



LEGISLATIVE REPORT

SECTION 3, ACT 146 OF 2024

LEGISLATIVE STUDY ON DATA MANAGEMENT MODELS

December 15, 2025

Issued by the Vermont Office of Workforce Strategy and Development

Legislative Request

[Act 146](#) of 2024 created the new Office of Workforce Strategy and Development and revised membership on State Workforce Development Board. Section 3 of the Act requires the Office, in consultation with the Executive Committee of the State Workforce Development Board and Agency of Digital Services, to:

issue a written report to the House Committee on Commerce and Economic Development and the Senate Committee on Economic Development, Housing and General Affairs regarding the development of a data trust as outlined in model three of the [final report of the State Oversight Committee on Workforce Expansion and Development](#) pursuant to 2022 Acts and Resolves No. 183, Sec. 5.

The report shall include:

- (1) a recommendation on audience, partners, use cases, outcomes, and data required for future workforce, education, and training programs;*
- (2) a detailed review of the current availability of public and private workforce development and training data, education data, and demographic data, including the integration of data between the State's workforce development and training programs and private programs funded through State funding dollars;*
- (3) a summary of the progress made in the development of data-sharing relationships with the stewards of identified data sets;*
- (4) draft legislative language for the creation of a data tool;*
- (5) the amount of funding necessary to establish and maintain the use of a data tool; and*
- (6) a summary of other efforts across State government and through the Agency of Digital Services regarding the development of data trusts, along with best practices identified through those efforts.*

Executive Summary

Workforce development, including the education and training of Vermont workers, is a key strategy in ensuring the vibrancy of Vermont's economy and communities. Multiple state agencies, educational institutions, and community organizations provide related programs and services, each maintaining data on users and outcomes. However, Vermont lacks a centralized tool to bring this information together.

This report examines the current state of workforce development data in Vermont, and the creation and implementation of a new data trust management tool for the state to track success of workforce development strategies and educational outcomes. It outlines the general considerations and potential steps needed to create a standalone and comprehensive data trust and provides information on current data-sharing work underway in Vermont, as well as multi-state data trust tools managed by third-party nonprofit organizations.

A Vermont data trust could serve as a secure, centralized repository of workforce related data, thereby enhancing access, sharing, and analysis across agencies and stakeholders. Such a tool has the potential to strengthen informed decision making, accountability, and long-term economic resilience.

While there may be benefits to building a data trust, the Legislature should carefully consider the goals, costs, and potential alternatives to establishing a comprehensive data trust to achieve similar outcomes before committing significant time and resources. The creation of such an initiative will require substantial investment, interagency coordination, and robust governance structures. At this time, alternative partnerships may provide valuable insights and achieve many of the same objectives at a lower cost and with less complexity.

Vermont is at the outset of a substantial and complex undertaking. As stated in the [final report of the State Oversight Committee on Workforce Expansion and Development](#) pursuant to [2022 Acts and Resolves No. 183, Sec. 5](#), the full benefits of a statewide data strategy will take years to realize but, once operational, may provide significant improvements in clarity, accountability, and coordination. Careful evaluation of these factors will ensure that Vermont pursues a data strategy that is both effective and sustainable, aligning investment and policy decisions with the state's long-term workforce and economic goals.

Examples of current availability of workforce development and training program data

This section details examples of workforce development and training data collected by the Vermont Department of Labor; additional State performance measures are available [here](#).

The Vermont Department of Labor's Workforce Development Division (WFD) tracks data and reports on participant outcomes for Title I (WIOA Adult, Dislocated Worker and Youth) and Title III (Wagner-Peyser). Title I has five federally required performance measures: entered employment rate (EER) in the second quarter after exit, median earnings rate in

the second quarter after Exit, EER in the fourth quarter after exit, credential attainment rate and measurable skill gain rate. Title III has three performance measures: EER quarter 2 after exit, median earnings in quarter 2 after exit, and EER in the fourth quarter after exit. Measures and data are located [here](#).

