Montana
Office of Public Instruction

May 7, 2021

Data Systems Modernization Project Overview

Office of Public Instruction Staff

Location: Zoom Meeting

Welcome and Introductions

- Montana Superintendent of Public Instruction, Elsie Arntzen

- Michael Sweeney, OPI Chief Data Officer

- Tara Dempsey, OPI Project Manager

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Today's Presentation

The purpose of today's presentation is to provide a brief overview of how the OPI expects to fulfill the expectations of recently passed legislation to modernize OPI's data systems.

Just a reminder, the presentation is being recorded and will be available afterwards. There will be time for question and answer at the end of the presentation.
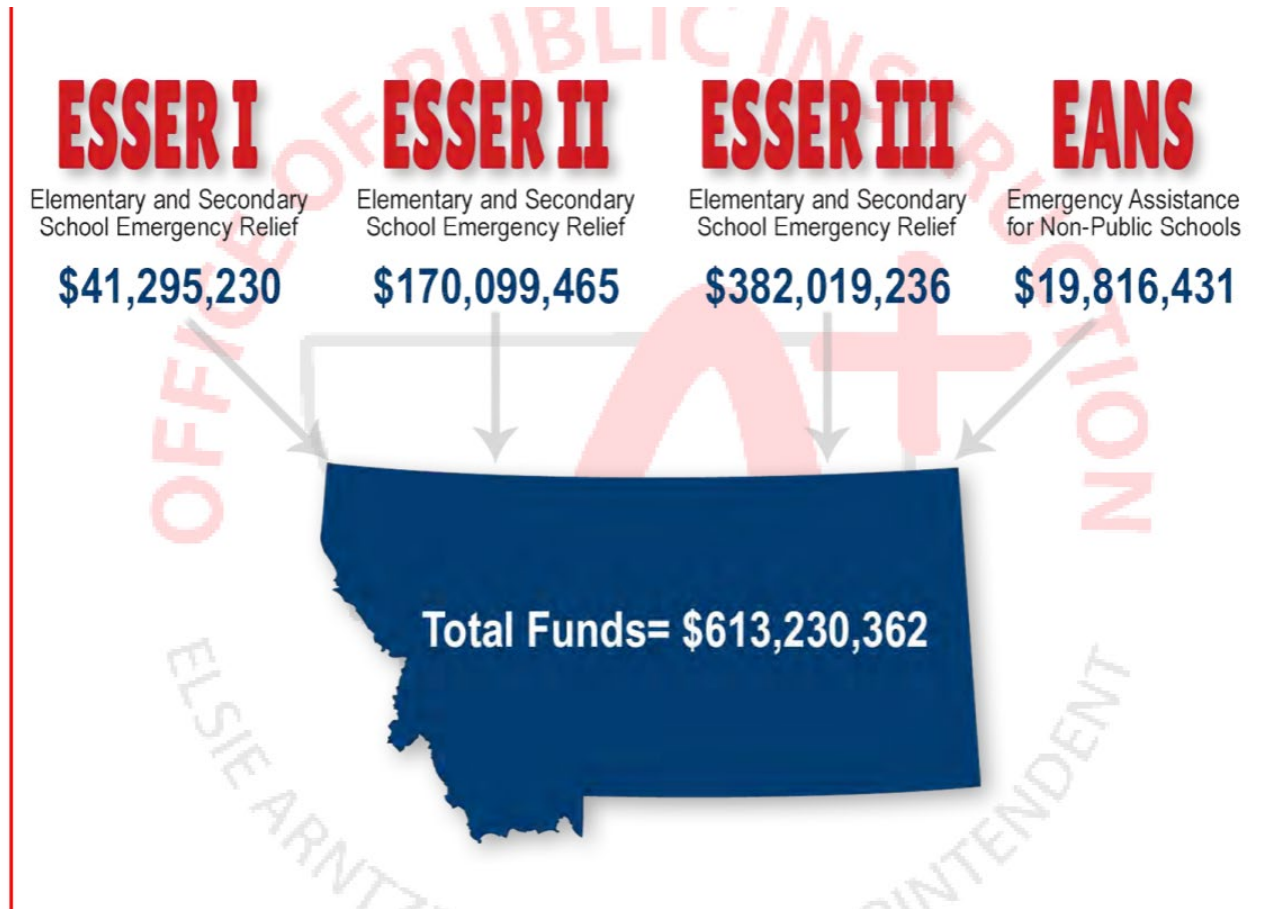
Today's Presentation Continued

