Transportation

Date: 2/6/2025
Time: 9:00 - 12:00
Location: Omnitrans, San Bernardino
Hosted by: SBCROP and Omnitrans
Facilitator: Deidra Puentes
Advisory Documents: https://bit.ly/HTR_AdvDocs24-25

Advisors:

Christine Glass, Director of Human Resources, Omnitrans
John Gensel, Facilities Manager, Omnitrans
Michael Ingram, General Manager, Guardian Jet Center
Sebastian Peronace, Service Director, Volkswagen San Bernardino
Victoria Chesney, Technical Services Manager, Omnitrans

K12 Educational Participants:

Anthony Sisneros, Instruction/Development Aviation Maintenance Technical Classes, Fontana Unified School District
Antoinette Gutierrez, Program Manager, Colton-Redlands-Yucaipa ROP
Charles Luo, Instructor, Fontana Unified School District
David Aman, K12 Pathway Coordinator, Colton-Redlands-Yucaipa ROP
Devin Baze, Teacher/Aviation, Colton-Redlands-Yucaipa ROP
Galdino Sandoval de Rosas, Diesel teacher, San Bernardino City Unified
James Hattar, Curriculum Developer/TOA, Colton-Redlands-Yucaipa ROP
Kenneth Soldmann, Curriculum Program Specialist, Colton Joint Unified School District
Kevin Chalupa, Automotive Technology Teacher, Colton-Redlands-Yucaipa ROP
Lenin Martinez, Automotive Technology Teacher, Colton-Redlands-Yucaipa ROP
Marcos Meza, Automotive Technology Teacher, Colton-Redlands-Yucaipa ROP
Michael Yu, College and Career Teacher, San Bernardino City Unified
Mike Rosano, Automotive Technology Teacher, Colton-Redlands-Yucaipa ROP
Nathan Vincent, Externship Coordinator, Real Journey Academies - Entrepreneur High
Robert Velasquez, Automotive Technology Teacher, Colton-Redlands-Yucaipa ROP
Tierra Kourkos, CTE Teacher, Real Journey Academies - Entrepreneur High
Tony Alvarado, Automotive Technology, San Bernardino City Unified
Vincent Gutierrez, Assistant Principal, Redlands Unified School District

Introductions:

Christine Glass: The Director of Human Resources at Omnitrans, where she oversees employee relations, recruitment, selection, benefits, labor negotiations, and grievances. She began her career at Omnitrans as an Employee Relations Manager 4.5 years ago before being promoted to HR Director. Christine has extensive HR experience, having previously worked at UPS, the railroad industry, and county education offices in Tulare. Under her leadership, Omnitrans has made significant recruitment progress and established an apprenticeship program with Valley College to build a talent pipeline.

Mike Ingram: The General Manager at Guardian Jet Center, operating out of Ontario International Airport. Remarkably, he became one of the youngest general managers in the industry at just 20 years old. With 13 years of experience, Mike currently manages a team of 25 employees. He holds both bachelor's and master's degrees from Embry-Riddle Aeronautical University, often referred to as the "Harvard of the skies," located in Prescott, Arizona.

Victoria Chesney: The Technical Services Manager at Omnitrans, where she has worked for 24 years. Starting her career at Omnitrans by cleaning and fueling buses while attending Valley College, she advanced to become a mechanic supervisor. Currently, she oversees technical and safety training for the maintenance department, manages vehicle procurements, and handles various special projects related to maintenance operations.

Sebastian Peronace: Sebastian is the Service Director at Volkswagen San Bernardino, with over a decade of experience working in the local community. He began his career in the automotive industry as a car washer, eventually becoming a service advisor and later a service manager—a position he has held for the past seven years. Sebastian has worked with various automotive brands, including Subaru and Honda, and has been with Volkswagen for the past year and a half. He is passionate about his work in San Bernardino and values his connection to the community.

John Gensel: John is the Facility Manager at Omnitrans, where he has worked for 13 years after starting as a facility supervisor and earning promotions within the organization. He has over 35 years of experience in facility management, including 16 years at Toyota's corporate facility in Torrance and time at Air Flight. John considers Omnitrans a great place to work and is eager to share insights from his extensive career in facility operations.

Minutes:

The Transportation panel was composed of five industry professionals with varying degrees of responsibilities in their respective career fields. The following is a summary of their responses to the questions posed at the advisory.

Question 1: What emerging trends and technologies do you believe will drive the most change in this industry over the next 3-5 years, and what should teachers and students focus on to stay ahead?

Christine Glass: Highlights the increasing role of technology in administrative operations within the transportation industry. She emphasizes the importance of data analysis tools like Excel and Power BI, and enterprise systems such as SAP, which manage procurement and inventory. Christine also discusses the critical use of technology for real-time bus tracking, video surveillance for safety and legal purposes, and dispatch operations. She stresses that students need strong computer literacy, data analysis skills, and critical thinking abilities to ask the right questions and interpret data effectively. Although Omnitrans does not currently utilize AI extensively, Christine underscores the importance of adapting to various technologies to remain competitive in the workforce.

Mike Ingram: Focuses on the impact of automation and AI in the aviation industry, stressing the need for a balance between technology and fundamental skills. He explains that while automation, such as autopilot systems and automated ground services, improves efficiency, it can also lead to complacency—posing significant safety risks. Mike highlights the importance of physical and mental skills, encouraging students to double-check automated processes and avoid overreliance on technology. He advises that educators should instill critical thinking and accountability in students to prevent errors that could have costly consequences in high-stakes industries like aviation.

Victoria Chesney: Discusses the transition to zero-emission vehicles, such as electric and hydrogen fuel cell buses, as a major trend in California's transportation sector. She emphasizes that these technologies require a different approach to diagnostics and repairs, demanding advanced critical thinking and problem-solving skills. Mechanics must analyze complex data from vehicle power plants and make informed decisions without jumping to conclusions. Victoria stresses that CTE programs should focus on developing students' ability to interpret data accurately, apply logical reasoning, and adapt to rapidly evolving vehicle technologies.

Sebastian Peronace: Highlights the growing integration of technology in automotive repair and maintenance. He explains that technicians are increasingly expected to use digital tools for diagnostics, video inspections, and creating detailed reports that impact customer satisfaction and revenue generation. With the rise of electric vehicles (EVs) and complex onboard software, technicians must become proficient in using scan tools and accessing technical service bulletins (TSBs) to identify and resolve issues efficiently. Sebastian advises that students entering the

automotive industry should focus on developing strong technical skills, leveraging digital tools effectively, and understanding how technology can enhance productivity and performance.

Question 2: How should our Career Technical Education (CTE) pathways adapt to ensure students are well-equipped to meet future demands and changes in this industry?

