

FROM PESTICIDE EXPOSURE TO EXOSKELETONS IN CONSTRUCTION

DOMINIC'S DRIVING QUESTIONS

- How does exposure to **environmental hazards** impact the **occupational health** of her community?
- How can we use **exoskeletons in construction** to keep **workers healthy and injury-free**?

WHAT SHE DID

- Worked with Dr. Carisa Harris to explore the **benefits & barriers that construction workers face in exoskeleton use**
- **Presented her work as a NIOSH Trainee** on the impact of precarious work and psychosocial stress on physical and mental health of California workers **at The California Commission on Health and Safety and Workers Compensation**

WHAT SHE FOUND

Exoskeletons can enhance physical activity among construction workers by providing mechanical assistance, reducing fatigue, and improving overall efficiency.

Enhancing Construction Efficiency with Exoskeletons



NEXT STEPS

- **Continue research, education, and community outreach** to understand the mechanisms leading to **work-related musculoskeletal disorders**
- **Identify and evaluate equipment designs and work practices** to reduce these risks
- Promote a healthier work environment and increase productivity by **integrating exoskeletons in daily operations of construction workers**
- **Gather worker assessment of effectiveness on work performance, physical demand, and usability** to improve and increase exoskeleton use



Dominic Piña was no stranger to pesticides. "Schools were next to fields and my backyard was a block away from a strawberry field," says Piña of her hometown Salinas, CA—known as the "Salad Bowl of America."

The UC Berkeley's School of Public Health was conducting research in Salinas through the CHAMACOS Study, where Piña contacted people able to connect her with Dr. Brenda Eskenazi, the PI on the study. Through interviews and surveys at the free clinic in Salinas, she researched how COVID-19 was spreading through the farm worker community.

Dominic currently works at Bloom Energy! Responsible for ensuring compliance with environmental and safety regulations, implementing EHS programs, conducting audits and inspections, and supporting employees on EHS matters.

