Environmental justice metrics
DEQ Clean Water State Revolving Fund

Rules Advisory Committee Meeting #2
Aug. 19, 2022

What is the goal?

Identify and prioritize assistance to communities that are most in need for financial assistance to address water pollution

- Economically distressed
- Health burdened
- Pollution burdened

Environmental justice criteria under consideration

Economically distressed

→ Financial burden paying for water infrastructure

Health burdened

→ Environmental pollution had greater impact on health

Pollution burdened

→ Negative effect on quality of life

Environmental justice criteria under consideration

Economically distressed
– Low income
– High unemployment

Health burdened
– Low life expectancy
– Elevated health risks

Pollution burdened
– Located near waterbody contaminated by pollutants
– Located near a facility that has a compliance violation

1. How is that measured?

2. What are the effects?

Outline

1. Metrics under consideration

2. Analysis of effects

3. Comparison with current affordability criteria

4. Next steps

5. Questions and comments

Outline

1. **Metrics under consideration**

2. Analysis of effects

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Environmental justice metrics and indices evaluated

1. **Business Oregon Distressed Areas Indices** (Business Oregon)
2. **EJScreen: Environmental Justice Screening and Mapping Tool** (Environmental Protection Agency)
3. **Social Vulnerability Index** (Center for Disease Control and Prevention/Agency for Toxic Substances and Disease Registry)
4. **County Health Rankings & Roadmaps** (University of Wisconsin Population Health Institute)
5. **Climate and Economic Justice Screening Tool** (White House Council on Environmental Quality)
6. **CalEnviroScreen** (California Office of Environmental Health Hazard Assessment)
7. **BIL Implementation Memo** (Environmental Protection Agency)

Economically distressed

Low income: At least 30.9% of the population lives under 200% of the poverty level (CDC/ATSDR Social Vulnerability Index, EPA), **OR**

High unemployment: At least 3.4% of the population 16 years and older in the civilian workforce are unemployed and at least 80% of the population 18 years or older is not enrolled in higher education (EPA, Climate and Economic Justice Screening Tool)

Health burdened

Low life expectancy: Below the 30ᵗʰ percentile for life expectancy, **OR**

Elevated health risks: Above the 70ᵗʰ percentile for rates of asthma, heart disease or diabetes (Climate and Economic Justice Screening Tool)

"Percentile" = A number where a certain percentage of scores fall below it
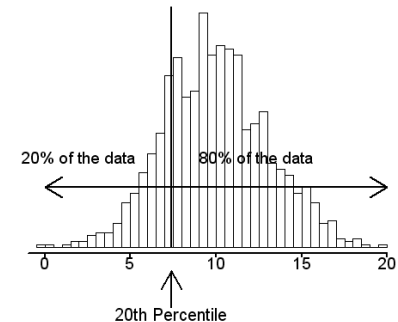
Pollution burdened

Located near contaminated waterbody: Located within 1 km of major waterbody or 2 km of minor waterbody that is impaired (CalEnviroScreen), **OR**

Located near facility with a health violation: Located within 1 km of a facility with a health violation

Environmental justice metrics

Category	Criteria	Metric
Economically distressed	Low income	At least 30.9% of the population lives under 200% of the poverty level.
	High unemployment	At least 3.4% of the population 16 years and older in the civilian workforce are unemployed and at least 80% of the population 18 years or older is not enrolled in higher education.
Health burdened	Low life expectancy	At or below the 30th percentile for life expectancy.
	Elevated health risks	At or above the 70th percentile for asthma, diabetes or heart disease.
Pollution burdened	Located near contaminated waterbody	Located within 1 km of a major waterbody or 2 km of minor waterbody that is impaired.
	Located near a facility that has a compliance violation	Located within 1 km of a wastewater treatment facility with a health violation.

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Environmental justice metrics

Category	Criteria	Metric
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Pollution burdened	Located near contaminated waterbody	Located within 1 km of a major waterbody or 2 km of minor waterbody that is impaired.
	Located near a facility that has a compliance violation	Located within 1 km of a wastewater treatment facility with a health violation.

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Outline

Data

Data sources

- 2020 American Community Survey, 5-year data (2016-2020)

- Climate and Economic Justice Screening Tool (White House Council on Environmental Quality)

Geographical units

- Cities

- Census tracts: small, relatively permanent statistical subdivisions of a county averaging ~4000 inhabitants

