



GreenDividend

Cities facilitate less driving, saving money and stimulating the local economy

Joseph Cortright, Impresa
September 2007

Does being green pay?

- Is conservation just noble self-sacrifice; well-intentioned but un-economic?
- Or does it make a difference to the local economy?

Portland

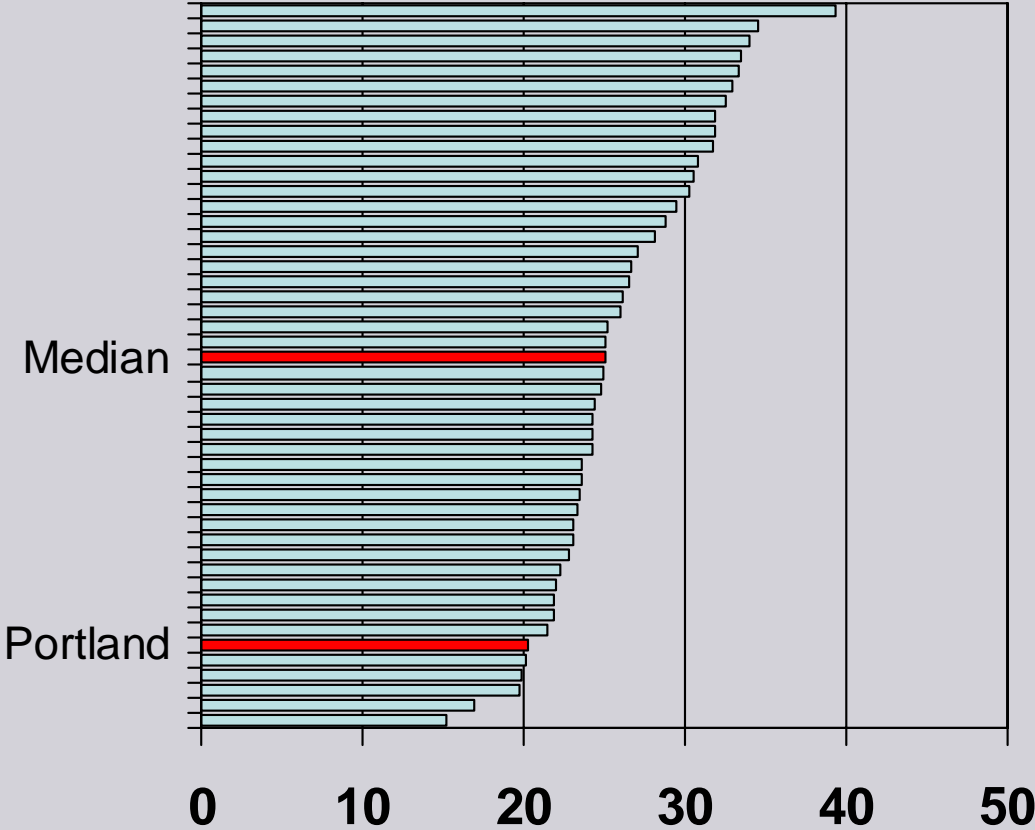


Green Portland

- One of the nation's greenest cities
- City policy to limit greenhouse gases
- Land use and transportation policies
 - Higher density
 - Transportation alternatives
 - Housing choices

Key Measure: Vehicle Miles Traveled

Metropolitan VMT Per Capita, Per Day



Source: U.S. Department of Transportation



Monetary Savings

Annual savings to Portland area:

4.0 fewer miles x

365 days x

2.0 million metro population x

\$ 0.40/mile

= \$1.1 billion annual income savings

Time Savings

- Travel 2.8 billion fewer person miles per year
- (2.2 million people * 365 days * 4 miles)
- Value of travel time estimated at \$15/hour
- Savings in travel time
 - 100 million hours (at 27 miles per hour)
 - Value of time saved: \$1.5 billion

Corroborating Evidence

- Consumer Spending
- Vehicle Purchases
- Gasoline Sales

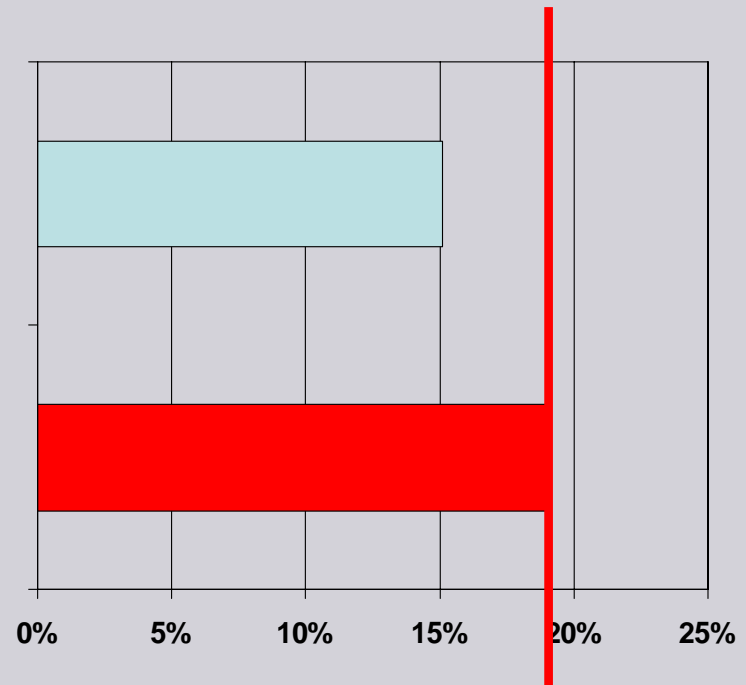
Portland spends less on transportation

Portland

15.1% of consumer expenditures

Average of 26 Largest Metro Areas

19.1% of consumer expenditures

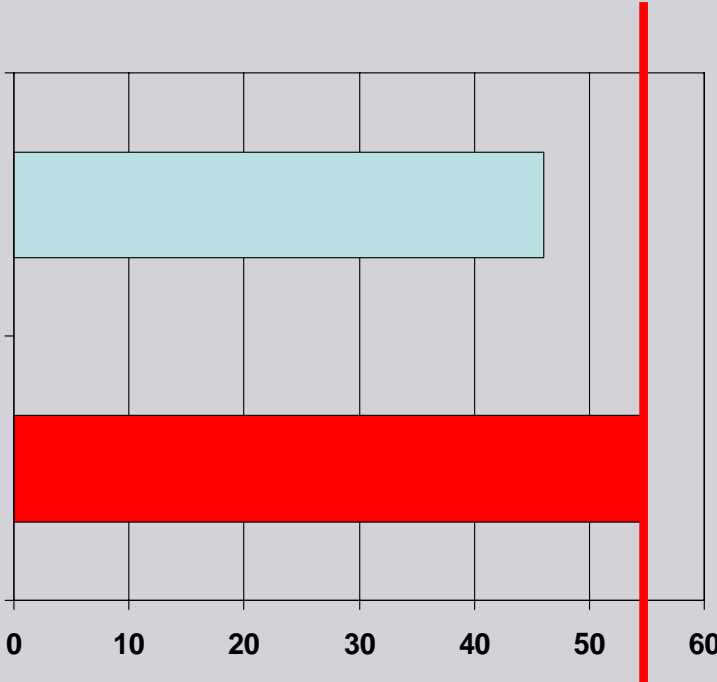


(Source: Impresa analysis of Department of Labor data)

Portland residents buy fewer new cars

Oregon
46 Vehicles per 1,000 Population

United States
55 Vehicles per 1,000 population



(Source: Impresa analysis of National Automobile Dealers Association data)



