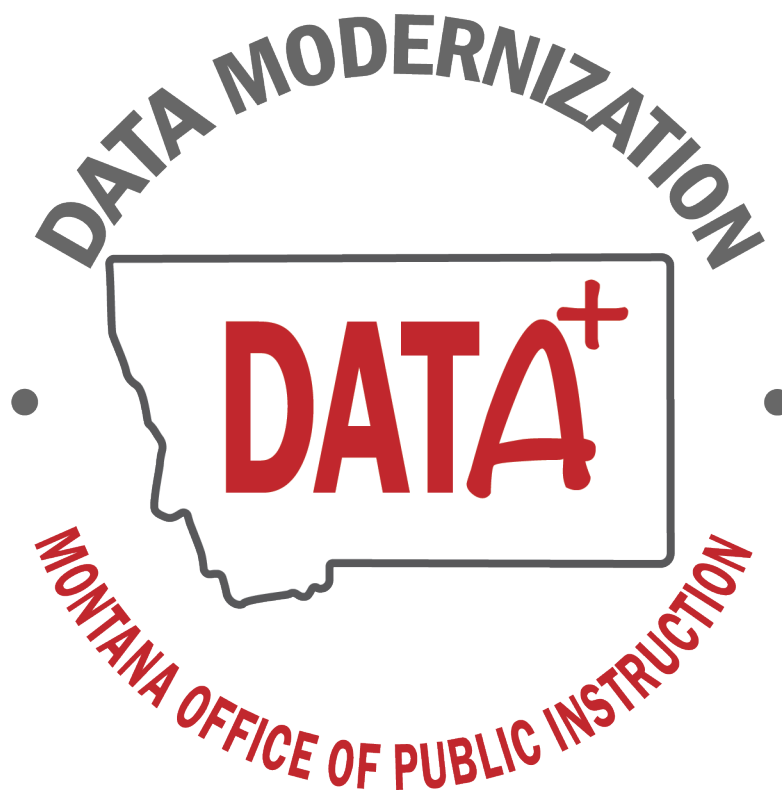




Montana
Office of Public Instruction
Elsie Arntzen, Superintendent



Educational Data Integration

August 26, 2024

Office of Public Instruction

**HB [367](#) OPI Data Modernization Status
and Overview Report**



Superintendent Elsie Arntzen
August 26, 2024

To:
Legislative Finance Committee
Education Interim Committee
General Government Budget Committee
Education Budget Committee

Subject: Progress Update on Office of Public Instruction Educational Data Integration: Costs, Timeline, and Goals

I am pleased to provide the Office of Public Instruction (OPI) Data Modernization Legislative Report for August 2024, which includes information on our progress since June 13, 2024. This is the seventh legislative report for this project as required by [HB 367](#). This project has been in progress now for nearly 14 months, and we anticipate that final sign-off will happen within the next 12 months.

We remain committed to transforming Montana's educational landscape through the implementation of multiple data modernization projects. To better distinguish between the various undertakings of our agency, we are titling this project the Montana Information and Data Analytics System, or MIDAS.

During the last reporting period, we completed the process to set up a single sign-on solution for districts. We also completed the custom connector analysis and mapping for how districts using PowerSchool will sync their data to the data lake. The provisioning for the Analytics and Insights public-facing site has been completed, and PowerSchool has started to flow data into the site to begin populating dashboards.

OPI and the vendor are committed to providing the best product for schools, teachers, and families. We believe that this dashboarding tool will provide valuable and timely information to inform decision-making to better outcomes for schools and students. We have continued to make progress over this reporting period, including in the following workstream items:

- Load data into Student Analytics from IC State Edition: 50% complete.
- Security Setup and configuration for Analytics and Insights: 40% complete.
- Assessment Load for Dashboard: 2% complete.
- Community Engagement Implementation: 10% complete.
- PS SIS Custom Connector Build: 70% complete.

The OPI team is excited to continue communicating progress on this project with internal and external stakeholders. We participate in weekly open office hours for district superintendents. Additionally, our team has given multiple presentations and updates to technology staff, and the Board of Public Education, and the School Administrators of Montana (SAM) Administrators Institute (AI) in July. OPI has continued monthly meetings with the School Implementation [Steering Committee](#), and is thankful for their invaluable contribution throughout this project.

My office remains an active participant in the Education and Workforce Data Governance Board and its working groups: Data Governance and Policy, Data Research, and Project Design and Implementation. We appreciate the contributions of our partner agencies in guiding this Board to improve data sharing and research opportunities.

