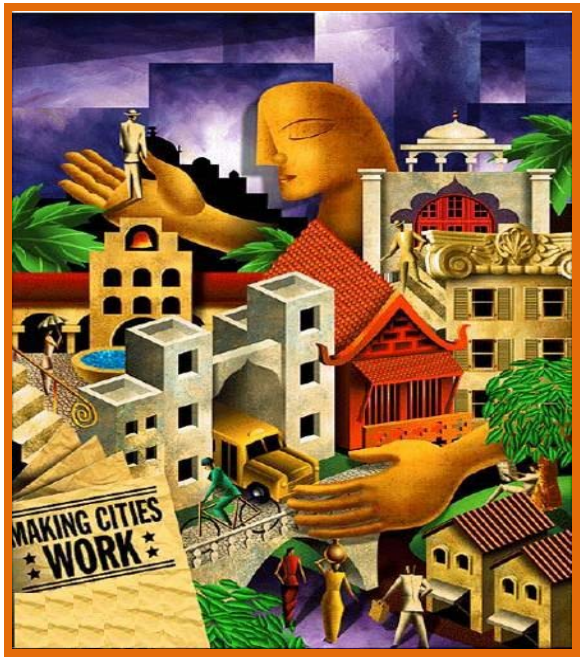
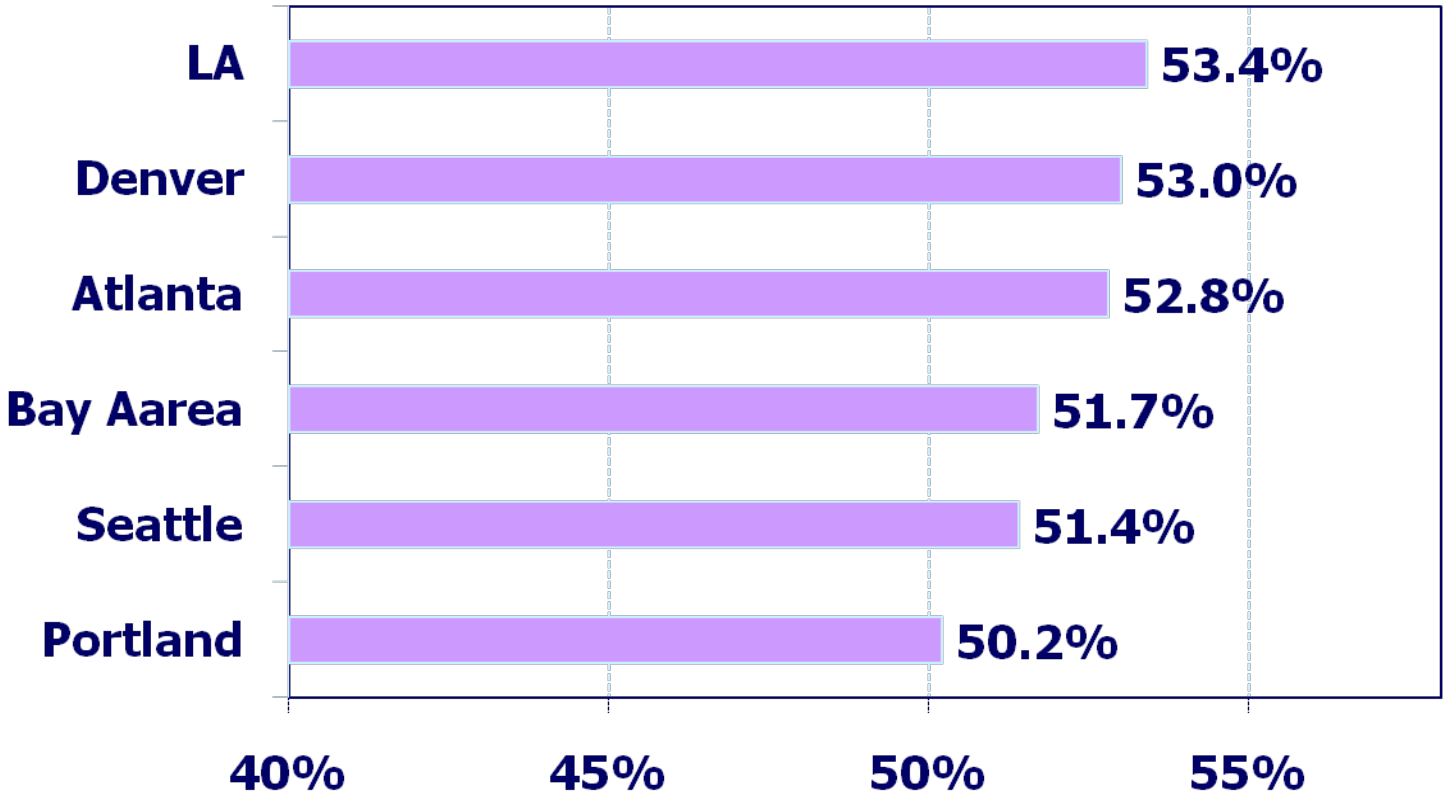
Transportation, Housing & Livable Communities

Robert Cervero
University of California, Berkeley



Annual Metro Area HH Expenditures on Housing & Transportation: 2004



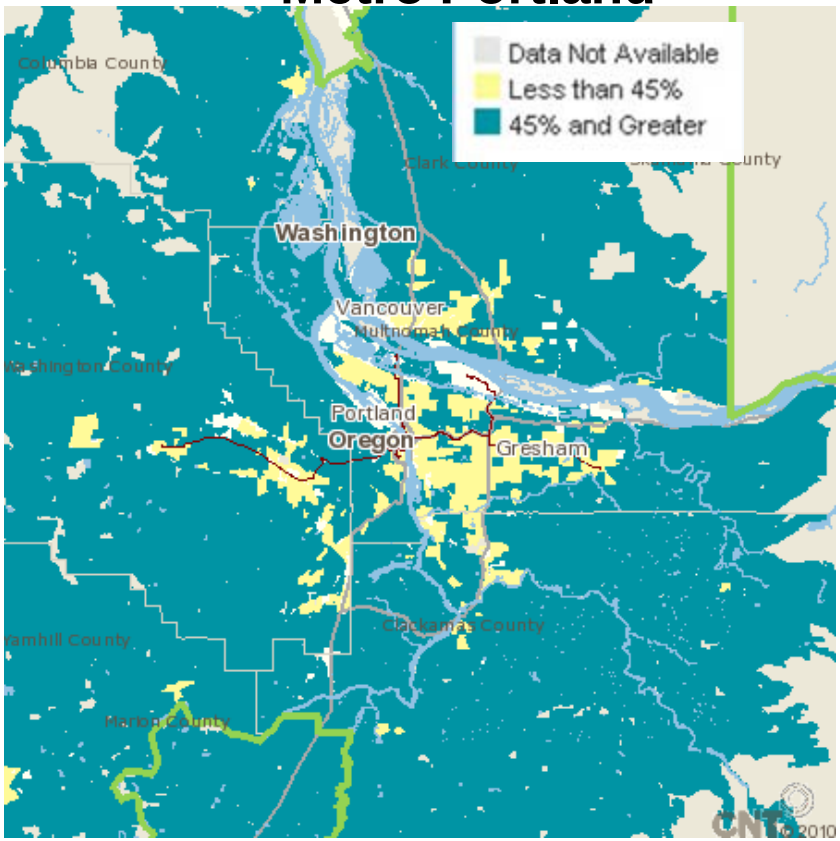
Source: ULI

"Housing & Traffic", ***Urban Land***, Feb. 2004 (p. 79);

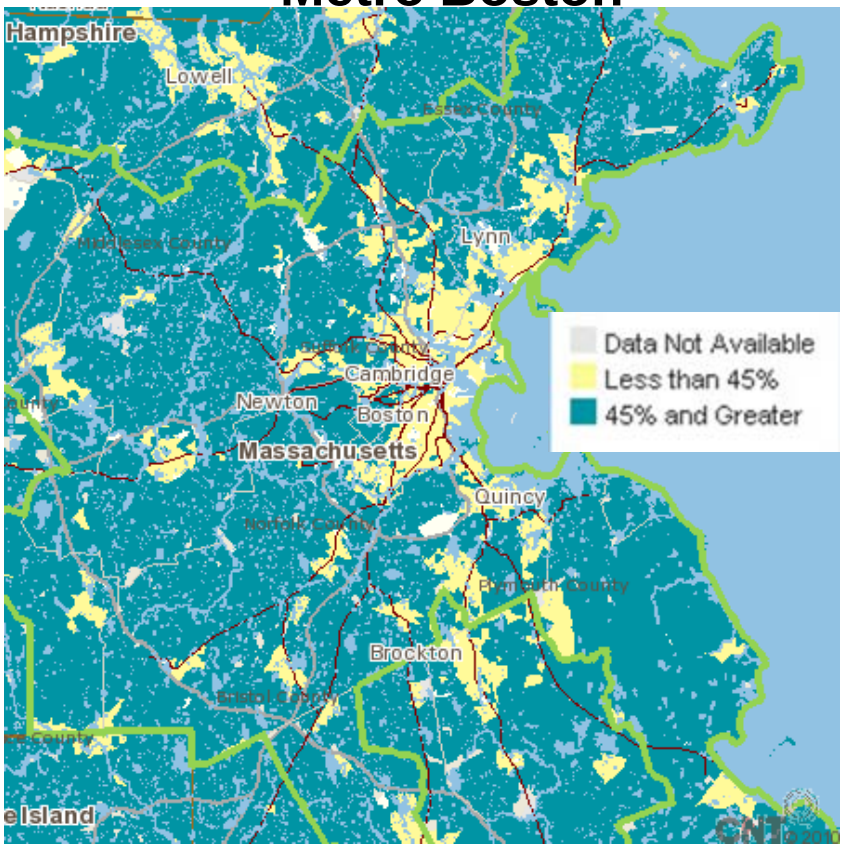
"Large cities with compact growth, mix of uses, and balanced Transportation options…are places where high housing costs are offset by affordable transportation…Portland has a slightly high average spending on housing but one of the lowest transportation costs, keeping it a very affordable place on balance" .

