

Center for Educational Performance and Information (CEPI)

Michigan Student Data System (MSDS)

New User Orientation

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Questions?

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Introduction

Since the Michigan Student Data System (MSDS) launched in December of 2008, the Center for Educational Performance and Information (CEPI) has received a number of calls from users saying, “I’ve been assigned to do our MSDS submission, and the person who used to do it left the district. Help me!”

If this sounds familiar—if you’re new to the MSDS and feeling utterly overwhelmed—then this is the manual for you. The MSDS New User Orientation is designed to be an introduction to MSDS, to help new users understand the basics of what the system does and how it works. Think of it as MSDS 101.

The MSDS is a Web-based application used to securely collect student data for the state of Michigan. Schools and districts use the MSDS to report K-12 enrollment, early childhood enrollment, supplemental nutrition eligibility information, Special Education information and more. In the 2009-2010 school year, district users submitted over six million student records. Intermediate school district (ISD) auditors use the MSDS to audit district full-time equivalency (FTE) information.

CEPI and the Michigan Department of Education (MDE) report the data submitted in MSDS to a number of different state and federal agencies, as well as using them for funding purposes, graduation/dropout rate reporting, adequate yearly progress (AYP) determination and more. All information collected in MSDS is mandated by state and/or federal law. Please refer to the MSDS Data Use Matrix on our “How Your Data Are Used” Web page at <http://www.michigan.gov/cepi/0,1607,7-113--252460--,00.html> for further information.

MSDS is one of several applications supported by CEPI, the state agency responsible for collecting and reporting information from Michigan schools. You can learn more about CEPI and our mission at <http://www.mi.gov/cepi/>.

This guide will not make you an expert, and is not a substitute for the user guides and manuals posted on our website. However, it should serve as a starting point for understanding the MSDS, helping you to understand how the system works and what your first steps should be as a new MSDS user. It will also include links and guidance to help you find more information when you need it.

Security

In order to become an authorized user of any CEPI application, the first step is to complete and submit a security form for that application. You will need to sign the form yourself, as the authorized user. The lead administrator of your entity as listed in the Educational Entity Master (EEM) needs to sign it as well. If you are the lead administrator, you will sign the form twice, once as the user and once as the lead administrator.

All forms are available on the CEPI website at <http://www.mi.gov/cepi>. Click the “CEPI Applications” button on the left, then click the link for the application you need access to. In this case, click “Michigan Student Data System.”

Local education entity, public school academy and ISD users should click the link for “MSDS Security Agreement” in the “Security” box. Nonpublic school users will need the “Nonpublic Schools Security Agreement” link in the same box. Institute of higher education users will need a different form, which is posted at http://www.michigan.gov/documents/cepi/IHE_MSDS_security_form_451721_7.doc.

Each form contains instructions for creating a Single Sign-On (SSO) account if you do not already have one. Please note that users should never need more than one SSO account. As a new MSDS user, you will also need to subscribe to the MSDS application before faxing your signed security form to CEPI.

Common Questions:

Q: I subscribed to the MSDS, and later I received an email message stating that my subscription request had expired. What happened?

A: You must also fax your security form to CEPI. If you do not, your subscription request will automatically expire after thirty days.

Q: How long does it take to process a security form?

A: CEPI asks for two to three business days. You will be notified by email once your form has been processed, or if for any reason we are unable to process your form.

Q: What if I need to change my access?

A: Please complete and submit a new MSDS security form, and CEPI customer support will update your access in MSDS accordingly.

Q: Can we have more than one MSDS authorized user?

A: CEPI recommends that at least two users be given access to the MSDS so that if one user is unavailable, another person can still access the system. In addition, there may be people who require access only to a specific part of the MSDS (e.g., a food services person might need access to the Supplemental Nutrition role).

Data Submission: An Overview

Data in MSDS are submitted in collections. Users can either upload an XML file with their data or manually add individual student records to a collection. Most districts use a student information system (SIS) to prepare their data and export an XML file for upload.