In this report, you will find the OPI's ongoing goals for this project, more detailed information on our progress, and the identification of our next steps to continue to move forward.

Please feel free to visit our [website](#) to see the most recent progress throughout the implementation of this project. We welcome your ongoing commitment to our shared goals.



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**Denotes new sections to the report*



Introduction Educational Data Integration

In this reporting period, PowerSchool and OPI have continued to work through Milestone 4a: Deployment of Connected Intelligence and Milestone 5a: Base deployment of Analytics and Insights (previously called Unified Insights) modules. Data from the State Edition of Infinite Campus is being replicated into Connected Intelligence (data lake). The connector between Connected Intelligence and Analytics and Insights has been completed, and PowerSchool is building the dashboards for one district to test the dashboard build. OPI tested a state security solution to allow districts to use single sign-on (SSO) to access their dashboards once they go live. Currently, PowerSchool and OPI are working together to build user role groups to govern accessibility to certain data elements. GEMS replication has started to develop the public-facing dashboards (Community Engagement). The past four years of state assessment data have been provided to PowerSchool to be able to load into the dashboards. The Kalispell district has begun the setup process for a VPN to allow them to more easily report data to the state. Additionally, the steering committee with representatives from schools across the state continues to meet monthly to provide feedback and guidance on the project.

Data Modernization Vendor Partner Role

PowerSchool and the Office of Public Instruction (OPI) continue to meet weekly with progress reports on this project and the project managers meet bi-weekly. The vendor has assisted with the state single sign on security solution of Analytics and Insights and worked collaboratively with all parties on the Virtual Private Network setup process. PowerSchool and OPI presented together to the School Administrators of Montana (SAM) Administrators Institute Conference on July 24, providing a demo of Analytics and Insights and reviewing project updates for our school stakeholders. OPI has scheduled training for their team members for Analytics and Insights on September 9, 2024. The vendor's expertise and involvement demonstrate their dedication to making the project a success and they are crucial in helping Montana's education system transition to modernized data management, in line with House Bills [367](#) & [949](#).

Partnership Foundations

PowerSchool has forged a strategic partnership with Snowflake to establish a robust data lake through their Connected Intelligence product. The connector is set up to allow Connected Intelligence to replicate the data from the State Edition of Infinite Campus into the data lake, which in turn will feed Analytics and Insights and its modules. PowerSchool is working diligently to create a resilient and agile infrastructure that enables efficient data utilization, sharing, and analysis to ensure the success of Montana's data modernization project.

Contractual Framework

OPI and its vendors established a Contract and Statement of Work to clarify responsibilities, expectations, and deliverables. This framework is broken into seven milestones, with milestones 4 and 5 having two sub-milestones. The milestone and delivery schedule are provided on page 7 of this report.

Unified Direction

OPI and PowerSchool worked together to set clear goals for program management. The team meets weekly with project status updates and the Project Managers from both organizations meet biweekly to touch base. The aim is to improve services, streamline IT and data interactions, make better use of data for everyone involved, cut costs, boost security, and improve overall governance.



Preparation and Solutioning

With the ongoing replication of data from Infinite Campus State Edition to Connected Intelligence, work has been ongoing for the implementation of Analytics and Insights. We have identified the pertinent databases to replicate to make sure that we are utilizing Analytics and Insights at its full capacity based on the data currently being collected. PowerSchool has completed the mapping of all the data for the dashboarding and is now utilizing one district as a test case to start populating dashboards. Utilizing a single district to test the connection allows us to better understand connection issues and continue refining the mapping of the data from the data lake into the dashboards. Additionally, the work has just begun on mapping data from districts that use PowerSchool as their Student Information System (SIS) to then be able to build the connector to pull the data into Connected Intelligence. Kalispell has agreed to be the first district to utilize and test a VPN connection. As of August 19, the VPN connection has been set up and will serve as a mapping tool for other districts. The following PowerSchool districts will require a Virtual Private Network (VPN): Belt, Billings, Great Falls, Kalispell, Polson, and Ronan. OPI and PowerSchool are in the beginning phases of getting Community Engagement, the public dashboards, deployed. The OPI is continuing to work with PowerSchool on identifying the data from our current GEMS system to populate similar dashboards in the Analytics and Insights system.

Financial Outlook: Project Expenditures & Future Projections

3-Year PowerSchool Contract Cost by Milestones: Including Implementation, Hosting, Licensing, Professional Services, Maintenance & Operation

Note: Recurring cost encompasses the ongoing costs associated with software and technology solutions utilized in the Montana OPI data modernization project. These costs include software licensing, release management, infrastructure hosting, and data integration. It also incorporates annual price increases, which may be influenced by factors like inflation and expanded usage.

