

ANALYSIS

Item 13: Higher Education Coordinating Commission State Longitudinal Data System

Analyst: Kim To

Request: Acknowledge receipt of a report from the Higher Education Coordinating Commission on the use of the Statewide Longitudinal Data System (SLDS) and its further development.

Analysis: The budget report for SB 5528 (2021), the Higher Education Coordinating Commission's (HECC) 2021-23 budget bill, includes the following budget note:

The Higher Education Coordinating Commission shall report to the Emergency Board by October 1, 2022 on the use of the Statewide Longitudinal Data System (SLDS) and its further development. The report must include an update on its use to date, a sample list of research projects that utilizes the SLDS and its data, a list of new data elements added to the SLDS since the beginning of the 2021-23 biennium, and a description of further development of the SLDS's capabilities and capacity.

SB 909 (2011) established the Oregon Education Investment Board (OEIB) and directed the Board to establish and maintain an integrated statewide longitudinal student-based data system to help educators, schools, districts, policy makers, and other stakeholders make informed decisions and sound investments to improve student learning and outcomes. SB 215 (2015) redefined the OEIB and changed the agency name to the Chief Education Office. The Chief Education Office sunset on June 30, 2019 and the HECC Office of Research and Data took over the administration of the SLDS. At the time of the changeover, the Chief Education Office had completed the IT project and begun moving towards operationalizing the data and research program. With the transition, the program was renamed the Oregon Longitudinal Data Collaborative (OLDC) to differentiate between the IT system (SLDS) and the program that plans and utilizes the system (OLDC).

Despite the transition, pandemic disruption, and staffing challenges, the HECC Office of Research and Data addressed limitations in the governance structure and technical design of the system. OLDC established a governance structure to ensure engagement from partner agencies. The governance structure is composed of an Executive Committee and three subcommittees (Research, Data, and Privacy). Currently, Executive Committee membership includes representatives from the Oregon Department of Education, Higher Education Coordinating Commission, Oregon Employment Department, and State of Oregon Enterprise Information Services (EIS) Chief Data Officer. To increase the scope and flexibility of the system, OLDC contracted with an external vendor to review the system design and provide recommendations. Although the contractor recommended a redesign of a portion of the system, due to pandemic-related staffing and budget challenges, the team focused on how to effectively use the system without a redesign. OLDC continues to make system enhancements to increase system flexibility and to eventually enable external researcher access.

The report submitted by HECC contains information required by the budget note on the use of the system to date, including a sample list of research projects that utilizes the SLDS and its data, along with new data elements that have been added to the system. The following summarizes this information:

- New Data Elements: To enable the tracking of all students, program staff added data from two new sources: (1) GED Testing Services to identify students who had earned a high school equivalency; and (2) the National Student Clearinghouse (NSC) to track students who attended private college or universities, or institutions outside of Oregon. Program staff also worked with other state agencies to increase the number of K-12 students for whom employment outcomes could be tracked by the SLDS.
- Project/New Data Elements/Use of System: One of the first projects using the SLDS and its data was for providing data on teacher training and employment. This use of the system required onboarding the Teachers Standards and Practices Commission (TSPC) as a new data partner and the data was integrated in early 2021. Data regarding teacher candidates that are recommended by an Educator Preparation Program (EPP) was added to the SLDS. This data includes teacher candidate information and demographics, EPP name, and specific licensure and endorsements being recommended by the EPP. The first data file was provided to TSPC and the Educator Preparation Programs in July 2021.
- Project/Use of System: OLDC partnered with the Oregon Department of Education (ODE) to provide matched data for the agency's federal Career and Technical Education reporting requirement. This project was completed in fall of 2021 and will continue to be provided each year.
- Project/Use of System: SLDS provided data to support ODE's legislative mandate in SB 744 (2021) to develop a college-ready diploma. HECC staff analyzed data to assess changes in college-readiness before and after earlier diploma changes.
- Project/Use of System: SLDS provided data to illustrate equity gaps in educational attainment of Oregon ninth graders for HECC Post-Secondary Equity Briefs.
- Project/Use of System: SLDS provided data to facilitate an ODE study to evaluate investments in 9th grade success made after Measure 98 and Covid-19 guidance for OED Institute of Education Sciences grants.
- Project/Use of System: SLDS provides data for Education Pathway reports to inform the public on statewide engagement and outcomes across K-12, postsecondary, and employment for Oregon youth.
- Project/Use of System: OLDC conducted a research study to illuminate the gap between Oregon's supply of healthcare workers and the strong demand for them, identifying reasons behind persistent healthcare worker shortage.