Housing & Transportation Costs as % of Income

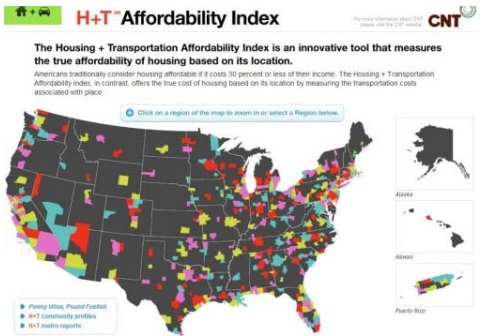
Metro Portland



Metro Boston



Source: Center for Neighborhood Technology

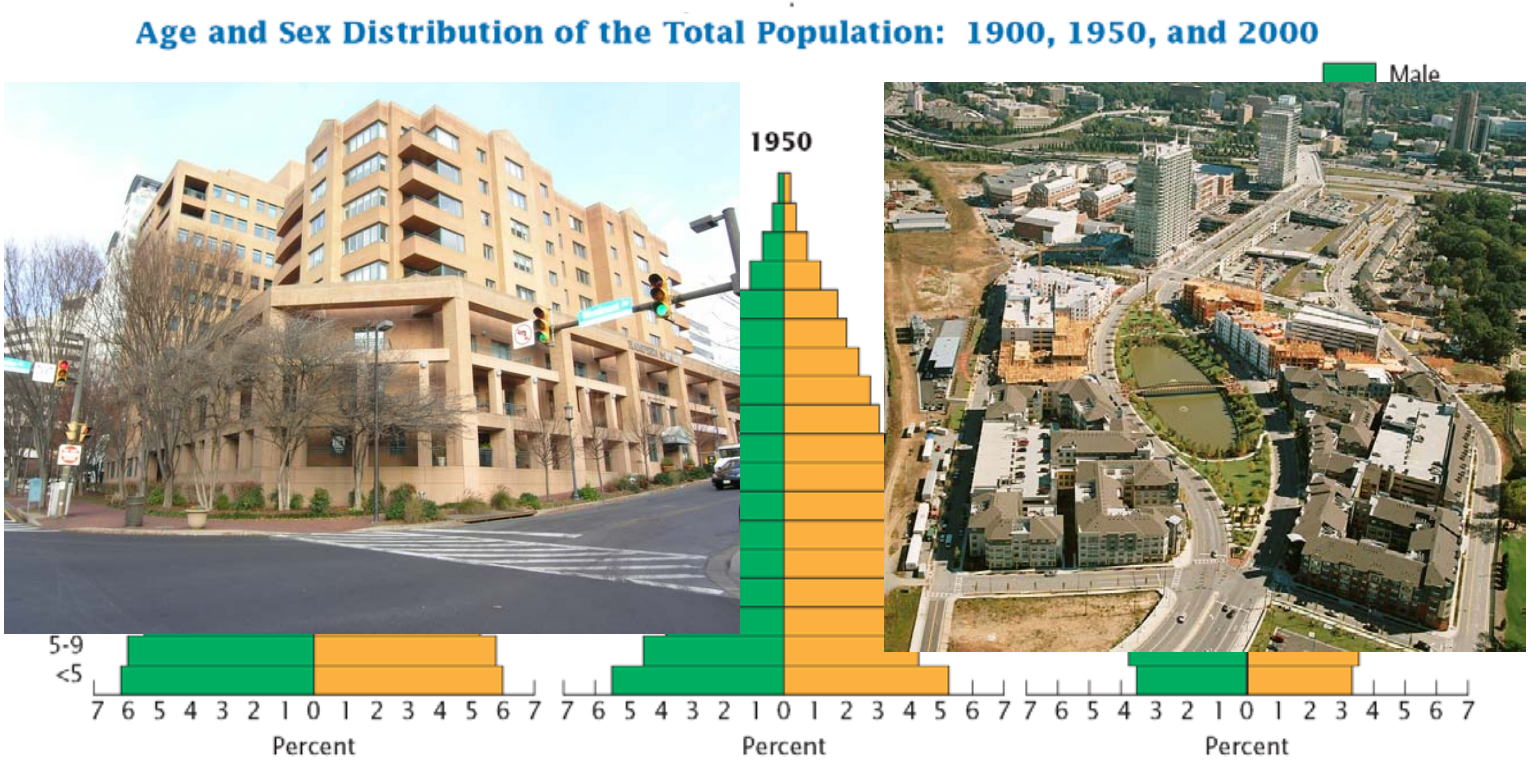


U.S. Demographic Shifts & Housing

❑ Aging of America

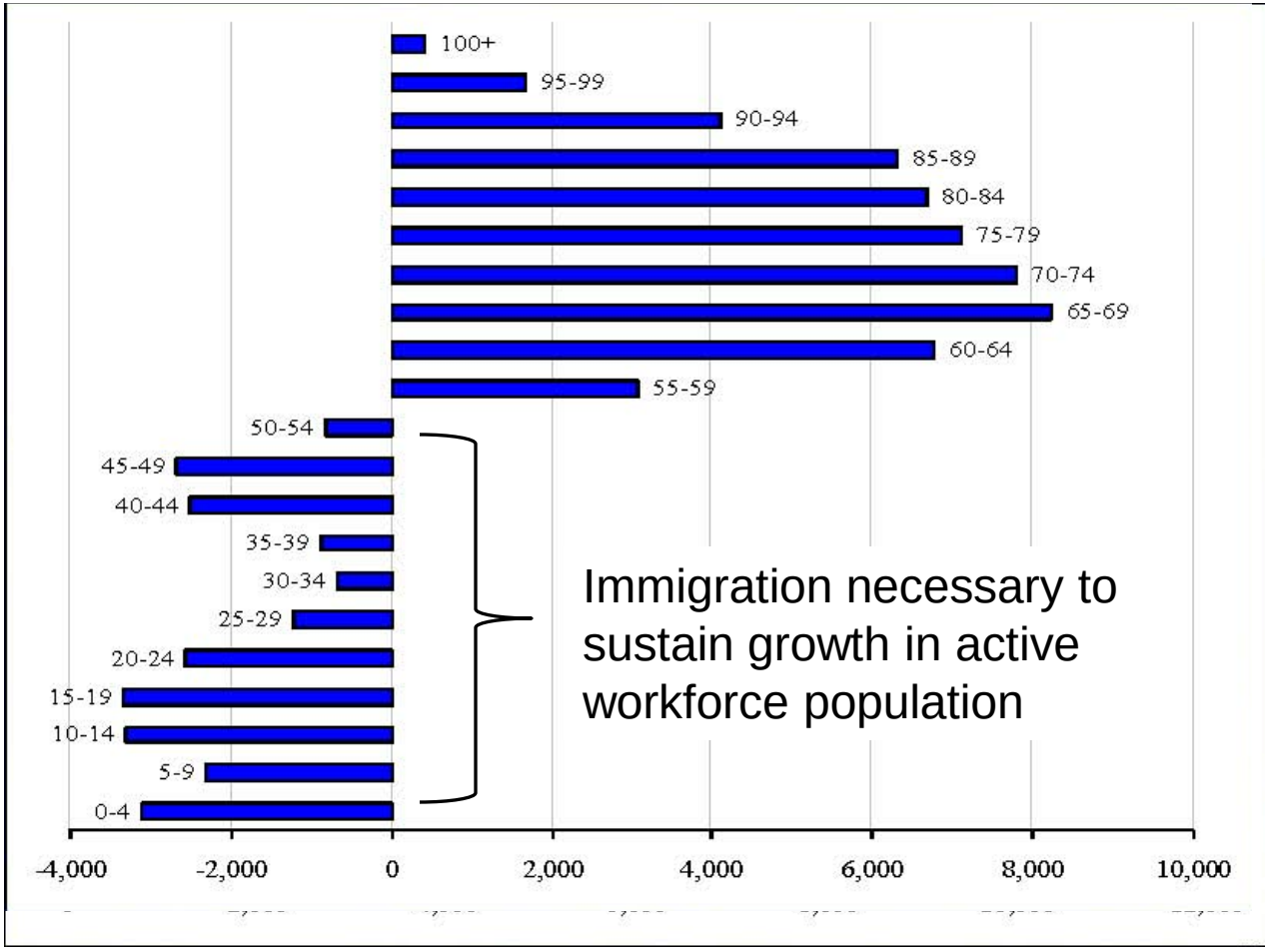
1. **Older baby boomers (ages 55 to 64)**: 26 million Americans; downsize & infill

2. **Younger baby boomers (ages 46 to 54):** 52 million Americans; similar preferences but less mobile



Population Change by Age Group for USA: 2005-2050

(thousands; zero migration)



U.S. Demographic Shifts & Housing

- **Generation X (early 30s – mid 40s)**: Mid-stages lifecycle; filter into older boomer's (often mature suburban) housing

- **Generation Y (late teens to early 30s)**: 83 million Americans; more likely to rent than own; drawn to cities vs suburbs. ***Live/work/play*** – markets for smaller, in-city, adaptively re-used housing

U.S. Demographic Shifts & Housing

❑ Non-Traditional HHs:

1. More Single-Person HHs (Generation Y & Older Boomers) --

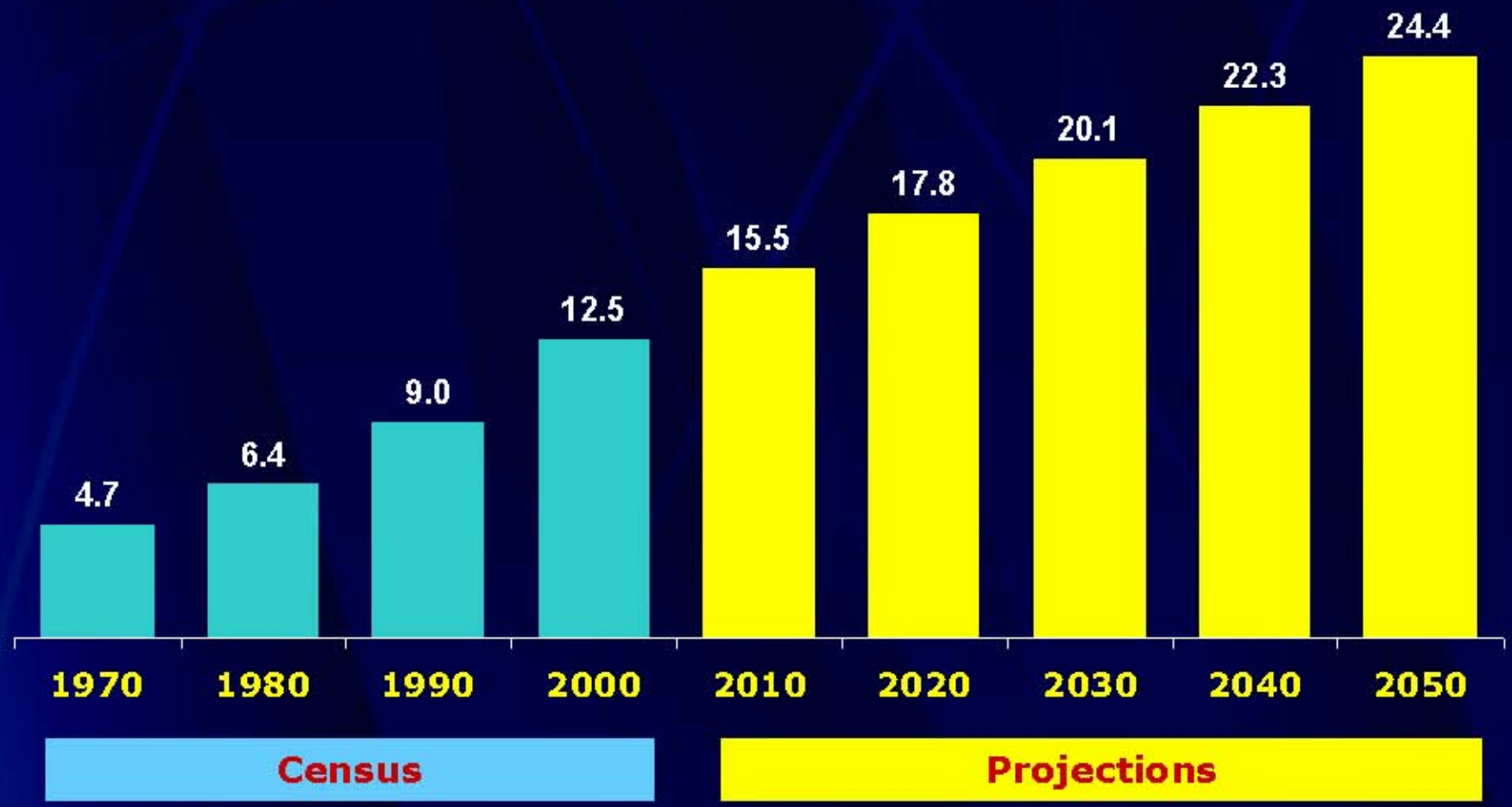
- **% of U.S. HHs: 1950 – 9%; Today – ~33%**
- **2000: 27 million HHs; 2030: 38-48 million HHs** (Zeng et al., 2006)

