THE FUTURE OF WORK
IN A CLIMATE CHANGED COLORADO

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Background and Purpose

Climate change will impact Colorado's workforce in the near and long term. While all workers are vulnerable to climate change, certain workers will have higher levels of risk than others. The Colorado Office of the Future of Work (OFW) has identified the need for an understanding of how changes in the frequency and severity of climate hazards (i.e. extreme heat, poor air quality, and extreme weather) due to climate change in the state will intersect with the workforce's exposure to those hazards.

The purpose of this project was to identify workers in Colorado who are likely to be exposed to climate change impacts, determine best practices already in place for protecting at-risk workers nationally and locally, and facilitate the creation of educational outreach materials for Colorado's workforce ecosystem to better prepare for the future ahead.

Key Outcomes and Methods

To accomplish our project purpose, we produced three tools and a comprehensive slide-deck that can be distributed to interested parties in the Colorado workforce ecosystem:

1. Occupational Exposure and Climate Hazard Dataset

The dataset incorporates climate projections, employment estimates, and work context data for all 64 Colorado counties. The tool increases understanding about occupational exposure to projected climate hazards in Colorado by:

- Incorporating Occupational Employment and Wage[1] Statistics estimates for all 790 occupations present in the State of Colorado.
- Using downscaled climate projections to understand the potential occurrence of hazardous climatic conditions, by county.
- Classifying occupational exposure to extreme heat, unhealthy air quality, and extreme weather obtained[2,3] from Bureau of Labor Statics and Occupational Information Network data.

2. Climate Hazard Workforce Guidance and Regulations Resource

This resulted in a resource where we compiled guidance resources, regulations, and best practices intended to protect workers from climate related hazards. Ultimately we accomplished this by:

- Compiling existing guidance resources developed by the Federal agencies and state governments that detail best practices when working in environments affected by climate related hazards.
- Collecting existing Federal and State regulations that have been enacted to protect workers

## 3. Recommendations for Outreach Materials Methods and Outcomes

Our extensive review of occupational health and safety literature concluded with recommendations for outreach materials. These materials are intended to be distributed to employers and employees to raise awareness about climate related hazards, and provide actionable steps towards climate resilience in the workplace. This process included the following:

- Incorporation of feedback from Colorado Department of Labor and Employment experts to help determine what the resources should include
- Providing resources detailing background on climate hazards, third-party tools that can be used by employees to understand their risk, signs-and-symptoms, best practices to help stay safe, and additional resources
- Practices to help stay safe, and additional resources.

Projected Impacts

Our project is intended to mitigate climate change risks affecting Colorado's workforce through the use of data-driven analysis that identifies likely climate hazards and occupational exposures, in all 64 counties. Beyond this novel approach to a data-driven analysis our project is expected to strengthen planning and workforce preparedness through the distribution of compiled resources and feedback driven recommendations. We anticipate that our project will:
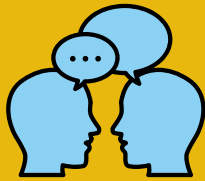
Spur conversation in the workforce ecosystem about climate related risks and mitigation opportunities	Encourage the adoption of risk mitigation policies and practices in Colorodo's workforce ecosystem and government at the state and local level	Facilitate development of risk recognition and mitigation resources for use by employers and employees to increase workplace safety

Takeaways

Taking a proactive, statewide, approach to workforce planning in the context of climate change required developing a new framework. This first-of-its analysis provides a strong starting point for a data-driven understanding of Colorado's changing risk landscape, and a base for substantive action. Throughout the project, gathering input from subject matter experts strengthened our analysis and highlighted the necessity of engaging the entire workforce ecosystem in these proactive efforts. Colorado is a proven leader in climate adaptation and agricultural worker protection, and has an opportunity to leverage this project to continue Colorado's momentum towards a climate resilient future.

Acknowledgments

References

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