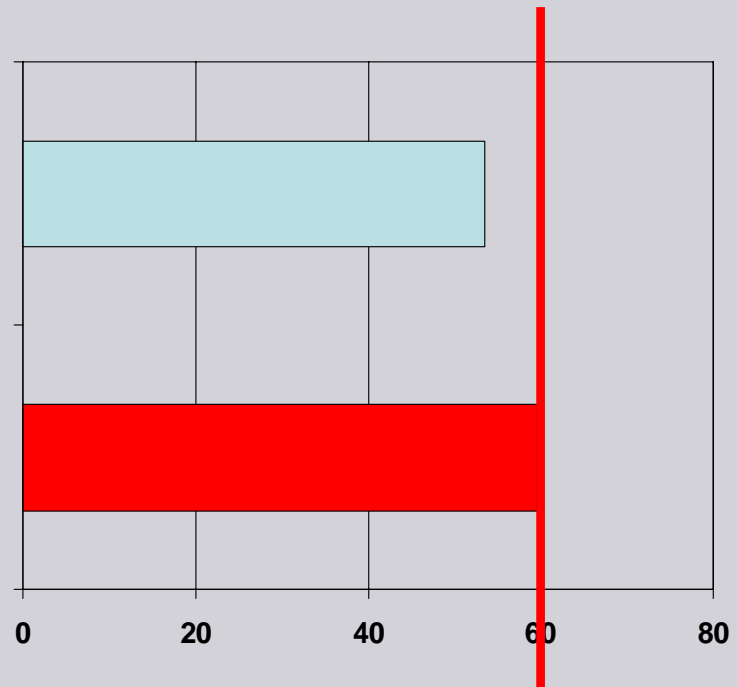
Portland residents buy less gasoline

Oregon

53.5 million BTU per capita

United States

59.6 million BTU per capita



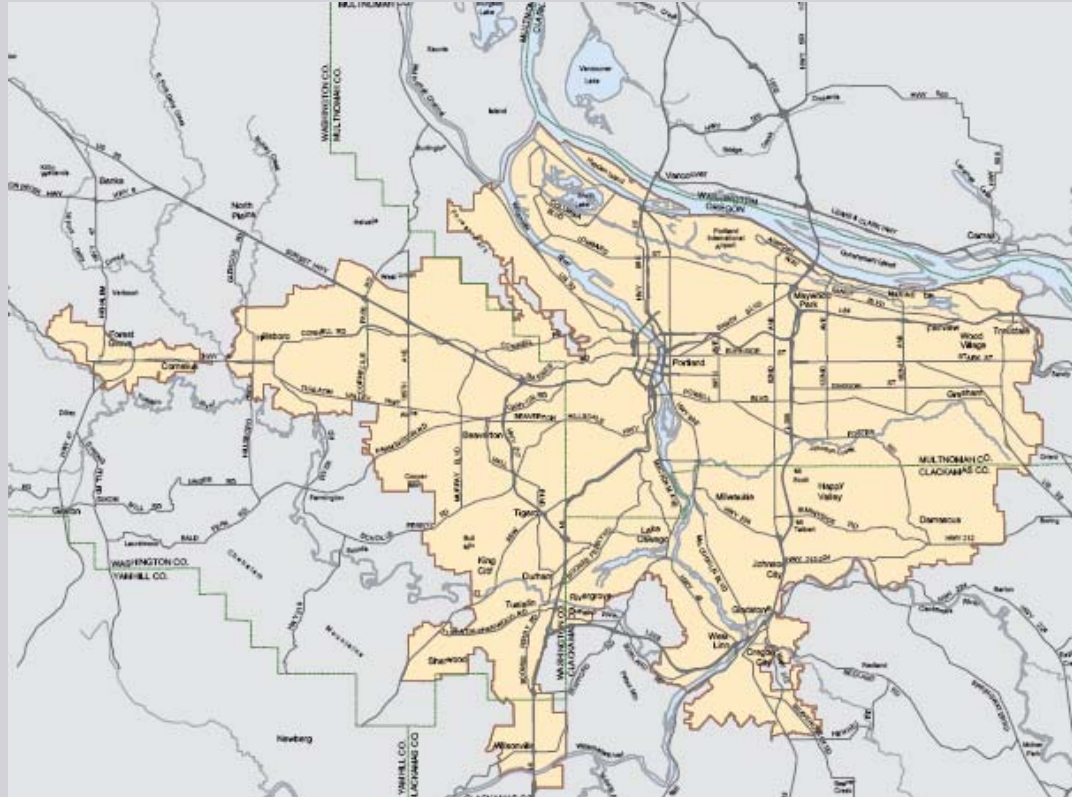
(Source: Impresa analysis of Energy Information Administration data)

How Portland does it

- More Compact Development
 - Urban Growth Boundary
 - Less Sprawl
- Alternatives to Auto Travel
 - Transit
 - Bicycling
- Personal Choices

Compact Land Use

- Portland's Urban Growth Boundary
- Limits on exclusionary zoning



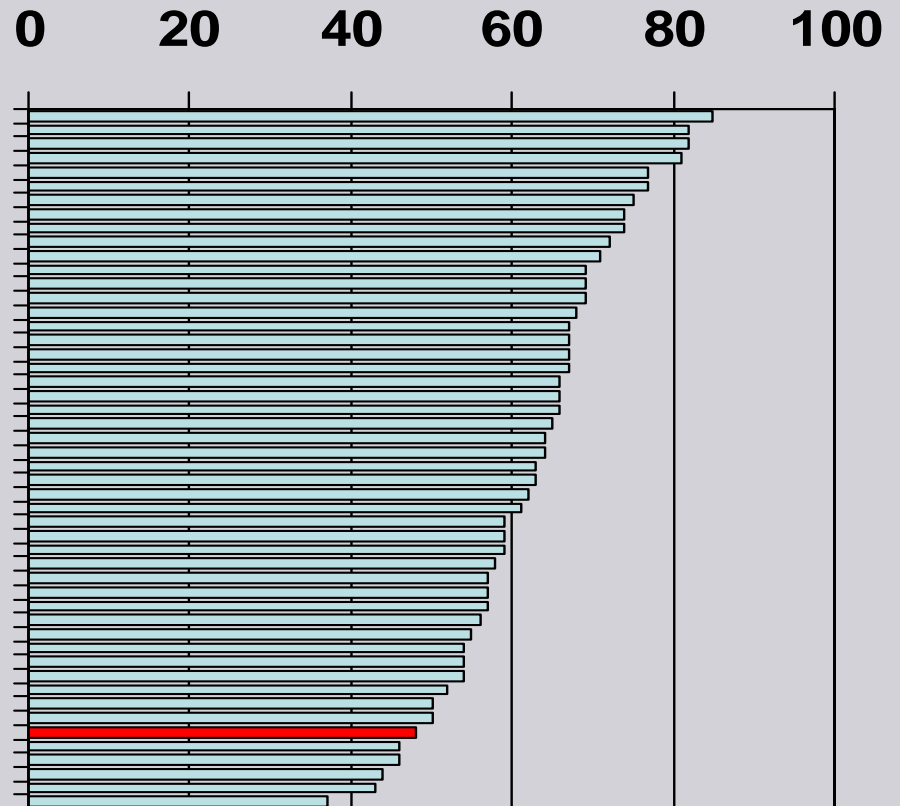
Portland's jobs sprawl less



Source: Impresa calculations from County Business Pattern data)



Less Economic Segregation



Economic Segregation Index:

Percent of High income households that would have to move to balance high and low income households to regional average in each neighborhood)

