Health Science and Medical Technology

Date: 11/3/2023
Time: 8:30 - 10:30
Location: Dorothy Inghram Learning Center
Hosted by: SBCROP
Facilitator: Terri Giamarino, SBCROP Program Manager
Advisory Documents: https://bit.ly/HSMTAdvisoryDocs2023

Advisors:

Dr. John Beld, Doctor of Physical Therapy, Select Physical Therapy
Kyoni Cummings, Education Coordinator, NAMI Pomona Valley
Doris Ontiveros, Licensed & Certified Pharmacy Technician, Loma Linda University and Pharmacy Tech Instructor, San Bernardino Valley College
Dr. Philip Tagatac, Owner, Inland Dental Arts

K12 Educational Participants:

Annette Billups, San Bernardino City Unified School District, Teacher
Audra LaChausse, San Bernardino City Unified School District, Teacher
Brian Leidner, Rim of the World School District, Teacher
Brittany Guillory, San Bernardino City Unified School District, Teacher
Bunnie Cervantes, Rialto Unified School District, Teacher
Debra Tivey, San Bernardino City Unified School District, Teacher
Doris Hernandez, Colton Joint Unified School District, Work-based Learning Technician
E. Resmi Kackery, San Bernardino City Unified School District, CTE Site Lead
Elisa Cruz, Inland Career Education Center, Counselor
Ellen Sampong, Colton-Redlands-Yucaipa ROP, Curriculum Developer
Erica Quezada, Rialto Unified School District, Teacher
Evelia Terriquez, Colton Joint Unified School District, Work-based Learning Technician
Gricelda Peña, San Bernardino City Unified School District, Teacher
Helen Gonzalez, San Bernardino City Unified School District,
Kent Weiss, Morongo Unified School District, Teacher
Kim Terry, San Bernardino Alliance for Education, Coordinator
Kimberly Laurie, San Bernardino City Unified School District, College and Career
Lakeysha Murphy, Colton-Redlands-Yucaipa ROP, Teacher
Laura Rodriguez, San Bernardino City Unified School District, Teacher
Laura Smith, San Bernardino City Unified School District, Linked Learning Program Specialist
Lillian Crawford, Rialto Unified School District, Teacher
Marcella Munoz, Rialto Unified School District, Teacher
Maria Boucher, San Bernardino City Unified School District, Teacher
Marta Chavez, Colton Joint Unified School District, Teacher
Melinda Spencer, San Bernardino City Unified School District, Teacher
Melissa Dix, Colton-Redlands-Yucaipa ROP, Director of Educational Services

Paul Lucero, Colton Joint Unified School District, Coordinator, Assessment & Data, CTE
Phirun Son, San Bernardino City Unified School District, Teacher
Roberta Figueroa, San Bernardino City Unified School District, Teacher
Rosa Aguilar, San Bernardino City Unified School District, Teacher
Sarah True, Morongo Unified School District, Teacher
Sean Cassady, San Bernardino City Unified School District, Teacher

Minutes:

A panel of four industry professionals representing a wide range of positions within the Health Science and Medical Technology Industry Sector participated by answering the following questions.

Question 1: What trends do you see impacting your industry within the next 3-5 years?

Dr. John Beld anticipates a surge in demand for physical therapists due to an increased patient load, primarily stemming from an older population seeking a better quality of life. He notes the impact of prolonged computer use on posture, resulting in a shortage of physical therapists to address these issues.

Kyoni Cummings highlights the significant fallout from COVID-19 in education, observing that students are falling behind academically and facing challenges with substance abuse and gangs. The proliferation of technology presents both advantages and drawbacks, affecting parental work-life balance and amplifying mental health issues among youth due to excessive social media use. Additionally, students lack essential social and conflict-resolution skills.

Doris Ontiveros emphasizes the technician labor shortage exacerbated by COVID-19, stressing the need to attract more individuals to the field by improving wages and providing opportunities for advancement. She underscores the importance of supporting pharmacists and the implementation of a standardized living wage for technicians.

