



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

NCLDS is open for business.

This report provides an overview of the first months of public deployment of the North Carolina Longitudinal Data System (NCLDS), which formally opened to requests on September 2, 2025. The report also outlines 2025 accomplishments and plans for growth and expansion in 2026 and beyond.

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, 2019, and 2025. 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.

Between April 2022 and September 2025, the NCLDS team 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 2025, the most important development was NCLDS's **transition from a Limited Open to a Full Open (Limited Implementation) stage**. In addition, NCLDS continued to grow its menu of data services, continued development on key data products, and welcomed its first new data sources.

While NCLDS is now open for business, it currently is limited in its ability to meet the state's demonstrated data needs. For 2026, NCLDS's focus will be on paving the way for the final transition from the Full Open (Limited Implementation) stage—which requires the NCLDS team to receive and fulfill requests manually—to the **Full Open (Full Implementation) stage (anticipated Q3 2026)**, which will introduce NCLDS's online user interface for managing requests. In addition, NCLDS will complete work with external partners on new products and services that will make data request fulfillment more efficient and also improve data privacy and security. Finally, NCLDS will begin working with agency and state leadership to ensure that it has access to the data and support needed for it to become the state's standard approach for cross-sector dataset requests, approval, creation, dissemination, and governance—for any combination of data sources that any state project requires.

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 2025, along with information about growth either completed or initiated in 2025 or planned for 2026-30. The report concludes with tasks that the N.C. Department of Information Technology's (NCDIT) Enterprise Data Office will undertake in 2026 to transition NCLDS to full functionality.

Readers should note that previous editions of this annual report were submitted in July and reflected accomplishments for the preceding fiscal year. Starting with this report, this and all future NCLDS reports will be submitted in March to mirror the report submission dates for all other entities in the NCDIT Enterprise Data Office, and the reports will reflect accomplishments over the preceding calendar year. To support this timeline realignment, this year's report covers calendar year 2025, which means a small number of accomplishments in the report submitted in July 2025 are noted again in this report.

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, 2019, and 2025 ([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 the Common Follow-Up System, as well as warehouses maintained on behalf of the N.C. Community College System, the University of North Carolina System, and an initial group of state license-issuers)

- 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 the state data **systems** that contribute to NCLDS, development of a growing list of data quality **services**, and growth in the opportunities available to NCLDS 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 Privacy Officer Martha Wewer (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 2025 (May and November), 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) 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 and will transition to the role of chair after the May 2026 advisory board meeting.

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 *Success in 2025*, below). In 2025, each committee’s work was supported by several subcommittees:

Governance Subcommittees

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

Data Quality Subcommittees

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

NCLDS will transition to a new four-year strategic plan starting in May 2026 (details later in this report), at which point the roles of the committees (and, as a result, the make-up of the subcommittees) will be redefined to better support the new plan.

Successes in 2025

At the beginning of his first year in the position (April 2022), NCLDS Executive Director Trip Stallings 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 in four years. By the end of 2025, nearly every milestone in that Strategic Plan either already had been passed or was in progress and on schedule for completion by mid-2026.

The most important of those milestones was that, on September 2, 2025, NCLDS's flagship product—its data request service—officially opened for business.

That milestone and other achievements in 2025 fall into two categories: *Completion of NCLDS's Soft Open Phase* and *Successful Transition to Full Open (Limited Implementation)*.

Completion of NCLDS's Soft Open Phase

The NCLDS team and its data partners completed all critical components of Phase 3 of the NCLDS Strategic Plan by July 2025, including:

- Expansion
 - Creation of a pathway for onboarding new data contributors to NCLDS
- Architecture design
 - Planning for and design of NCLDS's custom data-linking service
 - Completion of the final roadmap for closing out development of the automated portion of the data request process
- Oversight of governance and data quality
 - Establishment of key cross-contributor data quality measures
 - Establishment of data flags 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 sensitive data out of secure state data environments
- Product and service development
 - Ongoing development of ready-to-use datasets for two key student transition periods

Successful Transition to Full Open (Limited Implementation)

By the end of 2025, in partnership with all data contributors, and with the support of the N.C. General Assembly via its passage of Senate Bill 133 (which modernized key aspects of the original NCLDS statute),¹ NCLDS transitioned from its Soft Open test phase to its first Full Open phase and began accepting requests for data.

