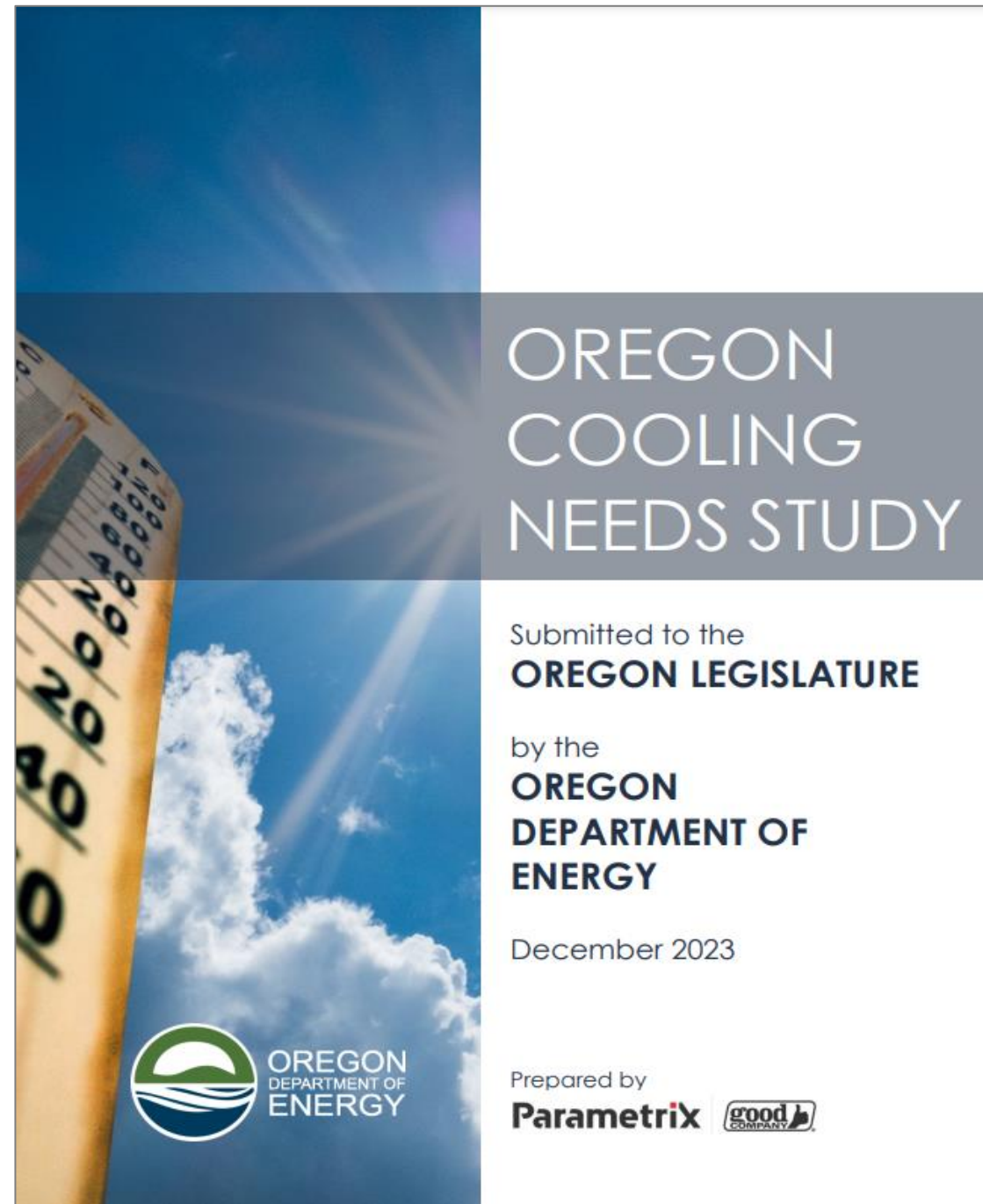


Oregon Department of **ENERGY**

Briefing:
Cooling Needs Study
Senate Committee on
Housing and
Development

Stephanie Kruse
Facilities Engineer
February 6, 2024





OREGON DEPARTMENT OF ENERGY

Leading Oregon to a safe, equitable, clean, and sustainable energy future.