Registered Apprenticeship data is entered in the [US DOL's Registered Apprenticeship Partners Information Database system \(RAPIDS\)](#) and collects individual apprentice and sponsor data.

The Agency of Human Services' Economic Services Division (ESD) administers the SNAP Employment & Training program. In Vermont, this is known as the Individual Career Advancement Network (ICAN) program. ESD uses the WFD case management system to track data and reports on participant outcomes for the SNAP annual report.

Titles I, II (Adult Basic Education and Literacy), III & IV (Vocational Rehab) submit a combined annual report for serving employers – the Retention with the Same Employer in quarters two and four after exit rate. Currently, only the annual employer report has a data sharing agreement between the WIOA partner programs.

WFD also administers and tracks data on two state funded programs – the Vermont Youth Employment Program (VYEP) and the Vermont Training Funds program.

The Vermont Department of Labor's Economic & Labor Market Information Division conducts an annual analysis of training participants in the [Vermont Training Program](#) – a program based at the Agency of Commerce and Community Development. The Economic & Labor Market Information Division performs these types of analyses regularly for federal grants using employment wage records reported to the Department.

Summary of current data sharing efforts in Vermont

Agency of Digital Services Initiatives

The Agency of Digital Services (ADS) facilitates data sharing among state agencies and with external entities through several initiatives using the state's modern Data Lake House platform. A Lake House combines two key data concepts: the Data Lake and the Data Warehouse.

A "Data Lake" is an environment for low-cost, long-term storage of data of undetermined value. This approach to data management became popular around 2010 for big data storage. Data is copied into a lake as it exists in the source system and is stored in low-cost cloud storage options. This results in low costs for data engineering, pipelines, and low levels of ongoing maintenance. Data Lakes are optimal when agencies have a lot of data that could be valuable to analyze but we aren't sure how to structure the data yet.

Using a data lake takes a highly skilled data scientist, analyst, or engineer because there isn't much information about what the data means, how ready it is to use, or how it is connected.

A "Data Warehouse" is a model of storing and reporting on data from the 1980s. It focused on creating clean, structured data to answer specific questions. It relies on databases, queries, views, and reports to deliver insight directly to end users or to data analysts who structure the data. However, getting data into a Data Warehouse requires well-formed questions, extensive engineering, and constant maintenance to keep the warehouse working.

A "Data Lake House" combines both concepts – data is first loaded as it exists in the source systems, with all of its imperfections and complexities, and stored in the data lake. Data scientists and analysts then do directed exploration and can build some reporting directly on the Data Lake. Over time, as core concepts stored in the Data Lake get reused, engineers and analysts turn these data structures into shared "data models" which form the basis of the Data Warehouse. This means that agencies can invest in the data when they need it and can begin deriving value from the reporting capabilities of our Data Lake House more quickly and at lower cost. Additionally, the Data Lake House allows for very fine-grained permissions, which means that small sets of the data can be shared with trusted entities, such as other state agencies, even if much bigger data sets are stored in the lake.

ADS has already implemented this approach for the Department of Public Safety to facilitate better data access and visibility across State and Local Law Enforcement agencies. ADS has also implemented a "Statewide" Data Lake allowing agencies to share data collaboratively and modernize their data infrastructure. Finally, ADS and AHS are implementing a Data Lake House for the Medicaid program to foster collaboration between the State and providers.

The Data Lake House pattern provides a robust technical approach to data sharing and collaboration such as a data trust.

ADS recommends using the Statewide Data Lake to bring together data from multiple internal departments and external entities and store it in a way that can facilitate multiple initiatives. However, while we have a good model for solving the technical challenges, the process and policy work of facilitating the data-sharing agreements and determining appropriate use of data, building the right views for the right people, and developing data stewardship practices all remain challenging and take considerable time. Additionally, building use cases in the Data Warehouse continues to be costly and labor intensive, especially if the goal is for decision makers to be able to use the data routinely, rather than relying on data scientists to perform exploratory analysis.