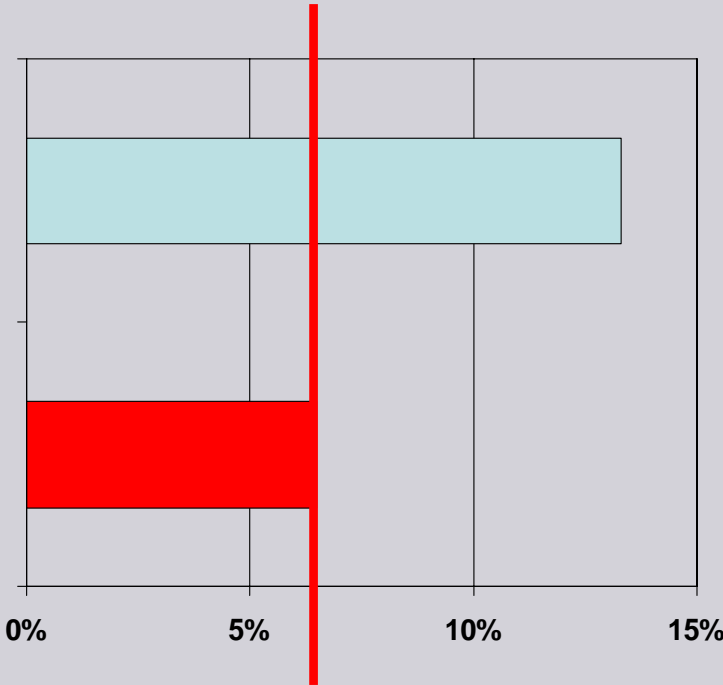
Portland-Vancouver, OR-WA PMSA

Source: Lewis Mumford Institute)

Portland residents ride transit more

Portland
13.3% Commute by Transit

United States
6.5% Commute by Transit



(Source: American Community Survey, 2005)



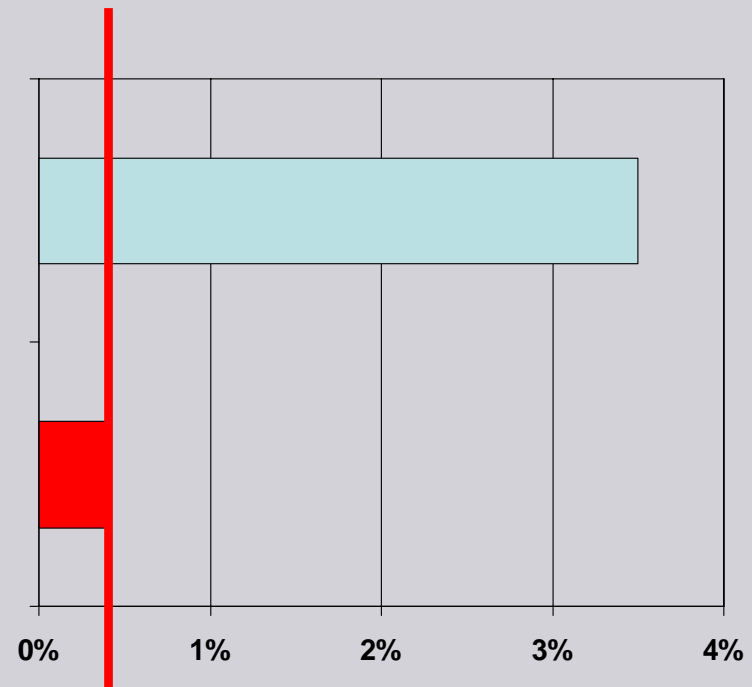
Portland residents seven times as likely to bicycle to work

Portland

3.5% of commuters bicycle to work

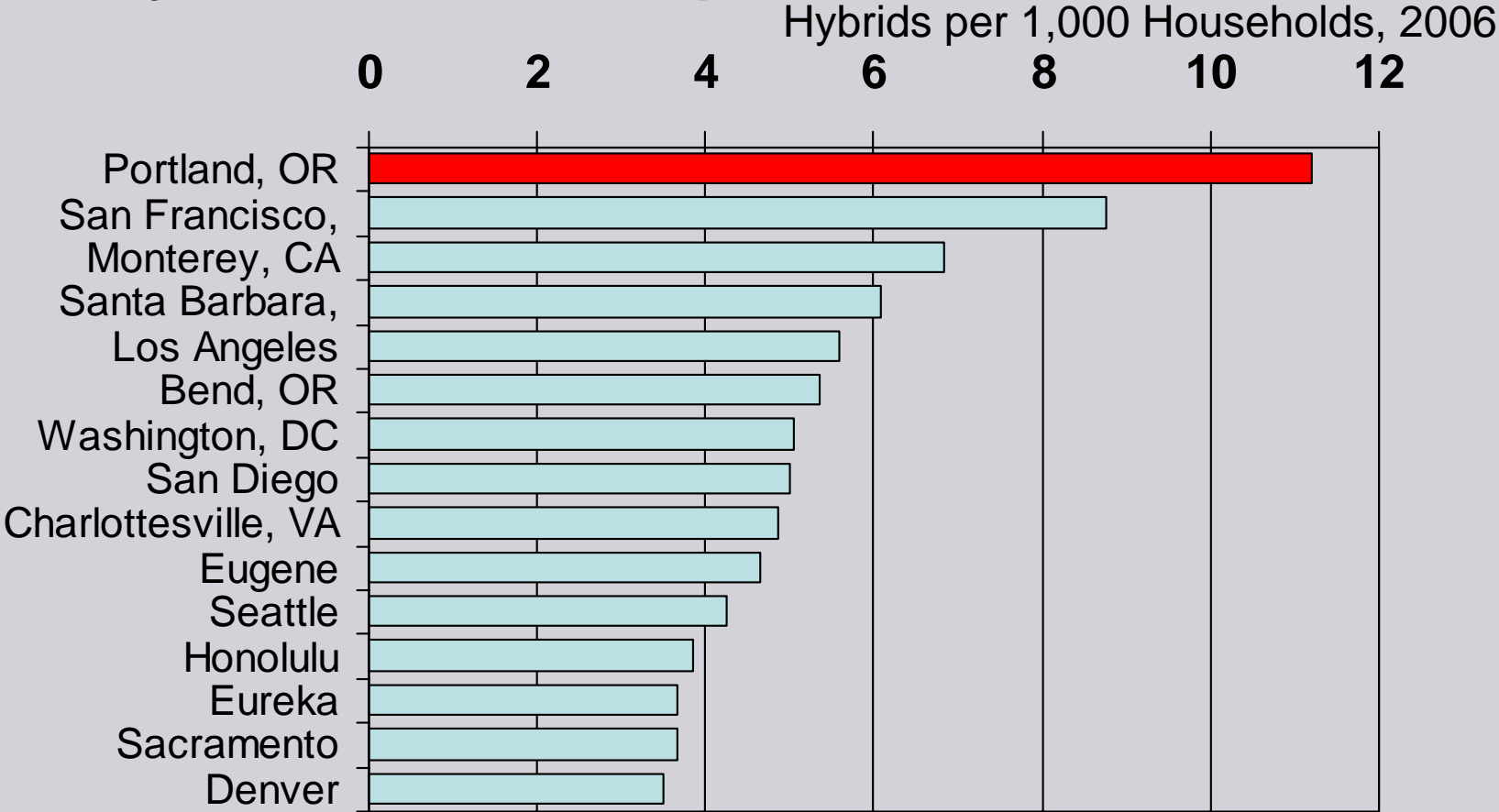
Average for Cities of 85,000 plus

0.4% of commuters bicycle to work



(Source: Census Bureau, American Community Survey, 2005)