Our Mission

The Oregon Department of Energy helps Oregonians make informed decisions and maintain a resilient and affordable energy system. We advance solutions to shape an equitable clean energy transition, protect the environment and public health, and responsibly balance energy needs and impacts for current and future generations.

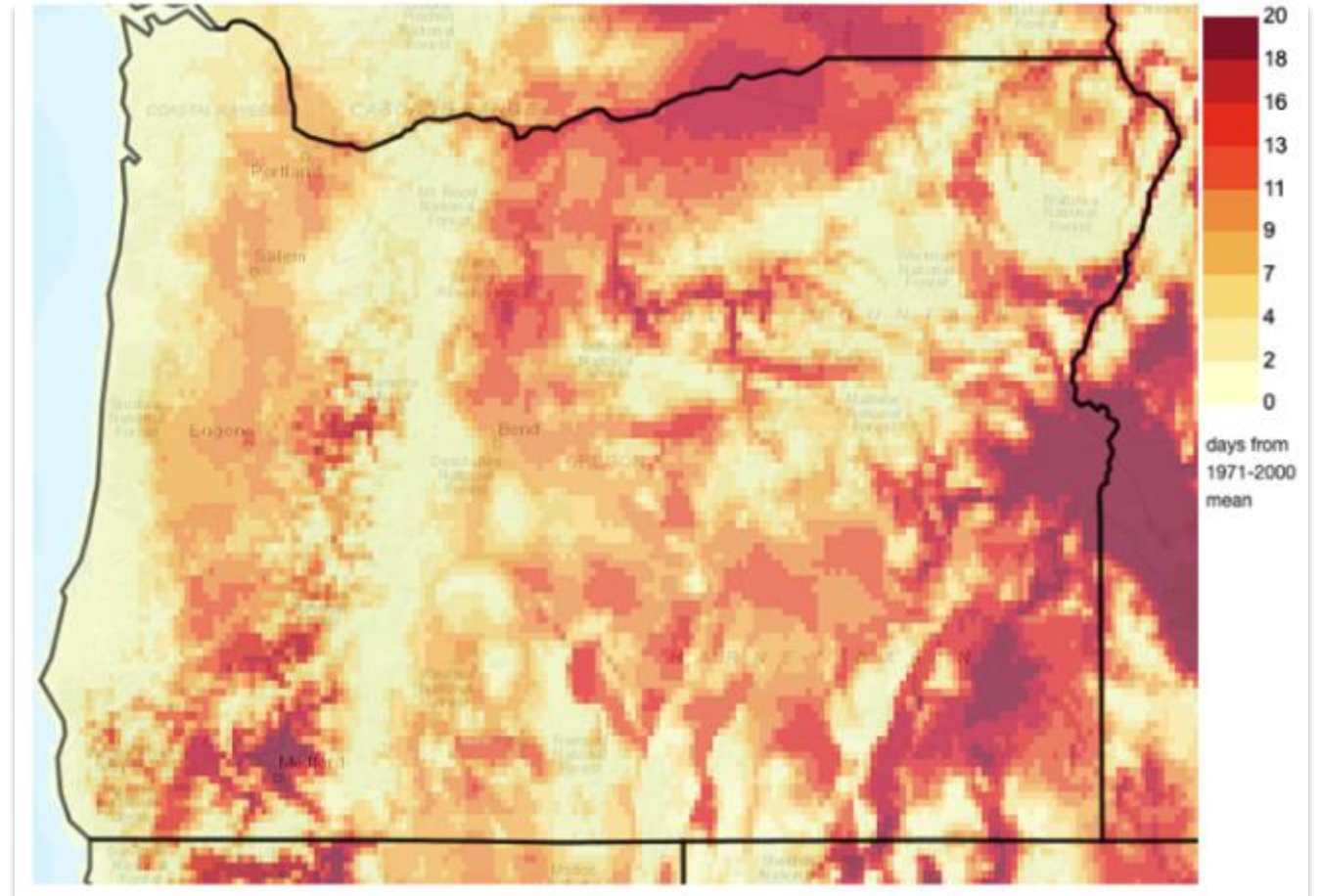
What We Do

On behalf of Oregonians across the state, the Oregon Department of Energy achieves its mission by providing:

- A Central Repository of Energy Data, Information, and Analysis
- A Venue for Problem-Solving Oregon's Energy Challenges
- Energy Education and Technical Assistance
- Regulation and Oversight
- Energy Programs and Activities

The 2021 Heat Dome

Projected Change in Days with Heat Index $\geq 90^{\circ}\text{F}$ – Higher Emissions (RCP 8.5) 2010-2039 vs. historical simulation 1971-2000, mean change



- Record breaking heat waves of over 100 degrees resulted in about 120 deaths statewide.
- Lack of cooling infrastructure exacerbated impacts to traditionally cooler climates.
- These events catalyzed government intervention and the ODOE Cooling Needs Study via SB 1536 (2022).

