

Data Analytics

Interactive Insights into the Housing Market,
Proposed Legislation, and Supporting Policy
Development

- **Analyzing Proposed Legislation (SB10)**
- Predicting Household Travel Behavior
- Evaluating New Policy: Opportunity Zones and Transit Corridors

80th OREGON LEGISLATIVE ASSEMBLY--2019 Regular Session

Senate Bill 10

Sponsored by Senator COURTNEY

SUMMARY

The following summary is not prepared by the sponsors of the measure and is not a part of the body thereof subject to consideration by the Legislative Assembly. It is an editor's brief statement of the essential features of the measure **as introduced**.

Establishes permissible density requirements within urban growth boundaries of cities within metropolitan service district or with population more than 10,000 for areas adjacent to transportation corridors and zoned to allow residential development.

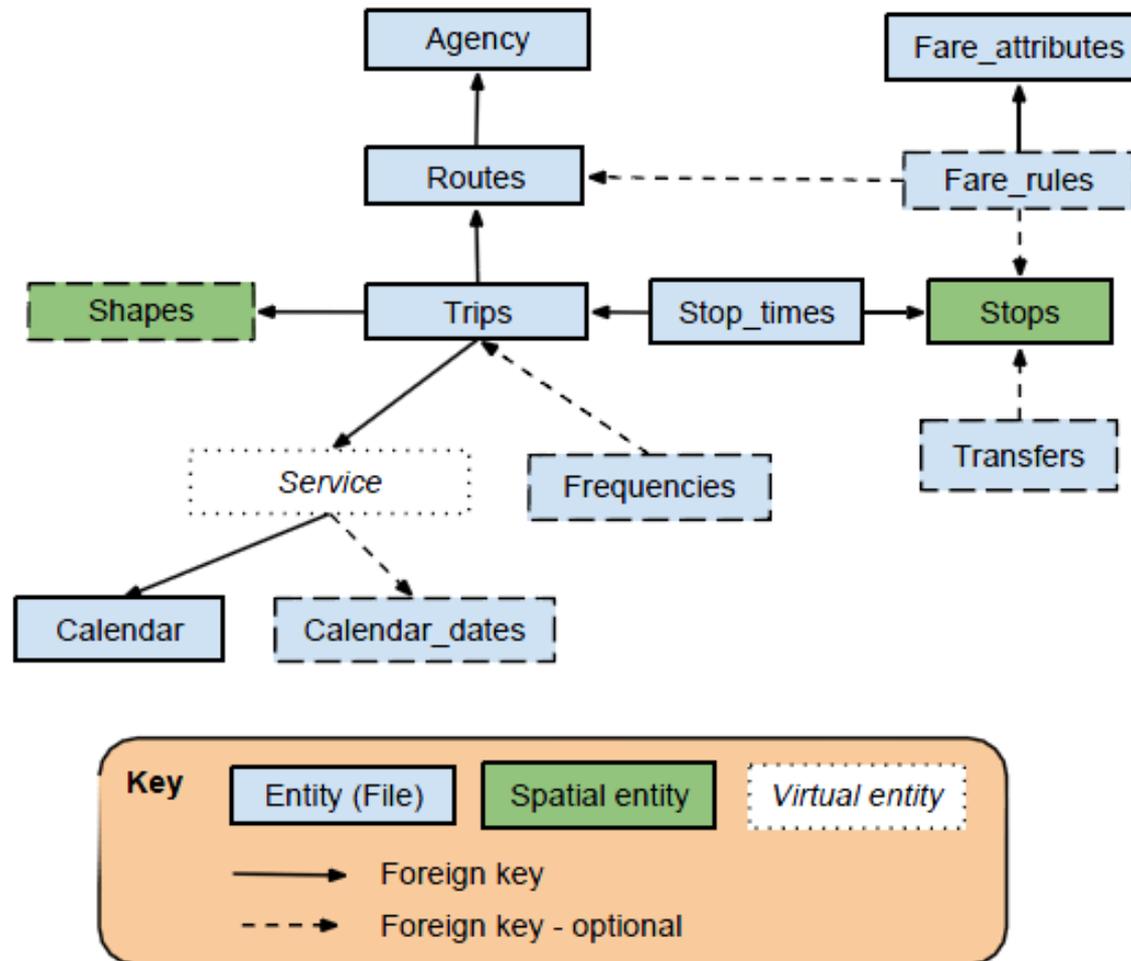
Policy Analysis

Applicable Locations	SB10 impact on cities in Portland Metro	SB10 impact on cities with >10,000 people within large regions (non-PDX MPOs)	SB10 impact on cities with >10,000 people outside of larger regions (outside MPOs)
Parcels zoned residential within 1/4-mile of light rail stations	6-7-story urban apartments (140 UPA or 25% > now)	No light rail in these cities	
Parcels zoned residential within ¼-mile of priority transportation corridors	5-story urban apartments (75 UPA)	Stacked brownstones; 4-story urban apartments (50 UPA)	Row homes; 3-story garden apartments (25 UPA)
Parcels zoned residential between ¼ & ½ mile of corridors	Stacked brownstones; 3-story urban apartments (45 UPA)	Row homes; 3-story garden apartments (25 UPA)	Dense single family; Townhomes (14 UPA)
Parcels zoned residential citywide	The greater of: (1) 25% higher than current zoning or (2) other applicable density defined by the bill		

Given our interpretation of the proposed bill's language, how can we analyze the policy and what data is needed?