Below is a screenshot of the Data Staging Area, where different collections are listed. Click “Student Data Submission,” then “Data Staging Area.” Enter your Submitting Entity Code. You may specify a collection as well, or you can leave that dropdown blank. The certification status dropdown is also optional. Click the Filter button to see your results.

Collection	Submitting Entity	Students	Certification Status	Last Certified	Collection Open?	Certification Available?
Early Childhood 2010-2011	Holt Public Schools (33070)	36	Certified - Ongoing	12/7/2010 4:22:12 PM	Yes	No
Early Roster Collection	Holt Public Schools (33070)	6369	Certification not Required		Yes	No
EOY 2010 General Collection 2009-2010	Holt Public Schools (33070)	5874	Certified	7/14/2010 10:20:33 PM	No	No
Fall 2009 General Collection 2009-2010	Holt Public Schools (33070)	6283	Certified	11/18/2009 3:54:10 PM	No	No
Fall 2010 General Collection 2010-2011	Holt Public Schools (33070)	6268	Certified	11/16/2010 2:45:39 PM	No	No
QEAA Request for UIC Collection	Holt Public Schools (33070)	3	Certification not Required		Yes	No
Request for UIC	Holt Public Schools	121	Certification not Required		Yes	No

Each collection has its own rules and guidelines, which are explained in more detail on the MSDS Web page at http://www.michigan.gov/cepi/0,1607,7-113-986_50502---,00.html. The “MSDS Data Collections” section includes links to more information for each collection, including business rules, the XML schema and a sample XML file for that collection. On the same page you will also find the Collection Component Matrix, which lists the individual data components and shows which are required, optional or conditional for each collection.

“Ongoing” collections such as Student Record Maintenance are available year-round. Other collections, such as the General Collections, are open only for a specified window of time. A timeline of collection dates for the current school year is available on the MSDS Web page.

Most collections include a certification date or deadline. Certification is the final step in the data submission process. *Until you certify a collection, you have not submitted your data to CEPI.* Early Roster and Request for UIC are exceptions, and do not require certification.

For ongoing collections, once you certify the collection, all records in that collection will switch to view-only mode (so that you can refer back to see what you submitted). You can continue to add new records to an ongoing collection and certify again as often as necessary. For other (not ongoing) collections, you have the option to decertify and reopen the collection to make changes as needed so long as you do so before the certification deadline.

The MSDS District User Training Manual at http://www.michigan.gov/documents/cepi/MSDS_District_User_Training_Manual_298669_7.pdf includes detailed information on how to submit data in MSDS. Module 2, Units 1 and 2, explain how to upload an XML file and check the status of your submitted file. Unit 3 explains how to use the Staging Area, and how to manually add student records using the “Add Direct” and “Search/Add” buttons in the Staging Area details.