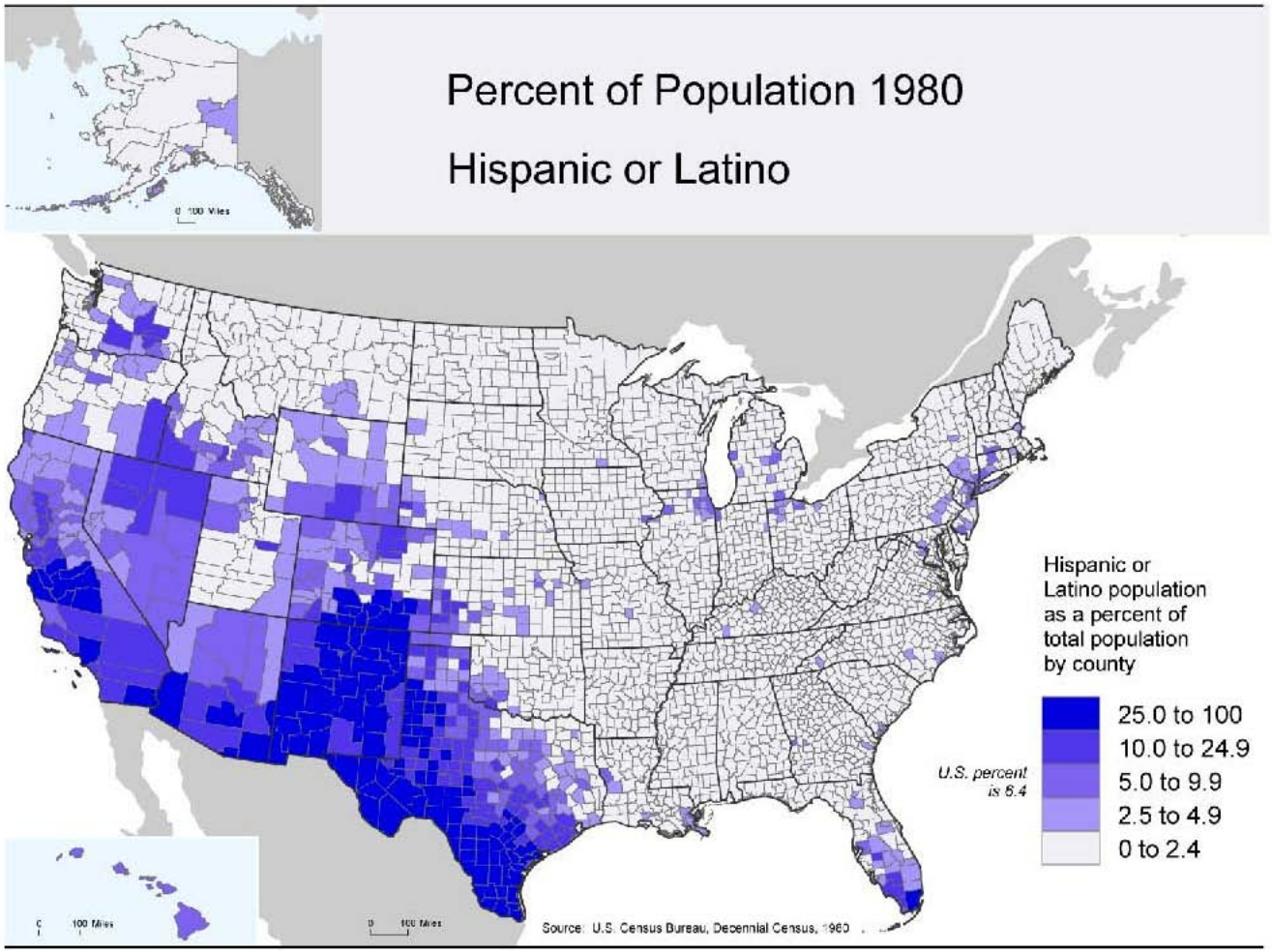
2. More Female-maintained HHs: 2000 – already 36%

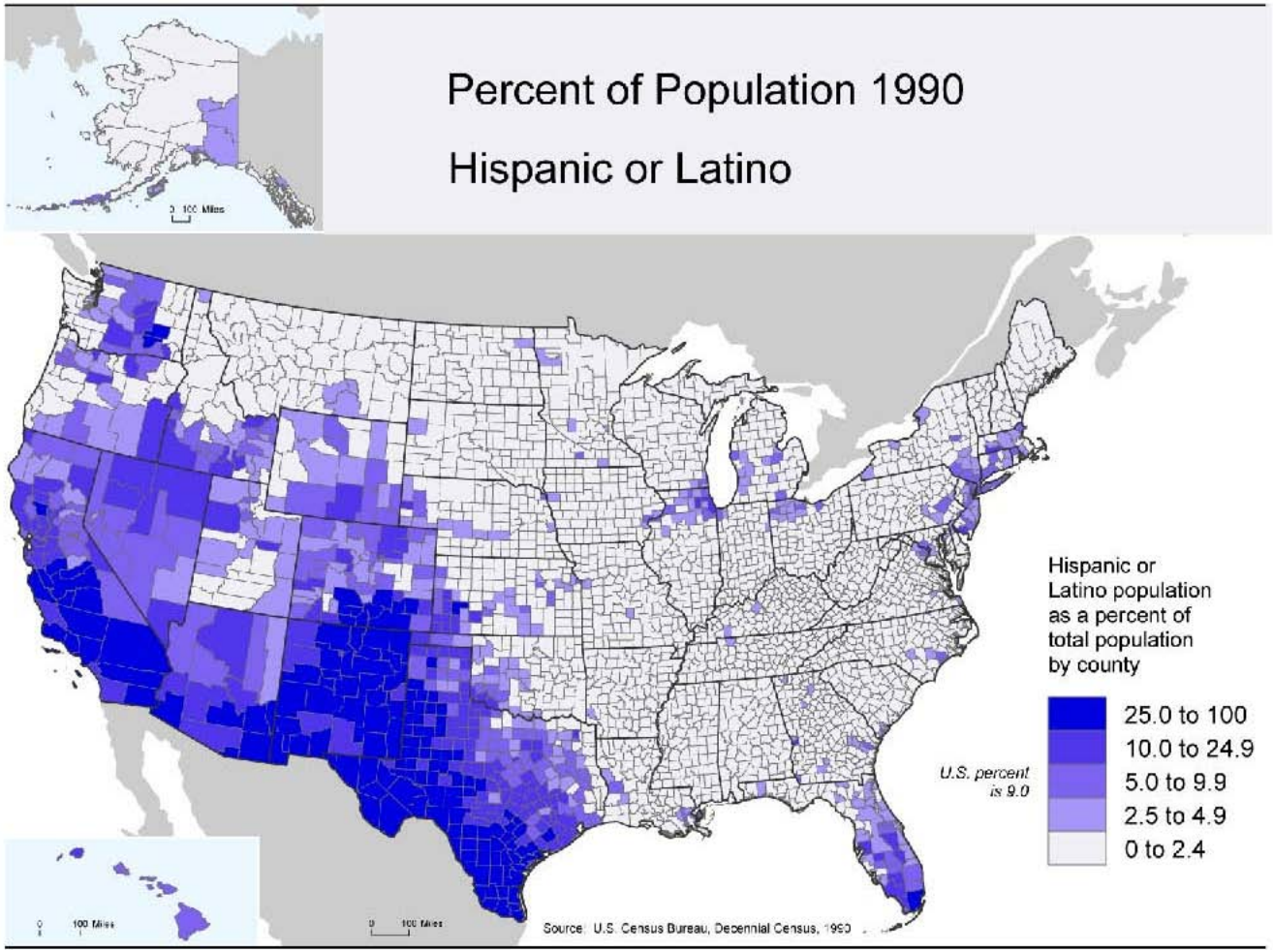
❑ **Immigrants**: ~ 40 million foreign-born (living legally or illegally); growing swiftly; expected to filter up to 70s-style suburbs; **2006** – 25% of new entrants to housing market;

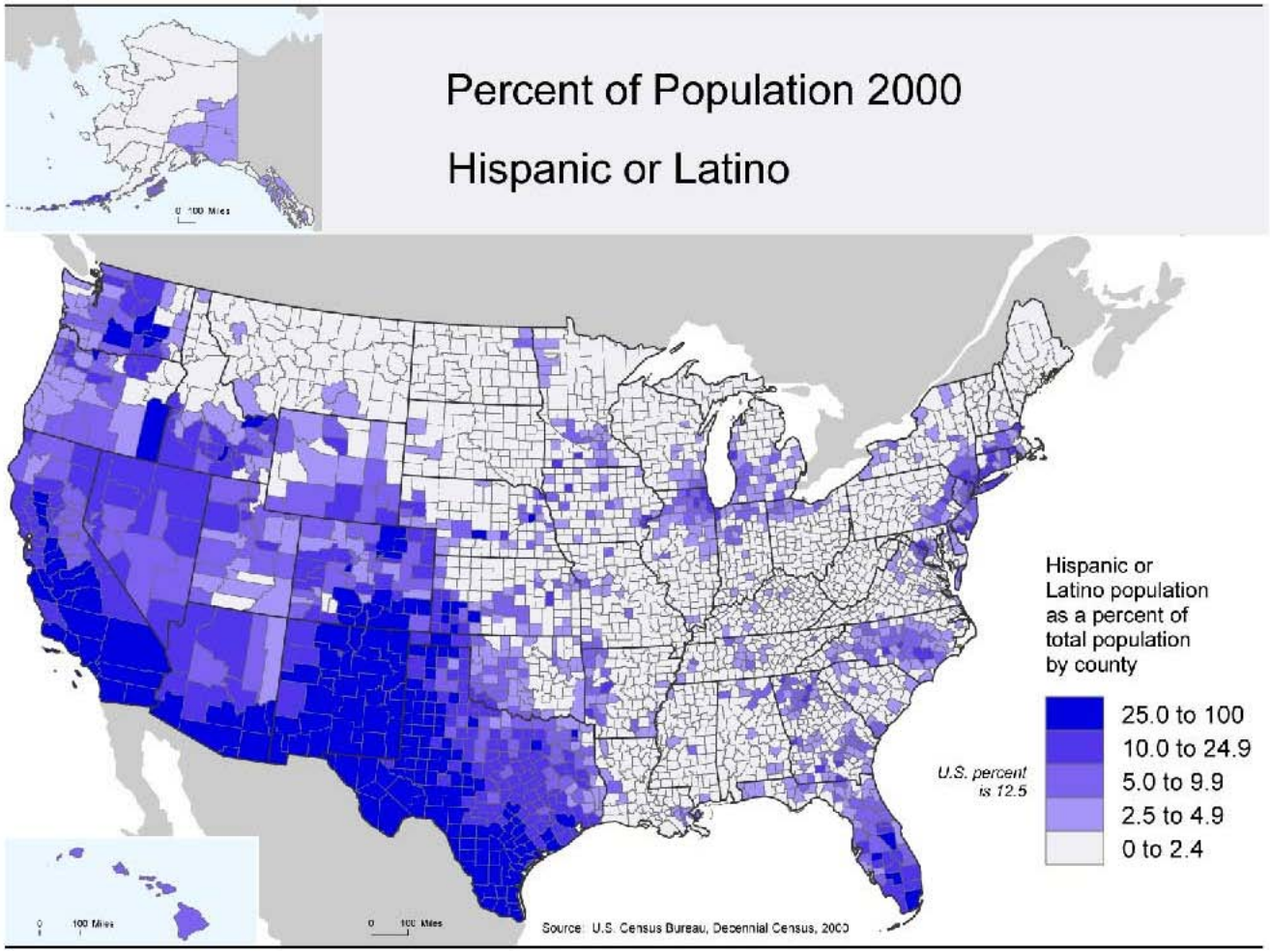
Immigrants tend to "cluster" in enclaves

