

LEGISLATIVE REPORT

2023-2024

Section 22m

Michigan Data Hub Grant Progress



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A full archive of previous legislative reports may be found on the [Michigan DataHub website](#).

“The MDH advisers, leadership, and small but mighty team remain committed to furthering efforts to support districts in managing timely, accurate and actionable data. As work continues, we see where districts and schools will spend less time on compliance work and more time focused on teaching and learning. As systems mature, point to point data exchange, where appropriate, is taking shape between the MDH and the state systems. Great things are in the works with so much more to come!”

— **Thomas Howell, Executive Director, CEPI**

Executive Summary

See www.midatahub.org for a short, animated vision of MiDataHub

As outlined in Section 22m legislative language, our annual report serves as a comprehensive summary of the impactful initiatives funded under this section. Per the legislative mandate, the report, due by January 1 of each fiscal year, provides a detailed overview of measurable outcomes and project effectiveness from entities receiving funds.

Both the Findings and the Actionable Data sections offer insight into significant areas of impact providing an account of progress related to the eight goals specified in the 22m legislation.

Key Insights

100% District Adoption:

Districts have overwhelmingly embraced the initiatives, nearing full adoption, showcasing the widespread acceptance and integration of funded projects. *100% of districts have implemented at least one feature of the Michigan Data Hub.*

Efficiency and Savings for Schools:

Schools across the state are experiencing significant time and cost savings, demonstrating the practical benefits derived from the initiatives supported by 22m funding. The 2016 MiDataHub ROI study concluded an annual savings of \$53m per year was being realized. The ROI study is currently being updated and will be available in mid-2024, we are anticipating a significant increase in realized savings. For more information, please review the ROI Study document: "[The MiDataHub: A Strategic Alignment and ROI Study.](#)"

Equity in School Data Ecosystem:

MiDataHub has successfully cultivated an ecosystem fostering equity in school data, ensuring a fair and inclusive representation across diverse educational settings.

Diverse Educational Support:

The funding has facilitated a diverse array of educational efforts, enriching and enhancing the educational landscape in Michigan. The impact extends beyond singular areas, contributing to a holistic and inclusive educational environment.

In essence, this report not only fulfills legislative requirements but also underscores the transformative impact of 22m funding on Michigan's education landscape, emphasizing widespread adoption, efficiency gains, equity promotion, and diverse educational enrichment.



Success At A Glance

These successes showcase the impact of MiDataHub in transforming education across Michigan, making data-driven decisions more accessible and effective.

Promoting 100% District Adoption

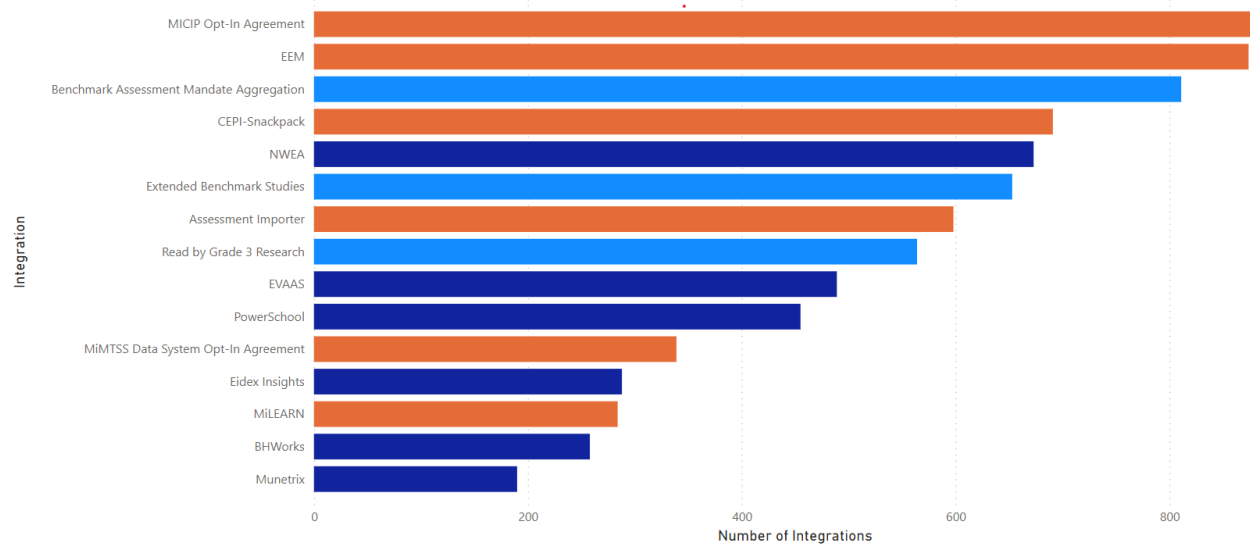
As of December 2023, 876 districts of 888 (99%) have signed the data hosting agreement and 1,494,234 students in Michigan’s K12 population are represented in MiDataHub for the 23-24 school year.

Empowering Schools and Vendors to Work Together

MiDataHub has enabled numerous vendors and initiatives the ability to scale their integrations. A few of these district / vendor integrations include:

Number of Integrations by Integration and Type

Type ● Legislative Reporting Requirements ● Private Sector ● State Data Systems



Integrating School Data Systems

MiDataHub is currently providing **10,533 active connections (integrations)** between school data systems, a **21% increase from one year ago**. The total annual value of these integrations is over **\$77 million annually**. This is money that districts would ordinarily spend to make similar connections or manually enter data, thus allowing schools to invest these resources more directly in the classroom. Just based on active integrations, the \$2.2 million-dollar annual investment in MiDataHub returns \$35 in direct value to local districts for every dollar invested. For more information, please review the ROI Study document: [“The MiDataHub: A Strategic Alignment and ROI Study.”](#)

876

live districts

Over **296,000** UIC transactions processed
for **603 districts** – 65 more districts than in 2022

Over

69,000

new UICs created

Over

10,533

integrations in use

Over

1.5 million

student records

MICIP User Agreement has
been electronically signed by

876 districts

MiDataHub Averages more
than

12 million
transactions
per day

M-STEP, PSAT and SAT Data actively
transferring for

598 districts

563 districts

have opted into sharing data
via MiDataHub for an IES Grant
to study the effectiveness of
the Read by Grade 3 law

876 districts

have their logins connected
to the MiDataHub SSO

691 districts

have opted in for the Snack-Pack
feature.



