



A NIOSH Center of Excellence for *Total Worker Health*®

ANNUAL REPORT 2025 – 2026

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The California Labor Laboratory (U19OH012293)

A Collaboration of UCSF, UC Berkeley, and the California State Department of Public Health

Executive Summary

The California Labor Laboratory *Total Worker Health*® Center of Excellence (Lab) has been in existence since September 2021. In this annual report, we document how we have pursued our overall mission, the specific aims of the Evaluation and Planning and Outreach Cores, funded Research Projects and Pilot Grants Program, and engaged stakeholders beyond those with a formal role within the Lab to further the reach of the Lab.

As of October 2022, when we filed the initial Annual Report, we had a fully functioning infrastructure to support the success of the Center in all matters related to administration and had established five separate advisory groups to guide the Lab's work: the Internal Advisory Committee, the External Advisory Committee, the Community Engagement Board, the Policy Forum, and the Research Services Unit. The Lab has developed an interactive website allowing us to communicate with the public about our work and to receive input from them. Our communications program has resulted in the active engagement of over 2,000 members of the community who stay informed about our activities and are able to register for our programming.

The research projects are designed to provide a thorough look at the extent and impact of non-traditional employment throughout the California economy; an intensive look at the largest sector using such employment, the service sector; and a case study of one industry dominated by immigrants as both entrepreneurs and workers, artificial stone fabrication. As you'll see in this report, all the funded projects have been on track in meeting their timelines of accomplishment.

The Pilot Grants Program represents the effort of the Lab's researchers to foment a new generation of investigators focused on emergent working conditions. In 2023, the Lab released its first RFA for the program, to which 23 applicants responded by applying for funding. In the first cohort of the Pilot Grants Program, eight investigators were provided funding to perform research consistent with the California Labor Laboratory's mission. In 2025, we had a second competition for Pilot Grants, for which there were 21 applicants. Three of the investigators were funded and are on target to conclude their investigations in the winter of 2026.

The Outreach Core has had a number of significant accomplishments, including the completion of a large scale scoping review of accumulated knowledge on how working conditions in traditional and emergent employment affect the health and well-being of workers; a comprehensive catalog of what other TWH Certificate programs have done as a prelude to defining our unique niche related to non-traditional employment; the completion of a comprehensive case study of how traditional practices for

planning new workplaces can bring human-centered design as a primary goal to foster healthy work and workers; the initiation of a future of work program incorporating interdisciplinary principles of TWH; continued high impact public-facing education programs through a monthly webinar and five annual conferences; and the launching of a Certificate Program entitled *Total Worker Health in a Changing World of Work*, soft-launched at the end of August 2026.

A major activity of the Outreach Core has included a Work Futures Initiative. This includes convenings wherein 18 discipline-specific convenings were held. The convenings were designed to elicit the perspectives of the disciplines on the current state of and future trends in employment. The results of these convenings were published in a book *Unfiltered Voices: A Reveal of Our Current and Future Work Life*, published in February 2026. The subsequent phase of the initiative engaged members from multiple disciplines, shedding light on the differences in perspectives as well as universally held views across disciplines. Further conclusions from the inquiry across disciplines will lead to a new model of work that will help ensure that worker health and wellbeing are designed into the future of workers' experience.

As we enter the sixth year of the Lab's existence, the Outreach efforts continue to get the Lab into the public eye, including that of legislators in DC and Sacramento. A recent example of this includes our convocation of the public and policymakers in Sacramento in May 2026 to highlight the work of the Lab and to engage both audiences in the policy issues arising from the Lab's work. As a result of these efforts, we are again planning a series of visits to the offices of Members of the House and Senate to discuss the work of the California Labor Lab and how we can assist them in their deliberative efforts; these visits are made mainly but not exclusively to Congressional Members from California.

The California Labor Lab continues to prioritize community and stakeholder engagement in all its activities. To that end, a Community Engagement Board, made up of representatives of worker organizations representing low-wage workers impacted by the changing nature of work, was formed and has met three times. Members of this Board are regularly consulted to provide input into ongoing work and inform priorities. Also, our Research to Practice Toolkit is supporting the Lab's research teams, ensuring that stakeholders impacted by research are engaged in the research process as early as possible.

At the same time, our research projects have accomplished a significant amount of data collection and analysis to allow for presentation at professional meetings and legislative hearings as well as numerous publications in peer-reviewed journals.

We have organized this report by four major overlapping functions: *the Evaluation and Planning Core*, which maintains the infrastructure to ensure the Lab's success; *the Research Program*, which describes the prevalence and impacts of emergent and traditional forms of employment; *the Outreach Core*, which sets the stage for mitigating these adverse impacts through a comprehensive set of activities; and the *Pilot Grants Program* and *Certificate Program in Total Worker Health®*, both of which seek to increase interest in the impact of emergent working conditions, focused particularly on protecting the health of workers in precarious work arrangements.

In the following table, we highlight the outputs of the Lab in its first five years of existence.

CA Labor Lab Outputs, September 2021 – October 2026
Evaluation and Planning Core - Established internal and external oversight committees with regular schedule of meetings; projects revised according to oversight from external advisory committee members. - Constituted a Community Engagement Board and held three annual meetings with membership; ongoing engagement with members to advocate for changes in law and regulation affecting workers in affected occupations and industries. - Created a Policy Forum and held policy sessions at the Lab’s annual conferences. Policy Forum involved in work with members of Congress, State of California Legislature and Executive Branch in matters related to oversight for workers in alternative arrangements, those subject to irregular shifts and on-call work. - Created infrastructure for monitoring progress; revised a logic model governing operations in response to an evaluation of our activities. - Developed website and maintain regular communication with >2,000 stakeholders. - Launched public-facing education program of webinars and annual conferences with more than a thousand individual attendees.
Outreach Core - Completed a scoping review collecting and summarizing healthy work and worker wellbeing literatures. Distributed a scoping review report for comment to other COEs, NIOSH colleagues, and published the manuscript in the Journal of Occupational and Environmental Medicine. - Made presentations to multiple academic and professional conferences regarding Total Worker Health. - Developed and completed initial case study of using TWH principles to assist in design of academic building. - Completed a Research to Practice Toolkit (R2P) for guiding community engagement. - Initiated a Future of Work project across multiple disciplines with the goal of infusing TWH activities with interdisciplinary principles. - Instituted an extensive public facing educational program consisting of monthly webinars in several series as well as three annual two-day conferences on precarity in employment, surveillance and monitoring of work, and the experience of work in contemporary employment. The program has had over 2,000 unique individuals attending one or more event; total registrants include over 9,000 people. - Developed a proposal for the organization of a national educational Total Worker Health professional development program including core competencies for certificate program. - Launched a Certificate Program in <i>Total Worker Health</i>®.
Pilot Study Program - Published two requests for applications (RFA) for two pilot study cohorts. - Developed and executed a plan for broad dissemination of the RFA to academic and non-profit institutions. - Created a peer review panel and evaluative criteria for proposals received. - Funded eight of 23 proposals received in 2022, and three of 21 proposals in 2025.
Project 1: Emergent Working Conditions

- Held a summit meeting on measurement of alternative employment.
- Developed set of potential measures of alternative employment arrangements.
- Conducted series of key informant interviews and cognitive interviews to determine appropriateness of potential measures.
- Pilot-tested and finalized structured survey questionnaire on work and health, including new items.
- Survey of 4,000 working age Californians launched November 2022 and completed in May 2023. Presented results in numerous forums beginning in October 2023.
- Published several manuscripts including one on the impact of emergent working conditions in American Journal of Industrial Medicine, another in Journal of Occupational and Environment Medicine on changes in the nature of employment over the last 25 years using the California Work and Health Surveys from 1999-2000 and 2022-2023, and yet another in the Monthly Labor Review on the development of our survey.
- Published 15 data briefs and a policy brief on select topics relevant to worker health, five of which were done with involvement of State of California Labor Agency.
- Completed a public use version of the data for public release in early 2024. Disseminated data to 16 external researchers.
- Designed a follow-up survey and completed data collection in March 2025 (data collection was cut short due to the potential for funding cuts; still, 1,826 interviews were completed when data collection was ended).
- Used the dataset for training and professional development of STEER and MPH interns, graduate students, and occupational medicine residents.

Project 2: Job Conditions in the Service Sector

- Analyzed data from more than 200,000 service-sector workers across more than 150 large firms to examine working conditions, worker health, and the effects of labor policies and employer practices.
- Published several peer-reviewed papers, with foci on precarious work, fair workweek laws, paid sick leave, schedule instability, punitive attendance practices, and family and social outcomes.
- Developed a state and local labor policy database that can be linked with the Shift Project's individual-level survey data, enabling analyses of the effects of labor laws and employer practices on working conditions and worker outcomes. The database was made available to CALL investigators, pilot grant recipients, and other researchers upon request.
- Translated research findings for policy and practitioner audiences through presentations, briefings, and engagement with policymakers, including work addressing schedule instability and just-in-time scheduling.
- Research findings received extensive national media coverage, including features by NPR, MSNBC, The Washington Post, and the Associated Press.

Project 3: CA Artificial Stone & Silicosis

- Developed and disseminated multilingual educational and prevention resources for countertop fabrication workers, employers, and healthcare providers, including materials in English, Spanish, Chinese, and Armenian.
- Expanded outreach to healthcare providers through a free continuing medical education course offered at UCLA, and a statewide Health Advisory distributed to licensed California physicians.

- Enrolled 85 workers in a pilot study evaluating routine and enhanced approaches to detecting silicosis among silica-exposed countertop fabrication workers.
- Published 15 peer-reviewed papers in leading journals, including the American Journal of Industrial Medicine, JAMA Internal Medicine, Clinics in Chest Medicine, New Solutions, MMWR, and the American Journal of Public Health. Publications document the emerging epidemic, surveillance methods, prevention needs and health consequences of artificial stone fabrication.
- Raised national awareness of artificial stone-related silicosis through extensive media coverage, including Telemundo, NPR, The New York Times, Los Angeles Times, and other national and regional outlets.

Evaluation and Planning Core

Oversight for the California Labor Laboratory is the responsibility of the Lab's Evaluation and Planning Core (EPC). The EPC also serves as the musculoskeletal and circulatory systems for the Lab, providing an infrastructure to hold the components of the Lab together, to foster communication within the Lab, and to create a unified whole.

The overarching aim of the Evaluation and Planning Core (EPC) is to ensure that CALL achieves its mission of understanding the health impacts of emergent work conditions through its research and fosters change in the use of the forms of employment that adversely affect the health of workers through its outreach. Specific aims of the EPC are to: 1) create and sustain a communication and coordination structure for the Center that will create the means for each research and outreach activity to succeed and provide a range of services that foster that success; 2) act as an incubator of change agents in research through the development of a pilot studies program and in outreach activities through the development of an interdisciplinary training program in mitigation of the adverse impacts of emergent working conditions so that the Center's mission can be furthered after its tenure is complete; and 3) to evaluate the Center's success in conducting the planned activities during its tenure and incubation of change agents beyond its tenure.

To monitor and, if necessary, ameliorate the activities of the Lab, the EPC has constituted separate Internal and External Advisory Committees, a Community Engagement Board, a Policy Forum, and a Research Services Unit.

The Internal Advisory Committee (IAC). The IAC is responsible for leading strategic initiatives, including selecting themes for the annual conference and guiding the Lab's interactions with the policy community and the public. Other key responsibilities of the IAC include facilitating external communications about outward-facing programs and events, oversight, and improvement of the communication tools within the Lab, including templates for reports and data briefs, and logos. The IAC also is responsible for ensuring timely completion of progress reports to NIOSH and the university as well as this annual report.

During the reporting period, the IAC included the Lab's founding PI, Dr. Ed Yelin; Associate Director for Research, Dr. Harris Adamson; Associate Director for Outreach, Dr. Cristina Banks; Director of Community Engagement, Suzanne Teran; and Lab Coordinator, Alicia LaFrance. Director of Educational Programs Michelle Beltran also regularly participated in IAC meetings to support external communications and event planning.

In the summer of 2026, CALL underwent several planned leadership transitions. Dr. Harris Adamson succeeded Dr. Yelin as PI, and Dr. Banks retired from the Lab. As part of the transition, Michelle Beltran was promoted to Co-Director of Outreach and Alicia LaFrance to Associate Director of the Lab. Suzanne Teran continued in her role as Director of Community Engagement.

Following these transitions, the IAC consists of Dr. Adamson as PI; Ms. Beltran as Co-Director of Outreach; Ms. Teran as Director of Community Engagement; and Ms. LaFrance as Associate Director.

Together, these transitions supported continuity in the Lab's leadership while establishing its administrative and programmatic structure for the next phase of CALL.

The IAC meets on the second and fourth weeks of each month. At the inception of the Lab, the IAC met on a weekly basis. Following this initial phase, meetings transitioned a bi-weekly cadence to set strategy for the Lab's activities, monitor progress in each of the activities, and develop ways of maintaining ties among the Lab investigators.

The External Advisory Committee (EAC). The EAC is designed to provide input into the Lab's Cores and Projects as they unfold as well as to provide strategic direction to the Lab. Examples of the involvement of individual members of EAC in providing ongoing input abound. Dr. Ninez Ponce, as PI of the California Health Interview Survey (CHIS) has been an invaluable consultant to ongoing aspects and insights of the Project 1 California Work and Health Survey. Members of the EAC have also helped us make connections for speakers at our webinars and annual conference, for example assisting us in getting Senator Padilla to speak at our second annual conference, Interim Secretary of Labor Su to speak at our third conference.

To meet the Lab's aims, the EAC oversees the Lab's strategic planning. To this end, the entire EAC and the Lab's faculty and staff meet on an annual basis, and most recently in February 2025. The annual meeting serves as a forum for EAC members to offer guidance on the CA Labor Lab's strategic goals and contribute expertise from their respective fields. During the most recent EAC meeting, the Lab's investigators reviewed progress to date and presented initial ideas of the evolution of the Laboratory's focus on emergent working conditions to prepare for a future five-year cycle of NIOSH funding. The EAC members also gave input regarding potential future members of the EAC.

Following the release of a NIOSH Request for Applications, the Lab will seek counsel from the EAC to assess the California Labor Lab's proposed project portfolio, including its contribution to the Lab's mission and strategy for bringing funded research and outreach activities to completion.

Members of the External Advisory Committee		
Member	Affiliation	Role in CA Labor Lab
Garen Corbett	Director, CA Health Benefits Review Program, UC, Berkeley	State Policy, Center Admin
Jeffrey Pfeffer, PhD	Professor, School of Business, Stanford University	Organizational behavior and health effects of work organization
Ninez Ponce, PhD	Director, CA Health Interview Survey, UCLA	Expertise in surveying diverse populations
Michael Reich, PhD	Prof of Econ, UC, Berkeley	Low wage and minority labor
Beth Ross, JD	Labor attorney	Legal strategy for alternative employment
Steven Shortell, PhD	Dean Emeritus, School of Public Health, UC, Berkeley	Work organization and Center Admin.
Sara Flocks	Legislative and Strategic Campaigns Director, CA Labor Federation	Employment policy and legislative advocacy
Gervais Tompkins	Principal, Plus Gervais Architects	Design of healthy workplaces
Jora Trang	Chief of Staff and Equity, Worksafe	Community engagement and low-wage employment

Community Engagement Board (CEB). The mission statement of the California Labor Laboratory centers community engagement in its activities: we work in concert with our community partners to ensure what we do is relevant to their needs. In the application for funding, we explicitly said that we would constitute the CEB as the work of the Lab began to unfold to make sure our work was informed by the needs of key stakeholders and that results of our research and other activities reach the impacted community.

Since the Labor Lab began, we have held CEB meetings each fall every year except the fifth year of the Labor Lab, with nearly all board members in attendance (members listed below). These meetings have been characterized by thoughtful discussions of the Labor Lab's research, outreach, and policy activities, as well as their potential impact on the constituencies represented by board members. At the most recent CEB meeting (November 2024), we discussed emerging issues for the workers the board members represent as potential areas of focus in the Labor Lab's next five-year cycle of funding. While we did not

convene a CEB meeting in our fifth year of funding due to the uncertainty of our funding agency, NIOSH, we plan to engage members of the board as we prepare to apply for a new 5-year cycle of funding.