Sebastian Peronace: Underscores the importance of preparing students for the real-world challenges they will face in automotive repair shops. While CTE programs provide solid foundational knowledge, students often struggle when dealing with unexpected issues, such as rusted bolts, improperly wired components from previous repairs, or modifications made by vehicle owners. He emphasizes that beyond learning about new technologies like electric and hybrid vehicles, students must also be equipped to work on older gas-powered cars, which will remain on the road for years.

To better prepare students, he suggests incorporating hands-on problem-solving exercises into the curriculum. These should include troubleshooting common automotive issues that arise due to wear and tear or improper repairs. Additionally, he notes that many repair shops now require entry-level technicians to document vehicle inspections using digital tools, such as photos, videos, and detailed reports. By integrating these skills into training programs, educators can help students transition more effectively into the workforce.

Victoria Chesney: Highlights the importance of maintaining strong foundational skills in transportation technology, despite the industry's shift toward electric vehicles (EVs) and hydrogen fuel cells. She notes that while California's transition to zero-emission vehicles by 2040 is underway, traditional compressed natural gas (CNG) and internal combustion engine (ICE) vehicles will still be in operation for years. This means that students must be trained to work with multiple powertrain technologies.

She stresses the need for CTE programs to strengthen instruction in electrical troubleshooting, reading schematics, and performing diagnostic tests. Teaching students to use multimeters, interpret manufacturer software, and follow systematic troubleshooting processes is essential for their success. Victoria also recommends integrating case studies and simulations into instruction, so students can practice diagnosing and resolving complex mechanical and electrical issues in a structured learning environment.

Mike Ingram: Discusses how the aviation industry is undergoing major changes, particularly in fuel technology. He explains that while California is pushing for greater use of sustainable aviation fuel (SAF)—a blend of traditional jet fuel and biofuel—there is currently not enough supply to meet demand. As a result, many airlines still rely on conventional fuels. Students entering the aviation industry must understand the complexities of fuel types, regulatory requirements, and the consequences of fuel mismanagement. Even minor fueling errors, such as mixing jet fuel with aviation gasoline, can lead to costly safety and environmental issues.

Mike emphasizes that CTE programs should teach students not only about the mechanics of aviation fuel systems but also about industry regulations and environmental policies. He also highlights the importance of fostering a workplace culture where employees feel comfortable asking questions, as hesitation or fear of making mistakes can lead to serious safety risks. Educators can reinforce this by incorporating case studies of real-world industry incidents into lessons and encouraging discussions on safety protocols, decision-making, and communication in high-risk environments.

Question 3: What essential skills, educational qualifications, and certifications are currently required to gain employment in your industry, and how might these requirements change in the near future?

John Gensel: Emphasizes that there are no strict educational qualifications for entering his field, but common sense, critical thinking, and problem-solving skills are essential. He highlights that courses in electrical work, blueprint reading, plumbing, and HVAC can significantly enhance a candidate's employability. In their hiring process, applicants are tested on their ability to create circuits using a provided diagram, demonstrating their fundamental understanding of electricity. While many technical skills can be taught on the job, having a foundation in mechanical systems is beneficial. John also underscores the importance of lifelong learning, sharing that even he continues his education in facility management at 56 years old.

Christine Glass: Explains that Omnitrans prioritizes experience over formal education when evaluating job candidates. While a high school diploma or equivalent is required for positions such as coach operators (bus drivers), extensive experience in relevant fields can substitute for formal education. A significant challenge in hiring drivers is the DMV requirement that applicants must have held a Class C license for at least six months before obtaining a Class B or A license, which fewer young people are pursuing. Additionally, mechanics and maintenance staff must either possess or be able to obtain a Class B license with passenger and air brake endorsements. While Omnitrans provides training for a Class B license, they do not offer training for Class A licenses

Victoria Chesney: Highlights that one of the biggest barriers to employment in the transportation industry is the lack of driver's licenses among young job seekers. Many applicants do not meet the six-month driving record requirement needed to obtain higher-class licenses, which limits their opportunities in public transit and other fields requiring commercial vehicle operation. While public transit encourages bus ridership, job candidates must still have their own driver's licenses for certain roles.

Sebastian Peronace: Explains that in the automotive industry, driving records and licenses play a crucial role in hiring decisions. In his dealership, candidates must have held a valid driver's license for at least three months with a clean record to be eligible for positions involving vehicle operation. While no formal certifications are required for entry-level positions such as lube technicians or apprentices, competition for these jobs is high. He advises students to

distinguish themselves by completing automotive training programs, as candidates with formal coursework and hands-on experience are more likely to be considered over those with only informal experience. Developing a fundamental understanding of vehicle systems and maintenance through CTE programs can provide a competitive advantage in the job market.

Question 4: What are a few occupations within the industry that do not require advanced degrees yet offer a living wage? Additionally, what advice would you give to a recent high school graduate that would help them gain employment in your industry?

John Gensel: Highlights that entry-level positions in facilities management include roles in bus stop and station maintenance, as well as general facilities upkeep. Candidates with even a small amount of education—such as courses in electrical work—can improve their chances of securing a position. He emphasizes that common sense and a strong work ethic are just as important as technical skills. HR initially reviews applicants, but hiring decisions prioritize practical abilities and willingness to learn. He advises students to pursue foundational technical education to open doors in the field.

Sebastian Peronace: Explains that entry-level positions in automotive dealerships and repair shops include lube technician, apprentice, shop porter, and general maintenance roles. He encourages students not to overlook starting positions, such as washing cars or organizing the shop, as they provide valuable entry points into the industry. He compares it to an artist practicing thousands of times before mastering a skill—new technicians must put in the effort and dedication to advance. He emphasizes that the industry is physically demanding, requiring passion and perseverance, but those with the motivation to learn can build a successful, well-paying career over time.

Victoria Chesney: States that the most common entry-level role in transit maintenance is the Vehicle Service Worker (VSW) position, responsible for cleaning, fueling, and performing basic checks on buses. Many employees use this position as a stepping stone to higher roles by taking advantage of tuition reimbursement and apprenticeship opportunities. She notes that Omnitrans offers paid apprenticeships that allow workers to transition into mechanic helper roles while receiving training. Employees who start as service workers and take additional classes can progress into mechanic roles, where they receive further specialized training from manufacturers.

Mike Ingram: Outlines various aviation industry jobs that require no prior experience but provide pathways for career advancement. Entry-level positions include customer service representatives, online service technicians, ramp workers (fueling, marshaling, towing aircraft), and baggage services. He emphasizes that these roles allow employees to quickly move up into supervisory and management positions. In addition to airport operations, he highlights other aviation-related jobs, such as air traffic control, dispatch, flight planning, aircraft detailing, and

real estate development at airports. He encourages students to consider aviation as a career path, noting that there is a worker shortage in the industry and significant earning potential.

