Economic Development through Bandwidth

George S. Ford

*Economic*Studies Applied

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My Background on Muni-Broadband

- Assisted the Florida Municipal Electric
 Association (FMEA) in the legislative battle over
 municipal broadband
- Two Studies on Municipal Broadband
 - Do Broadband Networks affect Economic Development?
 - Does Municipal Investment in Communications Crowd Out Private Investment?

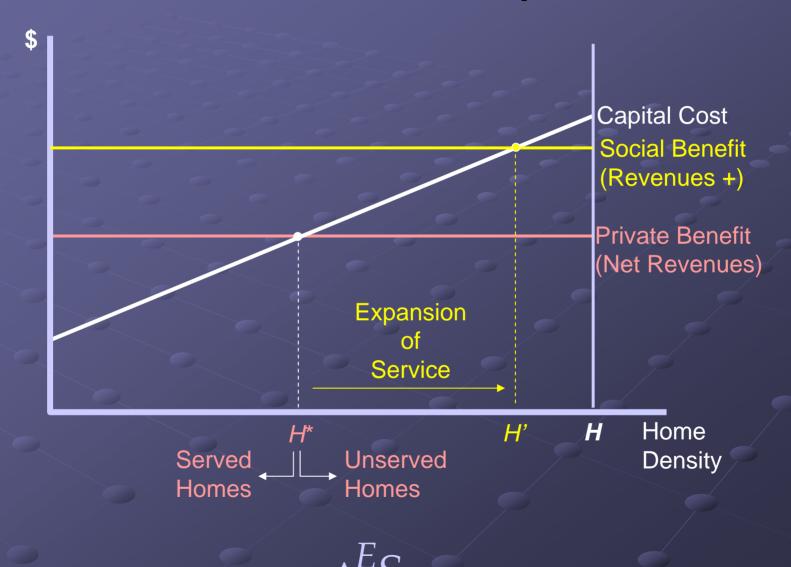
Common Justifications for Muni-Broadband

- Under provision of Service
 - Market Failure
 - Economic Development
- Competition
 - Historically monopolized markets

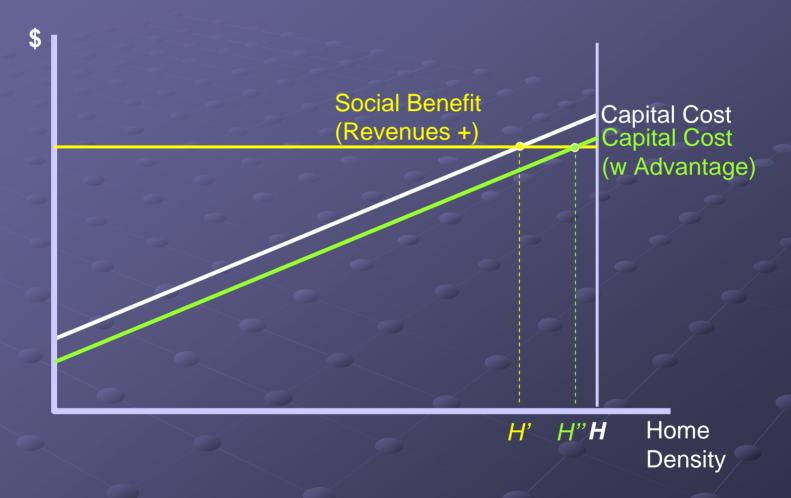
Common Criticisms of Muni-Broadband

- Too risky
- Might lose money (taxpayer money!)
- Subsidized
- Low Cost Debt
- Inefficient

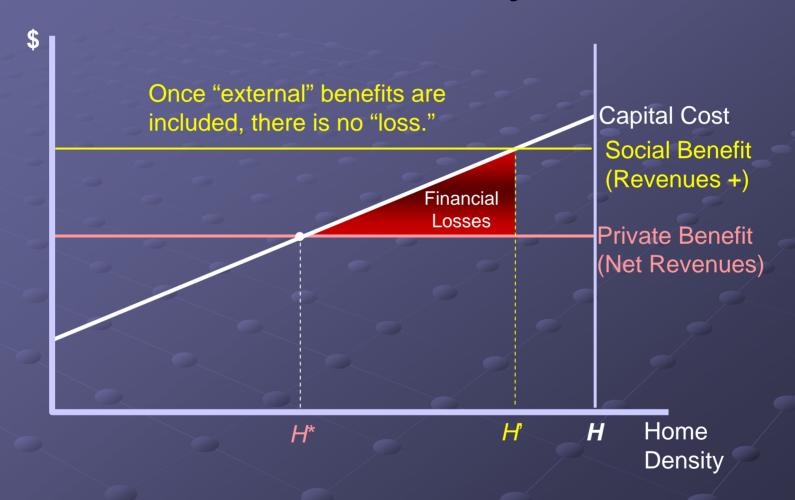
Economic Development



Economic Development



Financial Analysis



Under provision of Service

- What entity will capture full economic benefits of broadband?
 - Economic Development
 - Education
 - Healthcare
- If full benefits cannot be captured by private firms, public firms:
 - May lose "money" from a pure financial perspective;
 - May require subsidies;
 - Should use low cost debt;
 - Etc.

Financial Analysis

- Simple notion of "profit" is entirely irrelevant for publicly owned operations when social benefits deviate from private benefits.
 - Roads
 - Education
 - Law Enforcement
 - Libraries
 - Military

Competition

- Municipal broadband should not be about competition
 - Competition a target for "subsidy" and "risky" claims
- Advice:
 - Purge the word "competition" from your vocabulary
 - Debate should focus on the public benefits from widespread availability of broadband

Do Broadband Networks Affect Economic Growth

- Econometric model of growth
 - Lake County, Florida
- Compare growth before and after Lake County opened network for public use in 2001
 - Relative growth using other FL counties that were nearly "identical" to Lake County in pre-2001 growth and activity
- Gross Retail Sales data measured economic activity
 - Commonly used in Economic Development studies

Do Broadband Networks Affect Economic Growth

- Results
 - Growth in Lake County was twice that of its peers after 2001
 - Level and Per-Capita data was used
 - Highly statistical significant
 - Asymptotic
 - Bootstrap

Does Municipal Investment in Communications Crowd Out Private Investment?

- Crowding Out Hypothesis
 - Municipal communications networks will lead to fewer private sellers
- Stimulation Hypothesis
 - Municipal communications will stimulate private entry (open networks, complement inputs)

Does Municipal Investment in Communications Crowd Out Private Investment?

- Used FL data on Telecom entry
- Econometric model
- Results (# Telecom Providers)
 - Muni Elec, No Comm = 16.12
 - Muni Elec, With Comm = 26.24
 - No Muni Elec = 23.18
- All Differences Statistically Significant

63%

13%