Overall, the board's input from meetings and consultations is reflected in various ways in the work of the Lab. For example, the discussion sections of the manuscript on the impact of forms of employment published in the American Journal of Industrial Medicine and the manuscript on nonstandard employment published in the Monthly Labor Review. The members have also helped us frame a form of data release, Data Briefs, that are more accessible to their constituencies due to the use of graphical formats. The members have also influenced the content of the Laboratory's public-facing webinars and annual conferences.

Current Members of the Community Engagement Board	
Member	Affiliation
Jane Thomason	California Nursing Association National Nurses United
Rocelyn De Leon-Minch	National Nurses United
Maegan Ortiz	IDEPSCA
Nicole Moore	Rideshare Workers United
Tim Shadix	Warehouse Workers Resource Center
Ruth Silver-Taube	Legal Aid at Work
Kevin Riley	Labor Occupational Safety and Health Program (LOSH), UCLA
Jora Trang	Worksafe
Elmer Lizardi	CA Labor Federation
Alice Berliner	LA County Department of Public Health

Policy Forum. The Policy Forum was designed to create interactions between the faculty and senior staff of the California Labor Laboratory and policymakers in the Legislative and Executive branches of the State and Federal government. The activities of the Forum are a key component of the Lab's Outreach Core and are more fully described in that section of the Annual Report.

Key accomplishments over the duration of the Labor Lab include having Senator Alex Padilla provide an introductory and closing address to our 2023 annual conference, having Interim Secretary of Labor Su do the same for our 2024 conference, and having California Secretary of the California Labor & Workforce Development Agency, Stewart Knox, deliver our keynote address at our 2026 conference. We have also been in the practice of identifying and engaging with key legislators and executive branch officials in both

State and Federal government. Since 2024, our leadership team, in partnership with the University of California Washington D.C. Office, schedules briefings with legislators and staff on the findings of the Lab's projects. We now have an on-going relationship with California Senators and Congressional representatives. For example, in 2024, ties with Padilla's staff led to a virtual meeting in which we outlined results from the California Artificial Stone and Silicosis (CASS) Project and discussed potential policy initiatives to protect workers in this industry. We have also cultivated relationships with the UCSF Director for State and Local Government Relations to develop engagement strategies with California elected officials to advocate for policies to prevent silicosis, a severe, incurable, and often fatal lung disease that is completely preventable.

California Labor Lab data have proven useful to the California Labor & Workforce Development Agency for whom we have prepared five data briefs using the results of the California Work and Health Survey from the Lab's California Work & Health Survey (Project 1). The briefs concern employment in the arts, work outcomes for older workers in the State, employment among people with disabilities, the behavioral health workforce, specifically the magnitude and working conditions, and differences in family caregiving responsibilities by generation and gender.

Finally, in April 2026, we worked with the University of California Student and Policy Center in Sacramento to convene the public and policymakers in an event that served as our annual conference. The convocation engaged the legislative and agency audiences regarding the policy implications of our research and outreach activities. The conference was available to an in-person audience in Sacramento and a virtual audience via Zoom.

Research Services Unit (RSU). The focus of the External Advisory Committee and Community Engagement Boards are to make sure that the projects and Cores are oriented to the important issues arising from the emergence of alternative ways in which people are hired to work. The RSU is designed to provide on-going support to the Lab's funded projects and to aid in the design and evaluation of proposed expansions of the Lab's research endeavors through additional grants to existing investigators and the Lab's Pilot Studies Program. The RSU includes expertise on the substantive orientation of the Lab to emergent working conditions as well as on the methodologies used in the Lab's research projects. The RSU members attend the Lab's monthly research meetings, providing input into the Lab's projects and pilot program at every step of completion; they also consult with Lab investigators one-on-one when needs arise. The RSU membership is listed in the table below.

There are numerous examples of the use of the RSU members in the design of Lab research projects. For example, Dr. Blanc, an occupational health expert, provided input on measures of workplace exposures for our follow-up questionnaire for Project 1, and Dr. Katz has consulted with the Lab investigators and pilot grantees regarding psychometric properties of selected data collection instruments. There are plans for future collaboration with Dr. Katz and with the Lab's Director of Outreach to develop instruments that can be used to evaluate efforts to improve worker well-being and measure the perceived effects of AI on worker health.

Many of the members of the RSU were involved in reviewing pilot project applications in the winter of 2025, as they had previously done in 2023. We also count on RSU members to provide support to a new

cohort of pilot grantees research, as they have done in previous years. In past years, types of RSU support provided has included input on design issues, for example the trade-off between comprehensive measurement and respondent burden, to appropriate techniques for data analysis, providing key linkages for contacts relevant to their projects, and providing counsel and alternative solutions when projects do not go as planned.

2025-2026 Membership of the Evaluation and Planning Core's Research Services Unit	
Member	Expertise
Kristen Harknett, PhD	Quantitative and qualitative research, demography, labor market measures
Carisa Harris Adamson, PhD	Ergonomics, work organization
Patricia Katz, PhD	Psychometrics, survey research methods, behavioral health measures
Edward Yelin, PhD*	Survey research, systematic reviews, research techniques on vulnerable groups
Paul Blanc, MD, MPH	Occupational exposures

**Note: Dr. Yelin retired from his role in August 2026.*

Outreach Core

Cristina Banks, PhD, Director

Suzanne Teran, MPH, Director of Community Engagement

Victor Rubin, PhD, Director of Policy

Monique Hosein, DrPH, Community Engagement Coordinator

Michelle Beltran, Educational Coordinator

Alicia LaFrance, MPH, MSW, Academic Coordinator

Jeff Loi, M.Sc., MURP Research Analyst

The Outreach Core is the second pillar of the California Labor Laboratory (CALL) structure. The first pillar, the Center's Research, provides the evidence of the impact of emergent working conditions and the second pillar, the Outreach Core, turns that evidence into tangible, concrete, and accessible practice and policy information for public use. The Outreach Core's success rests on its ability to translate CALL's research findings into the right knowledge in the right forms to the right places. CALL's ambitious goal of describing, understanding the causes of, and mitigating the health impacts of existing and emergent working conditions with special attention paid to vulnerable workers, requires a robust and compelling outreach partner to turn this research into lasting change for good. The Outreach Core is designed to fulfill that need.

In the Outreach Core, we translate research into practice through the following four overlapping aims: 1) consolidation of known science across relevant fields of knowledge and California Labor Laboratory research; 2) dissemination of accumulated knowledge to stakeholder groups; 3) engagement in mitigation and prevention efforts through research to practice (R2P) process, development of intervention strategies, consultation with organizations, and development of policies; and 4) development of educational programming to inform the public, policymakers, labor, and industry and to develop a cadre of change agents who will work with these constituencies to improve the health and well-being of the working age population.

Consolidation of Known Science. In the first two years of the California Labor Lab, the Outreach Core conducted a multi-disciplinary scoping review, collecting and summarizing healthy work and worker wellbeing literatures. A scoping review is a type of literature review performed when the goal is to map the literature and is generally used to address broader topics. Thus, using a scoping review framework seemed apt for mapping the literature that relates to the broad list of Total Worker Health priority issues. In 2023, draft reports of the scoping review were circulated with all Total Worker Health COEs, and presentations were shared with the Total Worker Health audience. Feedback accumulated from these audiences helped to hone and refine the messaging of the scoping review findings. The scoping review was published in the *Journal of Occupational and Environmental Medicine* in the spring of 2025. Other manuscripts that build upon the scoping review are in progress. Two manuscripts are focusing on interdisciplinary teaming and a model for interdisciplinary projects and initiatives.

A key finding from the scoping review is that literature from several disciplines were found to have relevance to TWH priorities but appear to be missing in the practice and application of TWH interventions. In addition to the publication, the Outreach Core created a publicly accessible online database containing the literature citations included in the scoping review plus the primary discipline associated with each citation, summaries or abstracts of each citation, and a selection of interventions and/or best practices extracted from the citations. We have invited comments from readers to suggest new literature that can be added to the citation list to have the potential to further inform and expand the TWH field of practice.

Most importantly, the scoping review revealed the extent to which it is valuable to work across silos and broaden the knowledge field regarding Total Worker Health as each discipline and subdiscipline makes a contribution to organizational effectiveness in ways that protect workers from harm and that promote mental and physical health and well-being. Having this understanding from the scoping review, Dr. Banks was able to conceptualize the Work Futures Initiative as an interdisciplinary movement resulting in a systems-oriented approach to both business operations and occupational health and well-being. Crossing silos is not easy. However, the Sandbox meetings showed how important it is to collect diverse, non-traditional voices to understand health, safety, and well-being in its totality, and to build a vision and framework for the future of work, worker experience, and workplaces that capitalizes on ALL of the knowledge at hand to build an integrated, coordinated, and systemic approach to work life.

Community Engagement Board. An important goal of the Outreach Core is to inform and obtain input from a wide range of stakeholders about the health impacts of traditional and emergent working conditions. The stakeholders include labor and industry, researchers, advocates, and policymakers at the local, state, and national levels. One venue for the engagement with stakeholders has been the Community Engagement Board, which currently includes about 10 members representing different labor and worker organizations as well as health and safety professionals (see table below for listing).

Current Members of the Community Engagement Board	
Member	Affiliation
Jane Thomason	California Nursing Association National Nurses United
Rocelyn De Leon-Minch	California Nursing Association National Nurses United
Maegan Ortiz	IDEPSCA
Nicole Moore	Rideshare Workers United
Tim Shadix	Warehouse Workers Resource Center
Ruth Silver-Taube	Legal Aid at Work
Kevin Riley	Labor Occupational Safety and Health Program (LOSH), UCLA
Jora Trang	Worksafe
Elmer Lizardi	CA Labor Federation
Alice Berliner	LA County Department of Public Health

The California Labor Laboratory held the first Community Engagement Board (CEB) meeting in fall of 2022; a second was held in October 2023, and a third in the fall of 2024. The primary goals of the CEB include providing input and guidance to the Lab to ensure that community and stakeholder interests are reflected in its overall strategies; sharing knowledge and experience regarding practices and mitigation strategies; assisting in development of overall outreach and dissemination plans; and assisting in identifying and advocating for effective policy strategies to ensure the impact of Center research. The meetings have been well attended by members of organizations representing workers affected by changing working conditions in California. The list of members appears in the Evaluation and Planning section above.

During the CEB meetings, CALL investigators provide updates on current activities and plans, while the board provides input on a) key issues facing their members; b) suggestions for the Lab's research agenda; c) outreach and training needs; and d) suggestions for our policy agenda. In the Fall 2024 meeting, members reviewed the CALL Logic Model and provided input into future goals and priorities that can be incorporated into the upcoming 5-year renewal proposal.

In this past year (2025-2026), community stakeholders were updated on California Labor Laboratory activities through individual contacts (e.g. emails and invitations to the webinar series) and specific members were consulted or sought out depending on the nature of the consultation needed. For example, The Lab's Community Engagement Director, Suzanne Teran, is PI on another statewide research

study, the CA Heat Study, and connected with the SEIU Fight for 15-FastFood Workers Union, IDEPSCA, and Warehouse Resource Center. These connections are key for connecting the Lab's research projects with key informants and worker participants for focus groups. Similarly, Ms. Teran coordinated with the CA Labor Fed representative on our Community Engagement Board to join a panel, "Modern Work, Modern Protections: What Comes Next," and helped ensure that a Rideshare Workers United representative was featured in the Total Worker Health Certificate Course series that launched in 2026.

The Lab's Community Engagement Director and Community Engagement Coordinator regularly participate in meetings with stakeholders through other established forums. They represent the Lab and share its activities and identify opportunities for collaboration with CALL's research and outreach effort. This includes a bimonthly meeting of occupational safety and health advocates who meet to discuss emerging policy initiatives, a weekly meeting of the Black Worker Initiative which seeks to expand organizing and improve job opportunities for Bay Area's Black workers, and the yearly meeting of LOHP's own Labor Advisory Committee. This Committee met in June 2026 and included 14 organizational representatives who gathered to discuss emerging worker health and safety issues affecting their communities and organizations. Key concerns identified during the meeting included and of interest to the Lab include:

- Heat-related illness
- Immigration enforcement and implications for worker safety
- Workplace violence
- Excessive workload and understaffing
- Wage theft as a source of chronic stress
- The potential displacement of workers through automation and ai
- The lack of worker and community input in decisions regarding technological changes in the workplace.

The Community Engagement Director and her staff helped ensure that the voices of workers and worker organizations are included in its annual conferences. In the 2026 annual conference, LOHP planned and facilitated a policy panel, "Modern Work, Modern Protections: What Comes Next?". Since the conference was held on Workers' Memorial Day, the Director coordinated with the California Labor Federation to have its president, Lorenta Gonzalez, give an introduction at the conference. The Director also solicited the event among the Lab's Community Engagement Board as well as other worker organizations. These inroads are made possible through prior connections developed with stakeholders and meetings held with the Community Engagement Board.

Research to Practice. Research to Practice (R2P), refers to the basic principle that research needs to serve a purpose and lead to action to improve the health and safety of workers and other community members. R2P also refers to the process of incorporating systematically researched interventions and solutions for broader adoption and implementation. It also involves a 'practice to research' orientation which involves setting research agendas that originate with and respond to concerns and priorities of workers, employers, and other key stakeholders.

An important activity of the Lab in the first four years has been the development of the R2P toolkit to promote community engagement in research. This toolkit is designed to help research teams create a plan to identify and engage key stakeholders early in the research process and develop a research-to-action strategy to disseminate their most significant findings and recommended action. It also guides both researchers and communities in how to define a common set of goals for research, how to better serve community needs through this research, and how to ensure that the results have maximal effects when it is time to turn the results into actionable programs and policies. The broad goal for these efforts is to develop a pipeline of community engaged environmental health sciences and occupational health researchers and practitioners committed to dissemination for impact through tools, technology, strategies, and policy that keep workers safe and healthy, while also broadening the reach of findings in ways that increase worker safety. The toolkit is available online at:

<https://r2p-toolkit.s3.us-west-2.amazonaws.com/R2P+Toolkit+for+OHS+Researchers/story.html>

In its development, LOHP partnered with Michelle Beltran and her team from the Center for Occupational and Environmental Health (COEH) with expertise in instructional design to finalize the design and structure of the document. In June of 2024, the toolkit was pilot tested by one of the national centers as part of their mid-course center-wide evaluation. It was used with their project teams to help them focus on dissemination products and activities. The CALL team used results from that pilot test to refine the tool in advance of public dissemination.

In Year 5, Monique Hosein, coordinator of UC Berkeley's Labor Occupational Health Program's (LOHP) R2P work, and the California Labor Lab's Community Engagement Coordinator, focused on promoting the finalized R2P toolkit. Building on efforts including a poster presentation at the American Public Health Association Annual Meeting and a 2025 webinar on the R2P Toolkit and community engagement, the coordinator continued outreach to researchers at various stages of their careers. The goals of this outreach were to increase usage of the R2P Toolkit by introducing the toolkit and its foundation in community engagement to researchers and future researchers at early career levels and all levels of community engagement. Specifically, the targeted audiences included occupational and environmental health researchers, CA Labor Lab supported researchers, and COEH/NIOSH ERC funded students, students in environmental health at Berkeley Public Health and at other COEH programs.

The coordinator reached out to graduate students in forums both remote and in-person. In February 2026, the coordinator joined student researchers in-person at a COEH-hosted seminar series for graduate student researchers in environmental and occupational health to connect with student researchers and promote the Toolkit. In May 2026, the coordinator was invited to facilitate remote meetings with approximately 20 researchers and doctoral students across institutions hosted by the California Labor Lab, including one-on-one follow ups to help researchers develop and refine their research dissemination plans using the Toolkit. The researchers came to the session with drafts of the dissemination plans created using the R2P Toolkit. Researchers were offered opportunities for one-on-one sessions as their plans evolved. In June 2026, the coordinator met with one of the researchers to support refinement of the community engagement efforts that will inform her dissemination plan. These workshops and follow-ups help gain an understanding of the user experience to inform improvements in

future iterations of the toolkit, and an initial evaluation of the R2P Toolkit is planned for the coming year.