Most Hybrids Per Capita



Source: <http://www.hybridcars.com/market-dashboard/feb07-regional.html>



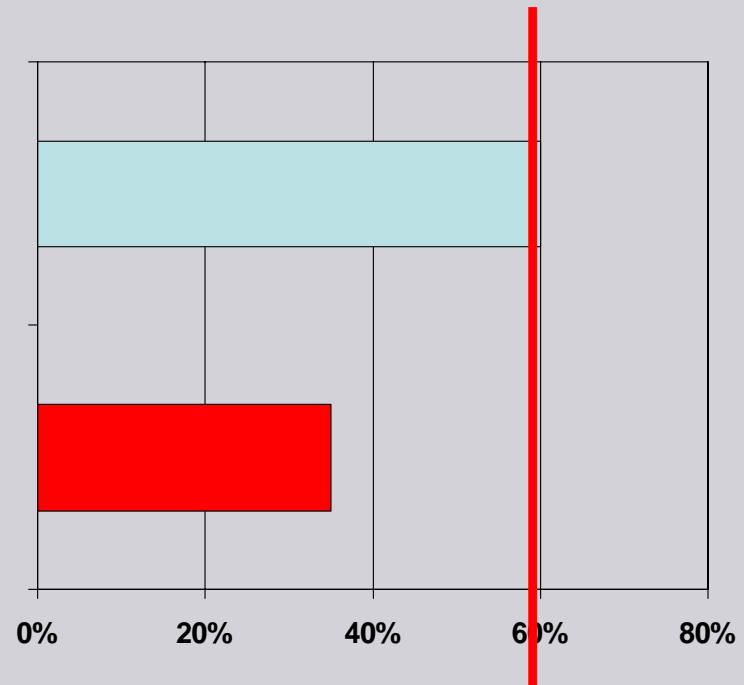
Happier Citizen Commuters

Portland

60% rate transportation system “good or excellent”

Average of Metro Areas

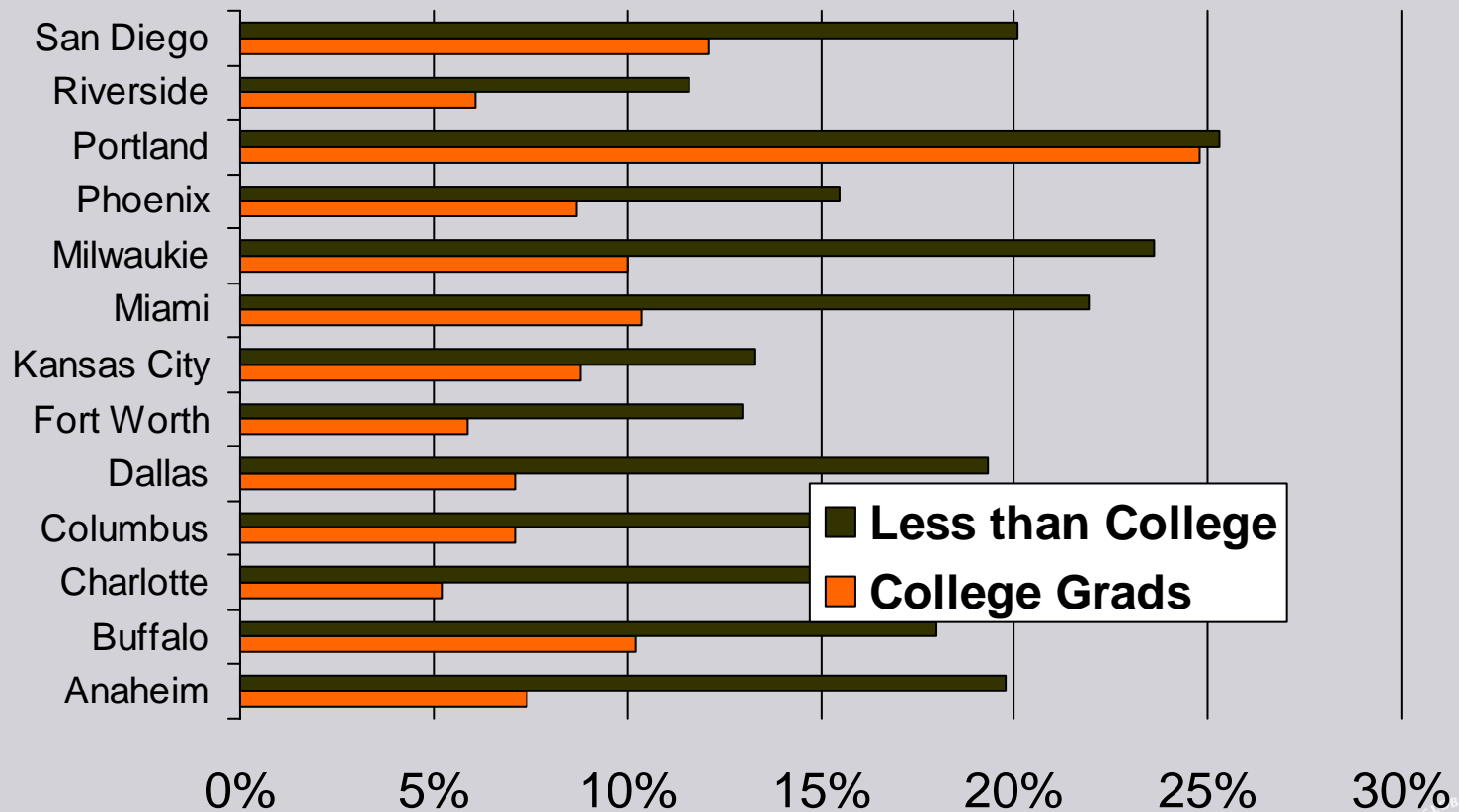
35% rate transportation system “good or excellent”



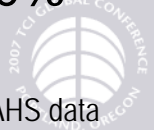
(Source: Impresa analysis of Riley Research survey data)

Well-Educated Portlanders much more likely to take transit

Percent of College-educated adults with access to transit who report using transit, 1999