Districts reported digital equity
data for the first time,
providing information on
Internet and Device usage



PSAT and SAT data were
added to the State
Assessment Services



Direct Certification Services
expanding to other SISs

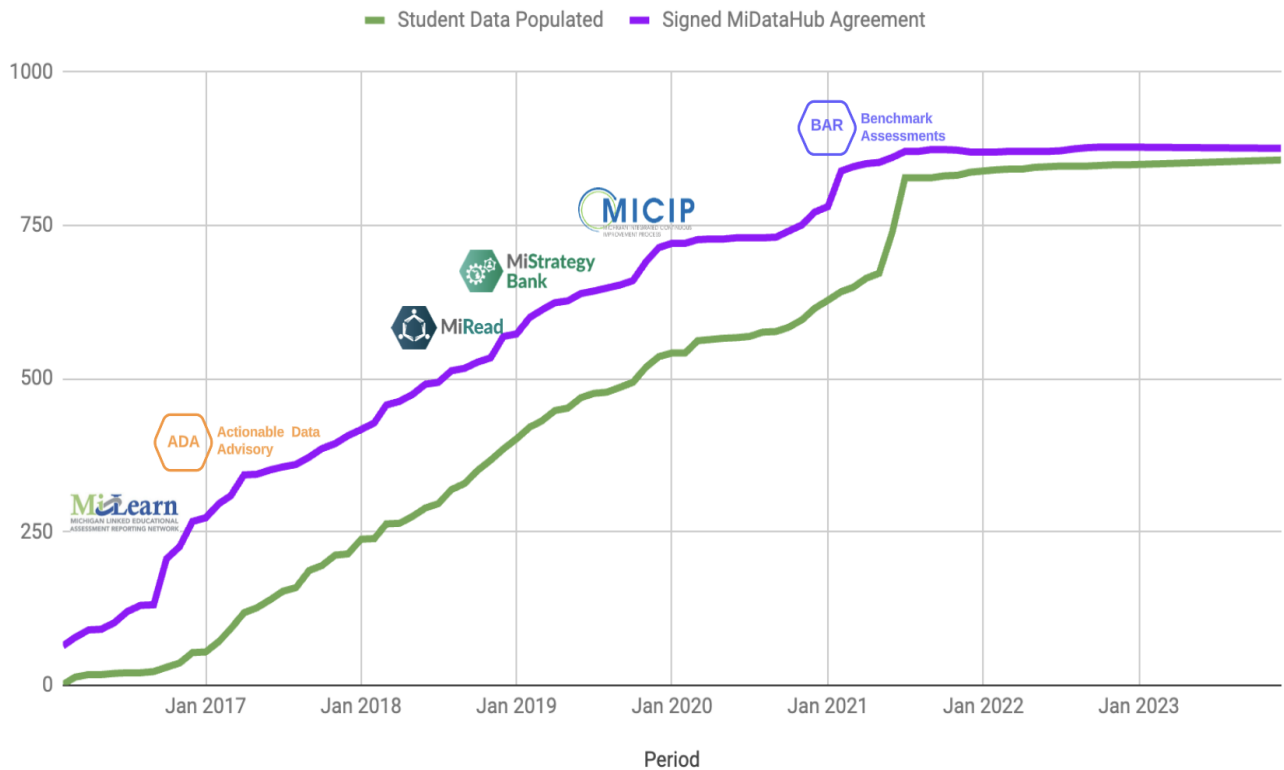
Actionable Data

MiDataHub Supports Many Statewide Initiatives

Over the last seven years, the Michigan Data Hub has strategically invested in partnerships and infrastructure to make actionable data accessible at various educational levels.

These efforts have a direct correlation with increased district adoption of MiDataHub which resulted in significant benefits for the educational community, particularly in Classroom Support, District Improvement, and promoting evidence and research-based initiatives.

Michigan DataHub District Adoption Timeline



Actionable Data - Standout achievements powered by MiDataHub:



MiRead MiRead (Michigan Read):

MiRead, initiated in 2018-19 to aid early literacy, faced challenges during the pandemic but is now set for implementation across all districts. It identifies students needing support, monitors individual plans, and enhances literacy coaches' efforts statewide.



MiLaunchPad MiLaunchPad (Michigan Launchpad):

Launched in 2015, MiLaunchPad's Single Sign-On (SSO) system connects local email systems, streamlining access to education applications. Currently used in over 800 districts, it has saved time and effort managing over 100,000 additional user accounts, making life easier for educators.



**PROMISING
PRACTICES
EXCHANGE**

MiPPX (Michigan Promising Practice Exchange):

Developed in partnership with MDE, MiPPX is an electronic clearinghouse that shares successful local district practices, aligning with Michigan's Top Ten Strategic Education Plan to promote and support effective strategies statewide.



MiEWIMS
Michigan Early Warning, Intervention
and Monitoring System

MiEWIMS (Michigan Early Warning and Intervention Monitoring System):

Over the past three years, MiEWIMS has been developed to identify and support students at high risk for dropout. Leveraging MiDataHub, it is currently being piloted by 25 districts, with expanded use planned for the 2023-2024 school year.



**MiEarly
Childhood
Connect**

MiECC (Michigan Early Childhood Connect):

Originating in the Ottawa region, MiECC connects local providers and families with educational, childcare, and health services for young children. Integration with MiDataHub facilitates the transition of pre-k data to k12 data systems to inform and improve educational efforts in kindergarten, helping educators better understand and meet the needs of students and families.



**MiStrategy
Bank**

MiStrategyBank:

Serving as an electronic clearinghouse for educational data systems, MiStrategyBank has become the go-to source for evidence-based best practices in Michigan. With 2,200 district-level users, it ties strategies to students, buildings, and districts through MiDataHub, aiding research efforts.



MiCIP
MICHIGAN INTEGRATED CONTINUOUS
IMPROVEMENT PROCESS

MiCIP (Michigan's Continuous Improvement Process for Education):

In collaboration with MDE and MAISA, MiDataHub supports the MiCIP platform, a research-based process for schools and districts to assess needs, build improvement plans, and leverage funding. MiDataHub powers this platform, streamlining efforts for every district in Michigan to enhance student outcomes.

Legislative Goals - Findings

Legislative Goal 8A

CREATING AN INFRASTRUCTURE THAT EFFECTIVELY MANAGES THE MOVEMENT OF DATA BETWEEN DATA SYSTEMS USED BY INTERMEDIATE DISTRICTS, DISTRICTS AND OTHER EDUCATIONAL ORGANIZATIONS IN MICHIGAN BASED ON COMMON DATA STANDARDS TO IMPROVE STUDENT ACHIEVEMENT.