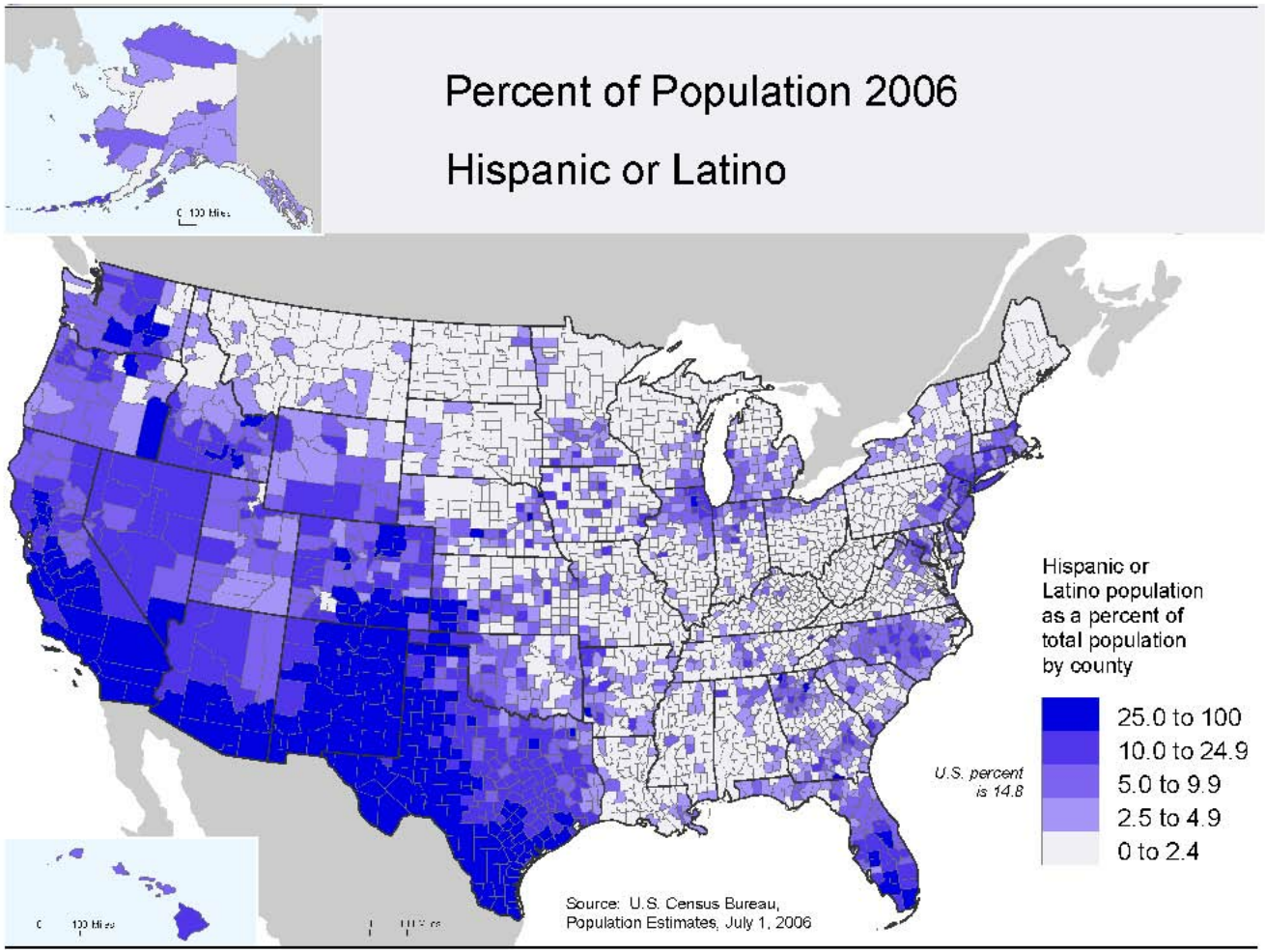
Percent Hispanic of Total U.S. Population
1970–2050




Percent of Population 1980
Hispanic or Latino
Hispanic or Latino population as a percent of total population by county
25.0 to 100
10.0 to 24.9
5.0 to 9.9
2.5 to 4.9
0 to 2.4
U.S. percent is 8.4
Source: U.S. Census Bureau, Decennial Census, 1980


Percent of Population 1990
Hispanic or Latino
Hispanic or Latino population as a percent of total population by county
25.0 to 100
10.0 to 24.9
5.0 to 9.9
2.5 to 4.9
0 to 2.4
U.S. percent is 9.0
Source: U.S. Census Bureau, Decennial Census, 1990


Percent of Population 2000
Hispanic or Latino
Hispanic or Latino population as a percent of total population by county
25.0 to 100
10.0 to 24.9
5.0 to 9.9
2.5 to 4.9
0 to 2.4
U.S. percent is 12.5
0 100 Miles
0 100 Miles
0 100 Miles
Source: U.S. Census Bureau, Decennial Census, 2000


Percent of Population 2006
Hispanic or Latino
Hispanic or Latino population as a percent of total population by county
25.0 to 100
10.0 to 24.9
5.0 to 9.9
2.5 to 4.9
0 to 2.4
U.S. percent is 14.8
Source: U.S. Census Bureau, Population Estimates, July 1, 2006

Demography & Urban Transformations

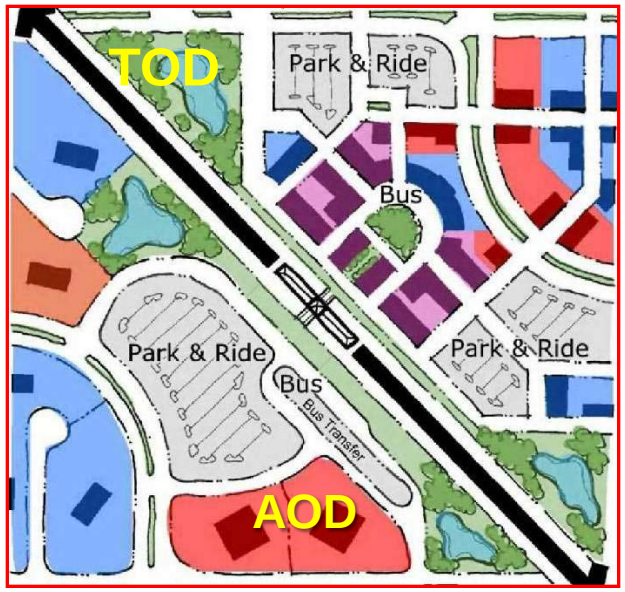
- **Nelson** (2006): "Over ½ of development on the ground in 2025 will not have existed in 2000…society will be spatially re-arranged"

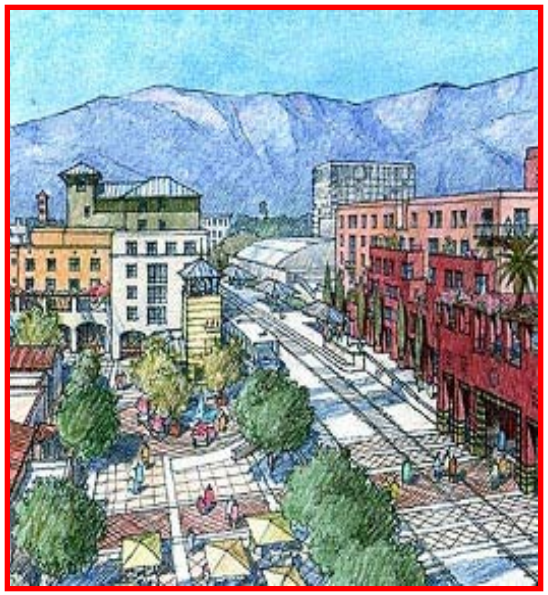
- **Leinberger** (2008): …. suburbs as "future slums"

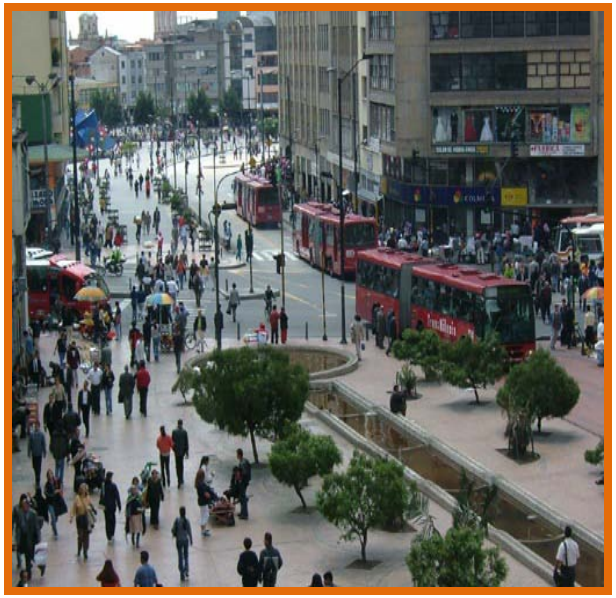
- **Others** (Frey; Pitken & Myers) predict less change

Transportation-Land Use Implications

- **Balanced, Mixed-Use Communities**
- **TODs & Streetcar-served Centers**
- **High-Amenity, Ped-Oriented**