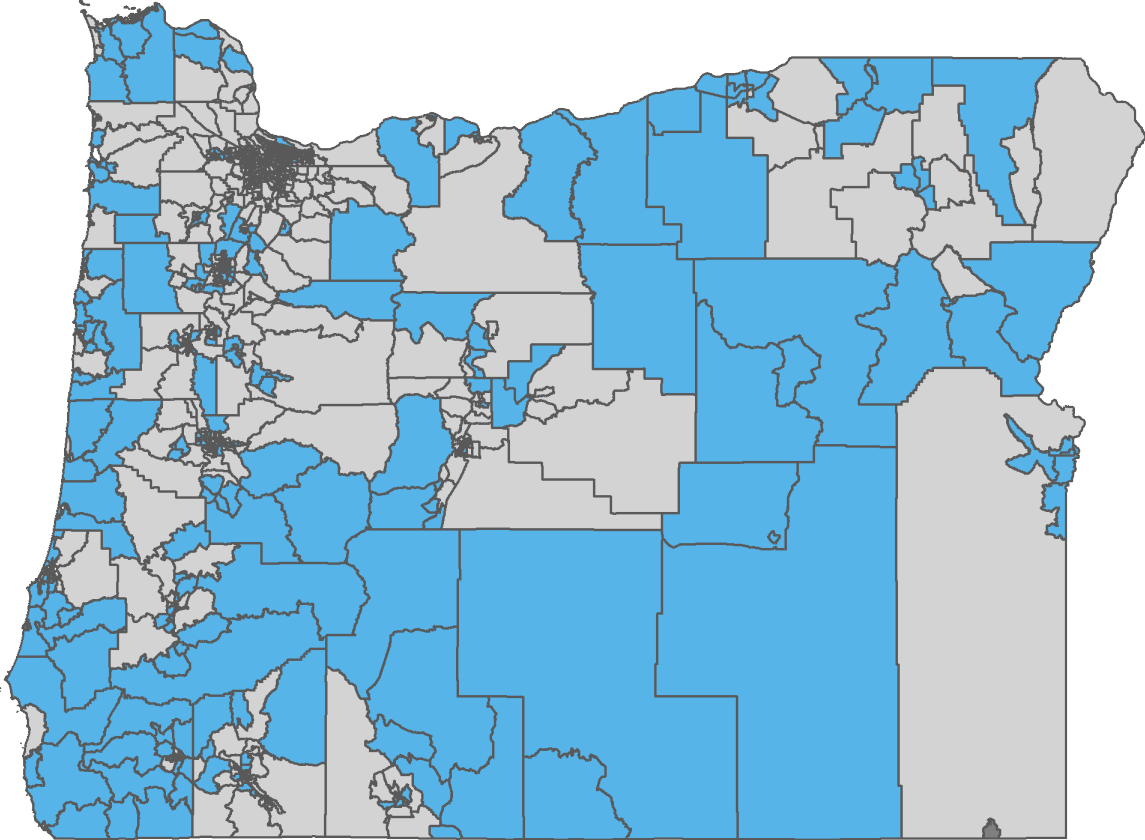# Economically distressed - Low income

At least 30.9% of the population lives under 200% of the poverty level

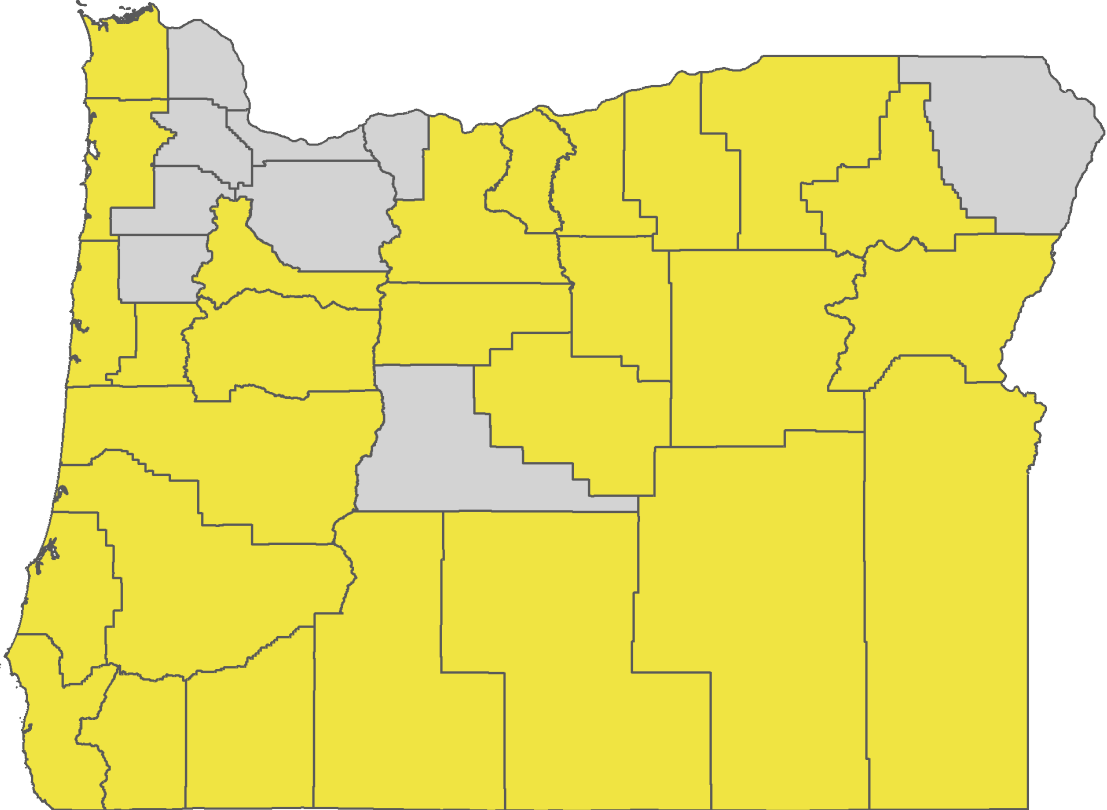# Low Income Census Tracts

Low income census tract

- No
- Yes
- NA
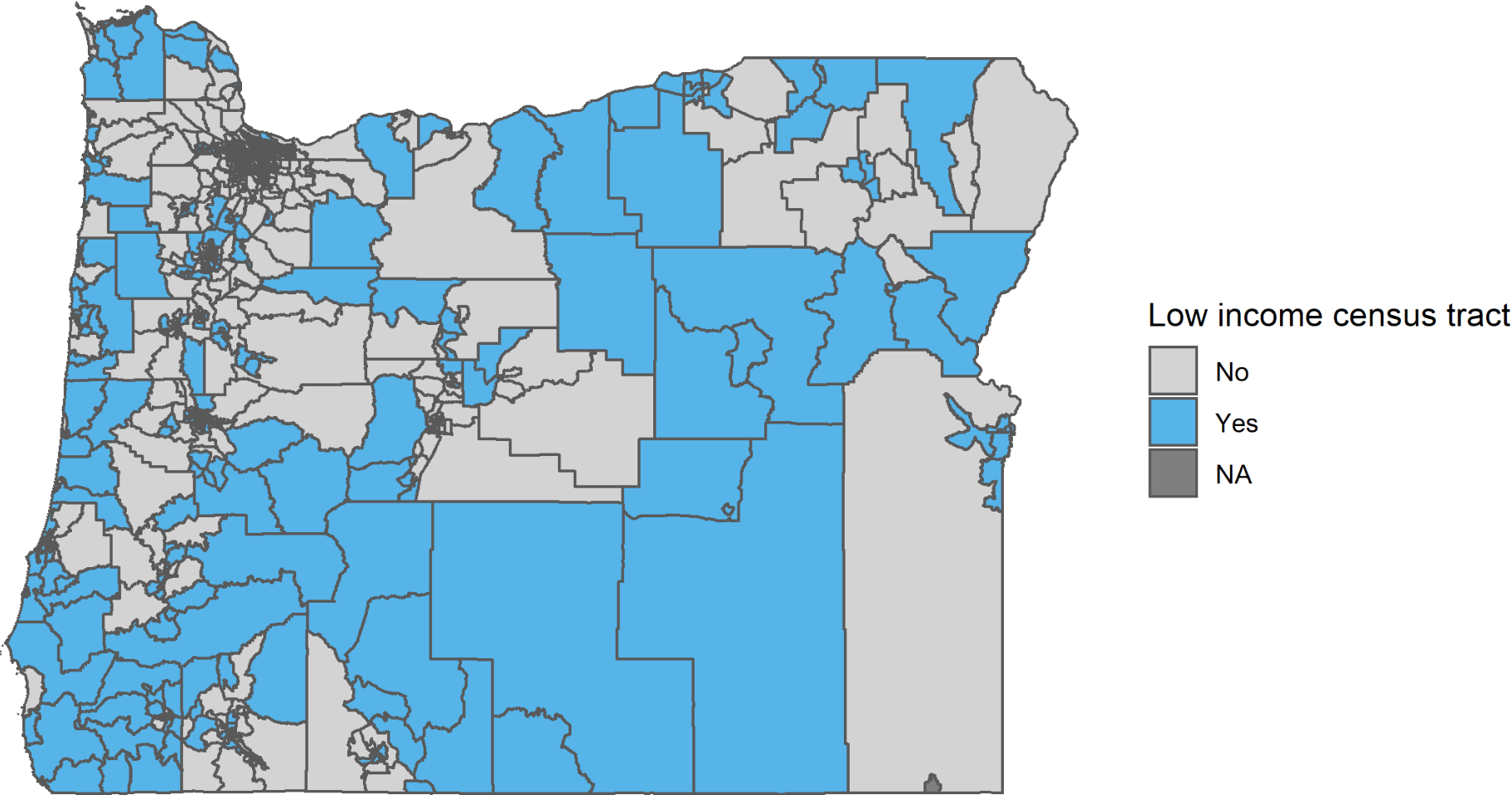
Source: NGHIS, 2020 American Community Survey: 5-Year Data

Low Income Census Tracts

Low income census tract: No (grey), Yes (blue), NA (dark grey)

