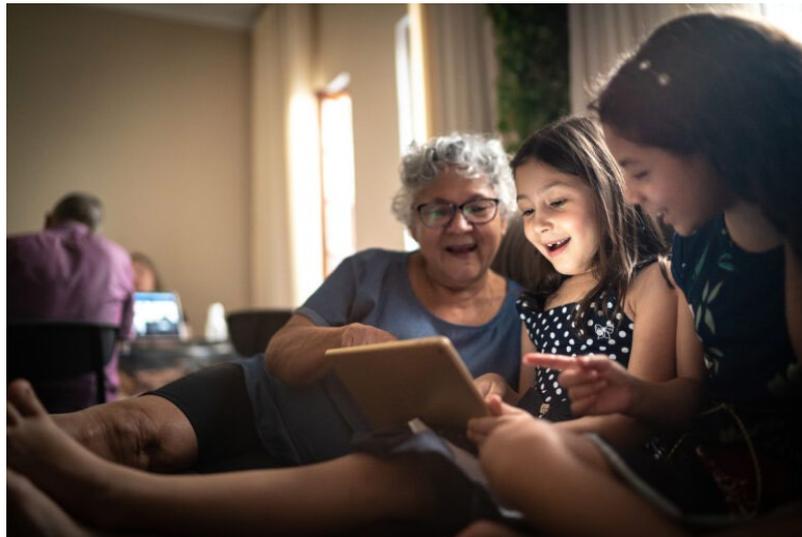


# Achieving Universal Broadband in California

April 13, 2023

---

Joseph Hayes, Niu Gao, Darriya Starr,  
and Amy Gong Liu



Supported with funding from the Michelson 20MM  
Foundation and the Silicon Valley Community Foundation



**PPIC**

PUBLIC POLICY  
INSTITUTE OF CALIFORNIA

# Background and research design

# SB 156 was an unprecedented investment

- In 2021, the state passed Senate Bill (SB) 156, **over \$6 billion** to increase equitable, affordable access to high-speed internet
- Our analysis
  - Describes local efforts across the state
  - Identifies successes and challenges
  - Highlights partnerships

# Our varied data sources spanned CA state

- 41 interviews covering > 93% of CA's population
- Mapping data from the Federal Communications Commission (FCC) and the California Public Utilities Commission (CPUC)
- CPUC award data (fall 2022)