Central Vancouver 2004

140,000 jobs -

100,000 residents

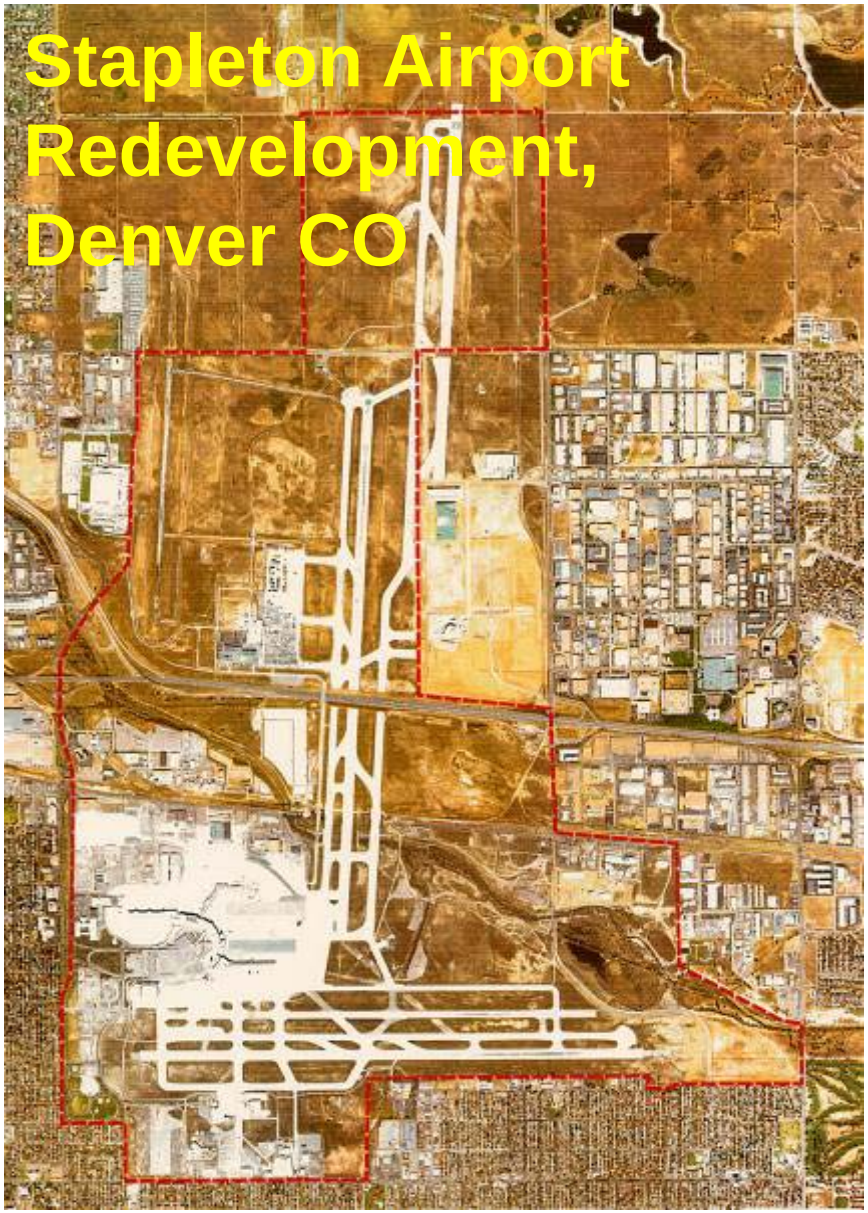
Jobs: CBD

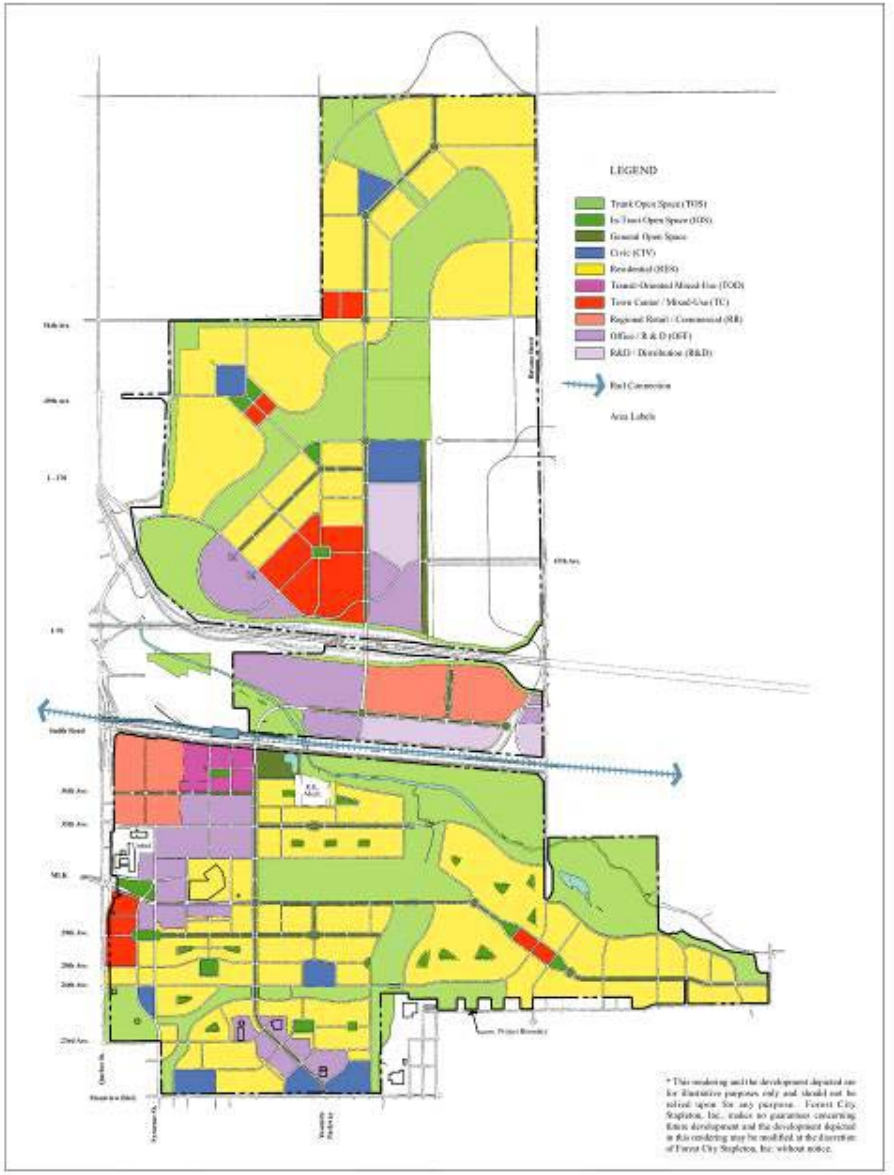
Housing Zone

65% of employed core-area residents work downtown

commute VKT per capita ~ 40% regional average

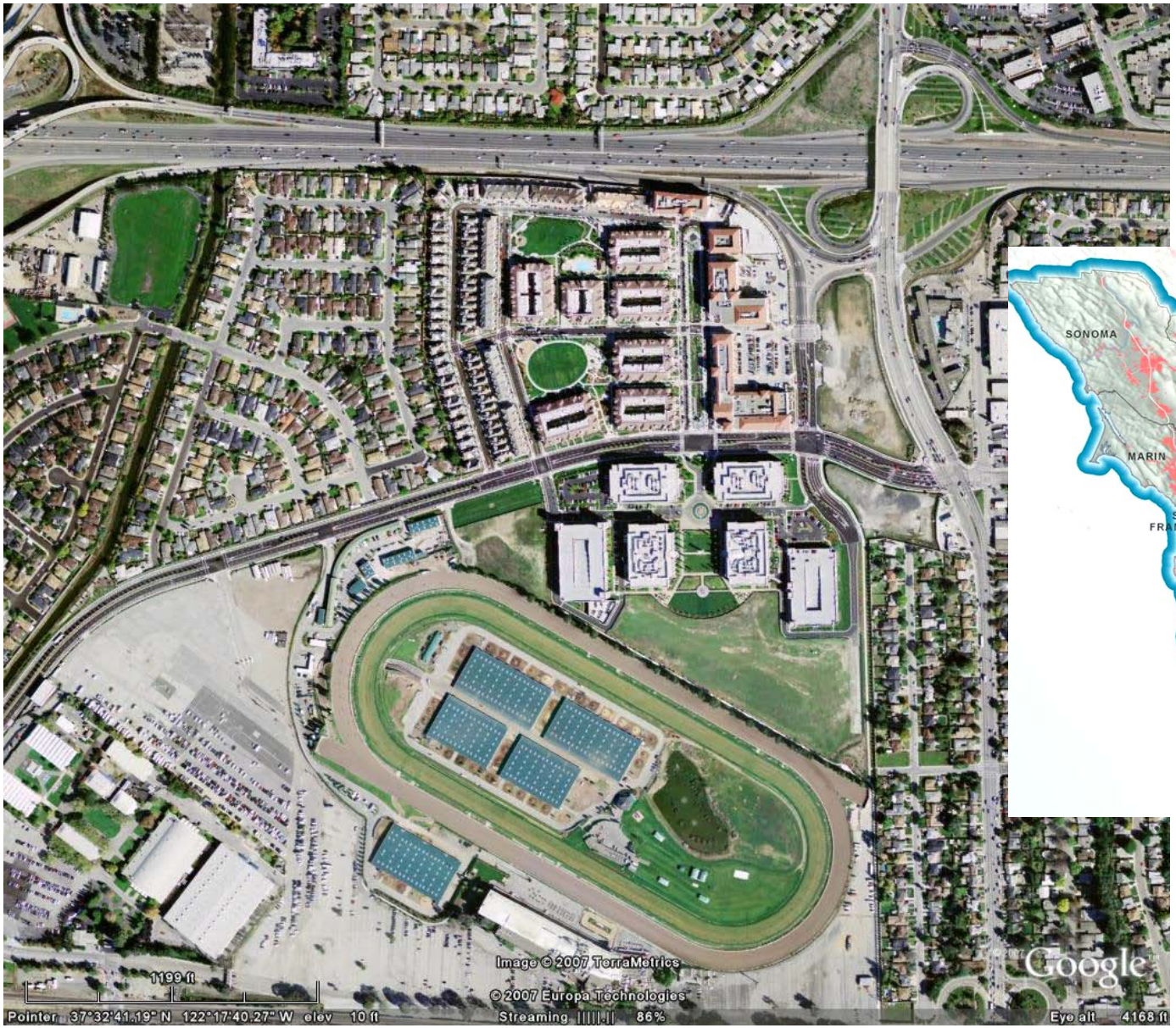
Adaptive Re-Use: Recycling Dis-Used Urban Spaces