Superintendent's Remarks

Montana Superintendent
of Public Instruction,
Elsie Arntzen

ESSER Funding

ESSER I — Elementary and Secondary School Emergency Relief — $41,295,230

ESSER II — Elementary and Secondary School Emergency Relief — $170,099,465

ESSER III — Elementary and Secondary School Emergency Relief — $382,019,236

EANS — Emergency Assistance for Non-Public Schools — $19,816,431

Total Funds= $613,230,362

ESSER Funding Overall

- 90% of the funds must be allocated directly to school districts.

- 0.50% of the grant amount can be used by the OPI for administration of the grant.

- The remaining 9.5% is assigned to the OPI to be used where it can do the most good in public schools to combat the pandemic.

- For ESSER I this determination was done by the agency, but for ESSER II and ESSER III, the general uses of the grant funds were addressed by the legislature.

- The OPI worked with MT PEC, the education advocates organizations in Montana, to arrive at a consensus recommendation to the legislature for these uses.

- The consensus recommendation was accepted by the Joint Education Subcommittee and included in HB 630 and HB 632.

ESSER Funding for Data

- Approximately $13.5M of ESSER II and ESSER III funding has been appropriated to the OPI by the 2021 Montana legislature for the purposes of "database modernization".

- House Bill 630 (ESSER II) - $8,000,000
- House Bill 632 (ESSER III) - $5,475,248

Total Appropriations - $13,475,248.00

- The appropriations come with the condition that "OPI Database Modernization funds must be used by the office of public instruction to repair, improve, or replace existing data systems to respond to learning loss associated with the pandemic. Actions taken must be consistent with 20-7-104."

20-7-104, MCA

- The very first sentence of "20-7-104, MCA Transparency and public availability of public school performance data -- reporting -- availability for timely use to improve instruction" reads:

- The office of public instruction's statewide data system must, at a minimum:

(a)   include data entry and intuitive reporting options that school districts can use to make timely decisions that improve instruction and impact student performance while creating a collaborative environment for parents, teachers, and students to work together in improving student performance.

What is the Data Systems Modernization Project?

To put it simply:

This is a collaborative effort of the OPI and districts to reduce and eliminate "the friction" associated with collecting, reporting and using data.

4 Goals of the Project

- **SAVE TIME** - Reduce duplicate and unnecessary data entry and enable automation within and between systems

- **SECURE DATA** - Reduce the number of accounts and complexity of the systems

- **SUPPORT DATA USE** - Enable and foster the use of data to support programs and inform policy

- **SUSTAINABLE** - Systems must be sustainable and supportable beyond the initial implementations

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Project Timeline

- The timeline of the project is being driven by the deadlines associated with the funding appropriations. Long-term the following deadlines apply:

- House Bill 630 (ESSER II) - $8,000,000 – OPI Database Modernization – **Obligated by September 30, 2023 and fully expended by February 2024**

- House Bill 632 (ESSER III) - $5,475,248 – OPI Database Modernization – **Obligated by September 30, 2024 and fully expended by February 2025**

Major Tasks Happening in May 2021

- Funding/Budgets from HB 630 & 632 appropriations setup and ready to spend

- Provide information needed to develop the **OPI's ARP-ESSER Plan (This is the OPI's overall plan for the ESSER II and III funding that is to be submitted and approved by USED)**

- Hire a **Project Partner** to assist with project initiation tasks, focus groups and putting together the materials and participating in Consulting Firm RFP.

