PANDEMIC RECOVERY OFFICE

Broadband Mapping and Planning
Final Report

Submitted by State of Rhode Island Pandemic Recovery Office

Paul L. Dion, Ph.D., Director

Brianna Ruggiero, Chief of Staff

Kate Randall, Project Lead

Ross Lancaster, Data Analyst III

https://pandemicrecovery.ri.gov

Broadband Mapping and Planning

Project Identification Number: 10011

Pandemic Recovery Office Approval Date: May 11, 2022

Project Completion Date: April 30, 2023

Funding Amount: $500,000

Project Expenditure Category: 6.1 Revenue Replacement: Provision of Government Services

Problem Statement: Rhode Island has one of the nation's strongest middle-mile fiber broadband networks, with over 90% of its residents living within one mile of high-speed fiber-optic broadband.[1] However, the state still has issues with the uptake of broadband, broadband access, and broadband reliability, especially in rural, lower-income, and island communities, often due to cost. About one in five Rhode Islanders lack in-home wireline broadband[2], and the state has the highest-percentage reliance on cellular data for internet access in New England. Additionally, close to half of the state does not reliably access internet download and upload speeds above the new federal minimum of 100 megabits-per-second (mbps)/20mbps.[3]

Project Overview: The project allowed for the hiring of a statewide broadband coordinator, building of broadband maps needed to complete the necessary strategic planning, and completion of a statewide broadband strategic plan to guide work in upcoming fiscal years. These three foundational elements were necessary to unlock and use additional federal funding designated for broadband. The State needed a clearly articulated strategic plan and a five-year implementation plan that was developed in partnership with and in consultation of other state and local stakeholders. These plans must be grounded in data and built from strong broadband access and planning maps. Rhode Island also needed an office and director to oversee the effort, ensure compliance with various federal programs, and ensure the program meets the State's targeted goals and engages all relevant stakeholder groups.

Rhode Island submitted the strategic plan to the National Telecommunications and Information Administration (NTIA) in May 2022. Additional work on the broadband plan was completed from July through December 2022 to align with General Assembly requirements and based on feedback from NTIA.

Financial Overview: The $500,000 project budget included $100,000 for a *Broadband Director*, $200,000 for *Mapping Analysis*, and $200,000 in *Strategic Planning Development*. All program payments can be found on the Pandemic Recovery Office's website by filtering the "Project" box for "Broadband Mapping and Planning." The table below shows planned expenditures by fiscal quarter and actual expenditures by fiscal quarter:

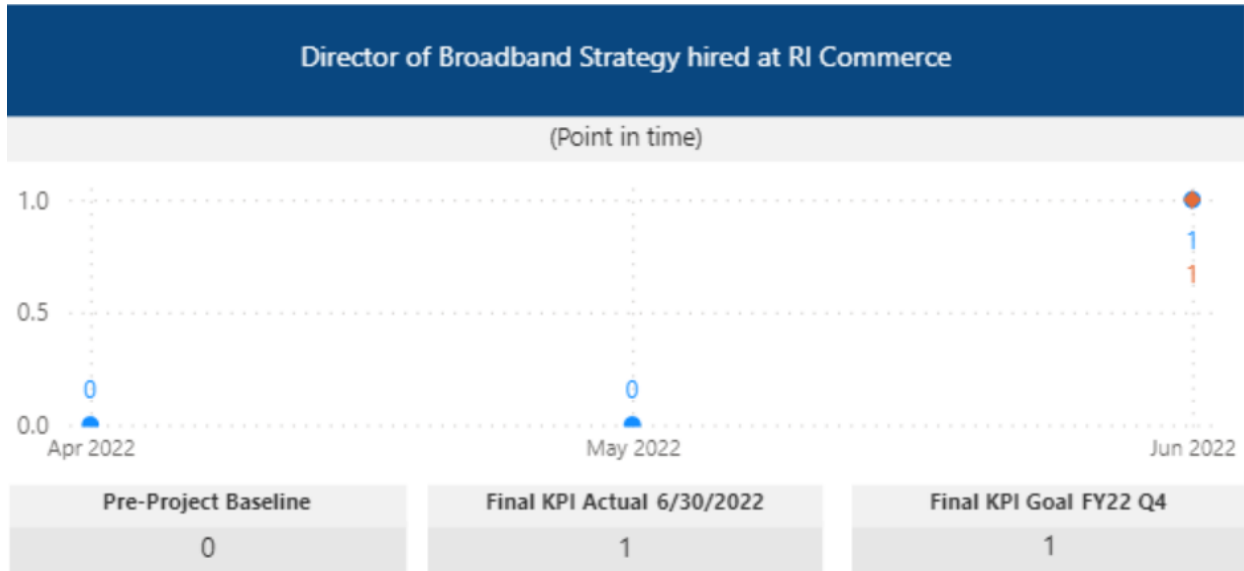[1] https://broadbandnow.com/Rhode-Island
[2] Source: 2019 American Community Survey Estimated Data (Table S2801-Types of Computers and Internet Subscriptions)
[3] Rhode Island Broadband Analysis

