

Housing, Transportation, Land Use, Open Space – Looking Forward

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Elizabeth Deakin
Professor of City and Regional Planning
Director, UC Transportation Center
Co-Director, Global Metropolitan Studies Program
UC Berkeley

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Today's talk:

- Patterns of growth worldwide
- California growth patterns
- Losses and risks from business as usual
- Opportunities
- A challenge

Emerging Pattern of Growth

- **Global Economy:** international flows of goods, information, and people
- **Metropolitan Focus:** most people in urban areas
- **Multi-nucleation:** many centers
- **Up and out:** infill and renewal AND regional outward spread
- **Mega-regions:** as edges and economies increasingly overlap

US Population Growth: West and South

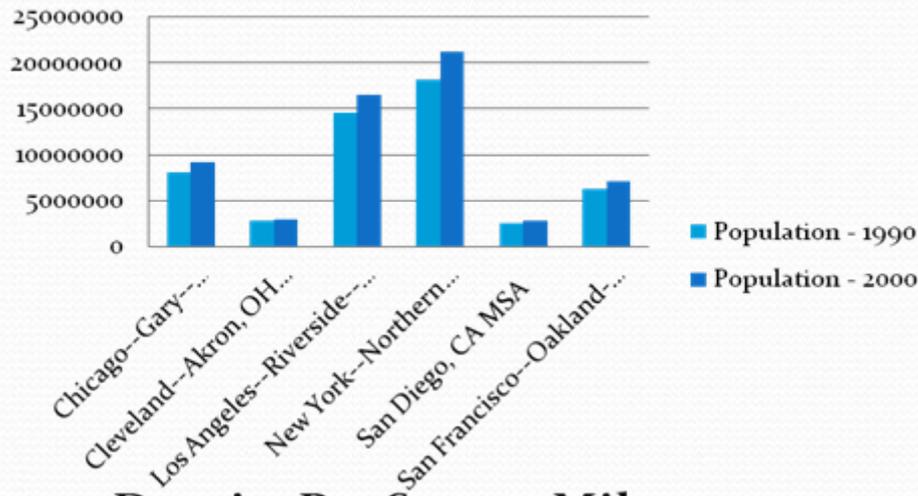
- US 1950: 152 million
- Today: 300 million
- 2025: 335 million
- California, Florida, Texas: 30% of growth 1950-2005 -- --
from 14% of pop. (about same as NE US)
-- to 29% (3 times pop. of NE)
- By 2025-2030: CA 50 million
- Raises questions of governance, representation
- Raises questions of physical consequences

Metropolitan Growth: Areas > 1M

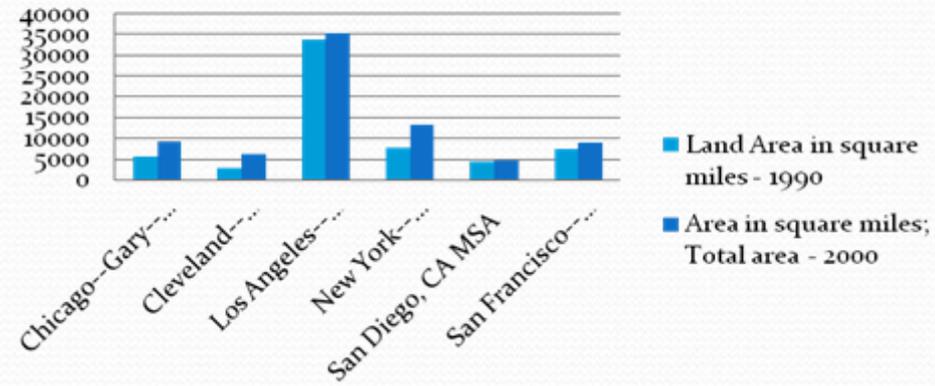
- World-wide trend
- US: 38 in 1990, 49 in 2000
- 37% of population in 20 largest MSAs, 57% in largest 50 CMSAs (58% of employment)
- 80-85% of population is now urban/metro , but metro includes broad low density peripheries
- Metro areas are blending into each other – predicted in 60s, happening now

