Data Requirements for the Effective Evaluation of the Restructured BEAD Program

A Guide and Checklist for Practitioners

Contents

Acknowledgements

Background and motivation

The BEAD Restructuring Policy Notice of June 6, 2025, eliminated numerous requirements and recommendations from the original BEAD program.[1] For example, the Policy Notice eliminated provisions related to labor, minority business participation, and climate change. While substantial, these changes do not reduce the need for eligible entities to carefully monitor and evaluate progress toward reaching broadband access goals and their repercussions for economic and social outcomes.

Monitoring and evaluation are related to ascertaining compliance with pertinent federal and state regulations, but they also serve additional purposes. They are essential for effective program management, to identify potential roadblocks early, and to assure transparent and accountable use of public funds. It is therefore important that State Broadband Offices (SBOs) embed appropriate reporting mechanisms into sub-awards that can be used for evaluation purposes and are not just narrowly geared toward meeting compliance requirements.

Because data collection is costly, such requirements should be designed to generate necessary information at the lowest possible administrative burden for sub-awardees and SBOs. Comprehensive project and program evaluation will ideally take place at various spatial levels, including project areas, sub-awardees, and census geographies. Moreover, assessing some of the impacts of BEAD requires linking outcome data with relevant socio-demographic and economic data that are collected by other agencies, such as the U.S. Census Bureau and the Bureau of Economic Analysis (BEA).

It is important that eligible entities collect, curate and publish information in formats that allow combining it with data from these and other agencies. Much of the data from these agencies is available at the level of census tracts and higher census geographies (e.g. counties), but some is also available at higher granularity (census block groups, census blocks). Thus, at a minimum, data collected by eligible entities should allow aggregating data to the census tract level. Additional insights could be generated if data could be linked to census block groups and census blocks. This will require appropriate geotagging.

This practitioner guide offers suggestions to SBOs for the systematic collection of data on network deployment that will facilitate accompanying and subsequent project and

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[1] See NTIA, BEAD Restructuring Policy Notice. Washington, D.C.: National Telecommunications and Information Administration, U.S. Department of Commerce, June 6, 2025. Retrieved on June 29, 2025, from https://www.ntia.gov/other-publication/2025/bead-restructuring-policy-notice; NTIA, Understanding the BEAD Restructuring Policy Notice. Washington, D.C.: National Telecommunications and Information Administration, U.S. Department of Commerce, June 13, 2025. Retrieved on June 29, 2025, from https://broadbandusa.ntia.gov/sites/default/files/2025-06/BEAD_SBLN_RPN_Training_Slide_Deck.pdf.

program evaluation. It is intended as a checklist to make sure the data needed for short- and long-term evaluations are collected. It seeks to avoid duplication of data collection efforts and builds, as far as possible, on already established data collection processes.

Some of the information suggested in this checklist will become available as part of the sub-awardee selection process. Some will be collected as part of compliance with federal regulations. However, in a few cases, such as adoption information, data collection may have to be built into sub-awardee requirements and therefore needs attention before sub-awardee agreements are finalized. The main purpose of this guide is to help ensure that the relevant information is collected somewhere and that it is curated in ways that can later be used for evaluation purposes.

Although the NTIA has not yet released its guidance on post-Final Proposal Semi-Annual Reports (SARs) at the time of writing,[2] we anticipate that there will be considerable congruence between the metrics proposed in this checklist and the upcoming NTIA guidance.

This practitioner guide builds on the revised and updated version of the measurement and methodological framework developed by the Quello Center at Michigan State University and The Pew Broadband Access Initiative (BAI).[3]

Network deployment checklist

Evaluating progress toward serving eligible broadband serviceable locations (BSLs) requires information about

- project areas
- sub-awards
- progress toward serving eligible BSLs
- technical characteristics of the broadband connection
- prices for broadband service

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[2] See NTIA, BEAD Final Proposal Guidance for Eligible Entities. Washington, D.C.: National Telecommunications and Information Administration, U.S. Department of Commerce, June 2025. Retrieved on June 29, 2025, from https://broadbandusa.ntia.gov/sites/default/files/2025-06/DOC_NTIA_Final_Proposal_Eligible_Entity_Guidance_Final_BEAD_Restructuring.pdf.

[3] The revised and updated framework was released on July 7, 2025. See J.M. Bauer, E. Mack, A. Nam, B. Lee, & M. Knittel, Assessing the Effects of the Infrastructure Investment and Jobs Act on High-Speed Internet Access, Digital Equity, and Community Development. Revised and Updated. East Lansing, Michigan: Quello Center at Michigan State University, July 7, 2025. Retrieved on July 7, 2025, from https://quello.msu.edu/iija-assessment/Quello-Center-IIJA-Assessment-Framework-Revised-and-Updated-20250707.pdf. (The original framework was released in October 2024 and can be downloaded from https://quello.msu.edu/iija-assessment.)

- adoption

The full data checklist is also available as one integrated table in the appendix to this document starting on p. 10.

Project areas checklist

Information about the project areas is needed to establish a baseline for the monitoring and evaluation of progress. It is important that geocoordinates must be collected in a format that allows mapping the information to census geographies (census blocks, census block groups, census tracts, etc.).