- Begin RFP for **Consulting Firm**.   A **Consulting Firm** would be hired this Fall to perform detailed analysis and perform project tasks. They will provide technical and project services that we do not have the capacity to do in-house.

- **Convene Data Modernization Focus Groups and K-12 Data Task Force** to solicit feedback and validate the strategy and approach.

- **Hire a project manager to begin Educator Management projects,** like the Educator Licensure RFP.

Summer-Fall 2021

- Summer-Fall 2021 – Consulting Firm hired and focus groups/ K-12 Task Force continue to convene and finalize strategy and approach decisions. I expect this to take 3-6 month due to "we don't know what we don't know" and the time to get collective buy-in and approval.
- July – Restart Educator Management projects - MSEIS
- July – Consulting Firm RFP released
- July-October – Continue focus groups and K-12 Data Task Force meetings
- September – LFC Report
- October – Consulting Firm Selected and under contract

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Timeline – Fall 2021 and Beyond

- Fall 2021-Winter 2022 – Initial procurement and analysis activities by **Consulting Firm** begin.

- Spring-Summer 2022 initial implementations and contract commitments begin, and we start executing on projects.

Data Systems Modernization Project Approach

10-minute overview

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Current System/Data Landscape

- 50+ data systems at the OPI that need upgrading & maintenance!

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Current System/Data Landscape Continued

- **3 major authentication/authorizations, and at least 6 others** that are typically one-off for various systems

- **Constantly changing laws and regulations** that change what and when data needs to be reported.

- Business **processes and systems built around reporting requirements and timelines. We to restructure systems and processes to better enable "real-time" access and use of data** and eliminate the delays and lagtime currently preventing timely use of the data.

- **Unsustainable Systems** – Many of our systems are custom built and/or were purchased with one time only funds. We have always managed to "keep the lights on" but a lack of resources and sustainable approaches have inhibited our ability and contributed to the friction of collecting, reporting and using data.

  The choreography of just keeping it all working together and functioning consumes a lot of resources here at the OPI and districts - it's a wonder sometimes we've kept it going over the years and testament to the people here at the OPI and in the districts who have been working so hard to keep it all going!

4 Main Areas

The Data Systems Modernization Project will revolve around 4 main areas and "collapsing" the number of systems and business processes we have:

- Student Management
- Educator Management
- Fiscal Management
- Digital Infrastructure

STUDENT MANAGEMENT

- We expect to **continue to invest in the AIM statewide student information system** provided by Infinite Campus.

- A goal of this effort would be to **effectively eliminate the entire middle-layer (AIM Montana Edition) if LEAs all used the district edition and/or we had an API (Application Programming Interface)** model for those that don't.

- We expect to **move as much student and class data that is collected into AIM as the single system collection point.** The API model is probably only viable for the larger districts.

KEY STUDENT MANAGEMENT PROJECTS

- **Accelerate the implementation of validation and certification processes and automation in AIM.** Certification and validation will increase data integrity, improve reporting efficiency, and reduce the districts workload for state reporting.

- I**mplement analytics** for all students.

- Migrate OPI's custom-built SPED reporting and portal into AIM.

- Migrate most of OPI's custom-built TEAMS application into AIM.

- **Automate collection and submission of required CRDC data.**

KEY STUDENT MANAGEMENT PROJECTS CONTINUED

- **Automate collection of assessments within AIM.** Facilitate the collection of district-selected assessments to be automated into AIM, so long as they meet certain standardization requirements, which then would allow upload to the state.

- **Implement a statewide survey/climate tool.** A statewide survey tool that allows for consistent, valid collections and the return of data back to schools quickly. Enable schools to initiate and share surveys and collections with each other independent of the OPI or choose to share and aggregate them at different levels.