In July 2026, the coordinator developed a short module in the form of a recorded presentation, entitled *Fired by an App* which highlights the study on rideshare drivers' experiences as a model of community engagement. Through this, the module will include a discussion of the R2P Toolkit and promote the approach of doing research in partnership with community-/worker-based organizations. The *Fired by an App* report itself represents an accessible dissemination of research findings in partnership with organizations of gig workers and is a reference point for preceding modules. In Year 6 of the Lab, there are plans to integrate the R2P Toolkit into the Lab's certificate course and is intended to be a requirement for Total Worker Health certification.

These workshops and follow-ups help gain an understanding of the user experience to inform improvements in future iterations of the toolkit, and an initial evaluation of the R2P Toolkit is planned for the coming year. In total, these efforts have reached researchers from institutions and across states to disseminate the toolkit in California and beyond.

Society for Total Worker Health. Dr. Banks was elected as President-Elect of the Society in 2024 and took over leadership of the organization in 2025 and continues as Past President in 2026. As President during a year when CDC funding and staff were cut by the President, Dr. Banks and other members of the NIOSH Total Worker Health Centers of Excellence took steps to continue their work in various ways. Dr. Banks prepared a proposal for the Society to become the "hub" for Total Worker Health professionals in the place of NIOSH which was believed to be eliminated by the Administration. Dr. Banks presented the proposal to her Board Directors and received support to begin shopping the concept with other Centers and with the membership in general. A presentation of the new vision of the Society's role with respect to the Total Worker Health profession was made at the Work, Stress, and Health Conference in Seattle, WA in June 2025 to attendees and received a positive reception. In October 2026, Dr. Banks presented her proposal at the annual conference of the Society for Total Worker Health, which was convened at the 4th International Total Worker Health Symposium. Again, the presentation was positively received. As Past President of the Society, Dr. Banks continued to prepare a plan for this move toward a broader, supportive organization for those seeking a career in Total Worker Health.

In addition, Dr. Banks pursued several other activities which include developing the proposal for enhancing the profession of Total Worker Health by establishing standardized competencies, creating job descriptions of Total Worker Health positions in the public and private sectors, increasing access to educational opportunities for professionals across health-related disciplines to increase the number of professionals with competencies as a Total Worker Health professional, and taking steps to establish a new executive-level Total Worker Health position, the Chief Health & Well-Being Officer, trained and certified through an executive education program offered through universities. These activities will continue past her tenure as an Officer of the Society so that capacity building can continue in the Total Worker Health approach by helping health-based professionals to join the increasing pool of Total Worker Health professionals graduating from academic and continuing education programs. Also, she will continue her efforts to help the Society apply for a sole-source NIOSH grant when federal funds

become available to build the Society's infrastructure to support the professional development efforts described above.

Research. LOHP, along with a UC Berkeley School of Public Health researcher and the Associate Director of COEH, completed a study of retail food workers in Santa Clara County, in partnership with the Santa Clara Division of Labor Standards Enforcement (DLSE) and the Fair Workforce Collaborative, a network of community groups representing food service workers. The study documented workers' experience with wage theft and exposure to hazards associated with food service work. The report was released in multiple languages in September 2025, and is available on the County of Santa Clara's website: <https://desj.santaclaracounty.gov/olse/reports/restaurant-conditions>

In 2026, the Labor Occupational Health Program (LOHP) staff involved in the California Labor Laboratory partnered with COEH researcher Sadie Costello on a state-mandated heat study of workplace heat exposure. The study's priorities were established by an advisory committee commissioned through a California Assembly Bill (AB 1643). Broadly, the study assesses the impacts of heat exposure on the health, safety, productivity, and well-being of California's workers, with special attention given to understanding and mitigating the underreporting of heat illnesses, as well as improving methods for collecting heat illness data. The report is forthcoming in September 2026. In addition, the CALL's Community Engagement Director is in collaboration with researchers at COEH in Berkeley and UC Irvine to conduct a mixed methods study of California's Presumption Law. The overall purpose set forth by the state is to review claims filed by emergency communications personnel which have not been previously studied and to evaluate law's effectiveness in reducing the burden of work-related PTSD among presumption workers

Another example of research includes UC Berkeley's Interdisciplinary Center for Healthy Workplaces' (ICHW) efforts in administering an online survey created in collaboration with researchers at Norwegian University of Science and Technology. The survey measures the degree to which employees experience features of a healthy workplace. This version of the Healthy Workplace Index (HWI) was a shortened form of the team's previous analyses that could identify the most discerning items for predictive personal and organizational outcomes embedded in the survey.

The shortened survey was administered in June 2025 to 300 UC Berkeley University Health Service staff, and 58 completed surveys were returned. Analyses were conducted based on the 58, and the attached report describes the results and implications of the survey responses. The plan is to eventually administer the HWI to all UC Berkeley staff, and then it may be rolled out to all staff across University of California campuses as part of the Healthy Campus Initiative under Associate Vice Provost for the Semel Healthy Campus Initiative Center based in UCLA.

The team of Norwegian, Finish, and American authors of the HWI completed a manuscript describing the development, implementation, and cross-country analysis of survey responses using the entire 80-item survey as originally developed and submitted it for publication. It has passed peer review and is now waiting for the Editor's decision to publish in the *International Journal of Workplace Health Management*.

Work Futures Project. The Work Futures Initiative, a project jointly supported by the UC Berkeley Haas Business School, the Interdisciplinary Center for Healthy Workplaces, and the CA Labor Lab, aims to create a new vision and framework for the future of work, worker experience, and workplaces. While not stated explicitly, the underlying framework for the Initiative reflects the principles of Total Worker Health through the development of a new business operating model which holds the dual goals of business success and worker health, safety, well-being, and productivity. The Initiative consists of three phases, each phase building the necessary pieces of the framework to enable the implementation of this new vision for the future and a shift to this new business operating model.

The first phase focused on data collection from a wide spectrum of researchers and practitioners across 18 different occupational stakeholder groups to understand the current state of work life and future predictions of the future for each group. Data collection was achieved through a series of “Sandbox” meetings, each meeting consisting of a two-hour virtual discussion among an invited set of peers who each had demonstrated highly experienced and thoughtful leadership within their discipline. These discussions were lightly facilitated by a leadership team from the Interdisciplinary Center. Facilitators were instructed to introduce very general questions (the same ones introduced at each Sandbox) to start the discussions and then let them talk (no probing, follow-up, or commenting). Discussions were recorded, transcribed, and lightly edited to preserve what was said verbatim with speaker identities removed.

A total of 18 Sandboxes were held over two years (2024-2025), and discussions were collected in the book, *Unfiltered Voices: A Reveal of Our Current and Future Work Life*, published in February 2026 and distributed by the Interdisciplinary Center at no cost to the public upon request. A total of 163 participants engaged in the Sandboxes, and this group represented a rich mix of backgrounds including architecture/design workplace strategists, occupational safety and health professionals, occupational health psychologists, senior HR professionals, C-suite HR leaders, work psychologists, building owners/developers, urban planners, government agencies, public policy professionals, union leaders, software and device technology users, artists and musicians, CEOs, college student leaders, investors, business executives.

The second phase focused on creating a solution to the problems that surfaced in the Sandboxes by creating a new vision and framework for the future of work for the nation. The *Unfiltered Voices* book set the stage for a new group of researchers, practitioners, and executives to examine the Sandbox data, work collaboratively through facilitated discussions to identify the high priority problems and issues to address in a new vision, and then begin the process of articulating the alternate future that is structured and designed to enable a work life that satisfies workers’ and business leaders’ needs for both to thrive.

A three-day in-person event (called the Mixer) was held on April 26-28, 2026 at the Haas Business School at UC Berkeley, led by the leadership team at the Interdisciplinary Center for Healthy Workplaces, with approximately 50 highly selected participants from across the country attending, individuals who represented the diversity of interests in the future of work (building upon the diversity of participants in the Sandboxes) and who worked collaboratively to generate this new vision and framework. The

participants were recruited to fill one of four roles during the event: (1) people who had a reputation for spanning disciplinary silos, seeing patterns of similarity across disciplines, and having a broad view of health and well-being issues (“Knitters”); (2) people who were subject matter experts in the diverse array of disciplines involved in the visioning process and who were needed to provide technical assistance to the Knitters in their process (“SMEs”); people who were members of the Work Futures Visionary Council who could provide feedback and assistance in shaping the new vision from the viewpoint of implementation (“VCs”); and (4) people who had the responsibility of creating a strategic plan for change management products and tools to assist in the transition to this new future (“Strategic Producers”). A professional facilitator was hired to design and then move the participants through a series of discussions and exercises to produce outcomes at the end of each day—building blocks for the vision and framework—to meet the goals of the event. At the conclusion of the Mixer, a vision narrative was created based on all the work accomplished during the Mixer, as was a set of four Pillars supporting the transition and strategies for each Pillar to execute the transition successfully. A professional film crew was also hired to record the process from beginning to end. A 10-minute video telling the Work Futures story and the achievements of the Mixer was created and will be available for the public upon request.

Immediately after the Mixer, the leadership team and some of the Mixer participants began the process of integrating all the information and outcomes generated at the event. Some of the outcomes generated and then polished for general distribution include the following:

- A Manifesto stating the purpose and impact of the new vision and framework to attract the public to this new future;
- A vision that emphasizes the pathway to a future where both businesses and workers can thrive simultaneously;
- An elaborated set of Pillars and strategies associated with the Pillars to enable the Strategic Producers to create a strategic plan that delivers to organizations this vision through change products and tools;
- A plan for disseminating this vision, framework, and scientific knowledge supporting the vision to a wide array of researchers and practitioners through executive education, continuing education, and academic program venues;
- A sample executive education program for the development and certification of a C-suite level Chief Health & Well-Being Officers to manage health, safety, well-being, and productivity as a system within organizations by applying the principles of Total Worker Health;
- A new business operating model that structurally, operationally, and culturally manifests the tenets of the vision and framework and is managed by an interdisciplinary team of executives (including the Chief Health & Well-being Officer) to achieve vision goals;
- A set of materials developed to introduce the interdisciplinary and stakeholder groups to the new business operating model and potential new metrics for evaluating business success by measuring the extent to which business and workers are thriving together;
- A plan to recruit organizations (small, medium, and large) to serve as pilots of this transition to a new future of work, worker experience, and workplaces.

What was made clear from the Sandbox and Mixer discussions is the tremendous gap between what business leaders believe leads to the success of their businesses and the unbelievable power of human effort to create business success when their basic needs are satisfied by the structure, operations, and culture of the organization that actively supports their ability to do their best work. How a business chooses to run its business creates the work processes and working conditions that undermine workers' efforts and worse, harm them through illness, injury, and sometimes death. It was also very clear that the knowledge we have gained over the decades in occupational health and related fields doesn't and hasn't had the impact it deserves in our efforts to execute the principles of Total Worker Health. This is because we work in silos, engage in short-term and generally isolated interventions focused on limited issues, and generally don't have the support of upper management. What we do is perceived as a cost rather than an enabler of cost-savings and greater productivity. This vision as articulated in a new business operating model takes away these barriers to Total Worker Health effectiveness.

Now that we have the game plan in place, we will proceed with "stress-testing" the new business model, invite one or two organizations to pilot the new model, and begin the process of setting up the educational programming part of Work Futures. The third phase will focus on developing the change products and tools that can enable organizations to adopt the new model and organization change processes to implement the Work Futures vision and framework. We will hold two, in-person meetings with selected experts who will transform these ideas into tangible change products and tools potentially including written pieces (e.g., articles, briefings, presentations, guides, and toolkits), audio pieces (e.g., podcasts, interviews, videos, and online training), and higher ed pieces (e.g., business school curricula, executive education courses, continuing education courses, professional trainings), thus translating the future of work vision into actionable strategies. The two events, called a Summit, will first address the question of what needs to be developed given the action plan devised by the Strategic Producers. Participants at the first meeting ("Producers") will commit to developing their specific products or tools in the interim between meetings. The second meeting will focus on reviewing the products and tools developed, recommending edits/changes/more development and a strategic plan for integrating the products and tools as a single presentation to communicate the change as a system whose parts work together collaboratively and seamlessly. At the end of the second Summit, we should have the suite of products and tools organizations need at all three levels of maturity (small, medium, and large) to enable adoption of this new path to the future. We anticipate that all the Summit work will take place during 2027 and be ready for distribution to the public by fourth quarter of 2027.

Several publications are anticipated as a function of the work accomplished throughout the three phases.

Mitigation and Prevention Efforts. The Lab has completed a case study to apply the basic principles of *Total Worker Health*® to the process of designing and building a new workplace. The Lab worked with the Hobby School of Public Affairs (HSPA) at the University of Houston (UH) as a test case for how to apply the basic principles of *Total Worker Health*® to the development of a new educational building in order to build into the new structure spatial and behavioral components that prevent illness and injury and promote occupant health, safety, well-being, and productivity. In the history of building construction

on the UH campus (and for nearly all educational institutions), occupant physical and behavioral health and well-being have not been considered significantly at the early planning stage. Dr. Banks, the Outreach Director of the Labor Lab was invited by the School Dean and Building Committee to collaborate with the Facilities & Construction Unit in plan development and most important, to lead the effort in determining occupant needs, potential workplace stressors, and work context factors that were important for occupant health, well-being, and productivity and should be included as critical components of the building plan. Over a period of nine months, Dr. Banks, with the assistance of Drs. Alan Witt and Dustin Maneethai of UH, devised a pre-design process for collecting essential information from future building occupants and integrating occupant data into the Facilities & Construction Unit's pre-design plan. Occupant data was collected using a new methodology designed specifically for gathering information regarding work activities, activity purpose, workplace context factors needed for successfully executive work activities, and the amount of time spent on each work activity. This data provided a clear picture of how occupants needed to work and the contextual factors that were required to do that work successfully. Once this was fully understood, this information was translated into environmental design features and building characteristics to meet each occupant's needs and preferences. For example, floor plans that direct traffic away from high focus areas, placement of windows to provide daylighting without glare to computer screens or displays, wood floors and ceilings to promote calm and focus, and a restorative space for neurodivergent occupants or for those who needed restoration.

The pre-design process resulted in a "building vision" plan that incorporated the design features and floor arrangements that promoted occupant and student health, well-being, and productivity. This vision was captured in a planning document that was transferred to the architecture and design contractor responsible for building construction and interior buildouts. Dr. Banks worked closely with the architect team during the entire design process to ensure that their translations of the plan were entirely consistent with the principles of health, well-being and productivity as required in the plan. Through numerous revisions, an agreed-upon design was signed off, and construction began in 2026. It is expected to be finished in 2028. Dr. Banks will continue as an advisor to the project through completion of the project. This case has been presented to numerous audiences in webinars and professional society presentations to different audiences including organizational psychologists, occupational health psychologists, occupational health professionals, corporate real estate professionals, architects and designers, and business professionals.

Policy Forum. The Policy Forum is the Labor Lab's committee devoted to identifying and engaging with key legislative and executive branch officials with involvement in issues related to our mission understanding and mitigating emergent working conditions. To that end, we have maintained and developed relationships with the government affairs officers of the two flagship campuses of the Lab, UCSF and UC, Berkeley, to identify key officials with whom to have a dialog around policy opportunities across various projects of the Lab. In 2024, investigators of the California Artificial Stone and Silicosis Project met with staff from Senator Padilla's office to discuss policy solutions at both state and federal levels to mitigate and prevent cases of accelerated silicosis among workers who fabricate countertops using artificial stone.

We have also established a working relationship with the UCSF Director for State and Local Government Relations to develop strategy for state legislative targets to engage regarding policy recommendations from the Lab's research projects. In previous years, at the behest of members of U.S. Congress, the Outreach Director and staff provided a briefing on the current state of remote work. We have also invested in relationships that have helped us at the federal level, including connections with the Senior Director, Federal Government Relations & Advocacy. This kind of engagement has helped facilitate connection with civil servants, such as Julie A. Su, Acting Secretary of the U.S. Department of Labor who provided opening remarks for our 2024 annual conference.

