



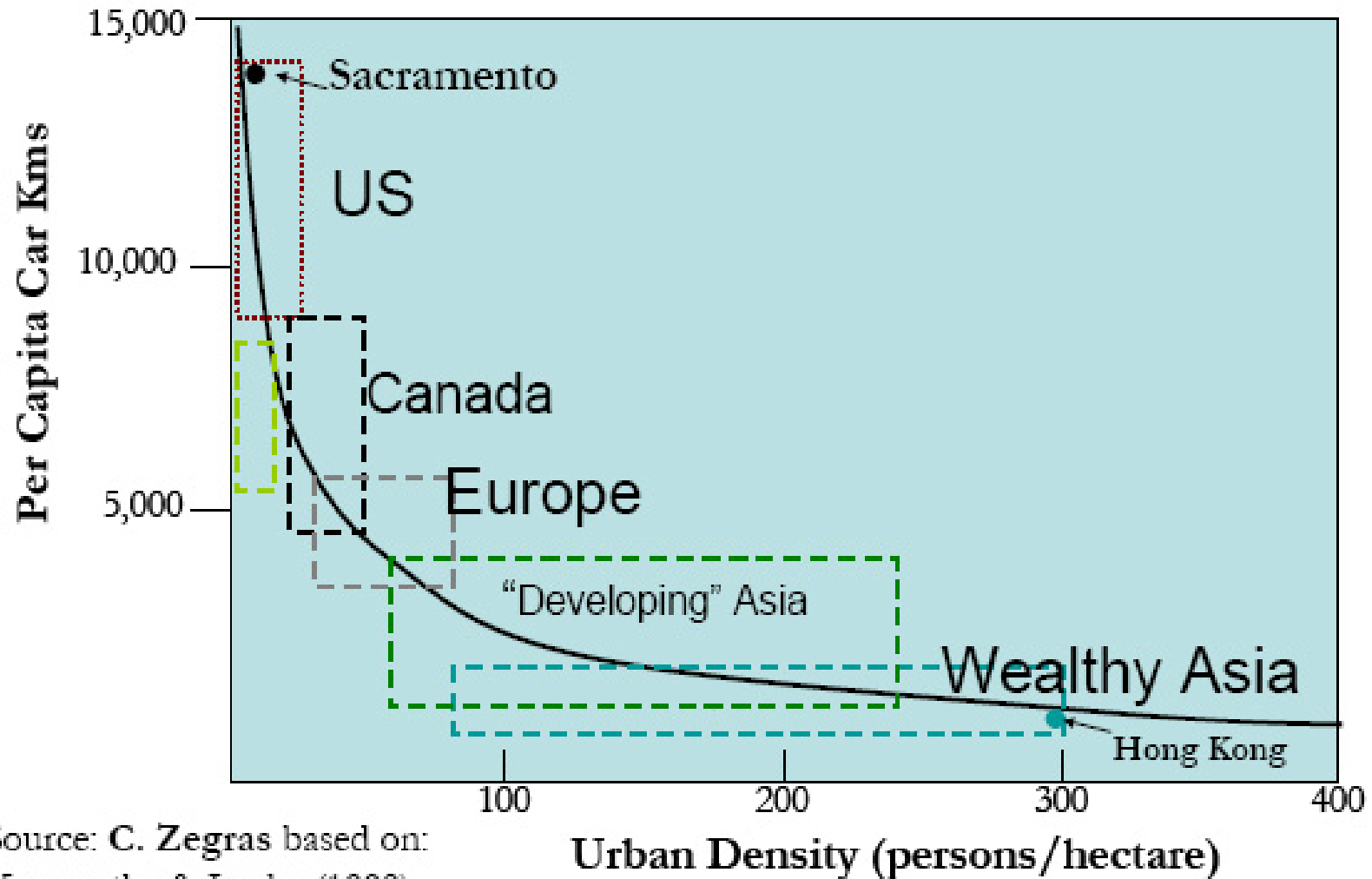
N
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GHG, Land Use, and Transportation

