

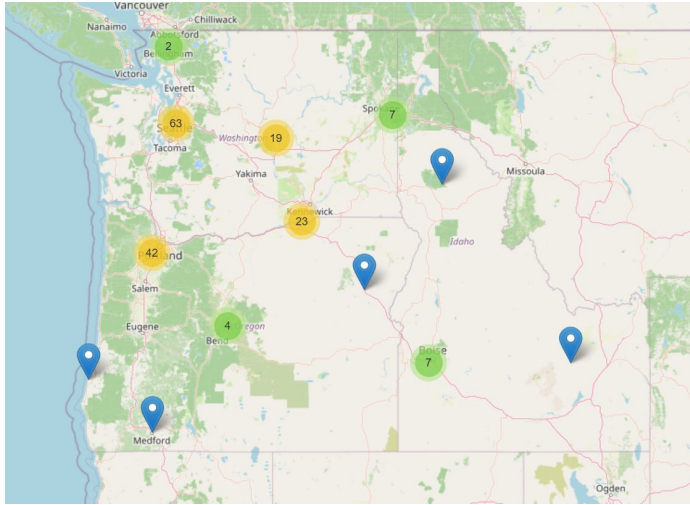
AI DATA CENTERS IN THE PACIFIC NORTHWEST

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Whitman College



Research Motivation



WHITMAN WIRE

sday, April 8, 2026

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NEWS

Amazon's Data Center Project Raises Concerns in Wallula

Dany Moreno, News Reporter • February 27, 2026

The Port of Wallula Commissioners unanimously agreed to sell land to Amazon Web Services, Inc. (AWS) on Feb. 12. AWS will obtain 553 acres from the Wallula Gap Business Park and is expected to construct 16 data center warehouses over the 3.4 million square foot area. The incorporation will have access to an added four-inch domestic water line, a convenient location near Highway 12 and the Union Pacific Railroad mainline.

Trending

- 1 Gen 2 Grow
- 2 "We I Barg Colle Unionizing
- 3 Ama Cono
- 4 Initic Girds
- 5 Stren Expl Health

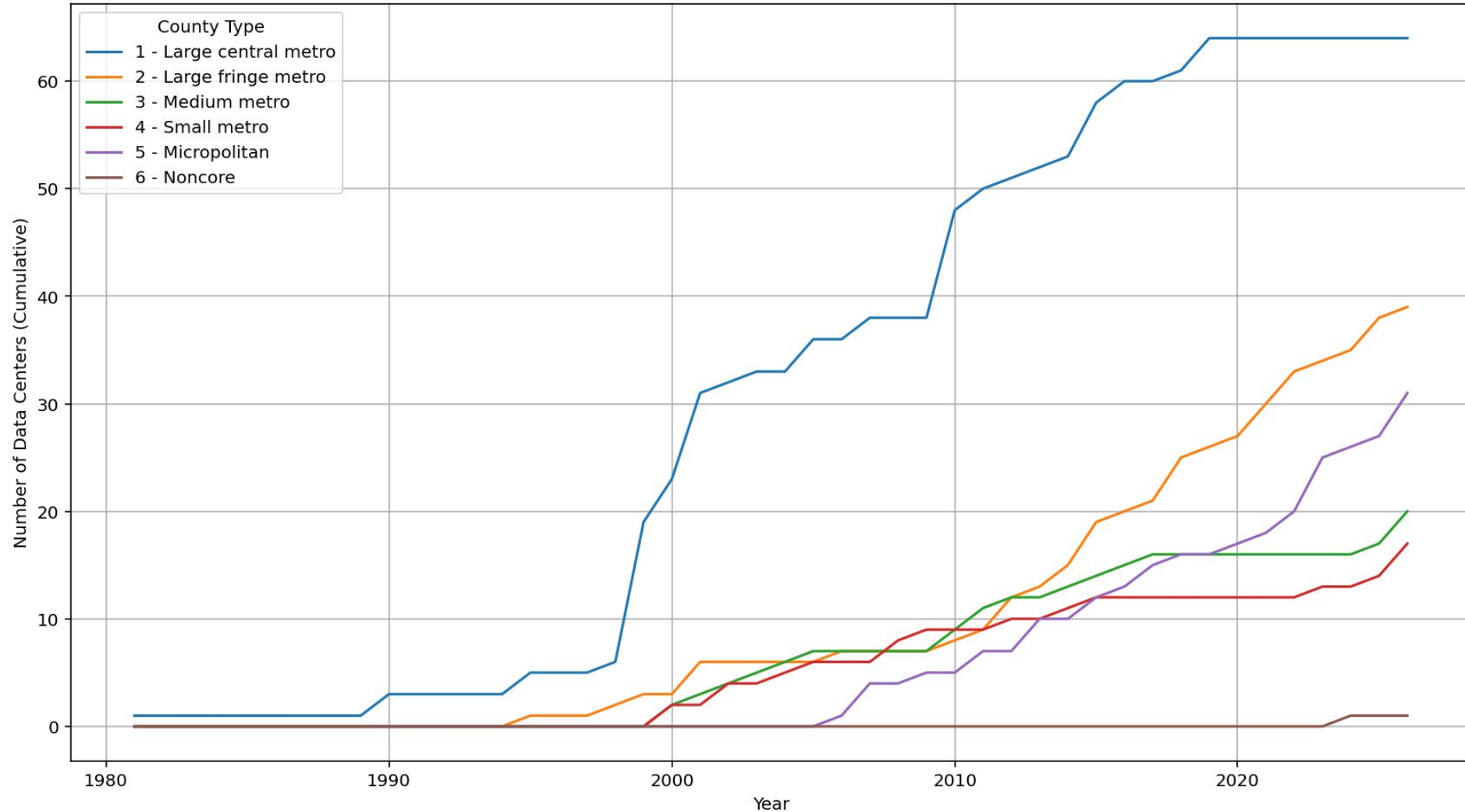
Union-Bulletin Port of Walla Walla approves \$36M sale of
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Port of Walla Walla approves \$36M sale of property for Amazon data center

