

# WORKFORCE NEEDS ASSESSMENT RESPIRATORY THERAPISTS IN CALIFORNIA



January 2022



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In fall of 2021, the California Community Colleges' Centers of Excellence for Labor Market Research (COE) launched a multi-region research effort on behalf of California community colleges to better understand the respiratory therapist workforce with a focus on employment and educational opportunities.

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We welcome feedback on this report. If you have comments or questions, please contact the COE via email at [info@coeccc.net](mailto:info@coeccc.net).



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**Executive Summary**

In December of 2021, the California Community College Centers of Excellence launched a targeted statewide survey of employers to better understand the workforce need for respiratory therapists (RTs) across California.

This report combines preliminary survey data with recent educational and employment statistics and projections to describe the current RT workforce, the educational programs that train RTs, and the growing employer demand for RTs in California. The findings generate critical insights to support the growing healthcare needs of the state and the future of the RT profession. Key findings include:

- As many as 23,500 individuals hold active licenses to practice as a respiratory therapist in California while occupational employment data estimates there are only about 16,000 jobs currently.
- The demand for RTs is projected to increase by 11% through 2025, growth of more than 1,700 new jobs. Replacement needs generate close to 5% or 340 jobs annually as well. Combined, annual openings could be as high as 1,100 annually.
- Wage estimates show that RTs, when employed full-time, can earn as much as \$70,000 annually as a relatively new entrant to the profession.
- The demand for RTs who have attained a bachelor’s degree seems to be increasing, possibly a result of changes to the role of RTs and/or to support more robust supervisory or clinical career pathway opportunities.
- To incentivize further education, 34% of employers surveyed either currently offer or would consider offering a salary or non-salary incentive to new employees with a bachelor’s degree in respiratory therapy or in a related health field.
- There are 28 respiratory therapy programs in California (20 public and eight private programs); all offer an Associate degree and seven award bachelor’s degrees. Together, they award about 1,000 degrees annually.

## Respiratory Therapist Employment

To better understand the labor market conditions for Respiratory Therapists (RTs), this study compiled data from multiple sources to build a profile of the RT workforce, where RTs are typically employed, how much they earn and the pipeline of community college students. The report also includes information collected directly from RT employers collected via an online survey.

### Employer Survey: Preliminary Findings

To better understand the hiring needs, requirements and preferences of hospitals and other organizations that employ RTs, the COE is conducting a survey to gather information that would assist community colleges with preparations to offer a bachelor's degree program in Respiratory Therapy. The survey seeks to determine current and future labor market demand for RTs, level of difficulty finding qualified RTs, preferences for education levels, RT recruitment strategies and interest in collaborating with community colleges with Respiratory Therapy programs. Survey questions also covered current workforce training and development practices, trends related to respiratory care practices and clinical skills, and employer perspectives on Bachelor's degrees in Respiratory Therapy.

*The analysis included in the report is a preliminary summary of the responses collected from December 7, 2021 through January 10, 2022 and may be revised as more employers participate in the survey.*

### Size of the RT Workforce

According to state licensure data<sup>1</sup>, there were more than 23,500 individuals who held an active Respiratory Care Practitioner license in California during fiscal year 2019-20. Since 2015-16, the number of active licensees have increased by 3.5% or about 790 practitioners.

In 2020, there were close to 16,000 RT jobs in the state of California.<sup>2</sup> This is a slight decrease of about 300 jobs since 2015, a decline of 2%. By the year 2025, California is projected to create more than 1,700 new RT positions to total as many as 17,660 jobs, an significant increase of 11% over the period.

#### Exhibit 1: Historical employment for Respiratory Therapists in California (2015-2020)

Occupation	2015 Jobs	2020 Jobs	Change	% Change
Respiratory Therapists (SOC 29-1126)	16,236	15,945	(291)	(2%)

#### Exhibit 2: Projected demand for Respiratory Therapists in California (2020-2025)

Occupation	2020 Jobs	2025 Jobs	Change	% Change	Annual Change
Respiratory Therapists (SOC 29-1126)	15,945	17,659	1,714	11%	343

In addition to new jobs created, 4.7% of workers annually vacate the respiratory therapist profession, creating approximately 785 openings each year. Combined with annual job growth (change), RT job opportunities could number 1,130 annually through 2025.

