



Nevada Governor's Office of Science, Innovation and Technology

AGENCY 014 | BUDGET ACCOUNT 1003
BRIAN MITCHELL, DIRECTOR

STATUTORY AUTHORITY

The Governor may employ and provide appropriate staff for the Office of the Governor, including the Office of Science, Innovation and Technology. This program is created to staff and support Science, Technology, Engineering and Math education and workforce programs that will be administered through the Governor's Office of Science, Technology and Innovation. The program will also administer grants obtained for such initiatives and coordinate the planning, mapping and procurement of broadband in this State.

Statutory Authority: NRS 223.085

MISSION

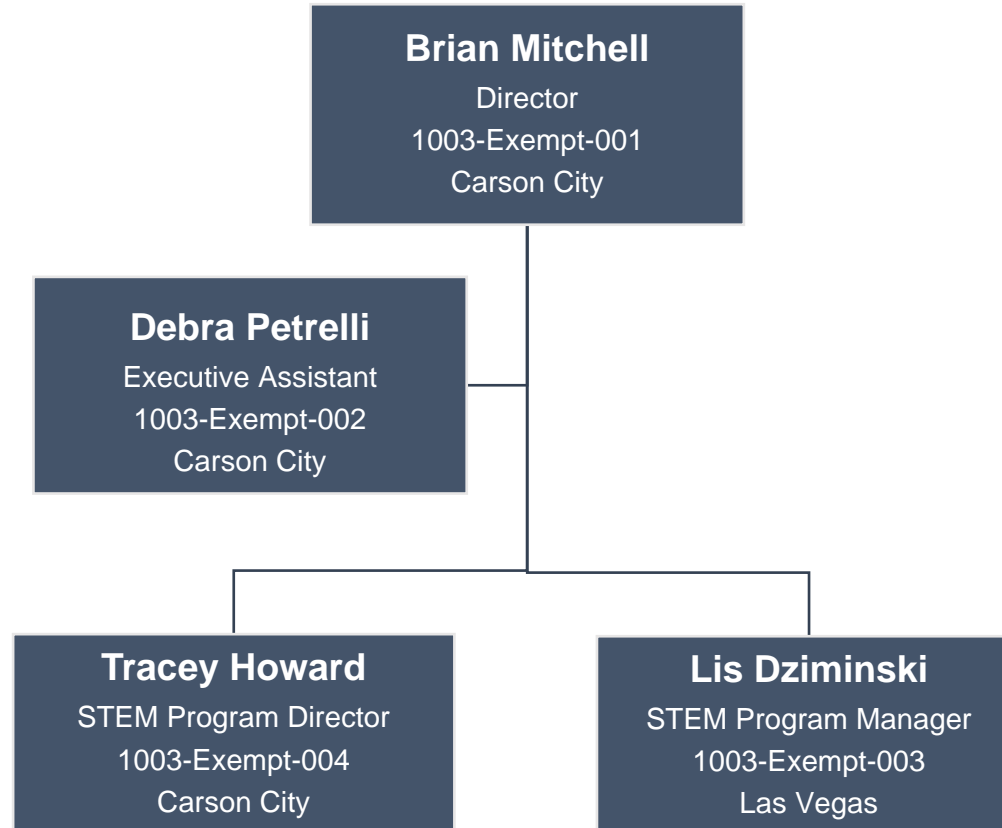
STEM: To coordinate and align efforts by K-12 and higher education, workforce development, and employers to improve science, technology, engineering, and mathematics (STEM) education and STEM workforce development so that Nevada's workforce can meet the demands of its growing economy.

BROADBAND: To coordinate the planning, mapping, and procurement of broadband so that all Nevadans have access to a high-speed internet connection that is affordable, reliable, and scalable, a connected device, and digital skills needed to fully participate in the modern society.

OBJECTIVES

- Increase the number of schools at all levels in Nevada delivering high-quality STEM education leading to increases in student proficiency, enrollment, attainment rates in STEM-focused coursework and programs, and employment in STEM-related careers in Nevada.
- Increase the number of Nevadans with some form of STEM-related post-secondary degree/credential/certificate in order to better meet the needs of employers.
- Increase the numbers from underrepresented groups participating in STEM education and STEM fields.
- Increase awareness of opportunities in STEM amongst students, teachers, parents, and businesses.
- Increase the percent of cities, libraries and schools connected with broadband.
- Increase the percent of Nevadans that have access to broadband at speeds that meet national benchmarks.
- By 2025, connect all rural hospitals, health clinics, and state correctional facilities to a broadband connection sufficient to provide tele-health services.

ORGANIZATIONAL CHART



SUMMARY OF PRIMARY ACTIVITIES

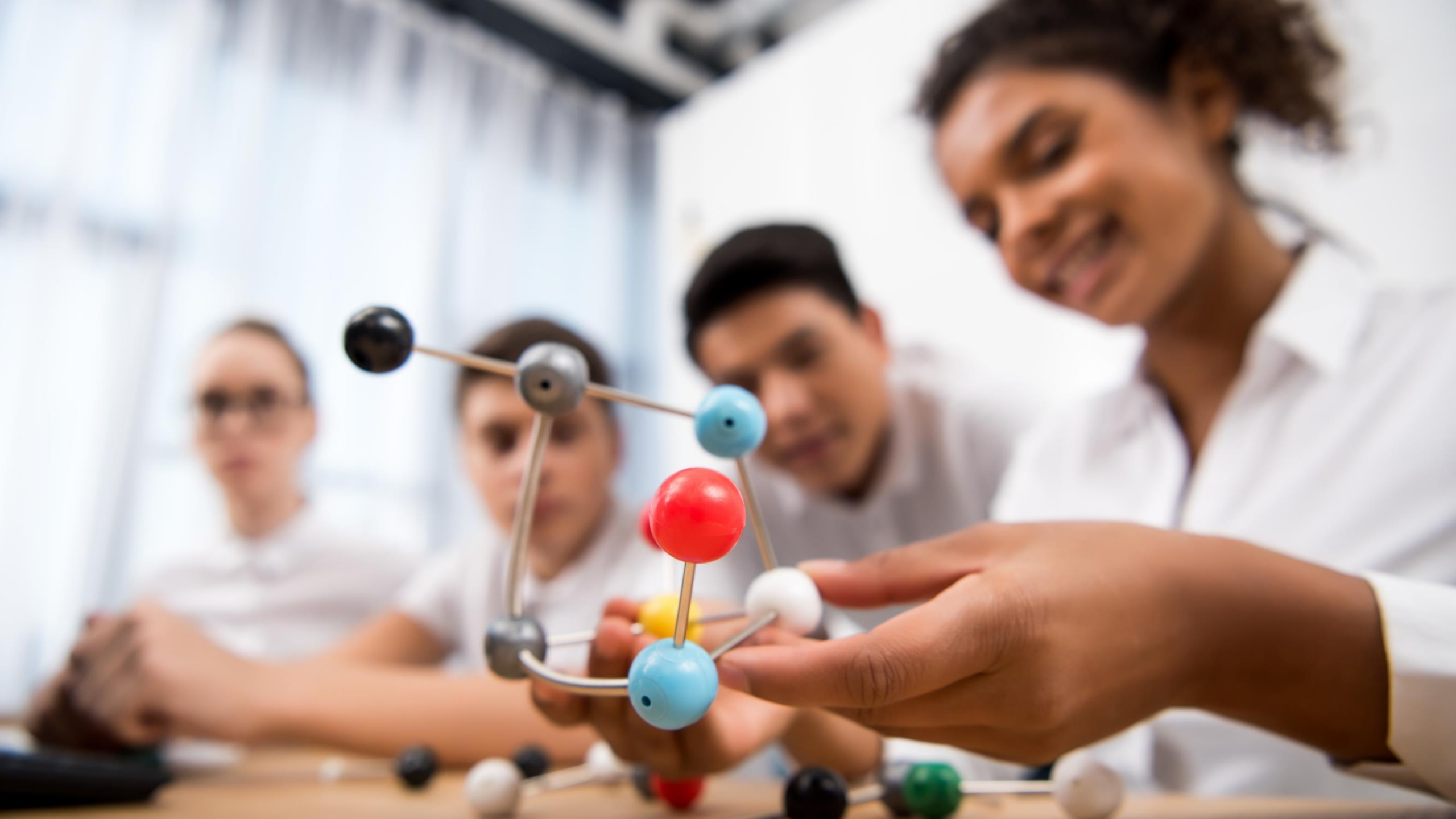
STEM Workforce
Development

Digital
Equity

Graduate Medical
Education Grants

STEM
Education

Broadband
Infrastructure
Development



STEM INITIATIVES

Developing teacher knowledge, capacity and confidence in STEM content and instruction

Creating a cadre of STEM schools that are models of high-quality STEM instruction

Supporting the development of programs of study leading to high-demand credentials

Supporting the use of high-quality STEM curriculum in the classroom and afterschool

Increasing Nevada's STEM workforce development capacity to meet the needs of employers

Increasing collaboration between industry, education, and state government

STEM GRANTS- CATEGORY 10

STEM Workforce Challenge Grants:

Competitive grant program to create or expand “middle skills” STEM postsecondary workforce training programs at the Associate Degree level and below that meet the needs of employers.

