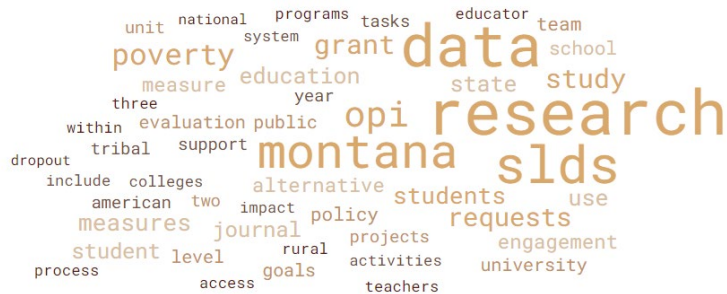

Next Steps: A Research Agenda

*Montana Statewide Longitudinal Data System
Montana Office of Public Instruction*

The Montana Statewide Longitudinal Data System (SLDS) is tasked with disseminating state data to stakeholders and the public. Under this mandate, the Montana SLDS disseminates data through a web portal, provides custom data sets to aid state and national research projects, and produces research projects aligned with agency research goals. The purpose of this document is to address this alignment and how the Montana SLDS can help the OPI achieve its research goals.



Research Agenda

Montana Hope: Evaluating the Montana Early Warning System



The SLDS unit completed a study of the Montana Early Warning System. This mixed methods study described the efficiency of the dropout prevention tool, factors that highlighted the use of the tool, and outcomes associated with the dropout prevention strategies that coincided with the use of the tool. This study resulted in two publications with the *AASA Journal of Scholarship and Practice* and the *American School Board Journal*.

Indian Education: Outreach to Tribal Colleges & Schools with High Proportions of Native Students

The 2020 Montana SLDS grant goals include engagement with tribal colleges, including data sharing on an institutional level and the investigation of research opportunities. Activities include engagement with individual tribal colleges to meet their data needs, analysis of American Indian Higher Education Consortium data, and a qualitative study focusing on transfer students from Tribal Colleges to the Montana University System.



Evidence Based Practice: Poverty Measures and their Impact on Allocations & Program Evaluation

The 2020 SLDS grant goals included the investigation of alternative poverty measures and potential for their use in Montana. The included

investigating the requirements of the use of alternative poverty measures and research applications of these measures. Research resulted in three publications in *Rural Educator*, *International Journal of Education Policy & Leadership*, and the *APHSA Policy & Practice Magazine*.

Montana Teach: Impact of Educator Mobility, Recruitment, and Retention on Students



The SLDS unit completed a grant application to study the effect of educator mobility on student outcomes, including attendance, promotion, graduation, dropout, and student achievement. Follow up includes dissemination of the results of the study to peer reviewed publications. Grant awards will be completed in February 2025. Anticipated start date of work if awarded is March 1, 2025. This research focus was provided by OPI leadership and work has begun through an analysis of the Department of Labor & Industry unemployment compensation data for those individuals that left the education system and pursued job opportunities elsewhere.

Montana Teach: Variation in Educator Salaries

This study investigates how we compensated teachers and was framed by the discussion in the legislature surrounding the Montana Teach Act. The value added of the SLDS study was that we identified those teachers with a starting salary less than levels identified by the Teach Act (\$35,660). The study also identifies teachers under that salary level that have prior years of experience teaching in Montana. It asks if we raise starting salaries in Montana for teachers earning under that level, what happens to the teachers with experience earning under that level? This request was made by OPI leadership, and a follow-up focuses on the wage gap between administrators and teachers who have similar tenure and educational attainment.

An extension of this research is our analysis of differences in educator salaries between educators who have different positions but the same number of years as a teacher or administrator and the same level of educational attainment.

Montana Teach: Association of Professional Learning Opportunities and Student Outcomes

This analysis tracks renewal unit count and other professional development markers and relates variation in PD attainment with student outcomes, including attendance, discipline, and academic achievement.

Montana Ready: Career & Technical Education



For five years the OPI has partnered with Montana State University to produce analyses of enrollment and success in Career & Technical Education programs. These activities include providing the research team with access to OPI data, advising the research team on the uses of the data, and follow up research activities to ensure quality reporting.