#### Exhibit 3: Projected replacement needs for Respiratory Therapists in California (2020-2025)

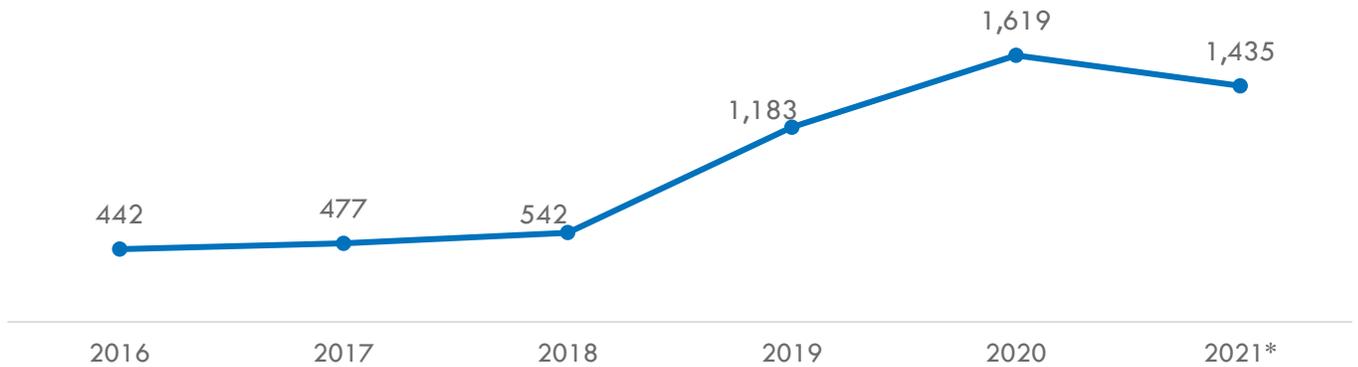
Occupation	Annual Replacement Rate	Annual Replacement Jobs	Average Annual Openings
Respiratory Therapists (SOC 29-1126)	4.7%	785	1,130

<sup>1</sup> License count for fiscal year (FY) 2019-20. Source: Department of Consumer Affairs, Licensee Lists. Accessed online at [https://www.dca.ca.gov/data/annual\\_license\\_stats.shtml](https://www.dca.ca.gov/data/annual_license_stats.shtml), January 10, 2022.

<sup>2</sup> Economic Modeling Specialists, Inc. 2021.3. Average annual openings combines annual change with annual replacements.

Online recruitment pattern is another measure of demand. In the chart below, the number of annual postings for RT jobs from 2016 through most of 2021 are detailed. Peaking in 2020, the slight drop-off in 2021 could be attributed to the missing month of data (December 2021) or indicate a tapering off as the state neared the second anniversary of the COVID-19 pandemic and pandemic response.

**Exhibit 4: Annual job postings for Respiratory Therapists in California (2016 – 2021\*)**



\* Job postings are from January 2021 – November 2021

**Employers confirm RTs are in demand**

Survey participants currently employ more than 2,650 RTs and expect to add as many as 150 full-time RTs and 100 part-time RTs in the next 12 months (n=44).

- At the time of the survey, 75% of respondents were recruiting to fill open RT positions – reporting a combined 110 full-time positions and close to 100 part-time positions across the sample.
- More than half (57%) of employers reported having some to extreme difficulty in finding qualified candidates for positions.

**Industry Employers**

Our analysis of labor market data indicated Hospitals, Nursing Care Facilities, and HMO Medical Centers were the largest industry employers of the occupation. Respiratory therapists are most likely to be employed in a hospital setting, responsible for about four out of five RT jobs (79%).

