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**UC Tech Awards 2023 Candidate**

**Category:** COLLABORATION **Name:** The UC Ergonomics Project
**Number of people:** (48)
**Location:** UC Davis

1. **Person submitting the application/nomination**
	1. Emily Slonim, Lead Communications Analyst, Risk & Safety Solutions, UCOP, Staff.
	2. **Email address:** eslonim@ucdavis.edu
	3. **The name of your organization:** Risk & Safety Solutions
2. **Award category** Yvonne Tevis UC Collaboration Award
3. **Name of person, name of the team, or name of the project to receive the award** The UC Ergonomics Project
4. **All project team members - if applicable**
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		2. Lead UX Designer, Risk and Safety Solutions, Staff
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		42. Director, Systemwide Healthcare Safety, University of California Office of the President
		43. Jonathan Cabrera jbcabrera@lbl.gov
		44. EHS Ergonomist, Lawrence Berkeley National Laboratory, Staff
		45. Ruby Antonio ruby.antonio@ucop.edu
		46. Ergonomics Consultant, University of California Office of the President
		47. Nathaniel Chung nathaniel.chung@berkeley.edu
		48. Campus Ergonomist, UC Berkeley, Staff
5. **Which location was affected by the work?** All UC Campuses and Health Centers
6. **Summary** The UC Ergonomics project is a collaborative effort between the University of California (UC) and Risk and Safety Solutions (RSS) to create an ergonomic assessment and training tool for UC campuses. The project began in April 2022, with the goal of developing a solution that would replace a soon-to-expire third-party platform that managed ergonomic assessments. The RSS team and the UC Ergonomics Systemwide Workgroup partnered to create a tool that could be customized for each campus while still meeting UC's reporting requirements. The resulting solution will save the UC system over $60,000 annually, provide proactive identification of potential injuries through robust reporting, and offer a central dashboard with actionable Key Performance Indicators and University-wide administrator access to provide trend analysis and alleviate administrative burden.

**Narrative** I am nominating the UC Ergonomics project for the Yvonne Tevis UC Collaboration Award. The UC Ergonomics project started in April 2022 when the University of California (UC) contacted Risk and Safety Solutions (RSS) with a complex problem. A UC systemwide contract with a third-party vendor managing ergonomic assessments was about to end, and the change would impact every campus in the UC system. Campuses needed a technology solution for ergonomic assessments and training to replace the expiring product. The UC Ergonomics Systemwide Workgroup and the RSS team established a partnership, and in May 2022, RSS conducted a technical needs analysis to evaluate the feasibility of building an ergonomic assessment tool. Together, RSS and the UC Ergonomics Systemwide Workgroup created a needs list that included the following features: professional ergonomic risk assessments, self-assessments, risk scores, configurable outcomes, variable workflows, regulatory training validations, and reporting.

The RSS team was tasked with creating two assessments: professional ergonomic risk assessments and ergonomic self-assessments. With the prior system, every campus had its own ergonomic risk assessment checklist in the third-party platform. Content, length, and the number of questions varied by UC location, so the data submitted to the UC system was often inconsistently presented, making trend analysis difficult. Ergonomic self-assessments were managed by the third-party vendor, making cohesive data storage challenging.

To address this problem, the RSS Computer Ergonomics Product Owner, Justin Sabo, interviewed ergonomic professionals from each campus to learn their ergonomic workflow and processes. He then performed a gap analysis of the data and shared it with the UC Ergonomics Systemwide Workgroup to develop an ergonomic assessment that met each campus's needs and the UC System's reporting requirements. Each UC campus also submitted its ergonomic assessment questionnaires totaling over 425 questions combined.

The UC Ergonomics Systemwide Workgroup reviewed all the questions submitted by each campus, eliminating duplicates and reviewing the content for accuracy. There were some challenges during this process, as campuses had to make concessions concerning word choice and variation of questions. The goal was to create one questionnaire that would fit the needs of eighteen locations. After significant work, the UC Ergonomics Systemwide Workgroup provided the RSS team with a list of 103 questions that had been vetted by subject matter experts and agreed on by all UC locations.

Meanwhile, RSS extensively tested code quality, security, vulnerabilities, and risks in all components before sharing it with the UC Ergonomics Systemwide Workgroup. The RSS UX team took the lead on the overall look and feel of the design, with special consideration for accessibility and ease of use for all individuals. The UX team held over twenty feedback sessions within RSS and with current clients to get a comprehensive view of how end users interpreted the solution. By observing trends of use and understanding behavior patterns, the UX team iterated on the initial design to create a more user-friendly solution.

After internal testing and initial design were complete, RSS held multiple end-user feedback sessions throughout the implementation process, including scenario testing, in-app design elements, and User Acceptance Testing (UAT). With the support of the UC Ergonomics Systemwide Workgroup, RSS scheduled UAT with each UC campus to ensure that the solution worked as expected and testers could easily navigate the scenarios. The UC Ergonomics Systemwide Workgroup and RSS team also worked with the Risk and Safety Training department to develop eighteen customized videos and quiz-based courses.

The training component was an integral part of the project. With the previous system, employees would have to take any necessary training through the third-party vendor. The RSS team worked with the UC Ergonomics Systemwide Workgroup to develop the training modules and house them within the new system, creating a one-stop-shop for all ergonomic assessments. In the UC Ergonomics solution, people taking an assessment receive the appropriate training based on the results of the assessment. Completed training modules are immediately viewable by the supervisor on record for each staff member.

The impacts of the project for the University of California are significant. First, by moving to an in-house solution, the University of California will save over $60,000 per year. Second, the Computer Ergonomics solution is customizable to fit the UC system uniquely, and it fully integrates self-assessment, training, and reports in a single platform. Third, there is a high likelihood of reduced ergonomic-based Workers' Compensation claims due partly to the proactive identification of potential injuries identified through robust reporting. Finally, a central dashboard with actionable Key Performance Indicators and University-wide administrator access can provide trend analysis and alleviate administrative burden.

Thanks to the partnership between the UC Ergonomics Systemwide Workgroup and the RSS team, the Computer Ergonomics solution will be live at all eighteen locations by the end of May. With over 227,000 staff and faculty working within the UC system, the RSS Computer Ergonomics project was a significant undertaking with a major impact.

Screenshots of the Computer Ergonomics Application (Andrei Vernon has given permission for his name to be included in the screenshots)