STEM Workforce Talent Pipeline Grants:

Competitive grant program to create new STEM programs that 1) begin in high school, 2) provide training leading to an in-demand postsecondary credential in high-demand STEM fields, 3) provide a work-based learning experience, 4) provide a job interview to every completer, and 5) result in students graduating with a recognized credential or degree.

Regional STEM Networks:

Funds three Regional STEM Networks to coordinate stakeholders around this shared objective: that each region has an educated and diverse workforce that meets the needs of STEM employers in the region.

STEM Leaders Academy:

STEM Teacher and school administrator workforce training program that provides professional development and strategic planning assistance to leaders from aspiring STEM schools; OSIT provides up to \$20,000 to implement the strategic plan.

Engineering Fellows Program:

Training program for elementary teachers develop and integrate NGSS-aligned engineering lessons with real-world applications into everyday teaching and existing curricula.

STEM GRANTS- CATEGORY 10

STEM Teacher Certification Pilot Program:

Training program for K-12 teachers to deepen understanding of STEM pedagogy and support implementation of research-backed teaching strategies.

Designated STEM Schools Grants:

Funds ongoing professional learning and planning for staff of Designated STEM Schools.

STEM GRANTS- CATEGORY 22

K-5 STEM Grants:

Classroom and program grants to provide K-5 teachers and schools with materials to enhance STEM learning experiences, with the intention of engaging and retaining students in STEM early.

STEM Workforce Challenge Grants:

Competitive grant program to create or expand “middle skills” STEM postsecondary workforce training programs at the Associate Degree level and below that meet the needs of employers.

Awards Thus Far Current Biennium*:

- Great Basin College (GBC)
 - \$167,852.37
 - Medical Assistant/Phlebotomist/EKG Technician (MAPE) Certificate
- College of Southern Nevada (CSN)
 - \$168,762.00
 - Dialysis Patient Care Technician (DPCT) Program
- Northern Nevada Electric Joint Apprentice Training Committee (NNEJATC)
 - \$200,814.00
 - Photovoltaic (PV)/Battery Storage Training Program
- Professional Institute of Technology, Inc. (PITA)
 - \$36,904.00
 - IT Training and Certifications
- Western Nevada College (WNC)
 - \$338,152.90
 - EMS High Fidelity Simulation

Awards 2015-2023:

- 38 Programs
 - 9 IT and Cybersecurity
 - 7 Advanced Manufacturing
 - 10 Healthcare
 - 6 Construction
 - 3 Aviation and Unmanned Aerial Systems
 - 3 Other

*** Additional Awards Forthcoming**

OSIT is currently in a funding cycle and expects to make additional awards this biennium.

STEM Workforce Talent Pipeline Grants:

Competitive grant program to create new STEM programs that 1) begin in high school, 2) provide training leading to an in-demand postsecondary credential in high-demand STEM fields, 3) provide a work-based learning experience, 4) provide a job interview to every completer, and 5) result in students graduating with a recognized credential or degree.

Grant Program Requirements:

- High School Partner
 - Provides students and supports
- Postsecondary Partner
 - Provides instruction and credential
- Employer Partner
 - Provides work-based learning and guarantees an interview to every completer

Currently coordinating with WIOA boards and other organizations to market the grant and support the planning for projects.

Awards Thus Far Current Biennium:

- Mater Academy East
 - \$99,619,89
 - Cybersecurity/IT Program
- ROC Foundation
 - \$136,197.50
 - Certified Nursing Assistant Certification

Awards 2019-2023:

- 7 Programs
 - 3 IT and Cybersecurity
 - 1 Advanced Manufacturing
 - 2 Healthcare
 - 1 Construction

Regional STEM Networks:

Funds three Regional STEM Networks to coordinate stakeholders around this shared objective: that each region has an educated and diverse workforce that meets the needs of STEM employers in the region.

Regional STEM Network Duties

- Identify on-the-ground programmatic gaps or implementation challenges in need of a state-level solution.
- Grow interest, awareness, and achievement in STEM in the region.
- Carry out on-the-ground implementation of state-level programs/goals.
- Identify and build local programs and initiatives worthy of scaling statewide.
- Create and facilitate partnerships and the sharing of resources among K-12, higher education, and business/industry within the region.



**NEVADA
STEM
NETWORKS**

Accomplishments To-Date

- Formation of 3 regional Advisory Committees
- Formation of 3 subcommittees in each region focused on: Equity, Awareness, and High-Quality Programming
- 2020 Nevada Statewide STEM Summit
- 3 Regional Strategic Directions
- Awarding of capacity-building grants to local STEM programs

Regional STEM Networks:

Funds three Regional STEM Networks to coordinate stakeholders around this shared objective: that each region has an educated and diverse workforce that meets the needs of STEM employers in the region.

Awards this Biennium: NW

- Incline Education Fund
 - \$49,599.00 - Incline MS Robotics
 - \$17,189.00 - Incline ES Makerspace
- Northern Nevada Math Club Inc
 - \$20,000.00 - Program Amplification
- PBS Reno
 - \$15,000.00 - STEM Works Digital Shorts
- Envirolution
 - \$8,182.00- Career Quest Video Library
- Northern Nevada Electrical Joint Apprentice Training Committee (NNEJATC)
 - \$16,125.00 - Drone Technology
- UNR
 - \$8,000.00 - Teacher PD Wildfire Curriculum



**NEVADA
STEM
NETWORKS**

Awards this Biennium: Rural

- Get Outdoors Nevada
 - \$13,411.00 – Meet Your Nevada
 - \$15,415.00 - Meet Your Nevada Extension
- ECSD – Wells HS
 - \$10,729.00 – STEM Class
- Green Our Planet
 - \$24,780.00 – K5 Hydroponics

Awards this Biennium: Southern

- CCSD – Glen Taylor ES
 - \$7,041.00 - K-5 Coding and Robotics
- CCSD – Garrett MS
 - \$25,891.00 – Teaching for Equity
- UNLV
 - \$13,363.00 - Nuclear Energy HS Curriculum
 - \$10,000 - Robotics Micro-credential Program
 - \$19,622.00 - Social Justice Teacher PD
- Green Our Planet
 - \$10,223.00 – MS Hydroponics

STEM Leaders Academy:

STEM Teacher and school administrator workforce training program that provides professional development and strategic planning assistance to leaders from aspiring STEM schools; OSIT provides up to \$20,000 to implement the strategic plan.



STEM Leaders Academy Current Biennium						
District	Number of Participating Schools	Number of Individual Participants	Number of Students Impacted	Number of Schools Receiving Funds	Funding Awarded to Schools	Number of Students Impacted by Funds
Carson	1	6	783	1	\$20,000.00	783
Clark	12	90	8223	12	\$230,145.90	10999
Douglas	-	-	-	1	\$3,870.00	443
Humboldt	1	5	461	-	-	-
Lyon	2	12	1053	-	-	-
Nye	1	8	464	1	\$20,000.00	464
Washoe	3	17	981	1	\$19,890.81	381
White Pine	-	-	-	1	\$19,611.00	389
Charter	3	25	3114	4	\$79,999.50	4687
Totals	23	163	15,079	21	\$393,517.21	18,146

STEM Teacher Certification Pilot

Collaboration with the National Institute for STEM Education to train 35 teachers in high-quality STEM instructional strategies aligned with the Nevada STEM Framework. OSIT is evaluating the program's impact on schools' STEM School Designation ratings.

	Applied	%	Accepted	%
Schools	20	100	6	100
ES	10	50	5	83
MS	3	15	0	0
HS	2	10	0	0
Combined	5	25	1	17
Rural	4	20	2	33
CCSD	9	45	3	50
WCSD	3	15	1	17
Charter	4	20	1	17
Newly Designated	4	20	2	33
Designated 1 Year	0	0	0	0
Designated 2 Year	1	5	1	17
Designated 3 Year	8	40	2	33
Designated 4 Year	3	15	0	0
Designated 5 Year	5	25	1	17

Objectives:

- 1) engage more teachers in STEM,
- 2) continue staff STEM professional learning, and
- 3) advance schools to a higher tier of the Governor STEM School Designation.

Registration	\$16,625.00
Graduate Credits	\$7,000.00
Stipends	\$175,000.00
Planning & Workshops with NISE	\$5,100
Total	\$203,725.00



Designated STEM School Grant

Funds for professional learning and planning at already-designated STEM schools. Recipients demonstrate a need for ongoing learning related to the Nevada STEM Framework and based on their Designation ratings, to continue advancing STEM at their schools.

