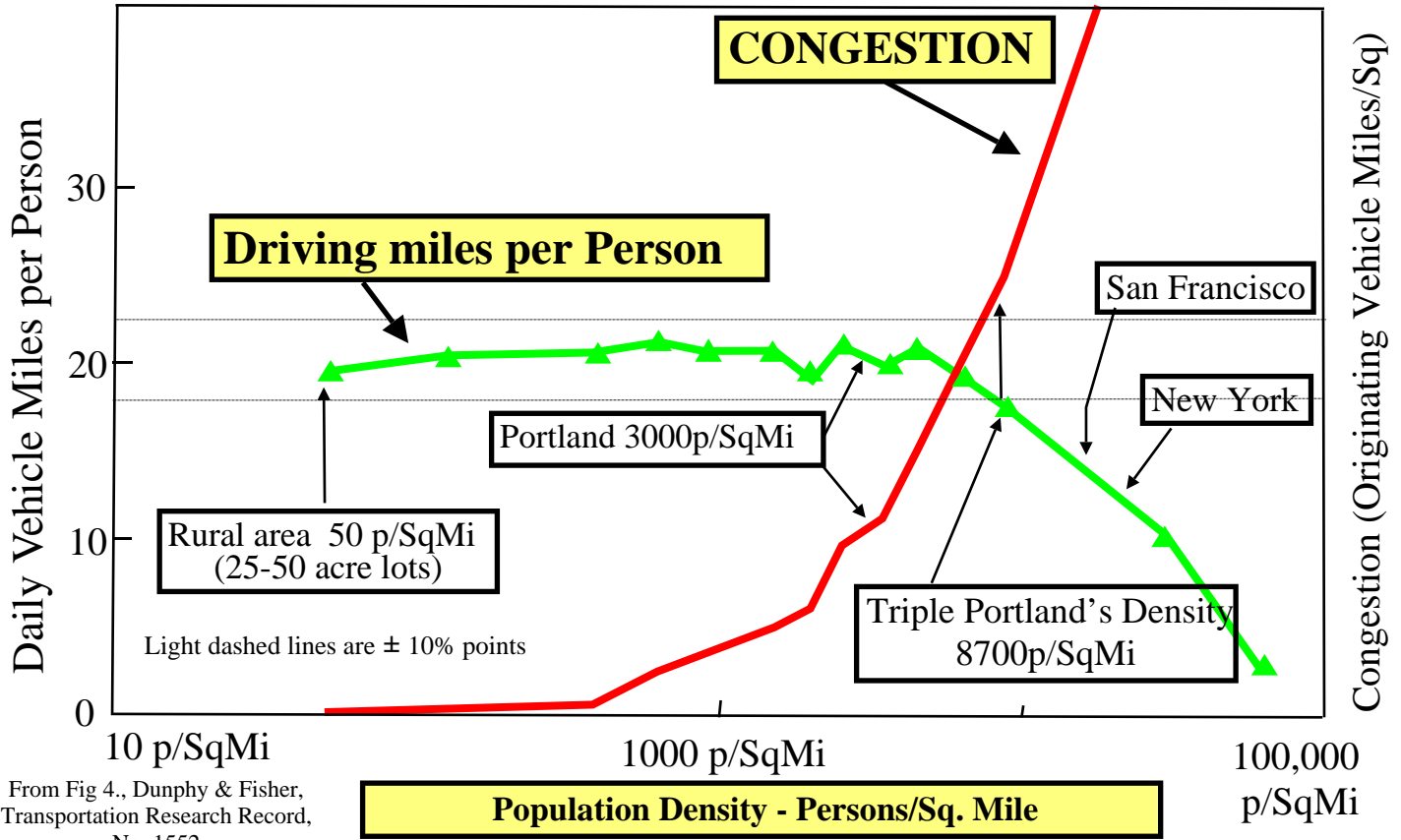


# Density Increases Congestion

Driving DOES NOT Decrease Until You Triple Portland's Density



From Fig 4., Dunphy & Fisher, Transportation Research Record, No. 1552

The green line is vehicle miles per person. --- It is almost unchanged by increased density until you get to densities triple that of Portland. To cut driving in half you have to surpass New York City's average density.

The red line is congestion -- It increases dramatically with density.

Since driving per person stays about the same, congestion goes up with density:  
**more people = more cars = more congestion.**

TABLE 4 Average Daily Travel in the United States, by Mode and Density, 1990

DENSITY	VEHICLE TRAVEL *		PERSON DAILY TRAVEL												SUM OF PERSON	
	TRIPS	MILES	PERSONAL VEHICLES				RAIL		TAXI		WALK/BIKE		OTHER		TRIPS	MILES
			TRIPS	MILES	TRIPS	MILES	TRIPS	MILES	TRIPS	MILES	TRIPS	MILES	TRIPS	MILES		
50	2.42	21.13	3.35	30.09	0.02	0.17	0	0.02	0	0.02	0.24	0.15	0.16	1.13	3.77	31.58
125	2.53	20.73	3.5	28.97	0.02	0.12	0	0.01	0.01	0.03	0.24	0.16	0.13	0.66	3.9	29.95
375	2.57	20.4	3.53	28.15	0.02	0.11	0	0.01	0	0.02	0.29	0.24	0.12	0.8	3.96	29.33
625	2.64	20.99	3.52	27.78	0.03	0.28	0	0.07	0	0.01	0.21	0.21	0.12	0.65	3.88	29
875	2.57	18.35	3.44	24.91	0.05	0.36	0.01	0.2	0.01	0	0.26	0.18	0.13	0.6	3.9	26.25
1500	2.57	18.63	3.48	25.07	0.03	0.23	0.01	0.23	0	0.01	0.23	0.2	0.11	0.43	3.86	26.17
2000	2.37	16.01	3.28	22.63	0.04	0.17	0.04	0.27	0.03	0.03	0.33	0.33	0.08	0.34	3.8	23.77
2500	2.62	19.04	3.46	22.27	0.06	0.31	0.01	0.19	0	0.01	0.28	0.23	0.11	0.44	3.92	23.45
3500	2.47	16.89	3.34	22.69	0.06	0.36	0.02	0.36	0.01	0.01	0.29	0.24	0.09	0.45	3.81	24.11
4500	2.6	17.24	3.51	23.91	0.05	0.3	0.01	0.11	0	0.01	0.3	0.22	0.08	0.22	3.95	24.77
6250	2.39	16.28	3.29	23.38	0.09	0.44	0.02	0.22	0.01	0.03	0.36	0.29	0.06	0.2	3.83	24.56
8750	2.18	14.15	2.92	19.05	0.11	0.44	0.05	0.61	0.02	0.05	0.45	0.27	0.07	0.17	3.62	20.59
30000	1.28	8.73	1.9	12.28	0.29	1.78	0.21	1.99	0.03	0.13	0.95	0.64	0.04	0.2	3.42	17.02
60000	0.34	2.31	0.59	4.48	0.42	1.75	0.61	4.74	0.16	0.32	1.55	1.01	0.07	0.25	3.4	12.55
ALL	2.42	18.44	3.31	25.46	0.06	0.34	0.02	0.28	0.01	0.03	0.32	0.24	0.11	0.59	3.83	26.94

\* ONLY POV DRIVER TRIPS INCLUDED

Dunphy & Fisher's chart from Transportation Research Record, No. 1552

More at: [www.PortlandFacts.com](http://www.PortlandFacts.com)