

Foundations of Educational Data Management: Outcomes and Data Quality

MPAAA Spring 2025



MICHIGAN DataHub

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Kicking Things Off with Thanks!



Objective of the SED Certification Courses

- Understand student state reporting within Michigan DataHub's ecosystem.
- Use MiDataHub tools to manage, validate, and submit data efficiently.
- Improve data accuracy to support compliance, funding, and data-informed decision-making.
- Apply best practices for integrating systems and leveraging MiDataHub reports.
- Prepare for utilizing data to improve district operations.



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Agenda

Our goal is to build capacity by providing you with the skills, knowledge and resources to become competent in finding and using your district's data in MiDataHub.

- Define Michigan DataHub and basic navigation
- Highlight the benefits MiDataHub's Operational Data Store (ODS)
- The MSDS Process in MiDataHub
- Student Data and Reports
- Additional MSDS tools and features
- CEPI Services



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MiDataHub - www.midatahub.org

Michigan Data Hub (MiDataHub) is a collaborative, statewide initiative designed to streamline the management and utilization of educational data across Michigan's school districts.

The Hub is an ecosystem where information is exchanged between the numerous disconnected data systems used by schools.



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MiDataHub - www.midatahub.org

MiDataHub aims to enhance data quality, promote local control, and reduce operational costs for districts.

[2024 ROI](#)

ROI Study/Survey

The Michigan DataHub periodically conducts a Return on Investment (ROI) and Cost Savings Study to assess its impact on public schools districts across the State of Michigan. This study serves as a benchmark goal for MiDataHub, driving efforts to surpass projected savings by eliminating duplicate integrations, connecting currently disjointed systems, streamlining state reporting processes, and supporting legislative initiatives.

[Michigan DataHub ROI 2.0 Webinar](#)



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Michigan DataHub Newsletter

Subscribe to the MiDataHub Newsletter

www.midatahub.org



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Michigan DataHub Vocabulary

- [LaunchPad](#) - SSO landing page
- The Cockpit - the platform
- The ODS (Operational Data Store) or DS (Data Store) - the data
- The Hub - short speak for your district's cockpit
- Extracts - various reports that can be generated from the Cockpit

The screenshot displays the Michigan DataHub Management Portal. The top navigation bar includes 'Agreements', 'Inventory', 'Reports', 'Utilities', 'MSDS', and 'Features'. The main content area is titled 'Manage District: MSDS Demo District' and contains the following information:

- Region: Michigan Data Hub
- ISO/Intermediate District Code: Anonymized Districts
- District: MSDS Demo District, Id: 1043, Code: 900058
- District Type: LEA
- Address: . . .
- URL: . . .
- Current School Year: 2023-2024 (populated)
- SFTP Password: [input field]
- Integration Server: HUB-ETL306
- District Status: Active

Below this information are 'Submit' and 'Cancel' buttons. The 'Manage Authorizations' section includes a 'New Authorization' button and a table with columns for Name, Email, and Authorizations. The table is divided into three sections: Inbound Integrations (with 'Add Integration' link), Outbound Integrations (with 'Add Integration' link), and API Integrations (with 'Alert/Notification: Test System 101 - Alert 1' and 'Add Integration' link).

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MiDataHub Cockpit Access

www.midatahub.org

Log In | MiLaunchPad

[Request List of MiDataHub Authorized Users](#)

Complete the above form and we will email you a list of MiDataHub Authorized Users in your district with access to add you as an authorized user to your district's Cockpit.



Authorizations & Roles

Documentation for [Authorized User Roles in MiDataHub](#)

Manage Authorizations

[New Authorization](#)