Multi-State Data Collaboratives

In preparing this Legislative report, the Office of Workforce Strategy and Development investigated how other states are using data trusts and other opportunities for cross-state collaboration.

Three multi-state data collaboratives offer more immediate data sharing and functionality than a standalone Vermont data trust. The three researched for this report are: **PSEO Coalition**, **Coleridge Initiative**, and **Bureau of Labor Statistics Wage Records Program**. The first two are nonprofit organizations and funded by national foundations. The Bureau of Labor Statistics is a trusted federal partner providing both funding and technical support.

[PSEO Coalition](#) represents 35 states and over 1,000 institutions to provide earnings and employment outcomes for graduates by degree level, major, and institution, in collaboration with the Longitudinal Employer-Household Dynamics (LEHD) Program, a part of the U.S. Census Bureau's Center for Economic Studies. This is information that the Department of Labor already shares with the U.S. Census Bureau. This free online dashboard provides visualizations based on the earnings, flow, and geographic location data for students who completed their credentials in the participating states, postsecondary systems, and institutions.

There is no cost to states but to participate; however, Vermont higher education institutions must agree to provide outcome data for their students for Vermont to participate.

[Coleridge Initiative](#) works with state governments to ensure that data is more effectively used for public decision-making. They provide a platform to securely link confidential data within and across states and agencies, and by providing data literacy training to agency staff.

Vermont has participated in two training projects with Coleridge, one focused on using K-12 data and the other analyzing the characteristics of individuals receiving unemployment insurance benefits. Through these initiatives, Vermont learns both technical and research skills to ensure staff are using "best practices."

Coleridge leads several regional multi-state data collaboratives and is seeking to start a New England collaborative in early 2026. Vermont has been invited to participate along with New York, Massachusetts, Maine, Connecticut, New Hampshire and Rhode Island.

Coleridge Initiative, too, offers a low-cost opportunity to begin building a data infrastructure, albeit with fewer states.

The Bureau of Labor Statistics created a [Wage Records Program](#) to allow participating states to securely link confidential employment data from other states. The program

functions similarly to the Coleridge Initiative mentioned above, except 1) it would require no additional work on the part of the State of Vermont, and 2) participating states are paid to join.

These three programs are not exhaustive; there are other third-party products available to states, including [Strada Education](#) and [Lightcast](#).

Establishment of a Vermont data trust: Objectives and potential costs and timeline

The primary goal of this initiative is to develop a plan for how Vermont could develop a data trust that enables the integration of workforce development, education, and public assistance data.

To be effective, a data trust should allow for longitudinal tracking of participants across various programs, helping policymakers and stakeholders measure return on investment (ROI), program effectiveness, and economic mobility.

If designed and implemented successfully, a data trust may meet several key objectives for Vermont's workforce system, including:

- **Improve Workforce Program Effectiveness:** Optimize funding allocation based on performance metrics.
- **Increase Economic Mobility:** Use data-driven insights to enhance job placement and training recommendations.
- **Enhance Data-Driven Decision-Making:** Provide real-time analytics for workforce planning and policy adjustments.
- **Streamline Data Integration:** Reduce inefficiencies in data sharing between state agencies and external workforce partners.

Timeline

Launching a state data trust program is a complex, multi-year process that typically takes 2 to 5 years, or even longer, depending on program scope and existing state infrastructure. There is no single timeline, as the process involves navigating significant legal and technical hurdles. For example, Maine spent 5+ years and more than \$5 million standing up its Data Warehouse, while Kentucky's efforts spanned a decade and are said to have cost \$40 million.