Christine Glass: Highlights that coach operator (bus driver) is one of the key entry-level positions at Omnitrans, requiring only a high school diploma or equivalent. The agency also offers internships (for college students) and apprenticeships for those interested in maintenance roles. She notes that Omnitrans has developed a mentorship program to support new coach operators as they adjust to shift work and career expectations. Additionally, she outlines multiple career ladders within the agency, including positions in dispatch, supervision, fleet training, finance, planning, procurement, and human resources. Many roles start at the clerical level and provide opportunities for employees to advance through experience rather than formal education. Christine emphasizes that Omnitrans values practical experience over degrees, making it an accessible career path for students willing to gain hands-on skills.

Audience Questions

Audience Question 1: In automotive repair, should technicians conduct full system scans and check Technical Service Bulletins (TSBs) before diagnosing issues? How important is this for entry-level technicians?

Response:
Sebastian Peronace stresses that technicians should always check TSBs, fault codes, and manufacturer updates before diagnosing a vehicle. While certain fault codes may have traditionally pointed to a specific failure, manufacturers sometimes release updated TSBs identifying different root causes. For example, an issue once attributed to a failed component might later be linked to a faulty injector.

He highlights that modern vehicles have multiple interconnected modules, which can produce misleading fault codes. New technicians may not realize the importance of checking manufacturer recommendations before proceeding with repairs. Thorough research and following updated guidance are essential for accurate diagnostics and preventing unnecessary or incorrect repairs.

Audience Question 2: Are entry-level automotive technicians still paid on a flat-rate system, or has compensation changed in California?

Response:
Sebastian Peronace explains that entry-level technicians and apprentices are typically paid hourly rather than on a flat-rate system. Compensation is often based on skill level, certifications, and experience. While programs like CTE courses help candidates stand out, flat-rate pay structures are generally reserved for more experienced technicians who handle major repairs, such as engine rebuilds. Before transitioning to flat-rate work, technicians must demonstrate their ability to consistently produce quality repairs within standard labor times.

Audience Question 3: With new technology emerging in transportation, what major changes are happening in vehicle infrastructure, and how will they impact workforce demands?

Response:
John Gensel explains that the rise of electric buses and hydrogen fuel cell technology is increasing demand for technicians trained in alternative fuel systems. While electric buses have been in use for years, hydrogen fuel cell technology is still new, with most training provided directly by manufacturers. He also highlights infrastructure changes, such as the transition to new refrigerants and the shift to electric heating systems, as part of California's goal for zero-emission transportation by 2040.

Christine Glass adds that these advancements require major infrastructure investments, including upgrades to electrical grids and charging stations to support electric bus fleets. She notes that hydrogen fuel cell buses function similarly to CNG buses but face supply challenges. Beyond vehicle operation, she encourages students to explore careers in logistics, finance,

procurement, IT, and facility management, as all are essential to supporting transportation systems.

Audience Question 4: What is Volkswagen's timeline for achieving zero-emissions and reducing its carbon footprint?

Response:
Sebastian Peronace states that Volkswagen initially announced a 2030 target for zero emissions, but recent decisions indicate a more cautious approach. He explains that Volkswagen had planned to introduce the ID.7 electric sedan to the North American market but recently canceled its release. While Volkswagen remains committed to EV technology, the company appears to be reevaluating its strategy before expanding its lineup further. Currently, the Volkswagen ID. Buzz is the primary EV model being introduced, and the company's long-term commitment to electrification remains intact despite recent adjustments.

Audience Question 5: Many automotive manufacturers appear to be slowing down their transition to electric vehicles. How does Volkswagen compare to other manufacturers in this shift?

Response:
Sebastian Peronace acknowledges that many automakers are adjusting their EV transition timelines, with Volkswagen and other European brands taking a more cautious approach. While Tesla remains fully committed to electric vehicles, Volkswagen continues to service diesel and gas-powered engines alongside its EV development. He explains that manufacturers with fewer engine variations, such as Subaru, may find it easier to transition compared to companies with a wide range of vehicle technologies. While Volkswagen is still moving forward with combustion engines and electrification simultaneously, manufacturers appear to be taking a gradual approach rather than fully committing to EVs in the short term.

Audience Question 6: How has the quality of job applicants changed over the past decade, and what are some key hiring challenges you face today?

Response:
Mike Ingram notes that since 2018, he has seen a wide disparity in professionalism among applicants. Some candidates arrive well-dressed, while others show up in sweatpants and sandals. In high-profile aviation settings, professionalism is crucial, particularly when working with affluent clients. Another challenge in California is at-will employment laws, which make it difficult to remove underperforming employees. To improve hiring outcomes, he suggests involving both managers and frontline employees in the selection process to ensure a strong team fit.

John Gensel highlights the importance of networking, sharing that his own career was shaped by connections made during a high school internship. He advises students to focus on professionalism, reliability, and maintaining industry relationships, as these factors often lead to unexpected job opportunities.

Christine Glass emphasizes the need for soft skills like problem-solving, adaptability, and professional communication. Many applicants struggle with independent thinking and expect constant direction rather than taking initiative. She also notes that some candidates fail to understand industry regulations, such as DOT drug testing policies, which can disqualify them from employment.

Audience Question 7: What role does diversity play in your industry, and how can educators support underrepresented students in pursuing these careers?

Response:
Mike Ingram emphasizes the lack of diversity in aviation, particularly among pilots, and notes that women pursuing aviation careers often receive significant financial support due to the industry's push for inclusivity. Reflecting on his own experience in a male-dominated flight program, he encourages educators to introduce students from all backgrounds to aviation career opportunities.

Christine Glass highlights the growing presence of women in leadership roles within public transit, including female CEOs at several transit agencies like Omnitrans. She notes that this shift is creating cultural and structural changes in the industry, making career advancement more accessible. She encourages students to explore not just technical roles but also careers in finance, procurement, IT, and facility management, all of which are essential to the transportation sector.

Audience Question 8: How are changes in technology and infrastructure impacting transportation careers?

Response:
John Gensel explains that the transition to zero-emission vehicles (ZEVs) is reshaping both transit operations and facility management. Electric and hydrogen fuel cell buses are becoming more common, but training and infrastructure development are struggling to keep pace. He points out that hydrogen fueling stations are still limited, making widespread adoption challenging.

Christine Glass adds that while ZEVs offer sustainability benefits, they require significant infrastructure upgrades, such as new electrical grids, charging stations, and hydrogen fuel access. She highlights the challenges of implementing these technologies in urban areas, where space and power availability are constraints. She advises educators to prepare students not only for vehicle maintenance roles but also for supporting careers in energy infrastructure, logistics, and urban planning.

Audience Question 9: How can students best prepare for career advancement in industries like transportation and aviation?