- Zoning
- Stock of Existing Housing Units (Spatially)
- Transit
- GTFS

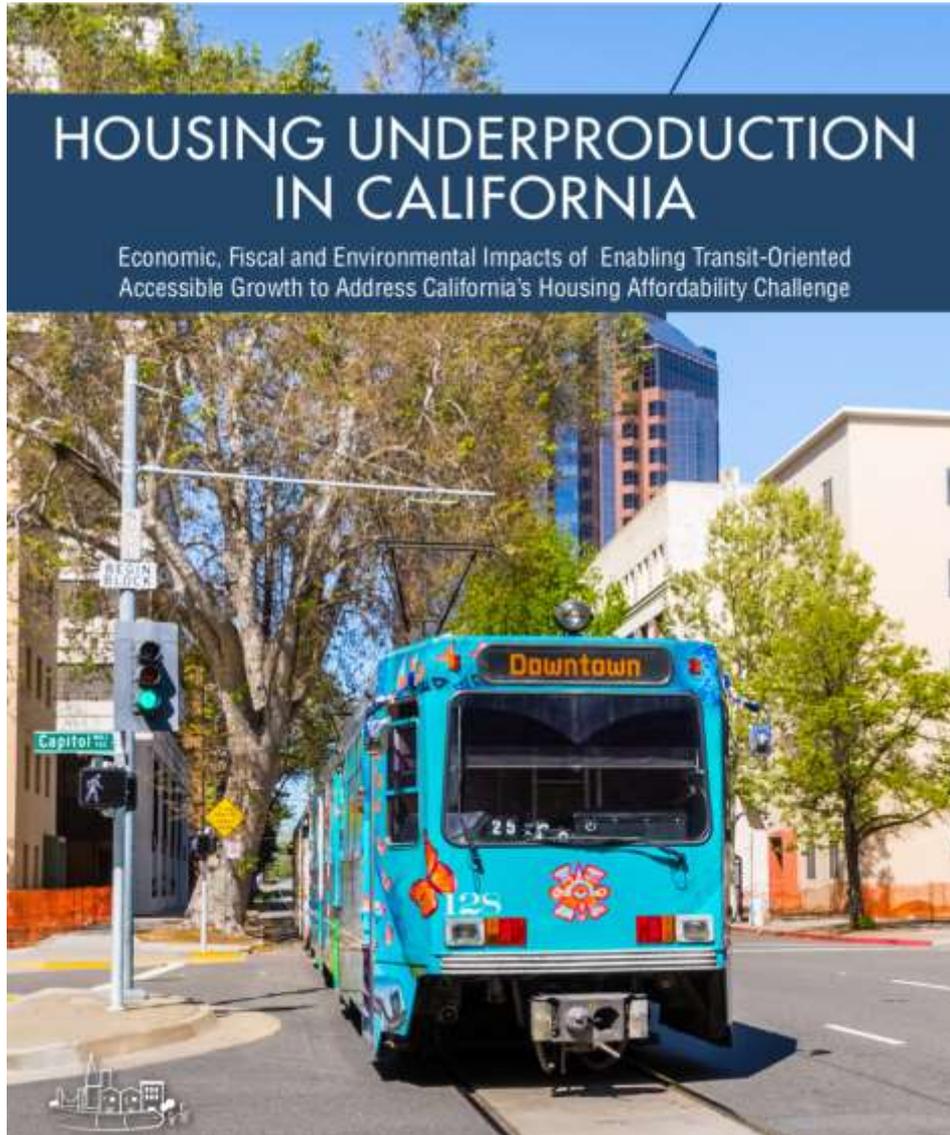
GTFS Data



- SB10 Analysis

- Analyzing Proposed Legislation (SB10)
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Quantifying the Impacts of Housing Underproduction



ENVIRONMENTAL BENEFITS OF ACCESSIBLE GROWTH

The Accessible Growth scenario targets areas of existing high density combined with low VMT in transit corridors as the priority for assigning unit growth. The goal of the Accessible Growth scenario is to achieve improved economic and fiscal impacts while also delivering additional positive environmental impacts compared to the More of the Same scenario. At its most basic level, Accessible Growth achieves higher density than current housing development patterns and therefore requires less land to accommodate the same number of units. In California, Accessible Growth requires just 25% of the land area required for the More of the Same scenario. Utilizing less land means higher economic efficiency for local jurisdiction service delivery, as well as environmental benefits such as storm water remediation and undisturbed room for forestry and farming.