Tools to drive policy change

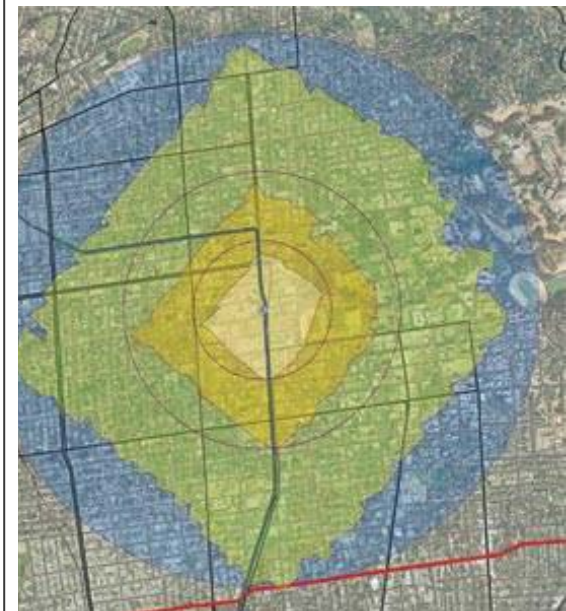
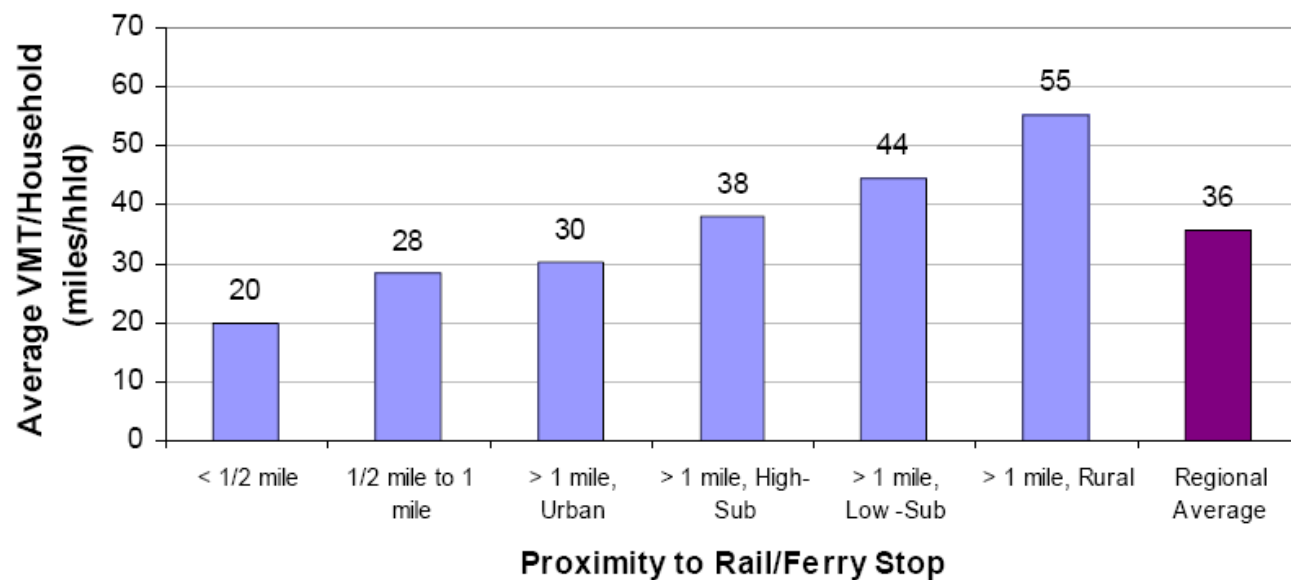
WHAT DO WE WANT?
EVIDENCE-BASED CHANGE
WHEN DO WE WANT IT?
AFTER PEER REVIEW

