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Regional Infrastructure: Comparative Costs

MPAC

September 10, 2008



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Regional Infrastructure Analysis

- Regional infrastructure analysis
- Fall focus: framing choices
- More information on comparative costs



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Growth and Infrastructure

- Most of the growth we are expecting will occur in existing communities
- Expanding services to urbanizing areas increasingly difficult
- How we invest can have significant influence on our community livability
- The challenge: to invest strategically and improve service efficiency





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What the analysis is:

- **Discussion guide**
- **Reflects public sector costs**
- **Better understand factors that contribute to infrastructure costs**
 - ◆ **Topography**
 - ◆ **Proximity to existing facilities**
 - ◆ **Density of development**
 - ◆ **Urban amenities**
 - ◆ **Major upgrades**
 - ◆ **Mix of land uses**
- **Highlights the incremental nature of public infrastructure investments**



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Comparative infrastructure costs

What this isn't:

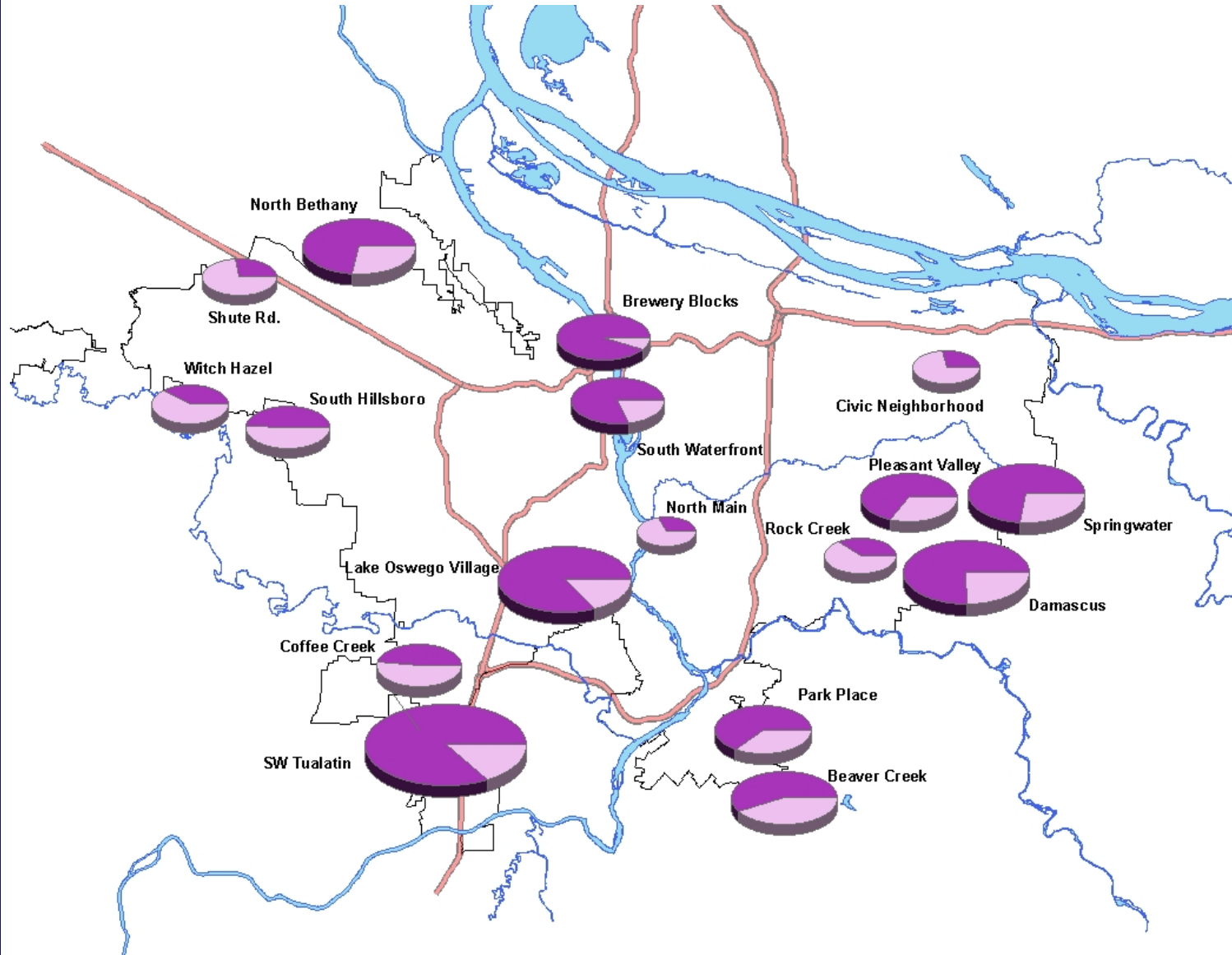
- Not reflective of private sector costs – sometimes higher for redevelopment
- Limited analysis of “return on investment”
- Information gaps for school costs and capacity
- Does not illustrate the full household cost to buyer