Contract Term 1 - By Milestone	One Time	Recurring	Total	Delivery Date	Completed
Milestone 1				9/8/2023	
PS Consulting Services	\$73,728.00		\$73,728.00		✓
AWS Consulting Services	\$300,000.00		\$300,000.00		✓
Subtotal			\$373,728.00		
Milestone 2				9/15/2023	
PS Consulting Services	\$2,304.00		\$2,304.00		✓
AWS Consulting Services	\$20,000.00		\$20,000.00		✓
Subtotal			\$22,304.00		
Milestone 3				9/22/2023	
PS Consulting Services	\$3,456.00		\$3,456.00		✓
AWS Consulting Services	\$17,500.00		\$17,500.00		✓
Subtotal			\$20,956.00		



Milestone 4				November 2024
PS Provisioning Services	\$18,000.00		\$18,000.00	
Subtotal			\$18,000.00	
Milestone 5				June 2025
PS Customization Services	\$774,000.00		\$774,000.00	
PS Provisioning Services	\$230,956.00		\$230,956.00	
CI - Annual Subscription		\$1,351,498.81	\$1,351,498.81	
UI - Annual Subscription		\$1,231,331.42	\$1,231,331.42	
Subtotal	\$1,004,956.00	\$2,498,795.25	\$3,503,751.25	
Initial Term Discount		(\$1,000,000.00)	(\$1,000,000.00)	
Total (Contract Term 1)	\$1,489,944.00	\$1,498,795.25	\$2,988,739.25	July 1, 2023
Post-Deployment	One Time	Recurring	Total	
Annual Term 2		\$2,633,114.41	\$2,633,114.41	July 2024
Annual Term 3		\$2,733,172.76	\$2,733,172.76	July 2025
Contract Total (All 3 Terms)	\$1,489,944.00	\$6,865,082.42	\$8,295,843.48	

Educational Data Integration Payment Schedule

The 3-year term fixed cost project entails creating a payment schedule table that incorporates several key columns to manage the Educational Data Integration project expenses effectively. The table includes:

- Subscription & Deployment Service Cost:** This column captures the initial fixed cost for the project, covering subscription fees and deployment services for each year of the project.
- Annual Increase %:** This column represents the annual percentage increase in costs, reflecting any anticipated inflation or adjustments over the three-year period.
- Annual Increase \$:** This column calculates the dollar amount increase for each year based on the percentage specified in the previous column.
- Subtotal:** This column provides the total cost for each year, accounting for both the initial cost and any annual increases.
- Managed Services:** This column includes any additional costs associated with managed services or ongoing support throughout the project's duration.
- Subtotal:** Similar to the previous subtotal, this column sums up the costs for each year, including managed services.
- Invoice Total:** The final column computes the overall project cost by summing up all expenses over the three-year term, providing a comprehensive view of the project's fixed expenses.



3-Year Annual Payment Schedule

Payment Settlement Date	Subscription & Deployment Service Cost	Annual Increase %	Annual Increase \$	Subtotal	Managed Services	Annual Increase %	Annual Increase \$	Subtotal	Invoice Total
Initial 3 Yr Term 7/1/23 – 6/30/26									
7/1/2023	\$2,929,556.31								\$2,929,556.31
7/1/2024	\$2,304,507.44	1.9%	\$43,786.97	\$2,348,364.41	\$284,750.00			\$284,750.00	\$2,633,114.41
7/1/2025	\$2,348,364.41	3.8%	\$89,237.85	\$2,437,602.26	\$284,750.00	3.8%	\$10,820.50	\$295,570.50	\$2,733,172.76
Total Contract Amount									\$8,295,843.48
Optional Contract Term 7/1/26 – 6/30/28									
7/1/2026	\$2,437,602.26	3.8%	\$92,628.89	\$2,530,231.14	\$295,570.50	3.8%	\$11,231.68	\$306,802.18	\$2,837,033.32
7/1/2027	\$2,530,231.14	3.8%	\$96,148.78	\$2,626,379.93	\$306,802.18	3.8%	\$11,658.78	\$318,460.66	\$2,944,840.59

 Paid Invoice

Note: The 2024 payment to PowerSchool was approved for payment based on a thorough review of deliverables and progress made to this point. That information is substantiated through the progress outlined in the Table of Milestone Delivery Schedule, Project Timeline, and the sign-off acceptance of milestones 1-3.