6. Match density to transit capacity



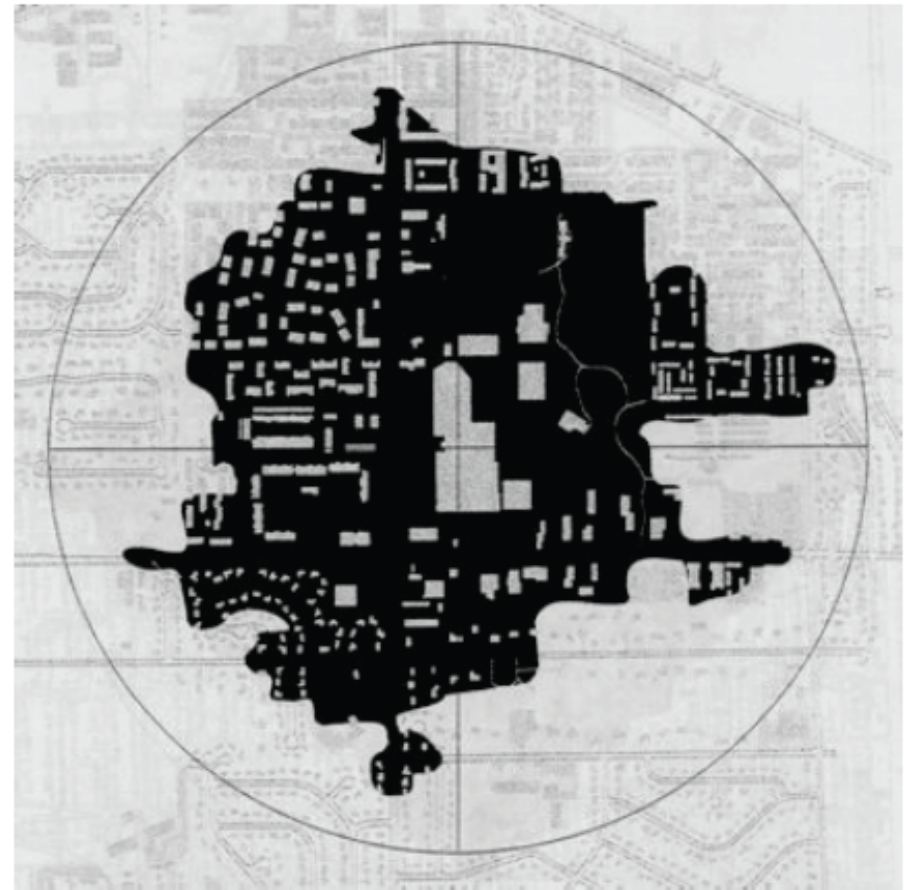
Source: C. Zengras based on:
Kenworthy & Laube (1999)