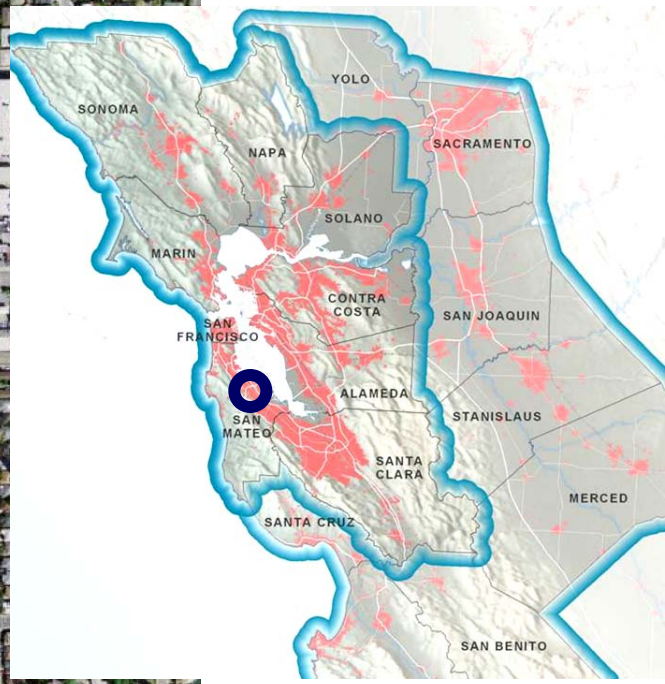




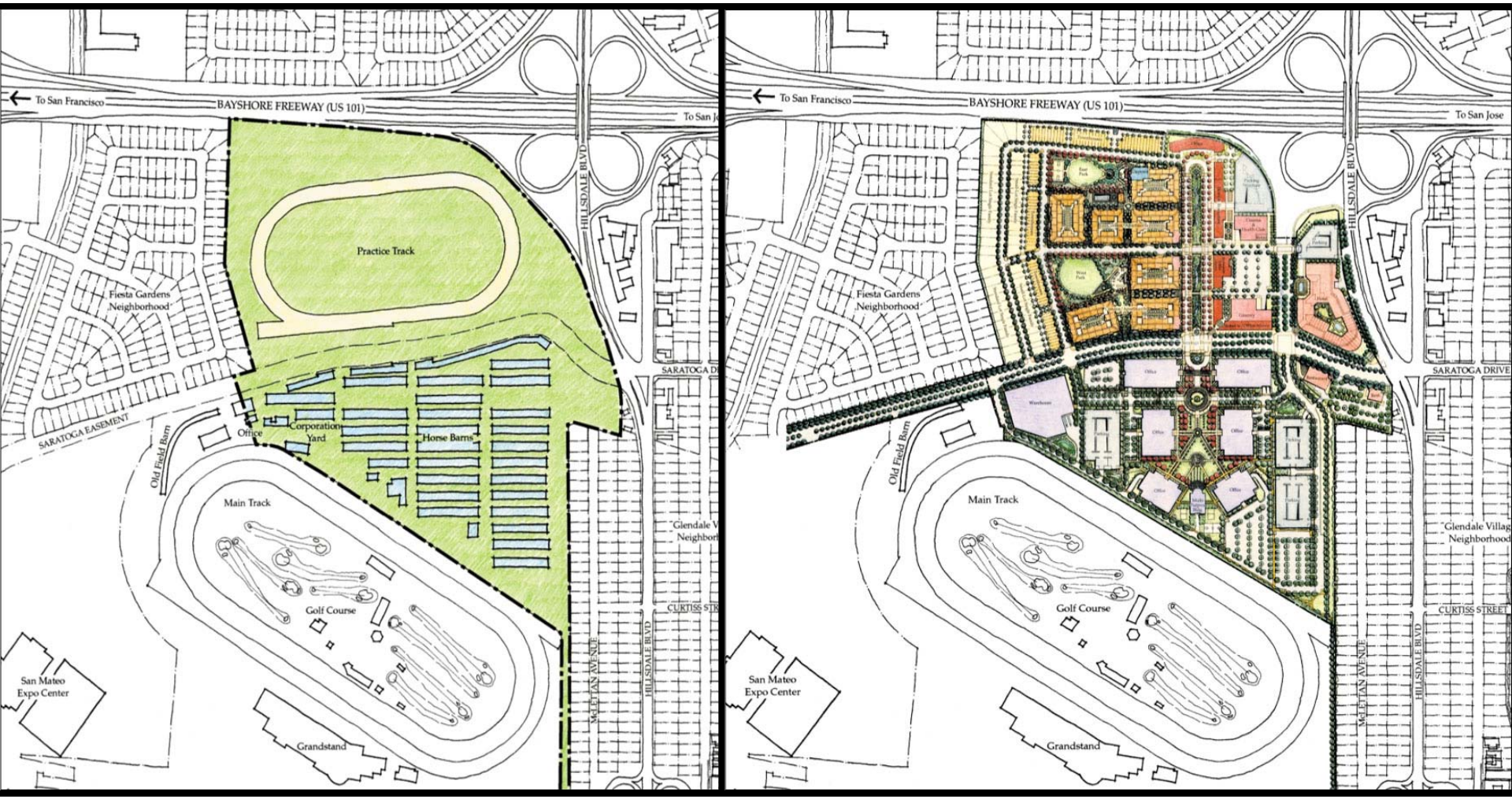
Stapleton Airport Redevelopment, Denver CO

Bay Meadows Redevelopment, San Mateo





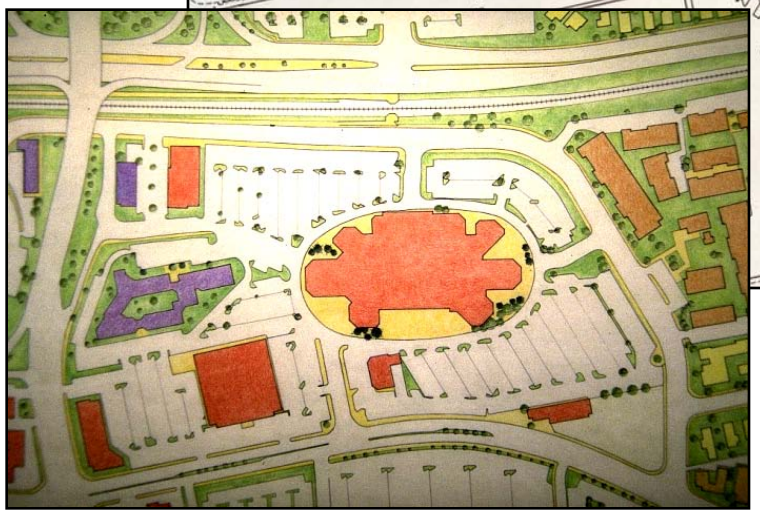
Adaptive Re-Use: Recycling Decaying Districts



Bay Meadows Redevelopment, San Mateo

The Crossings, Mountain View

CalTrain



Redevelopment of Failed Shopping Center

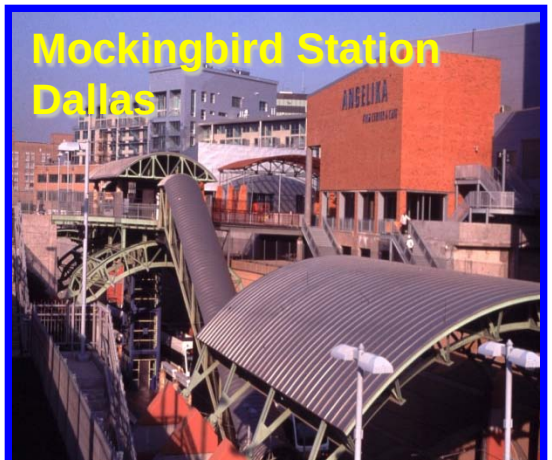
The Crossings, Mountain View

TOD: Market responsive

- **In U.S., TOD has the potential to accommodate 25% of all new metro households** **(Center for TOD 2004; Urban Land Institute, 2004)**

- **TOD ranked as the top real estate investment prospect** **(*Emerging Trends in Real Estate*® by ULI and PricewaterhouseCoopers every year since 2005)**

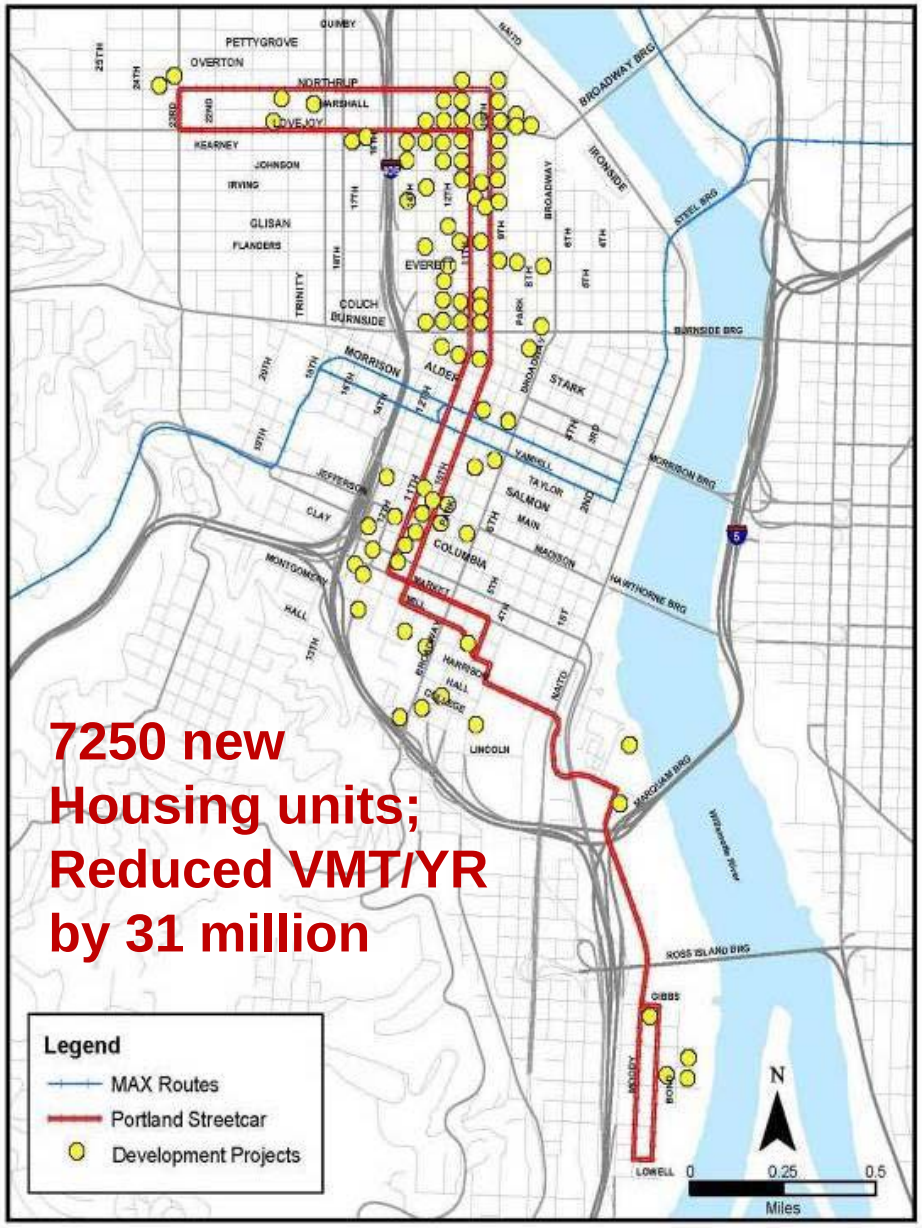
- **CTOD estimates doubling of US HHs living within walking distance of rail station: 2000 – 6.2 million HHs**
  2030 – 15.2 " "