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Case studies





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Analyzing infrastructure costs

Equivalent Dwelling Unit (EDU)



One EDU

**= one household
(2.5 residents)**

= five jobs

One household has about the same amount of infrastructure demand as 5 jobs.



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Newly urbanizing and urban area costs

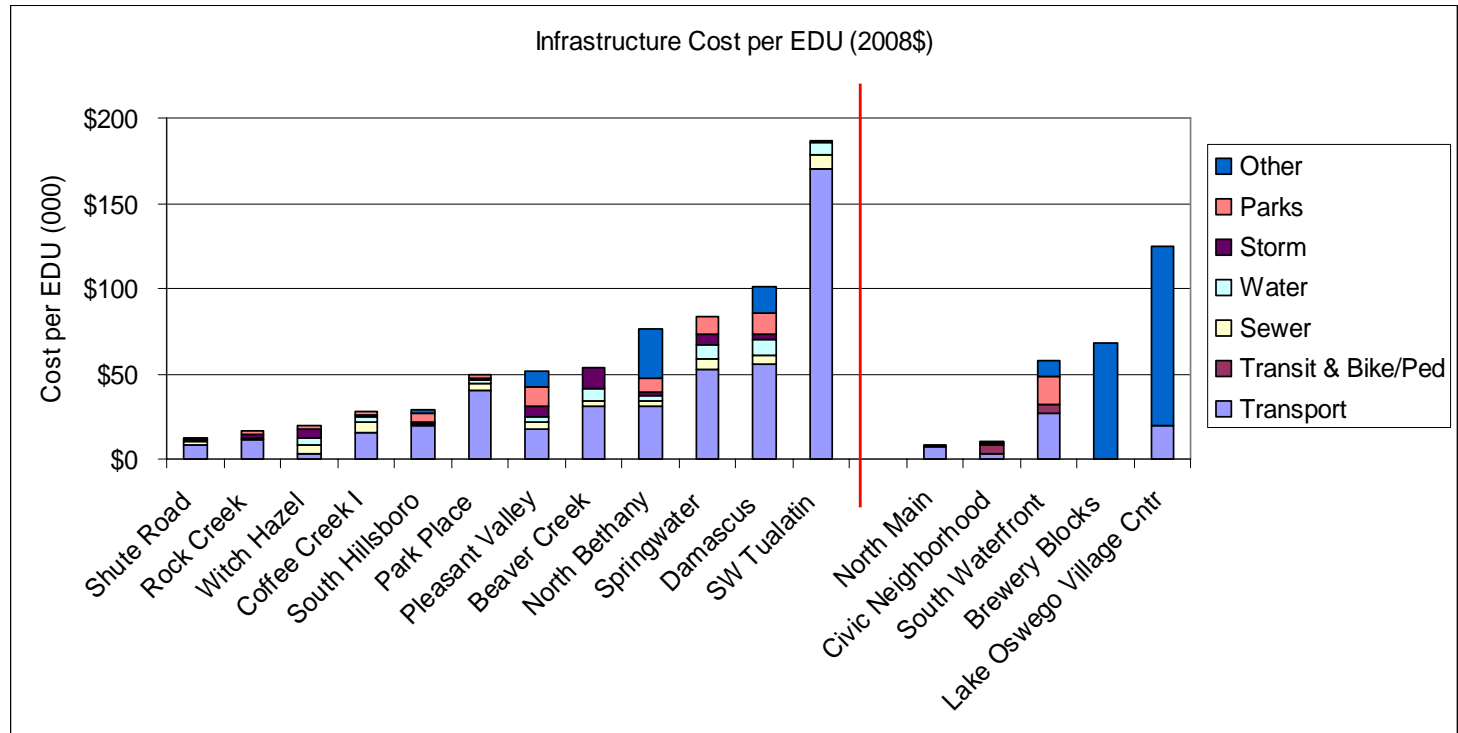
- **Wide variation from project to project**
- **Average capital cost per EDU**
 - ◆ **Newly urbanizing areas: \$75K**
 - ◆ **Urban redevelopment areas: \$51K**
- **Removing high cost outlier:**
 - ◆ **Newly urbanizing areas: \$72K**
 - ◆ **Urban redevelopment areas: \$31K**
- **Regional costs are not included**
 - ◆ **Higher commute distances in newly developing areas increase costs further**