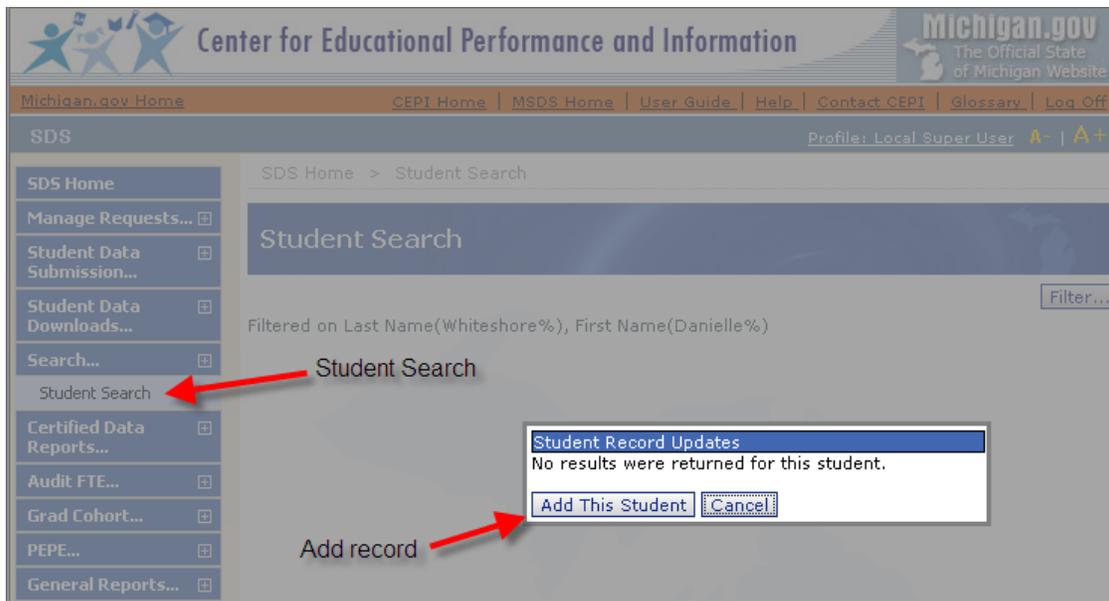
UICs and UIC Resolution

The MSDS assigns every student in the system a 10-digit Unique Identification Code (UIC). The UIC is a required field for most collections, meaning that you will need to have UICs for all of your students *before* submitting your data.

Requesting UICs:

UICs are created using the Request for UIC Collection. There are several ways to do this.

1. Use the Student Search option to search for your student. If no results are found, you will be asked whether you want to Add this Student.



Click the “Add This Student” button. On the next screen, choose “Request for UIC” from the Collection dropdown window, enter the rest of the student’s information, and submit the student.

You can also open up your Request for UIC Collection and use the “Add Direct” and “Search/Add” buttons to add a record.

2. Upload an XML file with multiple student records into the Request for UIC Collection. This process works the same as with any other collection.

Resolving UICs:

When you add records to the Request for UIC Collection, the MSDS compares the core fields (first name, last name, date of birth) to all student records in MSDS. If it finds a match, the system assigns the preexisting UIC. If it does not find any close matches, the system automatically generates a new UIC.

If a submitted record is similar to one or more student records in MSDS, then the submitted record goes into “Requires Resolution” status. This means you will need to resolve the record to determine whether the possible match record is in fact your student.

The screenshot shows a web interface for managing UIC collections. At the top, a dropdown menu is set to 'Request for UIC Collection'. Below this, there are two main sections: 'Validation Status' and 'UIC Resolution Status'. Each section has a list of categories and their counts, along with 'Run Report' buttons. The 'Validation Status' section shows 'Error Free with No Warnings' with a count of 1. The 'UIC Resolution Status' section shows 'Requires New UIC Not Allowed for Collection' with a count of 0. At the bottom, there is a table with columns for 'Select', 'School Facility #', 'User Notes', 'UIC', 'Last Name', 'First Name', 'Gender', 'Date of Birth', 'Validation Status', and 'Resolution Status'. A red arrow points to the 'Requires Resolution' link in the 'Resolution Status' column of the first row.

Validation Status	Count
Errors Exist	0
Error Free with Warnings	0
Error Free with No Warnings	1
Pending Validation	0
Processing Validation	0
Validation Failed	0

UIC Resolution Status	Count
Match Found	0
Used Previous Resolution Result	0
New UIC Generated	0
New UIC Requested	0
Not Eligible for Resolution	0
Pending Resolution	0
Processing Resolution	0
Requires New UIC Not Allowed for Collection	0
UIC Request Denied	0
UIC Resolution Failed	0
No Match	0

Select	School Facility #	User Notes	UIC	Last Name	First Name	Gender	Date of Birth	Validation Status	Resolution Status
<input type="checkbox"/>				Dragonslayer	Jig	F	01/01/2004	Error Free with No Warnings	Requires Resolution

You need to go into the Data Staging Area and open up your Request for UIC Collection. Click the “Requires Resolution” link for your student. This will open up the UIC Resolution screen.

The MSDS performs UIC resolution on *all* submitted records, so you may occasionally find records that require resolution in other collections. Simply follow the same steps to resolve the UIC and either confirm the correct UIC or request a new UIC for your student.