Portland Streetcar

Development Activity within the Portland Streetcar Local Improvement Districts

January 2006



Adaptive Re-Use TOD

Place-making Emphasis: Fruitvale BART

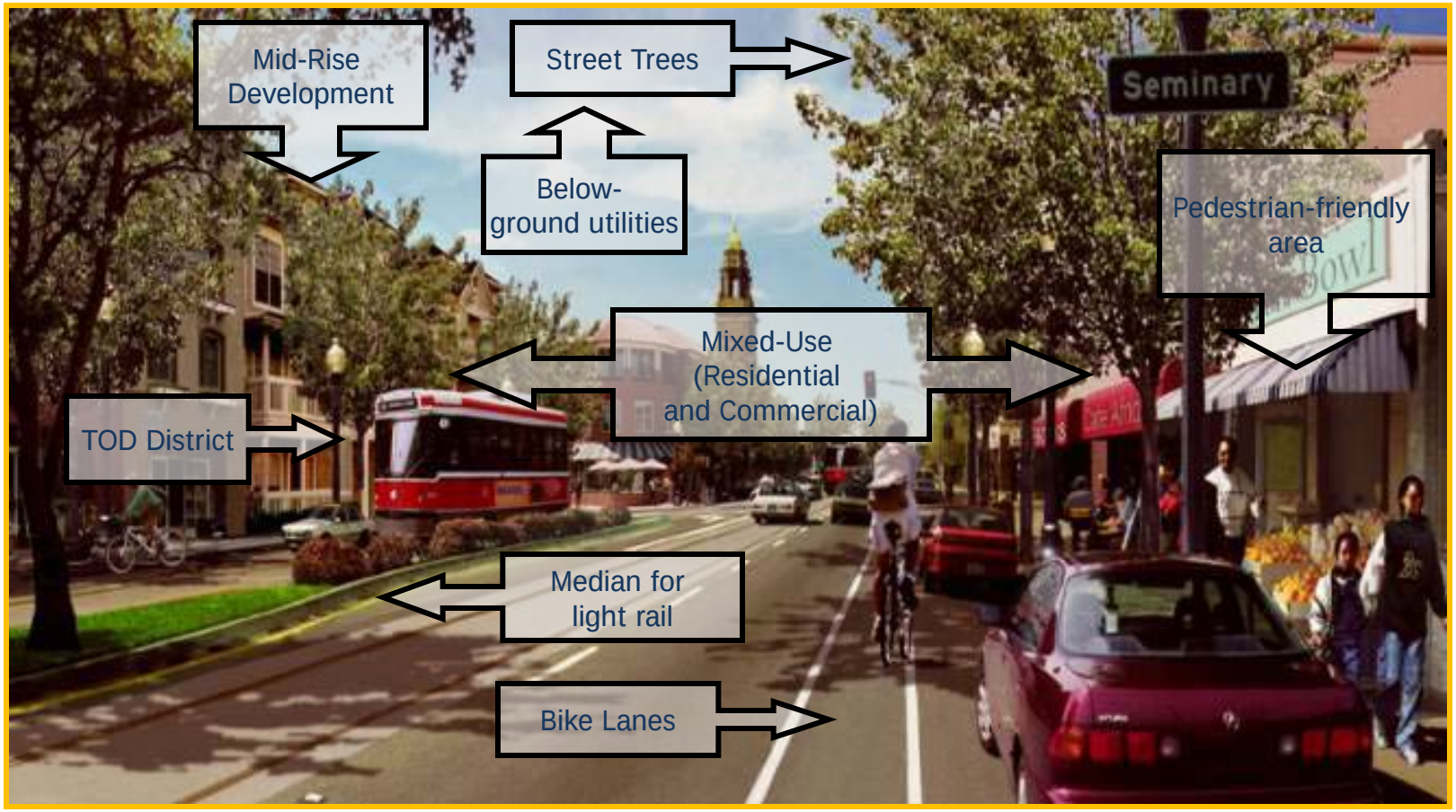
Historical Latino Enclave

INTERNATIONAL BLVD "MAIN STREET"

Smart Growth Street Design

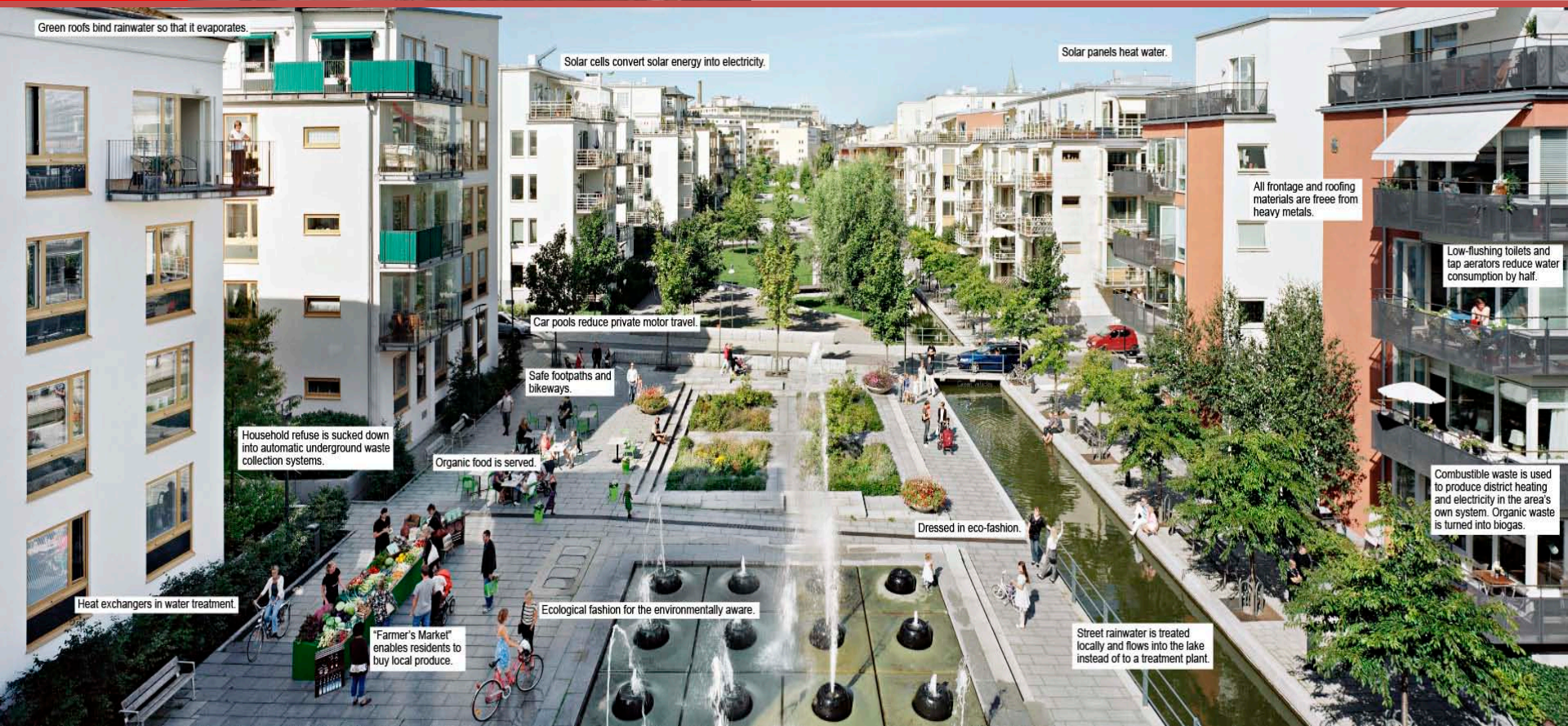
INTERNATIONAL BLVD "MAIN STREET"

Smart Growth Street Design



Hammarby Sjöstad: Eco-Community

- Residents produce 50 percent of the power they need — by turning recycled wastewater and domestic waste into heating, cooling and electricity.
- Waste treatment: all garbage is separated and much of it goes to produce energy.