Core Features of the Vendor Products

PowerSchool Products

1. **Analytics and Insights** will assist Schools and OPI with data analytic tools:
 - Facilitate schools in making data-informed decisions to enhance student outcomes.
 - Provides technical and data analytic tools.
 - Early warning system using artificial intelligence/predictive analytics to identify at-risk students.

2. **Community Engagement** will enhance OPI's ability to publicly display:
 - Demographic information
 - Enrollment / Attendance
 - Statewide assessment data
 - Graduation and dropout
 - School expenditures data

3. **Connected Intelligence** will facilitate and enhance data sharing with:
 - Data lake technology
 - Data collection and integration tools
 - Data governance tools for data sharing

These applications for data modernization bring forth a range of compelling advantages, including centralized data lake construction for consolidated data storage, improved analytics and data visualization capabilities, and fortified data security measures.



Table of Milestone Delivery Schedule

Milestone #	Deliverable	Delivery Date	Completed
1	Draft Assessment Document	September 8th, 2023	✓
2	Montana Review & Feedback of Assessment Output	September 15th, 2023	✓
3	Delivery of Assessment & Future Solution Document	September 22nd, 2023	✓
4	Organizational Change Management	November -December 2023	✓
4a	Infinite Campus Connector to Data Lake	February 20th 2024	✓
4	Connected Intelligence Application Initial Deployment (with State Infinite Campus data)	March 29, 2024	✓
4a	PowerSchool Connector to Data Lake	March-November, 2024	
4b	PS SIS Integration Analysis	April 24, 2024	✓
5	Analytics and Insights Application Deployed	November 2024	
5	Analytics and Insights Customer Education	May 2024-February 2025	
5	Analytics and Insights Training Deployment	September 2024-February 2025	
4a	PS SIS Custom Connector Build	August 2024-February 2025	
4a	PS SIS Integration for Hosted Districts: Replicating data into Connected Intelligence	August 2024-February 2025	
4a	Set up VPNs for On-Premise PS SIS Districts	August 2024-February 2025	
6	Post Deployment Assessment	June 2025	
7	Solution Acceptance & Final Project Sign-Off	July 2025	

Project Timeline

Date	Activity	Status
April 07, 2023	Request for Proposal Release	Completed
June 20, 2023	Vendor Tentative Award	Completed
June 30, 2023	Contract & Statement of Work Executed	Completed
July 20, 2023	Project Kick-off Meeting (PowerSchool & OPI)	Completed
July 24-27, 2023	Organizational Change Management Executive Interviews	Completed
August 9-10, 2023	Cloud Assessment Workshops	Completed
August 14-31, 2023	Application Assessment Workshops	Completed
August 24, 2023	Organizational Change Management Assessment Report	Completed
September 1, 2023	Maturity Assessment Report	Completed
September 22, 2023	Commercial off the Shelf Solution, Architecture & Deployment Strategy	Completed



October 31, 2023	OCM Stakeholder Engagement Plan	Completed
February 20, 2024	Connection and replication of data from Infinite Campus to Connected Intelligence (CI)	Completed
March 29, 2024	Connected Intelligence initial data load verified and begin mapping for ongoing replication	Completed
April 24, 2024	Complete Custom Connector Analysis for PowerSchool Districts (Both on Premise Districts and PS cloud-housed districts)	Completed
April 30, 2024	Ongoing replication of Infinite Campus State Edition into Connected Intelligence	Completed
May 2024-July 2024	Build Custom connector for PowerSchool Student Information System (SIS) replication into CI	In Progress (70%)
January-November 2024	Connection from on-premises PowerSchool Districts to Connected Intelligence (6 VPN connections)	In Progress (5%)
March 2024-November 2024	Analytics and Insights Base Module	In Progress (40%)
May 2024-February 2025	Analytics and Insights Customer [OPI] Education	In Progress (95%)
September 2024-February 2025	Analytics and Insights Training Implementation	In Progress (2%)
August 2024-November 2024	Replication of all PowerSchool Districts data into CI	In Progress (5%)
April 2024-February 2025	Risk Analysis Module (pending Analytics and Insights initial deployment)	On Hold
April 2024-February 2025	Student Readiness Module (pending Analytics and Insights initial deployment)	On Hold
April 2024-February 2025	Community Engagement Module	In Progress (10%)
April 2024-November 2024	Replication of Additional Data Sources into Connected Intelligence	In Progress (15%)
November 2024-April 2025	Customizations of Dashboards	Not Started
June 2025	Post Deployment Assessment	Not Started
July 2025	Solution Acceptance & Sign-Off	Not Started

Considerable progress has been made in milestones 4 and 5. Milestone 4 primarily addresses the implementation of Connected Intelligence (data lake). In the last year, CI has been provisioned and established, connectors made, and data replication started. This means that data being collected by the state in our state-level edition of Infinite Campus is being replicated into CI on an ongoing, routine basis. Furthermore, the VPNs for districts using PowerSchool SIS are being built and tested. This will allow for easier data reporting for schools and better replication of their data more cleanly into CI.