In pursuit of Legislative Goal 8a, MiDataHub continues to evolve its infrastructure, focusing on effective data management to enhance student achievement. Over the past two years, we've concentrated on refining and implementing key features while maintaining a strong foundation built in preceding years.

Ongoing Infrastructure Features:

- Data Hosting: The production data environment has been fully transitioned to the cloud and is securely hosted in Amazon Web Services.
- Ed-Fi Alliance API and ODS: Version 3.1 is steadfast, aligning with Common Education Data Standards (CEDS), ensuring seamless data flow from districts to the state and federal government.
- OneRoster API: Version 1.1 continues to facilitate integration, supporting data exchange between educational systems.
- Michigan Data Exchange (MiDX): MiDX combines data from individual district databases into a multi-district, multi-year database, benefiting systems like MiCIP, MiEWIMS, MiRead, and MiSafeStudent.

User-Friendly Applications:

- MiLaunchpad - What It Does: It is bringing together 22 different systems into one easy to access platform.
 - **Why It Matters:** It makes accessing authorized applications a breeze, ensuring educators don't have to juggle numerous logins.
 - **SSO What It Does:** It is the golden key to simplify login chaos.
 - **How It Works:** 18 out of the 22 MiLaunchpad systems offer full SSO, meaning one login grants access to multiple platforms.
 - **What we accomplished:** Reducing the need for educators to remember 18 account credentials to just one – a game-changer!
- Federation Growth: The number of federated districts increased from 820 to 837, underscoring the widespread adoption and ease of use.

New Infrastructure Additions:

- Amazon Web Services: Full transition of the MiDataHub server infrastructure to the Amazon Web Services platform. [Moving Michigan Schools to the Cloud](#)
- Enhanced Security: Implementation of scanning through the federal CISA service fortifies the MiDataHub infrastructure against potential threats. Partnering with the new, legislatively funded MiSecure initiative is enhancing MiDataHub cyber security efforts.

- Security information and event management (SIEM): SIEM was added this year as another layer of cyber security due diligence. This subscription service and technology supports threat detection, compliance, and security incident management through the collection and analysis (both near real-time and historical) of security events.
- Expanded Access: Users can now access the Edupaths Professional Learning Catalog, MAISA Events Portal, MiServiceDesk, and MiEWIMS system via MiDataHub SSO and MiLaunchpad.

Upcoming Developments:

- Ed-Fi API and ODS Upgrade: Preparation for version 6.1 upgrade (live in July 2024) signifies our commitment to staying at the forefront of technology.
- Cockpit Redesign: Enhancements to the User Interface (UI) and User Experience (UX) for both Cockpit and Management Portal will include features for districts and vendors to more efficiently and effectively manage their integrations.
- OneRoster API Upgrade: Version 1.2 upgrade is in progress, ensuring continued compatibility and functionality.

Conclusion for 2023:

Goal 8a stands robustly met, marked by district and vendor adoption on schedule. The embrace of this infrastructure by state departments, educational organizations, and the broader educational field underscores its positive impact, fostering collaboration and efficiency through common data standards.

Legislative Goal 8B

UTILIZING THE INFRASTRUCTURE TO PUT IN PLACE COMMONLY NEEDED INTEGRATIONS, REDUCING COST AND EFFORT TO DO THAT WORK WHILE INCREASING DATA ACCURACY AND USABILITY.

Enhancing Connectivity and Efficiency: Michigan Data Hub's Integration Focus

The primary objective of the Michigan Data Hub remains the optimization of infrastructure to facilitate essential integrations. This strategic approach aims to reduce costs and efforts, ultimately elevating data accuracy and usability.

Seamless School Data Connectivity:

At the core of our mission is the seamless integration of diverse school data systems. When executed effectively, this integration serves as the linchpin for the entire MiDataHub ecosystem, ensuring optimal functionality. Our success is underscored by strong support from the integration of the state's five major Student Information Systems (SIS).

Adapting to Changing Dynamics:

With most districts now leveraging MiDataHub through Student Information System (SIS) connections our focus intensifies on two key fronts:

- **Integration Expansion:** Adding a broader array of educational data systems to the list of integrations, such as finance and hr systems.
- **Optimizing Data Usage:** Ensuring downstream systems extract and utilize MiDataHub data effectively to provide valuable services to districts.
 - 10,533 integration instances are in place over 857 districts, for an average of 12.3 systems integrated per district (a 20% increase over the 8,654 total or 10.2 systems integrated per district)

In summary, Michigan Data Hub continues to spearhead efforts in creating a well-connected educational landscape. Our commitment to seamless data integration empowers districts across the state, fostering efficiency and unlocking new possibilities.

SIS Connectivity via Ed-Fi API:

- **5 Student Information Systems connected, including Edupoint Synergy, Infinite Campus, MISTAR-Q, PowerSchool, and Skyward.**
 - Covers nearly 90% of the 888 districts in the state.
- **MSDS Import:**
 - Allows districts without a connected SIS to load data.
- **Integrations with numerous CEPI and MDE Data Services are in place**
 - **Educational Entity Master (EEM):**

- Maintained by CEPI, providing official district and building information since November 2018.
- **Direct Certification Integration (July 2021):**
 - The system has evolved to efficiently identify students eligible for free or reduced school meals, with ongoing efforts for wider adoption. The value added for districts in this process between MiDataHub and Direct Certification is the movement of information directly back into the local SIS or Food Service system.
- **State Assessment Service:**
 - Populates district databases with historical M-STEP, PSAT, and SAT data.
 - District usage increased from 586 to 598 since the last report.
- **Enhanced Michigan Student Data System (MSDS) Integration Capabilities:**
 - MiDataHub goes beyond standard integrations utilizing CEPI's *student data system MSDS*, incorporating advanced features to streamline and enhance the State Reporting process. Explore the key components below:
 - **MSDS Error Checks**
 - Within the MiDataHub Data Cockpit application, districts can seamlessly execute automatic data quality examinations of their State Reporting information, adhering to the relevant MSDS business rules. This functionality has been in operation since the 2017-18 school year, benefiting 56 districts with a total of 192 error checks. This feature is currently in pilot with ongoing refinement, ensuring its effectiveness with continuous input from CEPI and local districts.
 - **MSDS Extractor**
 - Introduced in the 2017-18 school year and utilized by 49 districts, the MSDS Extractor in the MiDataHub Data Cockpit empowers districts to generate automatic MSDS State Reporting Extractor files. These files align with CEPI's MSDS system requirements, facilitating a smooth submission process.
 - **MSDS Comparison Tool:**
 - Since the 2017-18 school year, the MiDataHub Data Cockpit includes a powerful MSDS Comparison Tool. This tool enables districts (56 in total) to automatically compare data values between MiDataHub-generated MSDS State Reporting files and manually produced files, ensuring accuracy and consistency. Ongoing piloting ensures continuous improvement with feedback from CEPI and local districts.
 - **MSDS Descriptor Mapping Tool:**
 - Introduced in the 2019-20 school year and utilized by all 56 districts, the MSDS Descriptor Mapping Tool in the MiDataHub Data Cockpit allows districts to further refine their data descriptor mappings. This functionality comes into play after an automatic mapping of the MSDS descriptors, providing districts with flexibility and customization options. Ongoing refinement

efforts involve collaborative input from CEPI and local districts to optimize the tool's performance and user experience.