Dr. Philip Tagatac expresses concern over the dominance of big businesses in dentistry, overshadowing smaller practices. He identifies a significant uptick in technological advancements like CT scans, teledentistry, and 3D x-rays, aiming to improve access to dental care through a multidisciplinary approach.

Question 2: How would you recommend addressing these trends to better prepare students for your industry?

Dr. John Beld emphasizes a comprehensive approach to preparing students for physical therapy, emphasizing the importance of a strong science base. He suggests learning to interpret and analyze force plate assessments, which are crucial for diagnosing patient issues, and stresses the significance of mastering office software and understanding biomechanics and physics concepts.

Kyoni Cummings highlights the necessity of science-based disciplinary courses, cultural competency training, and diversifying the behavioral health space. Stressing the importance of self-care and addressing burnout, Cummings advocates teaching students about company culture's impact on employees. Cultural competency and effective communication skills, particularly in diverse settings, are underscored as essential.

Doris Ontiveros emphasizes the need for diversity, equity, and inclusion training in healthcare, suggesting incorporating these skills into high school and adult education curricula. Soft skills like effective communication, listening, and technological proficiency (such as MS Office) are highlighted as crucial, with an emphasis on acknowledging and accepting others' beliefs.

Dr. Philip Tagatac focuses on the accessibility of dental care and the various educational pathways within dentistry. He emphasizes that regardless of educational background, all positions within dentistry are essential. In addition, he shared there is flexibility in the field, where individuals can start at entry-level positions like dental assistant or office manager and progress through further education without barriers. An example of this career path would be entering as a Dental Assistant, to Registered Dental Assistant, to Dental Hygienist while completing the required education and certifications.

Question 3: What are the necessary skills/education/certification (s) needed for a student to obtain employment within your industry?

Dr. Philip Tagatac stresses the importance of soft skills over credentials in his industry. For Entry-level positions, he prioritizes personality and soft skills. However, some notable certifications are infection control and radiology certification. Upper-level management positions require strong soft skills, pragmatism, and the ability to work independently and as part of a team. A high school diploma might suffice for entry-level roles.

Doris Ontiveros emphasizes problem-solving skills as vital in her field. Pharmacy technicians require completion of a training program, 240 hours of experiential training, state board licensure, and sometimes hospital-specific licensing. Pharmacy Clerks are an entry-level option that does not require certification or licensure in most circumstances, and the position is more clerical. Encouraging further education is important, with opportunities to progress into pharmacy school or other healthcare specializations. Problem-solving and teamwork skills are in demand for all positions.

Kyoni Cummings outlines a traditional college track leading to various levels of licensure and certification in the behavioral health field. Specialty licenses in different types of therapy, such as CBT, DBT, or peer support positions, are becoming more prevalent. Kyoni highlights the growing recognition of peer support roles and the certifications required for these positions, even without a traditional college background. NAMI provides training and certifications for Peer Support positions.

Dr. John Beld details the pathway to becoming a physical therapist, emphasizing the need for a concentration in Allied Health for application to DPT (Doctor of Physical Therapy) school. The field of physical therapy encompasses various specializations like pelvic floor therapy, vestibular ocular reflex training, and even VR-based treatments, each requiring specific certifications. Prerequisites in physics, chemistry, and kinesiology lay the foundation for this career path.

Question 4: What skills or practices should educators focus on to support emerging technologies, equipment, regulations, or laws in your industry?

Dr. John Beld emphasizes the evolving landscape of physical therapy, noting a shift from utilizing physical therapy technicians due to new legislation mandating a minimum wage of $25 per hour for these positions. This change might lead to fewer patients being seen as technicians are often responsible for initiating patient exercises, freeing up therapists' time for other patients.

Kyoni Cummings highlights the increasing role of telehealth and virtual reality (VR) in behavioral health. Teletherapy, VR for trauma therapy, and the need for mental health responses apart from police intervention are significant changes. Kyoni notes that grassroots efforts have emerged to address mental health issues post-COVID, focusing on increased funding and alternative response mechanisms for mental health crises.