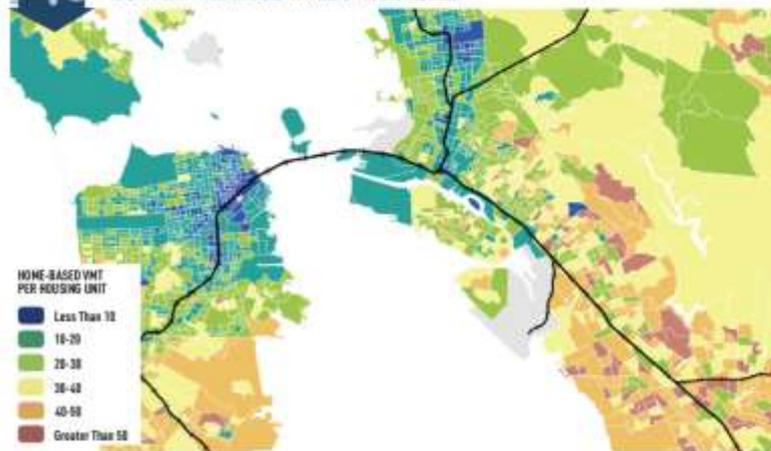
the VMT of a neighborhood based on the characteristics of the built environment at the census tract level nationally. The study found a very strong relationship between VMT and the proportion of households who commute by car and truck (also known as "commute mode split") as demonstrated by the scatterplots on page 15.

In addition to land-use benefits, locating housing near public transportation reduces the burden of cars on the road. This important relationship is a focus for the Accessible Growth scenario, which prioritizes housing in transit corridors with low VMT.

To quantify the benefits of having housing units in transportation corridors, a first-of-its-kind model was developed to estimate

The map below shows commuting VMT for the Bay Area, with transit stations overlaid. The range of VMT is as low as 10-20 in some areas and more than 50 in others. By locating housing in areas with low VMT, the Accessible Growth scenario in California results in 38 million fewer miles travelled daily for commuters compared to the More of the Same scenario, a difference that is equivalent to 1.2 million fewer cars on the road annually.