Sprawl: Changes in Population and Land Area, 1990-2000, Selected Cities

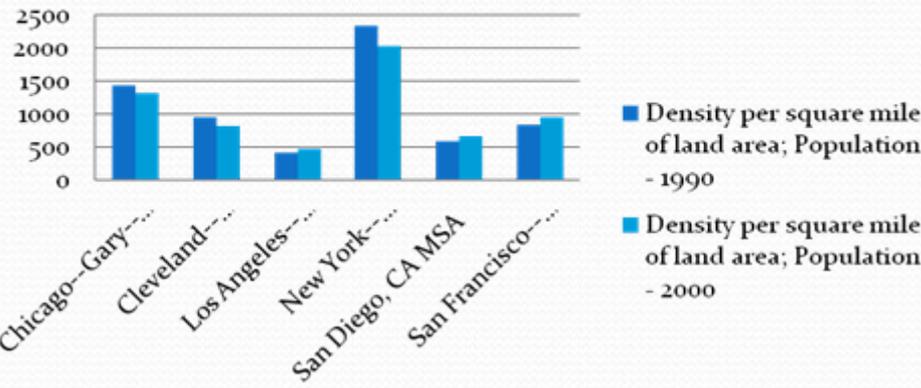
Population, 1990-2000



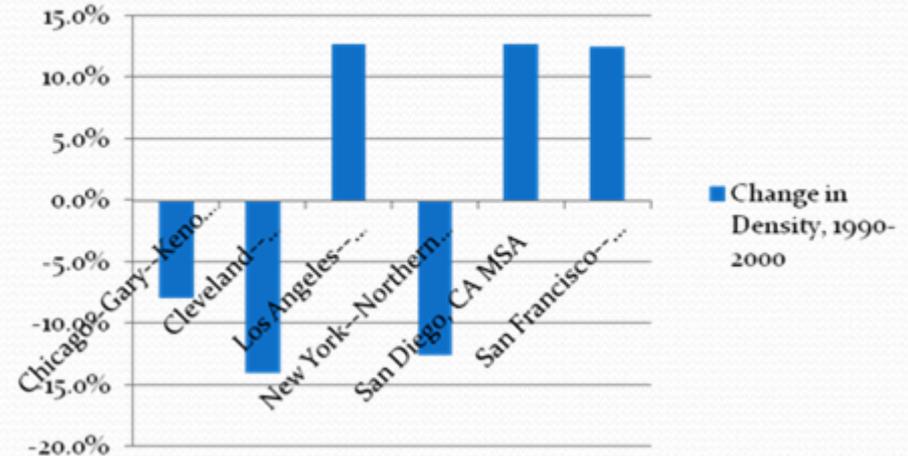
Land Area in Square Miles, 1990-2000



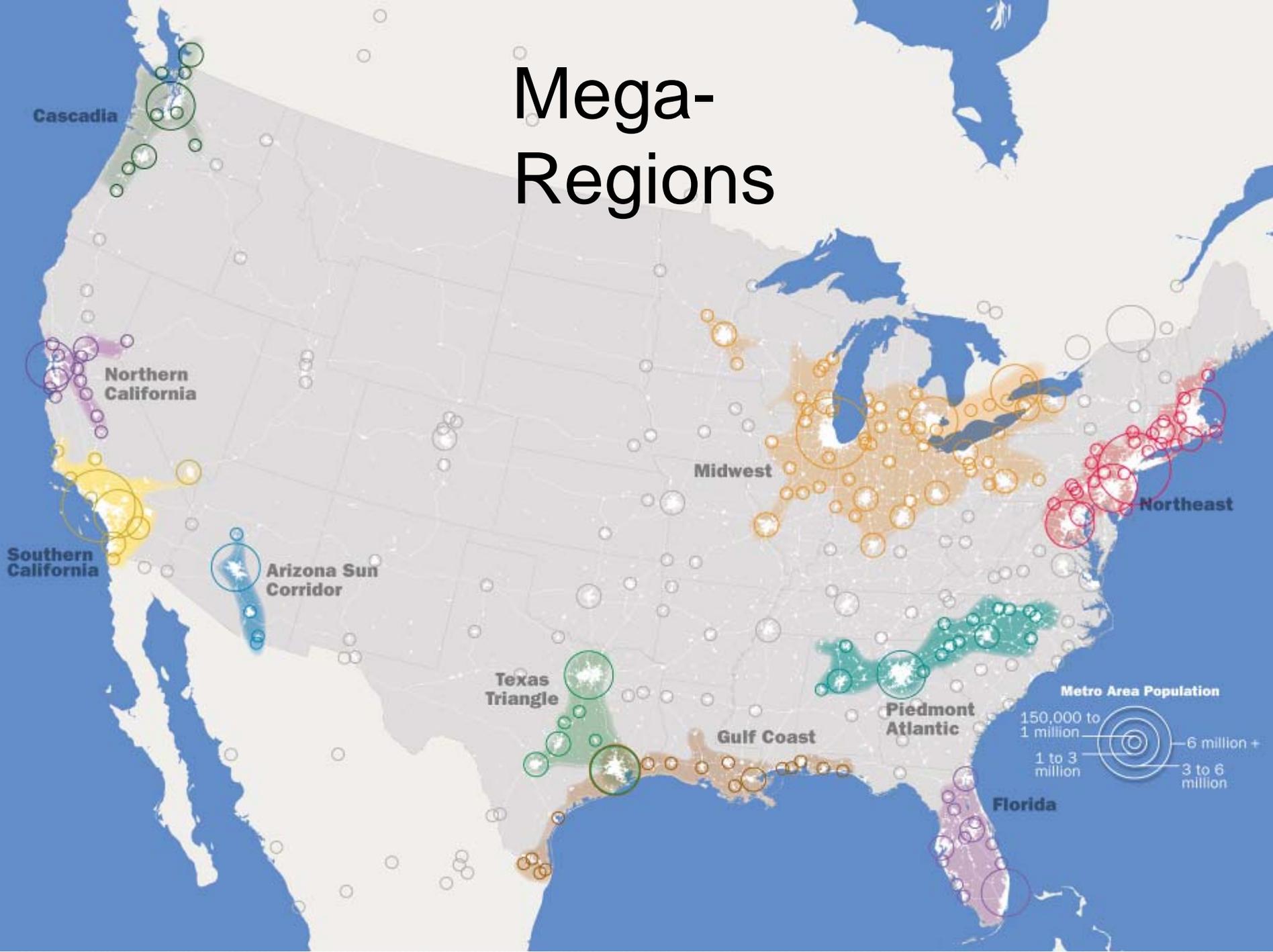
Density Per Square Miles, 1990-2000



Change in Density, 1990-2000



Mega-Regions



Factors Affecting Patterns of Growth

- Push and pull: high costs in central areas, lower costs on the urban fringe and beyond
- Environmental quality at edge
- Government policies favoring home ownership
- Economies of scale in mass production
- Taxation, regulation often lighter on edge (initially)
- Image, lifestyle, and lifecycle considerations including preferences for single family houses BUT
- Not homogeneous – many different values involved AND
- These factors can change...