Please note that if you request a new UIC during the UIC Resolution process, CEPI must review and approve that request. This process may take two to three business days. You can check the status of your request with the “Manage Requests” button on the left side of your screen.

Most students should already have UICs unless they are new to the Michigan public school system. When requesting a new UIC, please include a comment explaining why this student does not have a UIC already (new preschool/kindergarten student, new student to Michigan, student was previously in a nonpublic or home school setting, etc.)

Please refer to Unit 4 of the MSDS District User Training Manual at http://www.michigan.gov/documents/cepi/MSDS_District_User_Training_Manual_298669_7.pdf for further information on the UIC resolution process.

Common Questions:

Q: I'm trying to add a student to my Request for UIC Collection using Student Search. No results are found, but I keep getting an error message that the record already exists. What's going on?

A: You have already added this student to your Request for UIC Collection. The record is probably in Requires Resolution status. Please go into your Request for UIC Collection and resolve the record.

Q: What happens if I accidentally create a UIC for a student who already had one?

A: You will need to submit a linking request in MSDS. This process links both UICs, allowing the system to recognize them as a single student record. Please see Unit 6 of the MSDS District User Training Manual for further information on submitting linking requests.

Q: I'm trying to request UICs for a set of twins. The first twin has a UIC, but MSDS keeps assigning the same UIC to the second twin. What do I do?

A: The two records are similar enough that MSDS thinks they are the same student. Once you have added both records to the Request for UIC Collection, click the "Match Found" link to the right of the second twin's name. You will be asked if you want to override resolution. Click "Yes," which will open up the UIC Resolution screen and allow you to request a new UIC for the second twin.

Downloading Your Data

While it is not required, CEPI recommends you download and save a copy of your certified data for each collection. Older collections are eventually removed from the system, which means you will not be able to review your old submissions on the MSDS.

You can download your submitted data from the Data Staging Area in MSDS. See **Data Submission: An Overview** in this manual for instructions on opening up the staging area for your entity. All collections with one or more records should have a “Download” link.

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MSDS | Profile: System Administrator

Staging Area

Your search yielded 16 result(s).

* = Required

Select your filter criteria...

Submitting Entity: Holt Public Schools (33070) [Add New Collection]

Collection: Select school year/collection

Certification Status: Select One [Filter] [Clear]

Collection	Submitting Entity	Students	Certification Status	Last Certified	Download
BAA Request for UIC Collection	Holt Public Schools (33070)	2	Certification not Required		Download
Early Childhood 2010-2011	Holt Public Schools (33070)	72	Certified - Ongoing	7/6/2011 8:36:03 AM	Download
Early Childhood Fall 2011-2012	Holt Public Schools (33070)		Pending Certification		
Early Roster Collection	Holt Public Schools (33070)		Certification not Required		Download
FOY 2011 General Collection	Holt Public Schools (33070)	5890	Certified	7/11/2011 8:06:52 PM	Download

Click “Download” for the collection you want to save. You may need to specify whether you want staging (uncertified) or certified data, or that option may be preselected. Click the “Start Download” button.

Download Dataset

Only certified data is available for download.

Submitting Entity: Holt Public Schools (33070)

Data Location: Staging Certified

Collection: FOY 2011 General Collection 2010-2011

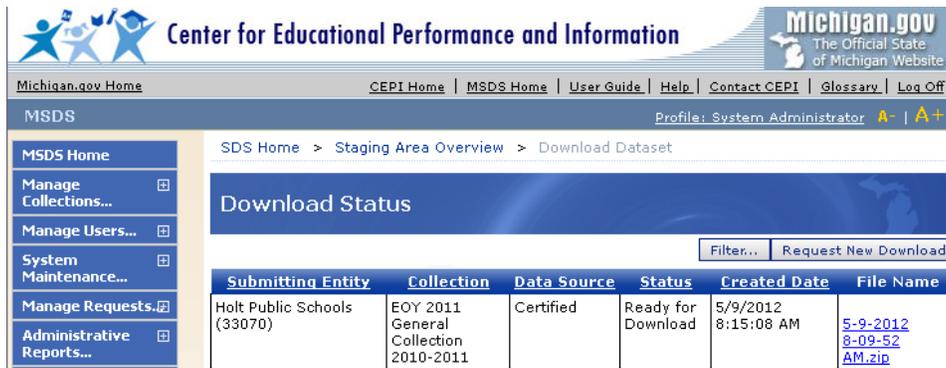
*Format: XML

[Start Download] [Close]

You will see a pop-up message that your file is being created. Click “To Downloads” to go to your downloads page in MSDS.