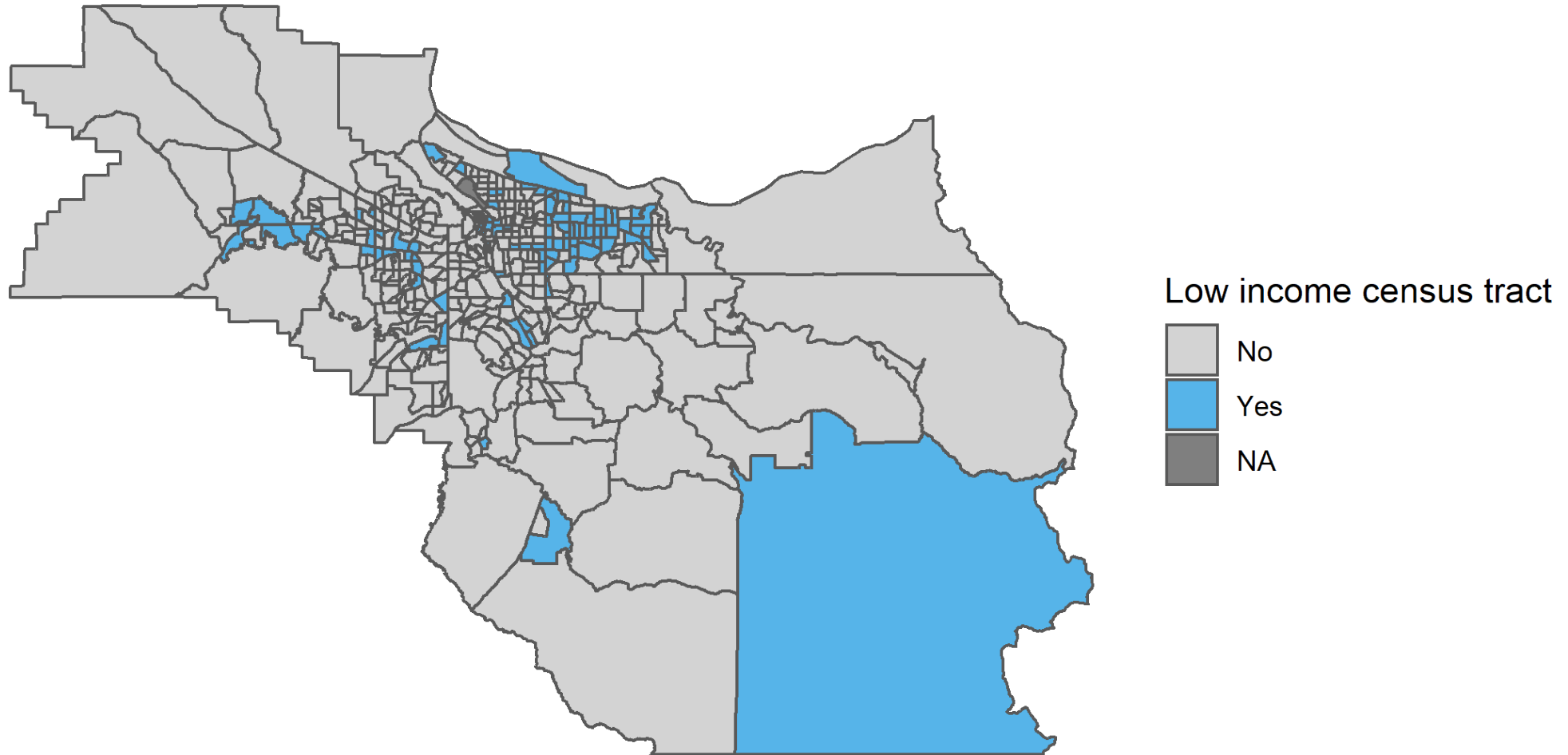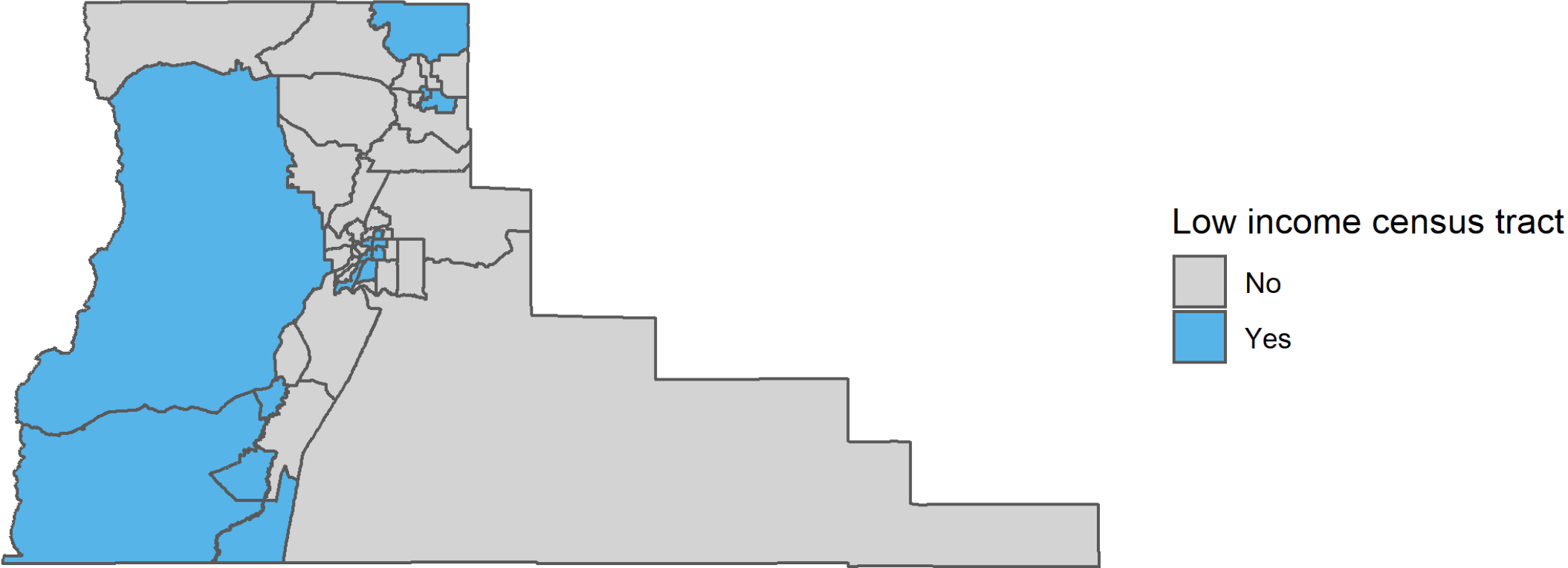Source: NGHIS, 2020 American Community Survey: 5-Year Data

Low Income Counties

Low income counties: No (grey), Yes (yellow)