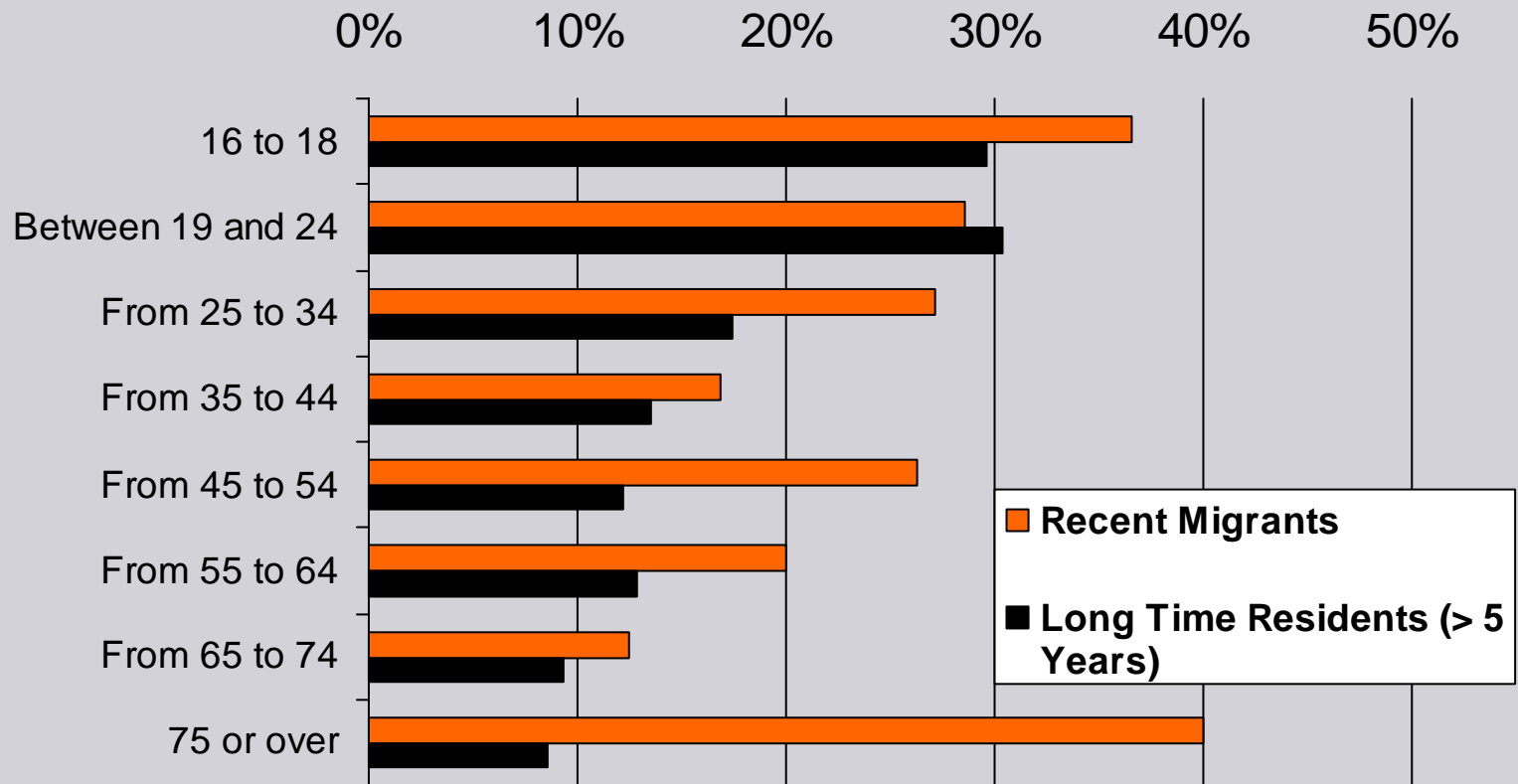


Source: Impresa calculations from Census AHS data



New Arrivals are More Likely to Use Transit—In Every Age Group

Heavy Transit Users (13 Times or More Per Month)



Source: 2004 Tri-Met Segmentation Survey



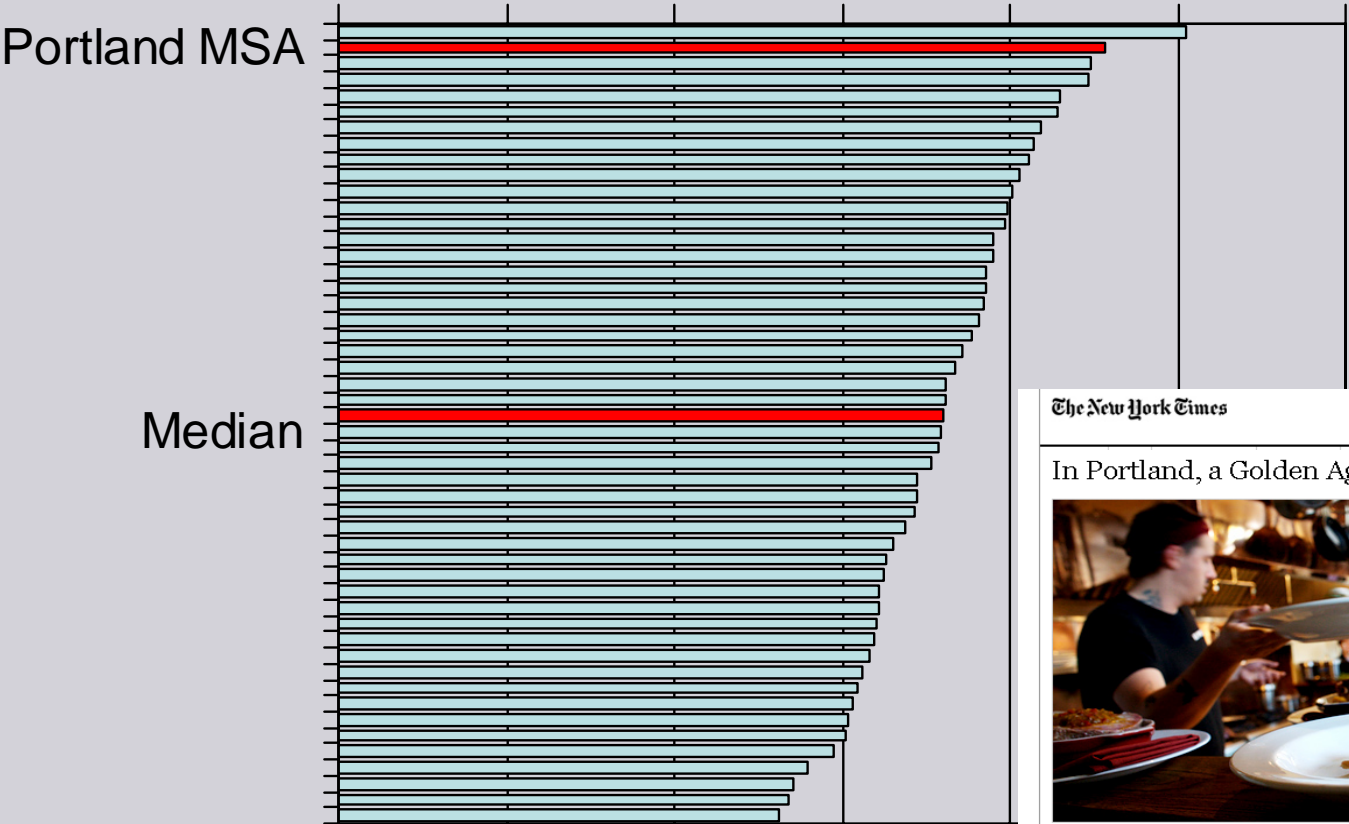
More Local Spending

- Spending on cars and fuel leaves the regional economy
- Other spending has less leakage
- \$1 billion in additional local purchasing power for all other industries

More Restaurants

Restaurants per 10,000 population

0 2 4 6 8 10 12



The New York Times

Dining & Wine

In Portland, a Golden Age of Dining and Drinking



Michael Rubenstein for The New York Times

And, yes, Lower Carbon Emissions

- 2 million people drive 4 miles less per day, yielding 8 million fewer miles per day
- At 20 miles per gallon, that saves 400,000 gallons of gas
- At 19.4 pounds of CO² emitted per gallon, 365 days a year
- that saves 1.4 million tons per year

