-style-type: none"> • A.S. • Certificate (18+ sem. units) |
| <u>Saddleback</u> | Aging Studies | <ul style="list-style-type: none"> • Certificate (16-30 sem. Units) |
| | Aging Studies Interdisciplinary | <ul style="list-style-type: none"> • Certificate (8-16 sem. Units) |
| <u>San Diego City</u> | Gerontology | <ul style="list-style-type: none"> • Certificate (18+ sem. units) |