Current Biennium Award Recipients*			
District	Number of Participants	Number of Students Impacted	Funding Awarded to Participants
Clark	2	2140	\$26,018.00
Washoe	2	928	\$39,136.00
Carson	1	451	\$19,976.60
Charter	3	4025	\$57,120.00
Totals	8	7,544	\$142,250.60



* Additional Awards Forthcoming

OSIT is currently in a funding cycle and expects to make additional awards this biennium.

K-5 STEM Grant

Funds for curriculum and classroom materials to enhance STEM learning experiences in elementary schools. Classroom grants up to \$1,500 each fund materials for specific STEM projects. Program grants up to \$20,000 each fund program materials and training for programs on STEM List, a vetted list of high-quality STEM programs.

Current Biennium Award Recipients*			
District	Number of Participants	Number of Students Impacted	Funding Awarded to Participants
Clark	32	4498	\$149,806.72
Washoe	3	284	\$17,441.84
Carson	6	2740	\$37,452.78
Lyon	1	100	\$19,845.00
Nye	6	500	\$29,017.45
White Pine	2	85	\$21,685.57
Charter	5	1922	\$71,084.00
Totals	55	10,129	\$346,333.36

* Additional Awards Forthcoming

OSIT is currently in a funding cycle and expects to make additional awards this biennium.

BROADBAND FUNDING



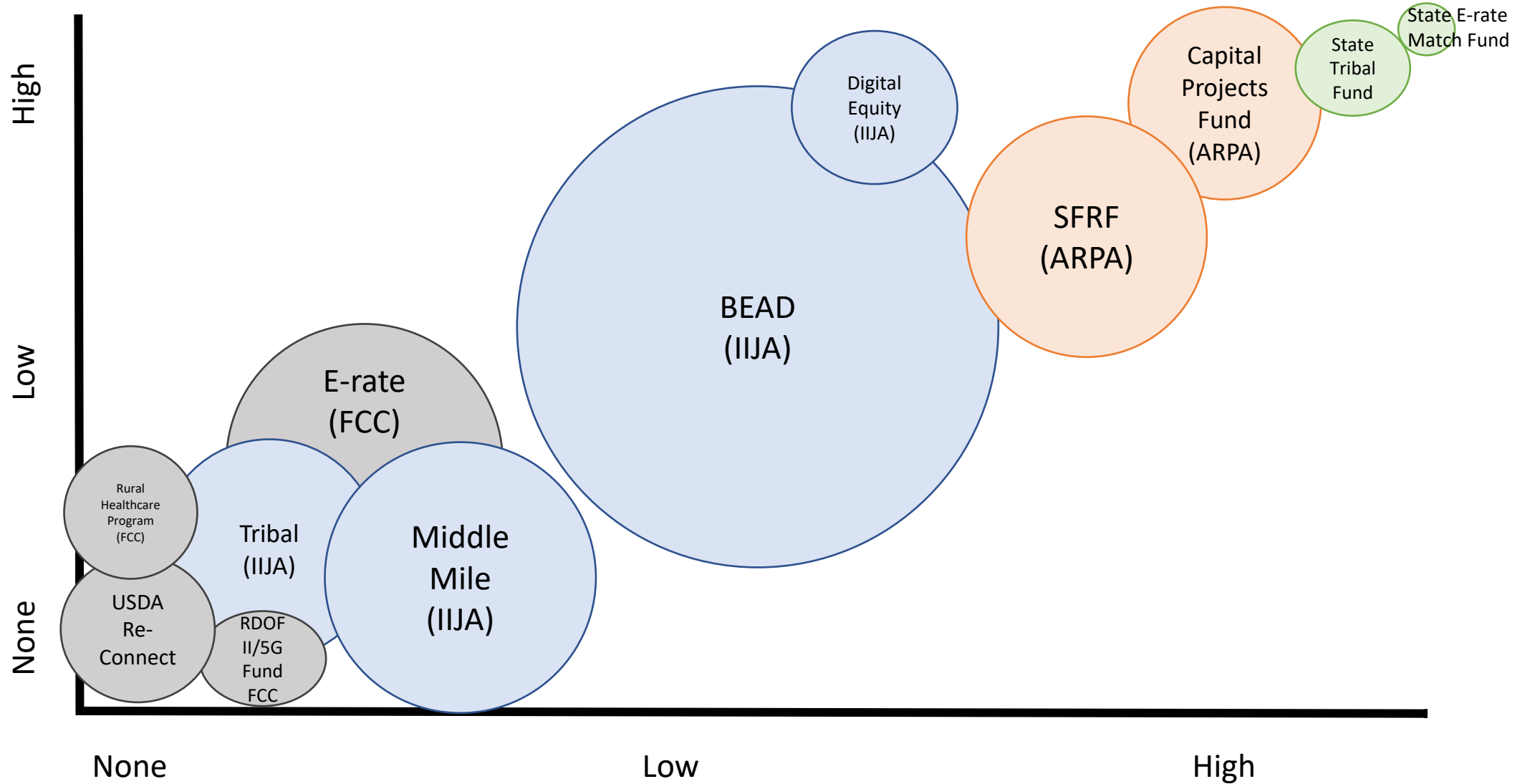
**HIGH
SPEED NV**





BROADBAND FUNDING SOURCES

State Control Over Who Gets Funds for Specific Projects



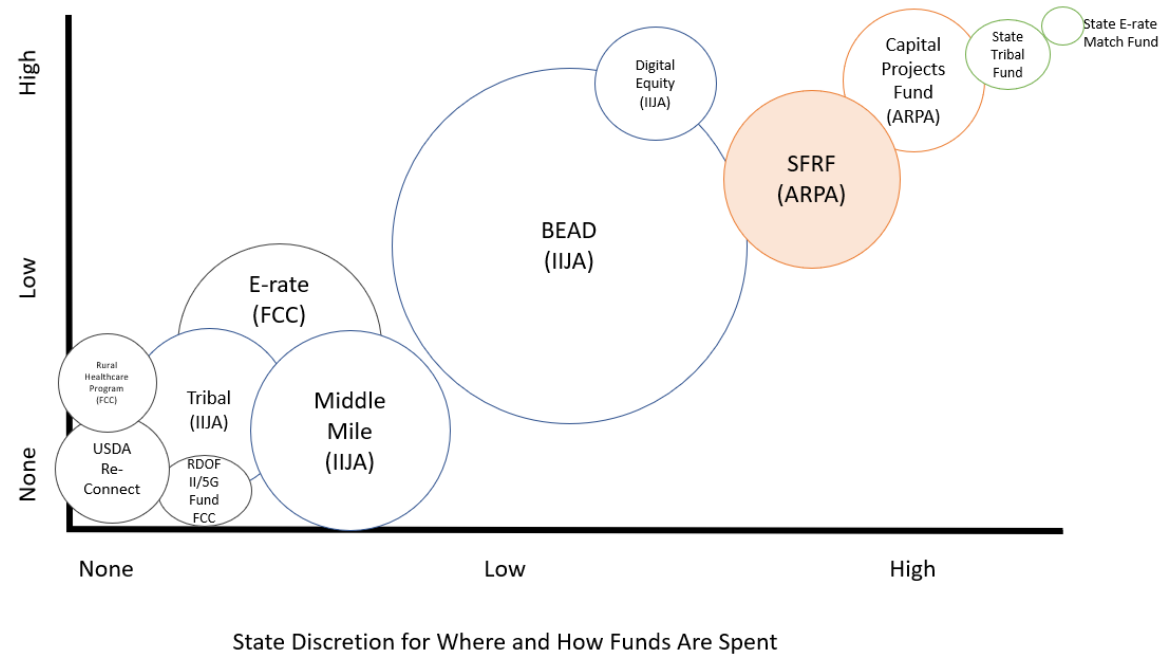
State Discretion for Where and How Funds Are Spent

STATE FISCAL RECOVERY FUND (ARPA)

Amount: \$203 million
Obligation Deadline: 12/31/2024
 Obligation Timeline: Late Spring 2023
Expenditure Deadline: 12/31/2026
 Expenditure Timeline: Summer 2023-2026