Doris Ontiveros stresses the importance of practical skills application for students, including basic tasks like handling change, practicing patient interactions, and utilizing technology. She emphasizes the impact of minimum wage increases on pharmacy technicians and the necessity for staying updated on regulatory changes in the field. Additionally, Ontiveros underlines the significance of responsibility, time management, and adaptability in a post-COVID world.

Dr. Philip Tagatac advocates for adaptability, open-mindedness, and critical thinking skills in dentistry. He stresses the importance of certifications in radiology and infection control and understanding OSHA regulations. Dr. Tagatac encourages cross-training to ensure employees can assist beyond their designated roles when appropriate and emphasizes critical thinking regarding the consequences of one's actions within the profession.

Question 5: Can you provide us with a few other occupations within your industry that may not require the highest degree/credential but provide a living wage?

Dr. John Beld highlights the role of a Physical Therapy Assistant (PTA), which typically requires an Associate's degree. Dr. Beld suggests that the training for PTAs could potentially be elevated to a higher level, akin to a master's degree, emphasizing these professionals' importance and skill level.

Dr. Philip Tagatac discusses the job market in dentistry, focusing on roles like Registered Dental Assistants (RDA) and Registered Dental Hygienists (RDH). He notes a current shortage in these positions, indicating a preference for individuals with a proactive attitude. Dr. Tagatac

also emphasizes the significance of maintaining continuity in patient care by having the same professionals to build rapport and the importance of creating a cohesive team environment.

Audience Questions and comments:

Laura Smith, SBCUSD, explained the students from their dental assistant pathway could be interns.

Melinda Spencer, SBCUSD, asked if students should be trained in Microsoft Office instead of Google.

- Dr. Philip Tagatac stated that it doesn't matter which platform as long as they can make a document- we have our own software at the office.
- Doris Ontiveros stated that pharmacy requires Excel, which is needed in the profession- most pharmacies use Microsoft.
- Dr. John Beld stated that Microsoft Word and Excel are extremely important for insurance work.
- Kyoni Cummings agreed that Excel and Word are important.

Elizabeth Kackery, SBCUSD, Stated that their school has a Community Health Worker pathway, and they are looking for certifications without age barriers that can be earned while in high school. Finding student placement where they can practice the skills they are learning in class has also been difficult.

- Doris Ontiveros suggested that students receive training to work with autistic students and develop peer-to-peer relationships with other student demographics. This would allow students to practice interpersonal skills learned in class.

General Audience
Many audience members wanted to know if any panelists would be interested in hosting student interns. Two panelists stated they would be interested in learning more about this opportunity.

Key Takeaways and Action Items by Panelist

These key takeaways and action item lists highlight each respondent's insights, concerns, and suggested actions to address industry trends and prepare students for the evolving landscape within their respective industries.

Dr. John Beld, Select Physical Therapy
Key Takeaways:

- Increased demand for physical therapists due to aging populations and lifestyle-related issues.
- Increased demand for physical therapists due to an increased patient load, primarily stemming from an older population seeking a better quality of life.

Action Items:

- Emphasize science foundations and specialized skills for physical therapy.
- Adapt to minimum wage changes and legislative shifts in physical therapy.

- Elevate the training for Physical Therapy Assistants (PTA) to a higher level, acknowledging their importance and skill level.

Kyoni Cummings, NAMI Pomona Valley

Key Takeaways:

- Education facing challenges from technology, academic setbacks, and mental health concerns.
- Shortage of technicians in healthcare fields like pharmacy and dentistry.

Action Items:

- Integrate cultural competency and soft skills training for healthcare students.
- Emphasize accessibility and various educational pathways within dentistry.
- Embrace telehealth, VR, and grassroots mental health initiatives in behavioral health.

Doris Ontiveros, Loma Linda University & Pharmacy Tech Instructor, San Bernardino Valley College

Key Takeaways:

- Shortage of technicians in healthcare fields like pharmacy and dentistry.
- Technological advancements influencing dentistry and the dominance of larger practices.

Action Items:

- Address diversity, equity, and inclusion while promoting different career pathways.
- Focus on practical skills, staying updated on regulations, and adaptability in pharmacy.
- Encourage further education and problem-solving skills for pharmacy technicians.