Response:
Mike Ingram stresses that networking and professionalism are key factors in career growth. He explains that many employees in aviation advance through internal promotions and industry

connections, rather than traditional job applications. He encourages students to treat every job, including entry-level positions, as an opportunity to build a strong reputation.

Christine Glass advises students to develop both technical and interpersonal skills, emphasizing that employers seek candidates who are adaptable, proactive, and capable of independent problem-solving. She also underscores the importance of professionalism in the hiring process, explaining that many applicants disqualify themselves by arriving unprepared, lacking communication skills, or failing to comply with industry regulations.

Audience Question 10: What are the biggest hiring barriers students should be aware of, particularly in industries with strict regulations?

Response:
Christine Glass explains that DOT regulations and background checks pose major hiring barriers in the transportation industry. She notes that applicants must pass drug screenings, background checks, and driving history reviews to qualify for positions like bus operators or maintenance staff. Many applicants fail due to substance use or poor driving records, highlighting the need for students to make responsible choices early in their careers.

Sebastian Peronace adds that automotive dealerships also enforce strict driver's license requirements, with insurance companies mandating a clean driving record for at least three months before employees can handle vehicles. He advises students to be mindful of traffic violations and reckless driving, as these can limit job opportunities in the automotive sector.

Audience Question 11: How do generational differences impact workplace expectations, and how can students better prepare for intergenerational workplaces?

Response:
Christine Glass explains that workplaces now consist of employees from different generations, each with varying expectations. In her HR department, half the staff have been with Omnitrans for over 17 years, while the other half have three years or less of experience. This creates contrasting work perspectives, with older employees accustomed to traditional structures and younger employees expecting more flexibility and technology integration.

She notes that younger workers often don't understand the reasons behind workplace policies, such as equal employment opportunity (EEO) regulations or set work schedules. Educators can help students by teaching workplace history and the importance of understanding different perspectives.

Christine also stresses the need for effective cross-generational communication, especially in customer service. For example, while younger customers may prefer digital updates on vehicle repairs, older customers may be less familiar with smartphone-based communication. She advises students to adjust their approach based on their audience.

To succeed in an intergenerational workplace, she encourages students to develop adaptability, respect different work styles, and strengthen communication skills to collaborate effectively with colleagues of all ages.

Audience Question 12: Many students struggle with cell phone use and distractions in the workplace. As educators, we enforce strict policies, but do employers face similar challenges? How do you handle cell phone policies, earbuds, and workplace distractions?

Response:
Sebastian Peronace confirms that cell phone and earbud use is a major workplace issue, particularly for entry-level technicians. His dealership requires employees to store personal phones in lockers during work hours, providing work-issued devices with Wi-Fi access but no non-work-related apps. He warns that distractions lead to costly mistakes and safety hazards, stressing the importance of focus and discipline.

Mike Ingram shares that in aviation, strict safety rules limit phone use near aircraft and fuel stations. Employees can carry phones for emergencies but cannot use them while operating fuel trucks or working under aircraft. He warns that distractions in high-risk environments can result in serious injuries or fatalities, emphasizing the need for constant vigilance.

Victoria Chesney explains that in transit maintenance, phones are strictly prohibited on the shop floor but may be kept in toolboxes for occasional use, such as documenting mechanical issues. However, talking and texting while working are not allowed to ensure safety and efficiency.

Overall, the panel agrees that students must learn workplace discipline, understand the risks of distractions, and develop professional habits. While some workplaces provide controlled access to technology, personal phone use must be managed responsibly.

Audience Question 13: How can students be taught when it is and is not appropriate to use their phones in the workplace? Have you encountered issues where employees misused their phones in ways that violated company policies or confidentiality agreements?

Response:
An audience member shares an example of a student who landed a job at SpaceX but was fired within a week for taking and posting a photo of proprietary work, violating company confidentiality. This incident underscores the importance of teaching students about workplace policies on phone use and the serious consequences of misusing technology on the job.

Mike Ingram recalls a similar case in aviation, where an employee recorded a Snapchat video while moving an airplane on the ramp. The video, which included restricted areas, led to a lawsuit against the airport. He stresses that many employees do not fully grasp the legal risks of unauthorized filming, particularly when working under NDAs (Non-Disclosure Agreements).

Both panelists agree that educators must reinforce the idea that cell phone use in the workplace is not just a personal choice—it impacts safety, confidentiality, and professionalism. They

suggest integrating lessons on workplace policies, legal consequences, and ethical responsibility to help students develop self-discipline and awareness before entering the workforce.

Audience Question 14: How valuable is OSHA 10 certification for students entering your industries? Would having this certification make them stand out in the hiring process?

Response:
An audience member shares that second-year students have the opportunity to earn OSHA 10 certification, but few complete it. They ask whether this certification makes a difference to employers.

Sebastian Peronace confirms that OSHA 10 is highly valuable, especially in industries where workplace safety, spill prevention, and hazardous material disposal are critical. He notes that safety awareness is one of the hardest things to teach new employees, so candidates with OSHA 10 certification already have an advantage.

Panelists agree that completing OSHA 10 shows initiative and a strong foundation in workplace safety, making students more attractive to employers. They encourage educators to emphasize the certification's importance, as it can provide students with a competitive edge and reduce employer training time.

Audience Question 15: How valuable is OSHA 10 or OSHA 30 certification for students entering the workforce? Additionally, what advice do you have for students regarding career stability and avoiding frequent job-hopping?

Response:
Mike Ingram acknowledges that OSHA 10 and OSHA 30 certifications are valuable, particularly in safety-regulated industries, but emphasizes that reliability and long-term experience matter just as much. He expresses concern that many young workers prioritize higher wages over career stability, often leaving jobs too quickly without considering long-term growth.

He explains that frequent job-hopping can be a red flag for employers, as onboarding costs can exceed $700 per employee, not including training time. Employers are reluctant to invest in candidates who may leave after just a few months.

Mike advises students to communicate with their employers before quitting, as many companies offer open-door policies to discuss concerns, request more hours, or explore advancement opportunities. If pay is an issue, employees may have options like overtime or additional responsibilities rather than seeking a small wage increase elsewhere.

He also stresses the importance of investing in certifications, training, and education, reminding students that California offers two years of free community college for eligible students. By building skills and experience early, students can set themselves up for greater financial and career success in the long run.

Audience Question 16: Is Section 609 certification required for working with automotive air conditioning systems, and are there any other valuable certifications students should pursue?

Response:
Sebastian Peronace explains that Section 609 certification is required to open and service automotive air conditioning systems, but most dealerships will cover the cost during onboarding. Technicians do not need this certification to operate air conditioning machines—only if they handle refrigerants directly. While refrigerant purchases require Section 609, dealerships typically handle these transactions through factory contracts, so individual technicians don't need to buy refrigerant themselves. However, having the certification can make students more competitive in the job market.