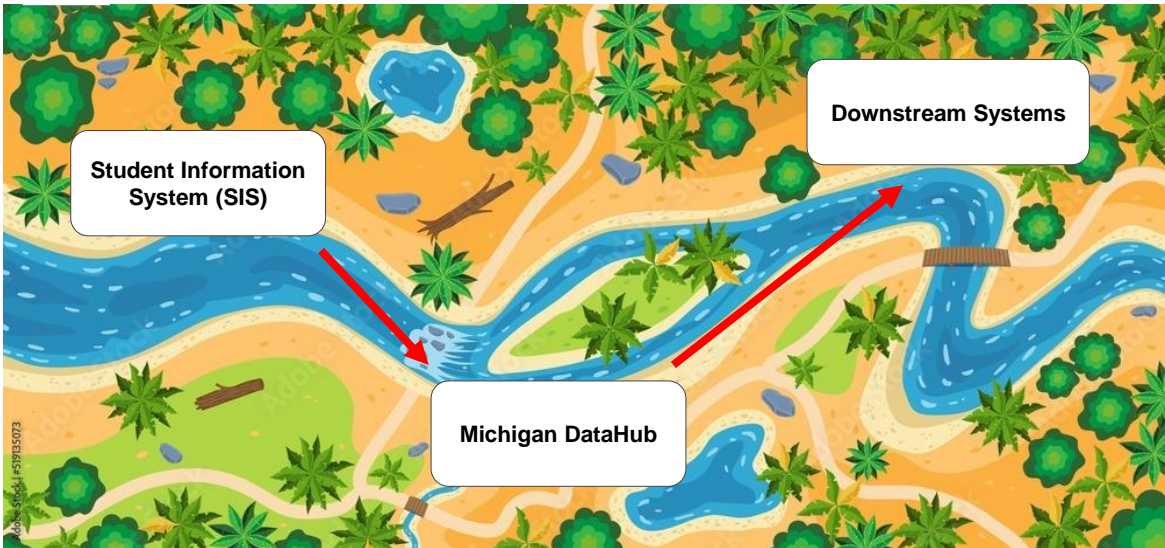
Name	Email	Authorizations	Actions
Dirk Bradley	dirk.bradley@kresa.org	Technical Contact District Superintendent Proxy	Edit
Kevin Bullard	kevin.bullard@kresa.org	District Superintendent	Edit
Demo Teacher	dteacher@miread.org	Data Steward	Edit Delete
Demo Principal	dprincipal@miread.org	Data Steward	Edit Delete
Matt Ayotte	AyotteM1@michigan.gov	Technical Contact	Edit Delete
Laura Cab	lcaballero@michit.org	Technical Contact	Edit Delete
Tony Howard	thoward@michit.org	Data Hub Support Specialist	Edit

Integrations

Michigan DataHub - turning data schools have into information schools use

Inbound Integrations (show all)	Outbound Integrations (show all)	API Integrations (show all)
<ul style="list-style-type: none"> Assessment System: Measures for Academic Progress [MAP] Distributed 2 (current) Add Integration 	<ul style="list-style-type: none"> State-Sourced System: Assessment Importer 1: Request Assessment for Students without Assessments (current) External System: MiLEARN 1: MiLEARN-Authorizations Data (current) External System: MiLEARN 1: MiLEARN-Sections Data (current) External System: MiLEARN 1: MiLEARN-Sections Data (previous) Add Integration 	<ul style="list-style-type: none"> Data Warehouse: Eidex Insights 1 Student Information System: PowerSchool 1 Educational Analytics: Read by Grade 3 Research 1 Data Warehouse: EVAAS 1 State-Sourced System: EEM 1 State-Sourced System: Assessment Importer 1 Behavior Tracking System: BHWorks 1 Assessment System: Delta Math 1 Student Information System: Other Student Information System 1 Educational Analytics: Extended Benchmark Studies 1 Data Warehouse: Munetrix 1 Add Integration

Tools and Tips for Bridging Data



MiDataHub Product Catalog


Navigate to

www.midatahub.org

Click on Product Catalog

Product Catalog

Keyword(s)

Integration Status (1) 

Building (Developing)

Pilot (Testing)

Production

Product/Initiative (Any) 

System (Any) 

Integration Type (Any) 

UPDATE

RESET



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Ed-Fi Alliance and CEDS

- Ed-Fi Common Data Standard
- CEDS - common vocabulary for education data



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Transactional Data

- Demographic Data
- Enrollment Data
- Attendance Data
- Academic Performance
- Assessment Data
- Behavioral Data
- Special Education Data
- Program Participation
- Extracurricular Activities
- Parent/Guardian Information
- And MORE

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MiDataHub Operational Data Store

- Real-time (or near to it) through Transactional Processing
- Integrated Data from Multiple Sources
- Low-latency Data Access
- Feeds Downstream Systems
- Short-term Data Storage
- Data Cleansing and Transformation



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Assessments from Statewide to Schoolwide



Benchmark Assessments

- Acadience
- DRC
 - Smarter Balanced
 - Early Literacy and Mathematics
- i-Ready
- NWEA
- Renaissance STAR

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Michigan State Assessment Service

- Automates transfer of state assessment data to MiDataHub
- Weekly updates include newly enrolled students
- Enables dashboards, exports, and other district tools
- Supports timely, data-informed decisions



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What is MiLearn?