The report also includes a description of further development of the system's capabilities. Recently, OLDC signed a data sharing agreement with the Bureau of Labor and Industries (BOLI) to bring in data on Approved Apprenticeship programs. This data will include student information and demographics, as well as information about the program students enrolled in and any credentials they earn. After apprenticeship data are complete, OLDC plans to bring in HECC Private Career School data, which includes private universities as well as a variety of smaller training programs, to further expand the view of the paths students take after high school. Each summer, the SLDS Governance committees review and update the program research agenda. Currently, the 2022-23 plan (September 2022 to August 2023) is under development and will be finalized in late September. The focus for this upcoming year will be on projects that inform agency efforts on poverty, job training and placement, and equity. This agenda may also include the first collaboration with an external researcher.

Recommendation: The Legislative Fiscal Office recommends that the Emergency Board acknowledge receipt of the report.

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Higher Education Coordinating Commission
Crawford

Request: Report on the State Longitudinal Data System (SLDS) program required by a budget note in Senate Bill 5528.

Recommendation: Acknowledge receipt of the report.

Discussion: Oregon's Statewide Longitudinal Data System (SLDS) was originally created under the Oregon Education Investment Board, which later became the Chief Education Office. In 2019, with the sunset of the Chief Education Office, SLDS was transferred to the Oregon Longitudinal Data Collaborative (OLDC) in the Higher Education Coordinating Commission (HECC).

Included in the HECC budget bill was a budget note to report back to the Legislature by October 1, 2022, on the SLDS. Specifically, the report was to include an update on the use to date, a sample list of the research projects using SLDS data, a list of new data elements added to SLDS in the 21-23 biennium, and a description of the further development of the SLDS's capabilities and capacity.

The provided report addresses the items directed by the Senate Bill 5528 budget note. The report highlights some of the major challenges associated with the project and the steps taken by the HECC to address them. Major items of note include the initial lack of governance structure, tracking only a subset of student outcomes, and limited flexibility in SLDS. These challenges reflect a system designed around technical specifications at the expense of research and data needs. The report details the steps taken by HECC staff to address these items through the creation of a governance structure, adding new sources of data connecting more student outcomes, and working with an external contractor to review system design and provide recommendations, respectively. Future projects related to the SLDS includes working with the Bureau of Labor and Industries to bring in data on the Approved Apprenticeship programs as well as Private Career School data within HECC, which would include private universities as well as training schools. Also underway is a review of the program research agency to guide SLDS work from September 2022 until August of 2023. While details are currently being finalized, the focus will be on projects that inform efforts on poverty, job training and placement, and equity.



Oregon

Kate Brown, Governor

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August 22, 2022

Senator Peter Courtney, Co-Chair
Representative Dan Rayfield, Co-Chair
Joint Emergency Board
900 Court Street NE
H-178 State Capitol
Salem, OR 97301

Dear Co-Chairs:

Nature of the Request

As part of the 21-23 Legislatively Approved Budget, the Higher Education Coordination Commission (HECC) was asked to provide an update to the Emergency Board on the Statewide Longitudinal Data System (SLDS) during the September Legislative days. Specific topics requested were:

- An update on the use of the system to date
- A sample list of projects that uses the SLDS and its data
- A list of new data elements added to the SLDS
- A description of further development of the SLDS's capabilities and capacity

Agency Action

HECC took over the SLDS from the Chief Education Office on July 1, 2019. At that time, the information technology project to build the SLDS had been completed and the Chief Education Office had just begun to transition the SLDS from project to operational program. The program was renamed the Oregon Longitudinal Data Collaborative (OLDC) in order to make the distinction between the IT system (SLDS) and the program that plans and utilizes the system (OLDC).

These transitions revealed significant limitations in the technical design of the SLDS and in the number of students covered. These limitations prevented the OLDC program from hitting initial goals. Key issues identified included:

- OLDC lacked a governance structure for partner agencies' oversight, which was essential for understanding and reporting their contributing data
- Data in the SLDS were matched across sources but only some students' outcomes were tracked
- The functions designed to use the data in the system were too narrow and were not adaptable to broader purposes

These limitations were the result of an IT-centric focus during the system’s creation, which prioritized the development of the technical system at the expense of engagement with agency research staff to understand the data and identify priority needs. As a result, while the system was successfully bringing in agency data and matching it at the individual level, the initial design for how that matched data was used (e.g., for auto-generated reports) did not fully reflect the agencies’ needs nor a full understanding of the data. Further, the system design had focused on efficiency of use instead of flexible expansion, making the addition of new reports or even updates to existing reports prohibitively labor intensive.