- **Statewide Transcripts Tool.** The OPI's statewide transcript service is being turned off at the end of the 2020-2021 school year. Revisit with stakeholders if this is something they want to do. This could provide an important data linkage to higher education and department of labor.

EDUCATOR MANAGEMENT

Replace MSEIS with a comprehensive educator licensing system that modernizes how educators interact with the OPI to apply, maintain and renew their licenses. The new system will be mobile friendly/app and facilitate easy professional development updates by licensees and providers to participate. We will also provide a better system Jobs for Teachers system that actually helps facilitate recruitment and retention and provides resources to LEAs to better compete for talent and provide data to inform EPP and Professional Development. It would also facilitate the collection of data for efforts by the legislature to fund and incentivize educators in underserved areas.

- **Educator Licensing (MSIES)**

- **Professional Development (Renewal Units and Learning Hub)**

- **Recruitment & Retention/Jobs for Teacher (Jobs for Teachers)**

FISCAL MANAGEMENT

Hire traditional consulting firm to review/recommend business processes and likely produce an RFP. No commercial-off-the-shelf (COTS) solutions are likely available so we would likely be building custom and would ideally utilize an API for data collection from County and District finance systems. RFP for new system starting in 2022 with work complete in 2024.

Scope would include MAEFAIRS (COUNTY, TRANSPORTATION, AUDIT, PAYMENT) and E-Grants Systems

Also expect to see better integration with AIM, especially around enrollment activities.

DIGITAL INFRASTRUCTURE

This is a mix of "behind the scenes" systems and processes and those that our customers directly interact with regularly.

- **Single-Sign on and security**: RFP to hire consultant in 2021 to flesh out requirements. Previous estimates at consolidating OPI's security footprint have been at $1M+, however if we are consolidating systems and procuring new ones, that cost and effort can be allocated into those systems instead of "bolted-on" as previously envisioned.

- **Customer Relationship Management/Help Desk:** Single point of interaction for our customers to the OPI. Such as system by design would facilitate the collection and maintenance of demographic and contact information and help improve both security and communications as people in the field change roles. Systems changed:

- **Contacts, Central & Directory of Montana Schools**

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DIGITAL INFRASTRUCTURE CONTINUED

- **Workflow Management:** This would help with the internal automation of day-to-day business of the OPI, including contracts, travel and other internal functions. Again, efficiencies and automation in these areas enable staff to focus on more important and valuable activities serving our customers.

- **New Website & Intranet:** All systems should integrate with our website –website is where everything starts with our customers and intranet internally.

- **Data Management:** Initially internal to OPI. We need automation to help us better organize and catalogue data so that we know what it is, where it comes from, who can and should have access to it, and apply policies and procedures for data collection, management, and use. This automation would enable us to understand and create reports on data that is appropriate for that data analyst's business need. For example, the inquires around enrollment would be much easier to facilitate and publish. GEMS would be our end product - a place where users can run reports and analysis that would include some dashboards and some ad hoc reporting, for a wider variety of users and use cases.

Next Steps

- Next week we will send out a follow-up message with a link to the recording of this presentation, the presentation itself and links to a Data Systems Modernization Project webpage.

- On the project webpage you'll have access to all of the above information and new information as the project progresses. You'll also be able to subscribe to a mailing list to stay connected and up to date with the project

Questions? Comments? Concerns?

Now it's time to hear from our most important partner - you, the schools.

- Any questions in the chat box or directly from the audience? Please remember to stay muted unless you are speaking, thank you.

- If you have a question, please tell us your name and who you're with in case we need to follow-up with you after this presentation.

- What feedback do you have on this initial plan? This can be anything that's on your mind related to improving how we collect data. This is your initial chance to share your thoughts - there will be a lot more.

- What do you want us to be thinking about as we refine this plan and the steps?

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Thank you!

For questions or additional information please contact:
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opi.mt.gov **Elsie Arntzen, Superintendent**