Source: NHGIS, 2020 American Community Survey: 5-Year Data

Portland Metro Tri-County Low Income Census Tracts

Low income census tract

No

Yes

NA

Source: NHGIS, 2020 American Community Survey: 5-Year Data

Deschutes County Low Income Census Tracts

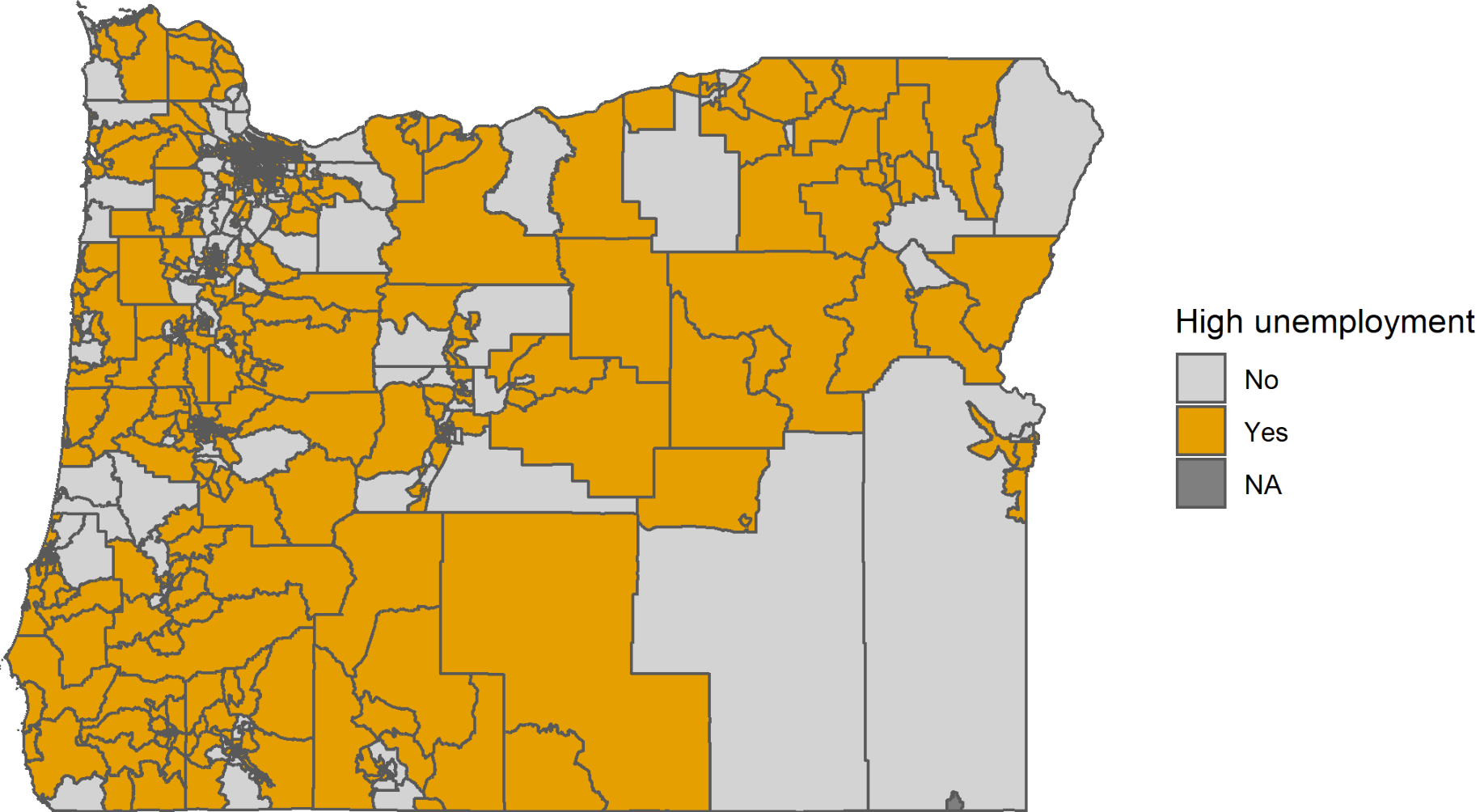Low income census tract
No
Yes

Source: NHGIS, 2020 American Community Survey: 5-Year Data

Economically distressed - Low income

	Eligible	Not eligible
Cities	139 (58%)	101 (42%)
Census tracts	440 (44%)	552 (56%)

Economically distressed – High unemployment

At least 3.4% of the population 16 years and older in the civilian workforce are unemployed and at least 80% of the population 18 years or older is not enrolled in higher education

High Unemployment Census Tracts

High unemployment

- No
- Yes
- NA

Source: NGHIS, 2020 American Community Survey: 5-Year Data

Economically distressed – High unemployment

|	Eligible	Not eligible
Cities	166 (69%)	74 (31%)
Census tracts	679 (68%)	313 (32%)

Economically distressed - Totals

- Census tracts
  - 791 (79%)
  - 3,368,067 population (81%)

- Cities
  - 196 cities (84%)
  - 2,704,924 population (94%)

