



North Carolina Longitudinal Data System:

An Update on Progress

N.C. Department of Information Technology

Annual Report to the N.C. Joint Legislative Education Oversight Committee,
N.C. Joint Legislative Commission on Government Operations, and N.C. Joint
Legislative Oversight Committee on Information Technology

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Executive Summary

This report provides an overview of the final development phase of the North Carolina Longitudinal Data System (NCLDS) across the 2024-25 fiscal year and also outlines plans for its transition to full operation.

The concept of a state longitudinal data system was first approved by the N.C. General Assembly in 2012 with significant legislative amendments in 2013, 2016, and 2019. The purpose of NCLDS is to link record-level data across state agencies and institutions, support data exchange among those agencies and institutions, and produce information that can be used to guide state decision-making.

Since April 2022, the NCLDS team has focused on establishing a governance structure, developing a guiding strategic plan, and executing the steps outlined in that plan to create a responsive, coordinated, and responsible data services. In 2024-25, the most important development was NCLDS's **transition to a Limited Open stage**. In addition, NCLDS completed its first cluster of data services, continued development on key products, and began expanding the data available via the System.

For the remainder of 2025 and into 2026, NCLDS's focus will be on paving the way for the final transition from the Limited Open stage to the **Full Open stage (anticipated early 2026)**. In addition, NCLDS will work with external partners to initiate new products and services designed to improve functionality, privacy, and security.

Background

Purpose of this Report

In accordance with [N.C.G.S. 116E-4\(c\)](#), this report provides an update on North Carolina Longitudinal Data System (NCLDS) activities across the 2024-25 fiscal year, along with information about proposed and planned expansions of NCLDS data. The report concludes with tasks that the N.C. Department of Information Technology's Enterprise Data Office will undertake in 2025-26 to transition NCLDS to full functionality.

About the North Carolina Longitudinal Data System

The concept of a state longitudinal data system was first approved by the N.C. General Assembly in 2012, with significant legislative amendments in 2013, 2016, and 2019 ([N.C.G.S. 116E](#)). Per statute, NCLDS is “a statewide data system that contains individual-level student data and workforce data from all levels of education and the State's workforce.” The purpose of NCLDS is to “(1) Facilitate and enable the exchange of student data among agencies and institutions within the State; (2) Generate timely and accurate information about student performance that can be used to improve the State's education system and guide decision makers at all levels; [and] (3) Facilitate and enable the linkage of student data and workforce data.”

NCLDS is led by an executive director and is governed by an advisory board comprising representatives from each state agency that contributes data (“sector contributors,” which currently include the N.C. Department of Health and Human Services, N.C. Department of Public Instruction, N.C. Community College System, University of North Carolina System and N.C. Department of Commerce) and a representative from the N.C. Independent Colleges and Universities, which also will contribute data upon completion of its own longitudinal data system.

Per the enabling statutory language, NCLDS is not a passive data storage utility; instead, its mission is to provide sector contributors and other trusted research and practitioner partners with secure access to cross-sector, longitudinal and linked record-level data in order to help them address the state's most pressing questions via data-informed decision-making, continuous improvement, and performance management processes. More specifically, NCLDS is:

- A data exchange and research **strategic partnership** of the sector contributors listed above
- A **process** for linking, de-identifying, and packaging cross-sector data from participating longitudinal databases (currently the Early Childhood Integrated Data System, NC SchoolWorks, and Common Follow-Up System)
- A **tool** for securely delivering those data to partners, other state entities, researchers, and practitioners for research, evaluation, decision-making, and reporting
- A **common space** for coordinating cross-sector, longitudinal learning goals for the state

In keeping with this focus on coordination and support, these primary components of NCLDS are referred to as the North Carolina Longitudinal Data *Service*, but the full *System* includes a much broader menu of responsibilities, including the establishment of high-quality data **sources**

(data warehousing), maintenance of other existing state data **systems** that contribute to NCLDS, development of a growing list of data quality **services**, and preparation for NCLDS's ability to tell data **stories** through aggregated datasets and data visualizations.

NCLDS is housed in the N.C. Department of Information Technology's Enterprise Data Office and is one of the four primary pillars of that office (alongside the Government Data Analytics Center, the Center for Geographic Information and Analysis, and the Health Information Exchange Authority).