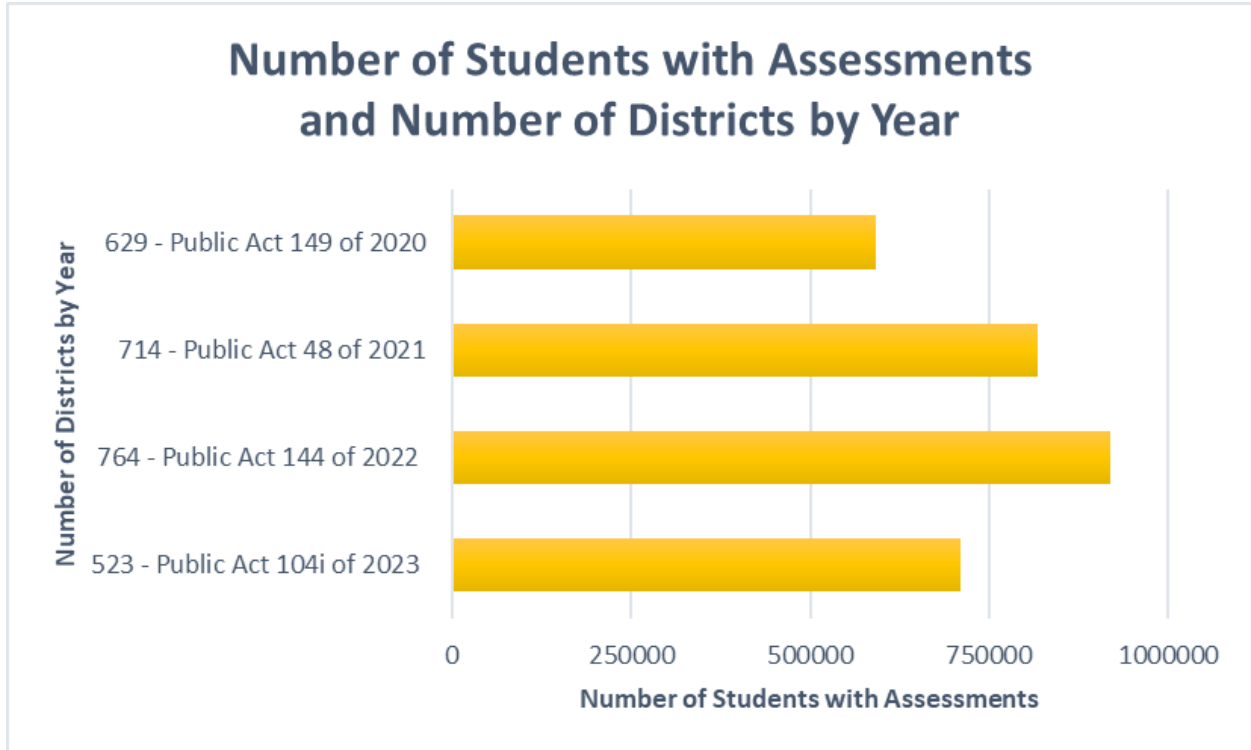
- **The CEPI Portable Records Service:**
 - Referred to as the “Snack-Pack”, allows a district to look up data for a newly enrolling student from their most previously reported district in CEPI’s records. The information is helpful for ensuring that students receive all the services needed in their new district. This service has seen a substantial increase in usage since it was initially created in 2019, from 24,066 lookups that school year to over one million annually.
 - *As a point of reference for illustrating significant time savings for educators and families:*
 - *Snack-Pack look-up now takes two minutes or 120 seconds AND imports the identifier directly into the local SIS vs the “old way” of waiting for the sending district to manually share the student information which was up to 60 days or 86,600 minutes or 5,184,000 seconds .*
 - The CEPI Unique Identification Code (UIC) service allows connected systems to look up UICs for students, speeding up the process and making it more accurate for district users. The growth in usage of this system is shown in the table and chart below.

UIC Services by Calendar Year

Calendar Year	Requests	New UICs
2018	40,000	10,000
2019	150,000	31,000
2020	151,945	37,670
2021	255,390	65,302
2022	291,661	68,472
2023	296,419	69,981

Benchmark Assessment Mandate (formerly called Return to Learn)

- DataHub facilitated the collection and aggregation of benchmark assessments for districts using the Curriculum Associates i-Ready Assessment, DRC Early Literacy and Mathematics Benchmark Assessment, DRC Smarter-Balanced Interim Assessment, NWEA MAP Assessment and Renaissance Star Assessment. See chart on next page.



The following integration features were new or have updated information since the last report:

In the relentless pursuit of data excellence, Michigan Data Hub proudly presents the latest additions to its Data Governance Tools, ushering in a new era of streamlined data management and accountability. The 2022-23 school year witnessed the launch of these transformative components:

Dynamic Data Dictionary:

- Overview: This dynamic tool revolutionizes data field understanding within district hubs. By collecting metadata for each data field, it enables easy sourcing, identifies district stewards, and pinpoints downstream systems. Configured by MiDataHub administrators, it caters to external parties and district tech/data steward personnel.

Dynamic Product Catalog:

- Insights: A comprehensive resource delivering crucial details about data-owning sources and products. Authored by system/product owners, meticulously reviewed by MiDataHub administrators, and leveraged by district tech/data stewards for seamless system activation.

These groundbreaking tools not only signify our commitment to robust data governance but also exemplify collaborative efforts with district personnel and external stakeholders to ensure a cohesive and effective data management strategy.

Several integrated solutions increased their integration numbers or added additional capabilities since the last report, including: (last year’s number in parentheses)

- o 691 (632) Districts utilized the Snack-Pack for UIC lookups.