Study Approach

Assessed cooling needs in:

- Publicly supported multifamily housing
- Manufactured dwelling parks
- Recreational vehicles (RVs) being used as housing
- Agricultural workforce & farmworker housing

Study Approach

Identify/consolidate all existing data and technical information.

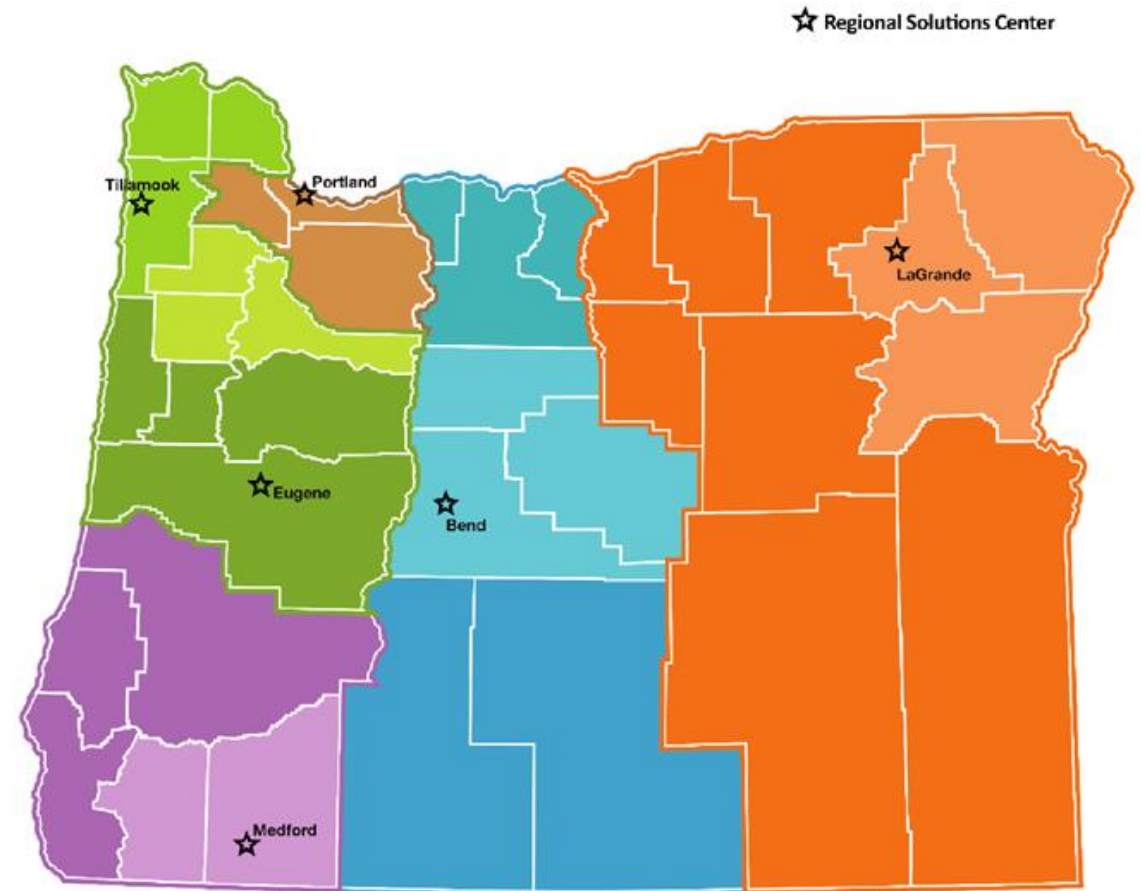
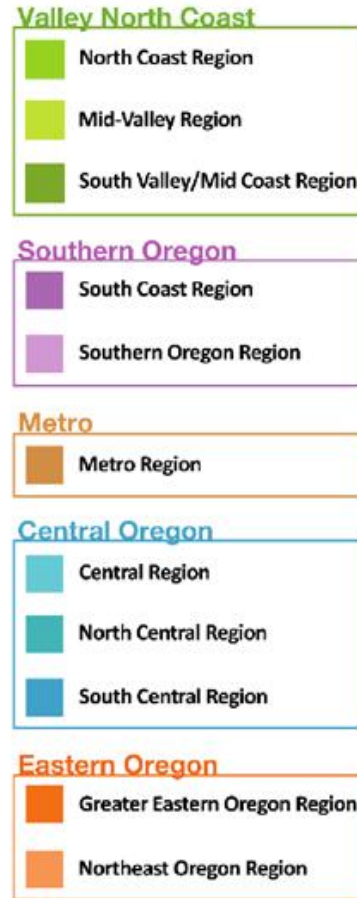
Conduct outreach to collect on-the-ground data from heat vulnerable populations in partnership with a network of Community-Based Organizations.

