Green Dividend

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

Joseph Cortright, Impresa
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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?
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

Job Sprawl Index, 2004

Job Sprawl Index:
Ratio of Jobs 10 to 25 miles From CBD to Jobs less than 3 miles from CBD

Portland--Salem, OR--WA CM

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

Hybrids per 1,000 Households, 2006

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

San Diego
Riverside
Portland
Phoenix
Milwaukee
Miami
Kansas City
Fort Worth
Dallas
Columbus
Charlotte
Buffalo
Anaheim

Less than College
College Grads

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)

0% 10% 20% 30% 40% 50%

- 16 to 18
- Between 19 and 24
- From 25 to 34
- From 35 to 44
- From 45 to 54
- From 55 to 64
- From 65 to 74
- 75 or over

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

Portland MSA

Median

Restaurants per 10,000 population

0 2 4 6

8 10 12

In Portland, a Golden Age of Dining and Drinking
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 $\text{CO}_2$ emitted per gallon, 365 days a year
- that saves 1.4 million tons per year
The Green Dividend

A Huge Opportunity

A Great Opportunity for Every City
Oregon’s Economic Transformation

Employment in Oregon (Thousands)

- Wood Products
- High Tech

<table>
<thead>
<tr>
<th>Year</th>
<th>Wood Products</th>
<th>High Tech</th>
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<tbody>
<tr>
<td>1975</td>
<td>70</td>
<td>15</td>
</tr>
<tr>
<td>1980</td>
<td>50</td>
<td>25</td>
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<td>1985</td>
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<td>1990</td>
<td>40</td>
<td>40</td>
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<tr>
<td>1995</td>
<td>55</td>
<td>55</td>
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<tr>
<td>2000</td>
<td>70</td>
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</table>
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

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

% Change 25-34 year-olds, 1995
## Biggest Shifts in Talented 25-34s

### Change in College Educated 25-34s

<table>
<thead>
<tr>
<th>Rank</th>
<th>Metropolitan Area</th>
<th>Change, 1990-2000</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Charlotte, NC MSA</td>
<td>56.6%</td>
</tr>
<tr>
<td>3</td>
<td>Austin--San Marcos, TX MSA</td>
<td>56.2%</td>
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<tr>
<td>4</td>
<td>Portland—Vancouver--Salem, OR--WA CMSA</td>
<td>50.0%</td>
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<td>5</td>
<td>Atlanta, GA MSA</td>
<td>46.2%</td>
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<tr>
<td>6</td>
<td>Denver--Boulder--Greeley, CO CMSA</td>
<td>40.1%</td>
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<tr>
<td>42</td>
<td>St. Louis, MO, MSA</td>
<td>-0.7%</td>
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<tr>
<td>45</td>
<td>New Orleans, LA MSA</td>
<td>-4.3%</td>
</tr>
<tr>
<td>49</td>
<td>Providence, RI MSA</td>
<td>-7.0%</td>
</tr>
</tbody>
</table>
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
- 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
For More Information
www.ImpresaConsulting.com
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