Urban Regeneration & BRT in Seoul, Korea

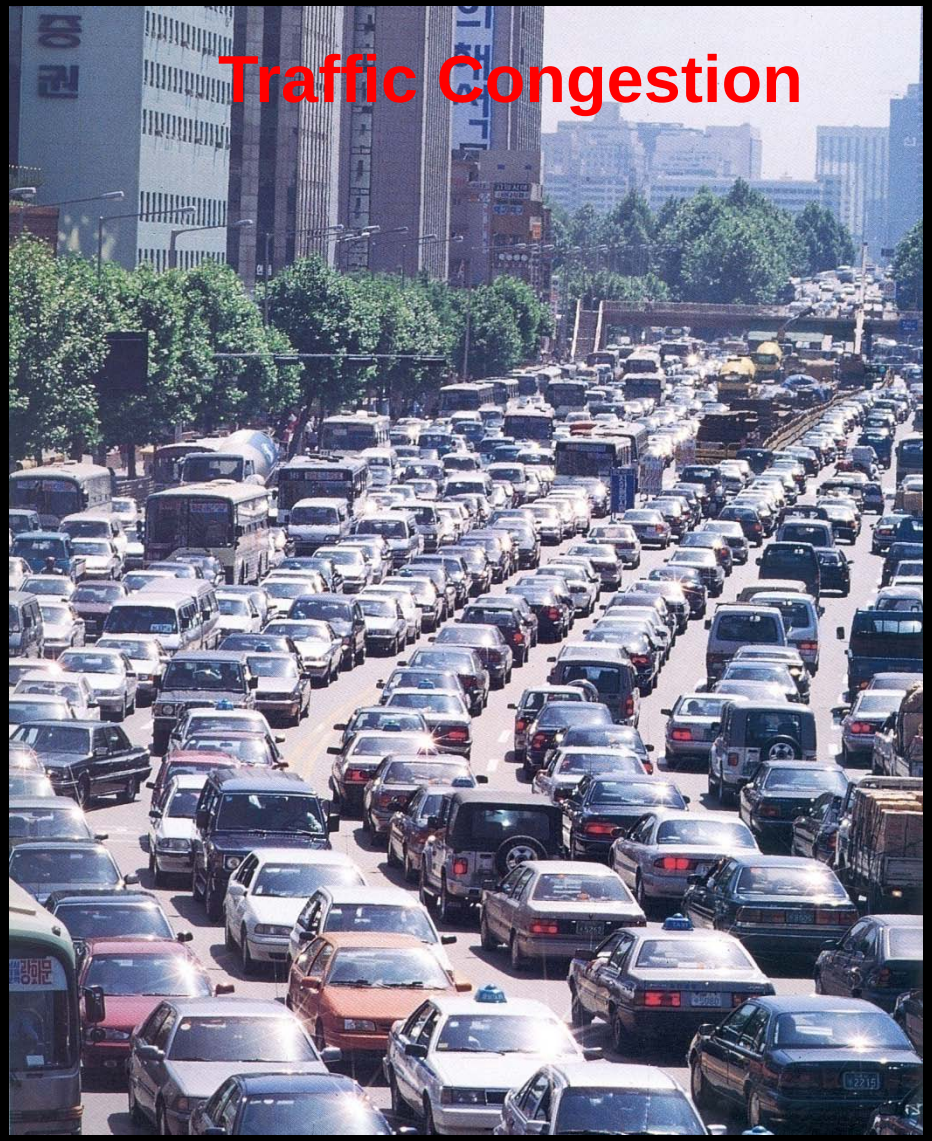
Redesign of Seoul Plaza

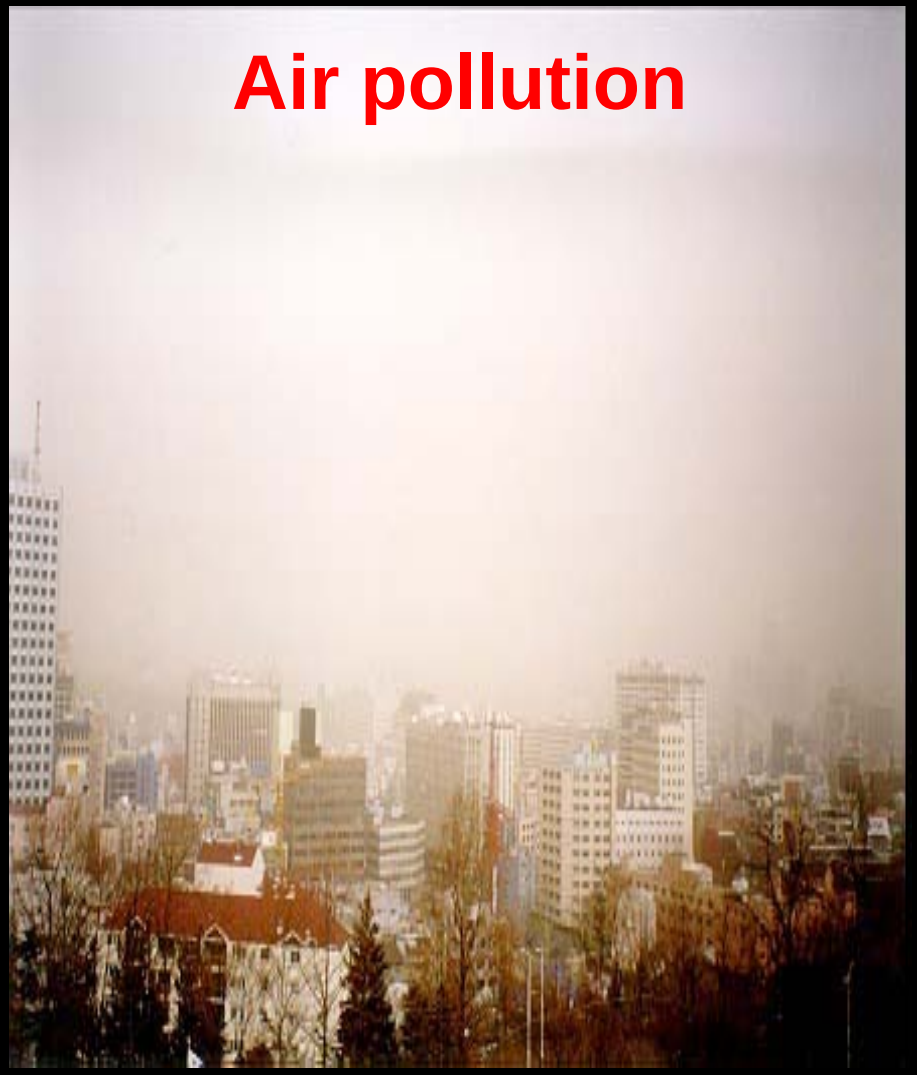
"Calmed" Traffic with a Pedestrian Oval

Cheong Gye Cheon

Freeway Removal/ Stream Restoration

SEOUL in 90's





Impacts of Seoul's Land Reclamation

June 2003
Before Restoration

June 2004
Under Restoration

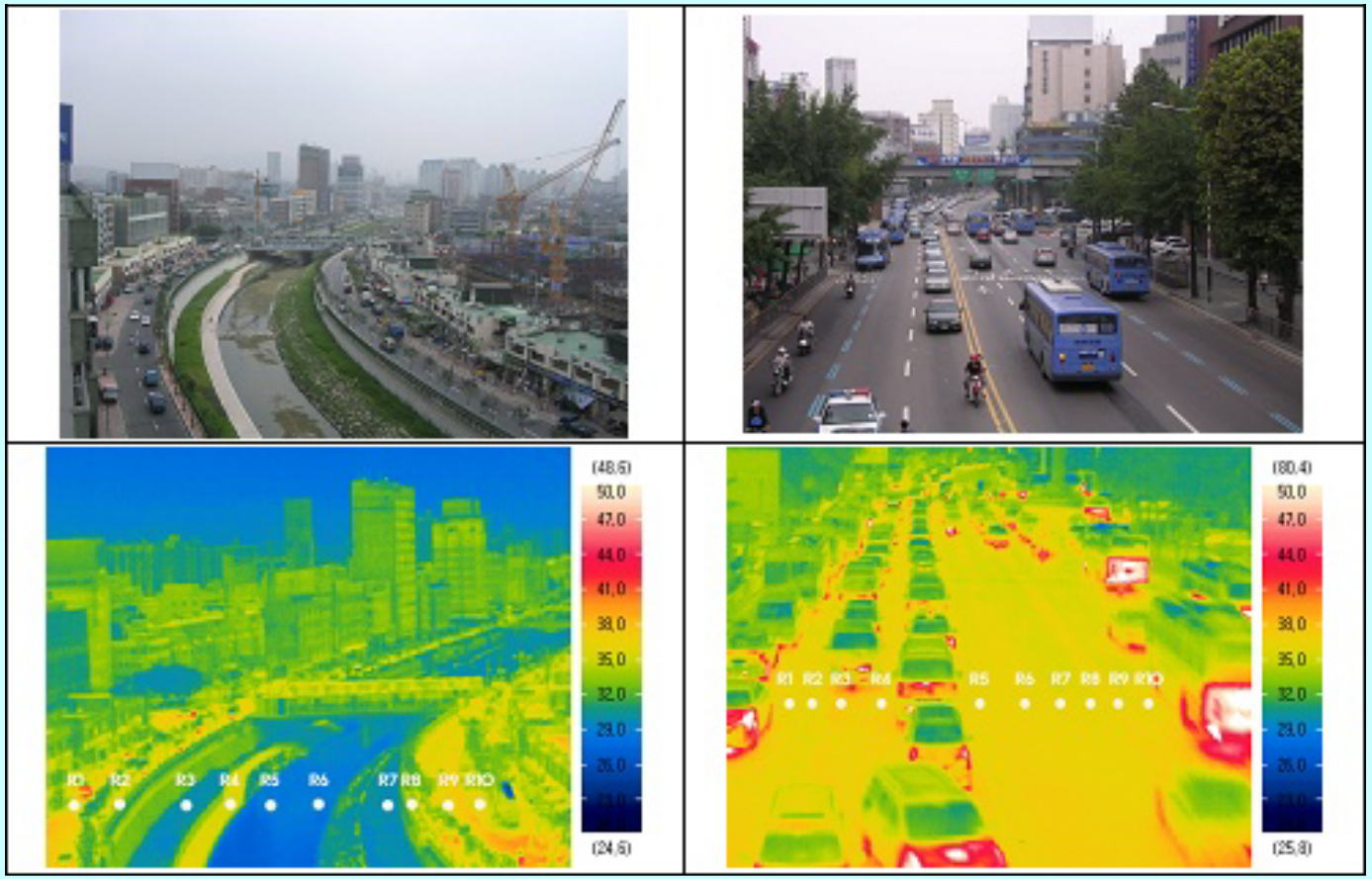
September 2005
After Restoration

- Land values & rents increased after Freeway-to-Greenway conversion
- Evidence Industries with "Creative Class" workers have concentrated around Greenway

Night View Cheong Gye Cheon

Greening of Central Seoul

Thermal Intensity in CBD



Average Lowering of Temperature of 2 % ~ 5 %

Seoul, Korea

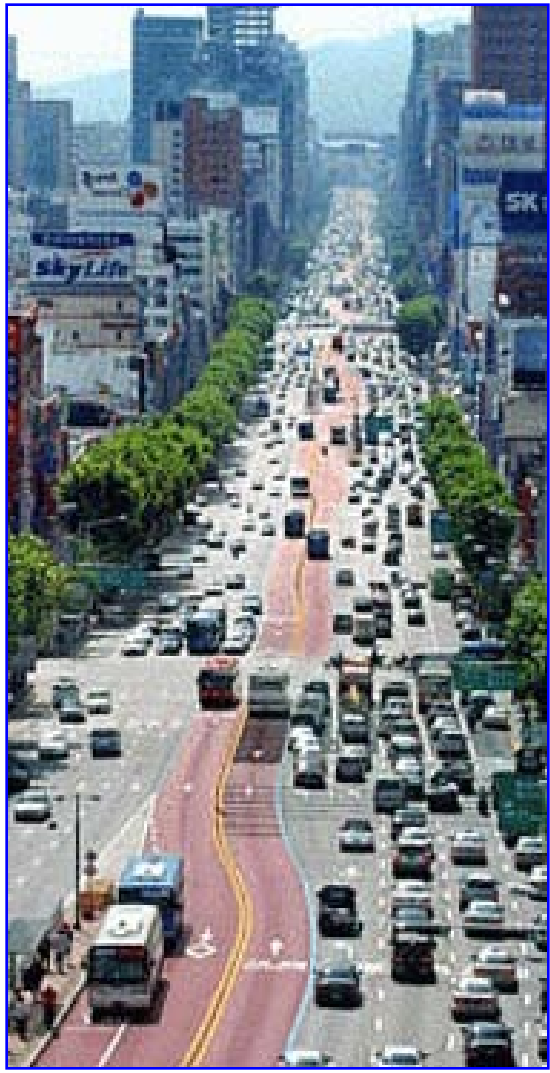
BRT: Key to absorbing traffic displaced by Road Capacity Losses

Exclusive median bus lanes: 7 lines/ 84 km

Curbside bus lanes: 293.6 km

BRT's Impacts in Seoul

- **Increase of speed for both bus and passenger-car**
  - 10 km/h to over 20 km/h
- **Higher passenger loads**
  - 6 times more passengers than other lanes
- **Less travel time variation**
  - 5 times less than other bus lanes



- Transfer terminal
- Attractive street furniture

Balance, Variety, Choice

Sustainable Mobility

It's easier to get pollution,
than people, out of cars

Sustainable Urbanism

Also need sustainable Cities & Regions
… Also Market Responsive
….
Reflect increasing plurality & diversity of American HHs