Compile results into final report and Heat Vulnerability Index online GIS tool.

Study Findings – Statewide

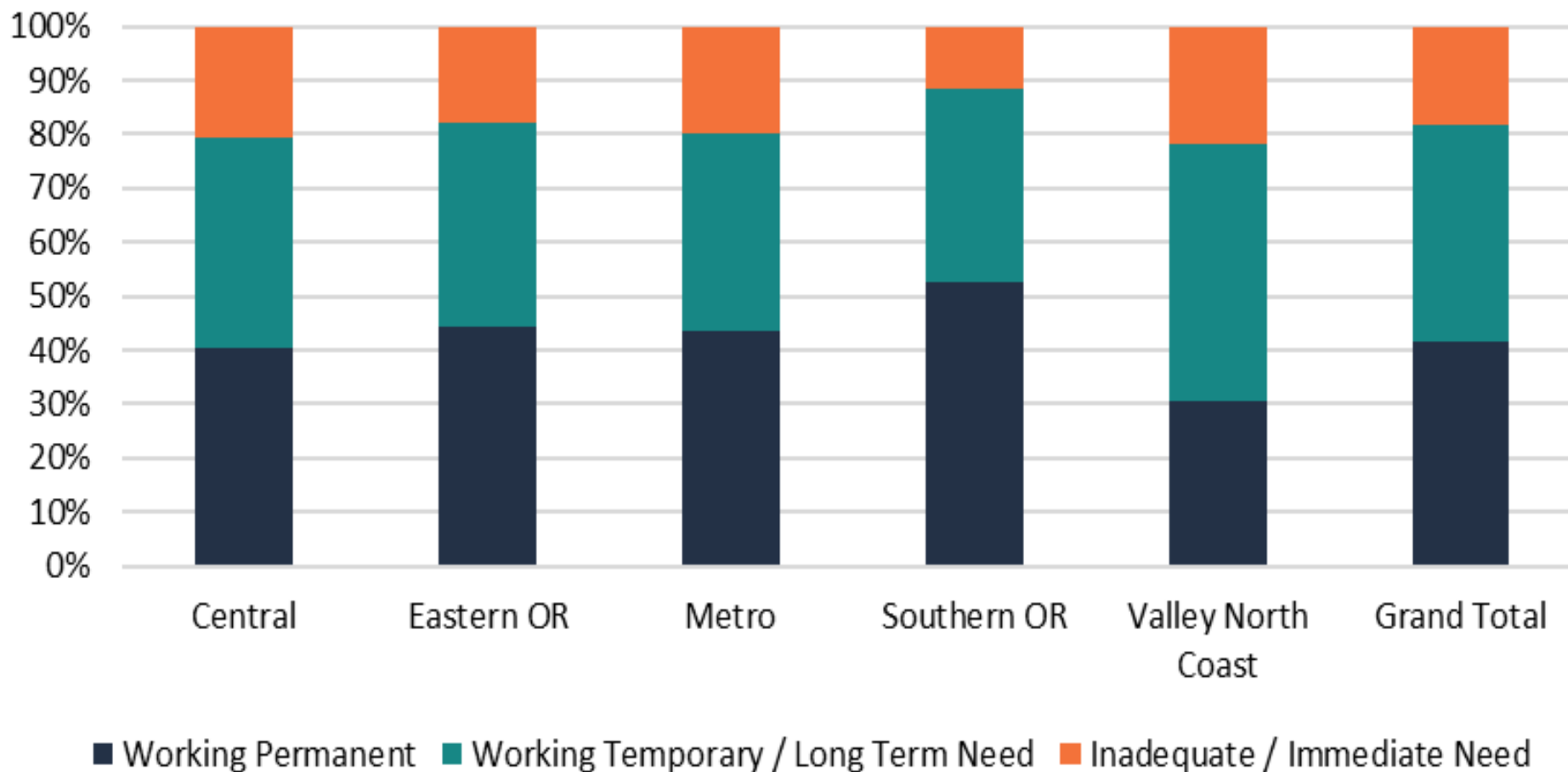
58% of survey respondents need permanent cooling.