Table 1: Data on project areas

Project areas				
	Priority	Data	Measurement	Frequency
☐	High	Location	Geocoordinates*	Time of sub-award
☐	High	Unserved locations	Number of unserved BSLs	Time of sub-award
☐	High	Underserved locations	Number of underserved BSLs	Time of sub-award
☐	High	Community anchor institutions	Number of CAIs	Time of sub-award

Sub-awards checklist

Information about sub-awards is needed for each project area. If a sub-awardee serves more than one project area, it might be useful to also evaluate sub-awardees across the relevant areas (e.g., by collecting appropriate unique business identifiers).

Table 2: Data on sub-awards and sub-awardees

Sub-award(s)				
	Priority	Data	Measurement	Frequency
☐	High	Project area	Geocoordinates*	Time of sub-award
☐	High	Sub-awardee	Name, identifier	Time of sub-award
☐	High	Sub-awardee commitment: unserved locations	Number of unserved BSLs to be served at the end of the performance period	Time of sub-award

	Priority	Data	Measurement	Frequency
☐	High	Sub-awardee commitment: underserved locations	Number of underserved BSLs to be served at the end of the performance period	Time of sub-award
☐	High	Total BEAD outlays	USD	Time of sub-award
☐	Medium	Matching funds	If available	Time of sub-award

Progress checklist

Data on progress toward serving eligible BSLs must be reported semi-annually by the sub-awardees to eligible entities and by eligible entities to NTIA. This information is also important for evaluation purposes, so no duplication of effort is needed. The data would be most useful if it were collected for all sub-awardees at the same time. For example, it would be helpful to document the status of projects as of July 1 and December 31 of every year during the performance period. If data is collected in a staggered fashion with varying dates for sub-awardees, it would be helpful to periodize the information (e.g., to document annual progress).

Table 3: Data on progress to serving all eligible BSLs

Progress toward serving all eligible BSLs				
	Priority	Data	Measurement	Frequency
☐	High	Sub-awardee	Name	Time of sub-award
☐	High	Location	Geocoordinates*	Time of sub-award
☐	High	Commitment	Number of BSLs to be served at the end of the performance period	Time of sub-award
☐	High	Number of unserved locations connected	Unserved BSLs served at the end of the reporting period	Semi-annually
☐	High	Number of underserved locations connected	Under served BSLs served at the end of the reporting period	Semi-annually

Technical characteristics of the broadband connection

The BEAD Restructuring Public Notice may affect the technologies deployed to connect unserved and underserved locations. This information can be collected as part of the semi-annual reporting of sub-awardees. It would also be helpful to collect information on

the scalability of the deployed technology to potential additional locations in the future and to higher capacity.

Table 4: Technical characteristics

	Priority	Data	Measurement	Frequency
Technical characteristics				
	Priority	Data	Measurement	Frequency
☐	High	Sub-awardee	Name	Time of sub-award
☐	High	Location	Geocoordinates	Time of sub-award
☐	High	Priority project	Yes/No	Time of sub-award
☐	Medium	Scalability to 1000/500 Mbps	Yes/Yes, with subsidy/No	Time of sub-award and semi-annually
☐	Medium	Scalability to additional locations	Yes/Yes, with subsidy/No	Time of sub-award and semi-annually
☐	High	Technologies deployed	Eligible BSLs served with fiber, FWA, ULFW, satellite, other	Semi-annually
☐	High	Supportable capacity ("speed")	100/20 Mbps or higher (whichever can be delivered)	Semi-annually
☐	High	Latency	100 ms or better (whichever can be delivered)	Semi-annually

Prices for broadband service

Although the BEAD Restructuring Policy Notice eliminated mandatory low-and middle-income pricing plans, sub-awardees can make voluntary low-income offers. It will be important to capture information on these offers. Moreover, some state laws prescribe low-income plans. These should be documented also.

Table 5: Data on broadband prices

	Priority	Data	Measurement	Frequency
Prices for broadband service				
	Priority	Data	Measurement	Frequency
☐	High	Sub-awardee	Name	Time of sub-award
☐	High	Location	Geocoordinates	Time of sub-award
☐	High	Low-income offer	Sign-on costs if any, device cost, monthly	Semi-annually, could follow

			charges, capacity, data caps if applicable	information on the broadband labels
☐	Medium	Standard offer for 100/20 Mbps unlimited service	Sign-on costs if any, device cost, monthly charges	Semi-annually
☐	Low	Standard offer for 1000/500 Mbps unlimited service	Sign-on costs if any, device cost, monthly charges	Semi-annually

Adoption

An overarching goal of BEAD is to facilitate adoption of broadband. The reporting requirements of sub-awardees are an opportunity to generate more reliable information on adoption.[4] Collecting this information for the areas that benefit from BEAD funding would contribute to other efforts to improve the availability and quality of adoption data.