Montana Hope: Student Engagement

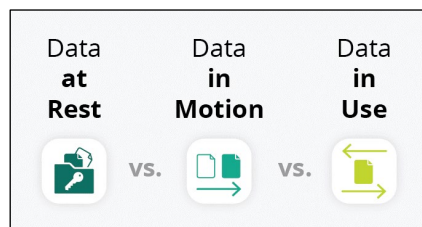
Students come first in OPI policy. This involves meeting students where they are and bringing enriching educational opportunities. Understanding where students are in terms of wellbeing and engagement in their studies requires rigorous investigation.

In 2019, the SLDS unit coordinated primary research into the Native student achievement gap. This focus group study involved 45 stakeholders representing nine tribal elementary and high schools. Findings from the study include that acknowledging a gap may not address the roots of the problem, which lies in systemic conditions of the school community. These conditions include factors that enhance or take away from student engagement.

Research Requests

Engagement with stakeholders and the public is core to the work of the SLDS unit. A measure of this engagement is the number of research and data requests that are received each year. In addition to our web portal, GEMS, OPI policy calls for the dissemination of state data. The purpose of the research and data request process is to provide access to customized dataset containing public education data.

Since 2018, the SLDS team has received, on average, 130 data and research requests per year. The SLDS Research Liaison is tasked with responding to requests. The requests are largely from



academia and research think tanks (+60%). Approximately 15 requests per year provide support to other programs within the OPI. Other frequent requestors come from the state legislature and school districts (about 12 data requests annually). About five requests come from private individuals. Relatively few data requests can be resolved using other OPI resources (15/year). Most of the responses receive a custom response

that is designed to answer specific questions in the request. For these requests, a two-step protocol ensures accuracy and quality assurance. Typically, the SLDS Research Liaison drafts the response and sends the query out to a team member who has expertise in the area. Our goal is to process all data requests within three weeks of receipt.

A relatively small number of the requests ask for student level data. They account for on average, seven requests a year. This involves a separate application process in which the requestors describe their study, the benefits to the OPI, and how they would analyze the data. The student level research requests are vetted within the SLDS and sent for comments to data stewards within the OPI. Most are referred to the OPI Data Privacy and Security Committee. This committee consists of the data governance manager, the Chief Information Officer, and the Chief Legal Officer. This process addresses whether the data can be deidentified according to privacy rules and if the resulting redacted data can be used in analysis.

Enabling Contractor Access and Data Use

The SLDS has worked with three contractors to enable prioritized access to the data, reviews of data procedures and protocols, and monitoring of progress made under the contract. The SLDS

has a long-standing relationship with Jem & R, LLC providing data for program evaluation purposes of two different OPI programs. The SLDS worked to provide the University of Montana with data related to a study of four-day schooling. In that capacity, the SLDS provided data along the course of the research project and monitored activities to ensure that project and OPI goals were met. The SLDS also worked with Montana State University on an evaluation of ESSER grants and spending by school districts. These outreach tasks demonstrated that the Montana SLDS can effectively facilitate access to OPI resources and provide research project monitoring along the course of the research.

How the Montana SLDS Unit Assists

Federal support for the Montana EWS focuses on the role of state policy and how grant activities may inform processes. The Montana SLDS provides a framework for the fulfillment of research tasks as well as the capacity to make certain internal research projects work. In 2019 with the drafting of the Montana SLDS Montana Innovation Through Infrastructure grant, our Montana SLDS research goals included increasing the internal research capacity of the OPI and to engage research partners such as evaluators and co-principal investigators in research projects.

Since then, the National Center for Education Statistics promoted research agendas for states with active SLDS grants. The goals of the research agendas are to formalize current practices, to



set the framework for future research, and align with state agency priorities. Among the research tasks associated with the Montana SLDS grant are support to the EWS evaluation (funded by the National Center for Education Research – NCER), a supplemental grant awarded to the OPI for investigation of alternative poverty measures (funded by the

National Center for Education Statistics – NCES), engagement with tribal colleges to promote research and data use (NCES), support to partners engaged in CTE studies and evaluations of ESSER funding (SEA priorities), and periodic internal analyses in support to OPI units (including studies within the past year about teacher salaries, American Indian student achievement, and licensure). The SLDS assists other OPI programs by providing student level data related to special education and the 21st CCLC programs.