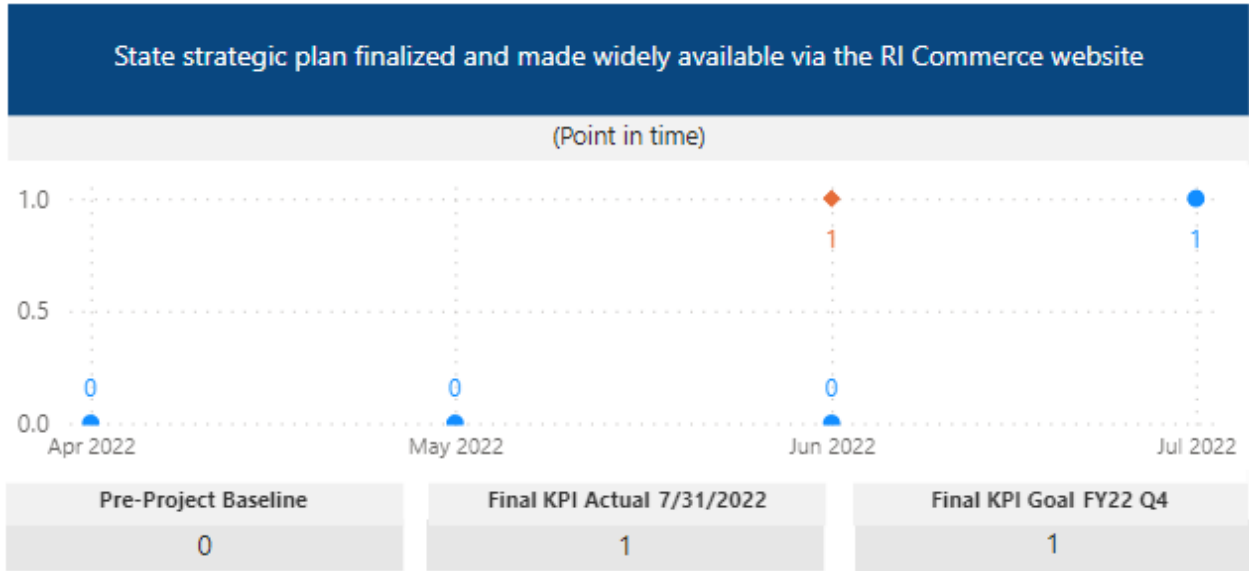| Fiscal Year Quarter	Planned Expenditures	Actual Expenditures
FY 2022 Q3	$6,487	$0
FY 2022 Q4	$193,815	$33,420
FY 2023 Q1	$88,730	$31,183
FY 2023 Q2	$171,808	$337,202
FY 2023 Q3	$37,279	$84,471
FY 2023 Q4	$1,881	$13,724
Total	**$500,000**	**$500,000**

Key Performance Indicators: The following are the key performance indicators based on quarterly goals and monthly data collections.

