

# Labor Market Analysis for Program Recommendation

# Respiratory Therapists

# Foothill College

## Prepared by the San Francisco Bay Center of Excellence for Labor Market Research

**December 2021**

## Recommendation

Based on all available data, there appears to be an “undersupply” of Respiratory Therapists compared to the demand for this cluster of occupations in the Bay region and in the Silicon Valley sub-region (Santa Clara county). There is a projected annual gap of about 110 students in the Bay region and 49 students in the Silicon Valley Sub-Region.

## Introduction

This report provides student outcomes data on employment and earnings for TOP 1210.00 Respiratory Care/Therapy programs in the state and region. It is recommended that these data be reviewed to better understand how outcomes for students taking courses on this TOP code compare to potentially similar programs at colleges in the state and region, as well as to outcomes across all CTE programs at Foothill College and in the region.

This report profiles in Respiratory Therapists in the 12 county Bay region and in the Silicon Valley sub-region for a proposed new Baccalaureate Degree program at Foothill College.

* **Respiratory Therapists (29-1126):** Assess, treat, and care for patients with breathing disorders. Assume primary responsibility for all respiratory care modalities, including the supervision of respiratory therapy technicians. Initiate and conduct therapeutic procedures; maintain patient records; and select, assemble, check, and operate equipment.
  Entry-Level Educational Requirement: Associate’s degree
  Training Requirement: None
  Percentage of Community College Award Holders or Some Postsecondary Coursework: 66%

## Occupational Demand

**Table 1. Employment Outlook for Respiratory Therapists in Bay Region**

| **Occupation** | **2020 Jobs** | **2025 Jobs** | **5-yr Change** | **5-yr % Change** | **5-yr Total Openings** | **Annual Openings** | **25% Hourly Earning** | **Median Hourly Wage** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Respiratory Therapists | 3,106 | 3,390 | 283 | 9% | 1,193 | 239 | $44 | $77 |
| **Total** | **3,106** | **3,390** | **284** | **9%** | **1,193** | **239** | **$44** | **$77** |
| Source: EMSI 2021.3 |

**Bay Region includes:** Alameda, Contra Costa, Marin, Monterey, Napa, San Benito, San Francisco, San Mateo, Santa Clara, Santa Cruz, Solano and Sonoma Counties

**Table 2. Employment Outlook for Respiratory Therapists in Silicon Valley Sub-region**

| **Occupation** | **2020 Jobs** | **2025 Jobs** | **5-yr Change** | **5-yr % Change** | **5-yr Total Openings** | **Annual Openings** | **25% Hourly Earning** | **Median Hourly Wage** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Respiratory Therapists | 750 | 878 | 127 | 17% | 365 | 73 | $42 | $76 |
| **Total** | **750** | **878** | **128** | **17%** | **365** | **73** | **$42** | **$76** |
| Source: EMSI 2021.3 |

**Silicon Valley Sub-Region includes:** Santa Clara Counties

### Job Postings in California, Bay Region and Silicon Valley Sub-Region

**Table 3. Number of Job Postings for** **Respiratory Therapists for latest 12 months (Nov 2020 - Oct 2021)**

| **Occupation** | **California** | **Bay Region** | **Silicon Valley** |
| --- | --- | --- | --- |
| Respiratory Therapists | 6,122 | 1,435 | 344 |
|  | Source: Burning Glass |

**Chart 1. Time Series Analysis – Job Postings for Respiratory Therapists in Bay Region, 2010-2020**

Source: Burning Glass

**Table 4a. Top Job Titles for Respiratory Therapists for latest 12 months (Nov 2020 - Oct 2021) Bay Region**

| **Title** | **Bay** | **Title** | **Bay** |
| --- | --- | --- | --- |
| Travel Respiratory Therapist | 149 | Rrt | 26 |
| Respiratory Therapist |  114 | Respiratory Therapist - Rt | 25 |
| Respiratory Therapist/Rrt | 83 | Certified Respiratory Therapist | 19 |
| Respiratory Care Practitioner | 73 | Registered Respiratory Therapist - Neonatal Intensive Care | 19 |
| Rrt/Crt Respiratory Therapist | 67 | Registered Respiratory Therapist Rrt  | 18 |
| Respiratory Therapist Travel Positions | 62 | Travel Rrt - Respiratory Therapist | 18 |
| Travel Registered Respiratory Therapist Rrt | 60 | Respiratory Care Practitioner I Registered | 15 |
| Registered Respiratory Therapist | 39 | Respiratory Care Practitioner II Registered | 13 |
| Respiratory Care Practitioner II | 32 |  |  |
| Source: Burning Glass |