Finally, we have worked with the California State Labor Agency to tailor information to their data needs as reflected in four Data Briefs that we completed using data from the California Work and Health Survey. The four briefs done for the Labor Agency concern arts-related employment, employment among people with disabilities, work outcomes for older workers, and the magnitude of the behavioral health workforce.

In addition to Dr. Rubin's work, Ms. Teran and LOHP engaged in policy activities as follows:

CA's draft Workplace Violence Prevention Standard in General Industry: Ms. Teran has been part of a working group that has met to provide feedback on the draft language and helped develop two comment letters in 2025-2026.

California Partnership for Young Worker Health and Safety: LOHP continues to coordinate the California Partnership for Young Worker Health and Safety, a statewide working group that brings together state agencies to develop policy and educational strategies for improving young worker health and safety. Members include the Department of Education; Cal/OSHA; the Labor Commissioner's Office; the CDPH Occupational Health Branch; and other organizations representing teachers, occupational health professionals, parents, and youth employment programs.

Educational Programming & Public-Facing Programs. An important goal of the Outreach Core is to inform a wide range of stakeholders, including the public, about the health impacts of traditional and emergent working conditions. A primary venue for the engagement with a broad audience is in our regular public-facing educational programs. Our aim is to engage the public in the issues raised by emergent working conditions with the hope that they will be involved in efforts to improve the health of the workforce both for themselves and their colleagues as well as by engaging in efforts to improve legislation and regulation. The California Labor Lab has built a successful program of public-facing educational programs, including monthly webinars and an annual conference.

The Lab's educational programs are available for free to the public, with attendees including physicians, nurses, safety professionals, industrial hygienists, legislators, union representatives, policymakers, researchers, and other allied health and safety professionals. All webinars and conferences have been recorded, closed captioned, and are publicly accessible through the Labor Lab website: <http://calaborlab.ucsf.edu/educational-programs> and YouTube channel.

Since the inception of the California Labor Lab in 2021, we have held 33 webinars across seven series. The first series, held in spring 2022, provided insights into the employment situation in the wake of Covid-19 in the State of California and the nation, as well as insights into one of the fastest growing sectors in the economy, warehouse workers. The series concluded with a discussion of mitigation efforts. The second series, held in winter and spring of 2023, concerned occupational health issues across the spectrum of blue-, pink-, and white-collar work. Topics range from ergonomics; homes as a workplace; organizational changes to improve health; job quality measurement; federal, state, and local legal protections; and rideshare experience. During the fall and winter of 2023, the CA Labor Lab hosted a third series on workers in high-risk sectors. The webinars in this series discussed the policies that impact workers from all kinds of demographic and social backgrounds, the well-being of gig workers in California, and the risks the countertop fabrication industry poses to workers. The fourth series in the spring of 2024, focused on the health and well-being of workers, exploring topics such as the role of work conditions in the causation of chronic illness, the role of leadership in supporting workers' mental health, and effective workplace interventions to prevent workplace mistreatment. Webinars in the spring of 2025 series covered topics such as the avian flu and how TWH approaches could support impacted producers and workers, and occupational and environmental risk among U.S. agricultural workers. In the fall of 2025, the sixth series focused on the future of work, engaging futurists and using data collected from multiple disciplines to discuss trends in workplace wellbeing across a myriad of industries, as well as data collected from the California Work & Health Survey. The seventh series in the spring of 2026 explored the changing nature of work through the lens of worker well-being, labor force trends, and emerging policy challenges. Topics included retirement inequality and aging workers, innovative approaches to understanding California's working-age population through survey research, cultural portrayals of gig work as a reflection of workers lived experiences, and evidence-based forecasting of future work scenarios through the Work Futures Initiative. Together, these webinars highlighted the importance of interdisciplinary research for anticipating workforce change and informing policies that promote healthy and sustainable work.

Across all webinars and annual conferences, 9,343 people have registered for our public-facing programs, with 5,438 attending live. Attendees include 2,374 unique learners who have attended one or more of the webinars and conferences; many have attended multiple events, with even more viewing the recordings on our website. Our most well-attended webinar was held on November 29th, 2023, and featured a presentation on the California Artificial Stone and Silicosis (CASS) Project, with 381 real-time viewers.

Our annual conferences have served 457 unique learners with 3,569 person-hours of training since 2022, averaging 91 learners per conference day. The Lab's fifth and most recent annual conference, *Work is Changing. Are Protections Keeping Up?* was convened on April 28, 2026. This hybrid conference reached 44 learners in person and an additional 56 learners online, and explored new research on emerging forms of work, service-sector job quality, and the health impacts of silica exposure in the manufactured stone industry. We were also joined by senior state officials and policy experts including Stewart Knox, Secretary of the California Labor & Workforce Development Agency, who discussed adaptive regulatory approaches and where legislative action is most needed to ensure worker

protections keep pace with a rapidly changing economy. Previous conferences were entitled Art and Labor in a Gig Economy (April 2025); Modern Work & Workers' Voices (May 2024); Surveillance, Monitoring, and Data Gathering in Contemporary Employment (May 2023); and Precarious Work: Health & Economic Threats (May 2022); with recordings available on the Lab's website.

Teaching/Student Engagement. Over the five-year grant period, LOHP staff affiliated with the Lab have continued to provide remote classroom presentations, including interactive activities, for graduates and undergraduates. Topics have included principles of participatory action research, research to practice, methods for engaging with community and labor stakeholders, and overview of occupational health and principles of acting. LOHP staff who are part of the California Labor Laboratory provided presentations for undergraduate SPH students on racism and health, to nurses at the UCSF School of Nursing on labor and occupational health on Research to Practice as part of STEER, COEH's summer internship program; in the Targeted Research Training (TRT) Program for students in the UC Berkeley Labor Center internship program; as part of UCB Labor Studies, among others. In the fall of 2024 and 2025, LOHP's biannual class, *Social Justice and Workers' Health*, has been offered in the Berkeley School of Public Health.

Certificate Program in *Total Worker Health*®. The Lab has two principal programs to train a generation of change agents focused on the principles of *Total Worker Health*®: the Pilot Studies Program for researchers described in its own section of this Annual Report, and the Certificate Program for practitioners across a range of disciplines, including those interacting with workers on a daily basis as well as those who are involved in policy through law and regulation.

The course for the Certificate Program entitled *Total Worker Health*® in a Changing World of Work, had its soft launch at the end of August 2026. The course is hosted at UC Berkeley School of Public Health's web-based learning management system, Canvas. This foundational course is composed of about 8 hours of required content and is designed for an interdisciplinary audience and will introduce the principles and evolution of *Total Worker Health*® while establishing a systems-oriented framework for understanding the relationships among work organization, occupational hazards, worker health, and well-being. Learners will examine how changing employment relationships, nonstandard work arrangements, and economic precarity influence responsibility for worker health and safety and explore historical lessons that continue to shape contemporary occupational health practice. The course will conclude by examining emerging challenges such as technological change, algorithmic management, artificial intelligence, and demographic shifts to prepare learners to critically evaluate how the changing nature of work is transforming risk, opportunity, and organizational responsibility for worker well-being. Planning is also underway for the second course in the series, *Hazards, Risk, and Worker Well-Being*, which will examine the biological, chemical, physical, psychosocial, and organizational factors that contribute to occupational injury, illness, and worker well-being. Through a *Total Worker Health*® framework, learners will examine prevention strategies that integrate hazard control, organizational systems, leadership, and work design to support healthy work environments. These foundational courses represent the first phase of a comprehensive Certificate Program and will be followed by additional courses that expand learners' knowledge and skills across key areas of *Total Worker Health*®.

Development of the TWH Certificate Program was the culmination of several years of planning and collaboration among the NIOSH Total Worker Health Centers of Excellence (COEs) and Affiliates. Led initially by Dr. Cristina Banks, the effort was guided by the goal of ensuring that TWH education and professional development align with the core competencies needed to prepare professionals for an evolving workforce.

The first phase focused on understanding the existing TWH educational landscape. Dr. Banks and her team conducted a comprehensive review of educational programming across the 10 NIOSH TWH COEs and Affiliates by developing and distributing the NIOSH TWH Survey of Educational Programming and Competency Development. The survey collected information on course offerings, intended audiences, program duration, competencies addressed, and expected proficiency levels. Based on interest generated through this initiative, several COE Directors and Outreach Directors joined the collaborative effort.

Leadership of the project was subsequently assumed by Dr. Suzanne Nobrega (University of Massachusetts Lowell), who conducted structured interviews with representatives from each participating COE and Affiliate to validate and expand upon the survey findings. The resulting inventory included responses from seven COEs and two Affiliates, representing 21 educational programs (eight academic and 13 professional programs) comprising 47 courses offered across 12 sites in the United States. The assessment found that nine programs offered TWH certificate or certification opportunities, with educational offerings distributed evenly across beginner, intermediate, and advanced levels. Participating organizations included the Center for Health, Work & Environment (Colorado), UNC Carolina Center, CPH-NEW (New England), Healthier Workforce Center of the Midwest, UIC Center for Healthy Work, U-POWER Center (Utah), the POE Center (Johns Hopkins University), and the Oregon Institute of Occupational Health Sciences.

Building on these findings, the Outreach Core collaborated with partner COEs to evaluate the current state of TWH continuing education, identify gaps in curriculum content, and determine opportunities for coordinated educational programming and future certification. The survey results provided the first comprehensive cross-center inventory of TWH educational offerings and competencies, creating a shared foundation for curriculum development and collaboration across the national network.

In October 2025, the survey findings were analyzed and presented during the pre-conference workshop at the 4th International Total Worker Health Symposium in Bethesda, Maryland. Workshop participants used the results to identify strengths and gaps in existing continuing education curricula and to revise and expand the core competencies for TWH professional education and training. These discussions established a framework for developing a more coordinated, competency-based national curriculum.

Looking ahead, the initiative envisions a nationally coordinated TWH education infrastructure. Building on Dr. Banks' leadership as Immediate Past President of the Society for Total Worker Health, the long-term goal is for the Society to serve as the national hub for TWH education and professional development. This model would improve access to high-quality training, better align educational offerings with workforce needs, foster collaboration among COEs, and strengthen outreach to employers and other organizations to increase demand for TWH-trained professionals.

Papers

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2. Banks, C. G., Gagnon, C., & Ross, A. (2026). *Roadmap for strengthening and extending workplace mental health strategies: The Workplace Mental Health Center of Excellence systemic and innovative approach*. California Commission for Behavioral Health Final Report, January 2026.
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5. Banks, C. G., LaFrance, A., Iley, P., Varghese Mac, I., Abbott, B., & Yelin, E. (2023). *Disciplines and Subdisciplines Related to Total Worker Health: A Scoping Review*. California Labor Laboratory Report, University of California, San Francisco.

Research Briefs

1. Varghese Mac, I., & Banks, C. (2024, April 8). *A Brief Review of the Current State of Remote Working*. California Labor Laboratory Research Brief.

Presentations

1. Cristina Banks, S. Ahola, K. Heikkila-Tammi, S. T. Innstrand, and R. Larjovuori. "Participative Working Life Foresight: Work Futures Initiative in the U.S. & Finland." Scandinavian Symposium for Work & Organizational Psychology, Stockholm, September 2026.
2. Cristina Banks and A. Witt. "Workspace Analysis: Expanding Job Analysis to Shape the Built Environment." Academy of Management Convention, Philadelphia, August 3, 2026.
3. Cristina Banks. "Reimagining Worker Well-Being: Insights from the Work Futures Initiative." Wellness Alliance Conference, July 7, 2026.
4. Cristina Banks. "Our Potential Future Worklife: A Presentation of the Work Futures Initiative Results." California Labor Laboratory Webinar, June 24, 2026.
5. Cristina Banks. "Work Futures Initiative: New Vision for the Future of Work, Worker Experience, and Workplaces." Masterclass, University of Tampere, Finland, June 9, 2026.
6. Cristina Banks. "The Sandbox Method: A Novel Qualitative and Interdisciplinary Approach to Gathering Unfiltered Information from Study Participants." European Academy of Occupational Health Psychology, University of Helsinki, June 2026.
7. Cristina Banks and L. A. Witt. "Promoting Worker Well-Being by Designing-In the Right Physical Environmental Features." European Academy of Occupational Health Psychology, University of Helsinki, June 2026.
8. Cristina Banks and L. A. Witt. "Workplaces Where Wellbeing Meets the Bottom Line." 8th Conference on Management & Organization, Montenegrin Academy of Management, University of Montenegro, June 2026.
9. Cristina Banks, C. Thomas, H. R. Cobb, R. Brossoit, and R. Koziel. "Interdisciplinary Collaboration Guided by a Case Study and Applied Exercise." Panel discussion, April 30, 2026.
10. Cristina Banks, C. Thomas, S. Tsacoumis, and T. Kantrowitz. "Learning Together: Lessons from the Work Futures Initiative's Sandbox Conversations." Panel discussion, April 30, 2026.
11. Cristina Banks, L. A. Witt, Lorin Mueller, Evan Sinar, and Morton McPhail. "Future Fusion: Collaborative Horizons in I-O." Panel discussion at the Society for Industrial and Organizational Psychology Annual Conference, April 4, 2025.
12. Cristina Banks, J. C. Friedrich, C. L. Thomas, R. J. Koziel, R. M. Brossoit, H. R. Cobb, and L. D. Murphy. "Home-Like Workplaces: Where Do We Draw the Line?" Panel discussion at the Society for Industrial and Organizational Psychology Annual Conference, Chicago, IL, April 2024.
13. Cristina Banks. "Scoping Total Worker Health & Its Implications." UCONN OEM Colloquium Series, virtual presentation, May 6, 2026.
14. Cristina Banks. "Work Futures Initiative Excerpts from Sandbox Conversations." OERC Meeting, Tomales Bay, CA, March 24, 2026.
15. Cristina Banks. "Capital Conversations: A Workplace Mental Health Roundtable." Sacramento, CA, March 12, 2026.
16. Cristina Banks. "Work Futures Initiative: Lessons Learned from Sandbox Conversations and Next Steps." *Workers in the U.S. and Worldwide: "An Endangered Species?" and Updates in Occupational and Environmental Medicine*, UCSF CME, March 5, 2026.

17. Cristina Banks. "Examining Complex Problems with Interdisciplinary Problems." North Carolina Total Worker Health Lecture, virtual presentation, November 14, 2025.
18. Cristina Banks. "Being in the Best Place for You: Owner's Manual." Haas School of Business MBA Program, November 4, 2025.
19. Cristina Banks. "Future of Total Worker Health and You." Annual Conference of the Society for Total Worker Health, October 24, 2025.
20. Cristina Banks and Liu-Qin Yang. "OSH & TWH Convergence Panel." Panel presentation at the 4th International Total Worker Health Symposium, October 24, 2025.
21. Cristina Banks and Suzanne Nobrega. "Advancing Total Worker Health Education Workshop." Workshop at the 4th International Total Worker Health Symposium, October 21, 2025.
22. Cristina Banks. "Work Futures Initiative: Lessons Learned from Sandbox Conversations and Next Steps." California Labor Laboratory Webinar, September 24, 2025.
23. Cristina Banks. "How to Create Healthier Workplaces Through Environmental and Psychosocial Design." University of Tampere Seminar, *Renewal and Well-Being in the Future of Work*, Tampere, Finland, August 5, 2025.
24. Cristina Banks. "Strategic Benefits: How Employee Benefits Can Create a Competitive Advantage—Symposium on Place Rights as a Strategic Benefit." In-person symposium presentation at the Annual Meeting of the Academy of Management, Copenhagen, Denmark, July 27, 2025.
25. Cristina Banks. "Research-to-Practice Capacity Building." Panelist with six researchers and practitioners at the 2025 Work, Stress and Health Conference, University of Washington, Seattle, WA, July 11, 2025.
26. Cristina Banks and Liu-Qin Yang. "Looking into the Future of Occupational Safety and Health: Research-to-Practice and Practice-to-Research." In-person lunch tutorial at the 2025 Work, Stress and Health Conference, University of Washington, Seattle, WA, July 11, 2025.
27. Cristina Banks. "The Future of Total Worker Health and You." In-person lunch tutorial at the 2025 Work, Stress and Health Conference, University of Washington, Seattle, WA, July 10, 2025.
28. Cristina Banks. In-person panelist at the 2025 Work, Stress and Health Conference, University of Washington, Seattle, WA, July 9, 2025.
29. Monique Hosein. "The Research-to-Practice (R2P) Toolkit and Why Community Engagement Matters." Webinar, Center for Occupational and Environmental Health/Labor Occupational Health Program, Berkeley, CA, June 2025. <https://www.coeh.berkeley.edu/25CLL0625>
30. Monique Hosein. "The R2P Toolkit: Introduction to the Research-to-Practice Toolkit and Why Community Engagement Matters." Keynote presentation at the Southern California Education and Research Center Symposium, Los Angeles, CA, April 2025.
31. Cristina Banks. "Sustainability Is a Priority. How Does It Impact Workers?" Virtual presentation hosted by SAP SuccessFactors on LinkedIn, November 21, 2024.
32. Cristina Banks and Sally Augustin. "Total Worker Health Fills the Gap Between Good and Great Workplaces." In-person conference presentation at the 2024 CoreNet Global Summit North America, Washington, DC, November 1–3, 2024.