Dr. Philip Tagatac, Inland Dental Arts

Key Takeaways:

- Shortage of technicians in healthcare fields like pharmacy and dentistry.
- Technological advancements influencing dentistry and the dominance of larger practices.

Action Items:

- Emphasize accessibility and various educational pathways within dentistry.
- Certifications, cross-training, and critical thinking for dental professionals.
- Highlight roles like Registered Dental Assistants (RDA) and Registered Dental Hygienists (RDH) providing a living wage without the highest degrees.

Labor Market Information

The following labor market information was sourced from https://www.onetonline.org/ on November 28, 2023.

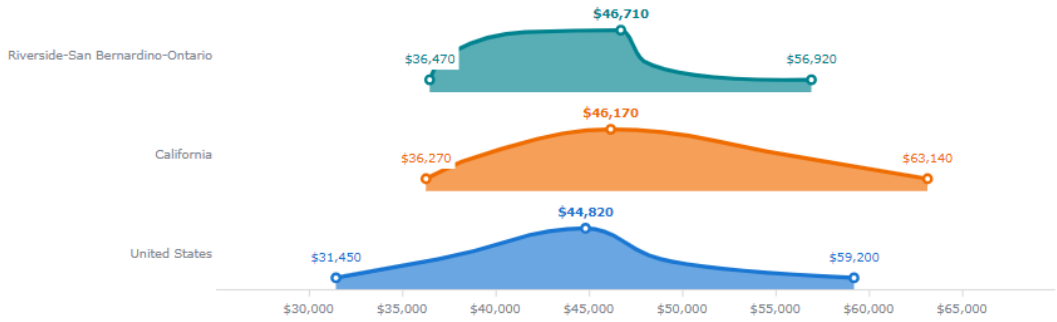
Local Wages

31-9091.00 - Dental Assistants Bright Outlook

Wages for state: California Go

Wages near ZIP Code: 92408 Go

Annual Wages | Hourly Wages



In Riverside-San Bernardino-Ontario, CA:

- Workers on average earn **$46,710**.
- 10% of workers earn **$36,470 or less**.
- 10% of workers earn **$56,920 or more**.

In California:

- Workers on average earn **$46,170**.
- 10% of workers earn **$36,270 or less**.
- 10% of workers earn **$63,140 or more**.

In the United States:

- Workers on average earn **$44,820**.
- 10% of workers earn **$31,450 or less**.
- 10% of workers earn **$59,200 or more**.

Source: Bureau of Labor Statistics 2022 wage data.

California Employment Trends

31-9091.00 - Dental Assistants Bright Outlook

View trends for state: California Go

In California:

Employment (2020)	43,200 employees
Projected employment (2030)	52,300 employees
Projected growth (2020-2030)	21%
Projected annual job openings (2020-2030)	6,440

In the United States:

Employment (2022)	371,000 employees
Projected employment (2032)	396,700 employees
Projected growth (2022-2032)	7% Faster than average
Projected annual job openings (2022-2032)	55,100

California source: Projections Central 2020-2030 long-term projections. United States source: Bureau of Labor Statistics 2022-2032 employment projections. "Projected growth" represents the estimated change in total employment over the projections period. "Projected annual job openings" represent openings due to growth and replacement.