OLDC addressed the first issue by establishing a robust governance structure (see Figure 1 below), with multiple committees staffed by agency data partner staff. Each committee has a unique charge, and all were utilized in developing the processes needed to effectively administer the program. These committees have continued to meet, and engagement with the agencies has been very positive, resulting in a high degree of trust, full transparency of the OLDC program to agencies and a high degree of collaboration with agency staff on projects.

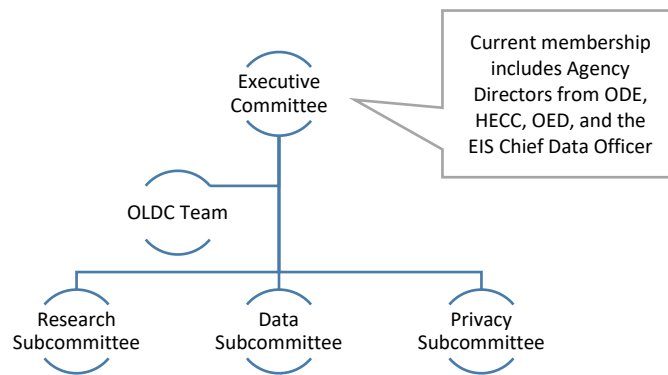


Figure 1. OLDC Governance Structure.

Program staff addressed the second issue (tracking outcomes for all students, not only a subset) by adding new sources of data and connecting the data in the system better. Specifically, we added data from the GED Testing Services to identify students who had earned a high school equivalency and the National Student Clearinghouse (NSC) to track students who went to a private college or university, or one outside of Oregon. We worked with other state agencies (and their data) to dramatically increase the number of K-12 students for whom we could track employment outcomes. The graphic below (see Figure 2) illustrates the initial and current scope of data within the SLDS. This expanded view of students now includes GED outcomes, postsecondary enrollment and attainment from private and out-of-state institutions and increased the employment match from 15% to 75%. This enabled the program to establish a solid data foundation on which to develop initial reports.

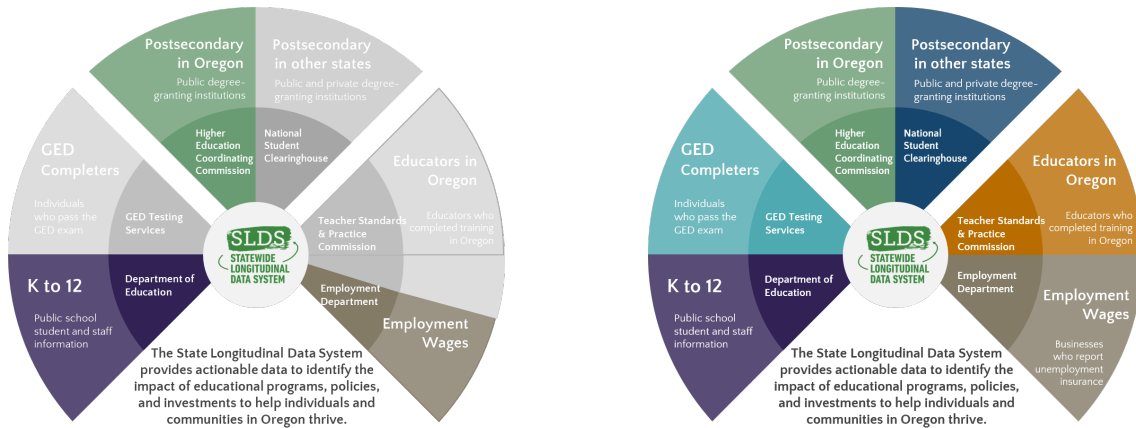


Figure 2. Comparison of data in SLDS at project completion and data in SLDS today

For the final issue (narrow scope and limited flexibility), the SLDS Executive Committee requested an external contractor review the system design and provide recommendations. This was done in late 2019 with a final report delivered to the SLDS Executive Committee in late-January of 2020. This report confirmed the initial findings of the program staff: while data intake, the technical functions of data intake, and identity resolution were working successfully the matched data was not being stored or utilized in a way that effectively met agency needs. The contractor recommended a re-design of that portion of the system.

OLDC staff were planning what this effort would entail when the pandemic began. The agency staff who were part of the SLDS Governance Committees were needed for pandemic response, and conversations on the re-design had to be put on hold. At the same time, several members of the team retired or took promotions with other agencies, reducing the team to 3. Due to the pandemic-related budget crisis, these positions remained vacant until after the 2021 legislative session.

The focus of the small team became how to effectively use the system without a re-design. A new (less automated) process of accessing the data was established, which allowed research staff to use the data for purposes other than the narrowly defined automated reports. This smaller re-design required that use by external entities (e.g., private research organizations) be put on hold, and it put a heavier burden on the OLDC team to meet data management needs. However, it meant that as agency staff began to re-engage with the program, they could identify a set of initial projects that the OLDC team could complete.