Between September and December 2025, NCLDS received 21 enquiries (about three times as many enquiries as it received in the preceding eight months) about potential requests for datasets that collectively would include data from all NCLDS contributors. NCLDS connected many of these potential requesters with relevant data contributors, to ensure that any request they eventually submitted were aligned with state cross-sector data analysis needs (as outlined

¹ <https://www.ncleg.gov/BillLookup/2025/S133>

in the Learning Goals² co-developed by NCLDS and its data contributors). By the end of the year, two of those enquiries were submitted as formal requests.

For transparency and accountability, NCLDS maintains an [online dashboard](#) that allows state leadership and the public to see what data are being requested, whether the request is approved, and how long it takes NCLDS to fulfill each request. NCLDS also has begun publishing [examples](#) of how approved datasets are being used for the benefit of the state. Because, at the time of this report, NCLDS had processed only a handful of data requests since opening, information on both web pages currently is limited but is expected to grow rapidly across 2026.

Because the current Full Open phase does not yet benefit from the semi-automated online data request management tool still under development by NCLDS's vendor partner (revised anticipated availability: third quarter, 2026), requesters, NCLDS staff, and data contributors alike all must commit significant time to each step of the request process, from manual completion of data request forms to careful review of each request, multi-step retrieval of requested data, intricate linkage of requested data, thoughtful preparation of data packages, and secure transmission of those packages. As a result, and with the support of the advisory board, NCLDS has limited the total number of requests that will be managed during the Limited Implementation phase.

Even when the online data request management tool is available and the limitation on the number of requests is lifted, the processing of data requests is anticipated to remain human resource-intensive. An analysis (independently validated by the Office of State Budget and Management) of the staffing necessary for NCLDS to fulfill its anticipated load of 20 or more requests per year estimated that up to five full-time staff may be needed (NCLDS currently relies on a fraction of that number).

² <https://nclds.nc.gov/research-policy-learning-goals>

Priorities for 2026 and Beyond

Development and Early Implementation of the Strategic Plan for 2026-30

The first NCLDS Strategic Plan will close in May 2026, with all critical components either completed or (in the case of the flagship data request management tool) on their way to completion shortly thereafter. With input from NCDIT Leadership and every NCLDS data contributor, the executive director has completed a draft of the next four-year strategic plan, which will be finalized in spring 2026 and then will guide NCLDS's continuing evolution between 2026 and 2030. This section highlights key components of that plan, as well as some early successes that already have put implementation of that plan ahead of schedule. The focus of the first year of the new strategic plan will be in three areas: *Innovation*, *Visibility*, and *Responsiveness*.

Innovation

Entity Resolution

In September 2025, NCLDS completed development of its initial approach to entity resolution, which is the process NCLDS uses to link data from one dataset to data from other datasets. These linkages are facilitated by components the state already supports (such as universal identification numbers for students from pre-school through public four-year institutions and identification numbers provided by NCDIT's eLink entity resolution tool), but because NCLDS is built to create approved datasets for *any combination of data sources*, it requires an overarching entity resolution strategy that does not have to rely on pre-existing identification numbers. The NCLDS entity resolution process fills in the remaining linking gaps. The current process is functional but rudimentary, so expansion of its capacity and accuracy is a major component of the new strategic plan.

Privacy and Security

In previous annual reports, NCLDS has shared information about its commitment to building a special data environment dedicated solely to providing **access-protected** and **privacy-enhanced** management of the datasets NCLDS generates. In 2025, NCLDS completed plans for and was granted permission to issue a Request for Proposal for development of this data environment (sometimes called a Secure Data Enclave or Trusted Execution Environment). Once built, this environment simultaneously will 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 received several compelling proposals and, in the first half of 2026, will work with one of the proposers to stand up this new environment well before the end of the year.

Artificial Intelligence

In 2025, NCLDS also began planning for measured and governed incorporation of artificial intelligence into some of its processes. In August, NCLDS staff submitted six proposals to NCDIT's Artificial Intelligence Accelerator—nearly one-third of the proposals submitted in the

first round. With the help of the Accelerator team, NCLDS is already exploring ways for artificial intelligence to help requesters minimize the data they need to request to answer a specific question and to help modernize the legal agreements that govern data access; future artificial intelligence projects include ways to enhance data packages with publicly-available data, create synthetic data that can support critical impact analyses and minimize the need to expose sensitive data, improve NCLDS's linking services, and construct new data management tools for NCLDS and its partners.