33. Cristina Banks. "Unfiltered Voices Heard through the Work Futures Initiatives." Virtual keynote presentation at the 2024 Annual Member Meeting of the Society for Total Worker Health, October 31, 2024.
34. Monique Hosein. "Development of a Research-to-Practice (R2P) Toolkit for Occupational Safety and Health to Increase Dissemination of Research Findings through Community Engagement." Poster presentation at the American Public Health Association Annual Meeting, Minneapolis, MN, October 28, 2024.
35. Cristina Banks. "Introducing AI in the Workplace." Presentation to Executive Development Program, CSHRP, October 2024.
36. Cristina Banks. "Human and Organizational Factors in AI Risk Management—A Workshop." Virtual panel presentation to the National Academies Division on Engineering and Physical Sciences, June 26, 2024.
37. Cristina Banks. "Enhancing the Reach and Depth of Worker Health, Safety, and Well-Being Through Total Worker Health®." In-person presentation at the American Industrial Hygiene Association—Northern California Section Technical Symposium, April 24, 2024.
38. Cristina Banks. "Home-Like Workplaces: Where Do We Draw the Line?" In-person panel discussion at the SIOP Annual Conference, Chicago, IL, April 18, 2024.
39. Cristina Banks and Ed Yelin. "Traditional and Alternative Employment in Contemporary Work: Who Takes Responsibility for Workers' Well-Being?" Virtual presentation at UC Davis COEH's Builds Bridges Conference, January 20, 2024.
40. Cristina Banks and Lawrence Witt. "New Building Design: A Total Worker Health® Opportunity." Virtual presentation at the Work, Stress, & Health Conference, November 9, 2023.
41. Cristina Banks. "Interdisciplinary Scoping Review of Literature Relating to Worker Health, Safety, and Well-Being." Virtual presentation at the Work, Stress, & Health Conference, November 9, 2023.
42. Cristina Banks and Lawrence Witt. "Work Experience: It's Not About Stuff." In-person presentation at the Academy of Management Annual Conference, Boston, MA, August 2023.
43. Cristina Banks. "Work Experience: It's Not About Stuff." In-person presentation to CoreNet, Houston, TX, June 2023.
44. Cristina Banks. "Work Experience: It's Not About Stuff." Virtual presentation to Google Workplace R&D Conference, March 2023.
45. Cristina Banks. "Work Experience: It's Not About Stuff." Virtual presentation to GSA Digital, March 2023.
46. Cristina Banks. "Is There a Business Case for Healthy Workplaces?" Panel discussion at the Society for Industrial/Organizational Psychology Annual Meeting, Seattle, WA, April 2022.

Products

1. Cristina Banks, Alicia LaFrance, Ima Varghese Mac, Trisha Iley, Bruce Abbott, Ed Yelin. Scoping Review Database: Literature Relevant to Total Worker Health, Categorized by Discipline and Subdiscipline. Zenodo. 2025. <https://doi.org/10.5281/zenodo.11557715>

2. Labor Occupational Health Program, Center for Occupational and Environmental Health & California Labor Lab (2024). R2P Research-to-Practice Toolkit for Occupational Safety and Health Researchers. <https://r2p-toolkit.s3.us-west-2.amazonaws.com/R2P+Toolkit+for+OHS+Researchers/story.html>

Pilot Studies Program

Edward Yelin, PhD, Principal Investigator

Carisa Harris Adamson, PhD, Co-Investigator

Kristen Harknett, PhD

Alicia LaFrance, MPH, MSW

The Pilot Studies Program of the California Labor Lab serves to advance the twin goals of the Center – describing the magnitude and effect of emergent working conditions on health along with preventing and mitigating health effects of adverse working conditions – by increasing the number of researchers focusing in these areas and providing opportunities to those already experienced in this work to explore emerging issues as they arise. This program has funded eight projects with plans to fund three more in the fourth year of the grant. These pilot projects will continue to expand the scope of research beyond the established projects proposed in this TWH Center application, allowing CALL to broaden the field of research in emergent working conditions and health and to truly serve as a laboratory for testing new concepts and ideas in this area. Specific aims of the program are: 1) To expand the number and kind of researchers addressing the relationship between emergent working conditions and health and well-being to junior investigators beginning a research career (graduate students, post-doctoral fellows, junior faculty) and to senior investigators segueing to a focus on this area; 2) To expand the range of topics covered under the broad umbrella of emergent working conditions and health and well-being by funding researchers from a wider array of disciplines and methodological orientations than the Center's existing investigators; 3) To expand the use of the Center's state of the art data sources by new investigators to aid in achieving the prior aims of expanding the number and kind of researchers and disciplines applied in this work; 4) To identify emerging issues consistent with the Center's mission of improving the health of the working age population affected by emergent working conditions.

The Pilot Studies Program is supported by the California Labor Laboratory grant and contributions from the two home campuses, UCSF and UC, Berkeley. For the first year of the pilot studies program, announced in fall of 2022, we issued eight grants of up to 18 months duration in two funding cycles. For the initial request for applications (RFA), our colleagues from the Center for Occupational and Environmental Health, several of whom are Lab investigators, developed a comprehensive list of universities and research organizations in California and beyond. Having this list helped us improve the probability that grantees would represent a wide range of social and demographic backgrounds, and would address important priority areas for the Lab, describing the impact of emergent working conditions on the health of affected populations.

In the fall of 2024, we announced our second pilot studies RFA for a funding period starting in 2025 and ending in 2026, also leveraging this network. We received 21 applications for the pilot program (in the program's initial year, the Lab received 23 applications). Consistent with the first year of the program,

applications were evaluated by a review panel that consists of Lab investigators, including members of the Research Services Unit; members of the External Advisory Committee. Two reviewers were assigned to evaluate each application based on the rubric outlined in the RFA. Out of this process, three applications were selected to receive funding during 2025-2026. Applicants will address issues related to work, health, and wellbeing from their respective disciplines, including economics, community public health, and industrial and organizational psychology.

The first cohort of pilot program included eight award recipients, in which funding was dispersed in September 2023 with projects running for 12- to 18-months at the grantees' discretion. This cohort was predominantly made up of trainees and included principal investigators from a wide range of organizations. The pilot program recipients presented their research progress at the Lab's monthly research seminars through the conclusion of their projects in early 2025. Two of our Pilot Study Grantees, Drs. Nicholas Smith and Heather Amato have gotten tenure track jobs at new universities: Dr. Smith at the University of Texas-Arlington and Dr. Amato at the School of Public Health of the University of Maryland. In addition, another grantee, Dr. Sheiphal Gandhi has received an internal UCSF K2 Award and grants from the UCSF Hellman Fellowship for Faculty Development, UCSF Irene Perstein Award Program, and the California Silicosis Support Network.

The second pilot program which began in October 2025 is approaching a conclusion at the end of the 2026 calendar year. For this cohort, three recipients, each PhD students, were awarded funding. Two of the recipients are from universities in California, and one from a university in Connecticut. Their projects cover a range of workplace issues and industries, including labor that takes place in private households, academia, and in low-wage service industries such as warehousing, retail, and food services. Their work addresses a series of highly relevant questions, including: Are injury rates higher when wages are lower? How can we develop tailored interventions to mitigate the negative consequences of abusive supervision among graduate students? Why and how are domestic workers unprepared for retirement, and how can we create innovative policy solutions that protect their livelihoods? Progress from each pilot project from the 2025-2026 cohort is summarized below.

October 2025 - December 2026 Pilot Grant Awardees and Projects:

Denis Sosinskiy, UC Berkeley

Project Title. Minimum Wages, Workplace Injuries, and Reporting

Aims. This project aims to estimate the causal effects of minimum wages on workplace injuries and injury reporting in the US.

Methods. The project relies on BLS SOII data on injuries by state and sub-sector. The primary empirical strategy is a stacked difference-in-differences event study comparing injury rates in states that implement or raise minimum wages with those that keep them constant. Analysis will also use SSA data on workers' compensation caps and a similar methodology to study whether financial incentives affect workers' likelihood of reporting an injury.

Results. Initial findings demonstrate that minimum wages do not affect workplace injuries in all industries combined or in the industry with the most minimum-wage workers (restaurants). However, suggestive positive effects were found on reported injuries in general merchandise stores, suggesting that effects might vary across sub-sectors. Second, reported injuries were found to increase in response to an increase in workers' compensation caps. This result suggests that workers respond to financial incentives by reporting injuries more often. Since higher minimum wages increase potential compensation (which is based on earnings), part of the effect of minimum wages on reported injuries likely comes from increased reporting rather than an increase in the injury rate.

Future Directions. The PI for this project plans to strengthen empirical results by assessing their sensitivity to various methodological choices. The PI will also further examine the interaction between minimum wages and reporting. The results so far imply that minimum wage might induce workplace injury reporting, highlighting (1) a positive unintended consequence of the policy, and (2) the importance of distinguishing between workplace injuries and their reporting.

Publications/Reports/Presentations. ASSA 2026; IRLE Visiting Scholar Seminar Series 2026–2027. Expecting to publish a working paper on the IRLE website and submit a manuscript to a peer-reviewed journal in 2027.

Mostafa Dastgheib, University of Connecticut

Project Title. Abusive Supervision of International PhD Students and Postdocs

Aims. This study investigates the prevalence and impact of abusive supervision among PhD students and postdocs in the U.S., examining how psychological and job-related outcomes vary by students' nationality and their advisors' characteristics.

Methods. The study originally proposed a two-wave longitudinal survey launching in October 2025. Since award, the design has been expanded to a three-wave longitudinal survey (Wave 1 in September 2026, Waves 2 and 3 in October and November 2026) to better capture trajectories of change over time. All key constructs are assessed using more than 23 validated scales covering abusive supervision, psychological and job outcomes, and academic-specific stressors such as visa and funding threats.

Results. Data collection has not yet begun, so there are no empirical results to report at this stage. The primary source of delay has been a longer-than-expected review at UConn's IRB. Once IRB approval was secured, the PI decided to launch the survey in the fall semester to capture students when they are reliably active in their labs and available to complete surveys once the semester begins. At the time of this reporting, the project has reached full readiness: IRB approval has been obtained, all three waves of survey instruments have been finalized, the Qualtrics build is complete, the R-based data cleaning and analysis pipeline has been prepared in advance, and a national recruitment network has been built through graduate school offices and university unions. A second funding source, a \$5,000 grant from CPH-NEW, has also been secured to support participant compensation across all three waves.

Future Directions. Once data collection is complete, the findings are expected to provide the first national evidence on how the prevalence and severity of abusive supervision vary by student nationality, discipline, and advisor characteristics, giving universities a concrete picture of where risk is concentrated rather than relying on anecdotal accounts. This evidence is intended to support institutional accountability by giving graduate unions and administrators the systematic data they currently lack when raising concerns about supervisory mistreatment. Longer term, the project is designed as a foundation for a follow-on study developing and testing supervisor training programs aimed at reducing abusive supervision and improving mentoring practices. The subgroup-focused design is meant to ensure that any resulting interventions can be targeted at the students and postdocs facing the greatest risk, rather than applied uniformly.

Publications/Reports/Presentations. The PI expects to produce several publications and presentations from analysis of this dataset once Wave 3 data collection concludes.

Sandra Garcia, UCLA

Project Title. Retirement Preparedness Among Domestic Workers in California — the C.A.R.E. Study (Comprehensive Assessment of Retirement Empowerment)

Aims. This project aims to understand the barriers to and facilitators of retirement preparedness among domestic workers in California, with a focus on Los Angeles County, by identifying the determinants of preparedness, assessing gaps between workers' current capacity and desired retirement outcomes, and translating those findings into policy recommendations.

Methods. Mixed-methods, community-based participatory research (CBPR) approach combining a survey of currently working domestic workers with in-depth qualitative interviews, conducted in partnership with the Instituto de Educación Popular del Sur de California (IDEPSCA). Consistent with the original design, the work was based in Los Angeles County for this first data-collection wave, which ran August–November 2025. Survey and interview instruments were developed collaboratively with our partner organization to align with both community needs and comparison data from the Health and Retirement Study.

Results. Recruitment exceeded our original targets, yielding 133 survey respondents (goal: 100) and 22 interviews (goal: 20). Early findings underscore the population's vulnerability: respondents were predominantly Hispanic/Latine (97%) Spanish-speaking (96%) women with a median age of 46, and access to retirement security was markedly low — only 2% had employers paying into a retirement savings account, 6% were contributing to Social Security, and just 6% had an employment contract, while 43% reported having no retirement plan at all. Qualitative interviews are currently being analyzed in Dedoose, and preliminary quantitative analysis is underway.

Future Directions. Geographic scale-up: through a no-cost extension (end date December 18, 2026), the project will expand to include Orange County alongside Los Angeles County — two of California's most populous counties — adding roughly 200 survey respondents. This builds on our original IDEPSCA partnership with three new community organizations: Nuestras Manos (Orange County), CHIRLA (Los Angeles County), and the Pomona Economic Opportunity Center (Los Angeles

County), and adds a co-PI, Sarah Beth Stein. With newly accepted supplemental funding in Year 6, the project will reach 50 additional non-member domestic workers through referrals and add a qualitative component.

A central product is the validation of a new Retirement Preparedness Scale measuring the physical, social, and financial resources shaping workers' capacity to retire which would be the first scale designed for low-wage, informal workers. Because the findings document near-total exclusion from employer-sponsored retirement plans, Social Security, and formal employment contracts, they are well positioned to inform state-level advocacy around portable benefits, retirement-savings access, and worker classification, and to lay the groundwork for a future behavioral savings intervention.

Publications/Reports/Presentations. Invited to submit an abstract to the Journal of Women and Aging (as part of a joint AJPH × JWA call for abstracts); Planned policy brief and literature review on the history of domestic work, to be shared with IDEPSCA and partner organizations; Poster presentation at the November 2026 American Public Health Association meeting; Planned submission to the Population Association of America (PAA) 2027 meeting.

2023-2024 Pilot Grant Awardees and Projects:

Heather Amato, PhD, MPH

Project Title. Zoonotic pathogens and antibiotic resistance near concentrated animal feeding operations (CAFOs) in California's Central Valley

Aims. To identify antibiotic resistant zoonotic pathogens in various environmental exposure pathways near dairy CAFOs and in communities without dairy CAFO; to assess carriage of resistant pathogens in dairy farm workers in community members.

Publications/Reports/Presentations. In May 2024, preliminary findings were presented in a poster presentation at CZ BioHub Confab. In May 2025, sequencing and regression results were presented in a poster presentation at the National Institute of Antimicrobial Resistance Research and Education (NIAMRRE) annual meeting. A final manuscript is in final preparations for preprint submission in October 2025.

Marley Zalay, MPH

Project Title. Assessment of Diesel Exhaust Exposures and Work-Related Stress among Farmworkers using Off-Road Diesel Equipment

Aims. Characterize personal occupational exposures to diesel exhaust among farm workers, investigate perceptions of work stress, work-related exposures, and hazards, and develop worker-informed results return materials.