Jobs in nursing facilities, specifically those with acute care services follow with close to 5% of the positions, and jobs in HMO medical centers account for another 3%.

**Who Responded to the Survey?**

A total of 44 employers had responded to the survey when the data was analyzed. Almost all of the respondents (89%) represented Hospitals, while other respondents were from Offices of Physicians, HMO Medical Centers, Acute Care or Specialty facilities.

Early results lean heavily to Bay Area and Inland Empire employers as those were the first regions to have initiated a data collection effort. The greatest number of respondents (38%) were located in the Inland Empire (Riverside and San Bernardino counties), followed by the Bay Region with 34% of the sample.

## Education Requirements

### Current Degree Requirement

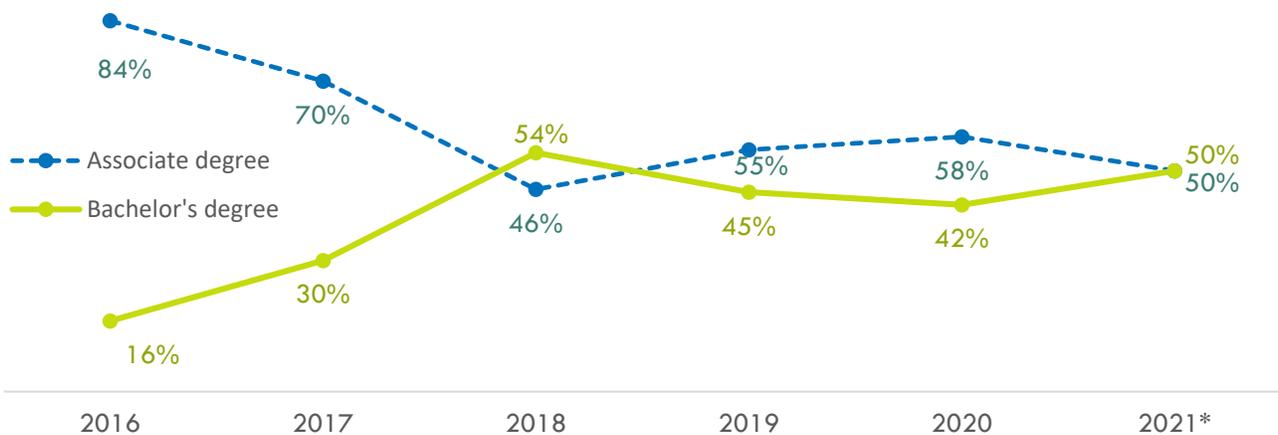
The minimum educational requirement for RTs in California is an associate degree. Currently, to qualify for licensure in California, Respiratory Therapists must attend an education program accredited by the Commission on Accreditation for Respiratory Care ([CoARC](#)) and been awarded a minimum of an associate degree. To qualify for licensure, applicants must also pass exams given by the National Board for Respiratory Care (NBRC).<sup>3</sup>

### Proposed Change to Educational Requirements for Respiratory Therapists

In 2019, the American Association for Respiratory Care ([AARC](#)) 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.

According to job posting data, of those that include degree requirements, the share of postings requiring an associate degree has declined since 2016 while the share of jobs that require a bachelor's degree or above has increased during the same period.

**Exhibit 5: Minimum education level requested in job postings, Statewide (2016 – 2021\*)**



\* Job postings are from January 2021 – November 2021

### Employers detail degree-level requirements versus preferences in hiring

- **Reigning requirement is still an associate degree**  
Most employers in the survey reported that the required degree for RT employment at their organization is still an associate degree (79%) — just **9% reported that a bachelor's degree was required.**
- **Emerging preference for a bachelor's degree**  
In terms of degree preferred, 66% indicated no distinction in their hiring preferences. However, **20% responded that their organization's preference was for a bachelor's degree** – either in Respiratory Therapy or in another health-related field.
- **Most employers surveyed (82%) are aware of the proposed change** to the education requirements for RTs — advancing from an associate to a bachelor's degree.