Table 6: Data on adoption and subscriptions

Adoption				
	Priority	Data	Measurement	Frequency
☐	High	Sub-awardee	Name	Time of sub-award
☐	High	Location	Geocoordinates	Time of sub-award
☐	High	Number of subscribers	By technology if multiple technologies are deployed	Semi-annually
☐	High	Number of low-income subscribers	By technology if multiple technologies are deployed	Semi-annually

Short-term and long-term assessment

In addition to other compliance data, the data suggested in the checklist will facilitate rigorous monitoring until the end of the performance period. During that time, the focus will be good project management, identification of roadblocks, project completion, and compliance. Evaluation will initially parallel project monitoring but as projects mature it

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[4] The FCC collects subscriber information from broadband providers at an aggregate level, but the data is not available in the public domain. Moreover, the American Community Survey (ACS) and the NTIA Internet Use Survey provide some insights into adoption, but with considerable time lags and limited granularity.

will broaden to evaluate the success of the program on the previously unserved and underserved locations, adjacent communities, regions, and states.

Data curation and publication

These broader efforts require that the data that is initially collected for unserved and underserved locations be made available in formats are compatible with already existing datasets. Eventually, but usually with a time lag, data collections such as the Broadband Data Collection by the FCC, the Internet Use Survey by NTIA, and the American Community Surveys by the U.S. Census Bureau, will reflect BEAD outcomes. Until this is the case, probably 2-3 years after BEAD projects are completed, states have an important public service role to make data available that document BEAD outcomes.

It seems unlikely that all eligible entities will collect the same information and make it available in a standardized format. This is not necessary if the data outlined in the checklist are collected and a few basic principles of data curation and publication are adopted. At a minimum, the following principles should guide SBOs:

- Provide location information that allows linking data to census tracts (and ideally to census block groups and census blocks)
- Provide sub-awardee information in a standardized format
- Document data definitions and variable formats in a detailed data dictionary
- Publish data in the public domain, with appropriate safeguards for privacy and proprietary information.

This will allow analysts to process the information and engage in short and long-term assessments of the direct and indirect effects of BEAD.

Appendix

Table A.1: Integrated data requirements checklist

	Priority	Data	Measurement	Frequency
Data requirements to evaluate the restructured BEAD				
Project areas				
☐	High	Location	Geocoordinates	Time of sub-award
☐	High	Unserved locations	Number of unserved BSLs	Time of sub-award
☐	High	Underserved locations	Number of underserved BSLs	Time of sub-award
☐	High	Community anchor institutions	Number of CAIs	Time of sub-award
Sub-award(s)				
☐	High	Project area*	Geocoordinates	Time of sub-award
☐	High	Sub-awardee*	Name	Time of sub-award
☐	High	Commitment: unserved locations	Number of unserved BSLs to be served at the end of the performance period	Time of sub-award
☐	High	Commitment: underserved locations	Number of underserved BSLs to be served at the end of the performance period	Time of sub-award
☐	High	Total BEAD outlays	USD	Time of sub-award
☐	Medium	Matching funds	If available	Time of sub-award
Progress toward serving all eligible BSLs				
☐	High	Sub-awardee	Name	Time of sub-award
☐	High	Location	Geocoordinates	Time of sub-award

☐	High	Commitment	Number of BSLs to be served at the end of the performance period	Time of sub-award
☐	High	Number of unserved locations connected	Unserved BSLs served at the end of the reporting period	Semi-annually
☐	High	Number of underserved locations connected	Under served BSLs served at the end of the reporting period	Semi-annually
Technical characteristics				
☐	High	Sub-awardee	Name	Time of sub-award
☐	High	Location	Geocoordinates	Time of sub-award
☐	High	Priority project	Yes/No	Time of sub-award
☐	Medium	Scalability to 1000/500 Mbps	Yes/Yes, with subsidy/No	Time of sub-award
☐	Medium	Scalability to additional locations	Yes/Yes, with subsidy/No	Time of sub-award
☐	High	Technologies deployed	Eligible BSLs served with fiber, FWA, ULFW, satellite, other	Semi-annually
☐	High	Supportable capacity ("speed")	100/20 Mbps or higher (whichever can be delivered)	Semi-annually
☐	High	Latency	100 ms or better (whichever can be delivered)	Semi-annually
Prices for broadband service				
☐	High	Sub-awardee	Name	Time of sub-award
☐	High	Location	Geocoordinates	Time of sub-award
☐	High	Low-income offer	Sign-on costs if any, device cost, monthly	Semi-annually, could follow information on

			charges, capacity, data caps if applicable	the broadband labels
☐	Medium	Standard offer for 100/20 Mbps unlimited service	Sign-on costs if any, device cost, monthly charges	Semi-annually
☐	Low	Standard offer for 1000/500 Mbps unlimited service	Sign-on costs if any, device cost, monthly charges	Semi-annually
Adoption				
☐	High	Sub-awardee	Name	Time of sub-award
☐	High	Location	Geocoordinates	Time of sub-award
☐	High	Number of subscribers	By technology if multiple technologies are deployed	Semi-annually
☐	High	Number of low-income subscribers	By technology if multiple technologies are deployed	Semi-annually

Notes to Table A.1: Depending on the organization of the data collection, location and sub-awardee information may only have to be collected once. It is listed under several groups of data for the sake of completeness to clarify which associations are needed.