Case Study Research:
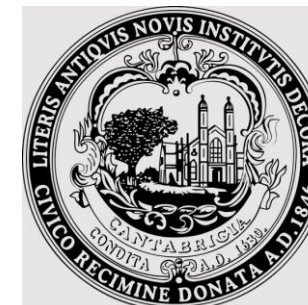## An Analysis of U.S. Digital Equity Programs

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City of Cambridge in collaboration
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01. Preliminary Research Phase

Using The Coalition of Cities for Digital Rights' database, this phase focused on **sampling a breadth** of programs in the United States, along with cataloging the initiatives under them.

02. Case Study Specification

In this phase, notable cities were earmarked as case studies and **expanded upon**. Data collection become more diverse, accounting for factors like **initiative age and development**.

03. Data Analysis

Using the set of established case studies, available **qualitative data** was converted to **quantitative data** for insight collection purposes.

Research Methodology

The phases of research taken during the summer.

Data Analysis Strategy

The two main focuses when developing the data analysis strategy.

01. How to compare cities?

We established **standard metrics** for each city so that they can be compared and measured.

02. How to turn existing data into usable insights?

Not all cities publish the results of their policies and initiatives online. We used **aggregation methods** to turn qualitative data into **quantifiable measures** to compare cities.

Key Metrics per Case Study

The main measures used to compare cities.

Public vs. Civic Involvement

How involved is the city government in the digital equity movement? Civic (nonprofits, institutions, etc.)?

Program/Initiative/Policy Age and Stage of Development

How old are their initiatives and what stage of development are they in?

City of Cambridge and Coalition of Cities Priority Areas

How do they measure to our priority areas? The Coalition of Cities' priority areas?

Key Metrics per Case Study

Public vs. Civic Involvement

0-25%
Little-to-no involvement

25-50%
Preliminary or limited

50-75%
Substantial involvement

75-100%
Controlling entity

Key Metrics per Case Study

Program/Initiative/Policy

Age and Stage of Development

Exploratory

Only preliminary (vague or broad) promises in place.

Planning

Initiative/policy has set plans into motion, but not execution.

Implementation

Execution has begun on pilot or sample populations.

M/I

Successfully executed program and there is data.

Key Metrics per Case Study

City of Cambridge/Coalition of Cities Priority Areas

Devices

Do the initiatives provide residents with reasonable access to internet-capable devices?

Connectivity

Is the city making broadband internet accessible to residents? In what ways?

Training

Are enough resources and training provided for residents to meaningfully engage the digital world?

Key Metrics per Case Study

City of Cambridge/Coalition of Cities Priority Areas

1

Begun exploration of this topic, but very surface-level.

2

Planning has begun, but not execution.

3

Execution has begun, but at a preliminary/early stage.

4

Cleared execution with data to back it up.

Atlanta, GA

Age: Unknown

Summary

Strong third-party involvement, reduced/scattered government involvement.

Pros

City benefits from some digital equity activity due to strong community organization on part of third-parties. Diversity of programs.

Cons

Due to lack of centralization, lots of redundant programs as well as difficulty locating them. Most initiatives have high access barriers.

Austin, TX

Age: 2014-

Summary

Robust digital equity program that began in 2014. Highly centralized government with strong third-party backing.

Pros

High centralization and oversight resulted in diverse, well-documented digital equity programming. Encourages innovation.

Cons

Could offer more connectivity-related services.

Los Angeles, CA

Age: Unknown (CETF 2007-)

Summary

Little-to-no city involvement, but high third-party engagement that is uniquely centralized, allowing LA to enjoy a relatively robust experience.

Pros

Lots of resources and programming available to residents.

Cons

A lack of total centralization still makes it difficult for the average user to find the resources they're looking for.

Seattle, WA

**Age: 2014-
Technology Matching Fund:
1998-**

Summary

Seattle has a robust digital equity program through the government with high levels of engagement from third-parties. Added functionality of universally accessible platform.

Pros

Highly centralized program leads to a lot of execution and energy across all three priority areas.

Cons

None visible.

Chicago, IL

Age: 2020-

Summary

While Chicago does not have a digital equity program, they developed one robust initiative for qualifying low-income students during the COVID-19 pandemic.

Pros

One very well-developed, highly invested initiative. They hope to use the momentum gained from this initiative to kickstart an actual program in the coming years.

Cons

No other initiatives or research outside of preliminary to extend their initiatives to the broader community.

Devices

01

CITY: Seattle, WA
PROGRAM: PCs for People
HIGHLIGHTS: Portable unlimited internet hotspot service w/ refurbished
[...]ed cost.

[...]t service w/ refurbished
[...]d cost.

[...]o eligible students and

What about the City of Cambridge?

- We may want to consider Seattle's device lending programs, which are coupled with connectivity initiatives. Their two major device lending programs provided portable hotspots with unlimited internet service to provide connectivity without a lot of extra hardware.