Milestone 5 encompasses the implementation of Analytics and Insights and its modules for deployment. This required the setup of CI to begin the bulk of the work. Connectors from CI into Analytics and Insights were built and tested and are currently being implemented. The Montana OPI Analytics and Insights site has been provisioned and data is starting to flow from CI into the dashboards. PowerSchool is testing the data connection using one district, which allows better control over the process and allows the teams to accurately map the data to the dashboards and tables that will populate. PowerSchool has been able to show the OPI project team the dashboards that are currently being tested with real data being replicated.



Milestone 1-3 Acceptance Criteria

RUBRIC	SCORE	SCORING SCALE	TOTAL
Product exceptionally addresses project requirements / EXCEPTIONAL	4	EXCEPTIONAL	18 – 20
Product significantly addresses project requirements / STRONG	3	STRONG	14 – 17
Product somewhat addresses project requirements / NEUTRAL	2	NEUTRAL	10 – 13
Product minimally addresses project requirements / INADEQUATE	1	INADEQUATE	0 – 9
Product does not address project requirements at all / UNACCEPTABLE	0		

CRITERIA	MILESTONE 1	MILESTONE 2	MILESTONE 3
Does the document show understanding of the problem and its requirements?	3	3	3
Does the document use appropriate data sources?	3	3	3
Does the document identify an accurate and extensive inventory?	3	3	4
Does the document correctly identify problems and outline appropriate solutions?	2	3	3
Will executing/implementing the document be simple or complex? And will the vendor provide adequate support throughout the project?	2	2	2
<i>Simple = Higher Score; Complex = Lower Score</i>			
TOTAL SCORES	13	14	15

With the delivery of the final assessment product on September 23, 2023, milestones 1, 2, and 3 were completed. Each milestone was scored as noted above and the final product was determined to be strong. The final criterion remains at a “2” due to complexity of the project with required customizations.



Current Activities as of August 26, 2024

Workstream	Activity Overview	Outcomes
<p>Connected Intelligence (CI)</p>	<p>It was determined that a custom connector would need to be built for PS SIS districts to only replicate data that needs to be collected.</p> <p>The first VPN connection from Kalispell was tested and confirmed on August 19, 2024.</p> <p>OPI identified GEMS as an additional source for data replication. The team is working on setting up the connection from GEMS to Connected Intelligence for ongoing replication.</p> <p>OPI is continuing internal conversations to identify additional data sources for replication into Connected Intelligence.</p>	<p>Analysis on the custom connector for PowerSchool Districts was completed.</p> <p>Ongoing replication is occurring for the State Edition of Infinite Campus.</p> <p>Virtual Private Network is being built to connect hosted and on-premise PS SIS districts to Connected Intelligence.</p>
<p>Analytics and Insights</p>	<p>The initial authorization setup was tested and confirmed for the single sign-on solution.</p> <p>OPI is sending a file for row-level security to build the user roles for Analytics and Insights.</p> <p>Ongoing table replication is being completed to fully map data to dashboards.</p> <p>Once GEMS replication is completed, will begin the implementation of Analytics and Insights Community Engagement module for public-facing dashboards.</p> <p>PowerSchool is configuring the connector to test the data load for one district to test the connections and the dashboard configuration.</p>	<p>Assessment files are being moved into Analytics and Insights. Connectors are being completed for AMSA, MSAA, MSA, and SBAC. Connectors were completed for ACT and WIDA ACCESS.</p> <p>Solidifying training plan with input from the Steering Committee and other stakeholders.</p> <p>The dashboard environment has been provisioned, including web domain for eventual public access.</p>