6. Match density to transit capacity

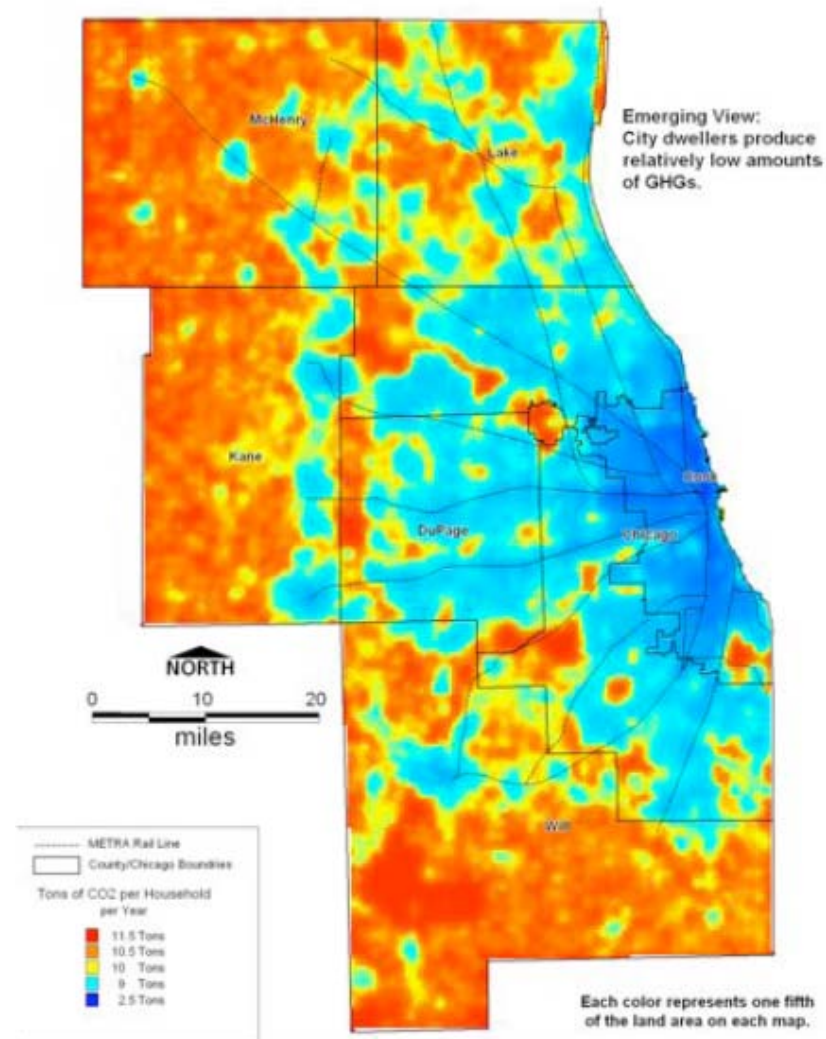


Source: San Francisco Bay Area Metropolitan Transportation Commission (MTC)

3. Permeability



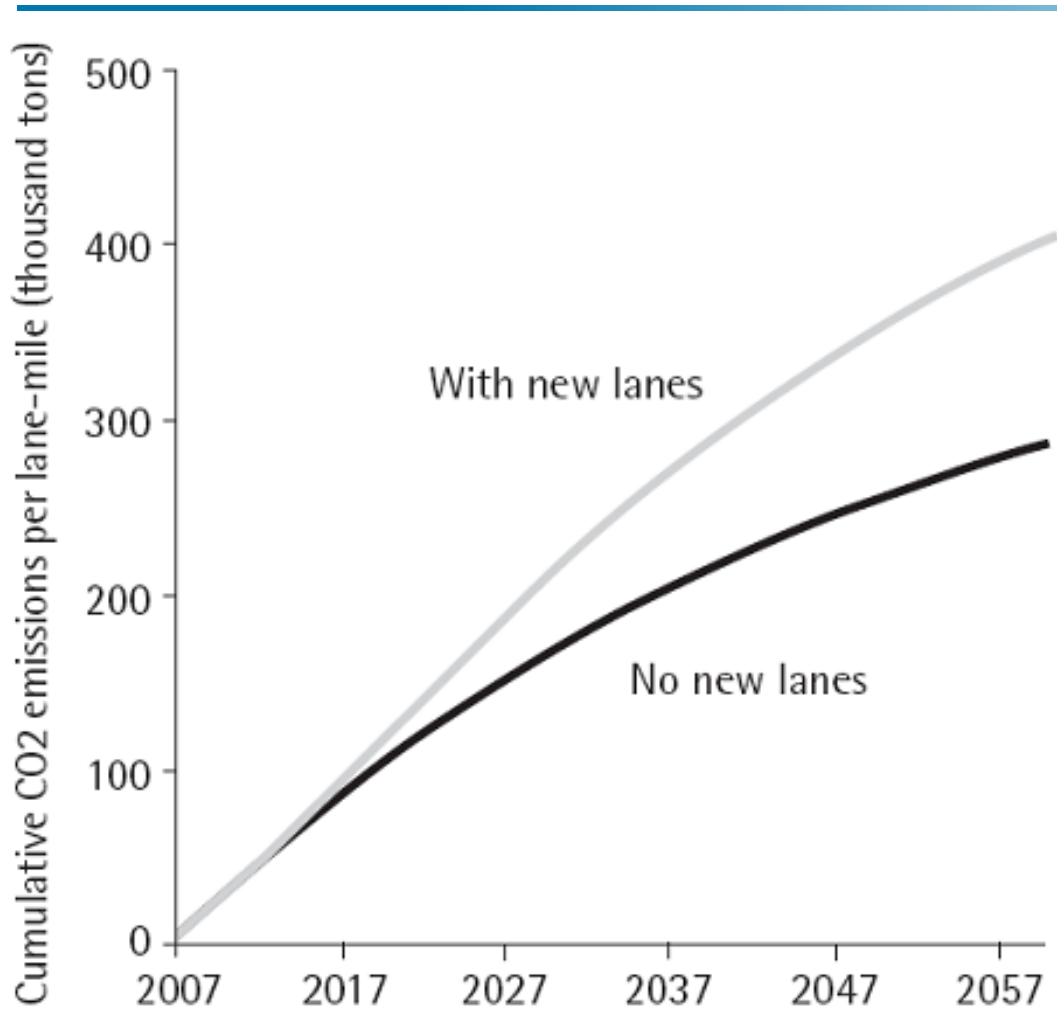
7. Create compact regions with short commutes