Loryn Kykendall Walla Walla Union-Bulletin Feb 12, 2026 0



Growth of Data Centers by County Type (1980-2026)



Research Objective

Identify socioeconomic indicators of communities where data centers are located, focusing on Idaho, Oregon, and Washington.

Data Collection Process

Variable	Source	Year(s)
Data Centers Information	DataCenterMap	2026
County Type	NCHS Urban-Rural Classification Scheme	2023
Median Income, Unemployment Rate, and Poverty Rate	U.S. Census Bureau	2024
Average Electricity Consumption (\$/year)	Electricity Price Hub (MIT x Heatmap News x cleanecon)	2020-2025

Methodology

Data Collection

- Manual collection of data center information (company, location, address, year since operational) and electricity bill data (2020–2025)
- Population, median income, poverty rate, and unemployment rate at state, census, and zip code level



Geocoding

- FIPS codes based on the latitude and longitude coordinates of each data center

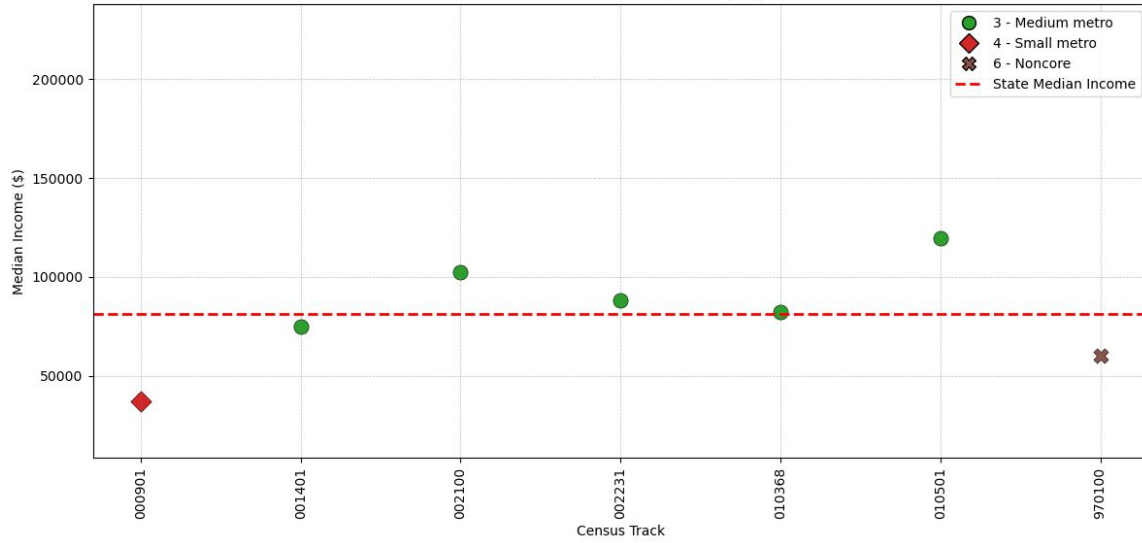


Common Data Merge

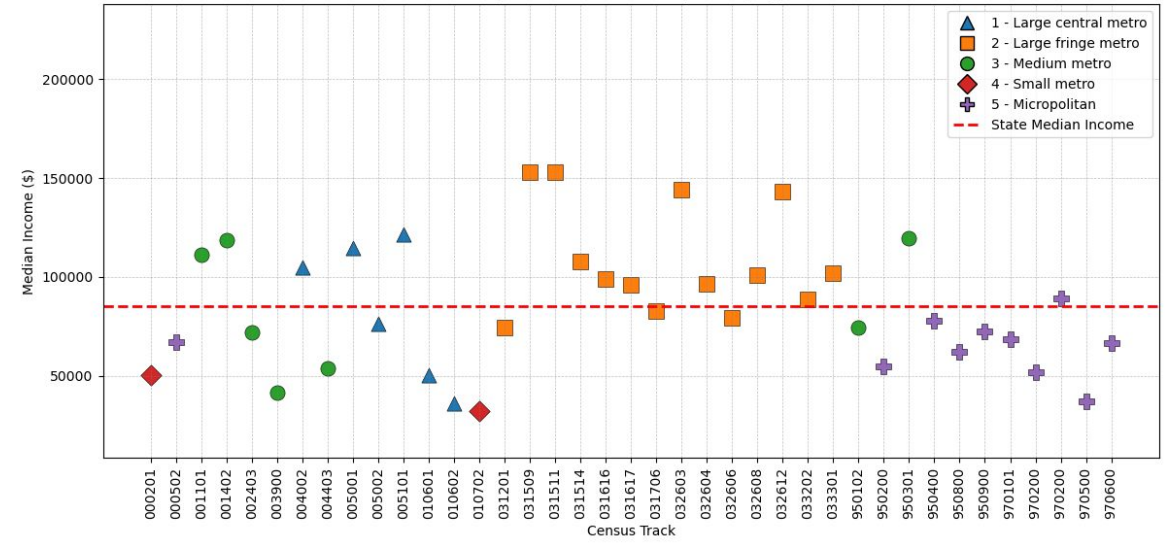
- Zip code for electricity bill regression analysis
- Census tract for median income, unemployment, and poverty