Research is core to what the SLDS does as a unit. In 2015 we were awarded a SLDS grant that focused on data use and research. The goal of the grant was to promote a data use culture with the use of the SLDS resources as a focus. With that grant, we sponsored eight research studies



that produced five peer reviewed articles, two white papers, and three dissertations. We contracted with academics, primarily at Montana State University, to complete grant tasks. Based on this collaboration with contractors, what became apparent is that the SLDS should promote capacity at the OPI to complete the expensive ‘low hanging fruit’ research tasks internally, such as surveys, focus groups, and interviews. This will target resources for complex projects, or those projects in which an external evaluator is needed,

in a cost-effective manner. This saves on the cost of some SLDS grant priorities and provides alternatives to disclosing PII to contractors without oversight.

Such a model was used with the NCER grant. The Montana SLDS directed the research project, with the SLDS Research Liaison acting as Principal Investigator. Researchers with Montana State University were Co-PI(s). Hybrid evaluations can bring the best of both worlds where an external evaluation team supports an internal evaluation team. This partnership allowed for the OPI to do much of the data collection and management tasks internally, reducing costs and increasing engagement with the subcontractor. Montana State University provided independent analysis of two research questions for the grant. The SLDS team analyzed one research question (mixed methods), The SLDS team produced two white papers, two published journal articles, and three articles in press. The resulting collaboration was a hybrid research and evaluation model that was on time and under budget.

Example SLDS Publications

Title: Assessing Disadvantage: Trends in Alternative Poverty Measures (Montana) (2023)

Journal/Blog Magazine: Policy & Practice. Winter. American Public Human Services Organization.

For over 50 years, education policy has been guided by insufficient poverty measures (NSLP Eligibility). The reasons why have become acute in recent years, specifically over identification of students, inaccurate income information, and inaccurate accounting of poor students in Community Eligibility Provision districts. The study concludes that identification of an alternative poverty measure is difficult since no single poverty measure is consistent. The decision to use an alternative poverty measure should be dependent on policy constructs, or the requirements of the measure.

Title: How Poverty Measures Account for Differences Between ‘In Town’ and ‘Out-of-Town’ Students (2024)

Journal/Blog/Magazine: Rural Educator:

<https://scholarsjunction.msstate.edu/ruraleducator/about.html>.

Proximity to school in the context of neighborhood income to poverty ratios does have an impact and this impact is strongest in Rural Remote communities. What is occurring with the in-town students in Rural Remote schools is clear, however the contribution of the SIDE measures among students at a distance from school is less well known. By analyzing in town and out of town grouping we can differentiate the poverty measure. By understanding issues that impact income and poverty in rural contexts, we can make comments as to the success of the SIDE application in providing IPR values that are reliable.

Title: Data Informed Triage for At-Risk Students (2024)

Journal/Blog/Article: American School Board Journal: <https://www.nsba.org/ASBJ>.

Dropout prevention triage involves identifying thresholds or triggering events to start, monitor, or reassess an intervention. OPI support is seen as crucial. The core of these factors is how the district finds value in the data and what they decide to do with the data. This process of finding value in the EWS tool was seen as dependent on OPI professional development and outreach.

Title: Free and Reduced Lunch from Economic Disadvantage: Viability of Alternative Poverty Measures in Montana.

Journal/Blog/Article: American School Board Journal: <https://www.nsba.org/ASBJ> (in press)

This article compares free and reduced-price lunch data with data from alternative poverty measures. Free and reduced priced meals (FRPM) have a predominant role in program allocations at the Montana Office of Public Instruction where the SEA received a waiver to use FRPM data in program allocations. The measure used to distinguish between FRPM and alternative measures is the degree a poverty measure explains variation in student outcomes.