Connectivity

01

CITY: Seattle, WA
PROGRAM: PCs for People, Interconnection
HIGHLIGHTS: Portable unlimited internet hotspot service through Sprint LTE.

ague (LA DEAL)
e reliable and affordable

What about the City of Cambridge?

- We may want to consider alternative methods of providing fast-speed internet in addition to re-cabling houses. For a lot of people on the go, providing hotspot services could be a quicker and more sustainable alternative.

Training

01
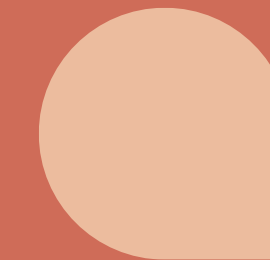
CITY: Atlanta, GA
PROGRAM: Digital Leadership Academy
HIGHLIGHTS: A free education and certification program with the goal of
the IT sector.

ch Opportunities, EdTECHquity
mics/careers. ~1969 students
ve hands-on, mentor-based

What about the City of Cambridge?

- Notably, the cities with strong training programs have high engagement with non-profit organizations. Austin, TX's Grant for Technology Opportunities funds dozens of training and knowledge sharing programs from community groups all around the city.

Housing Authority

01
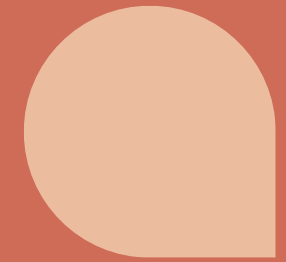
CITY: Atlanta, GA
PROGRAM: ACCESS (Achieving Connectivity to Create Equity and Self-Sufficiency)

[...]hority; designed to expand [...]n phase.

[...]ublic housing residents.
[...]0 public housing residents,

What about the City of Cambridge?

- Austin's digital inclusion initiatives from the Housing Authority notably utilized participatory design, meaning AHA residents were instrumental in the design and development of the Housing Authority's programming. This is something we might want to consider when moving forward with HA initiatives.

Public Library System

01

CITY: Atlanta, GA
PROGRAM: Atlanta-Fulton Library System
HIGHLIGHTS: Provides computer literacy classes at the main branch as well as [obscured] other branches. Also hosts an [obscured] struction on a vast array of [obscured] rketing, etc.).

[obscured] ms throughout all of their [obscured] ses.

What about the City of Cambridge?

- Free, public Wi-Fi and computer literacy classes are commonly seen at city public library systems, but what about STEM and business education courses? Robotics clubs? Etc.?

Public School System

01

CITY: Chicago, IL
PROGRAM: Chicago Connected
HIGHLIGHTS: Provides no-cost, high-speed internet service to CPS students
[...] digital divide for students.

[...] the School2Home program.
[...] schools through "effective

What about the City of Cambridge?

- For cities like Chicago and Los Angeles, the first community for engagement are residents and households in the public school system, meaning that effective devices, connectivity and training programs for the whole city can and should begin at the public school system level.

Centralization

Cities whose governments have **dedicated digital equity initiatives** and have the bandwidth to **support and extend talent** across the city have **more successful initiatives that have reached an execution or implementation phase.**

Decentralization

Cities whose governments do not have a unified program face repetitive programming, gridlock in pushing initiatives past a preliminary or exploratory phase, and limitations with maintaining community support.

Atlanta vs. Austin

Centralization vs. Decentralization

How does the infrastructure/organization of a city's program influence its success?

Public vs. Civic Involvement

Does the kind of involvement make a difference in shaping community outreach? Is one more productive than the other? What does the involvement imply about the communities in the city?

Public Involvement

Cities with strong public involvement are shown to also have a precedent for oversight measures in place.

Civic Involvement

While cities with strong, centralized civic involvement were noted to have similarly quick engagement with their communities, the question of oversight is the major divisor between civic and public involvement.

Atlanta and Los Angeles vs.
Austin and Seattle

Los Angeles, CA

While this city lacks major government involvement, the highly centralized response from third-party groups have allowed Los Angelenos the opportunity to experience digital equity programming.

Chicago, IL

Due to a quick government response, highly impassioned and dedicated community leaders and the attention and investment of countless Chicago-based or Chicago-inspired benefactors, Chicago was able to implement a single, highly concentrated initiative within a matter of months during a time of great national crisis.

Influence of Geography and Culture

Does geography/city influence how the city government can respond/mobilize to digital inequity?

Continuing Research Goals

01 Continue to add case studies and perform more analyses.

02 Research the influence of geography and culture more.

03 Create visualizations of insights and trends.

Thank you!

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Links to Consider

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- Seattle's digital equity program government website: https://www.seattle.gov/tech/initiatives/digital-equity
- Austin's digital equity program government website: http://austintexas.gov/page/digital-inclusion-strategic-plan
- Austin's open data platform: https://data.austintexas.gov/
- Austin's 2020 Technology for Grant Opportunities dataset on awardees, the amount of money they received and what they plan to use the money for: https://data.austintexas.gov/dataset/2020-Grant-for-Technology-Opportunities-Program-Aw/8v4h-uqs4