**Table 4b. Top Job Titles for Respiratory Therapists for latest 12 months (Nov 2020 - Oct 2021) Silicon Valley Sub-Region**

| **Title** | **Silicon Valley** | **Title** | **Silicon Valley** |
| --- | --- | --- | --- |
| Travel Respiratory Therapist | 46 | Registered Respiratory Therapist - Neonatal Intensive Care | 6 |
| Rrt/Crt Respiratory Therapist | 17 | Registered Respiratory Therapist - Pediatric Intensive Care | 6 |
| Respiratory Therapist Travel Positions | 16 | Respiratory Therapist - Rt | 6 |
| Respiratory Therapist/Rrt | 13 | Certified Respiratory Therapist | 4 |
| Respiratory Therapist | 12 | Registered Respiratory Therapist Rrt /Neonatal | 4 |
| Travel Registered Respiratory Therapist Rrt | 10 | Respiratory Care Practitioner II  | 4 |
| Respiratory Care Practitioner | 9 | Travel Rrt - Respiratory Therapist | 4 |
| Registered Respiratory Therapist | 8 | Registered Respiratory Therapist - Pediatric | 3 |
| Rrt | 8 | Registered Respiratory Therapist Rrt /Pediatric | 3 |
| Source: Burning Glass |

## Industry Concentration

**Table 5. Industries hiring Respiratory Therapists in Bay Region**

| **Industry – 6 Digit NAICS (No. American Industry Classification) Codes** | **Jobs in Industry (2020)** | **Jobs in Industry (2025)** | **% Change (2020-25)** | **% Occupation Group in Industry (2020)** |
| --- | --- | --- | --- | --- |
| General Medical and Surgical Hospitals | 1,651 | 1,691 | 2% | 54% |
| Hospitals (Local Government) | 512 | 596 | 16% | 17% |
| Hospitals (State Government) | 159 | 209 | 31% | 5% |
| HMO Medical Centers | 148 | 200 | 35% | 5% |
| Specialty (except Psychiatric & Substance Abuse) Hospitals | 101 | 142 | 41% | 3% |
| Nursing Care Facilities (Skilled Nursing Facilities) | 100 | 110 | 9% | 3% |
| Offices of Physicians (except Mental Health Specialists) | 44 | 45 | 4% | 1% |
| Home Health Care Services | 22 | 27 | 23% | 1% |
| Freestanding Ambulatory Surgical and Emergency Centers | 19 | 27 | 41% | 1% |
| All Other Outpatient Care Centers | 19 | 26 | 37% | 1% |
| Source: EMSI 2021.3 |

**Table 6. Top Employers Posting Jobs for Respiratory Therapists in Bay Region and Silicon Valley Sub-Region (Nov 2020 - Oct 2021)**

| **Employer** | **Bay** | **Employer** | **Silicon Valley** |
| --- | --- | --- | --- |
| Healthcare Traveler Allied Health | 221 | Lucile Packard Childrens Hospital | 63 |
| Lucile Packard Childrens Hospital | 63 | Healthcare Traveler Allied Health | 48 |
| Kaiser Permanente | 55 | Asante | 13 |
| Asante | 42 | El Camino Hospital | 12 |
| Sutter Health | 37 | Stanford Health Care | 9 |
| Apria | 29 | Kaiser Permanente | 9 |
| University Of California | 24 | Apria | 6 |
| Kindred Healthcare Incorporated | 21 | Hospital Corporation of America | 5 |
| Allied Health Travel | 21 | Soliant | 4 |
| Dignity Health | 18 | Santa Clara Valley Medical Center | 4 |
| Source: Burning Glass |

The top five cities in the Bay region with the most job postings (that list an employer) are San Francisco (41), Palo Alto (38) and Santa Rosa (26), Santa Cruz (24), San Jose (23).