Health burdened - Metrics

- At or below the 30th percentile for **life expectancy**, OR

- Above the 70th percentile for **asthma**, **diabetes** or **heart disease**

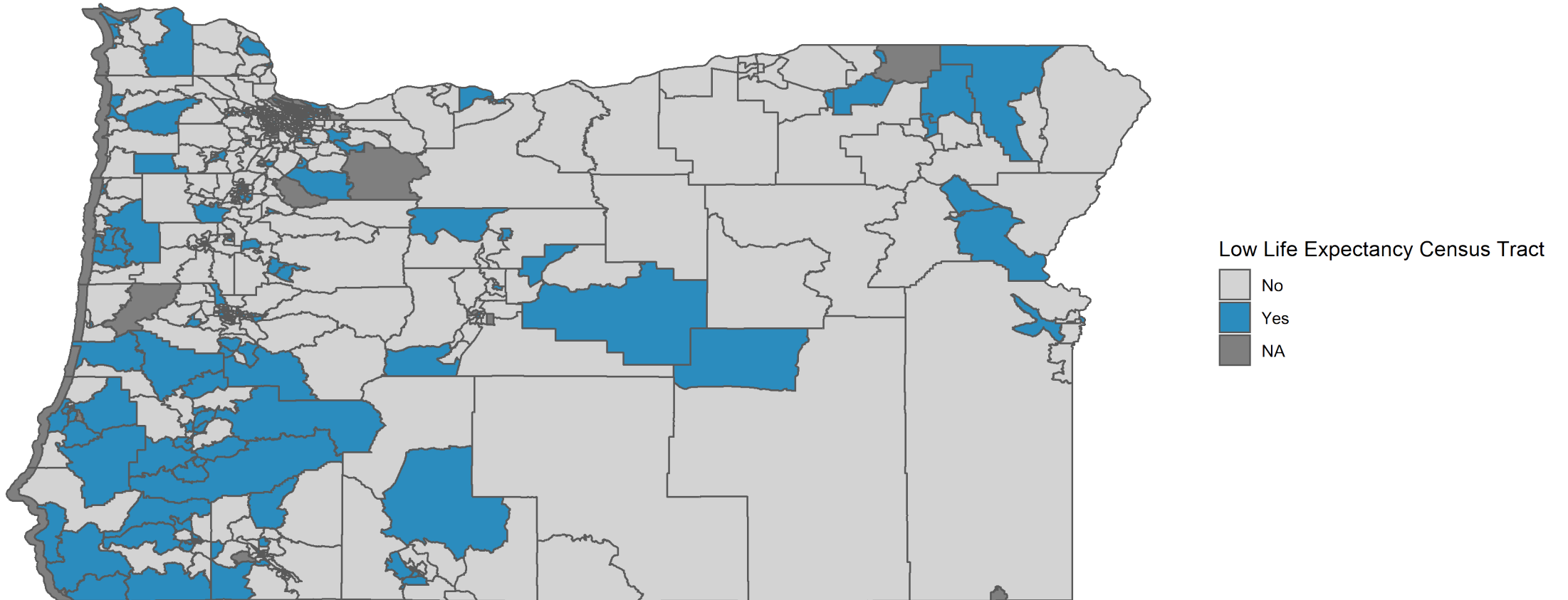# Distribution of Life Expectancy by Census Tract
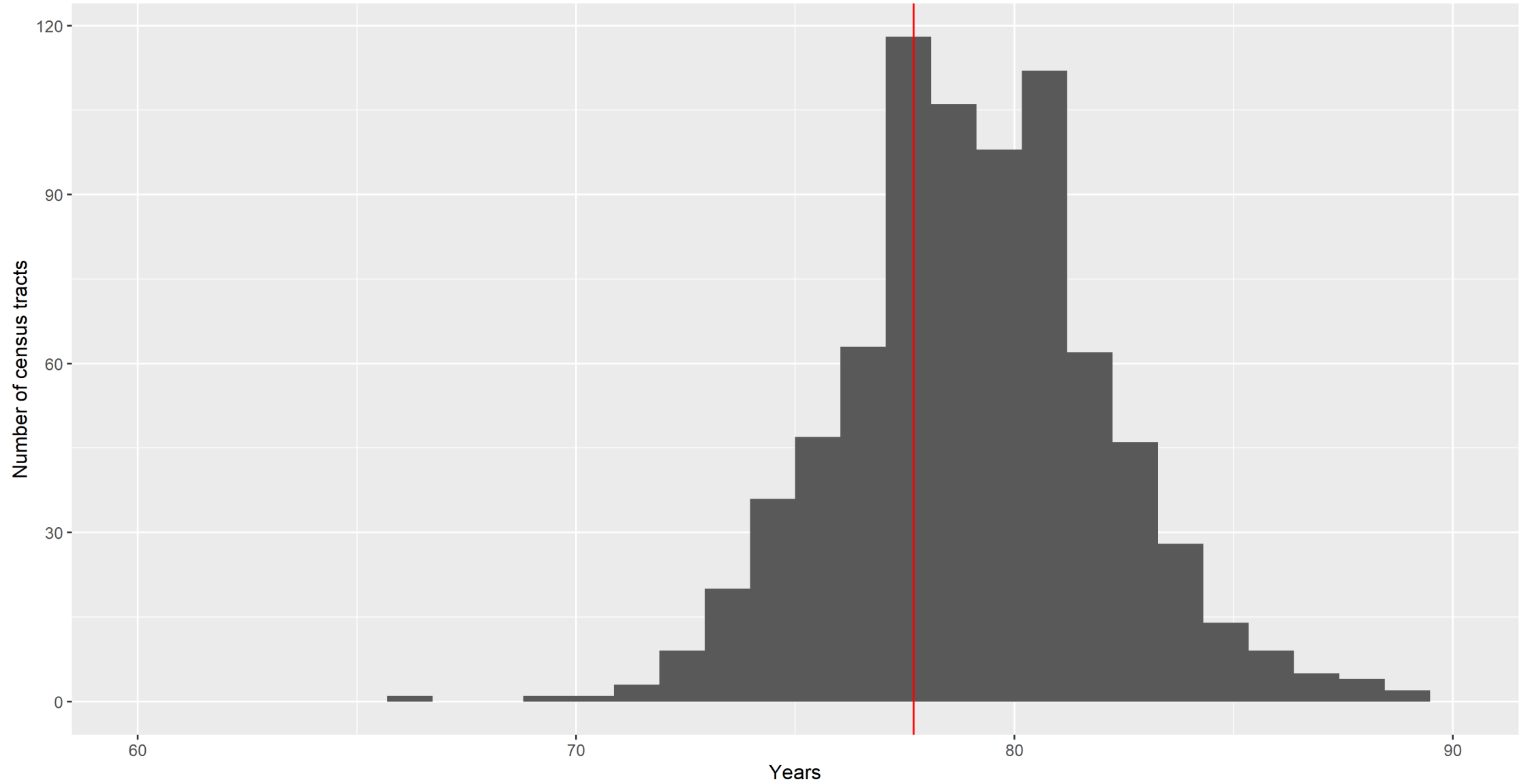
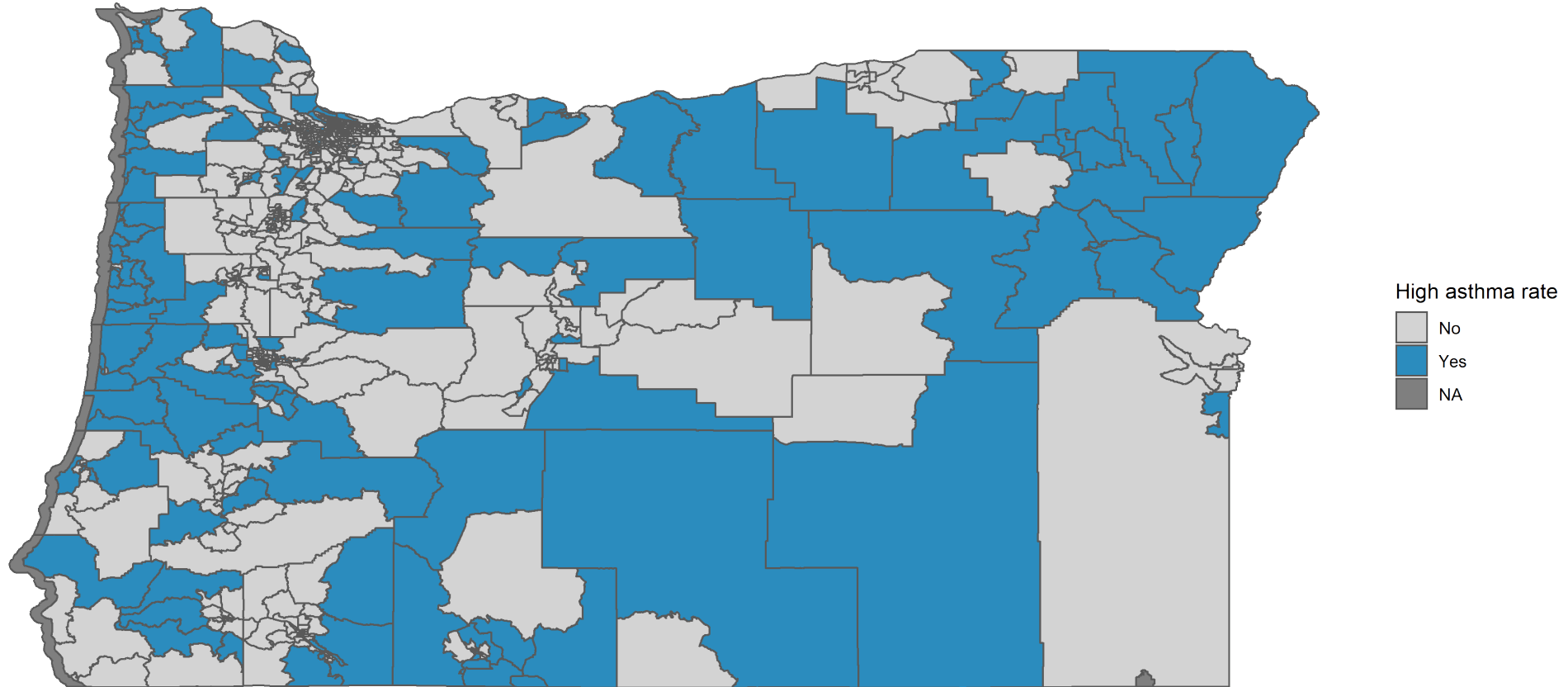Source: CEJST