1. **Hiring of a broadband director**
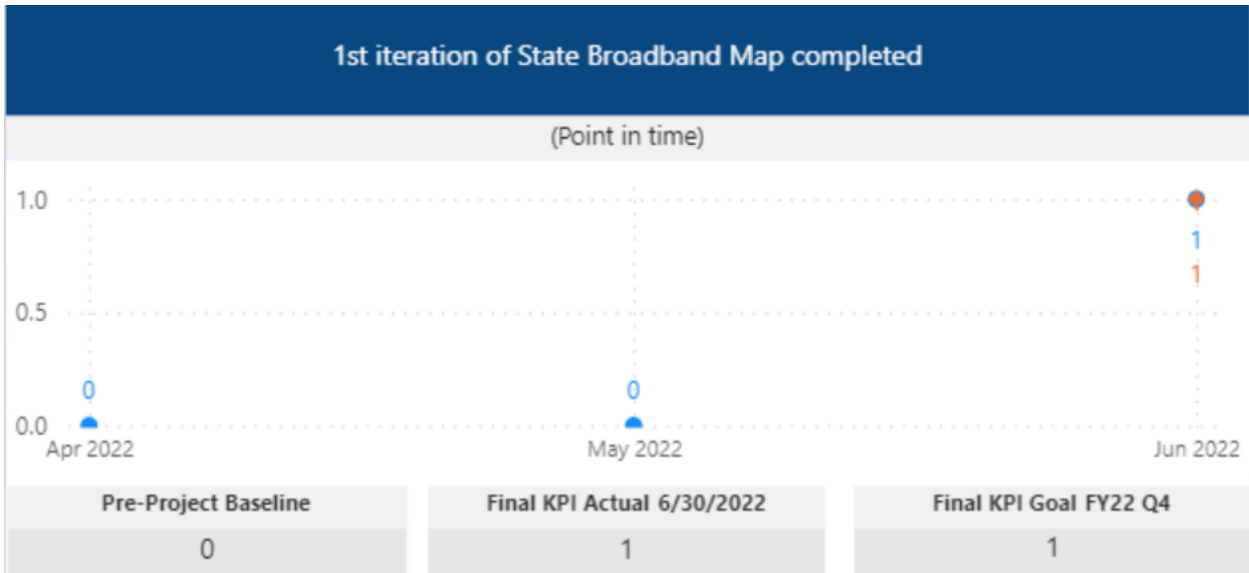

Director of Broadband Strategy hired at RI Commerce

Pre-Project Baseline	Final KPI Actual 6/30/2022	Final KPI Goal FY22 Q4
0	1	1

* This is a yes/no binary indicator: 0 meaning 'no', 1 meaning 'yes'.

2. State broadband strategy finalization

State strategic plan finalized and made widely available via the RI Commerce website

(Point in time)