Mike Ingram recommends CARB (California Air Resources Board) training as another valuable certification. CARB training covers emissions regulations critical to the aviation, transportation, and automotive industries. Since companies must track emissions from equipment like fuel trucks and belt loaders, CARB knowledge can be a strong asset for job seekers.

He encourages educators to integrate CARB's free monthly virtual training sessions into their curriculum. These sessions provide updates on regulations and industry insights, helping students gain a hiring advantage in careers related to transportation and automotive fields.

Audience Question 17: A student is interested in pursuing aviation and is currently taking an introductory course. What are the best pathways into the field, and what should they consider when selecting a school?

Response:
Mike Ingram advises students to research cost-effective flight training programs, as many overlook affordable alternatives. While schools like Arizona State University (ASU) offer strong programs, options like California Aeronautical University in Bakersfield provide quality training at a lower cost.

He explains that a bachelor's degree is no longer required to become an airline pilot—students need 1,500 flight hours, which can accumulate quickly through routine flights. For example, a round trip to Lake Havasu can count as three hours. He shares that he earned his private pilot's license at 15, before getting his driver's license, showing that students can start flight training earlier than expected.

Beyond training, Mike encourages students to consider job benefits such as healthcare, retirement plans, and financial support programs when choosing an employer. While large corporations offer stability, private aviation companies often provide better pay, benefits, and work culture.

His key advice: explore training options, seek financial aid or scholarships, evaluate job benefits beyond salary, and prioritize long-term career growth over short-term earnings.

Audience Question 18: Employees often focus on salary and immediate benefits but may not realize how financial stability and employer support impact their work performance and overall well-being. How do companies invest in employee well-being, and what effect does this have on retention and productivity?

Response:
Mike Ingram explains that financial stability improves employee focus, productivity, and job satisfaction, benefiting both workers and employers. Companies that invest in employee well-being create a more stable and motivated workforce.

He shares an example from his company, Guardian, where the owners provide affordable housing for employees. Two staff members secured brand-new apartments at a reduced rent ($900/month), easing financial stress and strengthening their commitment to the company.

Mike emphasizes that young professionals should look beyond salary and consider benefits like housing assistance, retirement plans, and financial literacy programs. He advises employees to assess company culture and leadership rather than focusing solely on pay.

While not all employers prioritize well-being, many are willing to invest in employees who communicate their needs and demonstrate commitment. Instead of quitting due to dissatisfaction, he encourages employees to explore solutions with their employer.

Audience Question 19: Many high school auto shops lack the infrastructure to train students on emerging technologies like electric and hydrogen fuel cell vehicles. What are alternative ways teachers can gain training and expose students to these advancements?

Response:
Mike Ingram suggests field trips as a valuable way for students and teachers to see new technologies in action. If off-site visits aren't possible, he recommends inviting industry professionals to the classroom to bridge the gap between outdated school equipment and modern advancements.

John Gensel notes that while states like Massachusetts and New York are rapidly adopting zero-emission infrastructure, California lags in facility upgrades. He advises teachers to seek out training opportunities proactively rather than waiting for widespread implementation.

Christine Glass explains that even in industry settings, training on new vehicle technologies is often controlled by manufacturers, limiting access. To address this, she suggests:

- Arranging field trips to facilities using advanced technology.
- Inviting manufacturers or industry professionals to speak with students.
- Using online resources, training videos, or virtual industry panels.
- Seeking permission to attend manufacturer-led training sessions at local businesses.
- Collaborating with educators and industry partners to share best practices.

She emphasizes that teachers must be proactive in connecting with industry professionals to keep students informed and offers to collaborate on facility tours or training opportunities.

Audience Question 20: Many high school internship programs struggle to place students under 18 due to insurance restrictions, though some schools cover workers' compensation and liability. Would aviation employers consider these students for internships?

Response:
Mike Ingram acknowledges that insurance barriers often limit hands-on internships for students under 18 but emphasizes the value of real-world experience. He highlights a successful partnership with E. Miller, where four interns rotated through different aviation roles every two weeks under supervisor guidance.

While he can't accommodate large numbers, Mike is open to considering individual students who demonstrate strong work ethic and commitment to aviation. He encourages educators to recommend only those truly ready for professional responsibilities.

Audience Question 21: Would aviation employers consider high school students for internships, particularly those who could benefit from hands-on industry experience?

Response:
Mike Ingram explains that insurance and liability concerns often prevent underage students from hands-on aviation internships. However, a partnership with E. Miller successfully placed four students in a structured program where they rotated through different aviation roles every two weeks.

While he can't take on every student, Mike is open to considering highly motivated individuals. He encourages educators to recommend students who demonstrate strong work ethic and professionalism, emphasizing that genuine passion is key to securing these opportunities.

Audience Question 22: If a student has completed an internship and is ready to transition into full-time employment, what are the next steps? Is there a required waiting period or additional training before hiring?

Response:
Mike Ingram clarifies that if a student is 18 and ready to work, they can apply for a job immediately—no additional internship required. New hires complete three days of computer-based training on federal regulations and industry standards, which is crucial for safety and compliance.

He emphasizes that aviation is a field of continuous learning, and even after 13 years, he still gains new knowledge daily. Internships are valuable for high school students exploring career paths, but once eligible for employment, students should be referred directly for open positions—without extra unpaid training.

Audience Question 23: How can young women be supported in entering male-dominated industries like automotive and aviation, especially in service writing, customer service, and front-office roles?

Response:
Mike Ingram emphasizes that while these industries are traditionally male-dominated, there are many opportunities beyond hands-on technical roles. He highlights Johnny, a former intern turned Customer Service Representative (CSR), who excelled in engaging with pilots and became the only employee to consistently receive positive customer reviews.

Mike encourages educators to advocate for motivated female students, whether in customer-facing roles or transitioning into technical positions. He points to apprenticeship programs with Delta and United and mobile aircraft mechanic roles through AG (Aircraft Ground Service) as viable pathways.

He reassures the audience that physical strength is not a barrier, as many roles prioritize problem-solving, attention to detail, and communication skills. He urges educators to connect students with opportunities where they can excel and grow in the industry.

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 to prepare students for the evolving landscape within their respective industries.

John Gensel, Facilities Manager, Omnitrans

Key Takeaways:

- Zero-emission technologies, such as electric and hydrogen fuel cell buses, are shaping the future of transportation.
- Infrastructure changes, such as new refrigerants and electric-powered heating, will impact facilities management.
- Practical skills in electrical work, plumbing, and HVAC are highly valuable for entry-level positions.
- Soft skills, such as problem-solving and adaptability, are crucial for career advancement.