Publications/Reports/Presentations. Manuscripts from this work are in-progress, targeting publishing in the 2026 spring semester.

Lina Stepick, PhD

Project Title. The Union Effect for Direct Care Workers in the United States

Aims. Examine the effect of being covered by a union contract on direct care workers' economic and wellbeing outcomes.

Publications/Reports/Presentations. Results from this pilot study were published both in the journal *Health Affairs* in 2025, "Centering marginalized care: Home care cooperatives and system change", and as a PHI research issue brief in 2025 titled, "The Union Effect for Direct Care Workers".

Nicholas Smith, PhD

Project Title. Assessing the Implications of State-Level Overtime Pay Legislation among Latine Agricultural Workers

Aims. Evaluate the impact of the phase-in of Oregon's overtime law for farm workers, assess workers' perceptions and understanding of the law, and convene a group of subject matter experts to support ongoing development and implementation of the study.

Publications/Reports/Presentations. In June 2024, work sponsored by the Lab was presented at the Association of European Qualitative Researchers in Psychology Conference in Milan, Italy. Also in 2024, a poster presentation using data from this project was given at the European Academy of Occupational Health Psychology Conference in Granada, Spain. In May 2025, a presentation using data from this project was given at the European Association for Work and Organizational Psychology in Prague, Czech Republic. Also in July 2025, a presentation was given at the Work, Stress & Health Conference in Seattle, WA.

Serena Rice, MS

Project Title. Trade Union Staff Health and Well-being: A Mixed Methods Study

Aims. Examine and describe the working conditions and health status of a sample of trade union staff members to understand how they perceive their health and well-being to be impacted by their work.

Publications/Reports/Presentations. Findings were presented at the 2025 Work, Stress, and Health Conference in Seattle, WA.

Ashley Membere, PhD

Project Title: An investigation of factors driving health disparities for affected workers in California.

Aims: Assess the physical and mental health outcomes of California workers in various industries including gig workers and investigate health disparities based on sociodemographic variables and other contextual factors (e.g., family care responsibilities).

Publications/Reports/Presentations: None to report.

Sarah Beth Stein, MPH

Project Title: Workplace violence in food services: Workers' compensation and lived experience.

Aims: Describe the past and current state of workplace violence-related workers' compensation claims submitted by food service industry workers in the state of California; characterize current workplace violence experiences of food service workers in Los Angeles County; and present findings to relevant stakeholders and incorporate feedback to form policy recommendations.

Publications/Reports/Presentations: Findings were summarized in a report co-authored with community partners from the Worker Empowerment Community Network LA, titled "Restaurant Work in LA County" that includes a variety of experiences the restaurant workers shared, as well as policy recommendations to improve the working conditions of this workforce. Also, a commentary paper is in progress, titled "A call for U.S. universities to appropriately compensate their community partners."

Sheiphali Gandhi, MD, MPH

Project Title: Understanding Pulmonary Fibrosis Through Complex Occupational Exposure Assessments

Aims: Develop a pulmonary fibrosis-specific job exposure matrix (PF-JEM) for work-related inhalational exposures to link job titles with indices of exposure. Utilizing the developed PF-JEM, measure the association between occupational exposures and PF in Cal-EDRS using a frequency-matched case-control analysis of California decedents using the California Electronic Death Registration System.

Publications/Reports/Presentations: Findings presented via an oral presentation at the CHEST Annual Meeting hosted in Boston, Massachusetts in October 2024.

Project 1: Impact of Emergent Working Conditions on the Health of Working Age Californians

Edward Yelin, PhD, Principal Investigator

Nari Rhee, PhD, Co-Investigator

Alicia LaFrance, MPH, MSW, Coordinator

Ima Varghese Mac, Project Analyst

Trisha Iley, Project Analyst

The overarching aim of the proposed project is to evaluate the impact of the totality of change in work as well as of important sentinel working conditions that are part of that change on the health of the working age population. Three major changes are noted: the growth of alternative ways that workers are hired, spanning task-, project-, and contract-based employment; increase in contingent forms of employment; and erosion of traditional working conditions. Specific aims are to: 1) develop a survey instrument capable of measuring several axes of change in work and a range of adverse health outcomes; 2) compare the utility of individual axes of emergent working conditions singly and in combination to predict changes in health status of the working age population over time and to estimate the critical individual sentinel working conditions within the axes in determining future health status; and 3) evaluate the changes in the organization of work as defined by the axes of change and important sentinel individual conditions for the health of vulnerable groups in the labor force.

The context for this project is that many analysts have noted that the labor market measures that have been developed do a poor job of characterizing alternative and contingent forms of employment. The purpose of the California Work and Health Survey (CWHHS) is to capture information about the employment and health status of California adults in a longitudinal survey. One distinctive feature of the CWHHS is that it collects information on jobs worked in the past month, not just the past week. The rationale is that alternative and contingent forms of employment may be episodic and less likely to be captured in data collection solely about the week prior to interview.

The major activity of the first year of Project 1 (2021-2022) was to develop a large-scale survey instrument-the CWHHS-to be conducted among a random sample of working-age Californians. The development of the survey included consulting with experts, conducting key informant interviews, piloting new survey questions via cognitive interviews, and pre-testing the survey instrument in its entirety. The CWHHS baseline survey was conducted from November 2022 to May 2023, with a total of 4,014 respondents, of whom 74% completed an online version of the survey and 26% completed it via telephone.

We offer a public use version of the first wave of the CWHHS dataset, which is made available to researchers outside of the CA Labor Lab upon request. As of this writing, the dataset has been shared

with 15 researchers from various institutions, including the UCSF School of Medicine, the UCLA Fielding School of Public Health, the University of Southern California, California State, Fullerton, San Francisco State University and Harvard University. The projects of these researchers focus on diverse topics, including the relationship between working conditions and the health of farmers and the correlation between precarious employment and worker well-being. One of our external data users is in the final stages of writing for Social Science & Medicine Journal on the relationships between occupation, PE subfactors, and health using the CWHS data. More information about the CWHS and a data request form is available at <https://calaborlab.ucsf.edu/cwhs>.

In the third year (2023-2024), Project 1 investigators conducted analyses of the dataset, presented initial findings, submitted and published papers in academic journals, and published a series of data briefs summarizing CWHS findings to our website. In a series of webinars during the fall of 2023, investigators presented the results of the CWHS. Early in 2024, we continued our analyses and summarized our findings in manuscripts and submitted them to two journals. One manuscript exploring the health and economic impacts of non-standard work, was published by the American Journal of Industrial Medicine (AJIM), and the second manuscript focusing on the prevalence of non-standard forms of work, “Exploring the complexities of nonstandard employment: the 2022-23 California Work and Health Survey,” was accepted by the Monthly Labor Review in June 2024. In March 2026, the MLR article was finally [published on the MLR website](#).

A key finding, as published in our AJIM article, was that risks associated with alternative, contingent, and app-based work included strong associations of earnings at or below a living wage for a single individual and high reported frequency of wage theft. The association between the forms of work and current health status was less consistent; however, we did observe that workers in alternative arrangements are less likely to have access to a pension or employment-based health insurance, and those in contingent jobs experience a higher probability of reporting fair or poor mental health and high levels of perceived stress.

In 2024, the research team developed the follow-up CWHS questionnaire. Many of the question items from the baseline CWHS remained similar; the main difference is that the follow-up survey only asks about respondents’ main job. During the fall and winter of 2024, the CWHS follow-up questionnaire was piloted in English and Spanish to a test group of Californians, and the survey instrument was finalized. In February 2025, the follow-up CWHS was administered to as many of the original 4,014 respondents as possible. 1,826 interviews were conducted from February through the end of March 2025, when we shut down data collection prematurely due to federal funding concerns.

From late 2025 through 2026, the CWHS dataset supported new analyses, research translation, external collaborations, and student training. The Project 1 research team published four data briefs: one about [heat exposure in the workplace](#), a second about [app-based workers](#), a third about workplace exposure to [ergonomic risk factors](#), and a fourth about exposure to [workplace surveillance](#) with an accompanying policy brief. Also in this period, using the CWHS dataset, the research team advised researchers at the

CA State Department of Industrial Relations who are researching self-employed worker fatalities in private homes among the California workforces.

The CWS dataset also served as a training and research resource for undergraduate, masters, MPH, and medical trainees. From June to August 2025, the Project 1 research team supported an undergraduate student intern, Yuliia Vitela, funded by the Short-Term Educational Experience for Research (STEER) Program at the UC Berkeley Center for Occupational and Environmental Health. Ms. Vitela created the first geo-visual analyses of CWS 2022 data using R and ArcGIS software. The California maps Ms. Vitela created demonstrated significant regional differences of poverty and financial strain despite employment, prevalence of alternative and contingent employment, and on-the-job injury rates.

In the spring of 2026, a master's student at San Diego State University School of Social Work used CWS data to prepare a manuscript about work-life strain and emotional distress among agriculture, forestry, and fishing and construction and extraction workers in California. During summer 2026, Ima Varghese Mac completed a masters-level internship with the Lab, producing a data brief on workplace surveillance and an accompanying policy brief.

In fall 2026, the CWS project begins supporting additional graduate and medical trainees. A UC Berkeley Center for Occupational and Environmental Health-affiliated MPH student began a capstone project examining ergonomic hazards and health outcomes. Two UCSF medical residents in the Division of Occupational, Environmental & Climate Medicine also began projects using CWS data to examine the prevalence of heat-related illness and whether occupational sector modifies the association between psychological distress and musculoskeletal pain.

In Year 6, this research team will conduct further analyses of existing CWS data that is consistent with our aims as stated five years ago, and pursuant of the following aims:

- Aim 1: Investigate Workplace Ergonomic Demands. In these planned analyses, we will highlight the kinds of risks associated with different occupations and industries, regional differences in these risks, and analyze the extent to which these risks hold after considering differences in demographics, work history, and job tenure.
- Aim 2: Qualitative Data Collection. The work in this aim is designed to understand how workers experience alternative, contingent, and app-based employment daily and how their experience differs from persons hired in more traditional ways. To accomplish this aim, workers from the original survey sample of 4, 014 will be selected based on their work characteristics for qualitative interviewing.
- Aim 3: Develop Instrumentation. The research team will develop and test a new array of survey items that can help us understand the burdens of emergent forms of employment. The qualitative interviews in Aim 2 will play a key role in the design of the survey items.

Papers

1. Laura Trupin, Alicia LaFrance, Nari Rhee, Trisha Iley, Ima Varghese Mac, Ed Yelin. Exploring the Complexities of Nonstandard Employment: The 2023 California Work and Health Survey. *Monthly Labor Review*. March 2026.
2. Ed Yelin, Alicia LaFrance, Trisha Iley. Erosion of Traditional Employment: Impact on Health and Economic Well-Being. *Journal of Occupational and Environmental Medicine*. September 2025.
3. Ed Yelin, Laura Trupin, Trisha Iley, Nari Rhee, Alicia LaFrance, Ima Varghese Mac. The Impact of Alternative, Contingent, and App-Based Employment on the Well-being of Working Age Adults: Results from the California Work and Health Survey. *American Journal of Industrial Medicine*. June 17, 2024.

Presentations

1. Alicia LaFrance and Ed Yelin. Extent of Precarious Employment in California's Behavioral Health Workforce. Poster presented by Alicia LaFrance at the Creating Sustainable Work Conference, Stockholm, Sweden, May 8, 2025.
2. Ed Yelin. Is Work Changing and to What Effect? Results from the California Work and Health Survey. Presentation given at the Western States Occupational Network - 15th Annual Meeting, Denver, Colorado, September 19, 2024.
3. Ed Yelin. Surveillance and Monitoring in Contemporary Employment. Talk given at Society for Total Worker Health Peer Learning Webinar, November 2, 2023.
4. Ed Yelin. The Future of Work is Now: Results from the California Work and Health Survey. Presentation given at California Labor Laboratory Webinar, October 25, 2023.
5. Ed Yelin. Prevalence and Impact of Alternative, Contingent, and App-Based Employment: First Estimates from the California Work and Health Survey. Presentation given at NIOSH Webinar, October 19, 2023.

Data Briefs

1. [Policy Brief: The Impacts of Electronic Monitoring on Worker Mental Health](#). By Ima Varghese Mac.
2. [Exposure to Workplace Surveillance among California Workers](#). By Ima Varghese Mac, Ed Yelin, Alicia LaFrance, Trisha Iley, Carisa Harris, and Nari Rhee.
3. [Exposure to Ergonomic Risk Factors for California Workers](#). By Trisha Iley, Edward Yelin, Carisa Harris, Alicia LaFrance, Nari Rhee, and Ima Varghese Mac. June 6, 2026.
4. [App-based Workers](#). By Trisha Iley, Ed Yelin, Alicia LaFrance, Nari Rhee, Ima Varghese Mac. January 14, 2026.
5. [Heat Exposure, Heat Mitigations, and Heat-Related Illness among California's Workers](#). By Ed Yelin, Carisa Harris, Gina Solomon, Alicia LaFrance, Trisha Iley, Ima Varghese Mac, Nari Rhee. December 15, 2025.

6. [Family Caregiving among Californians in 2022: Sex and Generational Differences](#). By Ed Yelin, Trisha Iley, Alicia LaFrance, Nari Rhee, Ima Varghese Mac. April 24, 2025.
7. [On-the-Job Injuries among California's Workers](#). By Ed Yelin, Trisha Iley, Alicia LaFrance, Nari Rhee, Ima Varghese Mac. January 29, 2025.
8. [The Extent of Precarious Employment in California's Behavioral Health Workforce](#). By Ed Yelin, Trisha Iley, Alicia LaFrance, Nari Rhee, Ima Varghese Mac. December 10, 2024.
9. [Education Mismatch in the California Workforce](#). By Ed Yelin, Trisha Iley, Alicia LaFrance, Nari Rhee, Ima Varghese Mac. December 9, 2024.
10. [Employment through the Working Years, With Special Emphasis on Older Workers](#). By Ed Yelin, Trisha Iley, Alicia LaFrance, Nari Rhee, Ima Varghese Mac. October 4, 2024.
11. [Quality of Union vs. Non-Union Work in California](#). Trisha Iley, Ed Yelin, Alicia LaFrance, Nari Rhee, Ima Varghese Mac. July 12, 2024.
12. [Employment among Persons with Disabilities in California](#). By Ed Yelin, Trisha Iley, Alicia LaFrance, Nari Rhee, Ima Varghese Mac. July 2, 2024.
13. [Employment in Arts and Related Occupations and Industries in California](#). By Ed Yelin, Trisha Iley, Laura Trupin, Alicia LaFrance, Nari Rhee, Ima Varghese Mac. May 29, 2024.
14. [Financial Strain among Working Age Californians](#). By Ed Yelin, Trisha Iley, Laura Trupin, Alicia LaFrance, Nari Rhee, Ima Varghese Mac. April 8, 2024.
15. [Work Quantity in California](#). By Ed Yelin, Trisha Iley, Laura Trupin, Alicia LaFrance, Nari Rhee, Ima Varghese Mac. April 8, 2024.
16. [Working from Home in California](#). By Ed Yelin, Trisha Iley, Laura Trupin, Alicia LaFrance, Nari Rhee, Ima Varghese Mac. March 13, 2024.

Products

1. California Work and Health Public Use Dataset. October 2023. Access to the dataset is granted on a per request basis at <https://calaborlab.ucsf.edu/accessing-cwhs-dataset>.

External CWHS Users & Projects

1. Ashley Membere, PhD, Assistant Professor at CSU Dominguez Hills Department of Psychology. Project: An Investigation of Factors Driving Health Disparities for Marginalized Workers in California.
2. Cindy Calderon Correa, UC Berkeley, MPH in Environmental Health Sciences Student. Project: Total Workers Health: The Joint Interaction Between Housing and Employment Instability in California's Workforce.
3. Jane Fazio, UCLA Fielding School of Public Health, UCLA David Geffen School of Medicine. Department of Medicine. Project: Disparities in work related injuries and worker's compensation.
4. Sarah Beth Stein, UCLA Fielding School of Public Health, Department of Community Health Sciences. Project: Precarious employment as a contributor to poor physical and mental health among California immigrants.