## Educational Supply

There are five (5) community colleges in the Bay Region issuing 104 awards on average annually (last 3 years ending 2018-19) on TOP 1210.00 Respiratory Care/Therapy. Of these 104 annual awards, 97 are Associate Degree awards and 7 are Bachelor’s Degree awards. In the Silicon Valley Sub-Region, there is one (1) community college that issued 24 awards on average annually (last 3 years) on this TOP code.

There is one (1) other CTE educational institution in the Bay Region issuing 25 awards on average annually (last 3 years ending 2016-17) on TOP 1210.00 Respiratory Care/Therapy. There are no other CTE educational institutions in the Silicon Valley Sub-Region issuing awards on average annually (last 3 years) on this TOP code.

There are no four-year institutions in the Bay Region or Silicon Valley Sub-region issuing Bachelor’s degrees on average annually (last 3 years ending 2016-17) on TOP 1210.00 Respiratory Care/Therapy.

**Table 7a. Community College Awards on TOP 1210.00 Respiratory Care/Therapy in Bay Region**

| **College** | **Subregion** | **Associate** | **Bachelor’s** | **Total** |
| --- | --- | --- | --- | --- |
| Foothill | Silicon Valley | 24 | 0 | 24 |
| Hartnell | SC-Monterey | 14 | 0 | 14 |
| Napa | North Bay | 20 | 0 | 20 |
| Ohlone | East Bay | 18 | 0 | 18 |
| Skyline | Mid-Peninsula | 21 | 7 | 28 |
| **Total** |  | **97** | **7** | **104** |
| Source: Data Mart |

*Note: The annual average for awards is 2016-17 to 2018-19.*

**Table 7b. Other CTE Institutions Awards on TOP 1210.00 Respiratory Care/Therapy in Bay Region**

| **College** | **Subregion** | **Associate Degree** | **Total** |
| --- | --- | --- | --- |
| Carrington College-Pleasant Hill | East Bay | 25 | 25 |
| **Total** |  | **25** | **25** |
| Source: Data Mart |

*Note: The annual average for awards is 2016-17 to 2018-19.*

## Gap Analysis

Based on the data included in this report, there is a labor market gap in the Bay region with 239 annual openings for Respiratory Therapists and 129 annual (3-year average) awards for an annual undersupply of 110 students. In the Silicon Valley Sub-Region, there is also a gap with 73 annual openings and 24 annual (3-year average) awards for an annual undersupply of 49 students.

## Student Outcomes

**Table 8. Four Employment Outcomes Metrics for Students Who Took Courses on TOP 1210.00 Respiratory Care/Therapy**

| **Metric Outcomes** | **Bay All CTE Programs** | **Foothill All CTE Programs** | **State 1210.00** | **Bay 1210.00** | **Silicon Valley 1210.00** | **Foothill 1210.00** |
| --- | --- | --- | --- | --- | --- | --- |
| Students with a Job Closely Related to Their Field of Study | 73% | 86% | 92% | 94% | 100% | 100% |
| Median Annual Earnings for SWP Exiting Students | $44,575 | $63,206 | $38,211 | $68,527 | $63,868 | $63,868 |
| Median Change in Earnings for SWP Exiting Students | 30% | 31% | 49% | 40% | 27% | 27% |
| Exiting Students Who Attained the Living Wage | 53% | 50% | 54% | 66% | 55% | 55% |
| Source: Launchboard Strong Workforce Program Median of 2016-18. |