8. Increase mobility by regulating parking and road use

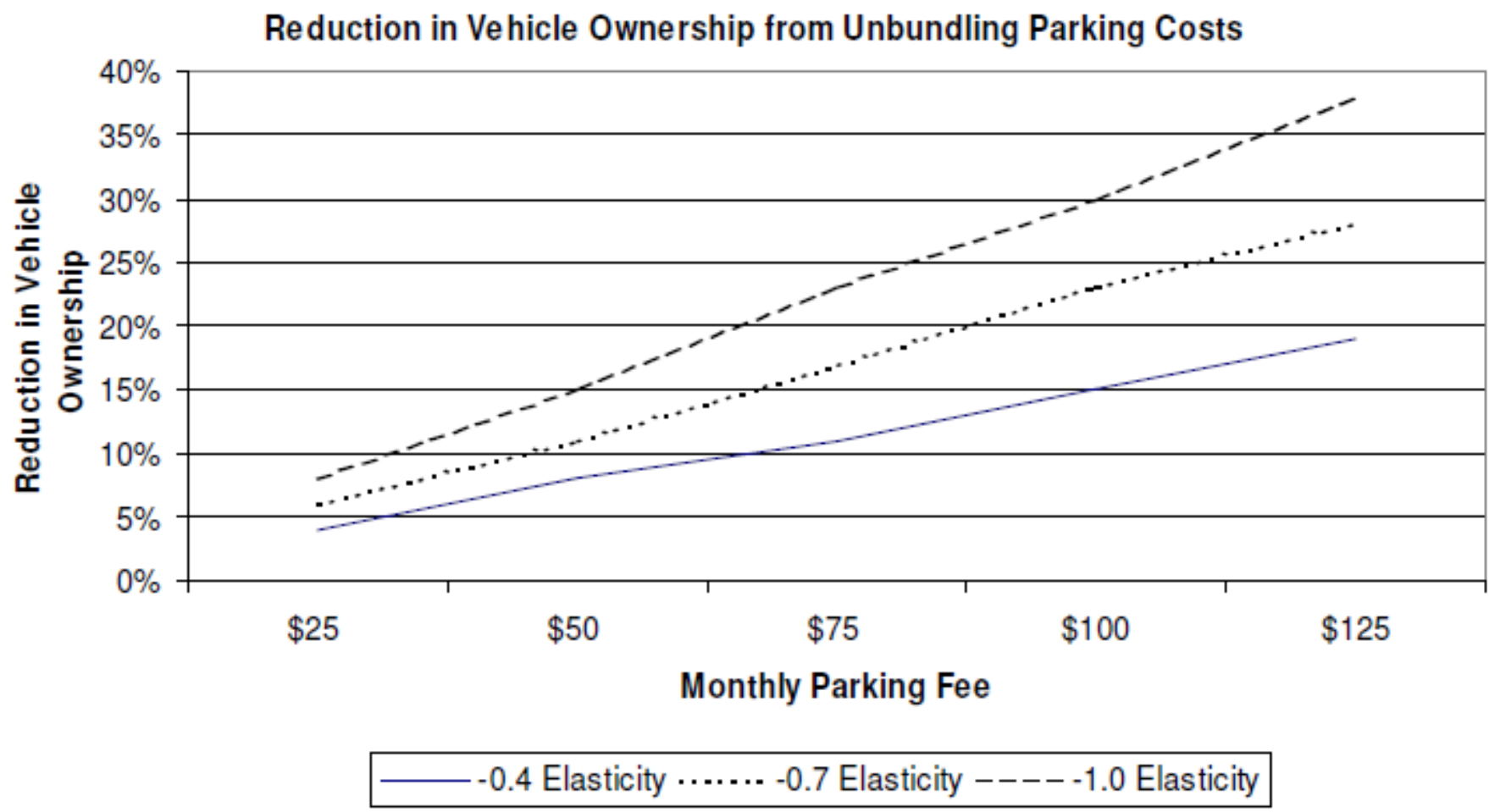


8. Increase mobility by regulating