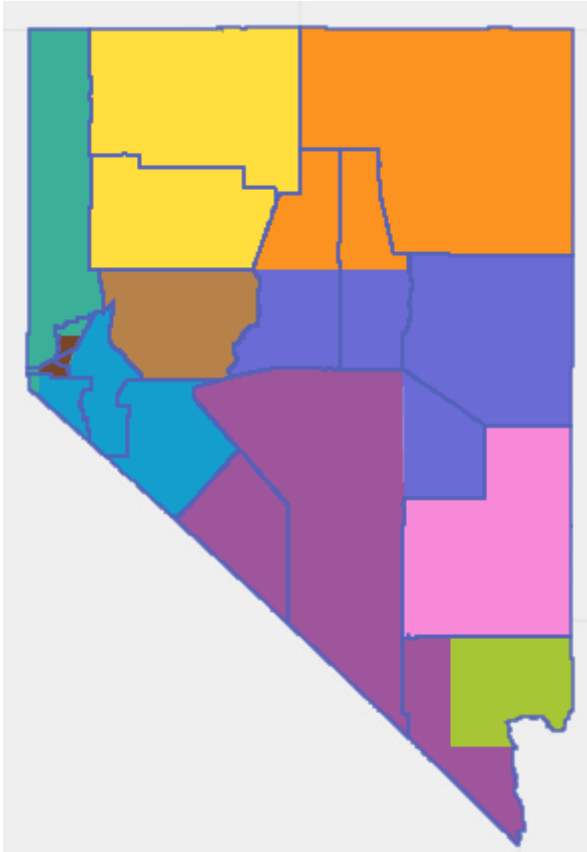
Funding Plan:
 High Speed NV Phase I: \$107,098,963
 BEAD Matching Fund: \$85,901,037
 Tribal Connectivity: \$10,000,000

State Control Over Who Gets Funds for Specific Projects

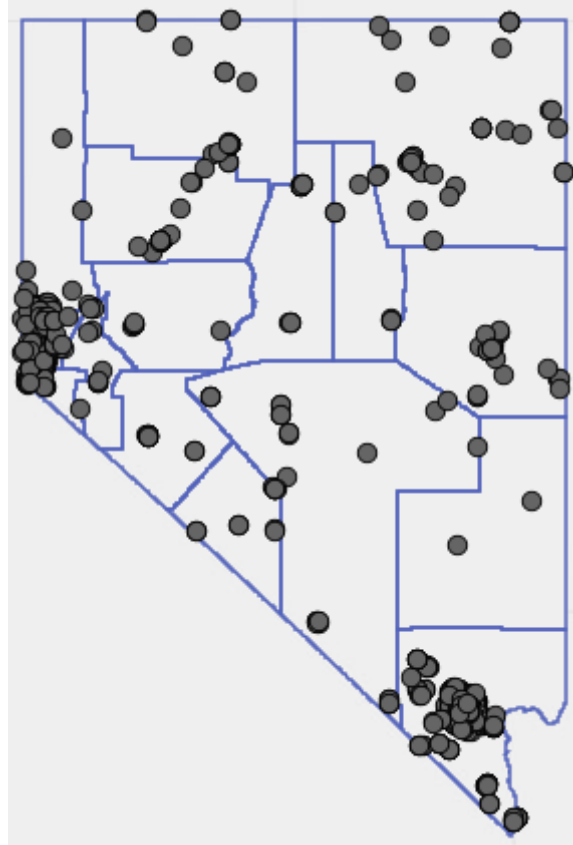


Summary of State/Local Facilities							
Category	Entities Connected	Miles of Fiber	Total Cost	Federal Match	State Funds	ARPA	
Schools/Libraries	58	583.30	\$ 90,160,345.52	\$ 82,995,363.85	\$ 4,000,000.00	\$ 3,164,981.68	
Corrections	22	203.00	\$ 32,155,200.00	\$ 18,975,528.00	\$ 0.00	\$ 13,179,672.00	
Courts	55	208.85	\$ 33,609,840.00	\$ 0.00	\$ 0.00	\$ 33,609,840.00	
EITS	13	4.44	\$ 748,800.00	\$ 0.00	\$ 0.00	\$ 748,800.00	
Behavioral Health	25	1.00	\$ 264,848.13	\$ 152,951.28	\$ 0.00	\$ 111,896.85	
NDOT	33	143.67	\$ 22,757,880.00	\$ 0.00	\$ 0.00	\$ 22,757,880.00	
NSHE	18	5.00	\$ 16,964,860.00	\$ 0.00	\$ 0.00	\$ 16,964,860.00	
NDPS	13	14	\$ 2,285,563.20	\$ 0.00	\$ 0.00	\$ 2,285,563.20	
NDOW	13	8	\$ 12,208,470.00	\$ 0.00	\$ 0.00	\$ 12,208,470.00	
Totals	250	1172.18	\$ 211,155,806.85	\$ 102,123,843.13	\$ 4,000,000.00	\$ 105,031,963.72	

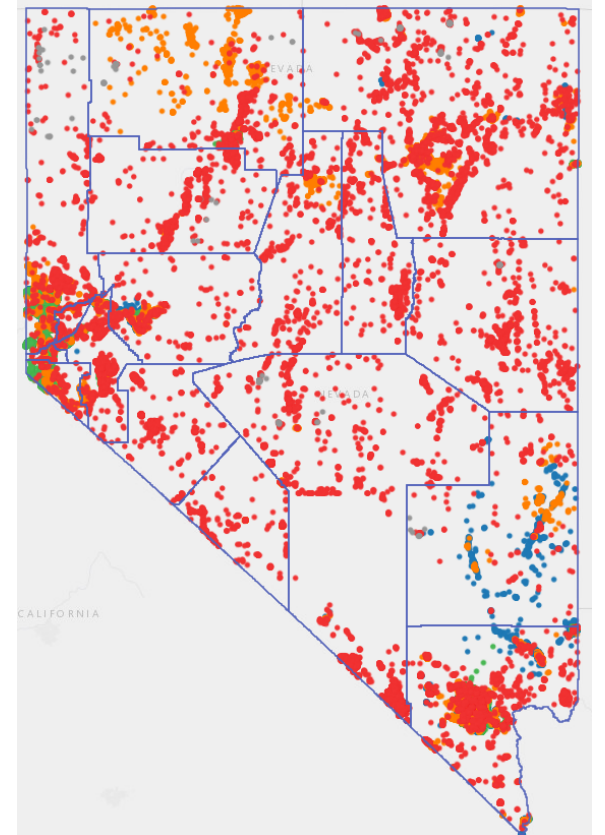
HSNV Phase I RFP Regions



1,000+ State and local facilities



Unserviced residential locations



E-RATE AND RURAL HEALTHCARE

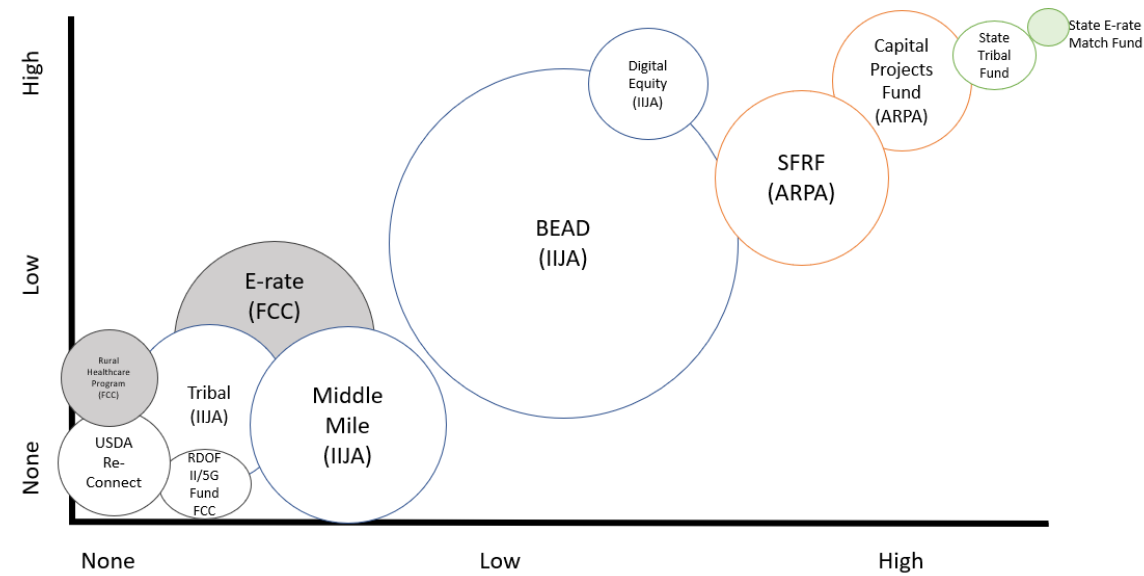
E-rate Overview: Discount program for schools and libraries based on poverty of the district

Rural Healthcare Program: Discount program for rural healthcare facilities: ; 65:35

Matching Fund: State funding will cover non-discounted share of one-time special construction costs and will draw down 1:1 additional FCC funds

***Note:** The table below does not count approximately 500 school facilities in Clark and Washoe Counties that we are bidding