Factors influencing the timeline

Lawmakers, state agency staff, and key partners face several factors that impact the creation and implementation of a successful longitudinal data system, including but not limited to:

- **Scope and complexity:** The timeline is heavily influenced by the program's scope. A data trust connecting a few agencies to share limited data for a single purpose will be much faster than a large-scale, multi-agency initiative combining data from many different sectors and partners.
- **Legal and policy frameworks:** Creating or updating the necessary laws and regulations for data sharing and privacy is a major determinant of a data trust's timeline. This includes defining the trust's purpose, the scope of data included, and the legal responsibilities of trustees. In Connecticut, the process to implement its State Data Plan occurred over several phases to gather public and agency input.
- **Stakeholder alignment and buy-in:** Building consensus among different state agencies, key external partners and data holders, lawmakers, and the public is crucial and time consuming. Data sharing requires a culture of trust and cooperation among all parties involved.
- **Resource allocation:** Dedicated funding, staffing, and technology are required to move a data trust from a concept to reality.
- **Technology and data infrastructure:** States may need to make substantial investments to establish or update the necessary technical infrastructure. This includes developing shared data warehouses or repositories, standardizing data formats, and ensuring security controls. For example, Vermont's behavioral health data repository took over two years to build and populate after a contractor was selected.
- **Data sharing agreements (DSAs):** Formalizing agreements between multiple agencies to share data is a time-intensive process, even with the addition of ADS' new Director of Data Privacy to facilitate this work. These agreements involve careful legal and compliance reviews to ensure all privacy and security rules are followed, which can be challenging when multiple agencies are involved.

Phases and typical timeline

A state data trust program typically progresses through the following phases, with durations based on the factors above:

Potential Timeline for Development and Implementation of a State Data Trust

Planning and Assessment (6-18+ months)	
Phase 1: Needs Assessment	Stakeholders identify the program's purpose and define priority questions it must answer.
Phase 2: Legal analysis	Experts analyze existing laws and determine necessary policy changes.
Design and Governance (6-18+ months)	
Phase 3: Governance Structure	Leaders establish legal and organizational structure of the trust, defining roles for trustee and other stakeholders.
Phase 4: Data standards	Agencies define consistent data formats, quality checks, and privacy rules. This step builds necessary trust among data partners.
Implementation and Launch (12-36+ months)	
Phase 5: Technical build	Agencies develop, acquire, and test the necessary technical infrastructure, such as a centralized data repository.
Phase 6: Data integration	Data is populated from participating agencies and institutions and validated to ensure quality. This step can reveal unexpected issues with data formats and definitions.
Phase 7: Pilot program	A smaller-scale pilot is launched to test the system and processes before a full rollout.
Phase 8: Full launch	The program is scaled up for broad use by authorized government entities and other partners.

Anticipated costs of a state data trust

The cost to create, launch, and maintain a state data trust ranges from several hundred thousand dollars to many millions, depending on the scope and complexity. Specific figures are difficult to provide as costs vary widely based on factors such as the number of state agencies and other external partners involved, the system's purpose, and whether the state develops a system from scratch, adapts an existing model, or participates in a regional or multi-state collaborative. It is also important to note that these types of projects include both one-time and ongoing costs.

Cost examples from state longitudinal data systems

While there are no public cost breakdowns for launching a formal "data trust," costs for similar state-level initiatives, such as longitudinal data systems, provide a useful point of comparison.

A [2020 report](#) by the National Skills Coalition provides specific cost breakdowns for state longitudinal data systems. It is likely with inflation and natural economic activity that costs are now higher than the information below.

Initial implementation:

- **Virginia:** Initial implementation of its longitudinal data system cost approximately \$5 million.
- **Nevada:** Nevada adapted Virginia's software for its system, saving an estimated \$5 million. Its costs were broken down as:
 - **Hardware:** Approximately \$60,000
 - **Software licenses:** Approximately \$75,000
 - **Agency resources (data development):** Approximately \$400,000
 - **Software integration:** Approximately \$2,000,000

Ongoing maintenance and operations:

- **Nevada:** After implementation, annual costs for Nevada's system include:
 - **Operations and maintenance:** \$450,000 per year for hardware, software, hosting, and vendor fees.
 - **Data dashboards:** Approximately \$250,000 per year to create or update automated dashboards.