State Assessment Reports Delivered via Your SIS

- Provides M-STEP, PSAT 8, SAT, MI-Access, and WIDA results (up to 3 years)
- Accessible to students, parents, and educators directly in the SIS
- Real-time updates through MiDataHub reflect enrollment and roster changes
- No extra logins – click “State Assessment Data” in the SIS
- Supports meaningful conversations about student progress

Questions? Contact Tim Davis at DavisT54@michigan.gov

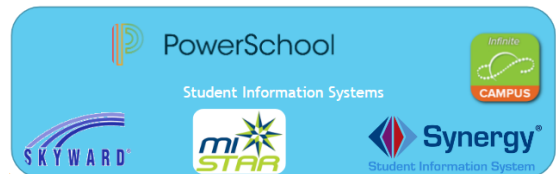


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MiDataHub & CEPI Collaboration

- The Michigan DataHub collaborates with CEPI, school districts, and SIS vendors to support student data collection compliance.
- Features include data quality alerts, an error checker, MSDS reports, and XML extracts aligned with CEPI schemas.
- These partnerships streamline data integration and enhance reporting and data verification between MiDataHub, SIS, and MSDS.



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MSDS Features in MiDataHub Give Districts Opportunities to

- View MSDS errors in near real-time
- Voluntary for most folks
- An additional view of student data
- Some pupil accounting reports
- Reports built on CEPI's MSDS Reports
- Weekly Workgroup Meeting / Workshop



<http://bit.ly/3EmdlL0>



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Skyward Qmlativ

- Qmlativ districts create XML extracts in Michigan DataHub for the MSDS Collections
- Twenty districts during 2024-2025 school year



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MiDataHub MSDS / Student State Reporting Workgroup

- Stakeholders: District Experts, CEPI, SIS Vendors, and MiDataHub Team
- Formal meeting every 2nd and 4th Tuesday each month
- Other Tuesdays are an opportunity for training, collaboration, and questions



MiDataHub MSDS Status

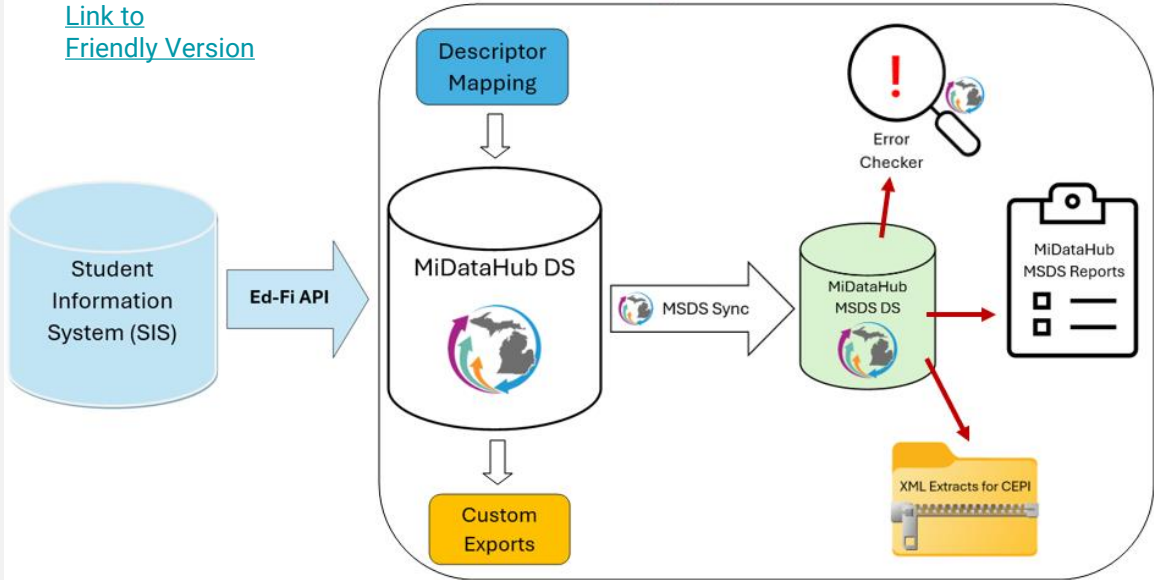
MSDS Sync Status for the 2024-2025 school year