Median Income

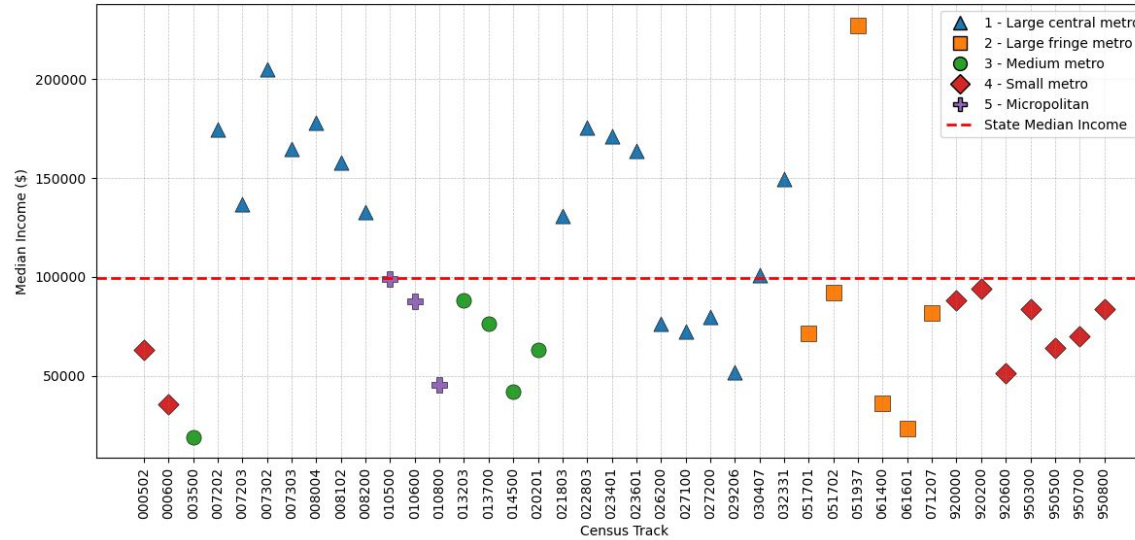
Idaho - Median Income by County Type



Oregon - Median Income by County Type

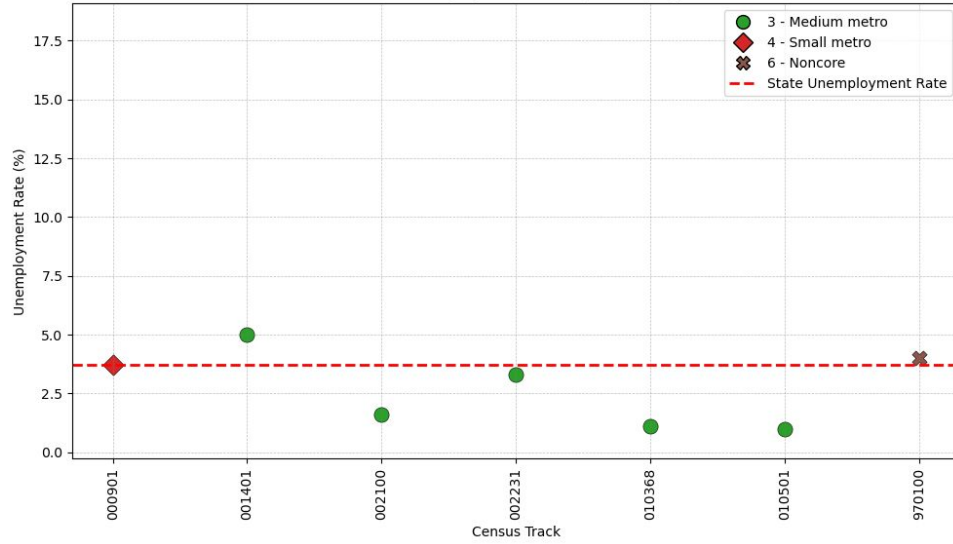