Action Items:

- Introduce students to the fundamentals of facility management, including HVAC and electrical work.
- Provide hands-on training in troubleshooting technical systems.
- Emphasize the importance of critical thinking and problem-solving in emerging technologies.
- Encourage students to pursue certifications in relevant trades (e.g., electrical, blueprint reading, HVAC).

Sebastian Peronace, Service Director, Volkswagen San Bernardino

Key Takeaways:

- The automotive industry is moving toward hybrid and electric vehicle (EV) technology.
- Entry-level technicians must develop diagnostic and troubleshooting skills for modern vehicles.
- Soft skills, such as communication and professional conduct, are critical for success.
- Employers value candidates with technical training, certifications, and hands-on experience.

Action Items:

- Prepare students for real-world automotive challenges, including diagnosing complex issues.
- Reinforce soft skills, such as customer communication and professionalism in the workplace.
- Educate students on the importance of research (e.g., looking up Technical Service Bulletins).
- Offer OSHA 10 or 30 training and encourage students to complete automotive-related certifications.

Christine Glass, Director of Human Resources, Omnitrans

Key Takeaways:

- Administrative and operational roles in transportation are increasingly reliant on technology and data analysis.
- AI and automation are growing but should complement—not replace—critical thinking and decision-making skills.
- Hiring challenges include ensuring candidates possess both technical skills and professionalism.
- Compliance with industry regulations (DOT, OSHA) is a major factor in hiring and training.

Action Items:

- Integrate technology training into CTE programs, such as data analysis tools (Excel, Power BI, ERP systems).
- Emphasize the importance of regulatory knowledge (DOT, OSHA, safety compliance).
- Provide training on professional workplace behavior, interview etiquette, and resume writing.
- Educate students on industry-specific career paths beyond frontline roles (e.g., procurement, finance, HR in transportation).

Victoria Chesney, Technical Services Manager, Omnitrans

Key Takeaways:

- The transition to electric and hydrogen-powered transportation requires new problem-solving approaches.
- Basic mechanical skills (brakes, suspension, electrical troubleshooting) remain essential.
- Diagnostic tools and software literacy are increasingly critical for mechanics and technicians.
- Safety training and attention to detail are key factors in workplace success.

Action Items:

- Strengthen basic technical training in electrical systems and troubleshooting.
- Provide hands-on experience with diagnostic tools and vehicle maintenance software.
- Emphasize the importance of reading schematics and following manufacturer troubleshooting procedures.
- Reinforce safety protocols, including proper use of PPE and hazard awareness.

Mike Ingram, General Manager, Guardian Jet Center

Key Takeaways:

- Aviation careers require strong technical knowledge alongside professionalism and discipline.
- The industry is transitioning to sustainable aviation fuels, requiring new regulatory and operational training.
- Soft skills, including adaptability and problem-solving, are critical for long-term success.

- Hiring standards emphasize professionalism, work ethic, and attention to detail.

Action Items:

- Educate students on different aviation fuels and sustainability initiatives.
- Reinforce the importance of professionalism and workplace etiquette in high-stakes industries.
- Provide real-world training opportunities through internships and job shadowing.
- Introduce students to aviation-specific regulations (FAA, DOT, OSHA) to prepare them for industry expectations.

Labor Market Information

The following labor market information was sourced from https://www.onetonline.org/ on March 7, 2025.

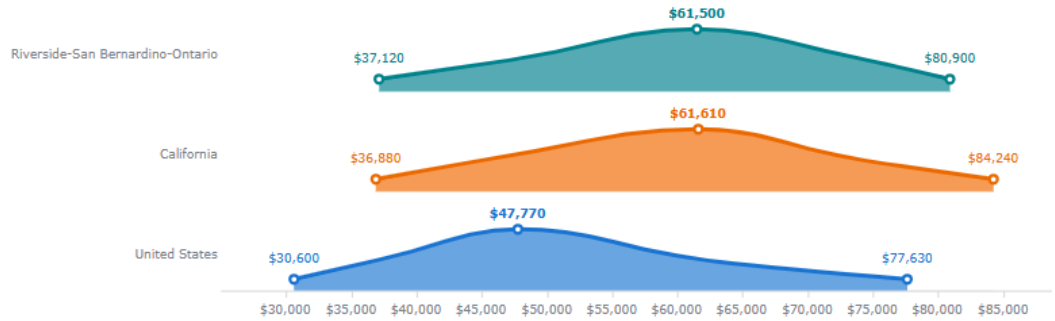
Local Wages

49-3023.00 - Automotive Service Technicians and Mechanics

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 **$61,500**.
- 10% of workers earn **$37,120 or less**.
- 10% of workers earn **$80,900 or more**.

In California:

- Workers on average earn **$61,610**.
- 10% of workers earn **$36,880 or less**.
- 10% of workers earn **$84,240 or more**.

In the United States:

- Workers on average earn **$47,770**.
- 10% of workers earn **$30,600 or less**.
- 10% of workers earn **$77,630 or more**.

Source: Bureau of Labor Statistics 2023 wage data.

California Employment Trends

49-3023.00 - Automotive Service Technicians and Mechanics

View trends for state: California Go

In California:

Employment (2020)	66,800 employees
Projected employment (2030)	69,400 employees
Projected growth (2020-2030)	4%
Projected annual job openings (2020-2030)	6,900

In the United States:

Employment (2023)	794,600 employees
Projected employment (2033)	815,900 employees
Projected growth (2023-2033)	3% Average
Projected annual job openings (2023-2033)	67,800

California source: Projections Central 2020-2030 long-term projections. United States source: Bureau of Labor Statistics 2023-2033 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.

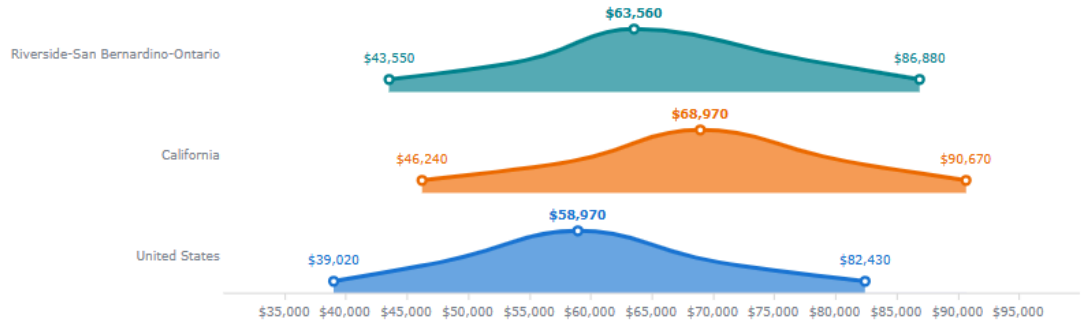
Local Wages

49-3031.00 - Bus and Truck Mechanics and Diesel Engine Specialists

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 **$63,560**.
- 10% of workers earn **$43,550 or less**.
- 10% of workers earn **$86,880 or more**.