- o 489 (426) Districts integrated with SAS EVAAS, a tool to provide Value Added Metric data to districts to determine the impact of instruction using state assessments for teachers of record in fourth through eighth grade.
- o MiLearn: Elevating Educational Insights
 - MiLearn, now embraced by 284 districts, offering a spectrum of enhancements:
 - This dynamic tool, evolving with the educational landscape, now offers enhanced features to further enrich the teaching and learning experience:
 - o Swift Benchmark Assessment Reports:
 - MiLearn ensures educators receive Early Literacy and Mathematics Benchmark Assessment reports within 48 hours of completion, facilitating timely insights for effective instructional strategies.
 - o Multilingual Parent Engagement:
 - Fostering inclusivity, MiLearn provides Spanish and Arabic translations for Parent Reports, fostering stronger connections between educators, parents, and students. Educators also benefit from these translations when reviewing Parent Reports.
 - o Supporting Diverse Learners:
 - MiLearn supports educators and parents with help documents in Arabic and Spanish translations for WIDA Access for ELLs and WIDA Alternate Access for ELLs, ensuring accessibility and inclusivity.
 - o Comprehensive PSAT™/SAT™ Reports:
 - MiLearn expands its capabilities by offering detailed PSAT™/SAT™ Reports, providing comprehensive insights into student performance for more informed decision-making.

Conclusion for 2023:

Vendor adoption is increasing, and numerous valuable integrations were delivered during the year. With district interest at 99% and 97% of districts with live data (see chart page 15), ROI is exceeding \$77 million per year. Expectations for Goal 8b are being exceeded and ROI will continue to grow with increased district adoption.

“The new Snack-pack feature has already proven to be a tremendous asset to our district. The ability to obtain immediate information on newly enrolled students has really improved the district’s ability to provide timely service and accommodations to these students. Before the Snack-pack, we would have to wait for the previous school/district to send pertinent student status information related to special education, English language learning, homelessness, economic status, etc., which often caused a delay or gap in needed programs and services. With the Snack-pack, we are now able to get a glimpse into the student profile as soon as we enroll a new student, eliminating the need to submit an SRM right away or wait until the next certified collection to obtain this information. If this is only the beginning of the Snack-pack project, I cannot wait to see how much more robust it will become!”

— Sarah Mohler, Madison District Public Schools - Pupil Accounting Manager

Legislative Goal 8C

PROMOTING THE USE OF A MORE COMMON SET OF APPLICATIONS BY PROMOTING SYSTEMS THAT INTEGRATE WITH THE MICHIGAN DATA HUB NETWORK.

In its commitment to fostering a more cohesive and integrated educational ecosystem, MiDataHub spearheads initiatives that promote common applications, ensuring reliability and efficiency throughout Michigan's educational landscape. The progress made and ongoing efforts include:

Current Initiatives

MiDataHub Conference Inauguration:

Introducing a groundbreaking initiative, in November 2023 we launched the annual MiDataHub Conference. This innovative event will serve as a unifying platform, bringing together Local Education Agencies (LEAs), Intermediate School Districts (ISDs), vendors, and state representatives. The conference aims to foster collaboration, inspire innovation, and strengthen partnerships among all stakeholders. This gathering reflects our commitment to continuous improvement and shared progress within Michigan's educational landscape. **Note:** *During this inaugural event we created The Don Dailey Exemplary Award. He is directly responsible for the success of the 22m MiDataHub project. He has been recognized for his commitment and incredible collaboration statewide and continues to support the educational community even after his retirement July 1, 2023.*

Integration Preference in System Selection:

Districts are increasingly prioritizing MiDataHub integration when selecting data systems. This shift has led to migrations from unsupported to integrated systems, fostering commonality in Student Information Systems (SIS).

Legislative and Statewide Influences:

Legislation, statewide bids, and volume contracts are now incorporating requirements for integration, emphasizing the significance of streamlined and unified processes.

Benchmark Assessment Alignment:

MDE's selection of benchmark assessments aligns with MiDataHub, influencing districts to adopt identified and integrated systems for benchmark assessments.

Common Solutions and Tools:

MiDataHub serves as the foundation for collaborative tools such as MiRead, MiStrategyBank, and MiEWIMS, addressing reading improvement plans, housing research-based strategies, and targeting attendance, behavior, and course grade issues.

Private Sector Engagement:

MiDataHub facilitates private sector innovation at the request of districts, allowing companies like Munetrix to expand their tools, delving deeper into student and teacher data.

State Modernization Efforts:

The success of MiDataHub in establishing data standards has provided an opportunity for CEPI to evaluate modernization of its internal data systems. Aligning data standards will even further enhance and improve statewide data processing.

Michigan Integrated Continuous Improvement Process (MICIP):

MICIP, developed in collaboration between MDE and MiCH Development Group, integrates historical data from MI School Data (integrating information from the state longitudinal data system (SLDS)) and up-to-date information from MiDataHub. This innovative tool aids schools in identifying areas for improvement and creating continuous improvement plans.

Upcoming Initiatives

Communication Templates for Vendors:

MiDataHub is developing communication templates for districts to request vendors pursue standards-based integration through MiDataHub.

Conclusion for 2023:

Goal 8c has already achieved significant milestones, narrowing the field of educational data systems in Michigan while fostering collaboration among schools and state agencies. MiDataHub's impact resonates in streamlined business and instructional practices, contributing to the continuous improvement of Michigan schools.

Legislative Goal 8D

PROMOTING 100% DISTRICT ADOPTION OF THE MICHIGAN DATA HUB NETWORK.

Currently, MiDataHub stands at an impressive milestone with 876 out of Michigan's 888 districts engaging in the process of adopting this transformative system. The chart on the left vividly illustrates the increasing numbers of live districts and those signed up for MiDataHub, showcasing the sustained growth since the inception of district connections in December 2015.

As of the latest update, the number of live districts has reached 857, marking an increase of 8 districts compared to the previous year's report. It's noteworthy that MiDataHub operates on a voluntary basis, making ongoing awareness initiatives crucial for sustained growth and comprehensive adoption.

The growth trend in district participation, depicted in the chart above, highlights the imminent realization of the goal for 100% district adoption. MiDataHub is on the cusp of achieving this significant milestone, with only a handful of districts left to connect.