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Comparative Costs

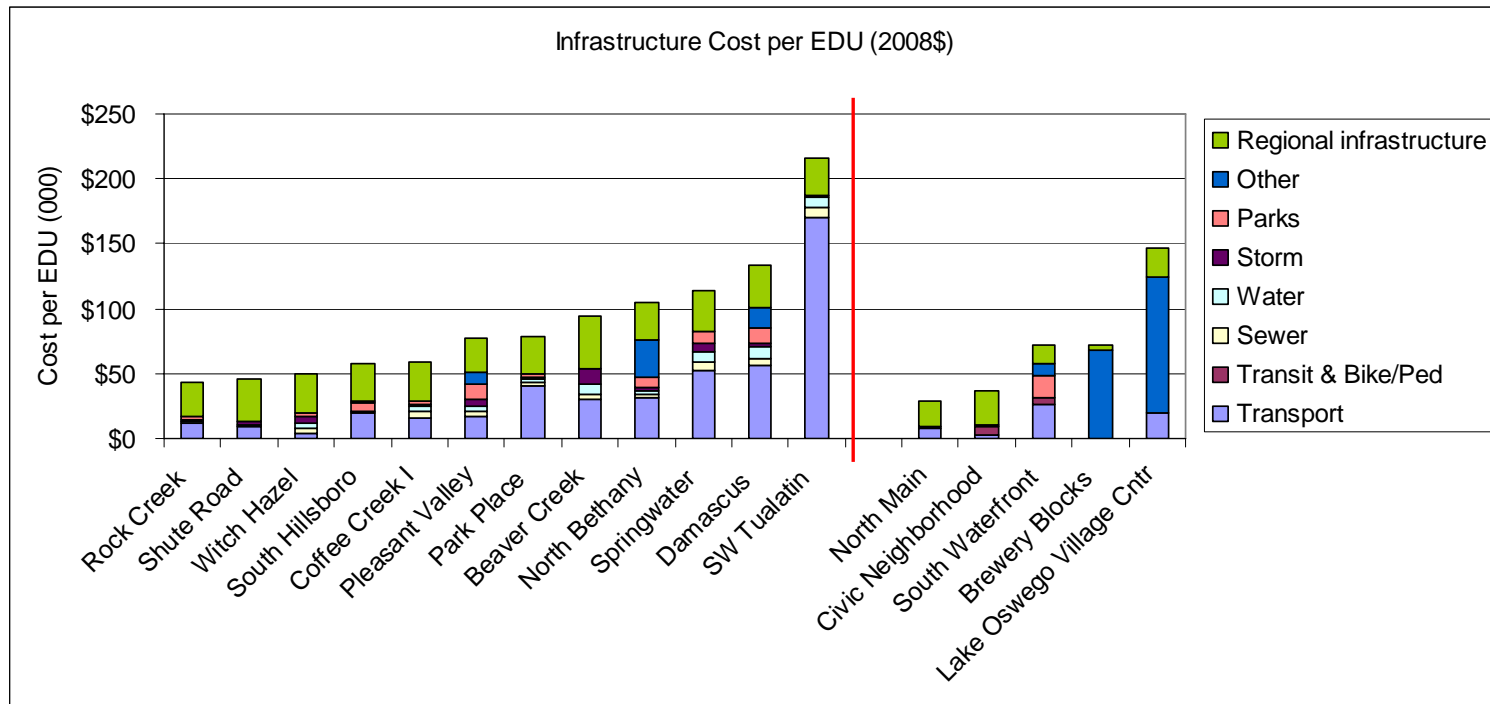
Local/Community Infrastructure Cost Per EDU