One of the initial projects was to provide data on teacher training and employment. This required onboarding Teachers Standards and Practices Commission (TSPC) as a new data partner and the data was integrated in early 2021. Data regarding teacher candidates that are recommended by an Educator Preparation Program (EPP) was added to the SLDS. This data includes teacher candidate information and demographics, EPP name, and specific licensure and endorsements being recommended by the EPP. After finalizing the requirements of the project, the first data file was provided to TSPC and the Educator Preparation Programs in July of that year. A second project was also completed during this time in partnership with the Oregon Department of Education to provide matched data for their federal Career and Technical Education (CTE) reporting requirement. This was completed in fall of 2021 and will continue to be provided each year.

The 2021 session reduced the total FTE of the program from 9 to 6 but allowed for the vacant positions to be hired. By early 2022 all positions were filled, and the new team engaged in the following projects:

Table 1. OLDC Projects

Name	Deliverable	Recipient	Contribution
Educator Prep Program	Raw Data File and Data Report	TSPC and EPP's	Enabled EPPs to comply with legislation requiring national accreditation. Allowed TSPC and EPP's to track employment trends of education graduates.
CTE Data File	Curated Data File	ODE	Enabled ODE to meet federal reporting requirement.
SB744 Data File	Raw Data File	ODE and HECC	Supported ODE's Legislative mandate to develop college-ready diploma (SB 744, 2021). HECC staff analyzed data to assess changes in college-readiness before and after earlier diploma changes.
Postsecondary Equity Briefs	Raw Data File	HECC	Demonstrated equity gaps in educational attainment of Oregon ninth graders.
ODE IES Grant	Raw Data File	ODE	Facilitated ODE study to evaluate investments in 9 th grade success made after Measure 98 and after COVID-19 guidance.
Education Pathway	Data Report	Public	Presents Statewide engagement and outcomes across K-12, postsecondary, and employment for Oregon youth.
SLDS Overview	Data Report	Public	Provides general content and matching rate of data contained in the SLDS.
Healthcare Worker Shortage	Research Study	Public	Illuminates gap between Oregon's supply of healthcare workers and the strong demand for them; identifies reasons behind persistent healthcare worker shortage.

Projects that delivered a raw or curated data file (Educator Prep Program, CTE Data File, SB744 Data File, Postsecondary Equity Briefs, and ODE IES Grant) provide data partner agencies with a matched data file. They then used this data in order to meet a reporting requirement or research need. Projects that delivered a data report (SLDS Overview and Education Pathway) are infographics published by OLDC. These provide high level looks at specific aspects of the education to workforce pathways. Projects that delivered a research study (Healthcare Worker Shortage) are looks at specific questions using the matched data. These are published by OLDC and are intended to provide information to agencies to guide policy development and program direction. In addition to these products, OLDC continues to make system enhancements that increase its flexibility and set the stage for eventual external researcher access. This will be a multi-step process, but the team identified a path forward that does not require additional resources to complete.

The program continues to expand its coverage as well. As part of the planning for future projects and to continue to expand the student outcomes we track, OLDC engaged with the Bureau of Labor and Industries and signed a data sharing agreement to bring in data on Approved Apprenticeship programs. This data will include student information and demographics, as well as information about the program they enrolled in and any credentials they earn. This data will be added to the SLDS in the near future. In addition, OLDC is planning to bring in HECC Private Career School data (which includes private universities as well as a variety of smaller training programs) after apprenticeship data are complete, further expanding the view of the paths students take after high school.

Each summer, the SLDS Governance committees review and update the program research agenda. The 2022-23 plan (September 2022 to August 2023) is under development now and will be finalized in late September. The focus for this upcoming year will be on projects that inform agency efforts on poverty, job training and placement, and equity. This agenda may also include the first collaboration with an external researcher.

Conclusion

Over the last 3 years, Oregon's SLDS has transitioned from IT development to a collaborative, cross-agency program that supports the agencies and produces reports. The system and program have grown during that time, adding new sources of data and expanding the capabilities of the system. The program has plans for continued growth and development, a set of products for the coming year, and an agenda for the long term. We look forward to delivering continued research and reporting that informs the State on education and workforce policy.

Action Requested

Acknowledge receipt of the report

Legislation Affected

This report reflects the implementation of SB 909 (2011) and SB 215 (2015) as well as ORS 350.075(3)(L)(m).

Sincerely,

A handwritten signature in black ink that reads "Ben Cannon". The signature is written in a cursive, flowing style.

Ben Cannon, Executive Director

Higher Education Coordinating Commission