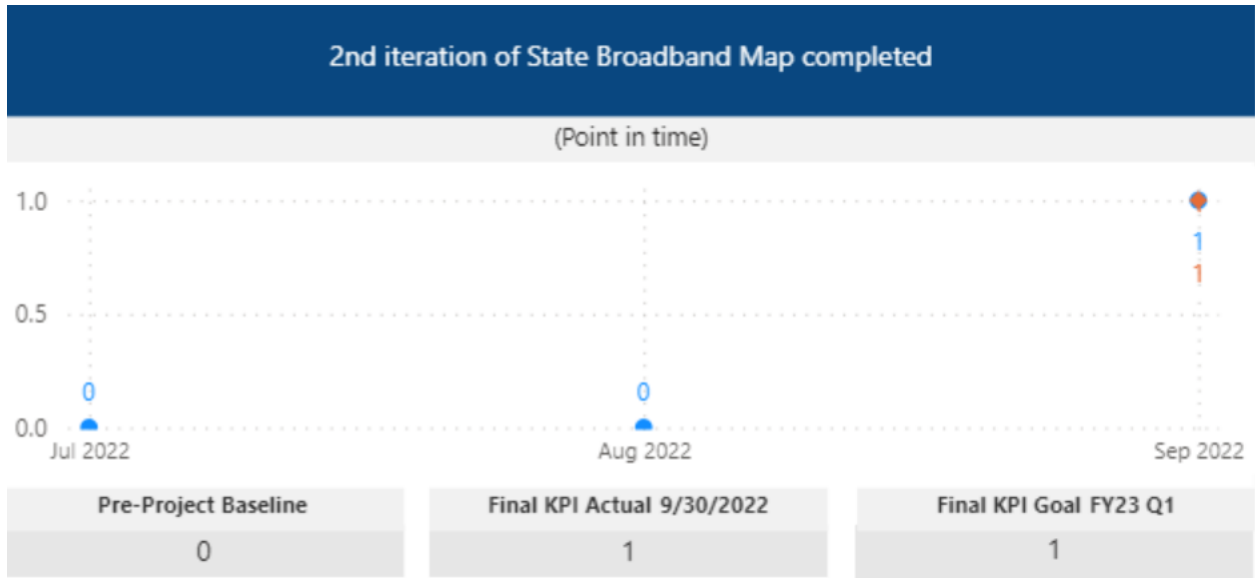| Pre-Project Baseline	Final KPI Actual 7/31/2022	Final KPI Goal FY22 Q4
0	1	1

* This is a yes/no binary indicator: 0 meaning 'no', 1 meaning 'yes'. The plan can be found [here](#).

3. First iteration of state broadband map

1st iteration of State Broadband Map completed

(Point in time)

Pre-Project Baseline	Final KPI Actual 6/30/2022	Final KPI Goal FY22 Q4
0	1	1

* This is a yes/no binary indicator: 0 meaning 'no', 1 meaning 'yes'.
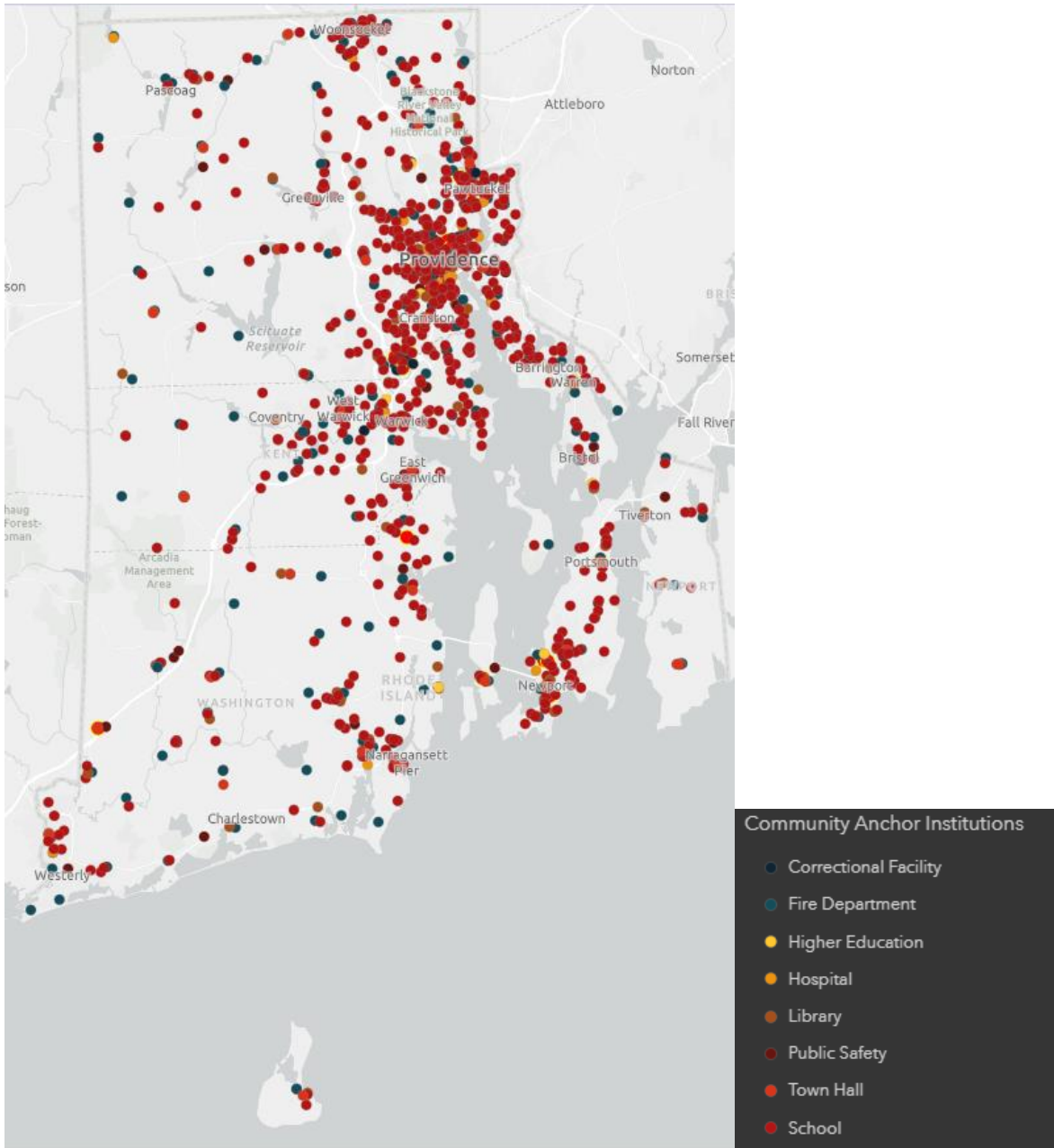
4. Second iteration of state broadband map