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Total Costs: Regional & Local/Community Costs Per EDU





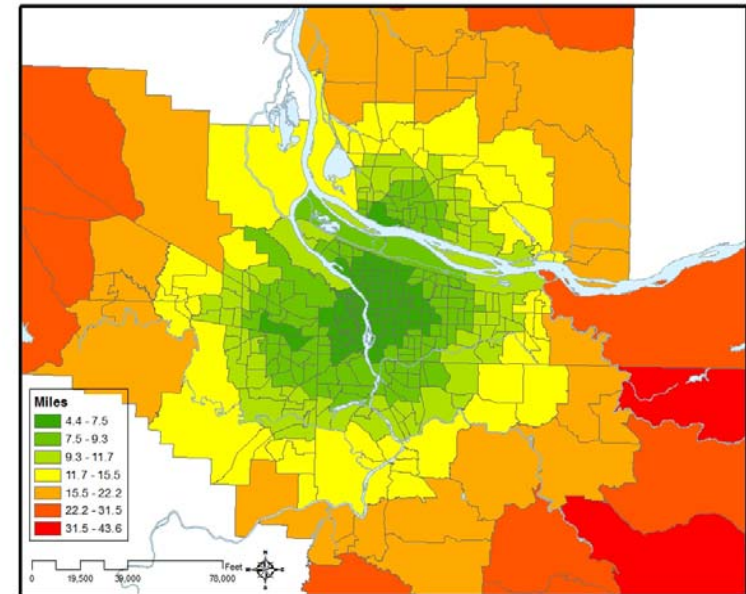
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Regional Costs

An estimate of costs for regional projects:

- **Transit (10%)**
- **Roads, bridges (66%)**
- **Marine, air (5%)**
- **Public facilities (17%)**