parking and road use



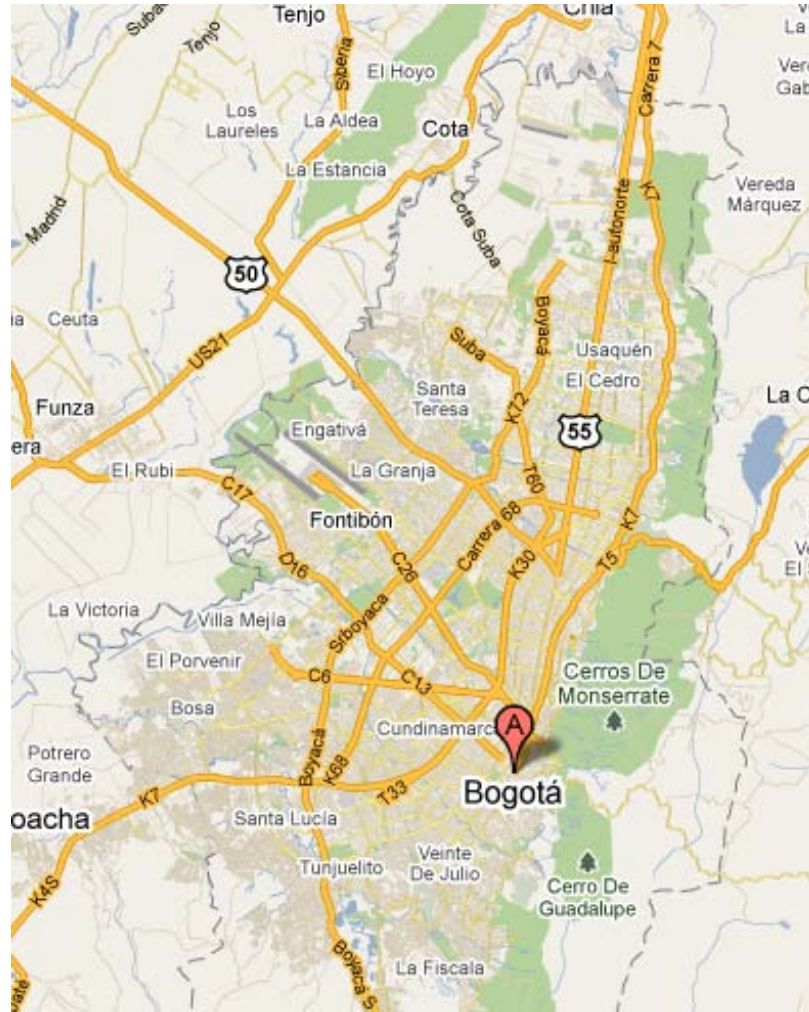
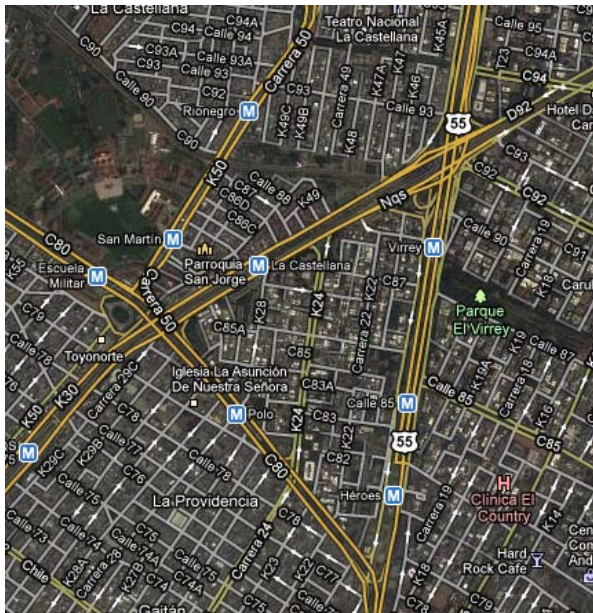
Source: Sightline Institute.