State Control Over Who Gets Funds for Specific Projects



State Discretion for Where and How Funds Are Spent

Summary of State/Local Facilities							
Category	Entities Connected	Miles of Fiber	Total Cost	Federal Match	State Funds	ARPA	
Schools/Libraries	58	583.30	\$ 90,160,345.52	\$ 82,995,363.85	\$ 4,000,000.00	\$ 3,164,981.68	
Corrections	22	203.00	\$ 32,155,200.00	\$ 18,975,528.00	\$ 0.00	\$ 13,179,672.00	
Courts	55	208.85	\$ 33,609,840.00	\$ 0.00	\$ 0.00	\$ 33,609,840.00	
EITS	13	4.44	\$ 748,800.00	\$ 0.00	\$ 0.00	\$ 748,800.00	
Behavioral Health	25	1.00	\$ 264,848.13	\$152,951.28	\$ 0.00	\$ 111,896.85	
NDOT	33	143.67	\$22,757,880.00	\$ 0.00	\$ 0.00	\$ 22,757,880.00	
NSHE	18	5.00	\$16,964,860.00	\$ 0.00	\$ 0.00	\$16,964,860.00	
NDPS	13	14	\$2,285,563.20	\$ 0.00	\$ 0.00	\$ 2,285,563.20	
NDOW	13	8	\$12,208,470.00	\$ 0.00	\$ 0.00	\$12,208,470.00	
Totals	250	1172.18	\$ 211,155,806.85	\$ 102,123,843.13	\$ 4,000,000.00	\$ 105,031,963.72	

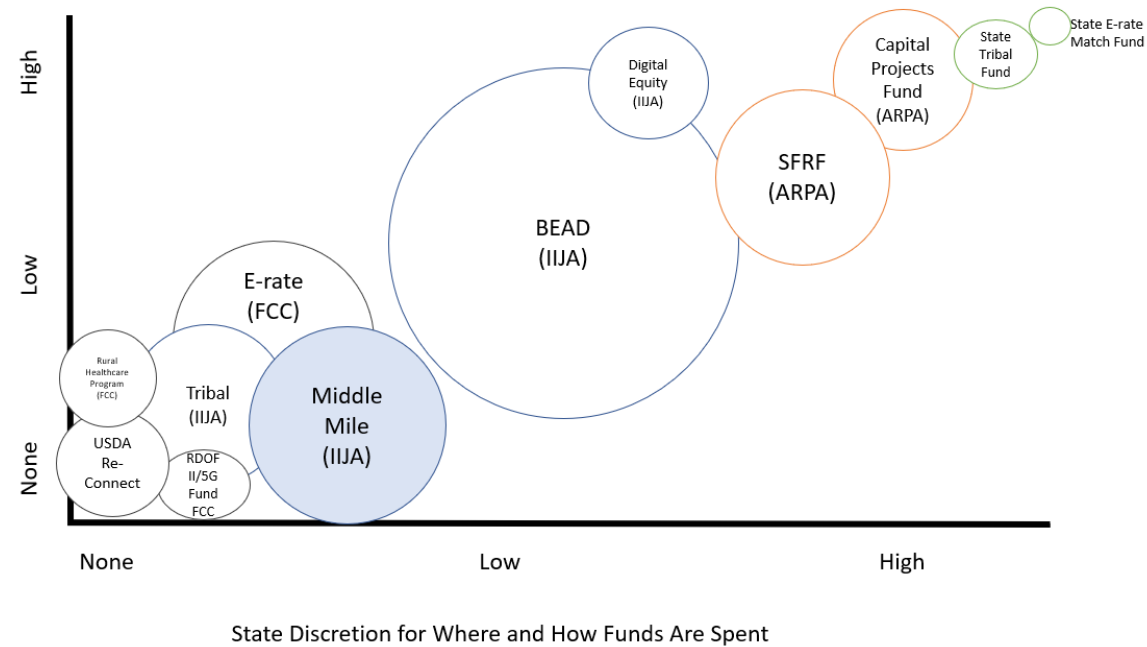
NTIA MIDDLE MILE GRANT PROGRAM

Amount: \$1 Billion
Type: Competitive Grant
Award Timeline: After 03/31/2023
Expenditure Deadline: 12/31/2026
Expenditure Timeline: Summer 2023-2026
Total: \$87,094,918.76

KEY FACTS

- Total miles: 431
- Unserved locations passed: 21,500
- Unserved community anchor institutions: 23

State Control Over Who Gets Funds for Specific Projects



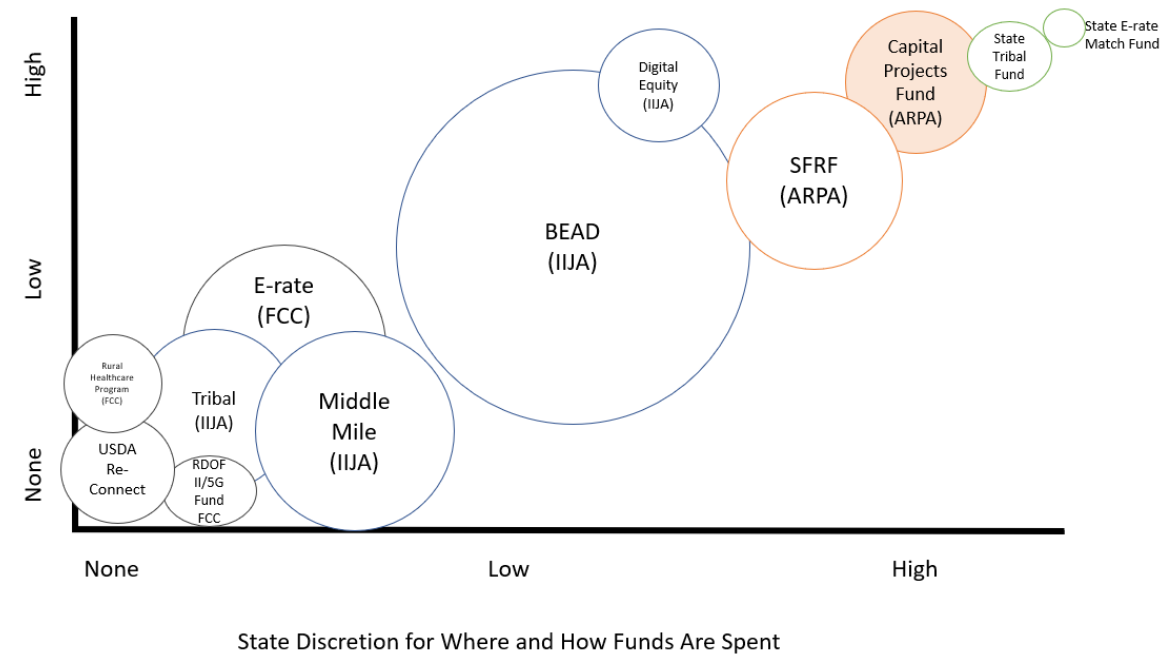
CAPITAL PROJECTS FUND (ARPA)

- Amount:** \$135 million
- Obligation Deadline:** 12/31/2024
- Obligation Timeline:** Summer-Fall 2023
- Expenditure Deadline:** 12/31/2026
- Expenditure Timeline:** Summer 2023-2026

Funding Plan:

- Low-Income Multi-Dwelling Unit Program**
 - Program will upgrade 450 low-income apartment complexes to fiber
 - Funding Allocated: \$55,164,890
 - Units served: 40,000+
 - Location: Statewide
- Rural Broadband Infrastructure**
 - Funding Allocated: \$73,657,979
 - Locations served: 42,500

State Control Over Who Gets Funds for Specific Projects





Infrastructure Investment and Jobs Act (IIJA)- BEAD Fund

Infrastructure

- \$42.5B in broadband formula grants to States- BEAD Fund
 - \$1B Middle Mile competitive grant program
 - \$2B for Tribal Broadband competitive grants
-