Average commute distance by census tract in 2035



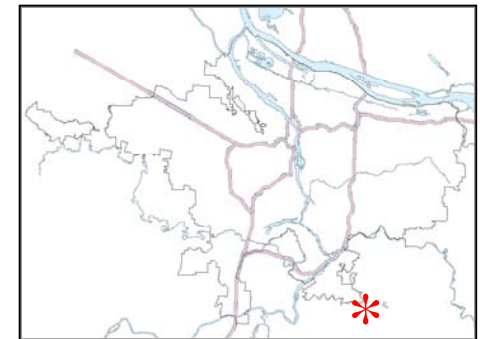
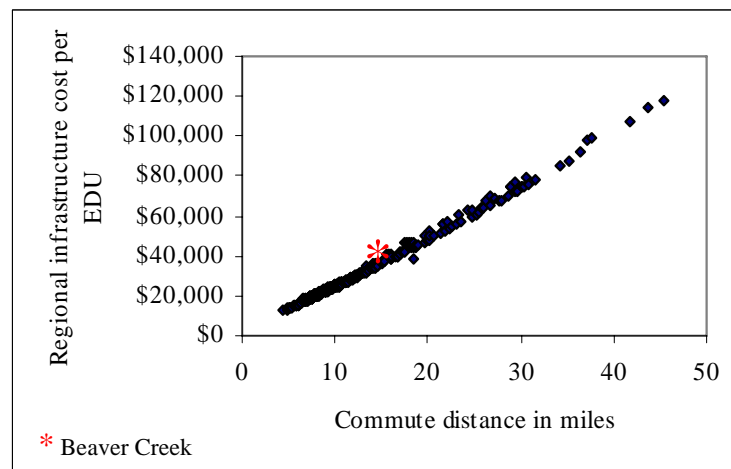
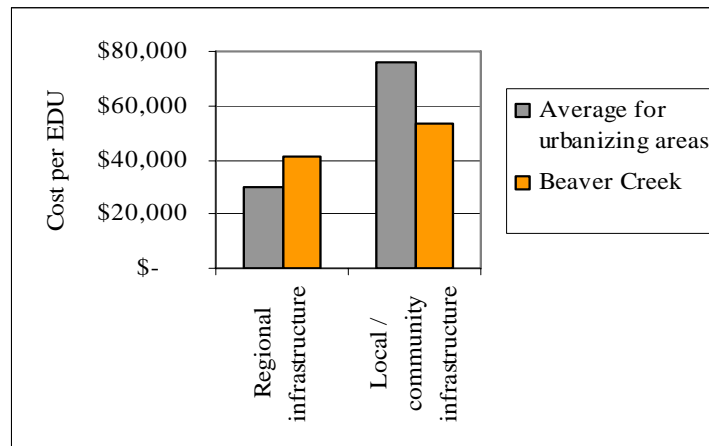
Regional transportation costs are assigned to census tracts using average commute distance.

Port and public facility costs are assigned on a flat per EDU basis.



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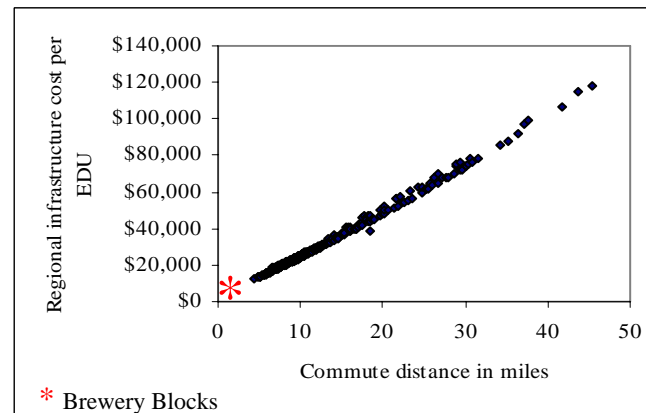
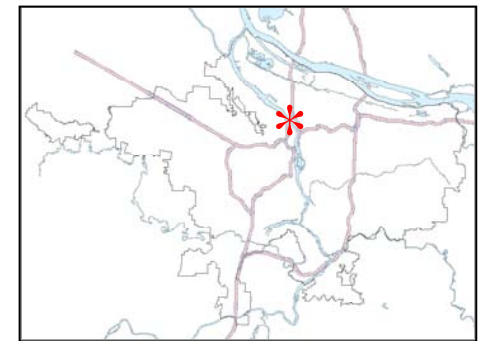
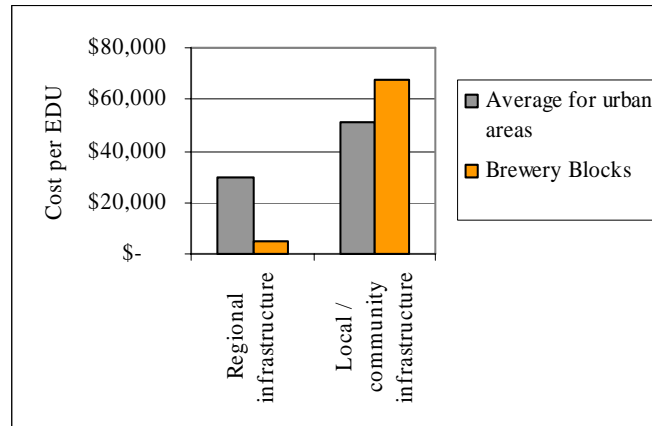
Case Studies: Beaver Creek (pp. 12-13)