	Fall Gen Coll	Spring Gen Coll as of 1/20/2025	Spring Gen Coll as of 3/1/2025
Successful	71	87	96
Not Ran	83	70	74
Failed	56	65	56
Total	210	222	226





[Link to Friendly Version](#)



MiDataHub Student State Reporting Manual

[Link](#)

Michigan DataHub

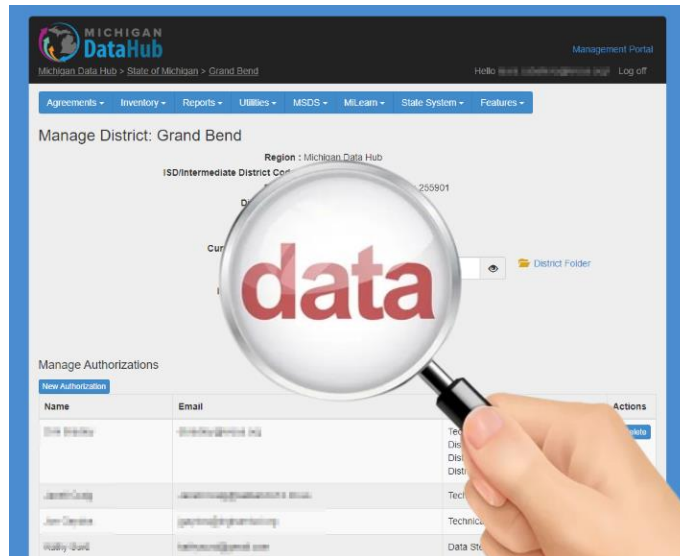
Student State Reporting
User Manual

Version 1.6
Updated February 2025

[Link](#)



Data Visibility



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Custom Exports in MiDataHub

Custom Exports allow access to various student data tables within MiDataHub through custom SQL queries.

Navigate to Reports > View Custom Exports

1. Select Query Tag Dropdown:

This dropdown contains a list of tags associated with various reports. You can think of each tag as a folder that holds a group of related reports, also known as an Export Set.

2. Add a New Export Set:

To create a new Export Set and add it to the Export Set grid, select a tag from the **Select Query Tag** dropdown then click the **Create Export Set** button.



3. Export Set Creation:

Clicking this will open the Export screen and create the Export Set. Once there, click **Save** at the bottom of the screen

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Custom Exports in MiDataHub, continued

4. Return to the Export Manager Screen:

After saving, the system will return to the Export Manager screen, where you'll see the name of the newly created Export Set

5. Access the Export Set:

In the Export Set Name column on the left, click on the Export Set name

Export Manager	
Manage Export Sets	
Export Set Name	Date Created
23g MiKidsBackOnTrack	09/05/2024 05:53 PM
Assessments	
Attendance	
Behavior	10/04/2024 02:36 PM
Mode of Instruction	10/04/2024 12:08 PM

Click on the Export Set Name to open the set of reports in that folder.

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View Reports and Actions

On the right side of the screen, under the Actions column, you'll see options for each report

Actions
Delete Download File for 2022-2023 Preview Results

Link to documentation for [Custom Exports in Michigan DataHub](#)



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Update Export Sets as Needed

Export Manager

Manage Export Sets

Select ODS Year:

2022-2023

Export Set Name	Date Created	Last Submitted	Actions
23g Cohort Student Counts	06/08/2024 08:46 PM		Delete Download File for 2022-2023
Assessments	08/10/2023 12:46 PM		Delete Download File for 2022-2023
Attendance	02/23/2023 10:04 AM		Delete Download File for 2022-2023
Behavior	10/13/2021 03:03 PM		Delete Download File for 2022-2023



CEPI Services

CEPI Services are made available through MiDataHub in collaboration with the primary Student Information Systems:

- Infinite Campus
- MISTAR-Q
- PowerSchool
- Skyward
- Synergy

Navigate to www.midatahub.org

Click on Product Catalog

Keyword(s) = CEPI

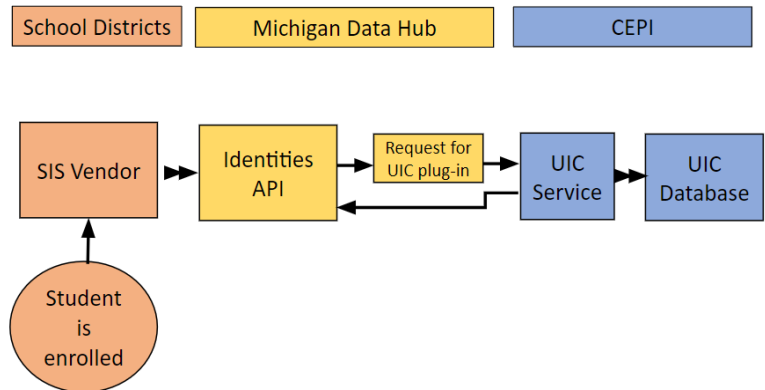


UIC Services

Allows users to do automated UIC searches, resolution, linking, and UIC requests.

How It Works

1. SIS sends student core data and whether or not to auto-create a UIC if none found (permission-based)
2. Identity API formats the request and sends to plug-in
3. Request for UIC plug-in calls the appropriate service to send to CEPI
4. CEPI UIC Service – returns an exact match, potential matches, or a new UIC (if auto-create parameter exists)
5. Identity API returns the results to the SIS



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Snack-Pack

Portable Student Records Service (Snack-Pack) student record service offers essential student data to efficiently onboard newly enrolled students, enabling educational staff to ensure timely support.

- As of Date
- Attendance (Days Attended / Total Possible)
- CEP School
- District Exit Status (Entry Type / Exit Withdrawal Type)
- Economically Disadvantaged
- EL Instructional Program
- English Learner Eligible
- Foster Care Eligible
- Grade
- Homeless Eligible
- Migrant Eligible
- Previous School District (code)
- Program Participations
- Special Ed IEP/Plan Date
- Special Ed Primary Disability
- Special Ed Program Service
- District Exit Date
- Early Childhood Program*
- EL Exit Date (District)
- EL Exit Date (State)
- EL Home Language
- EL Primary Language
- End of Term Status*
- General Ed FTE
- Previous School District (name)
- Reading Deficiency Identified
- Special Ed Exit Date
- Special Ed Section 52 FTE
- Special Ed Section 53 FTE
- Total Days Removed (Discipline)

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Automating Direct Certification in SIS

Benefits:

- Real-time determination of free/reduced meal eligibility
- Eliminates manual file imports and data handling
- Enhances data security and integration with SIS & food service systems
- Immediate eligibility assessment upon enrollment

Key Considerations:

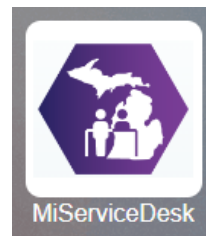
- Auto-retrieval of Direct Certification (DC) status via MiDataHub upon UIC match
- SIS permissions and role-based access
- Staff notifications via scheduled reports, alerts, or email
- Replace manual imports—automate with MiDataHub connection

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Activate MiDataHub MSDS Features

[Help Desk Ticket](#)



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The Vocab

- Student Data
 - Fields - SIS
 - Elements - SIS and MiDataHub
 - Properties - SIS and MiDataHub
 - Characteristics - MSDS
- API - Application Programming Interface. An API is the basis of interoperability, allowing other programs to receive data (GET), write data (POST), update data (PUT) and remove data (DELETE) from or to the Michigan Data Hub in a secure manner. It is the most flexible of all integration types and can be put into place very quickly with just a few pieces of information.
- Ed-Fi - The Ed-Fi Alliance (www.ed-fi.org) is a non-profit funded by the Michael and Susan Dell Foundation out of Austin, TX. The Ed-Fi Alliance produces a free, open, standards-based toolset which is leveraged by the Michigan Data Hub.
- EEM – Educational Entity Master. This is the official CEPI database of all of the school entities in Michigan such as districts, buildings, and programs, along with numerous details about each.
- Michigan Data Hub – Represents the overall interoperability initiative as well as a collective representation for MiDataHub.
- ODS – Operational Data Store. The database where district data is housed. Each district has an ODS with their own data for each school year. All integrations and interoperability are provided for a district from their ODS.
- XML – eXtensible Markup Language. A very flexible, and generic data format. It can describe data in a very comprehensive manner. Format used for MSDS Student Data Uploads.

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