ENVIRONMENTAL IMPACT OF SMARTER GROWTH: LOWER VEHICLE MILES TRAVELED



ENVIRONMENTAL BENEFITS OF ACCESSIBLE GROWTH

The Accessible Growth approach has the largest increase in transit corridor density. With the relationship between VMT and commute mode split clearly demonstrated, increasing housing density in transit corridors would be a valuable way to reduce VMT and leverage public infrastructure investments.

The Accessible Growth strategy has numerous benefits beyond increasing GDP, jobs, tax revenues and housing density — all of which are explored in the next pages. The Accessible Growth approach also delivers meaningful environmental benefits compared to other housing development patterns. ■

The scatterplots below compare housing density and daily commuting VMT for transit corridors (yellow dots) and non-transit corridors (red dots) in California at the block group level. These scatterplots demonstrate that commuting VMTs are lower in transit corridors than in non-transit corridors, with a median of 27 VMT and 54 VMT, respectively. They also show that the median transit corridor block group has a higher housing density than the median non-transit corridor block group, with 28 units per acre compared to eight units per acre, respectively. In addition:

- The majority of transit corridor block groups have VMT below 30 miles.
- Almost all the transit corridor block groups have low commute mode splits (under 50%).
- Almost all the highest-density block groups are in transit corridors.
- There are few outliers in either scatterplot, indicating strong relationships between VMT and housing density, and between VMT and commute mode split.

ACCESSIBLE GROWTH BENEFITS

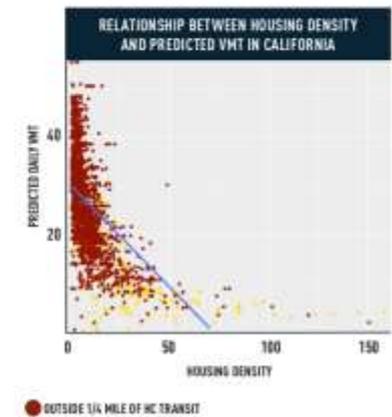
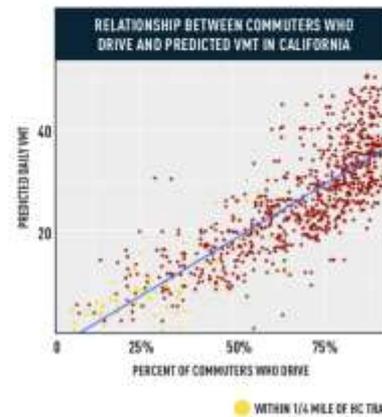
3.4 MILLION UNITS PRODUCED IN CALIFORNIA