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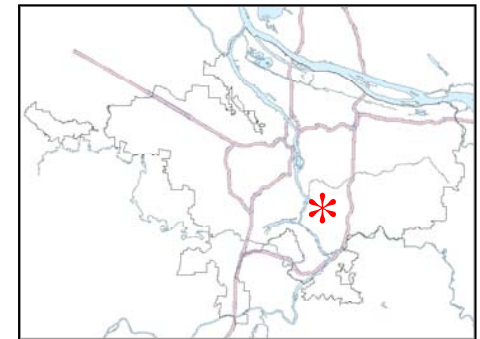
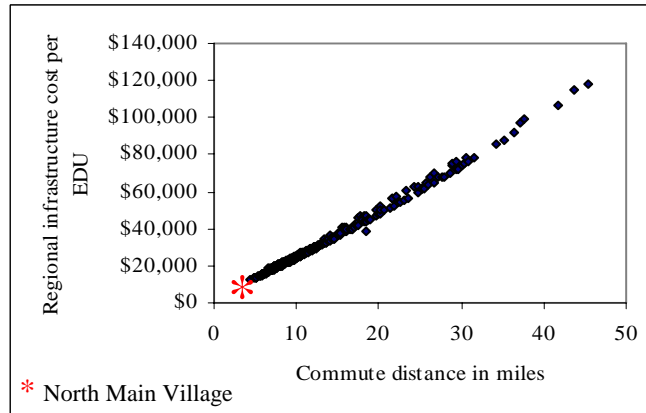
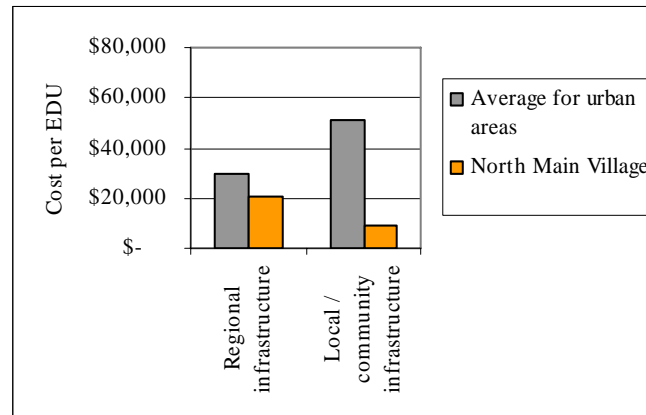
Case Studies: Brewery Blocks (pp. 14-15)





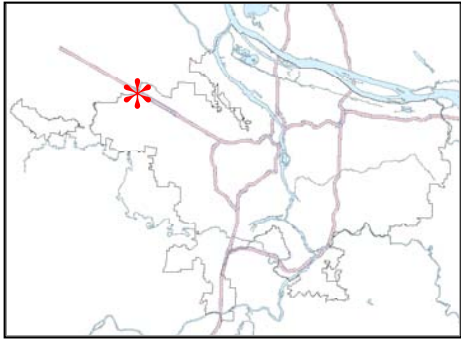
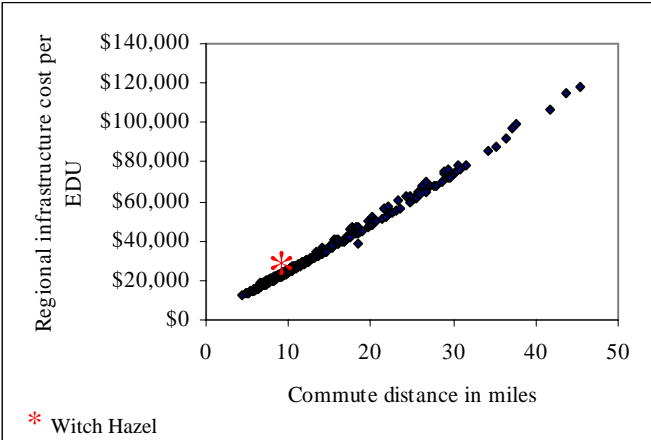
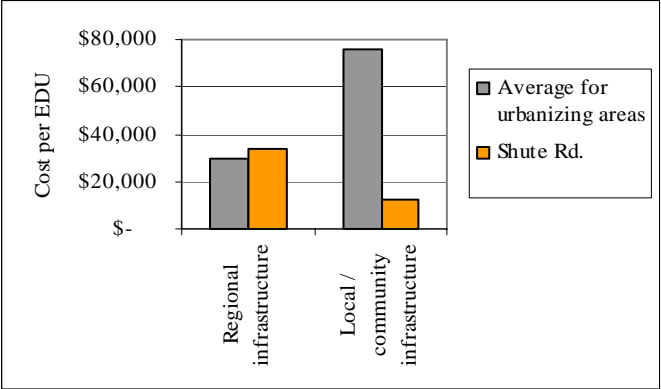
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Case Studies: N Main Village (pp. 26-27)