The total cost for installing the preferred cooling equipment across all housing types is estimated to be \$582,100,000 – \$1,046,200,000.



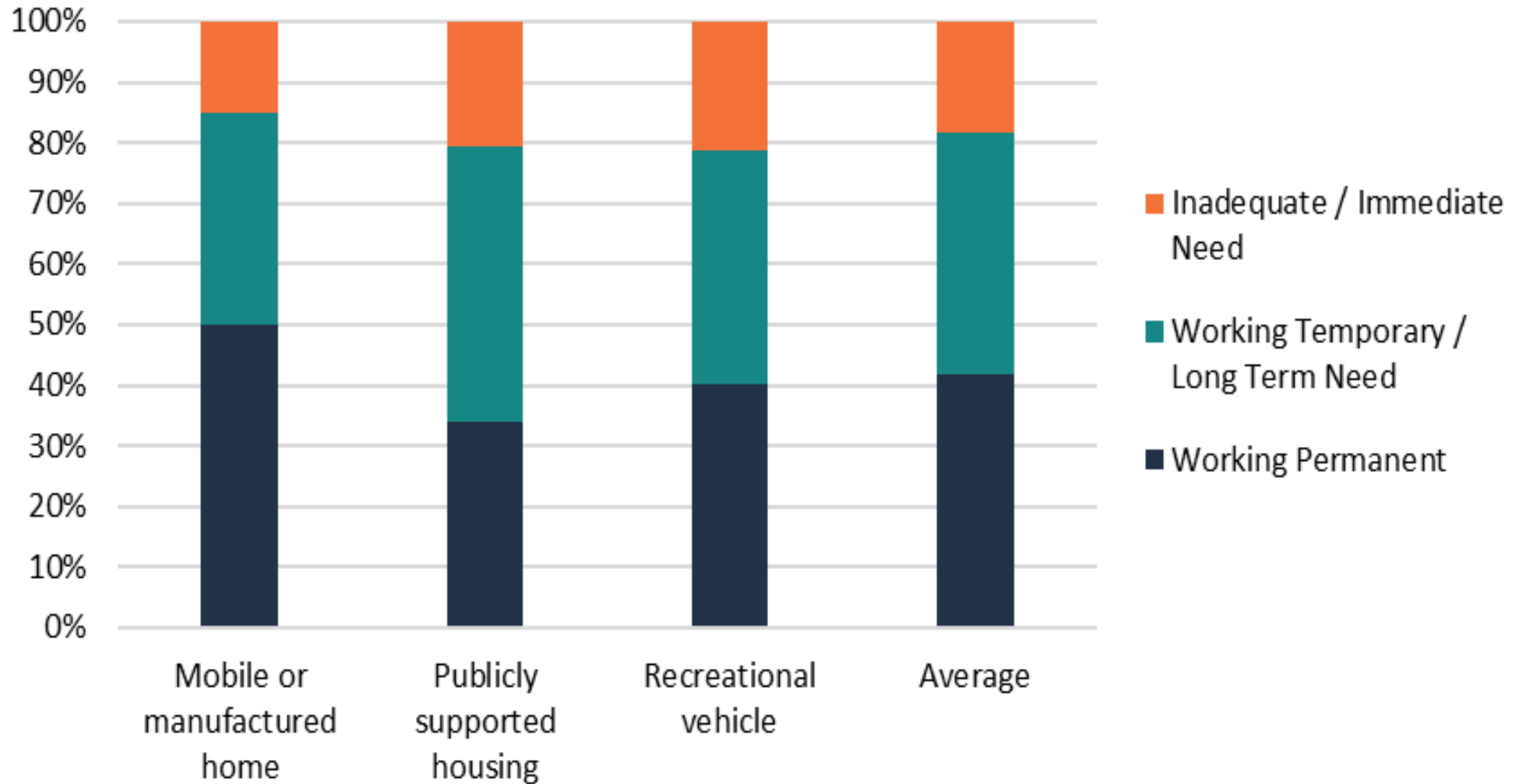
Study Findings – Regional Needs

Cooling Needs by Region