	VMT PER DAY	CARS PER YEAR
DIFFERENCE	38 MILLION (19% REDUCTION)	1.2 MILLION

THROUGHOUT CALIFORNIA

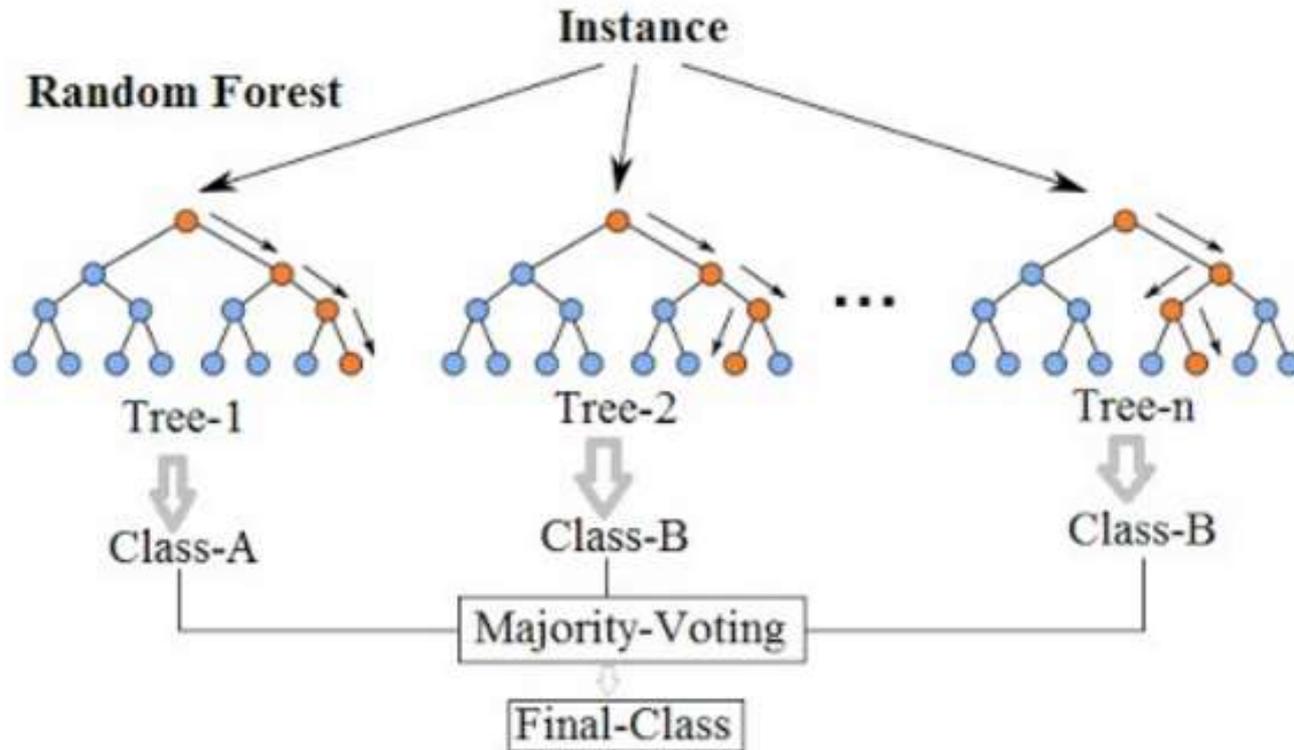
	MEDIAN HOUSING DENSITY	99TH % HOUSING DENSITY
OUTSIDE 1/4 MILE	3.9	29
WITHIN 1/4 MILE	6.0	83

	MEDIAN VMT	99TH % VMT
OUTSIDE 1/4 MILE	34	75
WITHIN 1/4 MILE	27	61



Moving from Econometrics to Machine

Random Forest Simplified



- VMT Prediction Model

- Analyzing Proposed Legislation (SB10)
- Predicting Household Travel Behavior
- **Evaluating New Policy: Opportunity Zones and Transit Corridors**

What are Opportunity Zones

WHAT ARE OPPORTUNITY ZONES? Opportunity Zones are low income census tracts nominated by governors and certified by the U.S. Department of the Treasury into which investors can now put capital to work financing new projects and enterprises in exchange for certain federal capital gains tax advantages. The country now has over 8,700 Opportunity Zones in every state and territory.

WHAT ARE OPPORTUNITY FUNDS? Opportunity Funds are new private sector investment vehicles that invest at least 90 percent of their capital in qualifying assets in Opportunity Zones. U.S. investors currently hold trillions of dollars in unrealized capital gains in stocks and mutual funds alone—a significant untapped resource for economic development. Funds will enable a broad array of investors to pool their resources in Opportunity Zones, increasing the scale of investments going to underserved areas.

WHAT ARE THE INCENTIVES THAT ENCOURAGE LONG-TERM INVESTMENT IN LOW INCOME COMMUNITIES? Opportunity Zones offer investors the following incentives for putting their capital to work in low-income communities:

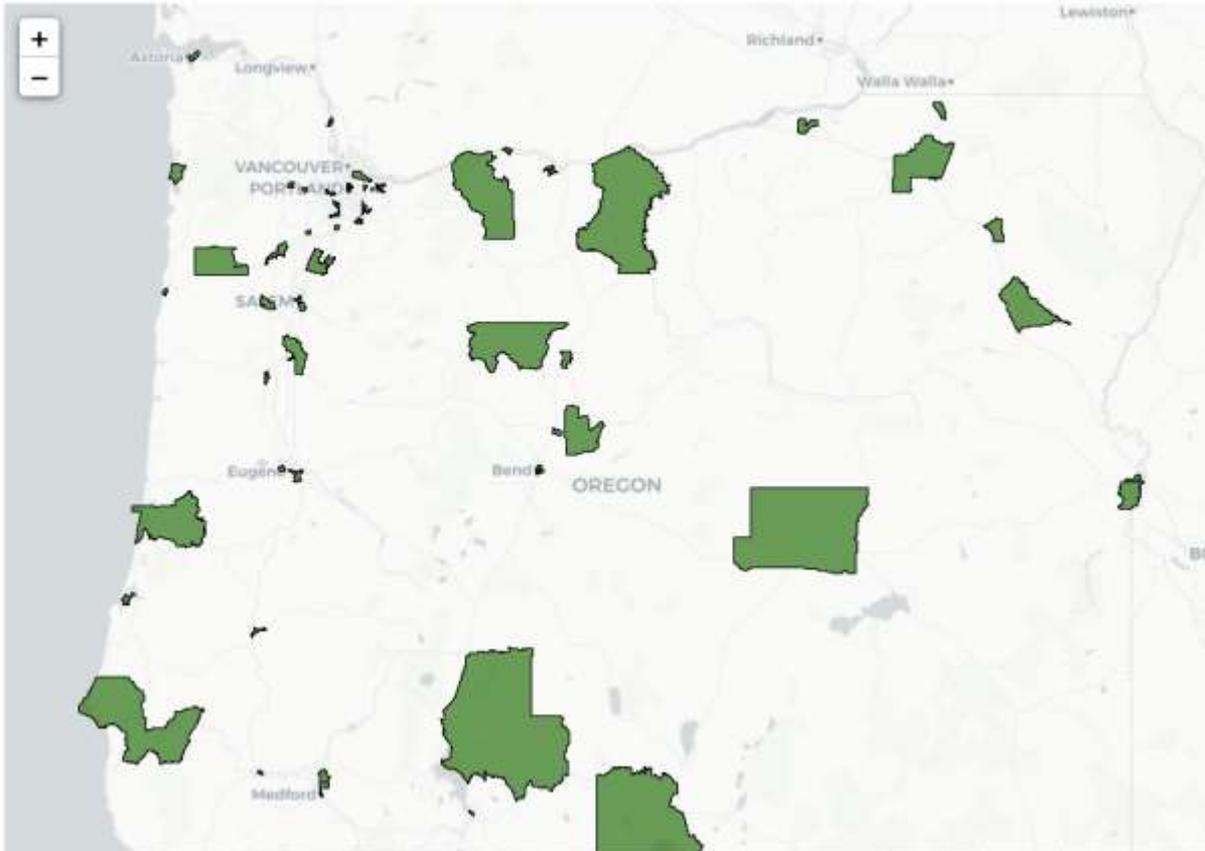
- A **temporary tax deferral** for capital gains reinvested in an Opportunity Fund. The deferred gain must be recognized on the earlier of the date on which the opportunity zone investment is sold or December 31, 2026.
- A **step-up in basis** for capital gains reinvested in an Opportunity Fund. The basis of the original investment is increased by 10% if the investment in the qualified opportunity zone fund is held by the taxpayer for at least 5 years, and by an additional 5% if held for at least 7 years, excluding up to 15% of the original gain from taxation.
- A **permanent exclusion from taxable income of capital gains** from the sale or exchange of an investment in a qualified opportunity zone fund, if the investment is held for at least 10 years. (Note: this exclusion applies to the gains accrued from an investment in an Opportunity Fund, not the original gains).

Understanding Opportunity Zones

- Do Opportunity Zones align with Transit Corridors?
- Implications for the effectiveness of Transit Oriented Development going forward