5. Emily Kaner, MPH MCP, UCLA Fielding School of Public Health, Department of Community Health Sciences. Project: An intersectional approach to investigating the relationship between precarious employment and mental health.
6. Ezinne Nwankwo, University of Southern California, USC Dornsife Equity Research Institute. Project: Workplace bullying and the health of immigrant adults in California.
7. Karen Lau, Visiting Graduate Researcher at UCLA; PhD candidate at St. George's, University of London & London School of Hygiene and Tropical Medicine. Project: Precarious work and health outcomes in immigrant workers: analysis of California Work and Health Survey (CWHS) data in 2022-23.
8. Ryan J. Walsh, PhD Candidate at the University of Southern California, Ostrow School of Dentistry, Chan Division of Occupational Science and Occupational Therapy. Project: Understanding Social Determinants of Health and Health Disparities in Emerging Work Contexts.
9. Charlotte O'Herron, PhD Candidate at Harvard University, Department of Sociology & Social Policy. Project: Alternative Work, Job Quality, and Well-Being.
10. Keegan Keelan & Dr. Annie Keeney, Assistant Professor at San Diego State University School of Social Work. Work-Life Strain and Emotional Distress: A Comparison of Agriculture, Forestry, and Fishing and Construction and Extraction Workers in California.
11. Yuliia Vitela, Intern at UC Berkeley Center for Occupational and Environmental Health. Project: Exploring the Changing Employment Structure and Worker Health in California.
12. Pauline Lim, Student at UC Berkeley, School of Public Health. Project (MPH Capstone): Heat Illness Among App-Based Workers in California.
13. Vibhu Krishna, Resident at UCSF Dept of Medicine - Division of Occupational, Environmental & Climate Medicine, UC Berkeley. Prevalence of heat-related illness and chronic disease reported among California Workers.
14. Pengse Po, Resident at UCSF Dept of Medicine - Division of Occupational, Environmental & Climate Medicine, UC Berkeley. Occupational Sector as a Modifier of the Association Between Psychological Distress and Musculoskeletal Pain Among California Workers.
15. Alein Haro-Ramos, PhD, UC Irvine Health Sciences Complex, Joe C. Wen School of Population & Public Health. Examining the moderating role of racism in the relationship between precarious employment and health.
16. Lilly Sabet, PhD candidate, San Diego State University. Measuring the Changing Organization of Work: Psychosocial Hazards, Worker Health, and Equity in U.S. Surveillance Data.

Project 2: Job Conditions in the Service Sector

Kristen Harknett, PhD, Co-Principal Investigator

Daniel Schneider, PhD, Co-Principal Investigator

Reflecting the progress in the project and shifting priorities within NIOSH, the project focus and priorities were amended in Year 5. This report reflects the new priorities – to focus on analyzing novel data on low-wage working conditions, the association between working conditions and worker health outcomes, and to examine the role of policies and employer practices that affect working conditions and worker health outcomes.

Working conditions influence population health and contribute to disparities in a range of health outcomes, and these conditions have deteriorated over the past forty years. Much of the research on precarious working conditions has focused narrowly on hourly wages, but precarious working conditions go beyond wages and include multiple dimensions such as schedule control, predictability, and stability; paid time off, health insurance, and other fringe benefits; as well as job security and job satisfaction. Precarious work schedules, lack of benefits, and job insecurity and dissatisfaction are particularly pronounced for the nearly 20% of American workers employed in the service (including retail, grocery, food service) sectors. These sectors have also been sites of legislative interventions to improve job quality, with states and localities implementing higher minimum wages but also passing laws that require large private sector employers to provide greater work schedule stability and predictability, offer paid sick leave, and provide access to paid family and medical leave.

Yet, there is little existing data that captures multi-dimensional measures of job quality and that allow comparisons across policy environments and employers. To fill this gap, we use data from The Shift Project from over 200,000 service sector workers nested in more than 150 large firms, collected from 2017-2023 and from a subset of workers followed longitudinally between 2021-2024 (data collection is funded by other sources, primarily an NIA R01 award).

This project has pursued three key aims: (1) document work conditions that are social determinants of health but are typically absent from national data sources; (2) estimate the effects of job conditions on worker health (3) examine the role of local labor laws and higher road employment practices on job conditions and worker health.

Over the five-year project period, the research team conducted extensive analyses of working conditions and worker health and examined whether and how labor regulations and employer high-road practices affected working conditions and health outcomes. The team also developed and maintained a database of state and local labor policies, including policies mandating access to paid sick leave. This database supported analyses linking labor policies with individual-level data on working conditions and worker outcomes.

In Year 4, our paper “Estimating the Impact of State Paid Sick Leave Laws on Worker Outcomes in the U.S. Service Sector, 2017-2023,” was presented at the annual meeting of the Population Association of America and later published in the journal, *Social Science Medicine-Population Health*. In Year 5, we will continue to execute analyses of working conditions and worker health and whether labor regulations or company

high-road practices affect working conditions and health outcomes. We will work towards the publication of manuscripts on paid sick leave policies and working while sick, and on punitive time and attendance policies and working while sick. We will also continue to gather the most up-to-date information on state and local policies that mandate access to paid sick leave for workers.

To this end, our paper, “Beyond Borders: Does Firm-Level Exposure to State and Local Paid Sick Leave Mandates Lead to Policy Diffusion?” was accepted for publication and is forthcoming in the *Journal of Policy Analysis and Management*. In addition, our paper, “The Prevalence and Consequences of Punitive Time and Attendance Policies in the Food and Retail Industries”, is now under review. This paper shows how parents and workers with health conditions are disproportionately disadvantaged by punitive attendance policies. This paper was coauthored by Meredith Slopen, Kess Balentine, Kristen Harknett, and Daniel Schneider and presented at the annual meeting of the Population Association of America in April 2025 and will be presented at the 2026 Society for Social Work and Research conference. Another paper, “Points, Presenteeism, and Paid Sick Leave: The Challenge of Punitive Workplace Policies for Public Health Goals” is also under review. This paper shows that punitive attendance policies are associated with working while sick, whether or not workers are entitled to paid sick leave. This paper was coauthored by Meredith Slopen, Kess Balentine, Kristen Harknett, and Daniel Schneider.

During Year 5, the team expanded its analysis of labor regulations, employer practices, working conditions, and worker health, resulting in five peer-reviewed publications. A major contribution was “Fair Workweek Laws in the U.S.: An Appraisal of Intended and Unintended Consequences,” by Daniel Schneider, Kristen Harknett, and David Arbelaez, published in *Science Advances*. The study found that Fair Workweek regulations increased advance notice of work schedules and rest time between shifts while reducing last-minute schedule changes. The analysis found no evidence that these improvements resulted in compensatory declines in other dimensions of job quality. At the same time, effects varied substantially across jurisdictions, highlighting the importance of strong local enforcement in realizing the benefits of these laws.

The project also extended its examination of precarious work beyond individual worker outcomes to family and social relationships. “Predictably Unstable?: Precarious Work and Precarious Relationships in the U.S.,” by Kristen Harknett, Kevin Bruey, and Elizabeth Kuhlman, was published in the *Journal of Marriage and Family*. The study found that unstable and unpredictable work schedules were associated with greater risks of marital or cohabiting relationship dissolution, demonstrating how precarious employment conditions can affect workers’ lives beyond the workplace. Also, “The Double Bind of Precarious Work: Creating Need and Undermining Support,” by Tyler Woods, Kristen Harknett, and Daniel Schneider, was published in *Sociological Science*. The study demonstrated that precarious schedules both increased workers’ need for social support and weakened the social ties that could provide that support. Unstable and unpredictable schedules were associated with lower perceived social support and weakened the typical buffering effect of supportive relationships on well-being, revealing a “double bind” for workers experiencing schedule instability.

The project’s state and local policy database supported two additional Year 5 publications examining punitive attendance policies. “Points-Based Attendance Systems Associated with Presenteeism Despite

Paid Sick Leave Protections,” by Meredith Slopen, Kess Balentine, Kristen Harknett, and Daniel Schneider, was published in *Health Affairs*. The study found that points-based attendance systems substantially increased presenteeism. Workers exposed to these systems had an approximately 19-percentage-point greater likelihood of working while sick, with elevated risk evident even among workers who had not yet accrued attendance points. Paid sick leave mandates did not offset this effect, indicating that punitive employer attendance policies can undermine the public health goals of paid sick leave legislation.

The second paper using the policy database, “The Prevalence and Consequences of Punitive Time and Attendance Policies in the Food and Retail Industries,” by Kess Balentine, Meredith Slopen, Daniel Schneider, and Kristen Harknett, was published in *Community, Work & Family*. Earlier in the project, this work was presented at the Population Association of America annual meeting in April 2025. The published study documented that more than two in five hourly workers were subject to points-based time-and-attendance systems. Workers in poor health were more likely to be penalized under these policies, and workers who accrued points experienced poorer employment and well-being outcomes. The findings suggest that punitive attendance systems may exacerbate existing disadvantages among workers with health problems.

Together, these studies advanced the project’s central objective of understanding how employer practices and public policies shape job quality, health, well-being, family relationships, and social support among service-sector workers.

Data Resources and Resource Sharing. An important product of the project was the development of a state and local labor policy database that could be linked with The Shift Project’s individual-level survey data. The combined resources enabled the research team to assess relationships among labor laws, employer practices, working conditions, and worker outcomes.

The policy database was made available to CALL Center participants and pilot grant recipients and was also made available to other researchers upon request. Information about the database was disseminated through a dedicated data page on The Shift Project website.

Papers

1. Harknett K, Bruey K, Kuhlman E. Predictably unstable?: Precarious work and precarious relationships in the U.S. *J Marriage Fam*. Published online July 23, 2026. doi:10.1111/jomf.70107
2. Woods T, Harknett K, Schneider D. The double bind of precarious work: Creating need and undermining support. *Sociol Sci*. 2026; 13:772-801. doi:10.15195/v13.a30
3. Schneider D, Harknett K, Arbelaez D. Fair Workweek laws in the US: An appraisal of intended and unintended consequences. *Sci Adv*. 2026;12(26): eaea8632. doi:10.1126/sciadv.aea8632
4. Ballentine KL, Slopen M, Schneider D, Harknett K. The prevalence and consequences of punitive time and attendance policies in the food and retail industries. *Community Work Fam*. Published online June 18, 2026. doi:10.1080/13668803.2026.2689580

5. Slopen M, Ballentine K, Harknett K, Schneider D. Points-based attendance systems associated with presenteeism despite paid sick leave protections. *Health Aff (Millwood)*. 2026;45(6):684-691. doi:10.1377/hlthaff.2025.00995
6. Schneider D, Harknett K. Beyond borders: Does firm-level exposure to state and local paid sick leave mandates lead to intra-firm spillovers? *J Policy Anal Manage*. 2026;45(1):e70061. doi:10.1002/pam.70061
7. Woods T, Schneider D, Harknett K. Estimating the impact of state paid sick leave laws on worker outcomes in the U.S. service sector, 2017-2023. *SSM Popul Health*. 2025;31:101830. doi:10.1016/j.ssmph.2025.101830

Presentations

1. Kristen Harknett. "Routine Work Schedule Instability: Consequences and Policy Solutions." California Labor Lab annual conference, Sacramento, California, April 2026.
2. Kristen Harknett. "*How am I Supposed to Plan my Life*" Spillover Effects of Precarious Work. Presented at the annual meeting of the American Sociological Association, August 12, 2025.
3. Kristen Harknett. Taking Our Time: The Consequences of On Call Expectations in the US Labor Market. Keynote at the annual conference of the Council for Community and Economic Research (C2ER) in Sacramento, CA, May 29, 2025.
4. Kristen Harknett. Predictably Unstable? Precarious Work and Precarious Relationships in the United States. Presentation given at the Population Association of America 2025 Annual Conference in Washington, DC, April 12, 2025.
5. Kristen Harknett. Zoom meeting with the staff of Assembly Member Matt Haney about Legislation regarding curtailing just-in-time scheduling and health monitoring for app-based workers. October 28, 2024.

Press Coverage

1. The Chief. "Study sets new benchmark for sick leave enforcement." August 6, 2026.
2. HR Dive. "Fair Workweek laws make workers' lives better without wage or benefit cuts, analysis shows." June 30, 2026.
3. NPR. "How algorithms wreaked havoc with these workers' schedules and cut their pay." May 3, 2026.
4. The Dispatch. "An Invisible Child Care Challenge. Job schedules plague millions of American families. What would it take to help them?" April 1, 2026.
5. The American Prospect. "Not Enough Workers for the Job." March 19, 2026.
6. Times Herald-Record. "Delivery drivers face different conditions." December 7, 2025.
7. The Conversation. "The unraveling of workplace protections for delivery drivers: A tale of 2 workplace models." November 6, 2025.
8. MSNBC. "Amazon promises 'big deals' — but not for delivery workers." October 8, 2025.

9. Caroline O'Donovan. "Senators pressure Jeff Bezos over Amazon schedules they say squeeze workers." The Washington Post, September 15, 2025.
10. Taylor Telford. "She went viral running a Burger King solo. Then she got fired." The Washington Post, August 25, 2025.
11. "Burrito bowl blues: How Chipotle became a Wall Street darling — and a 'Wall of Shame' employer." Business Insider, August 10, 2025.
12. Nicole Leonard. "As Philly region sees record temperatures, report shows heat illness and health risks among indoor service workers is widespread." WHYY PBS/NPR, June 25, 2025.
13. Claire Savage. "Fast food is a staple of American culture, but some of its workers struggle to survive." Associated Press, January 25, 2025.

Project 3: California Artificial Stone and Silicosis (CASS) Project

Kristin Cummings, MD, MPH, Co-Principal Investigator

Robert Harrison, MD, MPH, Co-Principal Investigator

Amy Heinzerling, MD, MPH, Co-Investigator

Fernanda Florez, Research Associate

Jennifer Flattery, MPH, Epidemiologist

California workers who fabricate countertops using artificial stone are at risk of developing accelerated silicosis, a severe, incurable, and potentially fatal lung disease that is completely preventable. The Occupational Health Branch (OHB) of the California Department of Public Health (CDPH) has been instrumental in characterizing this emerging occupational health issue in California.

The burden of silicosis in California's countertop fabrication industry is unknown, but it is likely that the cases that have been reported to OHB represent the tip of the iceberg in an industry that employs at least 9,000 people statewide. The traditional approach to workplace hazards is regulation by the California Division of Occupational Safety and Health (Cal/OSHA). Indeed, occupational exposure to silica has been regulated for decades, and more protective standards comprising a lower exposure limit and requirements for exposure monitoring, exposure controls including respiratory protection, and medical surveillance were introduced in 2016. Yet the occurrence of advanced and fatal lung disease in young silica-exposed workers highlights the limitations of this strategy for the countertop fabrication industry.

The overarching aim of this project is to promote respiratory health among vulnerable workers in California's countertop fabrication industry through education, medical monitoring, and statewide enhanced surveillance. The overall hypothesis of this project is that a multifaceted public health intervention will increase compliance with silica regulations and the detection of silicosis in the contemporary workplaces of California's countertop fabrication industry. The specific aims are to: 1) increase awareness in the countertop fabrication industry about the risk of silicosis to workers using artificial stone and methods for effective strategies for prevention; 2) facilitate medical monitoring of silica-exposed workers in the countertop fabrication industry; and, 3) enhance public health surveillance of silicosis related to working with artificial stone through increased reporting.

This surveillance project will use data per OHB's legal mandate (under Health and Safety Code §105175) to collect and summarize statistics describing the causes and prevalence of work-induced diseases in California.

During Year 5 of the CASS Project, we made substantial progress on all three project aims.

Aim 1. We updated our current educational materials for workers, employers, and healthcare providers to reflect Cal/OSHA's permanent standard to protect workers from exposure to respirable crystalline silica that went into effect in December 2024. Materials for workers and employers were translated into additional languages, including Spanish, Chinese, and Armenian.

In addition, we finalized new resources for healthcare providers conducting medical surveillance required by Cal/OSHA. These materials include a patient questionnaire and report templates for employees and employers. These are now available on our website. We also developed and released a Health Advisory through the California Health Alert Network (CAHAN). We worked with the California Medical Board to include information from the Health Advisory in an email to all licensed physicians in the state in April 2026. A more detailed summary was also included in a Medical Board newsletter.