Factors influencing the cost of a state data trust

Several key factors influence the total cost of a state data trust:

- **Scope:** The number of agencies and external partners participating, the amount of data being integrated, and the intended use cases for the data.
- **Governance structure:** Costs can be affected by the legal and governance requirements needed to establish the trust's authority to hold, collect, and share data.
- **Technical infrastructure:** A "buy vs. build" decision is critical. Developing a new system from scratch is more expensive than adapting existing technology.
- **Data integration:** Significant costs are associated with the labor and resources required for state agencies to prepare and integrate their data into the trust.
- **Staffing:** Hiring specialized staff, including software engineers, legal experts, and data analysts, can be a major expense.

- **Public engagement:** Costs may be incurred to ensure public and stakeholder engagement, as recommended in research on establishing data trusts.
- **Federal matching funds:** Some federal programs, particularly in Health and Human Services, may provide matching funds for states to develop integrated data systems.

Office of Workforce Strategy and Development roles and responsibilities

It is recommended that instead of pursuing a data trust at this time, the State of Vermont first expand participation in existing partnership opportunities, specifically the PSEO and Wage Records Program. Both programs have low barriers to entry and are with trusted federal partners with significant infrastructure designed to provide security and ample technical support.

The Office of Workforce Strategy and Development and Vermont Department of Labor are currently engaged in facilitating conversations between higher education institutions and key partners and the Bureau of Labor Statistics to explore the feasibility of Vermont's participation in the PSEO Coalition and will keep the Legislature informed as to the progress of these conversations. The Office and Department are also in communication with Coleridge Initiative about their progress in establishing a New England data collaborative in 2026. Both projects present an opportunity for Vermont to establish more robust workforce development data systems at little to no cost, with technical assistance and training support from data experts.

If the Legislature wishes to further pursue a standalone data trust, then it is recommended to engage an outside consultant to conduct a Data Trust Assessment and develop a proof-of-concept dashboard to meet the requirements of Act 146 and as outlined above.

Consultant's role

A consultant could provide necessary project management and technical support to ensure the successful assessment, data inventory and analysis, gap analysis, risk assessment and proof-of-concept dashboard.

The efforts will be developed in close collaboration with the OWSD and Agency of Digital Services and align with Model 3 of the [2023 SOCWED Report](#).

The consultant will develop and implement a dashboard using synthetic data to demonstrate data integration, visualization, and analysis capabilities, supporting data-driven decision-making.

If the Legislature approves the use of a consultant, initial cost estimates would come in at \$100,000-\$150,000.

Potential next steps

Given the myriad models, timelines, and governance structures to consider when contemplating a state data trust, it will be necessary to establish clear goals and define a robust data governance framework that outlines data sharing, security, privacy, and quality assurance policies. It will also be essential to actively engage with stakeholders to build trust and agree on data access rules.

Implementation will require that the state selects or develops a reliable platform for data intake and management, provides adequate resources for staffing and support for ongoing maintenance and continues to prioritize data sharing between participating institutions. Finally, continuous monitoring and feedback will be key for ensuring data quality, compliance, and the overall effectiveness of the data trust program.

If the Legislature is interested in pursuing a Data Governance Committee, as outlined in the SOCWED report, the Office suggests including external partners as well as State of Vermont agency and department leadership, given the fact that critical data is held by institutions of higher education.

Continued refinement of the goals and desired outcomes of a data trust will inform timelines, costs and legislative directives.

It is the recommendation of the Office of Workforce Strategy and Development that Vermont participate in one or more of the multi-state collaboratives as a more immediate opportunity to pilot the benefits of a data trust for enhanced Vermont policy decision-making with little capital or resources needed. It is important to note that the PSEO option is only feasible if Vermont postsecondary institutions participate and share their data.

Meanwhile, the Legislature may consider authorizing funding for a consultant to work with ADS and the Office to build a data trust assessment and model dashboard, providing time for reevaluation of the success of multi-state collaborative before expending significant capital and time into a freestanding Vermont data trust.