8. Increase mobility by regulating parking and road use



Source: Litman, 2004

Questions: Metrics at what scale?



Questions: Measuring with what level of rigor?

Before/after measurement



Questions: Measuring with what level of rigor?

Travel Demand Modeling



Santa Monica, California General Plan

- New model considers density, design, mix of uses, transit proximity
- Forecasts no net new vehicle trips

Questions: Measuring with what level of rigor?

Sketch modeling tools



Figure ES-1 Summary of Recommend Strategies

	Emissions Reduction Potential ¹	Cost Effectiveness ²	PBOT Control ³	Estimated Reduction in Metric Tons of CO2/Year in 2030	Estimated Cost/Year	Estimate Cost/Ton
Transportation Demand Management						
Residential Development Trip Reduction Requirement / Vehicle Trip Generation Fee	Medium	High	Medium	16,000	\$250,000	\$20
Employer Transportation Management Plan Requirements	Medium	High	Medium	20,000	\$250,000	\$10
Expand Residential SmartTrips program to cover entire City every 5 years	High	High	High	86,000	\$1,535,000	\$20
Transportation System Management and Operations						
Manage City of Portland Streets: Refine signal timing to optimize circulation	Low	Low	Medium	3,000	\$782,000	\$260
Manage ODOT Roads: Incident management; active traffic management	High	Low	Medium	41,000	\$12,736,000	\$310
Parking Management						
Reduce parking supply as a ratio of new residential development (per stall fees, eliminate minimums, reduce maximums, unbundling, and planning regulations)	Medium	High	Medium	9,000	\$0	\$0
Reduce parking supply as a ratio of new commercial development (per stall fees, eliminate minimums, reduce maximums, unbundling, and planning regulations)	Medium	High	Medium	14,000	\$0	\$0
Land Use						
Achieve 90% of Portland growth in transit/bike corridors and in walkable neighborhoods	High	High	Medium	30,000	\$500,000	\$20

Portland, Oregon GHG Analysis

Consider the audience and context

- Funders?
- Government officials?
- Citizens?



Recap (in case you were napping)

- Data shows: Eight Principles reduce GHG
- Better measurements can lead to better policy decisions
- To choose the right metrics, consider:
 - Scale
 - Level of rigor
 - Audience/context