NCLDS Advisory Board

Governor Roy Cooper's [Executive Order 249](#) (February 2022) formalized the governance structure for NCLDS by establishing the membership and responsibilities of its advisory board. Current members of the advisory board include:

- N.C. Department of Health and Human Services: Deputy Secretary for Operational Excellence ClarLynda Williams-DeVane (2025-26 Board Vice-Chair), as designated by Secretary Devdutta Sangvai
- N.C. Department of Public Instruction: Chief Information Officer Vanessa Wrenn, as designated by Superintendent Maurice Green
- N.C. Community College System: President Jeff Cox (2025-26 Board Chair)
- University of North Carolina System: Senior Vice President for Strategy and Policy Shun Robertson, as designated by President Peter Hans
- N.C. Department of Commerce: Director of Policy and Strategic Planning Emily Roach, as designated by Secretary Lee Lilley
- N.C. Independent Colleges and Universities: President Hope Williams
- N.C. Department of Information Technology: Chief Data Officer Christie Burris (non-voting), as designated by Secretary Teena Piccione
- Office of the Governor: Governor's Education Advisor Elena Ashburn (non-voting), as designated by Governor Josh Stein

The advisory board met twice in 2024-25 (November 2024 and May 2025), with formal transition of chair responsibilities from University of North Carolina System Office Senior Vice President Shun Robertson to N.C. Community College System President Jeff Cox (per Executive Order 249) taking place at the conclusion of the May 2025 meeting. ClarLynda Williams-DeVane, Deputy Secretary, Department of Health and Human Services, was named vice-chair for 2025-26.

NCLDS Committees

The Data Governance and Data Quality committees (like the Governance Board, also described in Governor Cooper's Executive Order 249) continue to meet regularly with NCLDS staff to address strategic plan elements targeted for completion during the current development phase (see *Update on 2024-25 Activities*, below). Each committee's work is supported by several subcommittees:

Governance Subcommittees

- Data availability and access
- Data request review
- Privacy, security, and ethical use of data

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- Review of results

Data Quality Subcommittees

- Data lexicon
- Common data elements
- Data matching
- Data quality verification and issue resolution

Update on 2024-25 Activities

At the beginning of his first year in the position, NCLDS's executive director worked with NCDIT colleagues and the state agencies and organizations that contribute data to NCLDS to develop a **four-phase strategic plan** for operationalizing NCLDS by 2026. Several milestones in that Strategic Plan were passed in 2024-25, and progress toward full open in 2026 remains on schedule.

Accomplishments since July 2024 fall into three categories: *Completion of NCLDS's Soft Open Phase (Phase 3)*, *Transition to a Limited Open Stage (Phase 4)*, and *Development of Key Data Products and Services*.

Completion of NCLDS's Soft Open Phase (Phase 3)

The NCLDS team and its data partners completed all critical components of Phase 3 of the Strategic Plan by the end of the 2024-25 fiscal year, including:

- Expansion
 - Prepare for transition from a Soft Open phase to a Limited Open phase
 - Creation of a pathway for onboarding new data contributors
 - Initial development of NCLDS's next 4-year Strategic Plan (2026-2030)
- Architecture design
 - Initial development of the automated portion of the data request process
 - Initial development of NCLDS's data-linking service
- Oversight of governance and data quality
 - Establishment of key cross-contributor data quality measures
 - Establishment of data tags and suppression rules critical for ensuring data privacy and security
 - Planning for construction of a secure data enclave to reduce the need for movement of data out of secure state data environments
 - Completion of a cross-sector effort to eliminate redundancies in current data-linking practices that resulted in annual savings to the state of approximately \$340,000
- Product and service development
 - Ongoing development of ready-to-use datasets for two key student transition periods

Details about the most critical of these accomplishments follow.

Transition to a Limited Open Stage (Phase 4)

At the end of the 2024-25 fiscal year, in partnership with all data contributors, NCLDS finalized the standard operating procedures that govern the NCLDS staff's processes for manually completing every aspect of a data request:

- Receiving variable-level data requests;
- Guiding requests through a review process that includes input from all relevant data owners;
- Completing all necessary security, privacy, and legal documentation and agreements;

- Assembling the approved data;
- Matching data across data sources via application of available identification elements and methods; and
- Packaging and securely transmitting data.

By the end of the fiscal year, NCLDS and its Data Contributor partners had reached the final stage of fulfillment of NCLDS's first two data requests and had established parameters for transitioning to a limited public opening. These parameters (for example, limitations on the number of data requests that NCLDS will fulfill) are necessary for two reasons:

- Manual processing of data requests is time-intensive. Successful transition to an automated request review and data assembly process in Q1 2026 (details below) should allow NCLDS to remove many of these initial time-relevant parameters.
- Manual processing of data requests also is human resource-intensive. Currently, the data request service component of NCLDS only has one dedicated, state-supported staff member (the Executive Director); additional support is provided by one full-time and one part-time contracted employee. An analysis of the staffing necessary for the service to fulfill its expected load of up to 20 requests per year (independently validated by the Office of State Budget and Management) estimated that up to 5 full-time staff will be needed—even after the service has transitioned to an automated process.