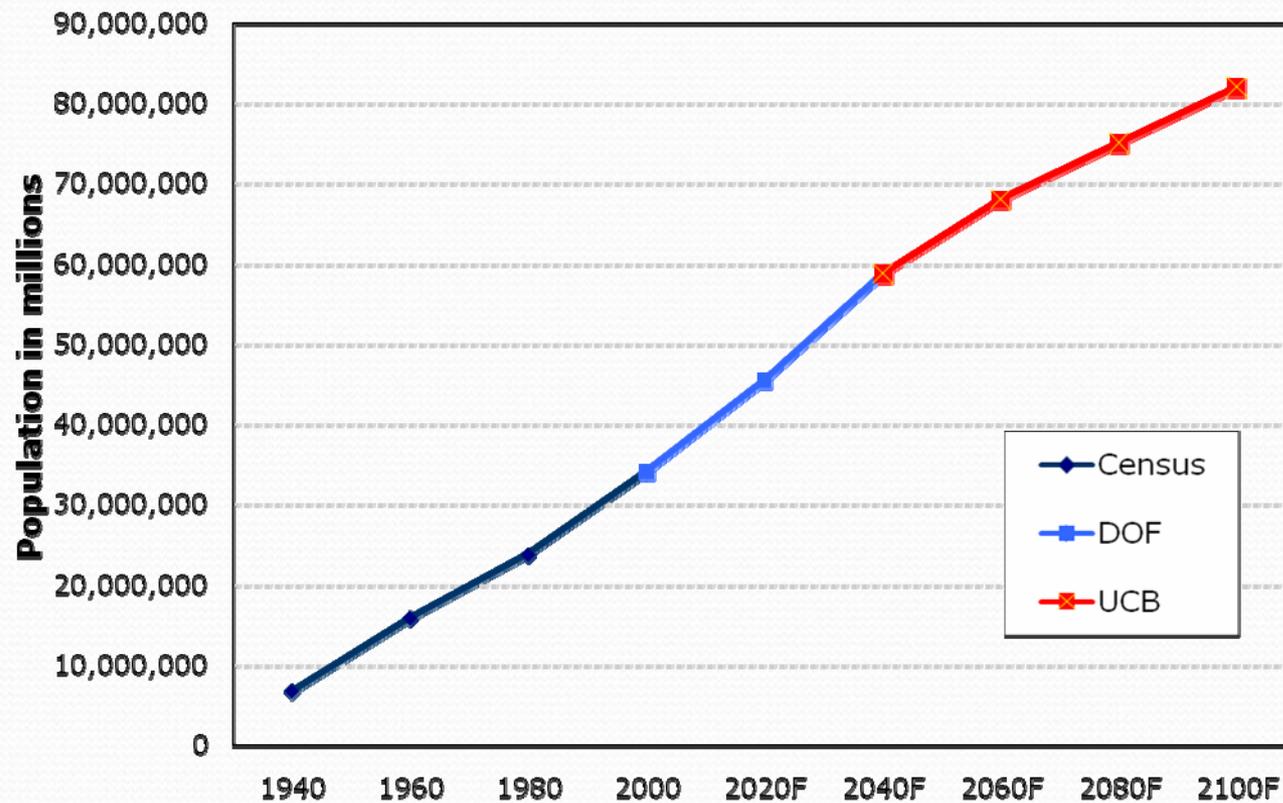
Demographic Changes & Housing Demand

- 80 M new housing units needed, 115 B sq ft nonresidential next 40 years BUT
 - Older population
 - More childless couples, singles -- may mean:
 - Demand for smaller houses, townhouses, condos increasing, with higher profits --- especially considering
 - Higher demand for building materials, fuels means continued construction price rises likely – affordability issues will continue
- **Opportunities for new ways of growing**

II - Focusing on CA Growth

- Historic growth due to
 - Natural resources
 - Education and innovation
 - International gateways: ports and border
 - Mediterranean climate (at least on the coast)
- Today's growth increasingly due to natural increase and immigration rather than migration
- Can we continue growth due to regional advantages?

CA Population Growth



Where CA Growth Locates

From: Landis, California Urban & Bio-diversity Analysis Model (CURBA)

Factors that encourage growth:

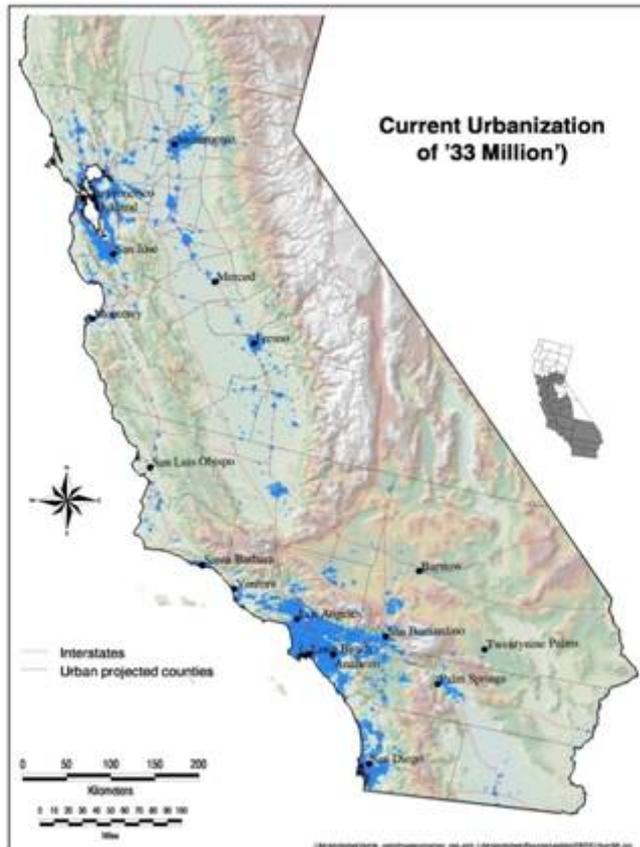
- Proximity to freeways
- Access to jobs
- Incorporated location

Mildly negative for growth (part cost, part regulation-driven):

- Steep slopes
 - Flood plains
 - Prime agricultural lands – BUT
 - Increasingly these lands are being converted to urban uses
- POLICY MATTERS!