A detailed breakdown by district type, including Intermediate School Districts (ISD), Local Education Agencies (LEA), and Public School Academies (PSA), is provided in the table below. All ISDs and nearly all LEAs have signed up, demonstrating robust commitment. LEAs, in particular, have showcased an impressive live adoption rate, with almost 98% of districts handling nearly 1.5 million student records within the data hub. The widespread adoption across various district types underscores the inclusive and impactful nature of MiDataHub.

Number of Entities	Type	Signed Up		Live Districts		Live Students
		#	%	#	%	#
56	ISD	56	100%	51	91%	47,124
537	LEA	530	99%	526	98%	1,350,008
295	PSA	290	98%	280	95%	97,102
888	Total	876	99%	857	97%	1,494,234

Driving Towards 100% Participation

Expanding the scope of MiDataHub participation to encompass districts utilizing one or more services brings the total to an impressive 886 out of 888 districts (99.9%). Beyond the districts actively contributing data, many also leverage MiDataHub's Single Sign-On (SSO) functionality or have solidified data agreements within the hub.

To propel the journey towards 100% adoption, the following strategies remain steadfast:

- **Data Control Assurance:**
Ensuring districts maintain full control over their data, as outlined in the MiDataHub Data Hosting Agreement, reinforces trust. This commitment to secure data management is pivotal in fostering district confidence in MiDataHub.
- **Value-Centric Approach:**
The focus remains on ensuring that the benefits districts derive from MiDataHub surpass the effort required to participate. Striving for a balance where the value proposition aligns with the ease of engagement ensures districts find tangible value in their MiDataHub experience.
- **ISD Partnership for Support:**
Collaborating with Intermediate School Districts (ISDs) for Data Hub Support Specialists establishes a network of skilled staffing resources familiar to districts. This approach enhances service delivery, leveraging existing relationships and comfort levels.
- **Educational Resources:**
Free MiDataHub courses on the EduPaths professional development portal stand as valuable resources. These courses assist districts in navigating and maximizing the potential of MiDataHub, contributing to a more informed and empowered user base.
- **Dedicated Support Team:**
Our MiDataHub support team has grown to include an Assistant Director, Support Manager, a support specialist, 2 Senior Integration Analysts, a Technical Operations Manager, and a Senior Database Analyst. Headed by the Assistant Director, our Support Manager oversees the coordination of assistance for Michigan districts, while the Tier 1 Support Specialist serves as the initial point of contact, promptly addressing district requests with professionalism. The team of Senior Integration Analysts enhances integration processes, ensuring seamless data flow, while the Technical Operations Manager ensures the smooth functioning of MiDataHub's infrastructure. With the Senior Database Analyst contributing expertise in database management, our support team, in conjunction with Data Hub Support Specialists from ISDs, utilizes the Jira Helpdesk through MiServiceDesk to track and address district requests promptly and professionally.
- **Operational Collaboration:**
The DHSS Operations Workgroup convenes monthly, offering ISDs insights into new integrations, MiDataHub enhancements, issue resolutions, and shared information from partners. This collaborative platform ensures a streamlined flow of information to LEAs and PSAs through regular communication channels.
- **Vendor Engagement:**
Monthly meetings with primary Student Information System (SIS) vendors, alongside interested district contacts, serve as a direct avenue for addressing questions and sharing updates. These sessions, specific to each SIS, foster collaboration and keep stakeholders abreast of forthcoming functionalities and bug fixes.
- **Professional Development Initiatives:**
MiDataHub provides ongoing professional development through statewide webinars, conference presentations, and regional sessions held at ISDs. These initiatives ensure continuous learning opportunities for users across the state.
- **Timely Information Dissemination:**
A MiDataHub newsletter, published as needed, serves as a timely conduit for relevant information, keeping users informed about updates, best practices, and other pertinent details.

With these proactive measures in place, MiDataHub remains dedicated to not only achieving but sustaining 100% participation, enriching the educational landscape across Michigan.

“Through our use of the data hubs, we see an improvement in data quality. Instead of finding and addressing data quality during state reporting timelines, we are seeing them earlier – during the enrollment and registration process. This gives us cleaner data. We are excited to take advantage of the UIC integration and MiLearn, both exclusively available through the data hubs. We no longer upload files for UIC matching... Not only does this integration reduce my work as the Pupil Accountant and State Reporting MISTAR System Administrator, but our building secretaries have the UIC immediately and there’s no waiting or follow-up to complete student registration. The integration with MiLearn gives staff, parents, and students in our district instant access to student state testing results, even if the students were not in our district during testing.” — **Donna Reuter, Student Data Supervisor, Farmington Public Schools**

Conclusion for 2023: Achieving Full Statewide Adoption

MiDataHub has successfully achieved near-universal adoption, with all but two districts in the state utilizing one or more MiDataHub resources. This remarkable milestone signals the widespread recognition and acceptance of MiDataHub's value among Michigan districts. As we continue our commitment to delivering tangible benefits and enhancing user experiences, we anticipate further increases in adoption and utilization, solidifying MiDataHub's integral role in supporting Michigan's educational data landscape.

Legislative Goal 8E

ENSURING LOCAL CONTROL OF DATA, DATA SECURITY, AND STUDENT DATA PRIVACY.

Previous Steps Taken:

Prior to this year, and continuing, the MiDataHub Cockpit Application has empowered districts with local control over their integrations. Data external availability changes are made only upon district request, and an audit log tracks all manual changes for district review.

API integrations are safeguarded through a key and secret process with industry-standard encryption, ensuring secure transactions. Secure File Transfer Protocol (SFTP) credentials fortify inbound and outbound integrations.

All web traffic is encrypted using industry-standard Secure Socket Layer (SSL) encryption. Storage area network (SAN) drives and SQL databases are encrypted, bolstering data protection.

The MiDataHub network is enclosed in a virtual private network (VPN), tightly controlled to permit only appropriate traffic. Credential details are encrypted in the MiDataHub Cockpit database.

Alert functionality in the MiDataHub Cockpit enables districts to receive email alerts, ensuring prompt awareness of user or integration setting changes.

District data integration capability requires the superintendent's electronic signature on a Data Hosting Agreement (DHA). The DHA outlines data ownership, FERPA protection, encryption, and disclosure restrictions. The DHA, along with other essential agreements, can be e-signed and tracked through the MiDataHub Portal.

Ongoing professional development ensures staff and contracted Data Hub Support Specialists (DHSSs) are well-versed in FERPA regulations and data handling best practices.

Technical solutions mitigate human error risks. The MiDataHub Single Sign-On (SSO) facilitates secure authentication, with over 92% of districts connected.

Steps Taken This Year:

A management portal is in development to securely facilitate vendor, researcher, and initiative manager access to district data.