Development of Key Data Products and Services

Data Request Tools

Development of the tools referenced above that will automate the data request process began in Q3 2024 in collaboration with NCLDS's external technical partner. Development was more challenging than the technical partner anticipated; as a result, projected completion had to be extended to the beginning of the first quarter of 2026.

Data Products

NCLDS continued to work on the development of **research-ready datasets**, which are pre-prepared and pre-vetted (i.e., their content will not require additional review when requested), de-identified, linkable datasets comprising each contributor's most commonly requested data elements. Construction of the first two such datasets—one for data that cover the crossover from early childhood to early elementary and one for data that cover transitions from secondary to postsecondary to workforce—is expected to conclude in Q4 2025.

Data Contributors

NCLDS reached agreement with one current data contributor (Department of Commerce) on expansion of the data it makes available via NCLDS (Commerce data now include data from the Division of Workforce Solutions). At the end of the 2024-25 fiscal year, NCLDS expanded its efforts from just seeking expansion of data available from current data contributors to also recruiting new data contributors (including potential health data and geographic data contributors).

Priorities for 2025-26

With ongoing input from the advisory board and formal committees, the NCLDS team is on target to complete all Phase 4 tasks by the end of the 2025-26 fiscal year. As noted above, the primary goal for Phase 4 is to transition NCLDS from manual fulfillment of data requests to a technology-enhanced fulfillment process that is open to all requesters. This and other goals will be accomplished by focusing on development in five areas:

- **Transition to full public launch**
 - Initiate Limited Public Launch in Q3 2025
 - Secure support for permanent, full-time data request fulfillment staff, to ensure that the Service can meet expected demand
 - Transition to Full Public Launch by Q1 2026
 - Complete development of Strategic Plan 2 (2026-2030)
- **Evolution of board and committees**
 - Finalize a formal process for onboarding new data contributors
 - Onboard up to three new data contributors
- **Architecture design**
 - Complete the development of the online NCLDS Data Request User Interface and make it publicly available
 - Operationalize NCLDS linking procedures
- **Enhancements to data governance and data quality**
 - Build a Trusted Execution Environment that will protect privacy and security by reducing data movement and exposure
 - Continue development of key data management standards, including ethical standards for use of data, element exposure management, and public guidance on workforce data uses and limitations
- **Expansion of products, services, and outreach**
 - Onboard data from contributors outside of the current education-to-workforce contributor group
 - Complete and make available the first two NCLDS research-ready datasets (early childhood to early elementary; secondary to postsecondary to workforce)
 - Begin work on new NCLDS products and services (a secure, restricted access, cross-sector data analysis tool [Practitioner Portal]; de-identified and aggregated cross-sector data tools)

Additional details on the most critical of these development areas are included below.

Automation of the Data Request Process

Transition to Full Public Open status will depend in part on completion of the tools that will support automation of many of the data request fulfillment processes that currently are handled manually (such as selection of data elements, completion of a data request, review of that request, retrieval of requested data, linkage of requested data, preparation of a data package and secure transmission of that package). As noted above, NCLDS now anticipates completion of these tools by the vendor partner in Q1 2026.

Creation of an Environment for Securely Sharing Data and Maintaining Privacy

In addition to making the data request process more streamlined and accessible, NCLDS also continues to develop data products and services focused on providing practitioners with the information they need to answer their most pressing data questions. The datasets created to fulfill approved requests and the tools and products for practitioners need to be **access-protected** and **privacy-enhanced**. In 2025-26, NCLDS plans to begin construction of a Secure Data Enclave (sometimes referred to as a Trusted Execution Environment) that will simultaneously reduce the need to move data out of a state-secured environment and enhance the security and privacy of the data made available to approved requesters. NCLDS will begin seeking a development partner for this environment in Q3 2025.

Expansion of Available Data

As noted above, NCLDS began recruiting new data contributors in 2024-25. NCLDS plans to finalize agreements with the first wave of new contributors by the end of Q2 2026. In addition to its current targeted partnerships, NCLDS also will begin outreach to other potential data contributors listed in [General Statute 116E-5](#) that do not yet participate in NCLDS.