<sup>3</sup> Information accessed from <https://www.rcb.ca.gov/applicants/index.shtml> on January 11, 2022.

## Work Experience

In addition to degree attainment (and licensure), employers are also looking for applicants with some work experience. When asked about length of work experience, most (80%) responded that they will consider newly licensed RTs with very little or no on-the-job experience and almost all (95%) were open to RTs with one to three years of experience.

## Work Environment

### Evolving RT role

Within the proposal for the degree advancement in respiratory therapy, the [AARC](#) emphasized that their recommendation is the result of how the role of the Respiratory Therapist has changed. They argue that the occupation is experiencing growth in scope of practice, complexity of clinical skills, and diversity of care sites.

As such, these were topics that employers were asked about in the survey. Most indicated that the scope of practice and clinical skills for Respiratory Therapists have changed at their organization.

- 70% reported the scope of practice has expanded for RTs.
- 84% reported the clinical skills RT perform have become more complex.
- In addition to influencing the hiring process, employers related some degree distinction within the tasks or responsibilities performed by RTs. **Almost half (43%) indicated that there are certain tasks/responsibilities that they prefer Bachelor's degree RTs perform.**

### Exhibit 6: Hourly and Annual Wages for Respiratory Therapists in California (2020)

2020 Wage Data	Entry-Level 25 <sup>th</sup> Percentile	Median 50 <sup>th</sup> Percentile	Experienced 75 <sup>th</sup> Percentile	Living Wage Measure <sup>4</sup>	
				Single Adult	Single Adult and School-age Child
Hourly	\$33.90	\$41.17	\$50.11	\$15.00	\$24.68
Annual*	\$70,512	\$85,634	\$104,289	\$31,200	\$52,131

\*Annual estimates assume full-time employment equivalent to 40 hours per week and 52 work weeks per year.

## Incentivizing Degree Attainment

- Within the sample, one-third of employers (34%) reported their organization currently offers or would **offer a salary incentive to RTs who have a Bachelor's degree in Respiratory Therapy.**
- Other incentives offered to workers included:
  - **Increased advancement opportunities** – more likely to be offered leadership positions (shift team leads, transport RTs, etc.), to be elevated to a clinical ladder or range.
  - **Non-salary financial benefits** – eligible for sign on bonus, tuition reimbursement, scholarships, and student loan forgiveness programs.

<sup>4</sup> Self-Sufficiency Standard wage data was pulled from The Self-Sufficiency Standard Tool for California on 1/5/2022. For more information, visit: <http://selfsufficiencystandard.org/california>. Living wage measure for a single adult included in Exhibit 6 represents the minimum wage (assumes employers with 25 or more employees) or the median living wage for the family size indicated across California's 58 counties, whichever is higher.

## Respiratory Therapy Programs

As shown in detail below, based on the award data for the most recent three years for both associate and bachelor’s degrees, RT programs across the state successfully graduate about 1,000 students each year.

### Community Colleges

Twenty community colleges currently offer training and education programs to prepare future RTs.<sup>5</sup> All programs report under TOP code 1210.00 Respiratory Care and Therapy. In 2019-20, more than 1,100 students enrolled in non-introductory respiratory care/therapy courses and 374 completed an associate or bachelor’s degree. These programs share many characteristics of successful CE programs:

- 95% course retention rates on average
- 88% course success rates on average
- In the most recent three years for which data is available, these programs have collectively awarded bachelor’s and associate degrees to 1,092 students

A close look at the most recent available data of student employment outcomes for RT programs found that community college students who complete their studies in this field:

- Found a job closely related to their field of study - 99%<sup>6</sup>
- Reported median annual earnings of \$42,242
- Reported median change (gain) in earnings of 33%
- Most (58%) met or exceeded the single-adult living wage threshold within one year of exit