Health burdened - Life expectancy

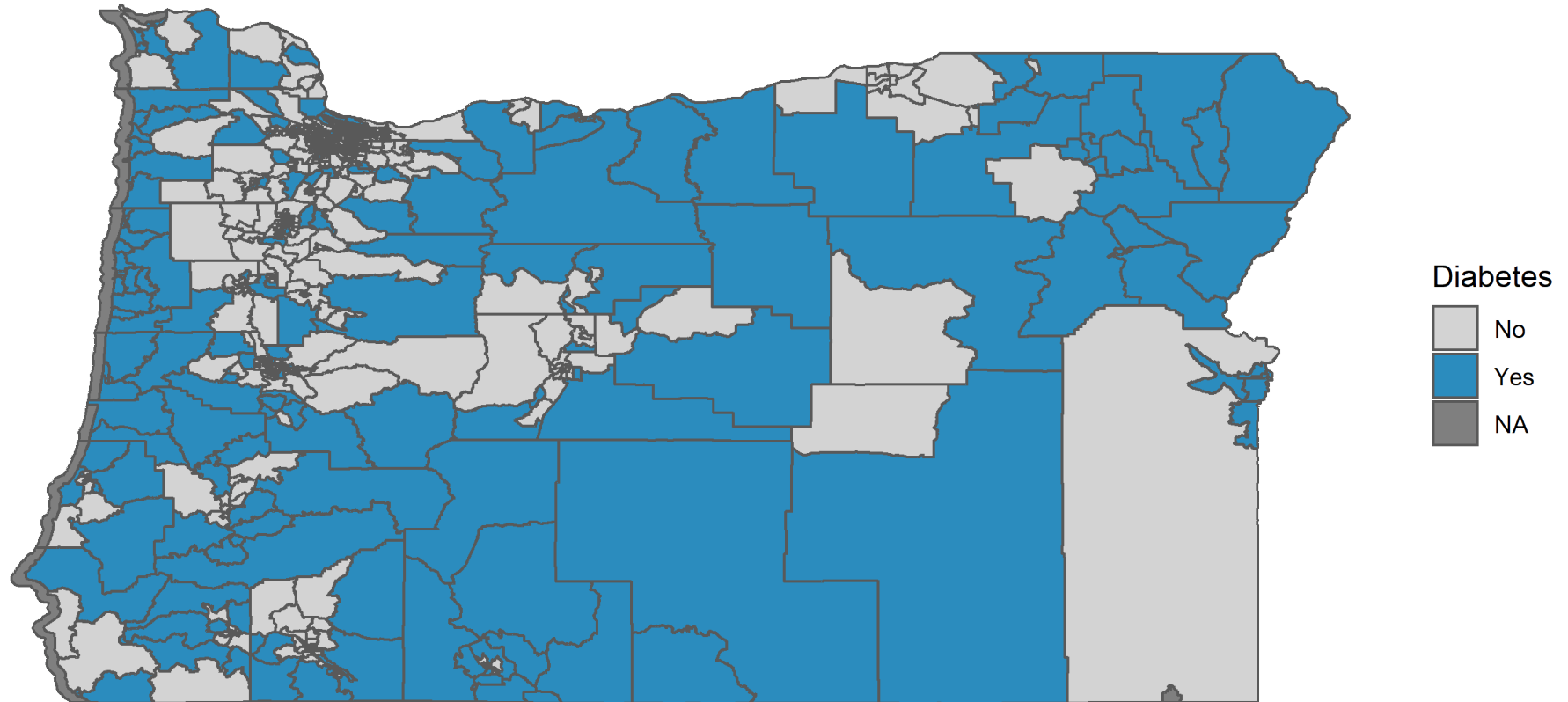Life expectancy at or below 30th Percentile