* This is a yes/no binary indicator: 0 meaning 'no', 1 meaning 'yes'.

Supplemental Information: Broadband service of at least 25mbps download speeds and 3mbps upload speeds (25/3mbps) is the accepted standard; however, speeds of 100/20mbps are becoming more widespread, and consideration for certain federal funding requires these higher speeds. The map below displays the percentage of speed tests under this new federal requirement of 100/20mbps by Rhode Island census tract.

Percent of Speed Tests Under 100/20mbps by Census Track[4]

---

[4] This map was provided by Rhode Island Commerce Corporation.

A Community Anchor Institution (CAI) is a community location, such as a school, library, or healthcare institution, with internet access available to the public. CAIs help close the internet access gap and make essential broadband internet services available to those who may not have access at home. The Rhode Island CAI inventory mapping tool below shows which CAIs are connected to gigabit broadband service, one of the fastest broadband services nationwide.

Rhode Island Community Anchor Institutions[5]

The table below shows the amount of funds by payee and subproject. The most significant expense across subprojects was staff, including the broadband director and consultants to assist with the creation of the broadband maps and the strategic plan. The mapping and planning subprojects allowed Rhode Island to fully assess the broadband infrastructure and apply for other federal dollars to increase connectivity statewide.

Subproject	Payee	Location	Sum of Amount
Director	Personnel	Rhode Island Commerce	$99,970.00
Mapping	Dell Marketing LP	Round Rock, TX	$94.75
Mapping	Environmental Systems Research Institute Inc	Redlands, CA	$12,408.00
Mapping	Guidesoft Inc	Indianapolis, IN	$104,437.25
Mapping	Ookla LLC	Seattle, WA	$83,000.00
Planning	Dell Marketing LP	Round Rock, TX	$3,510.00
Planning	Duffy & Shanley Inc	Providence, RI	$422.56
Planning	HR&A Advisors Inc	New York, NY	$132,991.75
Planning	Personnel	Rhode Island Commerce	$10,063.09
Planning	RDW Group Inc	Providence, RI	$51,829.62
Planning	RI League of Cities and Towns	Providence, RI	$1,000.00
Planning	WB Mason Co Inc	Brockton, MA	$122.98
Total			**$499,850.00***

A single audit fee applies to all State Fiscal Recovery Fund projects and accounts for the remainder of the funds.

Distribution of Spending by Subproject