Visibility

Transparency

NCLDS and its extensive collection of processes, rules, and guidelines can feel very complex to people who are new to longitudinal data. Such complexity sometimes can make NCLDS seem both inaccessible and mysterious. For NCLDS to be successful, however, North Carolinians not only need to understand how NCLDS works but also *trust* how it works and what it is doing with sensitive data. To that end, NCLDS has initiated an ongoing series of easy-to-read briefs that unpack different facets of the entire NCLDS universe. The series—called *How NCLDS Works*—is posted online³ and updates with a new brief several times a year. Currently-available briefs include a four-part series on how NCLDS links data, along with a comprehensive guide to the data request process. Future briefs will include information about how NCLDS and its contributors govern access to and use of sensitive data, build datasets, and make the results of data analyses available to the public.

Support for Practitioners

One planned *How NCLDS Works* brief will explain how a key NCLDS product—Practitioner Portals—works. In 2026, NCLDS and two of its contributor partners will begin work on the first of these Portals, which will result in a tool that allows authorized secondary and postsecondary education personnel to learn more about the academic progress of their students after graduation.

National Presence

Now that NCLDS has completed its design phase and has operationalized its flagship request service, Executive Director Stallings has begun to expand NCLDS's participation in national conversations about longitudinal data and how those data can be better used to improve state outcomes. In 2026, NCLDS staff will continue to grow engagements with the Data Quality Campaign's State Data Leaders Network, the Education Commission of the States' ongoing efforts to catalog and support development of longitudinal data systems nationwide, and multi-state groups like the Education and Employment Research Center and the National Association of State Workforce Agencies that are tackling shared longitudinal problems. NCLDS's work already has been recognized by the Strada Foundation in its 2025 State Opportunity Index and by a consortium of education- and workforce-focused groups (Advance CTE, Education Strategy Group, Jobs for the Future, and New America) in their publication, *LAUNCH*.

³ <https://nclds.nc.gov/about-nclds/how-nclds-works-and-other-faqs>

Responsiveness

New Data Sources

NCLDS is only as strong as the network of data available through it. Even with the notable representation provided by its first six data contributors, its value to the state will decline if its data resources do not continue to grow. Building on the successful development of procedures for onboarding new data (vetted and approved by all current data contributors), NCLDS began accepting requests from additional data owners. Beginning with data from the Department of Commerce’s Division of Workforce Solutions and from the original four contributors to NCLDS’s Licenses and Credentials Warehouse, NCLDS has started the process of building out the education and workforce data available through the service. By the end of 2026, these contributors will be fully onboarded and available for inclusion in NCLDS data requests, and throughout the year NCLDS will extend its outreach to the other potential data contributors listed in [General Statute 116E-5](#) that do not yet participate in NCLDS.

Prepared Data

One of the longest-standing challenges of state data work—especially of cross-sector data work and of data work completed on the same topic but at different periods of time—is that the results of data analyses are very sensitive to the way in which the data used for those analyses were *prepared*. One common result of this sensitivity is that different analyses sometimes can generate different results, even if they start with the same raw data. NCLDS’s solution to this challenge is to build *research-ready datasets*, or data sets that can be used by different groups for different purposes but that are prepared the same way every time, significantly reducing the differences in outcomes that result from differences in data preparation. Research-ready datasets also have the advantage of making data use easier and more consistent for people who are newer to data analysis. Finally, research-ready datasets reduce the time it takes for NCLDS to prepare data for some requesters. The first two research-ready datasets—one of which focuses on the transition between early childhood and early education, and another that focuses on the transitions from high school through postsecondary and workforce—will be available for request by the third quarter of 2026.

Authority and Staffing to Meet Demand

In 2025, NCLDS turned a vital corner: It now is *technically* able to meet the state’s cross-sector data needs. Going forward, NCLDS’s ability to use its technical infrastructure to meet growing demands hinges on having access to more of the data needed to meet those demands and on staffing a sustainable and talented team to prepare those data.

The original vision for NCLDS was development of a system for connecting student and workforce data, but most of the cross-sector, multifaceted policy questions already facing North Carolina require the ability to generate more complex and more diverse datasets. In 2026, NCLDS will approach the General Assembly about additional statutory modernizations that can ensure that NCLDS is able to meet demonstrated on-demand state data needs—in particular, NCLDS will seek authorization to be able to work with data beyond just student and education data, so that its answer can be “Yes” when it is approached (as it was multiple times in 2025) about helping with cross-sector longitudinal data projects that require more than just education and workforce data, such as implementation of federal House Resolution 1, support for a

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prestigious grant received by the Department of Adult Corrections, dataset development for analysts engaged by the N.C. Collaboratory to address a variety of state needs, strategic planning by the state's Area Health Education Centers, and others. Similarly, based on NCLDS's 2025 cost estimation study, NCLDS will need to fully staff a data request fulfillment team that can meet the upcoming demand for its services.