### Exhibit 7: Community College Associate and Bachelor’s Degrees in Respiratory Therapy<sup>7</sup>

Community College	Award	2017-18 Awards	2018 -19 Awards	2019-20 Awards	3-year Average
American River	Associate	16	19	16	17
Antelope Valley	Associate	10	13	16	13
Butte	Associate	30	27	29	29
Compton	Associate	-	1	-	-
Crafton Hills	Associate	29	25	32	29
East LA	Associate	24	27	19	23
El Camino	Associate	16	15	16	16
Foothill	Associate	23	24	23	23
Fresno City	Associate	15	19	19	18
Grossmont	Associate	22	19	28	23
Hartnell	Associate	18	15	10	14
LA Valley	Associate	27	25	27	26
Modesto	Associate	22	24	22	23

<sup>5</sup> CCCC Datamart awards data determined the list of active RT programs in community colleges. Active defined by at least one associate or bachelor’s degree awarded in the last three program years.

<sup>6</sup> CalPass Plus Launchboard, 2016-2019 data for California Community Colleges.

<sup>7</sup> Awards data in this table are from CCCC Datamart awards data and represents a count of awards given; awards totals as shown on Launchboard may vary as the data represent number of students receiving an award – removing any duplication of awards (one student receiving multiple awards).

Community College	Award	2017-18 Awards	2018 -19 Awards	2019-20 Awards	3-year Average
Mt San Antonio	Associate	24	19	13	19
Napa	Associate	24	20	22	22
Ohlone	Associate	19	20	9	16
Orange Coast	Associate	16	12	17	15
Santa Monica	Associate	3	15	14	11
Skyline	Associate	17	26	18	20
Victor Valley	Associate	17	20	16	18
<b>Total, Associate</b>		<b>372</b>	<b>385</b>	<b>366</b>	<b>375</b>
Modesto	Bachelor's	-	18	8	9
Skyline	Bachelor's	18	2	-	7
<b>Total, Bachelor's</b>		<b>18</b>	<b>20</b>	<b>8</b>	<b>16</b>
<b>Total, All Awards</b>		<b>400</b>	<b>405</b>	<b>374</b>	<b>393</b>

#### Employers elaborate on RT programs offered by community colleges.

When asked which, if any, RT programs at California community colleges they were familiar with, employers most frequently identified Crafton Hills College, Skyline College, Foothill College, Ohlone College and Victor Valley College. Given the survey was promoted primarily to employers in those regions, this result is to be expected.

- About two-thirds (66%) of employers were already aware that bachelor's degrees in Respiratory Therapy were available through California community colleges.
- Most (86%) of the employers who responded to the RT survey currently offer clinical rotations for students. The survey did not ask them to distinguish whether they partner with public or private colleges.

#### Private Postsecondary Institutions

Several private colleges currently graduate respiratory therapy professionals. These programs report under two CIP codes: 51.0812 Respiratory Therapy Technician or Assistant, and 51.0908 Respiratory Care Therapy/Therapist.

#### Exhibit 31: Private Postsecondary Institutions Associate and Bachelor's Degrees<sup>8</sup>

Community College	Award	2016-17 Awards	2017 -18 Awards	2018-19 Awards	3 Year Average
American Career College-Anaheim	Associate	47	37	35	40
American Career College-Ontario	Associate	47	33	29	36
California College San Diego	Associate	43	47	42	44
Carrington College-Sacramento	Associate	0	0	16	5
Concorde Career College-Garden Grove	Associate	32	51	39	41
Concorde Career College-North Hollywood	Associate	36	42	47	42
Concorde Career College-San Bernardino	Associate	27	16	27	23

<sup>8</sup> Program and completion data for other postsecondary institutions was compiled using the Integrated Postsecondary Education Data System (IPEDS).