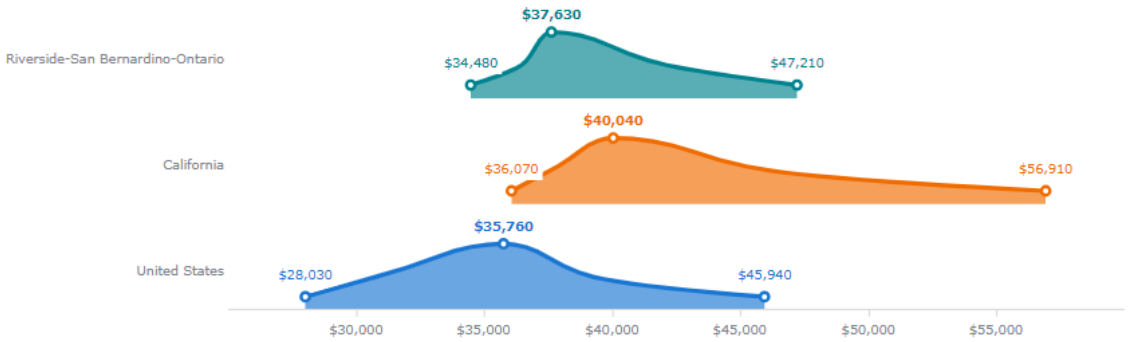
Local Wages

31-1131.00 - Nursing Assistants Bright Outlook

Wages for state: California Go

Wages near ZIP Code: 92408 Go

Annual Wages | Hourly Wages



In Riverside-San Bernardino-Ontario, CA:

- Workers on average earn **$37,630**.
- 10% of workers earn **$34,480 or less**.
- 10% of workers earn **$47,210 or more**.

In California:

- Workers on average earn **$40,040**.
- 10% of workers earn **$36,070 or less**.
- 10% of workers earn **$56,910 or more**.

In the United States:

- Workers on average earn **$35,760**.
- 10% of workers earn **$28,030 or less**.
- 10% of workers earn **$45,940 or more**.

Source: Bureau of Labor Statistics 2022 wage data.

California Employment Trends

31-1131.00 - Nursing Assistants Bright Outlook

View trends for state: California Go

In California:

Employment (2020)	97,300 employees
Projected employment (2030)	110,000 employees
Projected growth (2020-2030)	13%
Projected annual job openings (2020-2030)	13,780

In the United States:

Employment (2022)	1,361,300 employees
Projected employment (2032)	1,417,800 employees
Projected growth (2022-2032)	4% Average
Projected annual job openings (2022-2032)	202,400

California source: Projections Central 2020-2030 long-term projections. United States source: Bureau of Labor Statistics 2022-2032 employment projections. "Projected growth" represents the estimated change in total employment over the projections period. "Projected annual job openings" represent openings due to growth and replacement.

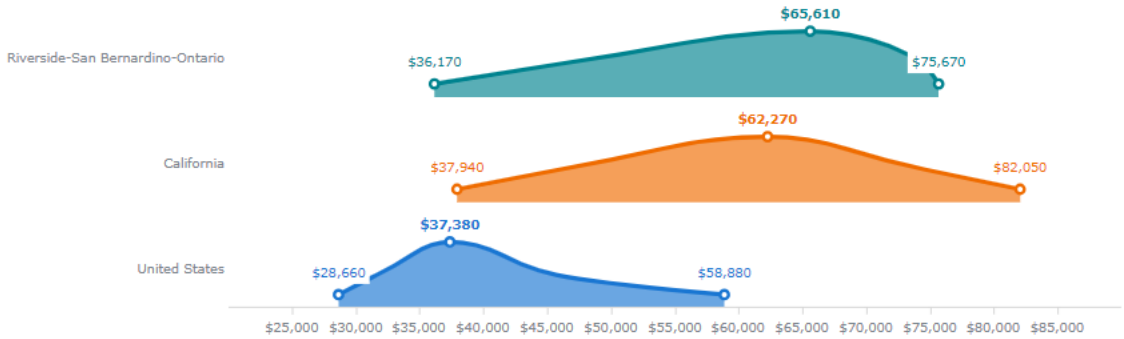
Local Wages

29-2053.00 - Psychiatric Technicians Bright Outlook

Wages for state: California Go

Wages near ZIP Code: 92408 Go

Annual Wages | Hourly Wages



In Riverside-San Bernardino-Ontario, CA:

- Workers on average earn **$65,610**.
- 10% of workers earn **$36,170 or less**.
- 10% of workers earn **$75,670 or more**.

In California:

- Workers on average earn **$62,270**.
- 10% of workers earn **$37,940 or less**.
- 10% of workers earn **$82,050 or more**.

In the United States:

- Workers on average earn **$37,380**.
- 10% of workers earn **$28,660 or less**.
- 10% of workers earn **$58,880 or more**.