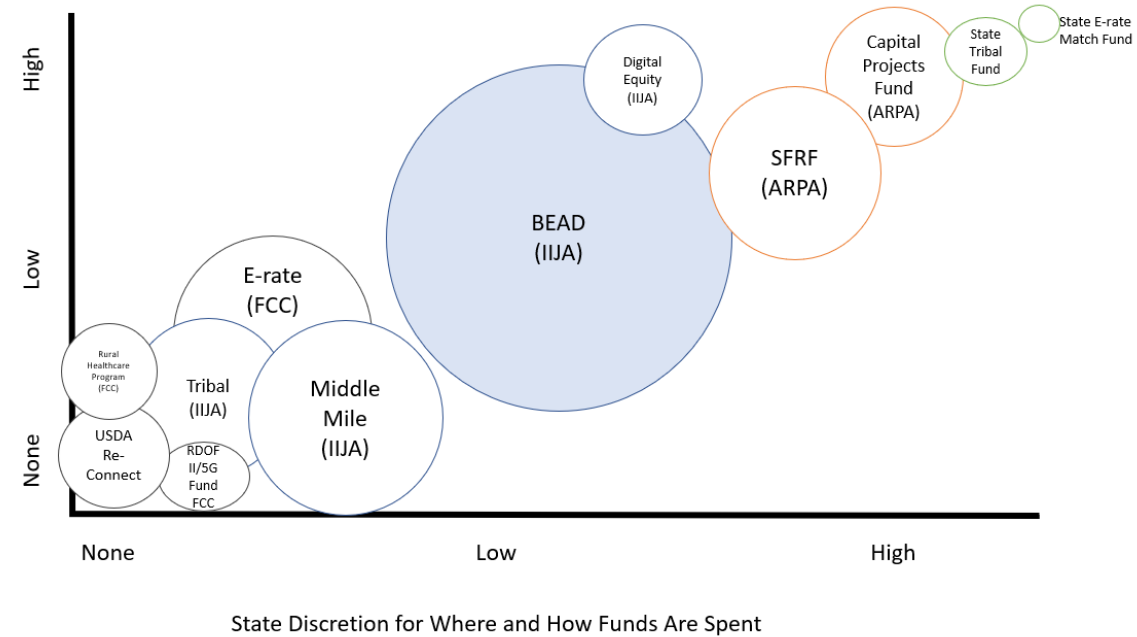
Affordability and Digital Equity

- \$14.5B Affordability Connectivity Program – Subsidy to go to \$30/month for non-Tribal | \$75/month for Tribal- individual application
 - \$2.75B in broadband adoption/digital equity programs
-

NTIA BEAD PROGRAM

Amount: \$42.5 Billion (nationwide)
Type: Formula Allocation
Allocation Date: 06/30/2023
Expenditure Deadline: 12/31/2026
Expenditure Timeline: Early 2024-2026
Purpose: Last-mile infrastructure to unserved locations
Funding Amount: \$100,000,000 guaranteed
 \$250m-\$400m Total
Allocation Formula: Based on FCC Map
Required Match: 25%

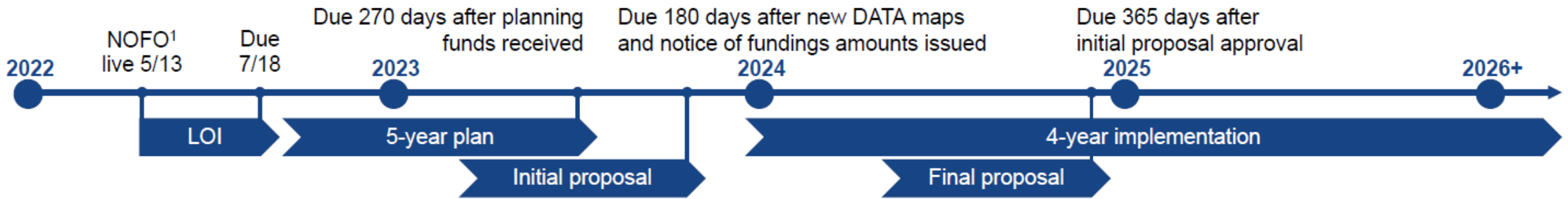
State Control Over Who Gets Funds for Specific Projects

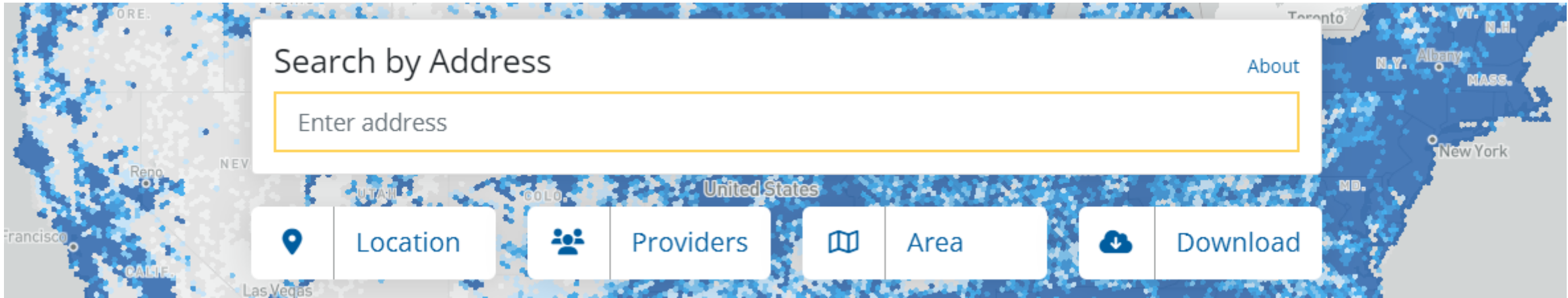


State Discretion for Where and How Funds Are Spent

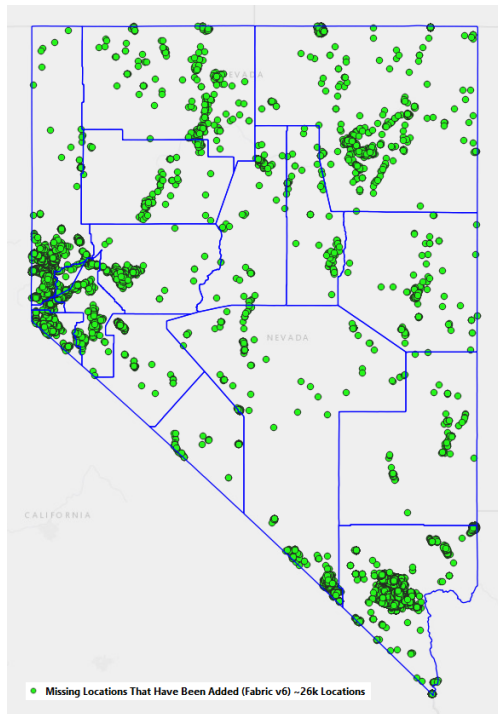
ESTIMATED TIMELINE

Timeline approximate unless exact date specified





Fabric Challenges
 ☐ 26,000+



Availability Challenges
 ☐ 20,000+



BROADBAND FOR TRIBAL NATIONS

- Number of Tribes in NV:** 28
- Funding Sources:** 4
 - NTIA Tribal Broadband Connectivity Grant (Round I*)**
 - Type:** Competitive
 - Total Funding Available:** \$980 million
 - NV Tribes Awarded:** 16
 - Funding Received:** \$32.9 million
 - Partner:** ITCN
 - State Fiscal Recovery Fund:**
 - Funding Reserved for Tribes:** \$10 million
 - OSIT Tribal Broadband Fund:** \$10 million
 - BEAD:** \$TBD

TBCG Awarded Tribes:

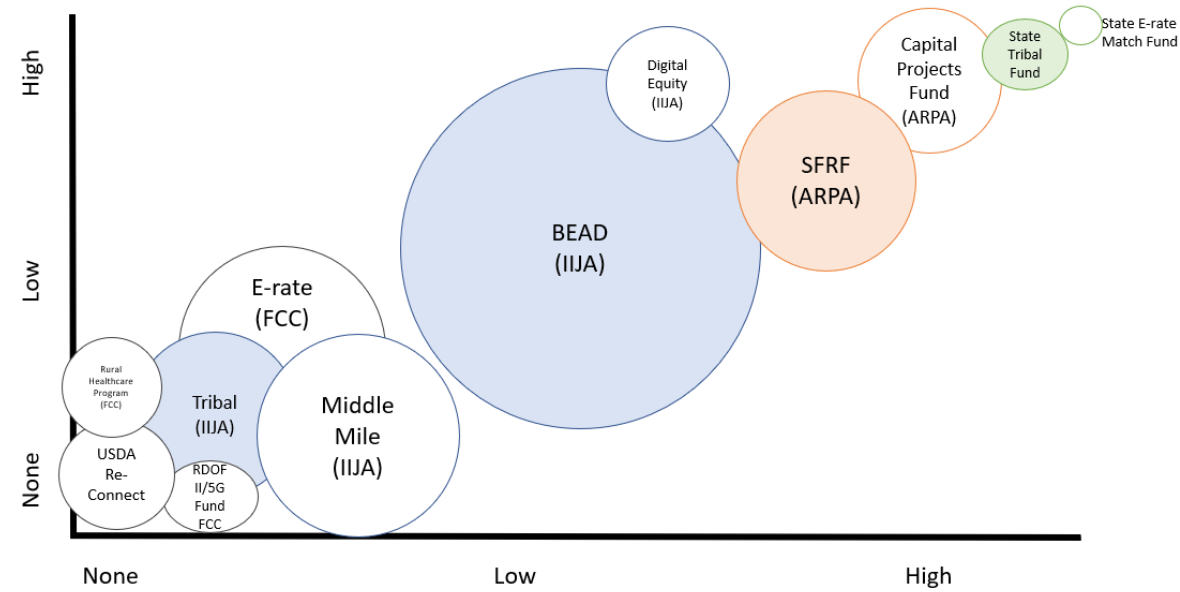
Elko Band Indian Colony
 Lovelock Paiute Tribe
 Summit Lake Paiute Tribe
 Timbisha Shoshone Tribe
 Yerington Paiute Tribe
 Yomba Shoshone Tribe