Community College	Award	2016-17 Awards	2017 -18 Awards	2018-19 Awards	3 Year Average
Concorde Career College-San Diego	Associate	21	13	2	12
Pima Medical Institute-Chula Vista	Associate	18	23	0	14
Pima Medical Institute-San Marcos	Associate	0	0	24	8
Platt College-Anaheim	Associate	0	0	0	0
Platt College-Los Angeles	Associate	31	23	14	23
Platt College-Ontario	Associate	43	42	41	42
Platt College-Riverside	Associate	0	0	0	0
San Joaquin Valley College-Visalia	Associate	179	266	242	229
<b>Total, Associate</b>		<b>524</b>	<b>593</b>	<b>558</b>	<b>558</b>
California College San Diego	Bachelor's	7	5	5	6
Loma Linda University	Bachelor's	10	10	10	10
Platt College-Los Angeles	Bachelor's	3	11	4	6
Platt College-Riverside	Bachelor's	0	0	0	0
San Joaquin Valley College-Visalia	Bachelor's	0	0	79	26
<b>Total, Bachelor's</b>		<b>20</b>	<b>26</b>	<b>98</b>	<b>48</b>
<b>Total, All Awards</b>		<b>544</b>	<b>619</b>	<b>656</b>	<b>606</b>

### Employers offer their personal perspectives on degree attainment

“Bachelor’s degree programs are sorely needed. By allowing community colleges to offer these advanced degrees [it] would be very advantageous to CA Resp programs and CA respiratory therapists. Many other states already have this in place so they have many more Respiratory Therapists with a bachelor’s degree. It would be awesome if CA could do the same.”

“I personally fully support the development of the bachelor’s programs at the community college level. We have spent considerable time developing a clinical ladder in our organization that supports our staff to pursue the bachelor’s degree and advance their learning. The goal is to improve our level of practice and improve clinician involvement in the provision of care through shared governance, active participation in root cause and failure mode effects analysis.”

“B.S. degrees are essential if we want to move towards an advanced practice RCP. There is great opportunity in healthcare to have an advanced practice RCP from the ambulatory world (pulmonary office/clinic, home health visits in hospital to home situations, assist hospitalists/intensivists, etc.)”

“In my experience as a manager - I currently have staff who have obtained their BSRC degrees, and they do not have an understanding of ABG Lab requirements. I can ask them about ‘pre-analytical, analytical, and post-analytical’ questions regarding ABG’s, and they get confused.”

“They obtain their BSRC and only have gained knowledge about ventilating an adult patient...[they] struggle with instructing an asthmatic patient on their inhalers.”

“We do not currently have any BS in RT on staff so hard to know what would happen with salary and procedures until we start getting them. Currently BS degree only required/recommended for management positions...”

“Our hospital currently does not offer incentives for bachelor’s degrees, and I don’t think it should be a mandatory requirement for RTs, but as an extra opportunity ... possibly get paid more for it or be given more duties at work.”

## References

- California Community Colleges Chancellor's Office. (2021). California Community Colleges LaunchBoard. Retrieved from <https://www.calpassplus.org/LaunchBoard/Home.aspx>
- California Community Colleges Chancellor's Office. (2021). Chancellor's Office Curriculum Inventory, version 3.0. Retrieved from <https://coci2.ccctechcenter.org/programs>
- California Community Colleges Chancellor's Office Management Information Systems (MIS) Data Mart. (2021). Data Mart. Retrieved from <https://datamart.cccco.edu/datamart.aspx>
- California Community Colleges Chancellor's Office, Curriculum and Instructional Unit, Academic Affairs Division. (2013). Taxonomy of Programs, 6th Edition, Corrected Version. Retrieved from [http://extranet.cccco.edu/Portals/1/AA/Credit/2013Files/TOPmanual6\\_2009\\_09corrected\\_12.5.13.pdf](http://extranet.cccco.edu/Portals/1/AA/Credit/2013Files/TOPmanual6_2009_09corrected_12.5.13.pdf)
- Economic Modeling Specialists International. Datarun 2021.3. (2021). Retrieved from <https://www.economicmodeling.com/>
- National Center for O\*NET Development. (2021). O\*NET OnLine. Retrieved from <https://www.onetonline.org/>.
- U.S. Department of Education. Institute of Education Sciences, National Center for Education Statistics. (2021). Retrieved from <https://nces.ed.gov/ipeds/>.