Washington - Median Income by County Type

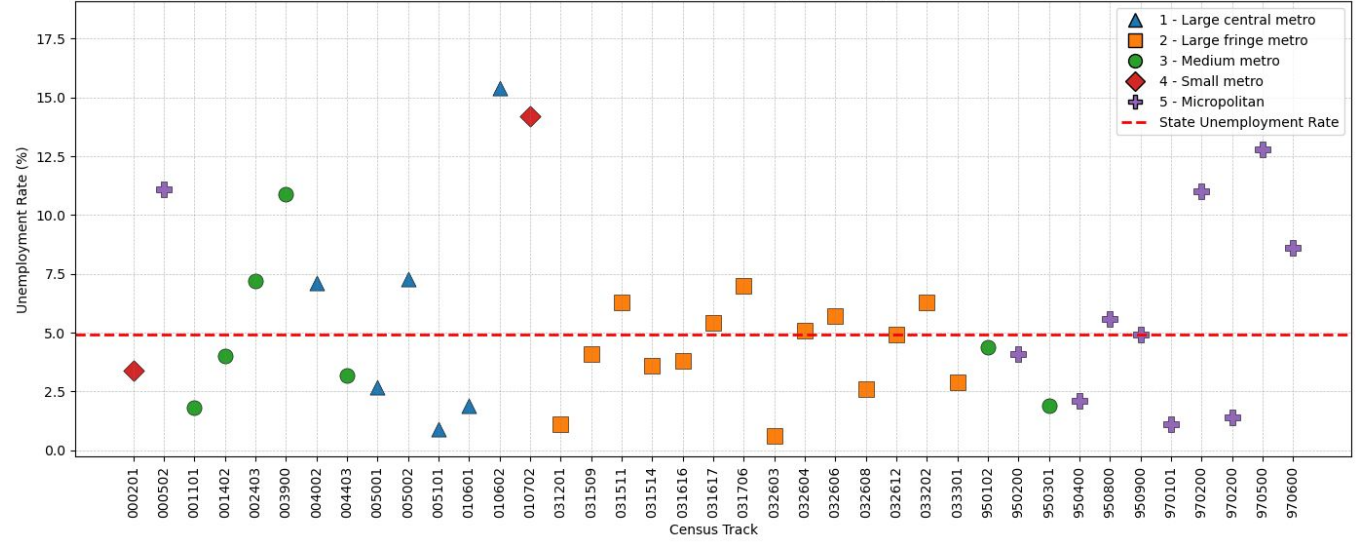


Unemployment Rate

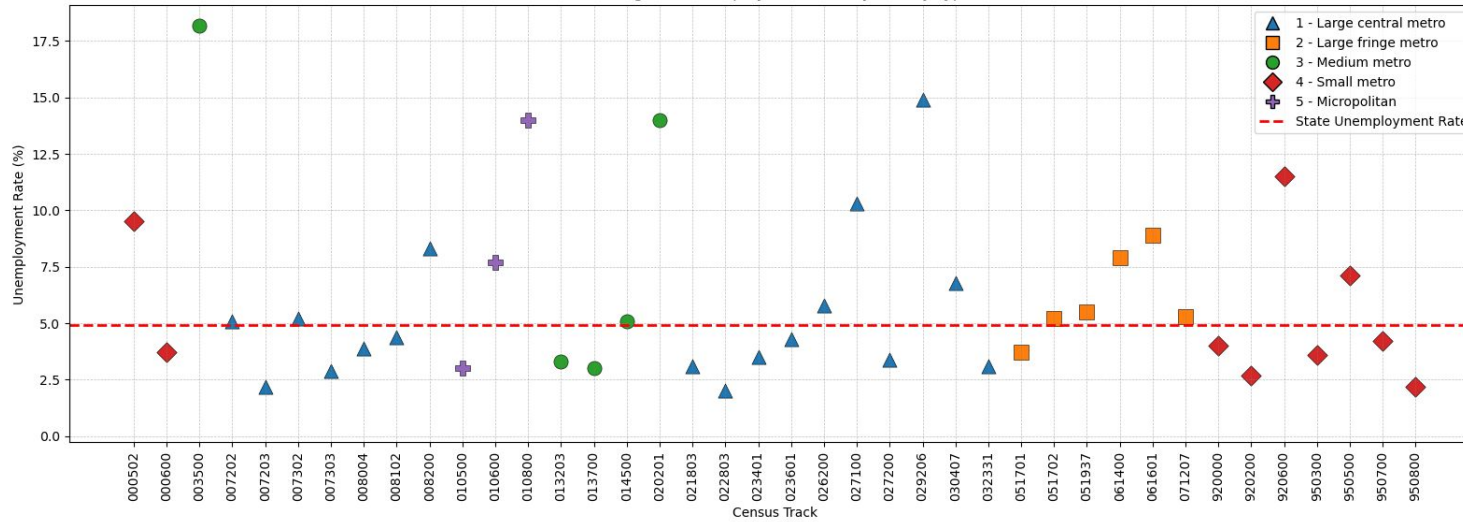
Idaho - Unemployment Rate by County Type