Washoe Tribe of Nevada and California
 Carson Colony
 Woodfords Colony
 Stewart Colony
 Dresslerville Colony
 Walker River Paiute Tribe

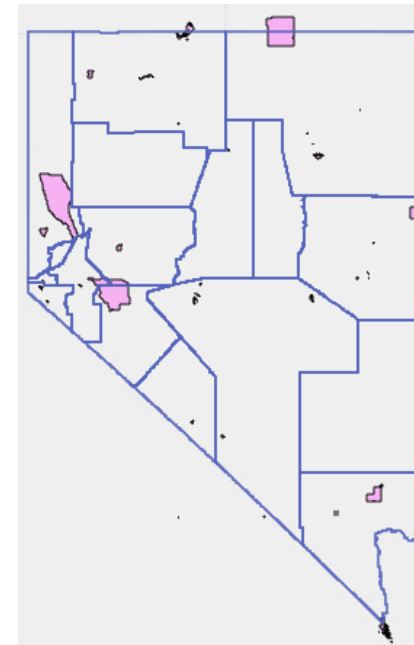
Shoshone-Paiute Tribes of Duck Valley Indian Reservation
 Ely Shoshone Tribe
 Fallon Paiute Shoshone Tribe
 Duckwater Shoshone Tribe

*OSIT expects an additional round with approximately \$2b in competitive grants for Tribes, including funding for those that were not funded in the first round.

State Control Over Who Gets Funds for Specific Projects



State Discretion for Where and How Funds Are Spent



DIGITAL EQUITY

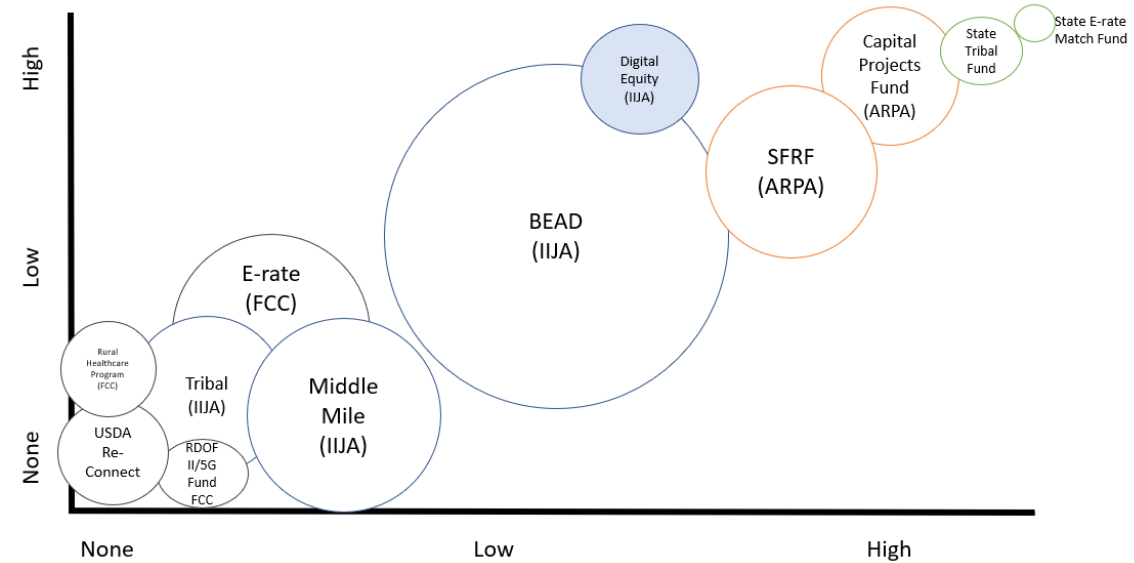
What: Affordability, Device, Digital Literacy

Funding:

- ❑ \$18-20 million formula
- ❑ \$1.25 billion nationwide competitive grants

Award Timeline: Fall/Winter 2023 after submission of Statewide Digital Equity Plan

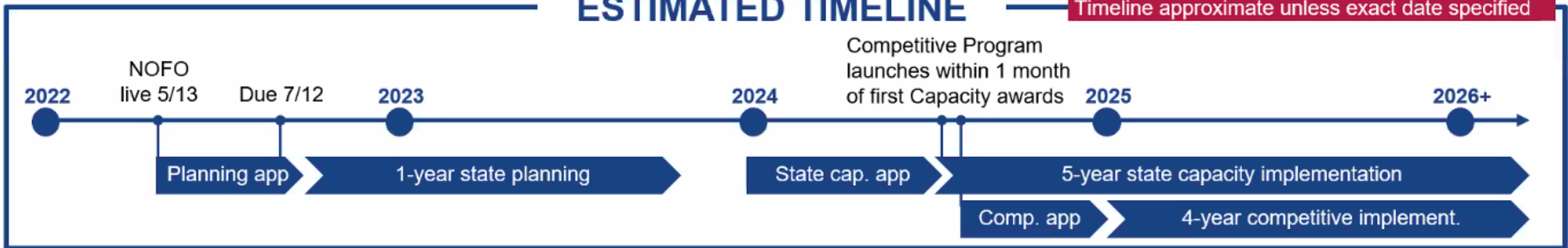
State Control Over Who Gets Funds for Specific Projects