<p>Stakeholder Partnerships</p>	<p>OPI is an active participant on the Education and Workforce Data Governance Board. There have been ongoing working group meetings at regular intervals since the March 2024 Board meeting. The OPI also participated in the July 30 Board meeting.</p> <p>OPI has continued to hold meetings with the established Data Modernization Steering Committee. This committee has members from schools across the state. The last meeting was July 24, and the next meeting will be August 28. Meetings will continue through the school year.</p> <p>OPI holds weekly Office Hours for district Superintendents on Wednesdays at 10 am; the staff working on the Data Modernization project have been providing updates and are available for questions since May 8th.</p> <p>The OPI hosts a K-12 Data Taskforce meeting on a quarterly basis. During this meeting, which has members from across the state, including legislators, school administrators, teachers, and parents, we routinely provide updates on the MIDAS project.</p>	<p>OPI will continue to participate in the Board's working groups to continue the progress of this group and the data modernization project.</p> <p>The Steering Committee has been meeting monthly and is providing valuable insight into the project, including how we can tailor solutions to help with data collection and reporting.</p> <p>Office hours provide the OPI with a way to connect with more district staff and continue to provide updates throughout the summer.</p> <p>The K-12 Data Taskforce provides another avenue for updates on the project and allows us to get valuable feedback from key stakeholders on issues related to educational data.</p>
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Education and Workforce Data Governing Board

The Education and Workforce Data Governing Board most recently met on July 30, 2024. Our office was in attendance and was an active participant in the meeting. We have also been active in the three subgroups established in March 2024:

- Project Design and Implementation Group: responsible for developing the technological processes for the linking and sharing of data across the agencies; defining the specific types of data that must be shared by the contributing agencies (the data dictionary); identifying current state operations and defining future state operations; and respond to any technical issues regarding data transfers, initial matching, or other initial use cases
- Data Governance Group: responsible for developing policies related to the linking and sharing of data; identifying the Board's purpose and goals in those policies; and developing policies for the data requests or MOU agreements in the scope that has been made available
- Data Research Work Group: responsible for developing the education and workforce research agenda; describing how the contributing agencies will work together to improve understanding of the connection of primary and secondary education, higher education, and workforce data

During the meeting, the Board members discussed several components of a drafted Data Governance policy, an MOU draft template, and the draft research agenda:

- Draft Data Governance policy:
 - o Proxy voting: moved to adopt language in the policy draft; seconded and approved
 - o Data sharing – denial of PII requests and the ability of the Board to overrule the denial: moved to table the entire policy; seconded and approved
 - Discussion centered around the process by which the Board may review the data sharing requests and specifically the denials
 - The Commissioner of Labor asked a question about the liability and risk if a denial were to be overturned and some sort of fine or other punishment was to be levied against that decision by a federal counterpart
- Drafted MOU template: moved to approve with the understanding that it will be revisited in the next sessions; seconded and approved
 - o Has a draft data request form to de-identified and aggregate data
- Draft research agenda: moved to adopt the research agenda; seconded and approved

The stated purpose of the Board in this last meeting was to establish and oversee a P20W project, of which our office's partnership with PowerSchool plays a role. A new state data-sharing diagram was proposed during the July 2024 meeting. To be clear: there are current systems in place for data sharing between agencies, and expectations of data to be shared as applicable by state and federal rules and statutes.

Several issues related to the privacy and security of data were raised by all participating agencies during the meeting. Assurances were made about encryption and security while sharing data between Snowflake instances, for example, or if utilizing a clean room for data matching between agencies. As was shared during the meeting, we continue to have reservations about the role of this Board as it pertains to oversight of data sharing between agencies.

In particular, one of the issues brought up in the meeting relates to the responsibility of the Board to oversee data sharing and data requests between partner agencies. While it can be beneficial to review such requests, one additional component outlined in the Data Governance policy (that led to it ultimately being tabled) has to do with whether the Board has the authority to force an agency to share data if that agency believes it cannot do so under federal statute. The Commissioner of the Department of Labor raised a question of who would ultimately be responsible should a federal counterpart come to the determination that the owning agency was correct in their original interpretation and subsequent refusal to share the data requested. We believe, as was stated by the Chief Data Officer in the meeting, that the liability for this data remains with the data-owning agency. As such, we are unclear on if the Board may compel the agency to share data that is determined by their legal experts to be protected. We continue to uphold our position that under Montana's Constitutional right to privacy as well as federal statutes, such as the Family Educational Rights and Privacy Act (FERPA), the owning agency must be able to exercise proper control over the data for which they are responsible.



Education Data Integration through Data Modernization

Goals and Vision for Montana OPI

- Goal 1: Improve Services
- Goal 2: Improve IT/Data Workforce Interactions
- Goal 3: Increase the Value of IT/Data for Operations and Business Impacted Audiences
- Goal 4: Reduce IT/Data and Other Operating Costs
- Goal 5: Security Risk Management and Continuity of Operations
- Goal 6: Increase Governance Maturity

Addressing Statutory Compliance for Educational Data Integration

The information in the following section has been previously detailed in the prior report, and there have been no changes or updates for this section.