Security Information and Event Management (SIEM) solution, facilitated by VDA Labs, provides continuous monitoring for unauthorized access.

Weekly scanning through the U.S. Cybersecurity & Infrastructure Security Agency (CISA) enhances cybersecurity.

Collaboration with the Michigan Collaboration Hub (MiCH) and VDA Labs involves drafting an operations manual documenting infrastructure and security policies.

Planned Steps for the Upcoming Year:

A Production Profile Definition Collection enhancement to the management portal will provide districts with greater data protection and visibility by restricting access based on specific data fields.

Conclusion for 2023:

The goal is being met with the MiDataHub Cockpit Application offering local control, security, and privacy. Recent enhancements, including SIEM implementation and collaboration with VDA Labs, reinforce the system's commitment to security and local control of data. The MiDataHub Single Sign-On expansion further ensures user authentication consistency across systems.

Legislative Goal 8F

UTILIZING THE INFRASTRUCTURE TO PROMOTE THE ACTIONABLE USE OF DATA THROUGH COMMON REPORTS AND DASHBOARDS THAT ARE CONSISTENT STATEWIDE.

As the data quality and availability improve through the streamlined integration of systems, the capability to use that data in an actionable manner to support teaching and learning dramatically expands. As such, the work of actionable data focuses on supporting and promoting the use and development of instructional applications that are “Powered by MiDataHub.”



The following Actionable Data initiatives have been in place prior to this year and continue:

- MiRead
- MiStrategyBank
- MICIP

The following Actionable Data initiatives were introduced during this year:

- MiPromisingPracticeExchange
- MiEWIMS
- MiEarlyChildhoodConnect

The following Actionable Data initiatives are planned for the next year:

- MiSpecialEducationResourceCenter
- The START (Statewide Autism Resource and Training Center) Data System
- MiECRollup - Michigan Early Childhood Rollup will be modeled after MiDataHub SnackPack

An Actionable Data Advisory was assembled in 2017 with curriculum and instruction, data, and educational technology leaders from across the State. During the 2021-2022 school year, the responsibility for Actionable Data transitioned to MAISA (Michigan Association of Intermediate School Administrators), with the Michigan Collaboration Hub assuming advisory responsibilities. MAISA is now working across its Professional Networks (General Education, Special Education, Early Childhood, and Educational Technology) and various projects (e.g., Early Literacy and Early Math) to coordinate and enhance Actionable Data Efforts on behalf of their membership and MiDataHub.

Work in four primary statewide priorities continues under this structure, with an enhanced focus on early childhood and special education:

- The statewide implementation of an online tool for the creation, management, and administration of Individualized Reading Intervention Plans (**MiRead**).
- The integration of **MiStrategyBank** to support best-practice student, parent, instructional, and improvement strategies in tools including but not limited to MiRead, MICIP, and MiEWIMS.
- The development and integration of the web-based-platform to support Michigan Integrated Continuous Improvement Process (**MICIP**). As anticipated in last years’ report, 100% adoption was achieved in the summer of 2022.
- The design and development, in partnership with and funded by Michigan’s MTSS Technical Assistance Team (formerly MIBLSI) of a web-based platform (**MiEWIMS**). MiEWIMS, modeled after MiRead, is a platform to support the efforts of school and district teams in decreasing dropout rates while improving on-time graduation of students at risk for dropping out of school. Based on national research and MDE’s EWIMS (Early Warning Intervention Monitoring System)

process, MiEWIMS will blend best practices from state and national partners to support district efforts and will rely solely on MiDataHub for data in the areas of Attendance, Behavior, and Grades which are proven indicators of risk and student success. MiEWIMS is currently being piloted in ten districts across Michigan.

Based on the common standards and transmission processes promoted by MiDataHub, the applications, systems, and processes that are “Powered by” MiDataHub rely on the Hubs to populate most data used by these systems.

Examples of the actionable data initiatives that are Powered by MiDataHub are detailed above in the Actionable Data Section.

Conclusion for 2023: Goal expectations are being exceeded. MiCH serves to prioritize statewide efforts toward common needs for all districts. Priorities, training, and ongoing development efforts include MiEWIMS, MiRead, MICIP, MiStrategyBank, Open Educational Resources, and Competency-Based Education.

Legislative Goal 8G

CREATING A GOVERNANCE MODEL TO FACILITATE SUSTAINABLE OPERATIONS OF THE INFRASTRUCTURE IN THE FUTURE, INCLUDING ADMINISTRATION, LEGAL AGREEMENTS, DOCUMENTATION, STAFFING, HOSTING, AND FUNDING.

The MiDataHub is actively engaged in creating a robust governance model to ensure sustainable operations in the future, encompassing administration, legal agreements, documentation, staffing, hosting, and funding.

Established Aspects:

Prior to this year, the current governance model, funded through state grant funding (Section 22m funding from CEPI to Kalamazoo RESA), has been foundational. Kalamazoo RESA, acting as the fiscal agent, employs the MiDataHub staff: Assistant Director, Support Manager, a support specialist, 2 Senior Integration Analysts, a Technical Operations Manager, and a Senior Database Analyst. Headed by the Assistant Director, our Support Manager oversees the coordination of assistance for Michigan districts, while the Tier 1 Support Specialist serves as the initial point of contact, promptly addressing district requests with professionalism.

Primary coordination and direction are provided by the MiDataHub Advisory Committee, representing the voice of districts and identifying priorities. A leadership team ensures legislative and grant requirements are met.

Work is distributed among ISDs statewide, with the Data Hub Support Specialist Operations Group comprising specialists serving over 30 ISDs, providing support for MiDataHub use.

Legal agreements, including a hosting services contract between Kalamazoo RESA and MiDataHub (as KRESA staff support the AWS cloud hosting services), as well as a revised data hosting agreement (DHA) between Kalamazoo RESA and participating districts, ensure data protection and governance.

Strategic partnerships with the Michigan Collaboration Hub (MiCH) at MAISA enhance services and logistical support. Initiatives like MiRead, developed in partnership with MiDataHub, MiCH, and the Ottawa ISD, demonstrate the value of such collaborations.

Introduced Aspects This Year:

A Data Quality/Data Governance workgroup has been established to document processes related to data management, emphasizing data quality.

An Operations Manual workgroup, leveraging MiCH and VDA Labs expertise, is documenting processes related to infrastructure, operations, and security.

The Michigan Data Hub technical and support team remains efficient and nimble with an eye on providing appropriate support.