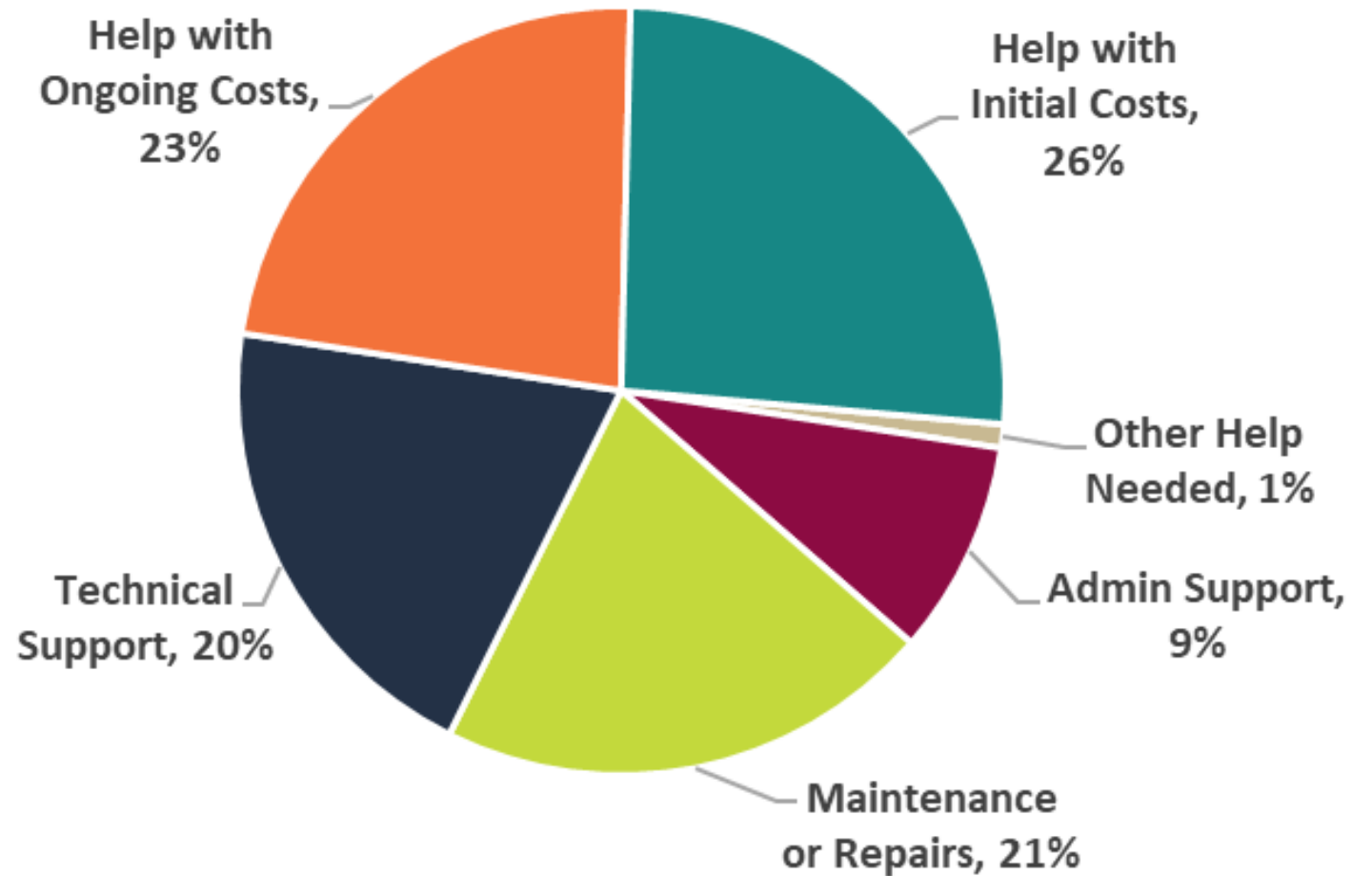
Study Findings – By Housing Type

Cooling Needs by Housing Type



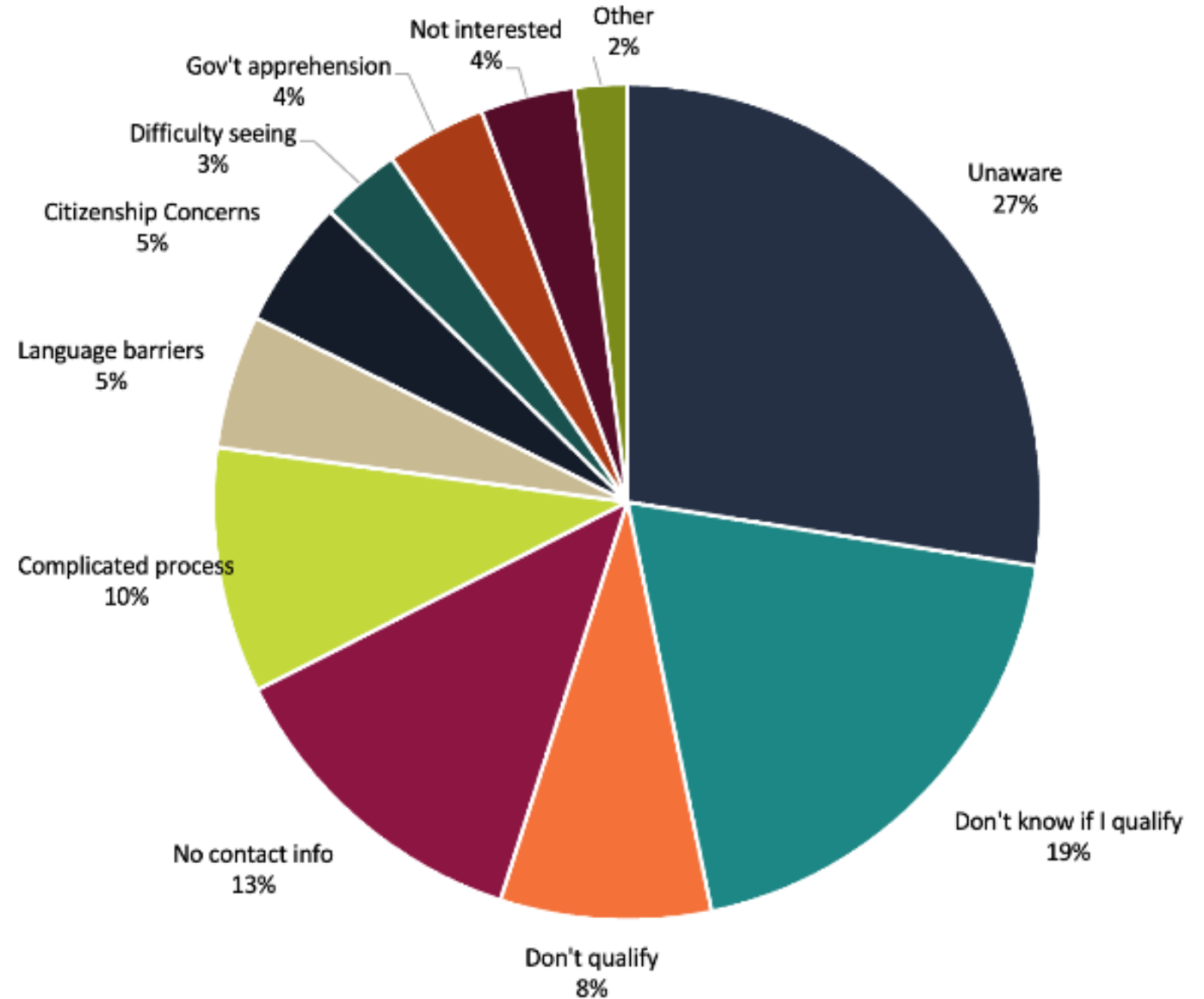
Study Findings – Social Barriers

Types of support needed to upgrade cooling