A Business as Usual Growth Forecast

Landis, California Urban & Bio-diversity Analysis Model (CURBA)



What's Lost with Business as Usual

No doubt about losses in:

- Wetlands
- Habitat
- Prime and unique farmland

May also have losses in:

- Water quality
- Air quality
- Mobility
- Sense of place

What's at Risk

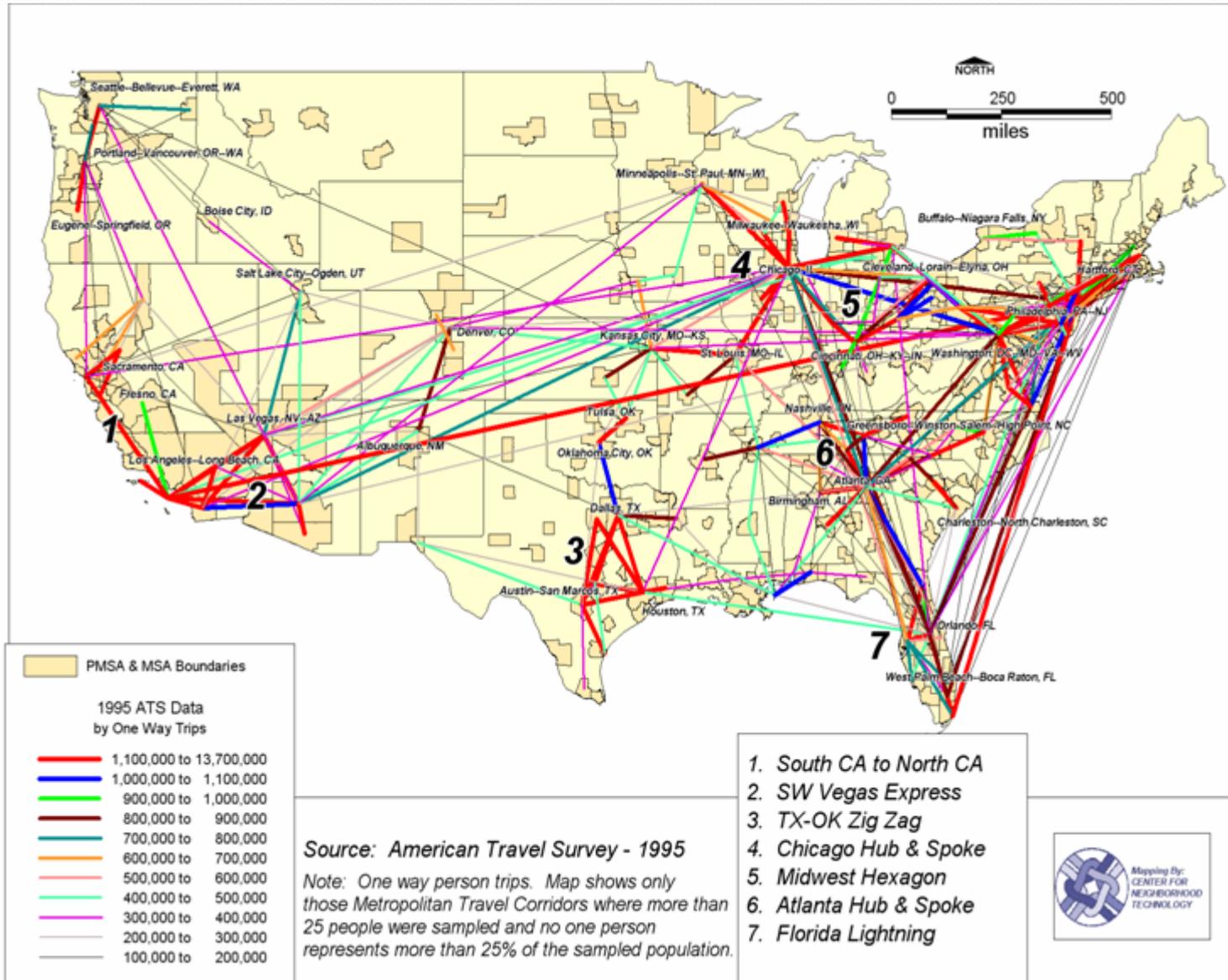
Add global warming, and risk expands:

- Flooding
- Drought
- Invasive species
- Spread of disease vectors
- Losses in agricultural productivity

III- Transportation: A Special Concern?