State Discretion for Where and How Funds Are Spent

ESTIMATED TIMELINE

Timeline approximate unless exact date specified





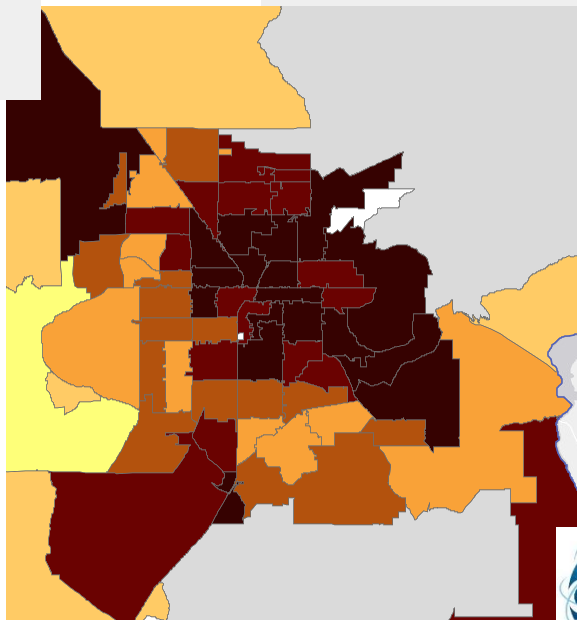
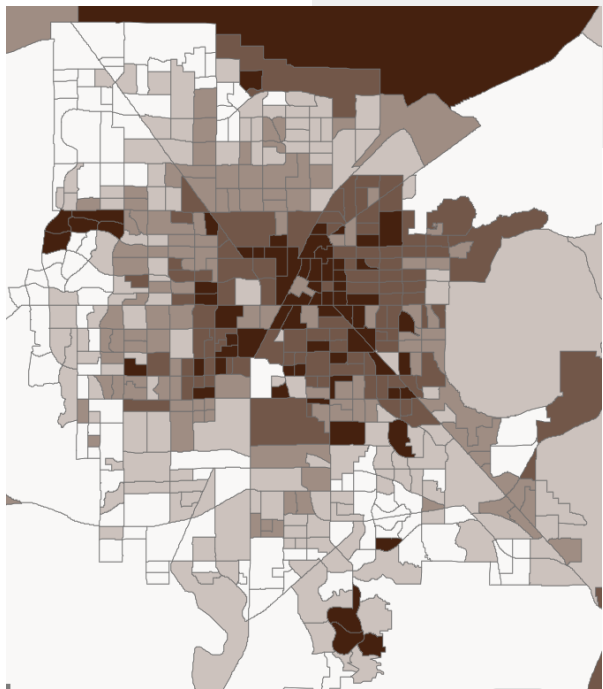
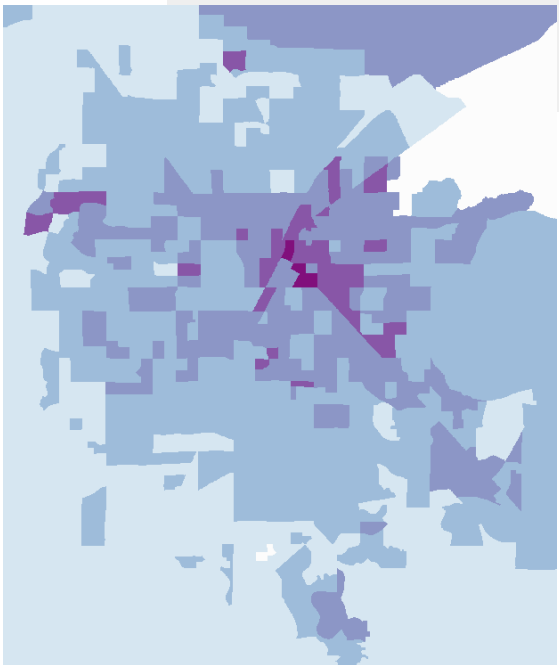
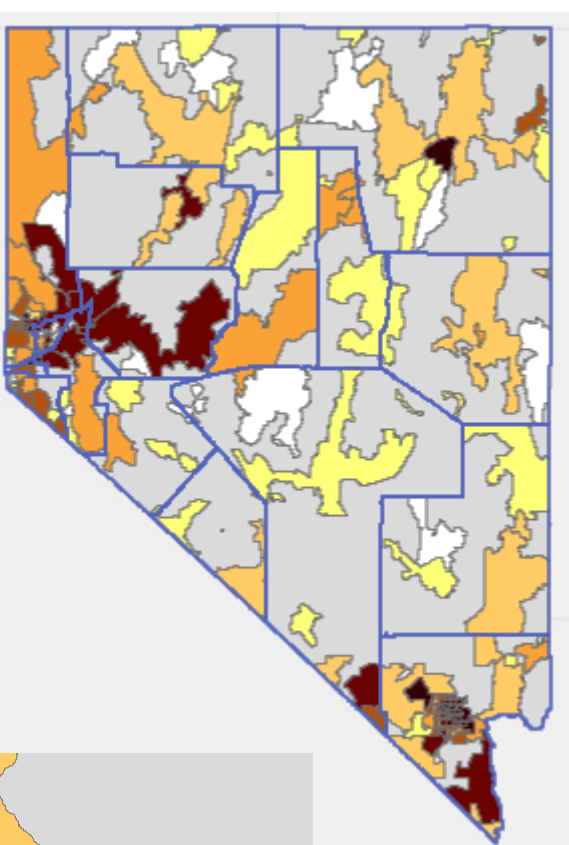
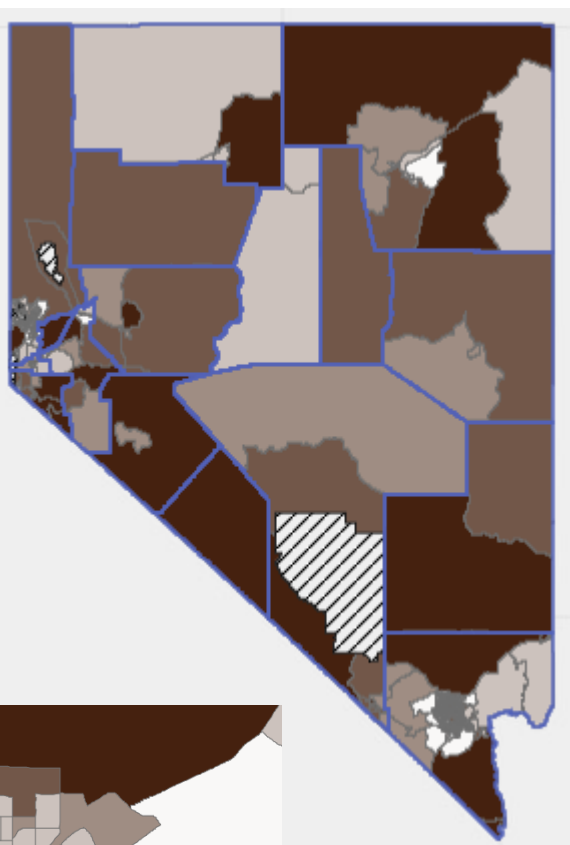
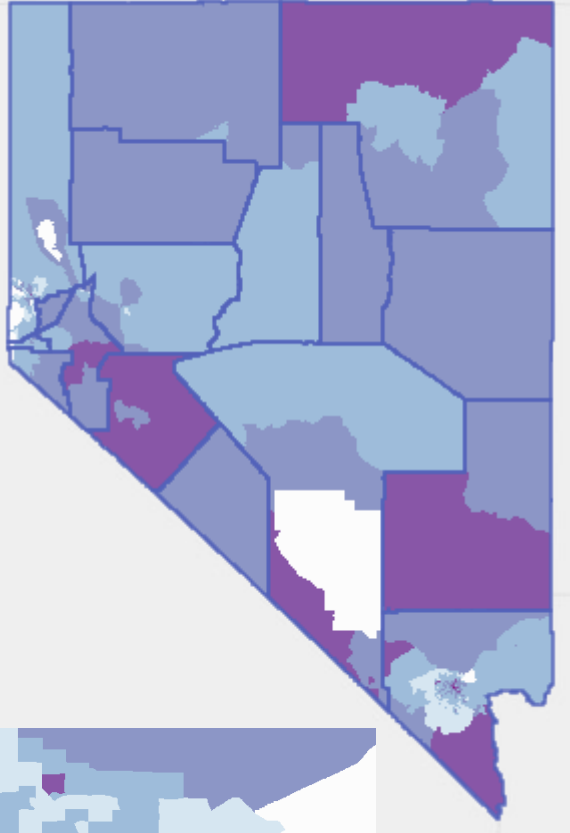
Digital Equity Act Planning Program

Statewide Digital Equity Plan - \$754,459

- Community Outreach and Engagement
 - Data Collection and Analysis
-

State Capacity Grant Program

- Funding decisions must be based on the Statewide Digital Equity Plan
 - Invest in Building Capacity of Local Programs
 - Potential Examples: Libraries, Senior Centers, Community Centers, Non-Profits, Digital Navigators, etc.
-

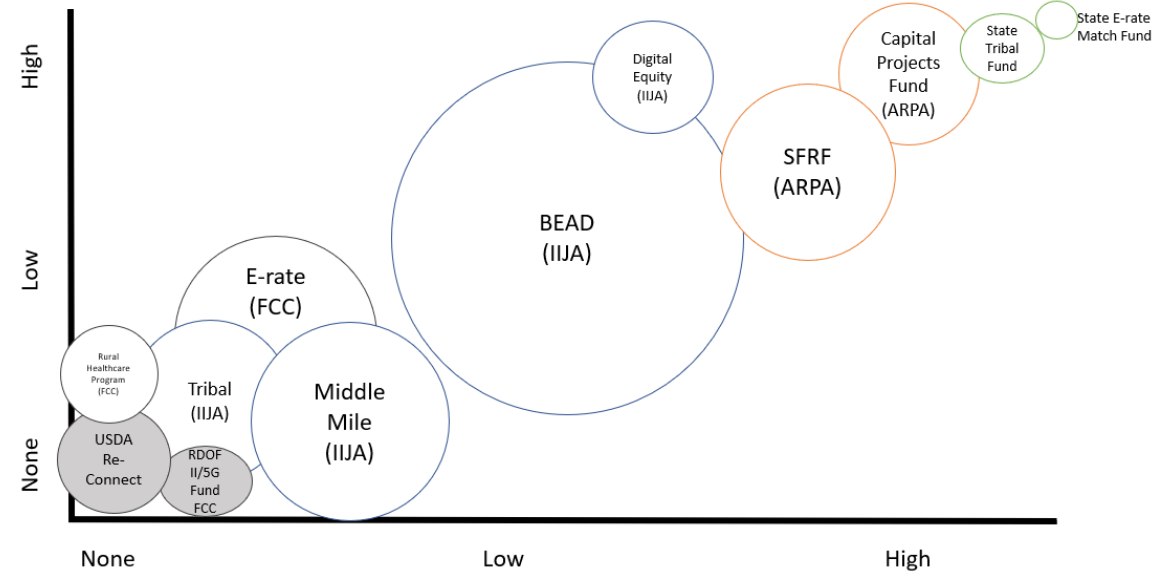


OTHER FUNDING SOURCES

USDA ReConnect and FCC RDOF/5G Fund For Rural America

- ❑ Ongoing competitive grant programs State monitors and provides technical support or assistance for but is not eligible an eligible applicant.

State Control Over Who Gets Funds for Specific Projects



State Discretion for Where and How Funds Are Spent



Nevada Governor's
Office of Science,
Innovation and
Technology

Brian Mitchell
Director- OSIT
blmitchell@gov.nv.gov