In California:

- Workers on average earn **$68,970**.
- 10% of workers earn **$46,240 or less**.
- 10% of workers earn **$90,670 or more**.

In the United States:

- Workers on average earn **$58,970**.
- 10% of workers earn **$39,020 or less**.
- 10% of workers earn **$82,430 or more**.

Source: Bureau of Labor Statistics 2023 wage data.

California Employment Trends

49-3031.00 - Bus and Truck Mechanics and Diesel Engine Specialists

View trends for state: California Go

In California:

Employment (2020)	21,200 employees
Projected employment (2030)	24,700 employees
Projected growth (2020-2030)	17%
Projected annual job openings (2020-2030)	2,430

In the United States:

Employment (2023)	300,200 employees
Projected employment (2033)	308,700 employees
Projected growth (2023-2033)	3% Average
Projected annual job openings (2023-2033)	25,600

California source: Projections Central 2020-2030 long-term projections. United States source: Bureau of Labor Statistics 2023-2033 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

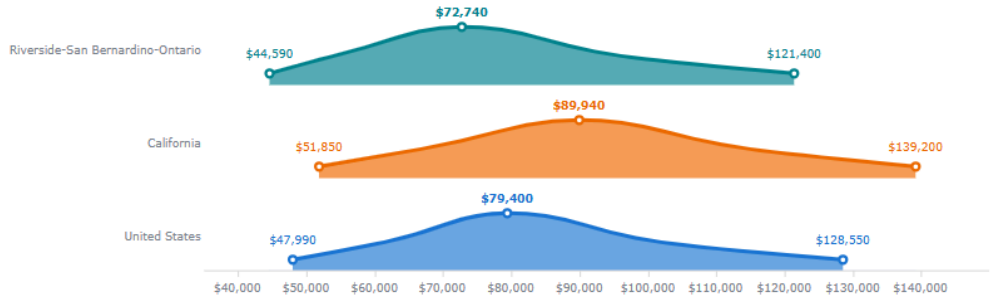
13-1081.01 - Logistics Engineers Bright Outlook

Wage data collected from **Logisticians**.

Wages for state: California Go

Wages near ZIP Code: 92408 Go

Annual Wages | Hourly Wages



In Riverside-San Bernardino-Ontario, CA:

Wage data for **Logisticians**.

- Workers on average earn **$72,740**.
- 10% of workers earn **$44,590 or less**.
- 10% of workers earn **$121,400 or more**.

In California:

Wage data for **Logisticians**.

- Workers on average earn **$89,940**.
- 10% of workers earn **$51,850 or less**.
- 10% of workers earn **$139,200 or more**.

In the United States:

Wage data for **Logisticians**.

- Workers on average earn **$79,400**.
- 10% of workers earn **$47,990 or less**.
- 10% of workers earn **$128,550 or more**.

Source: Bureau of Labor Statistics 2023 wage data.

California Employment Trends

13-1081.01 - Logistics Engineers Bright Outlook

View trends for state: California Go

In California:

Employment data for **Logisticians**.

Employment (2020)	25,800 employees
Projected employment (2030)	35,900 employees
Projected growth (2020-2030)	39%
Projected annual job openings (2020-2030)	3,660

In the United States:

Employment data for **Logisticians**.

Employment (2023)	237,100 employees
Projected employment (2033)	282,900 employees
Projected growth (2023-2033)	■■■■ 19% Much faster than average
Projected annual job openings (2023-2033)	26,100

California source: Projections Central 2020-2030 long-term projections. United States source: Bureau of Labor Statistics 2023-2033 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.

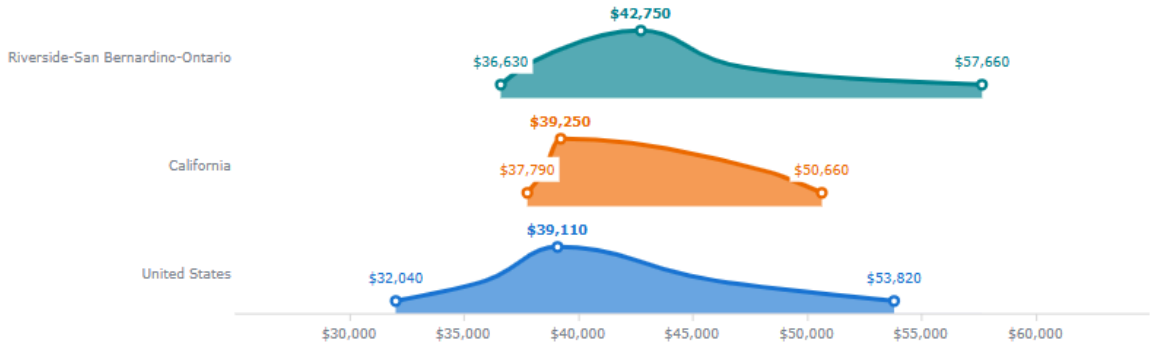
Local Wages

53-6032.00 - Aircraft Service Attendants 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 **$42,750**.
- 10% of workers earn **$36,630 or less**.
- 10% of workers earn **$57,660 or more**.

In California:

- Workers on average earn **$39,250**.
- 10% of workers earn **$37,790 or less**.
- 10% of workers earn **$50,660 or more**.

In the United States:

- Workers on average earn **$39,110**.
- 10% of workers earn **$32,040 or less**.
- 10% of workers earn **$53,820 or more**.

Source: Bureau of Labor Statistics 2023 wage data.

California Employment Trends

53-6032.00 - Aircraft Service Attendants Bright Outlook

View trends for state: California Go

In California:

Employment data for **Aircraft Service Attendants and Transportation Workers, All Other**.

Employment (2020)	1,300 employees
Projected employment (2030)	1,600 employees
Projected growth (2020-2030)	23%
Projected annual job openings (2020-2030)	220

In the United States:

Employment data for **Aircraft Service Attendants**.

Employment (2023)	25,200 employees
Projected employment (2033)	26,700 employees
Projected growth (2023-2033)	6% Faster than average
Projected annual job openings (2023-2033)	4,100

California source: Projections Central 2020-2030 long-term projections. United States source: Bureau of Labor Statistics 2023-2033 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.