Opportunity Zones in Oregon

Opp Zone Capacity Analysis Home Map National Summary



Select Analysis

Opportunity Zones

Select State

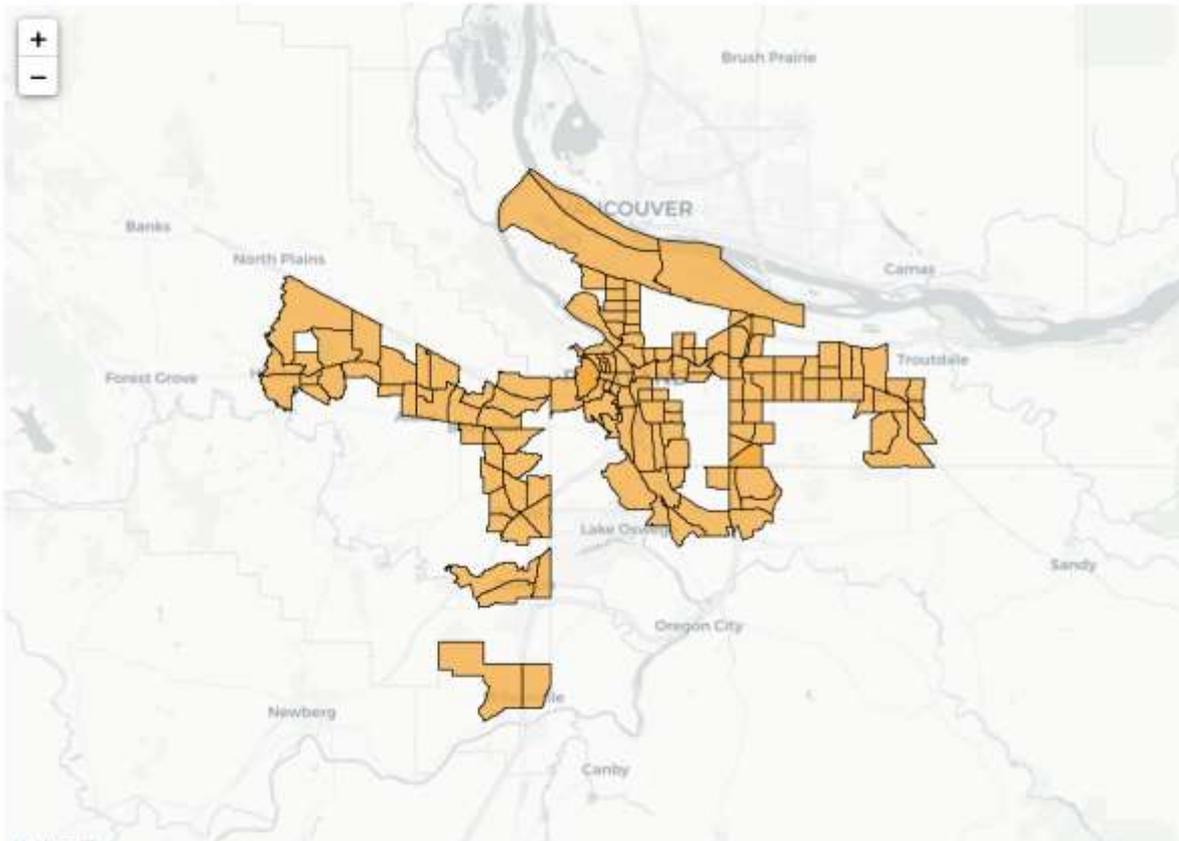
Oregon

Select Congressional District

- Congressional District 1
- Congressional District 2
- Congressional District 3
- Congressional District 4
- Congressional District 5

High Capacity Transit in Oregon

Opp Zone Capacity Analysis Home **Map** National Summary



Select Analysis

Transit Corridors

Select State

Oregon

Select Congressional District

- Congressional District 1
- Congressional District 3
- Congressional District 5

National Summary

Opp Zone Capacity Analysis

Home

Map

National Summary

	Policy Geography	Number of Census Tracts	Congressional District Geographies *	% of Districts	% of Land Area	% of Transit Corridors	% of CA Tracts in High/Highest TCAC	% of Tracts in Top 25th Percentile Chetty
1	Opportunity Zones	7902	432	97.1%	15.9%	18.0%	1.01%	4.67%
2	Transit Corridors	6306	147	33.0%	0.125%	100%	12.2%	25.5%
3	Transit Corridors in Opportunity Zones	1138	106	23.8%	0.0213%	18.0%	0.221%	5.89%

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