Source: Bureau of Labor Statistics 2022 wage data.

California Employment Trends

29-2053.00 - Psychiatric Technicians Bright Outlook

View trends for state: California Go

In California:

Employment (2020)	9,500 employees
Projected employment (2030)	10,400 employees
Projected growth (2020-2030)	10%
Projected annual job openings (2020-2030)	790

In the United States:

Employment (2022)	107,100 employees
Projected employment (2032)	117,500 employees
Projected growth (2022-2032)	■■■■ 10% Much faster than average
Projected annual job openings (2022-2032)	10,200

California source: Projections Central 2020-2030 long-term projections. United States source: Bureau of Labor Statistics 2022-2032 employment projections. "Projected growth" represents the estimated change in total employment over the projections period. "Projected annual job openings" represent openings due to growth and replacement.

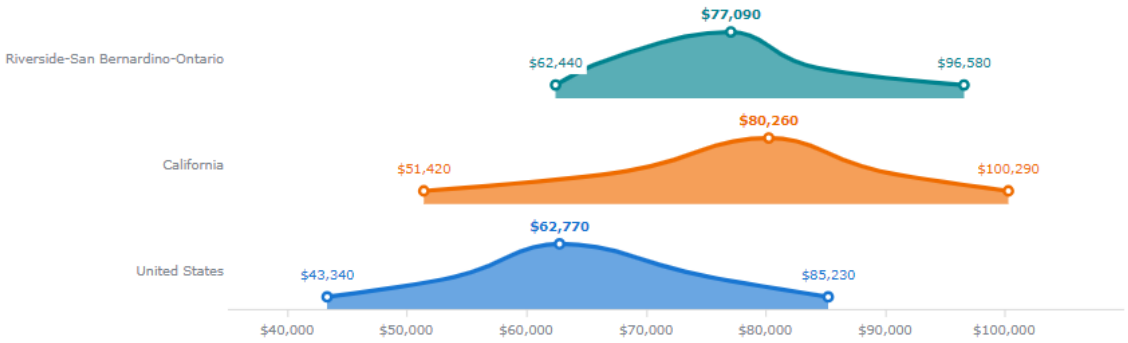
Local Wages

31-2021.00 - Physical Therapist Assistants Bright Outlook

Wages for state: California Go

Wages near ZIP Code: 92408 Go

Annual Wages | Hourly Wages



In Riverside-San Bernardino-Ontario, CA:

- Workers on average earn **$77,090**.
- 10% of workers earn **$62,440 or less**.
- 10% of workers earn **$96,580 or more**.

In California:

- Workers on average earn **$80,260**.
- 10% of workers earn **$51,420 or less**.
- 10% of workers earn **$100,290 or more**.

In the United States:

- Workers on average earn **$62,770**.
- 10% of workers earn **$43,340 or less**.
- 10% of workers earn **$85,230 or more**.

Source: Bureau of Labor Statistics 2022 wage data.

California Employment Trends

31-2021.00 - Physical Therapist Assistants Bright Outlook

View trends for state: California Go

In California:

Employment (2020)	6,500 employees
Projected employment (2030)	8,900 employees
Projected growth (2020-2030)	37%
Projected annual job openings (2020-2030)	1,150

In the United States:

Employment (2022)	100,700 employees
Projected employment (2032)	126,900 employees
Projected growth (2022-2032)	■■■■ 26% Much faster than average
Projected annual job openings (2022-2032)	18,100

California source: Projections Central 2020-2030 long-term projections. United States source: Bureau of Labor Statistics 2022-2032 employment projections. "Projected growth" represents the estimated change in total employment over the projections period. "Projected annual job openings" represent openings due to growth and replacement.