Low Life Expectancy Census Tract

- No
- Yes
- NA

Source: CEJST

Health burdened - Asthma

Asthma rate at or above 70th percentile

High asthma rate

No
Yes
NA

Source: CEJST

Health burdened - Diabetes

Diabetes rate at or above 70th percentile

Diabetes

- No
- Yes
- NA

Source: CEJST

Health burdened – Heart disease

Heart disease rate at or above 70th percentile

High heart_disease rate

- No
- Yes
- NA
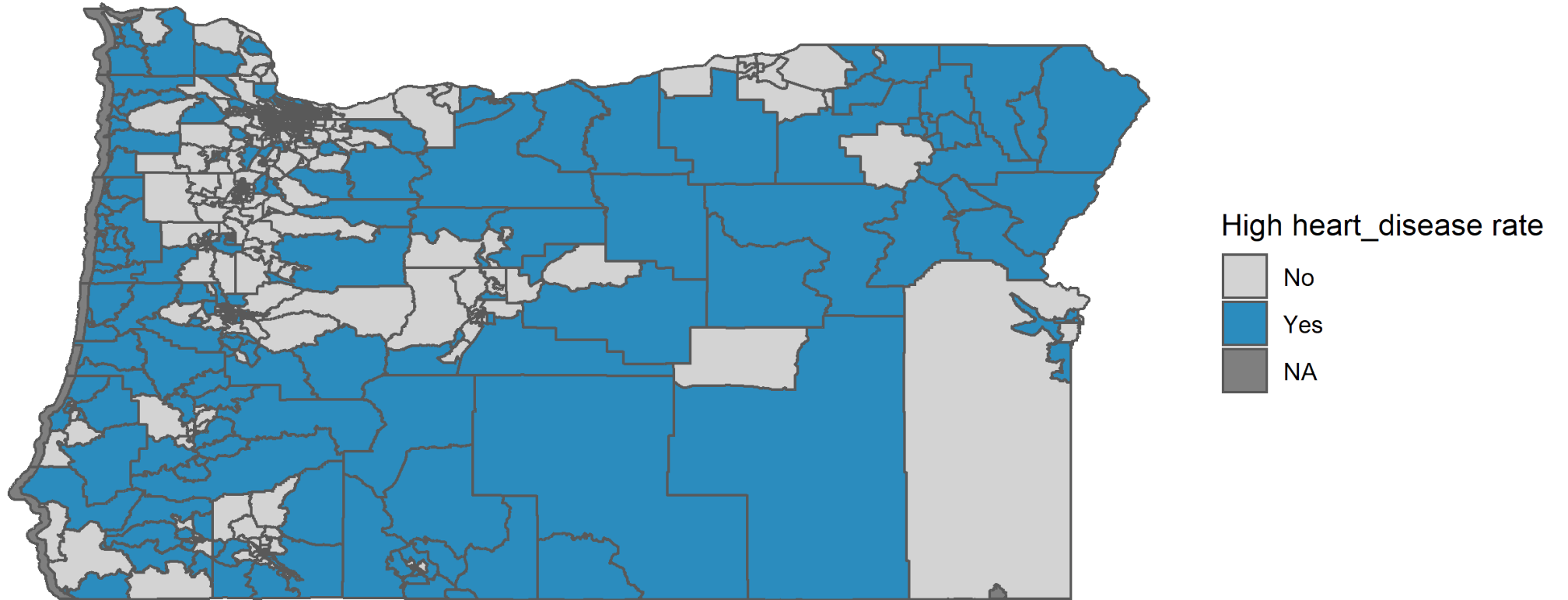
Source: CEJST

Health burdened – Totals

	Eligible	Not eligible
Census tracts	436 (69%)	370 (31%)
Population	1,742,068 (68%)	2,232,893 (32%)

Outline

1. Metrics under consideration

2. Analysis of effects

3. **Comparison with current affordability criteria**

4. Next steps

5. Questions and comments

Distressed Areas in Oregon

Business Oregon gives priority when funding technical assistance, programs, and projects to geographic areas determined to be economically distressed as prescribed by Oregon law.

Below is a list of identified distressed areas in Oregon. This is the update for 2022 and will be in effect through the end of 2022. The department publishes updated lists every year at the end of December under the normal methodology and every month under the temporary methodology.

Resources

- Methodology for determining distressed areas, OAR 123-024

Distressed Counties, 2022

County	Index Components				2022 Distressed Index	
	Relative U-Rate	Relative PCPI	Avg Wage Change	Employment Change	Distressed Index	Index <1.0
Oregon	1.00	1.00	1.13	0.97	1.10	Non-Distressed
Baker	1.06	0.82	1.10	1.01	0.96	Distressed
Benton	1.36	0.89	1.11	0.94	1.27	Non-Distressed
Clackamas	1.06	1.15	1.12	0.97	1.31	Non-Distressed
Clatsop	0.79	0.87	1.13	0.94	0.73	Distressed
Columbia	0.96	0.87	1.13	0.96	0.91	Distressed
Coos	0.88	0.90	1.10	0.98	0.85	Distressed
Crook	0.86	0.82	1.17	1.06	0.88	Distressed
Curry	0.87	0.85	1.11	0.97	0.80	Distressed
Deschutes	0.96	1.09	1.16	0.99	1.21	Non-Distressed
Douglas	0.99	0.82	1.11	1.00	0.90	Distressed
Gilliam	1.25	1.20	1.26	1.14	2.15	Non-Distressed
Grant	0.92	0.84	1.06	1.01	0.83	Distressed

Question

Who is eligible for loan principal forgiveness according to the Business Oregon vs. economically distressed metrics?

Cities: High unemployment OR low-income

Metric	Number of distressed cities	Population	Percentage of distressed cities	Percentage of population in distressed cities
Biz. Ore. distressed city	170	1,448,260	73%	50%
Low-income OR high unemployment	196	2,704,924	84%	94%

Outline

1. Metrics under consideration

2. Analysis of effects

3. Comparison with current affordability criteria

4. **Next steps**

5. Questions and comments

Next steps

1. Gather feedback

2. Test different thresholds

3. Conduct pollution burdened analysis

Outline

1. Metrics under consideration

2. Analysis of effects

3. Comparison with current affordability criteria

4. Next steps

5. **Questions and comments**

Questions or comments

- Clarifications

- Additional analyses of effects

- Advantages/disadvantages

- Anything else