All our educational materials are available on our website:

<https://www.cdph.ca.gov/Programs/CCDCPHP/DEODC/OHB/Pages/SilicaStoneFabricators.aspx>

In addition, the Los Angeles County Department of Public Health has a webpage on silicosis that links to our resources: <http://ph.lacounty.gov/silicosis/>

In *Year 6*, we anticipate a new Cal/OSHA regulation prohibiting artificial stone fabrication in California's workplaces, following a vote by the California Occupational Safety and Health Standard Board in May 2026 in favor of an emergency standard. We plan to update our materials for employers and workers and to collaborate with local partners to promote greater awareness and understanding of the forthcoming regulation.

Aim 2. We continued offering continuing medical education (CME) on silicosis through UCLA during *Year 5*. Our free CME course (<https://erc.ucla.edu/ced/courses/silicosis-countertop-fabrication>) covers the health effects of silica exposure, the hazards of artificial stone, diagnosis, referral, and treatment of silicosis, reporting cases to CDPH, vulnerable workers, and components of the silica medical examination. We are updating the training materials to reflect recent and anticipated changes to the Cal/OSHA silica standard and anticipate the updated version of the course will be made available in *Year 6*.

Additionally, we published a report in the Annals of the American Thoracic Society (ATS) summarizing the findings of an ATS workshop held in the spring of 2025. The workshop brought together 24 international experts to review the existing scientific knowledge base, concluding that artificial stone silicosis represents a failure of primary prevention and calling for coordinated global action. We also published a letter in Annals ATS highlighting the opportunity for home improvement shows to educate their audiences about the hazards of artificial stone fabrication. Finally, a Public Health Alert describing the epidemic of artificial stone silicosis in California and the response to date was published in *NEJM Evidence*.

During *Year 5*, our team also expanded recruitment for our pilot study comparing routine and enhanced testing protocols for detecting silicosis. As of August 2026, a total of 85 participants have completed the study. In *Year 6*, we plan to increase the number of participants, complete recruitment, and conduct data analysis and dissemination of findings. We will also explore the use of a mobile medical van for improving access to silicosis screening.

Aim 3. In *Year 5*, we continued to update our silicosis data dashboard on a weekly basis. The dashboard provides the current tally of artificial stone-related silicosis cases identified through surveillance and presents basic demographics, metrics of disease severity (lung transplants, deaths), epidemiologic curves, and a state map with information by county. In addition, we added a countertop fabrication operations dashboard, which displays information about current countertop fabrication operations statewide.

We have also continued our multi-source surveillance, including hospital discharge records, direct provider reporting, and electronic case reporting using the Reportable Conditions Knowledge Management System (RCKMS). During *Year 5*, we continued to collaborate with CDPH and local health department partners to implement procedures for required reporting by healthcare providers of silicosis under the California Title 17 list of reportable conditions.

In *Year 6*, we will finalize our educational materials, complete the pilot study, and continue multi-source surveillance, including providing support to local health departments receiving reports of silicosis from providers in their jurisdictions.

Papers

1. Amy Heinzerling, Jennifer Flattery, Kristin Cummings, Robert Harrison, Jane Fazio, Sheiphali Gandhi, Alya Khan, David Michaels. Silicosis among Workers Fabricating Engineered Stone (“Quartz”) Countertops in California, 2019–2026. *NEJM Evidence*. 2026.
2. Gandhi SA, Liu GY, Fazio JC, Amubieya O, Barnes H, Cavalin C, Cohen RA, Fireman E, Garcia SR, Harrison RJ, Houlroyd JL, Hua JT, Jones CM, Mao L, Ramkissoon C, Schenker M, Feary J, Harvey RR, Menéndez-Navarro A, Nemery B, Redlich CA, Reynolds CJ, Hoy RF, Cummings KJ. Silicosis in the Artificial Stone Countertop Industry: An Official American Thoracic Society Workshop Report. *Annals of the American Thoracic Society* 2026.
3. Khan A, Harrison R, Budinger P, Cummings KJ. Home improvement programs and deadly countertops: the need to protect workers. *Annals of the American Thoracic Society* 2026.
4. Jennifer Flattery, Chelsea Woolsey, Jane Fazio, Sheiphali Gandhi, Amy Heinzerling, Robert Harrison, Kristin Cummings. Silicosis Surveillance in California, 2019-2024: Tracking an Epidemic. *American Journal Public Health*. 2025.
5. Jane Fazio, Sandra Garcia, Ivy Torres, Sheiphali Gandhi, Kristin Cummings, Russell Buhr, Kevin Riley, Ninez Ponce, Arturo Vargas Bustamante, Beth Glenn. Silica Hazards in Engineered Stone Countertop Production: Worker Experiences and Challenges in Los Angeles. *American Journal of Industrial Medicine*. 2025.
6. Amy Heinzerling, Robert Harrison, Jennifer Flattery, Jane Fazio, Sheiphali Gandhi, Kristin Cummings. Reply to Currow et al. and to Akgün (letter response). *American Journal of Respiratory and Critical Care Medicine*. 2025.
7. Amy Heinzerling, Robert Harrison, Jennifer Flattery, Jane Fazio, Sheiphali Gandhi, Kristin Cummings. Deadly Countertops: An Urgent Need to Eliminate Silicosis among Engineered Stone Workers. *American Journal of Respiratory and Critical Care Medicine*. 2025.
8. David Blackley, Noemi Hall, Jennifer Flattery, Drew Harris, Kristin Cummings, A. Scott Laney. Rise in Lung Transplantation for Coal Workers’ Pneumoconiosis and Silicosis. *American Journal of Respiratory and Critical Care Medicine*. 2025.

9. Jane Fazio, Amy Heinzerling, Sheiphali Gandhi, Carrie Redlich, Kristin Cummings. Silicosis: A Chronic Work-Related Lung Disease. *ATS Sch.* 2025.
10. Jennifer Flattery, Chelsea Woolsey, Melanie Epstein-Corbin, David Blackley, Robert Harrison, Kristin Cummings. Surveillance of silicosis using the Reportable Conditions Knowledge Management System — California, December 2022–July 2023. *Morbidity and Mortality Weekly Report (MMWR)*. 2023.
11. Sheiphali Gandhi, Amy Heinzerling, Jennifer Flattery, Jane Fazio, Asim Alam, Kristin Cummings, Robert Harrison. Active Surveillance of Engineered Stone Workers Facilitates Early Identification of Silicosis: A Discussion of Surveillance of Occupational Lung Diseases. *New Solutions*. 2023.
12. Jane Fazio, Sheiphali Gandhi, Jennifer Flattery, Amy Heinzerling, Nader Kamangar, Nawal Afif, Kristin Cummings, Robert Harrison. Silicosis among Immigrant Engineered Stone (quartz) Countertop Fabrication Workers in California. *JAMA Internal Medicine*. 2023.
13. Sheiphali Gandhi, Amy Heinzerling, Jennifer Flattery, Kristin Cummings. Occupational Contributions to Respiratory Health Disparities. *Clinics in Chest Medicine*. 2023;44(3):635-649.
14. Ariana Spiegel, Kristin Cummings, Jennifer Flattery, Robert Harrison, Amy Heinzerling. Self-reported Silica Exposures and Workplace Protections among Engineered Stone Fabrication Workers in California. *American Journal of Industrial Medicine*. 2022.
15. Krishna Surasi, Brittany Ballen, Justin Weinberg, Barbara Materna, Robert Harrison, Kristin Cummings, Amy Heinzerling. Elevated Exposures to Respirable Crystalline Silica among Engineered Stone Fabrication Workers in California, January 2019–February 2020. *American Journal of Industrial Medicine*. 2022.

Presentations

1. Kristin Cummings. From evidence to action: Silica regulation in California. Presentation at the Council of State and Territorial Epidemiologists Annual Conference. Boston, Massachusetts, May 31, 2026.
2. Heinzerling A. Engineered Stone Silicosis in California: CDPH Updates. Presentation given to the California Occupational Safety and Health Standards Board, 5/21/26.
3. Fernanda Florez, Sheiphali Gandhi, Jane Fazio, Jennifer Flattery, Chelsea Woolsey, Robert Harrison, Ryan Hoy, Kristin Cummings. Cases of silicosis attributed to engineered stone worldwide through December 2025. Oral presentation at 2026 California Research Forum on Lung Health, University of Southern California, Los Angeles, California, April 25, 2026.
4. Samvel Gaboyan, Edward Gerber, Jennifer Flattery, Chelsea Woolsey, Alya Khan, Kristin Cummings, Helene Calvet. Silicosis Screening in a Vulnerable Worker Population at a Free Clinic in Orange, California. Oral presentation at 2026 California Research Forum on Lung Health, University of Southern California, Los Angeles, California, April 25, 2026.
5. Chelsea Woolsey, Jennifer Flattery, Robert Harrison, Kristin Cummings. Public Health Surveillance Informing Policy Change: Engineered Stone Silicosis in California, 2019-2025. Oral presentation at 2026 California Research Forum on Lung Health, University of Southern California, Los Angeles, California, April 25, 2026.
6. Kristin Cummings, Jenny Houlroyd, Lisa Patrick-Mudd. International Interior Design Association SoCal (podcast), 2026. A Sustainable Tomorrow Starts Today: When Design Choices Cost Lives.

<https://podcasts.apple.com/us/podcast/a-sustainable-tomorrow-starts-today-when-design/id1642255891?i=1000752936140>.

7. Kristin Cummings. Silica – What’s old is new again. Presentation at the University of California, San Francisco, Division of Occupational, Environmental and Climate Medicine CME Course (San Francisco), March 5, 2026.
8. Fernanda Florez, Sheiphali Gandhi, Jane Fazio, Jennifer Flattery, Chelsea Woolsey, Robert Harrison, Ryan Hoy, Kristin Cummings. Cases of silicosis attributed to engineered stone worldwide through December 2025. Poster presentation at the University of California, San Francisco, Division of Occupational, Environmental and Climate Medicine CME Course (San Francisco), March 6, 2026.
9. Samvel Gaboyan, Edward Gerber, Jennifer Flattery, Chelsea Woolsey, Alya Khan, Kristin Cummings, Helene Calvet. Silicosis Screening in a Vulnerable Worker Population at a Free Clinic in Orange, California. Poster presentation at the University of California, San Francisco, Division of Occupational, Environmental and Climate Medicine CME Course (San Francisco), March 6, 2026.
10. Chelsea Woolsey, Jennifer Flattery, Robert Harrison, Kristin Cummings. Public Health Surveillance Informing Policy Change: Engineered Stone Silicosis in California, 2019-2025. Poster presentation at the University of California, San Francisco, Division of Occupational, Environmental and Climate Medicine CME Course (San Francisco), March 6, 2026.
11. Kristin Cummings. A modern epidemic of an ancient disease: Silicosis among engineered stone fabricators. University of British Columbia, Occupational and Environmental Hygiene Seminar (webinar), October 10, 2025.
12. Amy Heinzerling, Jennifer Flattery, Chelsea Woolsey, Robert Harrison, Kathryn Gibb, Jane Fazio, Sheiphali Gandhi, Kristin Cummings. Characteristics of California engineered stone countertop fabrication workers undergoing lung transplantation. Poster presentation at the American Thoracic Society International Conference, May 2025.
13. Jane Fazio, Kathryn Gibb, Amy Heinzerling, Jennifer Flattery, Sheiphali Gandhi, Beth Glenn, Kristin Cummings, Russell Buhr, Ninez Ponce, Arturo Vargas Bustamante. Hospitalization costs and payors for silicosis among engineered stone countertop workers in California. Poster presentation at the American Thoracic Society International Conference, May 2025.
14. Kristin Cummings. A modern epidemic of an ancient disease: Silicosis among engineered stone fabricators. Presentation at University of Toronto, Occupational and Environmental Health Seminar, January 31, 2025.
15. Jennifer Flattery, Chelsea Woolsey, Jane Fazio, Sheiphali Gandhi, Amy Heinzerling, Robert Harrison, Kristin Cummings. Silicosis associated with engineered stone exposures and tuberculosis: overlaps in clinical presentation and delayed diagnosis. Poster presentation at the American Thoracic Society International Conference, May 20, 2024.
16. Kristin Cummings. Public health surveillance. Presentation at the Preventing Silicosis Caused by Artificial Stone in the United States Conference, Los Angeles, California, May 16, 2024.
17. Kristin Cummings. Engineered stone countertop fabrication and silicosis in California, USA. Presentation at the European Respiratory Society Vision Live webinar, April 2, 2024.
18. Jane Fazio, Amy Heinzerling. Silicosis in Engineered Stone Fabrication Workers: An Emerging Epidemic. Presentation at the California Medical Association Virtual Grand Rounds, November 14, 2023.

19. Jane Fazio, Sheiphali Gandhi, Jennifer Flattery, Amy Heinzerling, Nader Kamangar, Nawal Afif, Kristin Cummings, Robert Harrison. Identification of a statewide epidemic of silicosis among engineered stone fabrication workers – California. Oral presentation at the American Thoracic Society International Conference, May 22, 2023.
20. Kristin Cummings. Silicosis related to engineered stone in California. Presentation at the Western States Occupational Network (WestON) – 13th Annual Meeting, Council of State and Territorial Epidemiologists, NIOSH Western States Division, Denver, Colorado, September 15, 2022.
21. Sheiphali Gandhi, Amy Heinzerling, Jennifer Flattery, Asim Alam, Kristin Cummings, Robert Harrison. Active surveillance of artificial stone workers facilitates early identification of silicosis. Poster presentation at the American Thoracic Society International Conference, May 16, 2022.

Products

Available at: <https://www.cdph.ca.gov/Programs/CCDCPHP/DEODC/OHB/Pages/silicosis.aspx>

1. Engineered Stone (ES) Silicosis Surveillance Dashboard
2. Countertop Fabrication Operations in California Dashboard
3. CASS Study Flier (English and Spanish)
4. Hazard Alert for Workers: Silica Dust from Countertop Work Can Harm You! (English, Spanish, Chinese, and Armenian)
5. A Guide for California Employers: Workplace Air Monitoring for Silica during Engineered Stone (Quartz) Fabrication Work (English, Spanish, and Armenian)
6. Silicosis in Countertop Fabrication Workers: What Providers Need to Know
7. Health Advisory: Global Epidemic Comes to California: Silicosis in Countertop Workers
8. Continuing Medical Education Course: Silicosis in Countertop Fabrication Workers
9. Guide for Stone Fabricators: Exposure to Respirable Crystalline Silica (English, Spanish, and Armenian)
10. Health Advisory: Silicosis Cases in Countertop Workers Continue to Rise, as Silicosis Becomes a Reportable Disease in California
11. Guidance for California Clinicians Performing Silicosis Medical Surveillance Exams Per Cal/OSHA's Silica Regulation for General Industry (Title 8, § 5204)
12. Medical Screening Questionnaire for Employees Exposed to Silica (English and Spanish)
13. Written Medical Report for Employee: Silica Exposure (English and Spanish)
14. Written Medical Report for Employer: Silica Exposure

Press Coverage

The issue of silicosis related to artificial stone in California has received extensive media attention. Below is a selection of pieces that were published/aired in *Year 5*:

1. Farido Romero. Doctors say measures to control an incurable lung disease aren't enough. National Public Radio. February 1, 2026.

2. Rebecca Davis O'Brien. Quartz Cutters Are Falling Ill. Countertop Makers Want Protection from Congress. New York Times. March 16, 2026.
3. Jim Morris. California May Ban Artificial-Stone Countertops. Public Health Watch. April 14, 2026.
4. Nell Greenfieldboyce. Thousands of U.S. countertop workers could have damaged lungs, safety expert says. National Public Radio. May 18, 2026.
5. Farida Romero. California Steps Closer to Ban on Engineered Stone After Silicosis Surge. National Public Radio/KQED. May 22, 2026.
6. Karen Garcia and Clare Harter. Hundreds of California stonecutters fall ill with deadly disease 'for a product we do not need.' LA Times. August 22, 2026.