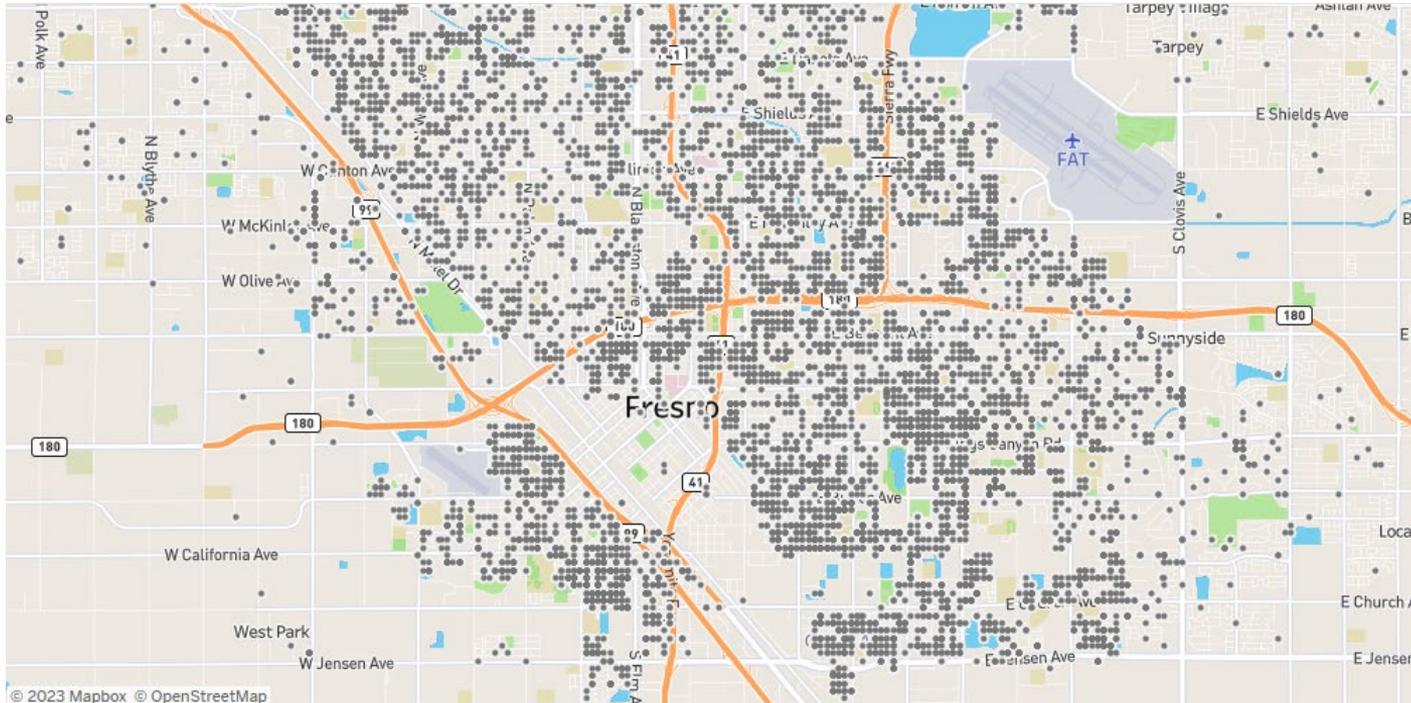


Interview coverage map

# Existing data overstate served areas

- Existing service maps:
  - “FCC data maps...are in substantial error in un/underserved locations. They show [our region] as served by 100/10. **That is not the case. We are entirely unserved.**”
    - Interview respondent on tribal lands in Southern California
- Other efforts highlight the limitations of official maps:
  - Georgia Broadband Map
  - Fresno Unified School District

# Nearly 13,000 unconnected students live around Fresno



# Key findings and recommendations



# Three major challenges to digital access

Infrastructure



Affordability



Digital literacy



# Rural communities face unique infrastructural barriers

- Topographical challenges
  - Mountainous terrain
  - Forests
  - High-density rock
  - Sparse "gateway" infrastructure
- Tribal communities
- Migrant camps

# Urban communities and mobile home parks also face access challenges

- Urban communities
  - High population density areas
  - Multi-unit residences
- Mobile home parks
  - Shallowly buried "spaghetti" of existing utility lines
    - Dangerous for new installations
    - Risk of shutting off other essential utilities

# Many still struggle to afford internet

- Areas whose access was overstated by first-round FCC maps
- Natural disasters
  - Over 2.7 million people live in “very high risk” fire zones
- Low-income and high cost-of-living areas face barriers
- Affordable Connectivity Program (ACP): \$30/month internet subsidy
  - Enrollment has grown to only 32% of eligible CA households
  - Lack of awareness and burdensome application process
  - Not available through all internet service providers

# Digital literacy is critical to internet access

- More people need the information, prior training, and resources to learn how to use technological tools
- Scarcity of digital skills training
  - Awareness of cybersecurity risks
- Time constraints
  - A one-day session may be insufficient to last a lifetime
  - Working adults may lack availability to attend workshops
  - Working parents may lack the time to help their children

# Several strategies may help to bridge the digital divide

- Infrastructure:
  - Participate in or establish consortia to share information and strategies
- Affordability:
  - Boost program awareness and trust
  - Increase clarity and ease of application process
  - Improve internet service providers' offerings
- Digital literacy:
  - Partnerships with local schools, colleges, and libraries
  - Add digital navigator roles throughout community anchor institutions

# Notes on the use of these slides

These slides were created to accompany a presentation. They do not include full documentation of sources, data samples, methods, and interpretations. To avoid misinterpretations, please contact:

Joe Hayes ([hayes@ppic.org](mailto:hayes@ppic.org)) | Niu Gao ([gao@ppic.org](mailto:gao@ppic.org)) | Darriya Starr ([starr@ppic.org](mailto:starr@ppic.org)) | Amy Gong Liu ([liu@ppic.org](mailto:liu@ppic.org))

**Thank you for your interest in this work!**