The downloads page will show you all of the files/collections you’ve saved for downloading. You can return to this page at any time by clicking the “Student Data Downloads” button on the left, then clicking “Download Status.” The rightmost column shows the file name. Once the file is ready, this will become a link you can click on to open or download your file. (If the file name is not a link, you may need to refresh the page by pressing F5 or clicking your browser’s refresh button.)



Files are saved in .zip format. You can use WinZip or another software program to unzip the file and access your data.

Common Questions:

Q: Can I download a file and upload it again for the next collection?

A: Each collection has its own schema, which is posted on the MSDS Web page. If you download a file for the Fall 2012 General Collection, you could not upload that same file for the Spring 2013 General Collection unless you manually updated the XML code to match the new schema. The exception is the Early Roster Collection, which uses the same schema for 2012-2013 as the Early Roster Collection from 2011-2012.

XML

The MSDS uses XML format both for file uploads and for downloads of data from a collection (using the “Download” link in the Data Staging Area).

In most cases, CEPI does not recommend trying to manually create your own XML file for upload. Simply entering data in Excel or Access and using the “Save As” function to convert your file to XML format will not produce a valid XML file which conforms to the MSDS schema requirements.

XML works using “tags” to mark data. Looking at an XML file, you might see something like:

```
<SubmittingEntity>
  <SubmittingEntityTypeCode>D</SubmittingEntityTypeCode>
  <SubmittingEntityCode>21000</SubmittingEntityCode>
</SubmittingEntity>
<PersonalCore>
  <LastName>DRAGONSLAYER</LastName>
  <FirstName>JIG</FirstName>
  <DateOfBirth>2004-11-6</DateOfBirth>
  <MultipleBirthOrder>1</MultipleBirthOrder>
  <Gender>M</Gender>
</PersonalCore>
```

Individual MSDS fields are nested within component fields. For example, the SubmittingEntity component includes fields for SubmittingEntityTypeCode and SubmittingEntityCode.

If you upload a file with invalid XML code into MSDS, that file will fail. Examples of bad XML include empty tags such as <UIC></UIC>, or files that do not conform to the posted XML schema. Your local student information system should produce valid XML files. You can also refer to the XML Validation Guide document posted on the MSDS Web page at http://www.michigan.gov/documents/cepi/XML_validation_guide_357832_7.pdf.

Many computers are set to open XML files using Internet Explorer. When you download and try to open your file, you may find it opening in Internet Explorer and producing a file which is difficult to read or understand. You can also open XML files using most current versions of Microsoft Excel. CEPI recommends saving the XML file to your computer, then right-clicking on the file and using the “Open With” option to open the file with Excel or another spreadsheet program. Or you could open Microsoft Excel and then use the File → Open option to browse to the XML file and open it.

CEPI also provides an XML to Access application tool on the MSDS Web page that will allow you to open an XML file and convert it into a Microsoft Access database. Please note that this is a beta application, and CEPI cannot provide user support for this application.

Common Questions:

Q: I checked my uploaded file status. What does “element is invalid - The value ‘Robert(Bob)’ is invalid according to its datatype” mean?

A: The XML schema specifies the kind of information that can and cannot be included in each field. In this case, you included illegal characters (parentheses) in the FirstName field. You will need to correct this, and if you are using a student information system, you should contact your vendor to let them know their software is allowing invalid characters in that field.