Oregon - Unemployment Rate by County Type

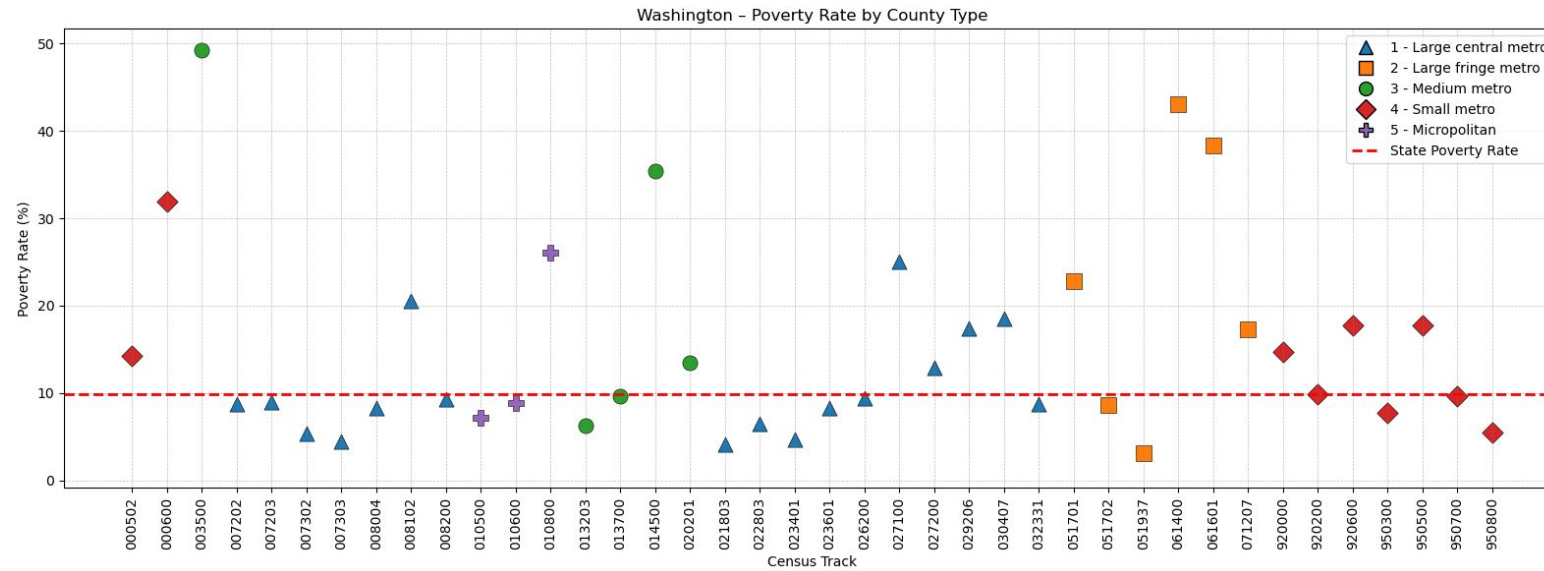