Montana OPI's Approach in the Data Modernization Project

- Montana's OPI is committed to legislative compliance via its Data Modernization Project, aligning with House Bill 367 and 949.
- The project aims to seamlessly integrate systems, enhance insights, provide academic support, ensure security, and facilitate secure data sharing across education.

Integration: Connected Intelligence

- The Data Modernization Project prioritizes Comprehensive Data Integration, in line with House Bills 367 and 949, to consolidate educational data from diverse sources.
- This approach improves data consolidation efficiency and accuracy, meeting legislative requirements effectively.

Holistic Student Insights: Analytics and Insights

- Analytics and Insights, in compliance with House Bill 367, offers educators a comprehensive view of student data, enabling a deep understanding of individual student performance and needs.
- This alignment with legislative intent empowers educators to meet compliance mandates and support students more effectively.

Individualized Academic Enhancement: Analytics and Insights/Risk Analysis

- Analytics and Insights and Risk Analysis tools, in line with House Bill 949 objectives, empower educators to utilize student data for personalized academic interventions.
- This approach, focused on identifying at-risk students and customizing interventions, directly supports the bill's intent to enhance student outcomes.

Robust Data Security: Connected Intelligence/Analytics and Insights

- Montana OPI prioritizes data security in alignment with House Bills 367 and 949, leveraging Connected Intelligence and Analytics and Insights.
- Robust security measures, including encryption, role-based access controls, audits, and data protection standards, are rigorously enforced to safeguard sensitive student information and fulfill compliance obligations.

Secure Data Sharing: Connected Intelligence

- The Secure Data Sharing component of the Data Modernization Project aligns with the security provisions of House Bills 367 and 949, facilitating controlled and encrypted data sharing for confidentiality and authorized access.



- Montana OPI's Data Modernization Project not only ensures compliance with legislative mandates but also empowers educators with tools to improve student outcomes, all while maintaining high data security and privacy standards.

Enhancing School Customer Experience for Educational Data Integration

Bridging Legacy & Modernization

- Ensuring a smooth link between existing software and new data modernization infrastructure is vital.
- Maintaining uninterrupted compatibility and coordination between older systems and the new framework is essential. This means addressing differences in data formats, communication methods, and operational procedures to ensure seamless connectivity. This collaboration supports ongoing operations and improves functionality, making the transition to modernized data systems seamless.

Elevating Performance

- Leveraging data modernization to streamline processes, optimize data management, and achieve a new level of operational effectiveness, resulting in improved productivity and resource allocation.

Data Integrity

- The data modernization project strengthens data accuracy and reliability, fostering trust in decision-making processes within educational institutions by ensuring data integrity and consistency, enabling confident, data-informed decisions that enhance educational outcomes and organizational effectiveness.

Reduced Downtime

- The data modernization project streamlines operational processes, minimizing system downtime and disruptions, enhancing efficiency, and promoting a resilient educational environment that supports seamless learning experiences and administrative excellence.

Data Modernization Steering Committee

OPI has put together a [Steering Committee](#) of school representatives to help provide oversight, guidance, and strategic direction for the Data Modernization project. The committee has offered valuable insights into both the current data collection practices and makes informed recommendations to ensure alignment with organizational goals. Their advisory role extends to risk assessment, resource allocation, and resolving issues that may arise during the project life cycle. The committee meets monthly to review project progress and provide guidance. The committee includes subject matter experts in educational data systems, data management, and data analysis along with other high-level stakeholders. Members of the committee have been gathered from across the state. For more information and updates on these meetings visit our [website](#).

Currently, the committee is providing valuable insight to help guide the communications plan. The members have been offering guidance on what they feel this project is going to change in their day-to-day workflows. They have also been providing guidance on the training plan, options, and timing as we move closer to the deployment of Analytics and Insights. They are also going to be critical in testing the security solution currently in development. Furthermore, schools participating in the steering committee at this time have the opportunity to pilot the PowerSchool custom connections from districts directly into the Connected Intelligence data lake, both through cloud-hosted and on-premise/self-hosted districts through a VPN connection. Kalispell has been working with the OPI and with PowerSchool, and they confirmed their VPN connection setup during a call on August 19. These districts will continue to provide feedback throughout the project on the security and connection solutions.