BAA and MSDS

The Bureau of Assessment and Accountability (BAA) at MDE uses the MSDS to pull information for student assessments. The BAA Request for UIC Collection is used to validate UICs and match records between the BAA Secure Site and MSDS. During certain correction windows, users can submit records in the Student Record Maintenance Collection in MSDS in order to update demographic information in the BAA Secure Site.

BAA Request for UIC Collection

BAA uses student UICs to uniquely identify students and match records between the BAA Secure Site and the MSDS. This allows for consistent reporting and gives BAA the ability to track student assessment performance over time.

Sometimes the BAA Secure Site is unable to assign a UIC based on a match of last name, first name, date of birth and gender. Students unmatched by BAA are submitted to the MSDS application in a BAA Request for UIC Collection.

As a UIC resolver for your district, you will be notified when BAA submits student records in this collection. You will need to log in to the MSDS application to check the status of these records and perform any required resolution. (See the **UIC and UIC Resolution** section of this manual for more information on the UIC resolution process.)

Updating Demographic Information

BAA populates the Students Expected to Test Report and the Tested Roster using information from the MSDS. Corrections to student demographic, enrollment and exit information can be made during a correction window in the Student Record Maintenance Collection. BAA and CEPI will send communications to users and to the MSDS Listserv letting users know about correction windows and deadlines. These communications will include both the certification deadline and the As Of Date range that must be used in order for BAA to pull the data.

Questions about the MSDS or submitting records in the SRM Collection should be directed to CEPI. Questions about BAA and the BAA Secure Site should go to baa@michigan.gov or 877-560-8378.

MSDS Web Page

If you go to <http://www.mi.gov/cepi> you will see a button on the left for CEPI Applications. Click this button, and then click the “Michigan Student Data System” link directly below the button. This will bring you to the MSDS Web page, which includes training material, user manuals, FAQs and much more.

MSDS Collection Component Matrix: Clicking the collection component matrix link will open up a new Web page with a table listing all collections and components in MSDS. Components are listed as required (R), conditional (C) or optional (O). If a cell is blank, then you do not report the component in that collection.

Clicking a component name will open up an Excel spreadsheet with field-level definitions as well as the validation rules for that component.

Components	Collections							
	General Collection			Request for UIC	Early Childhood	Early Roster (2011)	Teacher Student Data Link	Student Record Maint.
	Fall	Spring	EOY					
Adult Education v1.3	C	C	C					C
Advanced Accelerated v1.0	O	O	O					O
Attendance v1.1	C	C	C					C
Discipline v1.4	C	C	C					C
Early Childhood Programs v1.3					R			
Early Childhood Special Education Assessment v1.2	O	O	O					O
Enrollment v1.4	R	R	R	O				R
General Education FTE^a v1.3	O	O	O					O
Homeless Demographics v1.0	C	C	C		C			C
Initial IEP v1.4	O	O	O					O
LEP v1.3	O	O	O		O			O
Membership v1.3	R	R	R					R
Migrant Curriculum Courses v1.4								O
OEAA Assessment v1.0						O		
Personal Core v1.0	R	R	R	R	R	R	R	R
Personal Curriculum v1.0	C	C	C					C
Personal Demographics v1.1	R	R	R	O	R	O		R

MSDS Data Collections: From the MSDS Web page, you can click the name of a collection to open a page with further information about that collection, including dates and deadlines, as well as technical resources such as the XML schema and a sample XML file for that collection.

Training Tools: The training tools links provide basic training and information about the MSDS.

Security: The security section includes the MSDS security form for both districts and nonpublic schools, along with the Single Sign-On (SSO) User’s Guide.

Resources: This section of the MSDS Web page includes resources for understanding and using the MSDS. The MSDS Collection Details Manual is a detailed manual with information and definitions for all fields and components in MSDS. Other resources include an XML to Access application, collection dates, a Student Information System Vendor List and more.