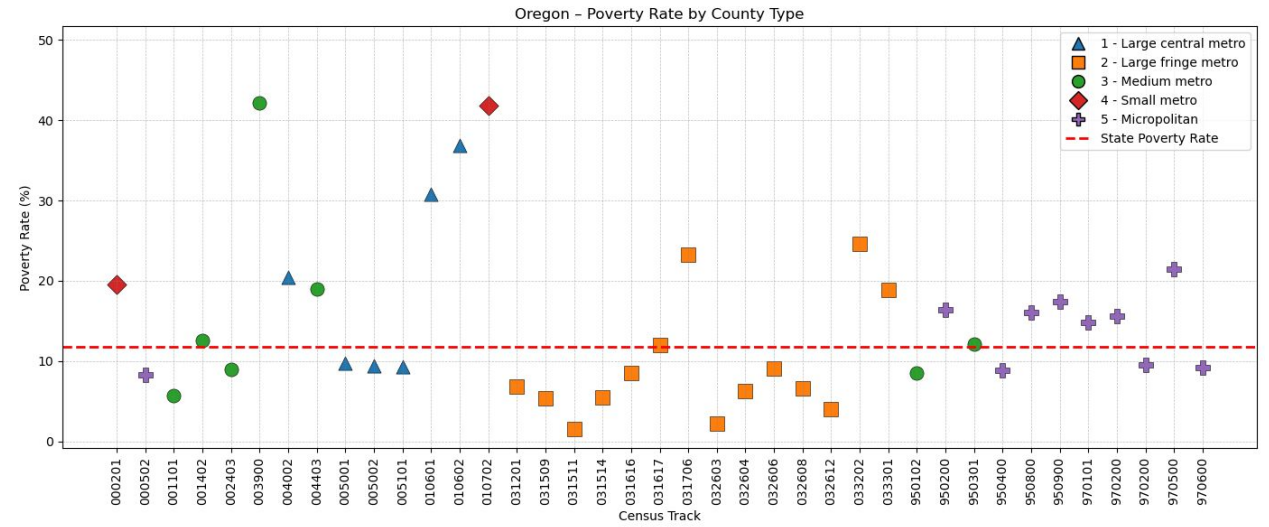
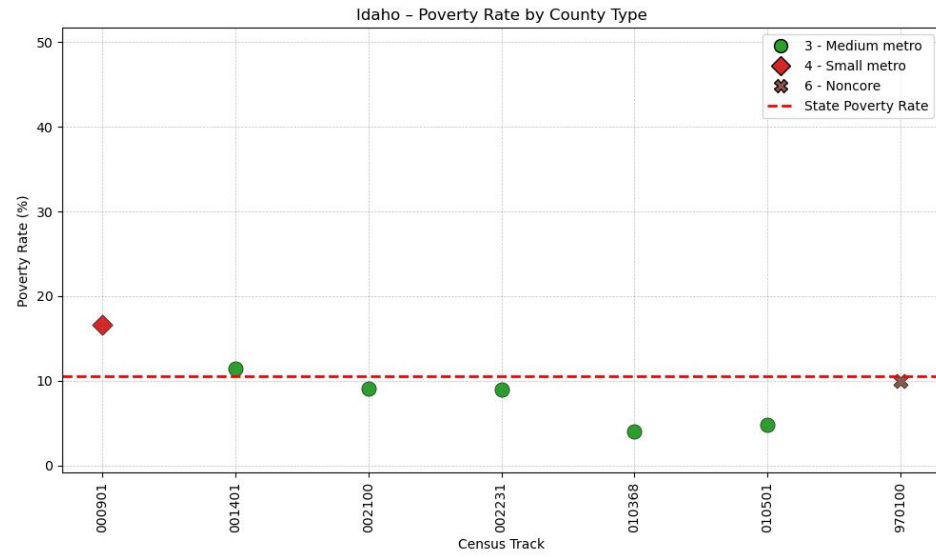