## Skills, Certifications and Education

**Table 9. Top Skills for Respiratory Therapists in Bay Region (Nov 2020 - Oct 2021)**

| **Skill** | **Posting** | **Skill** | **Posting** |
| --- | --- | --- | --- |
| Respiratory Therapy | 1,371 | Pediatric Advanced Life Support | 130 |
| Patient Care | 653 | Neonatal Intensive Care Unit (NICU) | 129 |
| Advanced Cardiac Life Support (ACLS) | 507 | Clinical Experience | 127 |
| Treatment Planning | 411 | Scheduling | 117 |
| Life Support | 337 | Physiology | 115 |
| Ventilation | 268 | Repair | 111 |
| Critical Care | 257 | Electrocardiogram (EKG/ECG) | 110 |
| Cardiopulmonary Resuscitation (CPR) | 254 | Patient Treatment | 110 |
| Therapy | 195 | Bronchoscopy | 101 |
| Acute Care | 173 | Therapeutic Procedures | 101 |
| Patient/Family Education and Instruction | 161 | Quality Assurance and Control | 99 |
| Spirometry | 147 | Pediatrics | 92 |
| Neonatal Resuscitation | 133 | Pathology | 90 |
| Respiratory Care Procedures | 133 | Continuous Positive Airway Pressure (CPAP) | 89 |
| Source: Burning Glass |

**Table 10. Certifications for Respiratory Therapists in the Bay Region (Nov 2020 - Oct 2021)**

| **Certification** | **Posting** | **Certification** | **Posting** |
| --- | --- | --- | --- |
| Registered Respiratory Therapist | 789 | First Aid Cpr Aed | 77 |
| Respiratory Care Practitioner (RCP) | 552 | Driver's License | 55 |
| Advanced Cardiac Life Support (ACLS) Certification | 492 | Certified Occupational Therapy Assistant (COTA) | 34 |
| Certified Respiratory Therapist | 365 | CA License | 19 |
| Basic Life Saving (BLS) | 327 | Certified Pulmonary Function Technologist | 14 |
| Neonatal Resuscitation Program (NRP) | 261 | Certified Respiratory Therapy Assistant | 11 |
| Basic Cardiac Life Support Certification | 217 | Care License | 4 |
| American Heart Association Certification | 139 | Licensed Practical Nurse (LPN) | 3 |
| Pediatric Advanced Life Support (PALS) Certification | 91 | Emergency Medical Technician (EMT) | 3 |
| Registered Pulmonary Function Technologist | 78 | Licensed Vocational Nurse (LVN) | 2 |
| Source: Burning Glass |

As shown in Table 11 below, employers in the Bay Region have consistently listed a Bachelor’s degree or higher as the minimum education required for Respiratory Therapists since 2016, with the exception of 2018.

**Table 11:** **Education Requirements for Respiratory Therapists in Bay Region, 2016 – 2021\***

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Education (minimum advertised)** | **2016** | **2017** | **2018** | **2019** | **2020** | **2021\*** |
| Associate's degree | 32% | 45% | 61% | 41% | 37% | 40% |
| Bachelor's or higher | 68% | 55% | 39% | 59% | 63% | 60% |

Source: Burning Glass \* Job postings are from January 2021 – November 2021

**Proposed Change to Educational Requirements for Respiratory Therapists**
Currently, to qualify for licensure in California, Respiratory Therapists must attend an education program accredited by the Commission on Accreditation for Respiratory Care ([CoARC](https://coarc.com/)) and been awarded a minimum of an **associate degree**.

 In 2019, the American Association for Respiratory Care ([AARC](https://www.aarc.org/)) published their support to advance educational requirements for RTs from an **associate degree** to a **bachelor's degree**. This recommendation is based on their understanding that the role of the Respiratory Therapist has advanced significantly - experiencing growth in scope of practice, complexity of clinical skills, and diversity of care sites.

If successful, the degree requirement would change for new Respiratory Therapists beginning in 2030 and thereafter.

## Methodology

Occupations for this report were identified by use of skills listed in O\*Net descriptions and job descriptions in Burning Glass. Labor demand data is sourced from Economic Modeling Specialists International (EMSI) occupation data and Burning Glass job postings data. Educational supply and student outcomes data is retrieved from multiple sources, including CTE Launchboard and CCCCO Data Mart.

## Sources

O\*Net Online
Labor Insight/Jobs (Burning Glass)
Economic Modeling Specialists International (EMSI)
CTE LaunchBoard www.calpassplus.org/Launchboard/
Statewide CTE Outcomes Survey
Employment Development Department Unemployment Insurance Dataset
Living Insight Center for Community Economic Development
Chancellor’s Office MIS system

## Contacts

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