Study Findings – Social Barriers

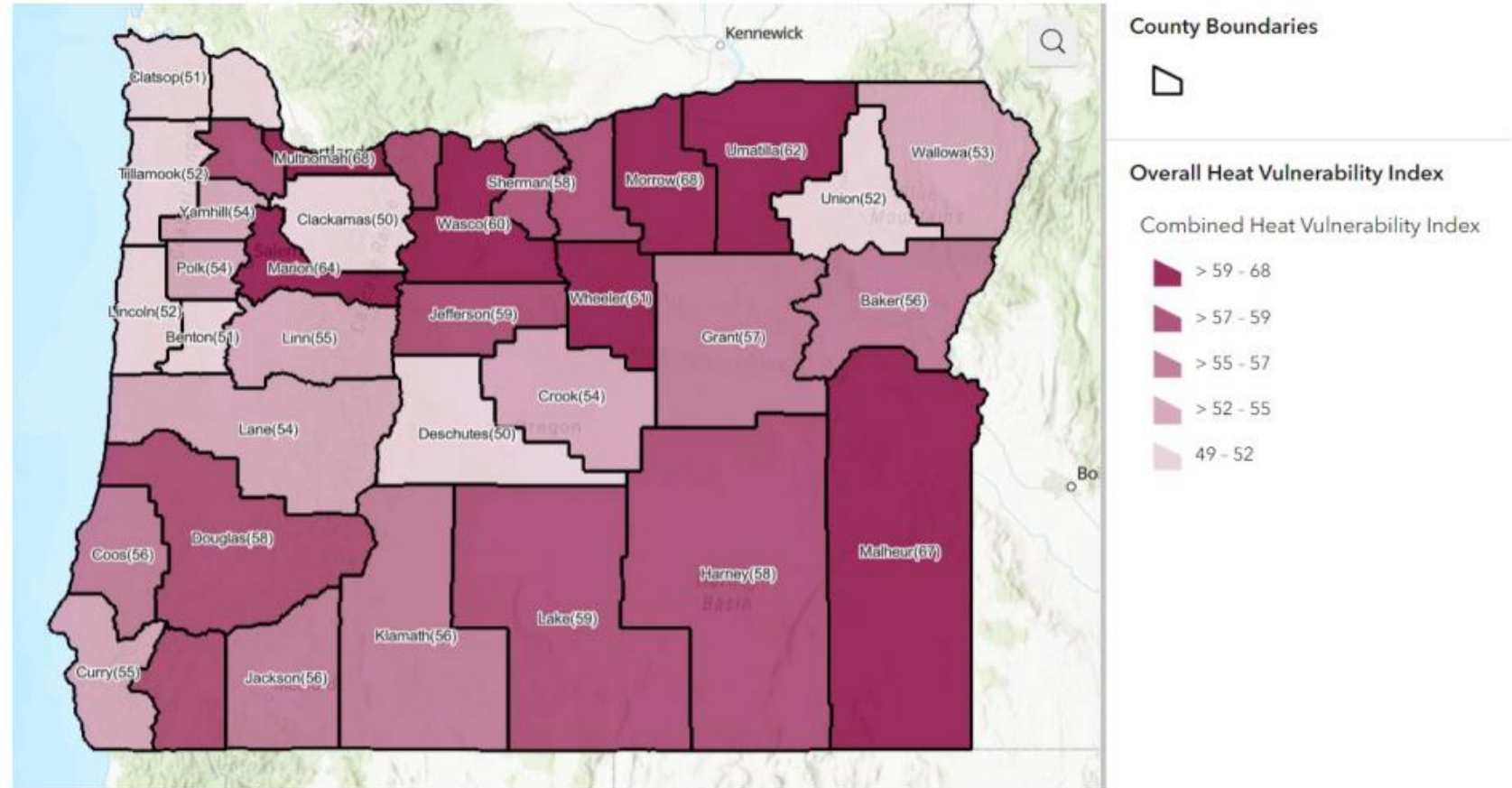
Reasons for not using assistance programs



More to Come...

Heat Vulnerability Index and GIS Mapping Tool

- Visualize the data geographically across Oregon
- Filter the data sets to see how they interact on the map





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Report:

www.oregon.gov/energy/Data-and-Reports/Pages/Cooling-Needs-Study.aspx

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