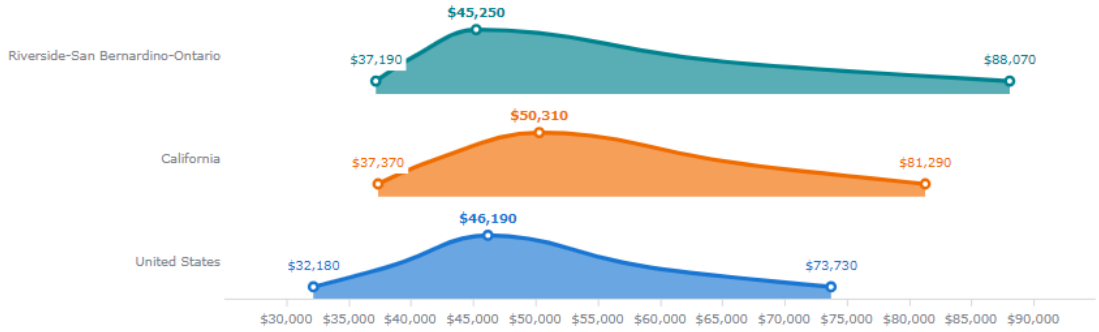
Local Wages

21-1094.00 - Community Health Workers Bright Outlook

Wages for state: California Go

Wages near ZIP Code: 92408 Go

Annual Wages | Hourly Wages



In Riverside-San Bernardino-Ontario, CA:

- Workers on average earn **$45,250**.
- 10% of workers earn **$37,190 or less**.
- 10% of workers earn **$88,070 or more**.

In California:

- Workers on average earn **$50,310**.
- 10% of workers earn **$37,370 or less**.
- 10% of workers earn **$81,290 or more**.

In the United States:

- Workers on average earn **$46,190**.
- 10% of workers earn **$32,180 or less**.
- 10% of workers earn **$73,730 or more**.

Source: Bureau of Labor Statistics 2022 wage data.

California Employment Trends

21-1094.00 - Community Health Workers Bright Outlook

View trends for state: California Go

In California:

Employment (2020)	6,700 employees
Projected employment (2030)	7,900 employees
Projected growth (2020-2030)	18%
Projected annual job openings (2020-2030)	880

In the United States:

Employment (2022)	67,200 employees
Projected employment (2032)	76,600 employees
Projected growth (2022-2032)	■■■■ 14% Much faster than average
Projected annual job openings (2022-2032)	8,000

California source: Projections Central 2020-2030 long-term projections. United States source: Bureau of Labor Statistics 2022-2032 employment projections. "Projected growth" represents the estimated change in total employment over the projections period. "Projected annual job openings" represent openings due to growth and replacement.

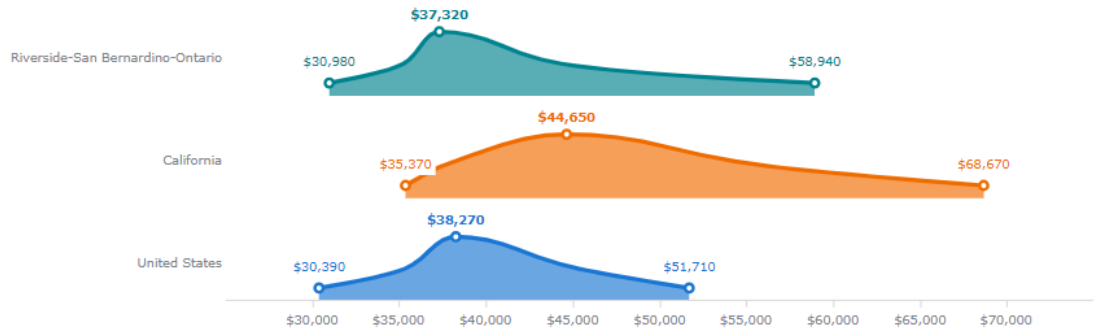
Local Wages

31-9092.00 - Medical Assistants Bright Outlook

Wages for state: California Go

Wages near ZIP Code: 92408 Go

Annual Wages | Hourly Wages



In Riverside-San Bernardino-Ontario, CA:

- Workers on average earn **$37,320**.
- 10% of workers earn **$30,980 or less**.
- 10% of workers earn **$58,940 or more**.

In California:

- Workers on average earn **$44,650**.
- 10% of workers earn **$35,370 or less**.
- 10% of workers earn **$68,670 or more**.