Planned Aspects for the Upcoming Year:

The Data Quality/Data Governance workgroup will continue the development of data governance tools to enhance data management for MiDataHub and partner districts.

The transition of MiDataHub hosting to Amazon Web Services this year has streamlined operations, improving scalability, security, and cost-effectiveness. The move has facilitated greater flexibility and responsiveness to the growing needs of partner districts, enhancing overall system performance and reliability.

Conclusion for 2023:

This goal is an evolving work in progress, with continuous refinement of legal agreements, structure, staffing, and governance models. The transition to Amazon Web Services marks a significant milestone, streamlining and securing MiDataHub infrastructure, supporting long-term sustainability. The ongoing commitment to growth, innovation, and collaboration ensures the continued success of MiDataHub's governance initiatives.

Legislative Goal 8H

EVALUATING FUTURE DATA INITIATIVES AT ALL LEVELS TO DETERMINE WHETHER THE INITIATIVES CAN BE ENHANCED BY USING THE STANDARDIZED ENVIRONMENT IN THE MICHIGAN DATA HUB NETWORK.

Enhancement

The goal of evaluating future data initiatives at all levels to determine their compatibility with the standardized environment in the Michigan Data Hub network remains steadfast.

Implementing the MiDataHub infrastructure has not only provided a standardized framework for new initiatives but has revolutionized our approach to data collaboration. The platform's standards-based structure allows for seamless collaboration from districts to ISDs and State of Michigan entities like CEPI, DTMB, and MDE.

The governance structure, with representation from districts, ISDs, CEPI, and MDE on both the MiDataHub Advisory and MiCH Steering Committee, facilitates early identification and evaluation of new data needs. This collaborative approach ensures that initiatives align with MiDataHub's capabilities, offering a powerful, interoperable solution.

CEPI has adapted internal processes to evaluate requests, exploring whether collaboration with MiDataHub can enhance the delivery of requested information, especially in streamlining compliance reporting or data quality processes. The focus has shifted from merely fixing data issues during compliance reporting to proactively improving student support and district efficiencies through the data hub.

MiDataHub continues to be a valuable resource for research, with 516 districts allowing data sharing with researchers at MSU and the University of Michigan through EPIC. This collaboration supports impactful research, such as the Read by Grade 3 law study, highlighting MiDataHub's crucial role in facilitating valuable educational research.

As we reflect on the challenges posed by the 2020 pandemic, MiDataHub emerges as a pivotal asset, demonstrating its indispensability in providing integrated, actionable, and accessible data for educational entities at both individual and statewide levels.

The following initiatives have been enhanced by MiDataHub and continue:

- CEPI Services
- Educational Entity Master (EEM)
- Direct Certification
- Unique Identification Code (UIC)
- Michigan Student Data System (MSDS)
- Michigan Continuous Improvement Plan (MiCIP)
- Michigan Linked Educational Assessment Reporting Network (MiLEARN)

Newly Evaluated Initiatives:

- Michigan Virtual University data integration (concurrent enrollment)

Planned Initiatives for Evaluation & Implementation:

- Michigan Early Childhood Connect (MiECC)
 - Online application to create a county-wide system of support
 - ○ Birth-3
 - ○ Preschool
 - ○ Childcare
 - ○ Developmental Screening
 - ○ Basic Needs
 - ● Focuses on whole family support
 - ○ Wraps around the family prior to Kindergarten, one application, one system
 - ○ For example, through the MiECC you can enroll a child in GSRP and help the family access home visiting services for the new baby in the family
 - ● Coordinated eligibility and enrollment in Early Childhood
- MDE Michigan Early Childhood Rollup (MiECCRollup)
 - modeled after MiDataHub SnackPack
 - Provide districts with early childhood experience data to inform educators on newly enrolled kindergartners.
- 23g Tutoring Grant
 - MiKidsBackOnTrack initiative
 - 23g (6)(f) - By September 1 of each fiscal year for which it receives funding under this section, it pledges to provide data through MiDataHub that includes the outcomes and

performance measures of the tutoring program, including, but not limited to, the degree to which tutoring is demonstrating sufficient efficacy and impact.

- 27o Learner Wallet
 - 27o (1)(b) The provision of a real-time tracker tool to each student engaged in tutoring services. The tool described in this subdivision must be a secure, private online data management tool to store evidence of the student’s academic and skills-based achievements. The tool must be tied to the Michigan data hub system and allow for exporting and importing into the data hub.

Conclusion for 2023:

This ongoing assessment and integration of diverse initiatives underscore MiDataHub's pivotal role in enhancing data collaboration, fostering efficiency, and driving positive educational outcomes. The platform's adaptability and standardized environment position it as a key enabler for future data-driven initiatives.

Closing Summary

The MiDataHub project is exceeding expectations. With the return on legislative investment over 1000%, based only on the value of integrations, the net savings to the educational community for this year is estimated at over \$77,000,000 for school districts. Currently, this equates to \$35.00 for every dollar invested by the legislature this year. Productivity and actionable data enhancements are accelerating access to high-quality data for educators at levels that far exceed the direct ROI value.

When asking an AI Engine “What has been the impact of the Michigan Data Hub on education in Michigan?” Here is the response.

Michigan Data Hub Annual Report Highlights:

1. Enhanced Data Analytics and Reporting:

Impact: The Data Hub consolidates student and school data statewide, enabling advanced analytics.

Benefits: Identification of trends, policy interventions, and continuous improvement initiatives.

2. Targeted Intervention Programs:

Insights: Detailed reporting aids in identifying achievement gaps for at-risk student groups.

Action: Policymakers develop tailored literacy and leadership programs to support vulnerable communities.

3. Resource Equity Analyses:

Utilization: Aggregated data in the Data Hub addresses resource equity issues in historically disadvantaged schools.

Outcome: Ensures funding and programs adequately support schools that need it the most.

4. Streamlined Reporting Workload:

Efficiency: Centralized and standardized data reduce manual tracking and reporting efforts.

Savings: Saves both money and valuable administrative hours.

5. Empowered Education Technologies:

Leverage: Ed-tech applications utilize Data Hub resources for personalized learning, assessments, and innovative programs.

Progress: Michigan stands out nationally for effectively using education data analytics to improve student outcomes.

Final Note: Michigan's commitment to data privacy and transparency is upheld, positioning the state as a national leader in leveraging education data for student success. Continued state agency support, direct teacher involvement, and ethical oversight ensure the Michigan Data Hub remains an invaluable return on investment both fiscally and in the lives of Michigan students.