A Data-Driven Digital Inclusion Strategy for Gigabit Cities

Denise Linn, Harvard Kennedy School MPP Candidate 2015
Advising Partner: Google Fiber
Faculty Advisors: Quinton Mayne & John Haigh

"What does the digital divide look like in high speed "gigabit" Internet cities? How can a gigabit city or future gigabit city get more of its citizens online?

Background

What is the "digital divide"? The opportunity gap that exists between those that have the Internet (and know how to use it) and those that don't. Why don't they?

Cost	• "It's too expensive"
Relevance	• "I don't see why I need it."
Skill	• "I don't know how to use the Internet."
Access to a Connection	• "I can't get a connection."
Access to Hardware	• "I don't have a device."

Who is offline? According to Pew, African Americans, Hispanics, Americans over 65, high school dropouts, and people in poverty are more likely to not have broadband Internet in the home.

What are "gigabit speeds"? Gigabit speeds are roughly 100x faster than average U.S. download speeds.

Methodology

The **data analysis** will reveal what the digital divide looks like in gigabit cities The **expert interviews** will reveal best practices for broadband adoption and digital inclusion. **Next Steps** will come from synthesizing these pieces to answer,

How does what we know about digital inclusion best practices need to be adapted to accommodate any gigabit city-specific digital divide strengths or weaknesses?

Quantitative Sources:

- Tract-level FCC form 477 broadband subscription data 2013
- Tract and MSA-level ACS data 2013

Merged

Findings

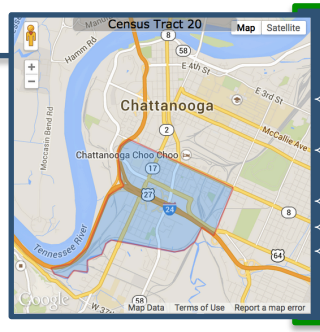
From Interviews:

In general, there is a lack of institutionalized, city-level support to combat the digital divide. Effective digital inclusion strategies combat multiple broadband adoption barriers at once.
The relevancy barrier is also *underestimated.* Well-intentioned programs fail because they don't understand slow adopters and the reality of low-income life.

	Gigabit City Adoption	Non-Gigabit City Adoption
5% poverty	73.8 %	81.6%
15% poverty	75.3%	72.2%
30% poverty	77.4%	58.1%

From the Data Analysis:

- There is a significant interaction between gigabit availability and poverty on a tract and city level. In other words, the presence of gigabit infrastructure predicts relatively higher connectivity in lower-income neighborhoods. **(See above)**
- Non-English speaking populations and populations with low educational attainment are comparatively worse off in gigabit cities.
- *Access begets access.* High poverty gigabit census tracts can beat the odds through access to programs and community anchor institutions. **(See below.)**



Spotlight: Hamilton County Tract 20 in Chattanooga, TN

- 80-100% broadband adoption
- 46.6% household poverty
- 4 churches
- Walkable
- Home to a 1:1 laptop program

"If I had to guess one area [in Chattanooga] that would be over-performing, it would be that one.

- Kelly McCarthy

Recommendations

For Gigabit Cities & Aspiring Gigabit Cities:

- Designate a digital inclusion point of authority in your city by either partnering with a proven nonprofit or designating a city employee or office to own the issue.
- Map your city's **"digital deserts"** or places where socioeconomic barriers to broadband adoption meet low access to public services and programs. Use this information to target programming and inform community "asks" when partnering with Internet service providers.

Spotlight: Austin

Austin, TX has staff who specifically work on digital inclusion. The staff runs an annual $200K broadband adoption grant program called GTOP and partners with local nonprofits like Austin Free-Net.

For Internet Service Providers Serving Gigabit Cities:

- Give support to trusted, local digital inclusion programs rather than creating and running new digital inclusion programs.
- Leverage your branding and marketing to assist the city government in tackling the underestimated relevancy barrier.

Opportunities for Continuing Analysis

As public data are updated and more cities get gigabit infrastructure, this analysis can be enriched.