In the United States:

- Workers on average earn **$38,270**.
- 10% of workers earn **$30,390 or less**.
- 10% of workers earn **$51,710 or more**.

Source: Bureau of Labor Statistics 2022 wage data.

California Employment Trends

31-9092.00 - Medical Assistants Bright Outlook

View trends for state: California Go

In California:

Employment (2020)	95,000 employees
Projected employment (2030)	114,000 employees
Projected growth (2020-2030)	20%
Projected annual job openings (2020-2030)	14,000

In the United States:

Employment (2022)	764,400 employees
Projected employment (2032)	870,200 employees
Projected growth (2022-2032)	■■■■ 14% Much faster than average
Projected annual job openings (2022-2032)	114,600

California source: Projections Central 2020-2030 long-term projections. United States source: Bureau of Labor Statistics 2022-2032 employment projections. "Projected growth" represents the estimated change in total employment over the projections period. "Projected annual job openings" represent openings due to growth and replacement.

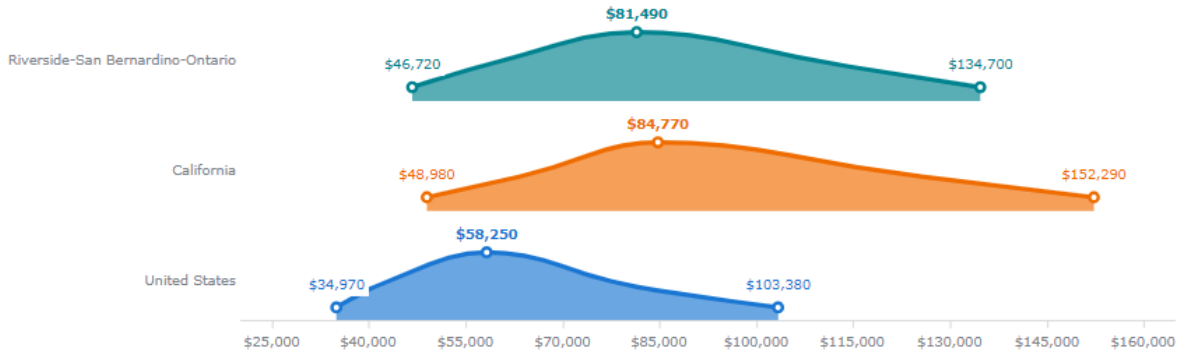
Local Wages

29-9021.00 - Health Information Technologists and Medical Registrars Bright Outlook

Wages for state: California Go

Wages near ZIP Code: 92408 Go

Annual Wages | Hourly Wages



In Riverside-San Bernardino-Ontario, CA:

- Workers on average earn **$81,490**.
- 10% of workers earn **$46,720 or less**.
- 10% of workers earn **$134,700 or more**.

In California:

- Workers on average earn **$84,770**.
- 10% of workers earn **$48,980 or less**.
- 10% of workers earn **$152,290 or more**.

In the United States:

- Workers on average earn **$58,250**.
- 10% of workers earn **$34,970 or less**.
- 10% of workers earn **$103,380 or more**.

Source: Bureau of Labor Statistics 2022 wage data.

California Employment Trends

29-9021.00 - Health Information Technologists and Medical Registrars Bright Outlook

View trends for state: California Go

In California:

Employment data for **Health Information Technologists, Medical Registrars, Surgical Assistants, and Healthcare Practitioners and Technical Workers, All Other**.

Employment (2020)	10,200 employees
Projected employment (2030)	11,600 employees
Projected growth (2020-2030)	14%
Projected annual job openings (2020-2030)	900

In the United States:

Employment data for **Health Information Technologists and Medical Registrars**.

Employment (2022)	37,900 employees
Projected employment (2032)	44,100 employees
Projected growth (2022-2032)	■■■■ 17% Much faster than average
Projected annual job openings (2022-2032)	3,100

California source: Projections Central 2020-2030 long-term projections. United States source: Bureau of Labor Statistics 2022-2032 employment projections. "Projected growth" represents the estimated change in total employment over the projections period. "Projected annual job openings" represent openings due to growth and replacement.