Washington - Unemployment Rate by County Type

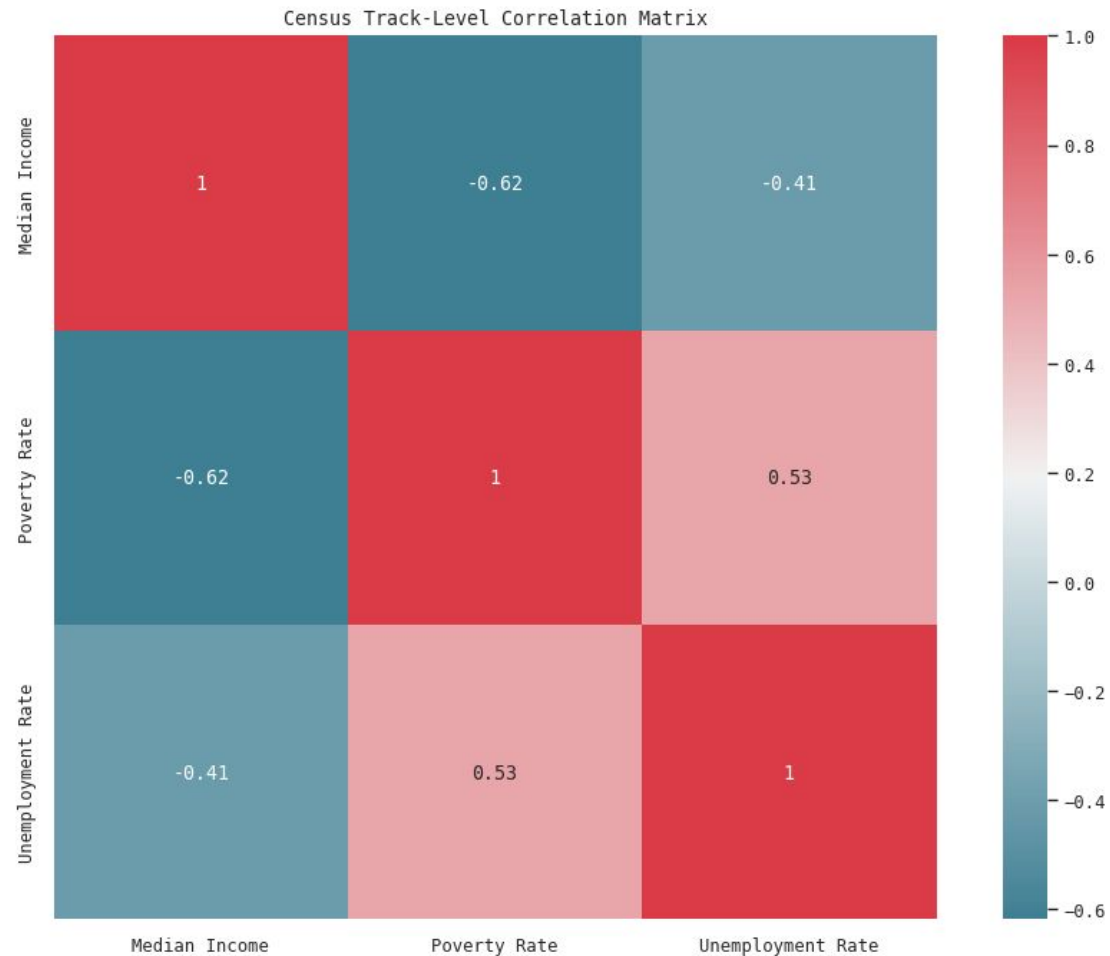


Poverty Rate

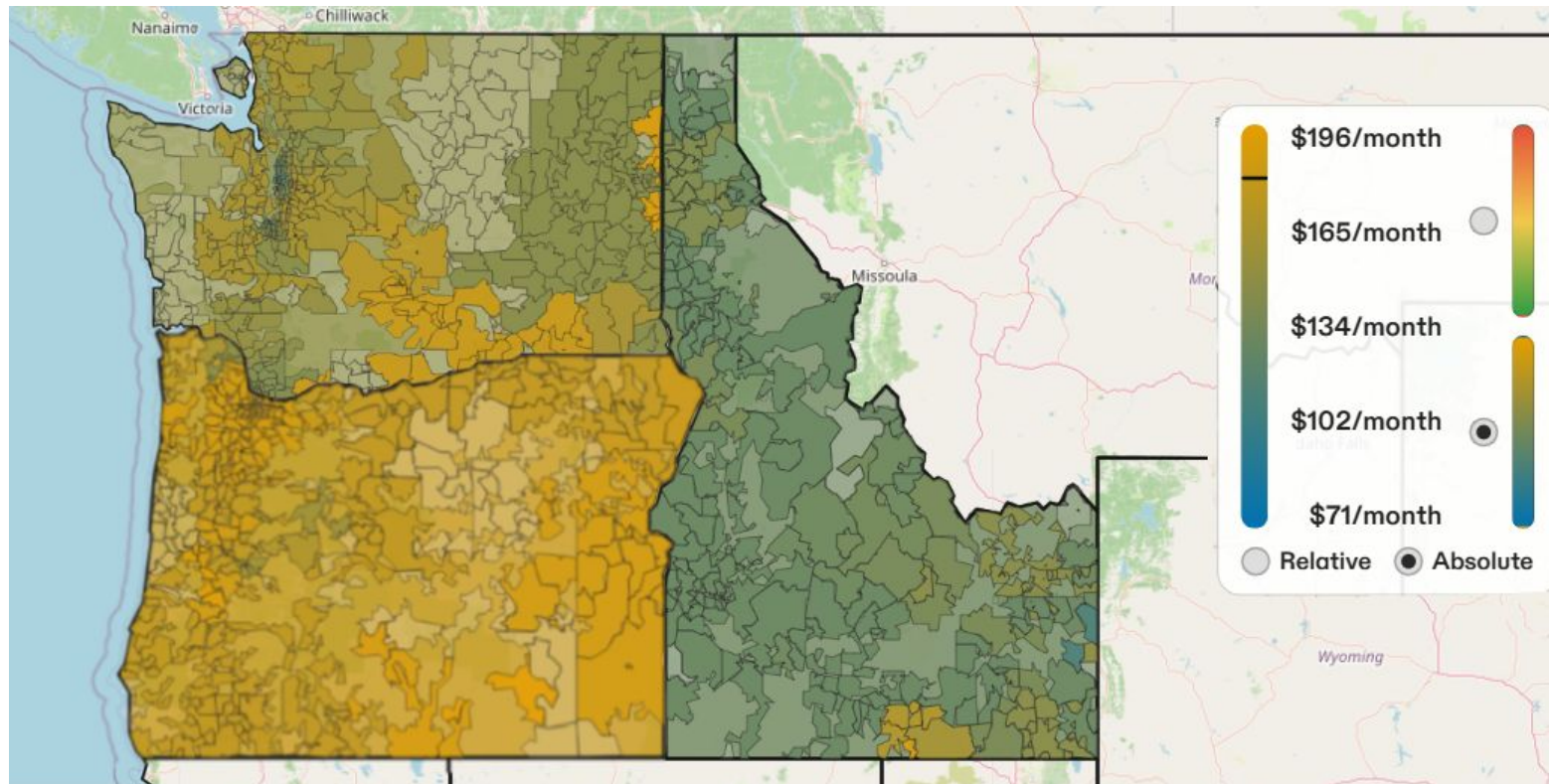
*2024 Poverty Threshold: \$31,812



Correlation between indicators



Electricity Rate



Note. Average electricity bill per month from December 2024 for Idaho, Oregon, and Washington. From *Electricity Price Hub* (2024), Heatmap × MIT Center for Energy and Environmental Policy Research in collaboration with cleanecon. <https://tinyurl.com/3vwxh4uf>

Electricity Rate

Independent Variable	Model 1: bill = datacenter+ state + population	Model 2: bill = datacenter + state + population + unemployment	Model 3: bill = datacenter + state + population + unemployment + poverty
Intercept	1321.48	1323.50	1330.47
Data Center	-24.50	-24.16	-21.98
State (Oregon)	347.78*	349.53*	351.86*
State (Washington)	27.18*	28.28*	29.28*
Population	0.08*	0.08*	0.09*
Unemployment		-0.61	0.04
Poverty			-0.88

* Statistically significant

DISCUSSIONS

- Further research is needed to identify specific patterns and trends in the location of data centers.
- Future research should expand the study of data centers at US level
- There may be spatial relationships between urban and rural county types and the locations of data centers
- Relationships between data center locations and socioeconomic indicators may vary by state