Other Resources

Reports - The MSDS includes a number of reports to assist you with the data submission process. Staging Reports are available in the Staging Area Details page for a collection, and will help you review your uncertified data. Once you certify, you would click the “Certified Data Reports” button on the left side of the screen to review the various reports on your certified collection. CEPI strongly suggests reviewing these reports to ensure that your submitted data match what you expected. Please refer to the MSDS Reports List at http://www.michigan.gov/documents/cepi/MSDS_reports_380930_7.xls for detailed information on the individual reports.

MSDS Email Updates

If you are an authorized user of any of CEPI's data collection applications (E-TRANSCRIPT, FID, MSDS, REP, SID or STARR) with a secure login, you will automatically receive official notices from CEPI and don't need to sign up for our GovDelivery mailing lists.

If you are NOT an authorized user but want to receive official notices, [subscribe to our GovDelivery mailing lists](#). (Use the same [GovDelivery](#) link if you're already a subscriber and want to change your preferences or user profile.)

MSDS and REP discussion groups. Macomb ISD hosts email user discussion group for the MSDS or REP applications. Anyone who was subscribed to the old CEPI-MSDS and CEPI-REP listservs as of December 13, 2013 was automatically subscribed to the new groups. To join the MSDS group, send an email

TO: imailsrv@mischooldata.org

MESSAGE BODY: Subscribe MSDS Your Full Name

If you have questions or need assistance with the MSDS or REP discussion groups, please contact Macomb ISD at helpdesk@misd.net.

CEPI Customer Support - If you cannot find your answers online, you can contact CEPI customer support at cepi@michigan.gov. Email provides written documentation of your questions/concerns and allows the quickest and most efficient method for providing a response. If email is not an option, you may contact CEPI at 517-335-0505 x3.

Acronyms

AYP: Adequate Yearly Progress
BAA: Bureau of Assessment & Accountability (Formerly OEAA: Office of Educational Assessment & Accountability).
CEPI: Center for Educational Performance and Information. <http://www.mi.gov/cepi>
CTEIS: Career and Technical Education Information System.
EEM: Educational Entity Master. <http://www.mi.gov/eem>
EOY: End of Year.
FERPA: Family Educational Rights and Privacy Act.
FID: Financial Information Database.
FTE: Full-Time Equivalency.
GAD: Graduation and Dropout Application.
IEP: Individualized Education Program.
IHE: Institute of Higher Education.
ISD: Intermediate School District.
LEA: Local Education Agency.
LEP: Limited English Proficiency.
MDE: Michigan Department of Education. <http://www.mi.gov/mde>
MPAAA: Michigan Pupil Accounting and Attendance Association. <http://www.mpaaa.org/>
MSDS: Michigan Student Data System. <http://www.mi.gov/msds>
ONSR: Other Nonschool Recipient.
PEPE: Primary Education Providing Entity.
PSA: Public School Academy.
REP: Registry of Educational Personnel.
SID: School Infrastructure Database.
SIS: Student Information System.
SNE: Supplemental Nutrition Eligibility.
SRM: Student Record Maintenance.
SSO: Single Sign-On.
TAS: Targeted Assistance Schools.
UIC: Unique Identification Code.
XML: Extensible Markup Language.

Data Who's Who

When working with your student data it is important to know who your “data experts” are for different content areas. You should enlist these experts to help complete prepare and review your data prior to certification. We are providing the following list as a tool you can use to keep track of various content experts. We expect that you will customize the list to meet your needs.

Area of Expertise	Name	Phone	Email
Adult Education			
Alternative Education			
Assessment			
Attendance			
Audit (FTE)			
Career Tech. Ed./ CTEIS			
Course Schedules			
Curriculum – Elementary			
Curriculum – Secondary			
Discipline			
Early Childhood			
Graduation/Cohort			
Homeless Liaison			
Human Resources			
LEP/ELL			
Migrant Liaison			
SIS Vendor			
Special Education			
Supplemental Nutrition			
Technology Support/IT			

CEPI Applications

Area of Expertise	Name	Phone	Email
EEM Authorized User			
FID Authorized User			
GAD Authorized User			
MSDS – Certifier			
MSDS – Quality Reviewer			
MSDS – UIC Resolver			
REP Authorized User			
SID Authorized User			