Data Modernization Steering Committee Members List:

- Sandra Rivas, District Clerk, Browning Public Schools
- Kevin Patrick, Business Director, Butte School District
- Jill Swanson, Technology Director, Conrad Public Schools
- Julie Asbeck, Business Manager, Fairview School
- Stacy Montgomery, District Clerk/Business Manager, Forsyth Public Schools
- Janelle Mickelson, Business Manager/District Clerk, Helena Schools
- Eric Miletich, IT Coordinator, Kalispell Public School District
- Paul Kozlowitz, PC/Network Technician, Missoula County Public Schools
- Colleen Drury, Business Manager, Scobey Schools

Charting the Course Forward

Navigating the Next Steps in Educational Data Integration

OPI is using the MIDAS data modernization project to prioritize and ensure an educational system that is more efficient, transparent, and responsive to the needs of its stakeholders. The project has made substantial progress since our last report, and we look forward to the ongoing partnership with our vendor, PowerSchool.

We will continue to align with stakeholders as we make progress on this project. PowerSchool has completed analysis on the custom connector for school districts with self-hosted (“on-premise”) PowerSchool Student Information Systems and will be working towards building a connector, after which the plan to build the 6 VPNs to the on-premises districts with PowerSchool will come. Building a better connection for districts utilizing a PowerSchool Student Information System will allow for simplified data reporting throughout the year into the state edition of Infinite Campus.

PowerSchool is also working on the implementation of Analytics and Insights using the data captured from the State Edition of Infinite Campus to Connected Intelligence. They are also mapping the assessment data that has been loaded separately. The data will need to be put in a data warehouse structure so that the dashboards can be deployed. PowerSchool and OPI will start with pilot districts from the Steering Committee to be able to set up security, access protocols, and early training.

Upcoming Activities and Efforts

- Monthly Executive Vendor Meetings with the Superintendent and OPI IT program team
- Weekly Project Status Update Meetings with Vendor
- Monthly Data Modernization Steering Committee meetings
- Quarterly K-12 Data Taskforce updates
- Quarterly legislative interim committee meetings
- Quarterly Education and Data Workforce Governing Board meetings
- Other scheduled sub-group meetings as part of our commitment to working with our partners in the Education and Data Workforce Governing Board
- PowerSchool will finalize loading student assessment data into Analytics and Insights
- Finish Virtual Private Network (VPN) for the first on-premise PS SIS district, Kalispell
- Continue testing the connection between Connected Intelligence by finishing the data load for the first test district
- Once dashboards for one test district are loaded, continue testing and replicating data for additional districts
- Finish implementation of the security solution and Configuration of UI for State, District, and School Users
- Custom Connector Build for PowerSchool SIS districts.
- VPN build for the five additional self-hosted PowerSchool SIS districts



- Community Engagement Deployment
- OPI will initiate customer education via internal training with PowerSchool on Analytics and Insights on September 6

Sustainability of Project

- HB 630 and HB 367 directed and authorized OPI to use federal dollars for this project.
- The funds must be obligated by September 30th, 2024.
- A decision budget package for the 2025 legislative session has been requested to sustain or support this project after the federal dollars are spent.
- OPI will be conducting formal discussions addressing sustainability and ongoing funding for the project. This includes ongoing subscription costs, staffing from OPI to support schools in using the available products, and any changes that need to be made to the product(s) as the result of changing statutes or rules.

Communication Plan

OPI is committed to providing ongoing communication about this project to all stakeholders. As part of this goal, we maintain the [webpage](#) dedicated to the project with current information. Project overview videos will be posted on the website by the end of the month.

We also provide regular updates in the following venues:

- Weekly Superintendent Office Hours: Wednesdays at 10 am
- Monthly Steering Committee meetings
- Bi-monthly Board of Public Education meetings
- Quarterly Legislative Interim Committee meetings
- Quarterly K-12 Data Taskforce meetings

The data modernization staff provided updates on the project to the Montana PowerSchool User Group meeting on June 18th. The team also presented with PowerSchool at the School Administrators of Montana Administrators Institute meeting on July 24th. During this presentation, a demo of Analytics and Insights was provided, general project updates and current status were shared, and questions were answered from the participating schools.

OPI has maintained communication with the PowerSchool Customer Education team to begin planning district training options that align with feedback we are receiving from our school partners. A formal training plan is in development. We are also going to be planning webinars for districts for additional training opportunities.

Our team is happy to answer any questions you may have about this project. Please reach out to [Julia Caro](#), [Anna Hoerner](#), or [Chris Bushnell](#).

Next Report Period:

October 21st, 2024

December 23rd, 2024