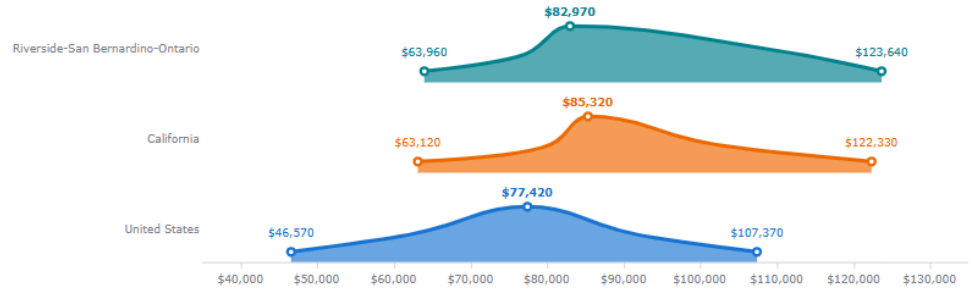
Local Wages

49-2091.00 - Avionics 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 **$82,970**.
- 10% of workers earn **$63,960 or less**.
- 10% of workers earn **$123,640 or more**.

In California:

- Workers on average earn **$85,320**.
- 10% of workers earn **$63,120 or less**.
- 10% of workers earn **$122,330 or more**.

In the United States:

- Workers on average earn **$77,420**.
- 10% of workers earn **$46,570 or less**.
- 10% of workers earn **$107,370 or more**.

Source: Bureau of Labor Statistics 2023 wage data.

California Employment Trends

49-2091.00 - Avionics Technicians Bright Outlook

View trends for state: California Go

In California:

Employment (2020)	1,800 employees
Projected employment (2030)	2,200 employees
Projected growth (2020-2030)	22%
Projected annual job openings (2020-2030)	180

In the United States:

Employment (2023)	21,900 employees
Projected employment (2033)	23,500 employees
Projected growth (2023-2033)	8% Faster than average
Projected annual job openings (2023-2033)	1,900

California source: Projections Central 2020-2030 long-term projections. United States source: Bureau of Labor Statistics 2023-2033 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.

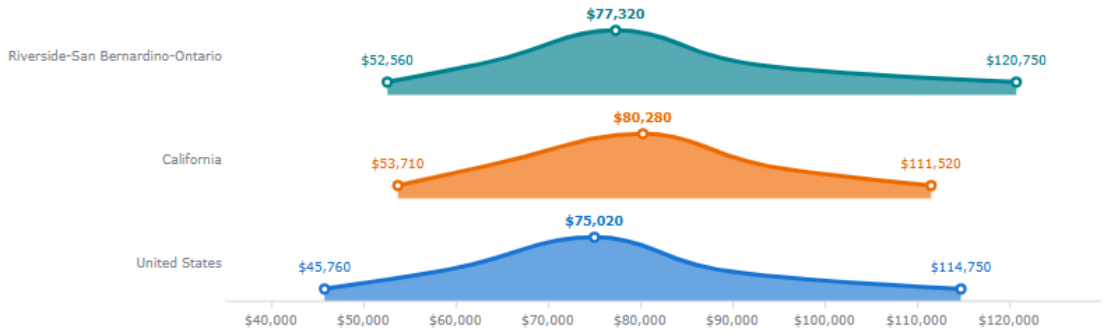
Local Wages

49-3011.00 - Aircraft Mechanics and Service Technicians

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 **$77,320**.
- 10% of workers earn **$52,560 or less**.
- 10% of workers earn **$120,750 or more**.

In California:

- Workers on average earn **$80,280**.
- 10% of workers earn **$53,710 or less**.
- 10% of workers earn **$111,520 or more**.

In the United States:

- Workers on average earn **$75,020**.
- 10% of workers earn **$45,760 or less**.
- 10% of workers earn **$114,750 or more**.

Source: Bureau of Labor Statistics 2023 wage data.

California Employment Trends

49-3011.00 - Aircraft Mechanics and Service Technicians

View trends for state: California Go

In California:

Employment (2020)	12,500 employees
Projected employment (2030)	15,100 employees
Projected growth (2020-2030)	21%
Projected annual job openings (2020-2030)	1,380

In the United States:

Employment (2023)	141,400 employees
Projected employment (2033)	148,700 employees
Projected growth (2023-2033)	5% Average
Projected annual job openings (2023-2033)	11,500

California source: Projections Central 2020-2030 long-term projections. United States source: Bureau of Labor Statistics 2023-2033 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

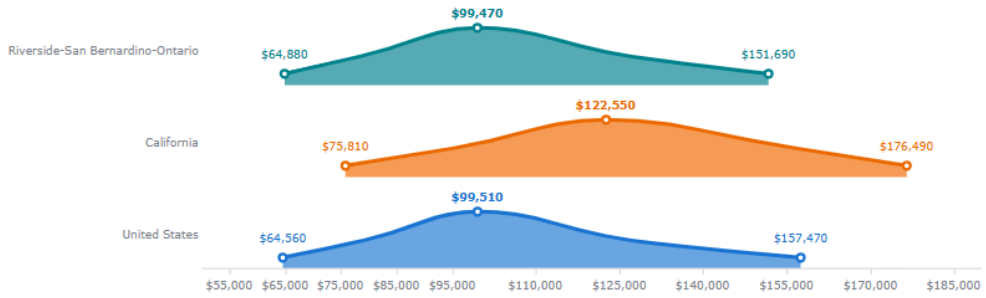
17-2141.02 - Automotive Engineers Bright Outlook

Wage data collected from **Mechanical Engineers**.

Wages for state: California Go

Wages near ZIP Code: 92408 Go

Annual Wages | Hourly Wages



In Riverside-San Bernardino-Ontario, CA:

Wage data for **Mechanical Engineers**.

- Workers on average earn **$99,470**.
- 10% of workers earn **$64,880 or less**.
- 10% of workers earn **$151,690 or more**.

In California:

Wage data for **Mechanical Engineers**.

- Workers on average earn **$122,550**.
- 10% of workers earn **$75,810 or less**.
- 10% of workers earn **$176,490 or more**.

In the United States:

Wage data for **Mechanical Engineers**.

- Workers on average earn **$99,510**.
- 10% of workers earn **$64,560 or less**.
- 10% of workers earn **$157,470 or more**.

Source: Bureau of Labor Statistics 2023 wage data.

California Employment Trends

17-2141.02 - Automotive Engineers Bright Outlook

View trends for state: California Go

In California:

Employment data for **Mechanical Engineers**.

Employment (2020)	29,100 employees
Projected employment (2030)	32,500 employees
Projected growth (2020-2030)	12%
Projected annual job openings (2020-2030)	2,140

In the United States:

Employment data for **Mechanical Engineers**.

Employment (2023)	291,900 employees
Projected employment (2033)	323,900 employees
Projected growth (2023-2033)	■■■■ 11% Much faster than average
Projected annual job openings (2023-2033)	19,800

California source: Projections Central 2020-2030 long-term projections. United States source: Bureau of Labor Statistics 2023-2033 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.