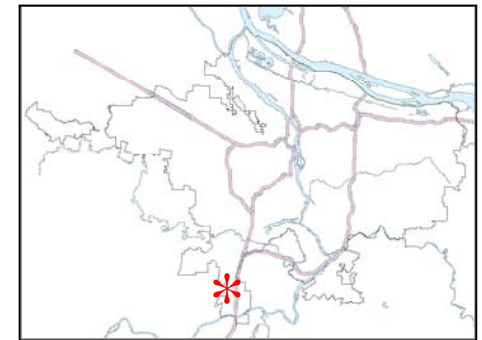
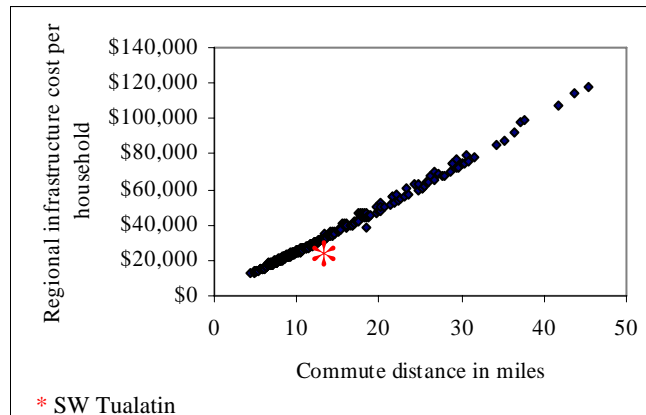
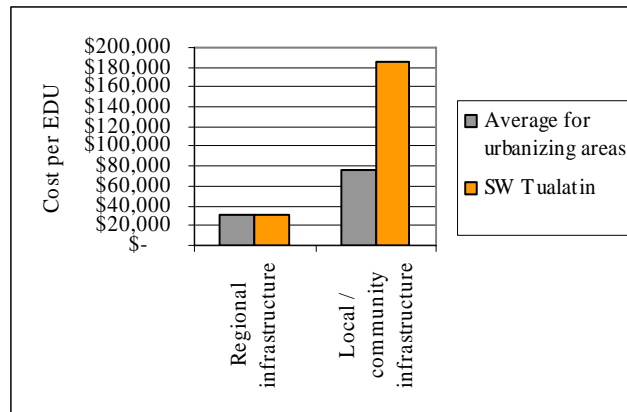
Case Studies: Shute Road(pp. 34-35)





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Case Studies: SW Tualatin (pp. 42-43)





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Next steps

- **Analysis and comparative study complete**
- **Ongoing public engagement process**
- **Upcoming “Framing Choices” events**
 - **Oct. 8 Making Connections**
 - **Oct. 22 MPAC/JPACT – Land Use Choices**
 - **Nov.12 MPAC/JPACT – Transportation Choices**
 - **Dec. 10 MPAC/JPACT – Bringing it All Together**
- **Focus of future infrastructure work:**
 - **Supporting new investment strategies**
 - **Encouraging efficiency & innovation in service delivery**
 - **Exploring demand management strategies**