- A necessity for economic development, social engagement
- A big ticket item that enables and shapes growth
- In current forms, many negative externalities – environment, energy, equity issues
- Choices available at national, state, regional and local levels

Mega-Regions Reflected in Long Distance Travel Patterns



Journey to Work, US, 1990 & 2000 – Driving is UP

(Work & work-related trips ~25% of total; ~ half of transit trips are work trips)

Mode	1990	2000
Drive Alone	73.2	75.7
Carpool	13.4	12.2
Transit	5.3	4.7
Motorcycle	0.2	0.1
Bike	0.4	0.4
Walk	3.9	2.9
Other	0.7	0.7
Work at Home	3	3.3

The problem with so much motor transport...

- Congestion – delay has doubled; 43% of CA freeways under 35 mph during peaks
- Crashes – deaths, injuries, property losses
- CO, O₃, NO_x: improvements BUT air toxics, PM 2.5 raise new health concerns
- CO₂ and other greenhouse gases 35% from transportation in CA
- Water pollution, noise, vibration
- Community disruption, severance
- Ecological impacts – flora, fauna, habitat, exotic species
- Costs of defending petroleum supplies; risks if cut off
- Best est. = external costs are 2-3 times what users pay, not incl defense costs
- Distribution of costs highly uneven – equity issues

Funding Transportation: On our Own?

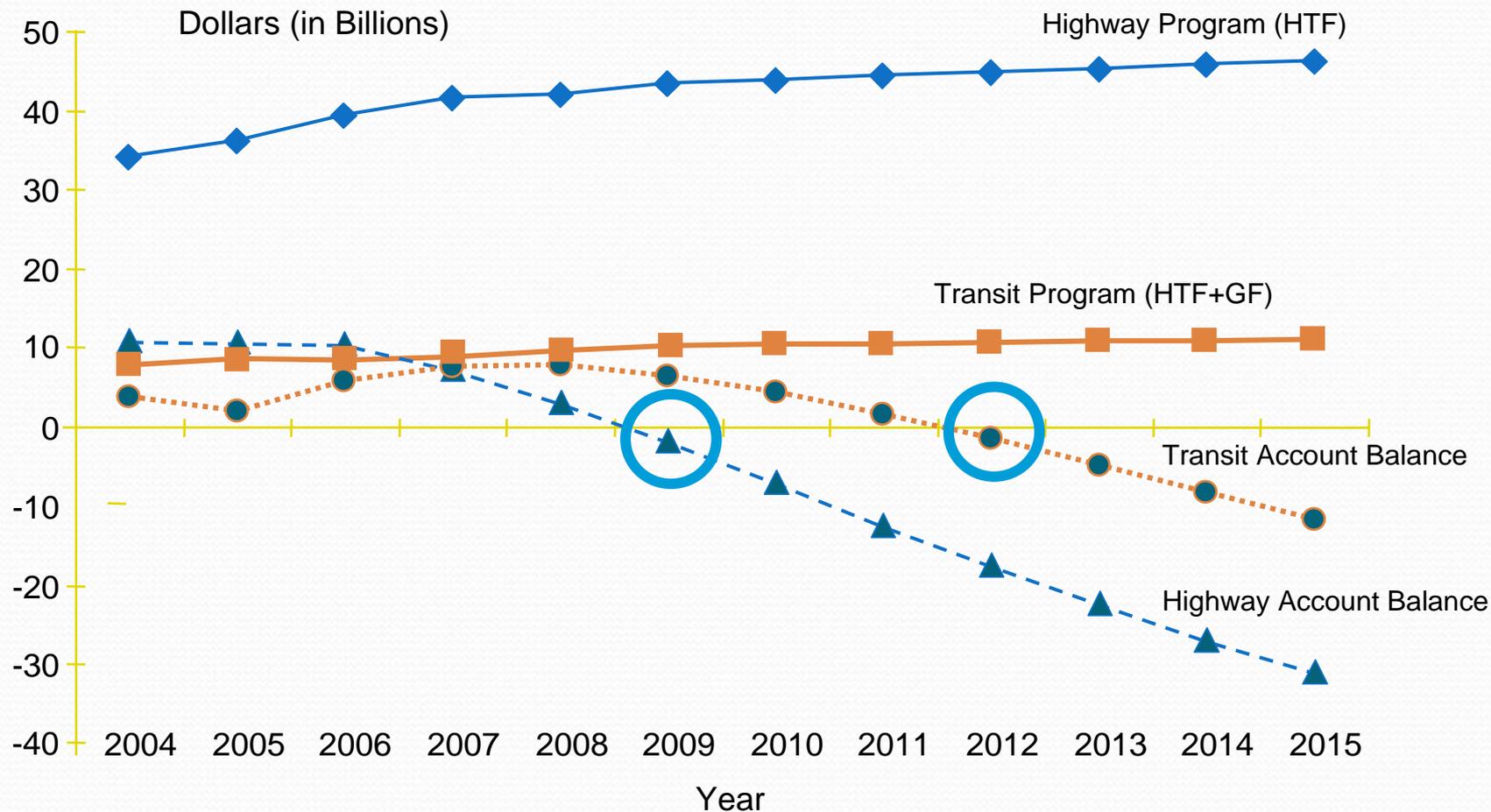
- 2005 expenditures on highways and transit:
\$177B (all levels of govt., US)
- Sources shifting:
 - from federal to state and local,
 - from user fees (gas tax, tolls) to sales taxes, special taxes, and borrowing (not related to use)
- CA 2005-6: 20B total - 23% fed, **30% state, 47% local**