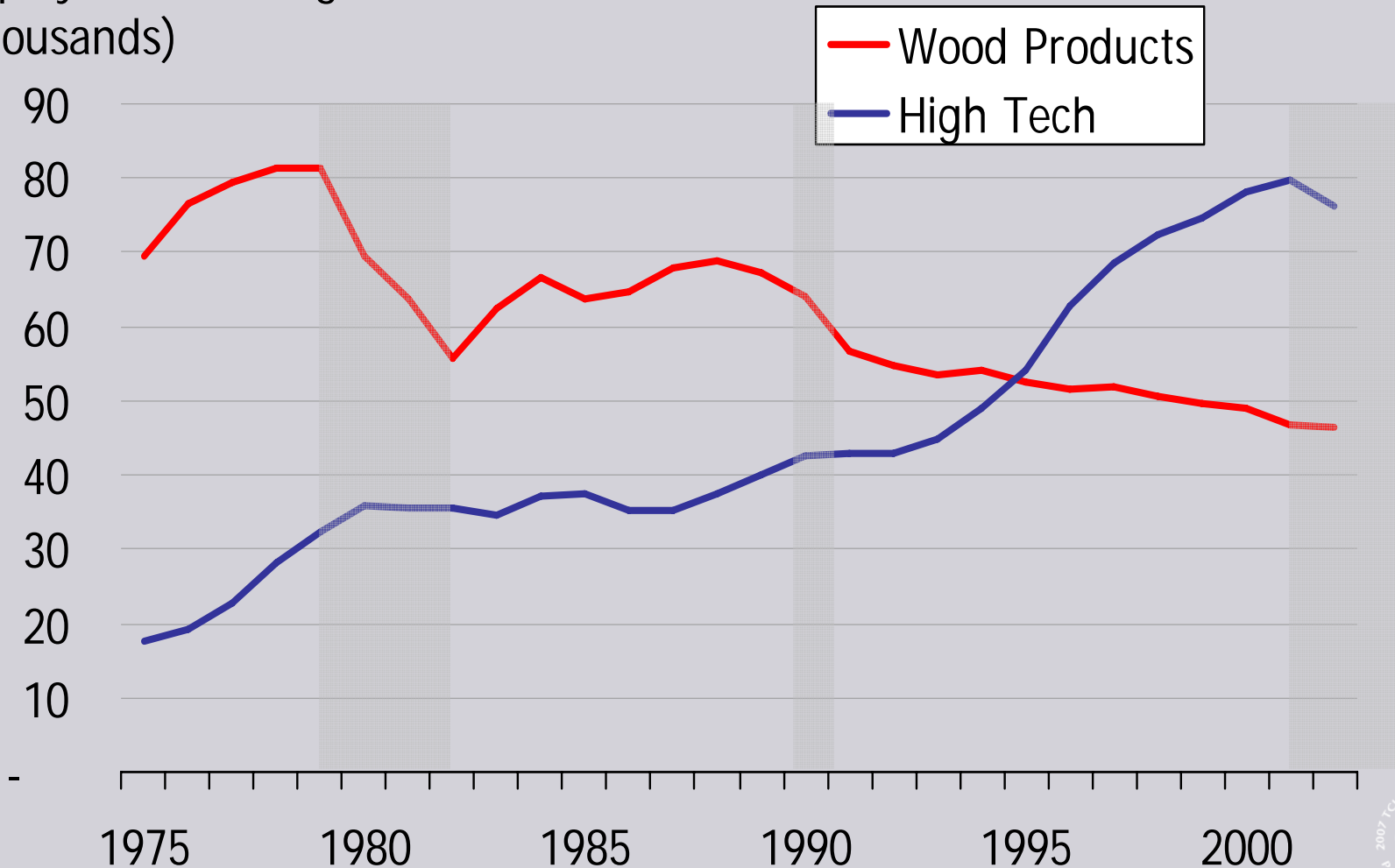


GreenDividend

A Great Opportunity for Every City

Oregon's Economic Transformation

Employment in Oregon
(Thousands)



Metropolitan Portland Metrics

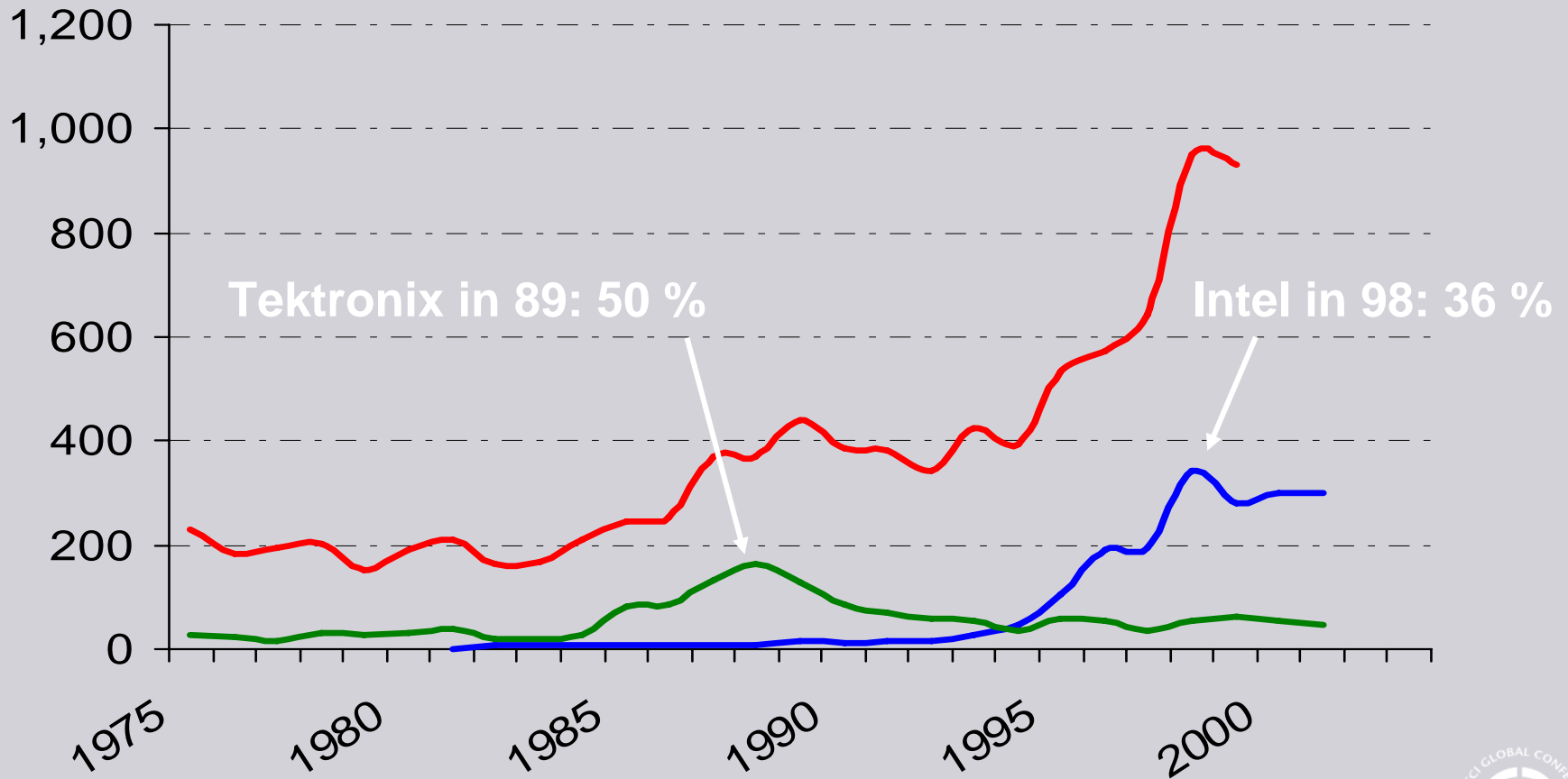
- Definition:
 - 7 Counties
- 2.1 Million Residents
- 50,000 Businesses with Payroll
- 1,100,000 Workers
- A \$96 Billion Gross Domestic Product

The Silicon Forest

- Leading designer & producer of:
 - Semiconductors
 - Semiconductor Manufacturing Equipment
 - Display Technologies
- Largest Center for Intel