The Declining Value of the Gas Tax

- would have to rise an average of 11 cents a gal. to reach 1957 purchasing power
- State av. 19.29 cents/gal = 4.35 cents, fed. 18.4 (cents/gal = 4.15 cents in constant 1970\$)
- decline in value is reflected in declining REAL expenditure levels for streets and highways

Highway Expenditures, 1970 -2000 Cents per VMT	1970	2000	percent change
cents/VMT	1.88	4.4	134%
corrected for inflation		1.02	-46%

Running on Empty: Est. Federal Highway and Transit Program Levels and Highway Trust Fund Balances



* Based on 2007 Treasury Mid Session Review revenue estimates; spending assumption 2010-2015 based on current services baseline for discretionary outlays; 1.15% growth per year.

IV Summary – Consequences of Business As Usual

- Growth on periphery at low densities makes auto a necessity, transit an iffy proposition
- Loss of valued lands due to growth
- Congestion without good options
- Pollution, GHG emissions, public health issues
- Disparate negative impacts on lower income pop.
- Most funding from locals, but land use and transportation Issues cross both local and regional boundaries

**** THE WAY WE GROW MATTERS**

**** WE CAN'T CONTROL ALL THE ELEMENTS OF GROWTH, BUT WE CAN MANAGE QUITE A LOT OF THEM**

Some things we need

- Diverse housing opportunities – not a housing monoculture!
- Livable cities
- Parks and open space
- Protected habitat, wetlands, agriculture
- A clean and diverse natural environment
- An emphasis on accessibility, not just vehicle flows (reduce VMT?)
- Responsible programs that reduce greenhouse gases, deaths on the highways, environmental harms, community disruption

Opportunities

Prop 84: \$5.4 billion: water, forests, rivers, beaches, levees, watersheds, and parks

Bond Package: \$42.7 billion

Prop 1B Transportation: \$19.9 billion

Prop 1C Housing: \$2.9 billion

Prop 1D Schools: \$10.5 billion

Prop 1E Flood Protection: \$4 billion

Prop 84 Water and Resources: \$5.4 billion

****Can we use these funds to get us on track toward a healthier future?**

V - A Challenge

The challenge for elected officials and planning and policy staff:

- have a real dialogue on what we want our collective future to be
- search out synergies and design effective programs for development and preservation, jobs and housing, parks and open space, agriculture and environment
- Strengthen institutional capacity to implement those programs and show the voters that their trust was not misplaced
- THANKS