Knowledge Driven Growth

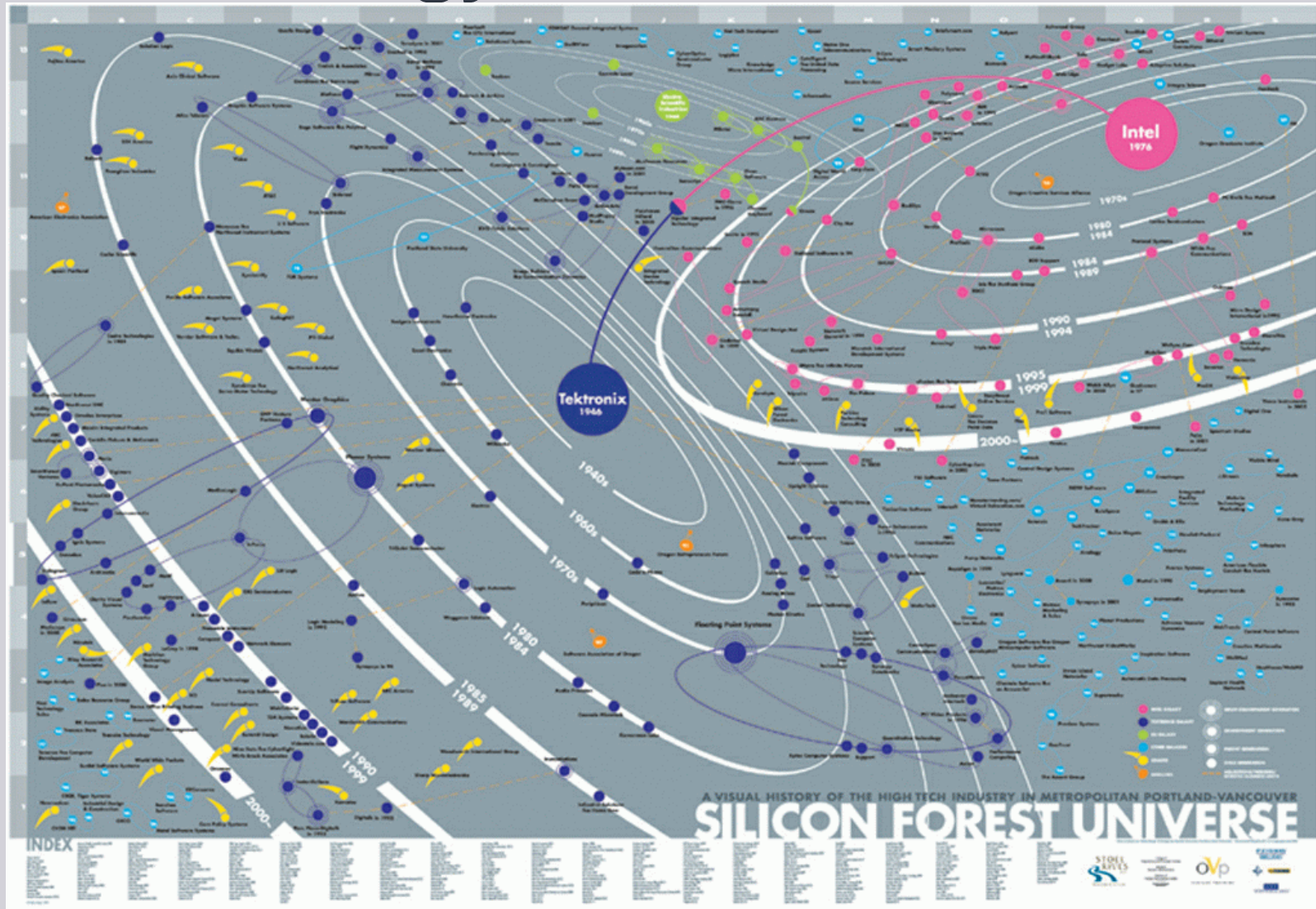
of Patents



Source: Mayer, U.S. Patent and Trademark Office



The Ecology of the Silicon Forest





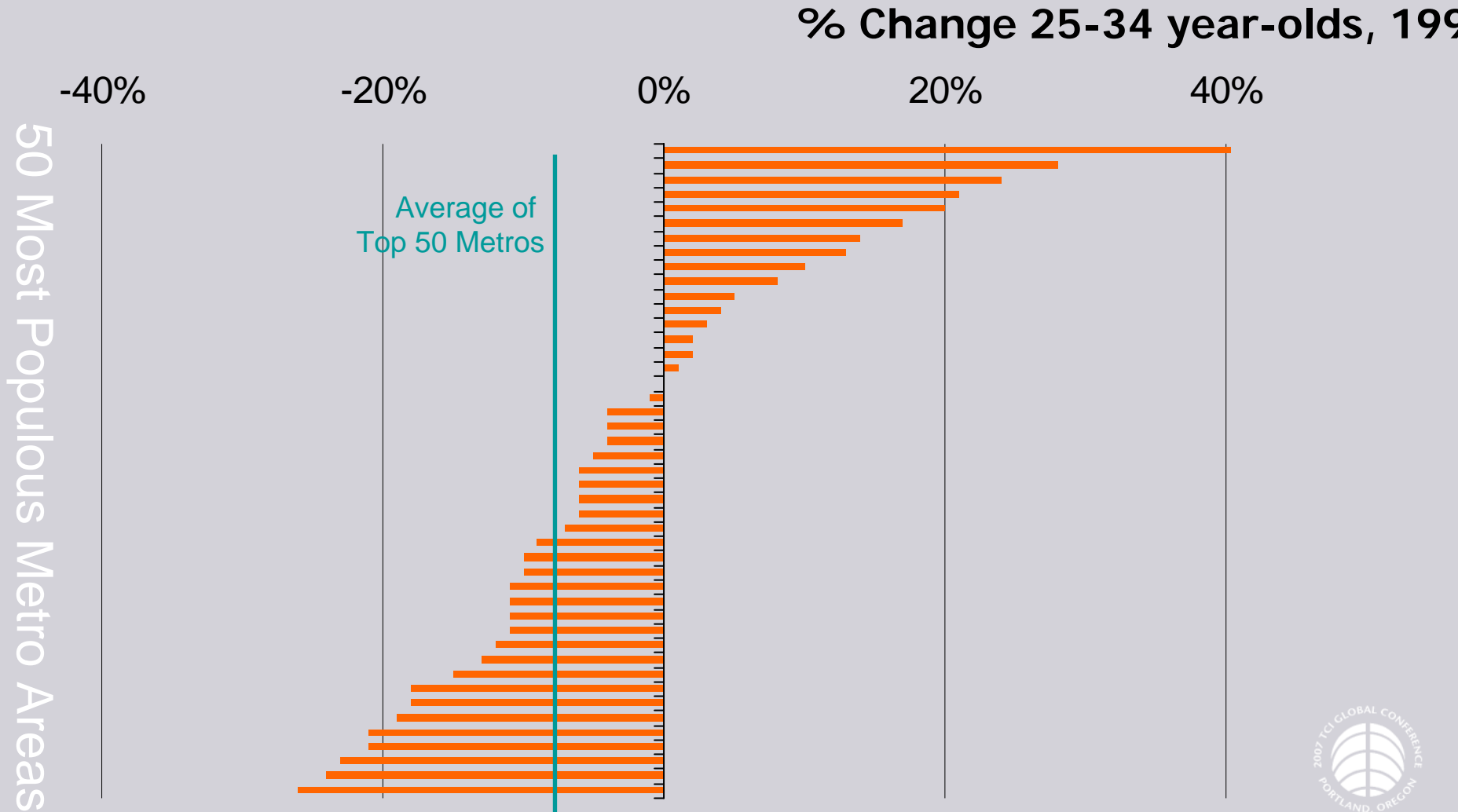
THE YOUNG AND THE RESTLESS:

**Talented Young Workers
and the Prospects for
Economic Prosperity**

Fewer 25 to 34 year-olds

- U.S. 25 to 34 Year Old Population
 - 1990: 43.5 Million
 - 2000: 39.6 Million
- Today
 - 3.9 Million Fewer
 - a 9% Decline

Big Shifts Among Metros



Biggest Shifts in Talented 25-34s

Change in College Educated 25-34s

| Rank | Metropolitan Area | Change, 1990-2000 |
|------|--|-------------------|
| 2 | Charlotte, NC MSA | 56.6% |
| 3 | Austin--San Marcos, TX MSA | 56.2% |
| 4 | Portland—Vancouver--Salem, OR--WA CMSA | 50.0% |
| 5 | Atlanta, GA MSA | 46.2% |
| 6 | Denver--Boulder--Greeley, CO CMSA | 40.1% |
| 42 | St. Louis, MO, MSA | -0.7% |
| 45 | New Orleans, LA MSA | -4.3% |
| 49 | Providence, RI MSA | -7.0% |

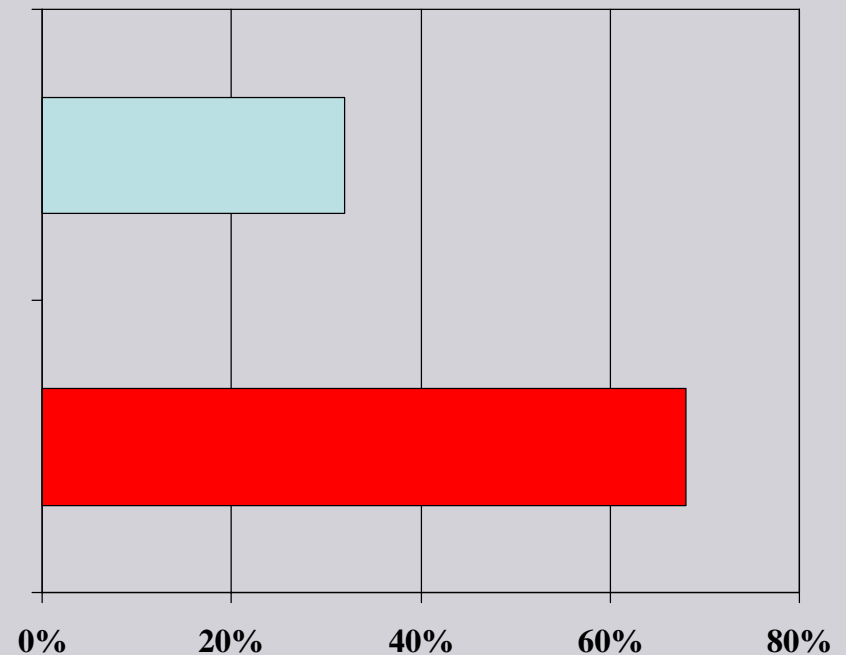
Talent now seeks place

Thinking about how you will look for and choose your next job, which of the following statements best reflects your opinion?

(Asked of 1,000 25-34 year old college graduates)

Look for the best job I can find. The place where it located is pretty much a secondary consideration.

Look for a job in a place that I would like to live

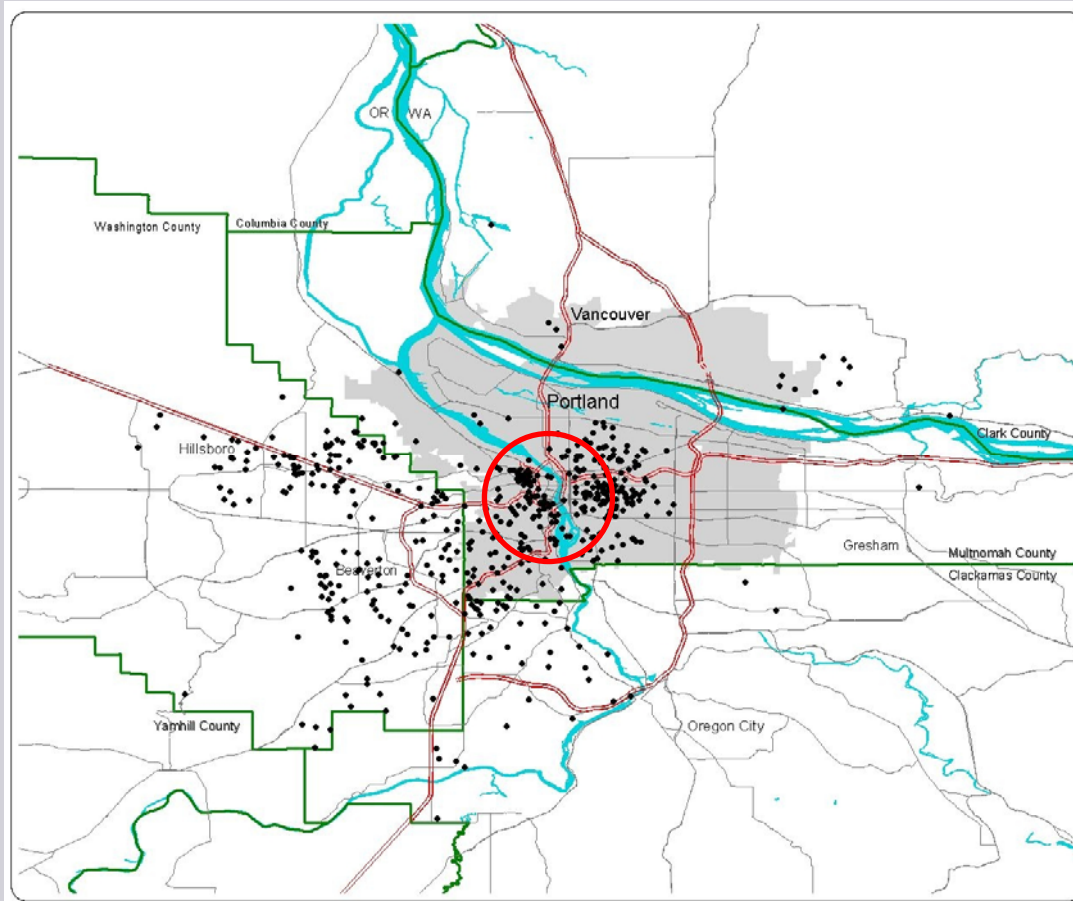


Close-In Neighborhoods Matter

- Close-in defined:
 - Within 3 miles of Central Business District
 - Total Population: 9 million (2000)
- Young adult preference for close-in living relative to other Americans
 - 1980: +10% Greater
 - 1990: +12% Greater
 - 2000: +30% Greater
- Young adult close-in preference increased in all 50 large metro areas between 1990-2000

Close-in Neighborhoods Key


Concentration of College-educated 25-34 year-olds



3 miles from CBD

Growth of
25 to 34 year-olds
1990 to 2000
+30 Percent

Share of
25 to 34 year-olds
with a 4-year degree
54 Percent

An aerial photograph of a city skyline at dusk. The sky is a mix of blue and orange. In the foreground, a river flows from the right towards the center, with a large steel truss bridge crossing it. To the left of the river, there is a marina filled with many white boats. The city skyline in the background features several tall buildings, some of which are illuminated with lights. The overall scene is a panoramic view of a modern city waterfront.

Impresa

For More Information
www.ImpresaConsulting.com

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