



MLDS CENTER

Maryland Longitudinal Data System

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MEMORANDUM

TO: MLDS Governing Board
FROM: Ross Goldstein, Executive Director
Laia Tiderman, Data Management Coordinator
DATE: May 21, 2018
SUBJECT: MLDS 2018 Data Inventory

Purpose

The purpose of this agenda item is to provide information to the Governing Board on the proposed changes to the MLDS 2018 Data Inventory for Governing Board approval at the June Governing Board Meeting.

Background

The MLDS Governing Board is required to create an inventory of individual student and workforce data proposed to be maintained in the system (Md. Ed. Art. §24-704(g)(6)). Additionally, the data inventory serves to inform the public about the contents of the MLDS database. The MLDS Data Inventory – June 2018 details the data proposed for inclusion or removals from the System.

Summary of Proposed Inclusions

The MLDS Center recommends adding a statement to the Data Inventory that authorizes the inclusion and use of publicly available aggregate data in Center analyses and output.

Publicly available aggregate data sources provide contextual information to Center analyses. These sources of data provide stakeholders context in decision making, assist staff in analyzing the data, and inform the public on critical student and workforce outcomes. The Data Inventory details the criteria Center staff will use in selecting publicly available aggregate data. Some examples of publicly available aggregate data include:

- [Maryland Report Card website](#);
- [MIT Living Wage Calculator](#); and
- [Delta Cost Project](#).

This recommendation is the result of discussions that included the Research and System branches, higher education experts, and MLDS Center Advisory Boards. The MLDS Research and Policy Advisory Board advised the Executive Director and Center that the work of the Center would be most effective if analysts and researchers were able to select the appropriate sources and elements relevant to the work on a project by project basis. Because the available data is publicly available and aggregated, it is not necessary to include in the Data Inventory.

Summary of Proposed Removals

The MLDS Center recommends the removal of the External Source - IPEDS Data.

The Integrated Postsecondary Education Data System (IPEDS) is a system of interrelated surveys conducted annually by the U.S. Department of Education's National Center for Education Statistics (NCES). IPEDS gathers information from every college, university, and technical and vocational

institution that participates in the federal student financial aid programs. Institutions report data on enrollments, program completions, graduation rates, faculty and staff, finances, institutional prices, and student financial aid. These data are made publicly available to researchers through the IPEDS Data Center. The available data is aggregated at the institution level and FERPA compliant.

While IPEDS contains a great wealth of institutional data, there are annual changes to IPEDS collections that create inconsistencies with using IPEDS data longitudinally. There other sources publically available that have normalized the IPEDS data, which are more user-friendly and consistent. Additionally, the current MLDS database schema is not structured to include this type of institutional data.

Action

We request the Governing Board approve the MLDS Data Inventory – June 2018.

Attachment

MLDS Data Inventory – June 2018



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Maryland Longitudinal
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Better Data • Informed Choices • Improved Results

Substantive Changes to
the

MLDS Data Inventory

June 2018

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Overview

The Maryland Longitudinal Data System (MLDS) is Maryland's central repository for comprehensive data from all levels of education and into the State's workforce. The MLDS Governing Board is required to create an inventory of individual student and workforce data proposed to be maintained in the system (Md. Ed. Art. §24-704(g)(6)). Additionally, the data inventory serves to inform the public about the contents of the MLDS database. This document provides a comprehensive summary of data elements proposed to be maintained, or removed from the System.

Process

The development of the Data Inventory is a collaborative process between DLLR, MSDE and MHEC, and the MLDS Data Governance Advisory Board. The MLDS Data Governance Advisory Board annually reviews the Data Inventory and identifies what data elements to propose for inclusion or remove from the System. All data must be relevant to answering one of the questions in the [Research Agenda](#) or generally identified as necessary for evaluating federal or State supported education programs. Data elements identified for inclusion or removal in the System are presented to the Governing Board for approval. Once approved, the requirements are developed with the agency and included in the data collection calendar.

Accessing the Data Inventory

As of December 2016, the MLDS Data Inventory is available online through the MLDS Center [website](#). This change allows the inventory to be more dynamic, by presenting the inventory in a way that may be organized according to the user's needs.

Changes to the Data Inventory

As a result of publishing the Data Inventory in a dynamic format, this document will only include substantive changes for each of the domains. Substantive changes are inclusions or removals of data elements in the Data Inventory.

Administrative changes are made annually and include the following:

- Clarification to the database in which the data element is maintained (i.e. ODS or MDM)
- Corrections and consistency in the CEDS Global ID for the Data Element
- Consistency in reporting the Element Name

Student Data

State law (Education Article §24-701, Annotated Code of Maryland) defines student data to mean data relating to student performance, including the following:

- State and national assessments;
- Course-taking and completion;
- Grade point average;
- Remediation;
- Retention;
- Degree, diploma, or credential attainment;

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- Enrollment; and
- Demographic data.

The law specifically prohibits the Center from collecting data on students from juvenile delinquency records, criminal and Child In Need of Assistance records, medical and health records; and discipline records.

Workforce Data

State law (Education Article §24-701, Annotated Code of Maryland) defines workforce data as data relating to:

- Employment status;
- Wage information;
- Geographic location of employment; and
- Employer information.

Understanding the Fields in the Data Inventory

Approval Status – identifies the Governing Board approval status for the Domain, Entity, or Element.

- ~~Approval Status may either be 'Approved' or 'Proposed' – The element had been approved for inclusion in the MLDS by the MLDS Governing Board.~~
- ~~Proposed' – The element has been proposed for inclusion and is pending review for approval by the MLDS Governing Board for collection by the MLDS Center.~~
-

Approval Date – date that the Governing Board approved the inclusion of the Data Element to be maintained in the System.

Availability – the earliest date that the Data Element is available to the MLDS.

CEDS Global ID – is the Common Education Data Standards unique identifier for the data element. Data elements in the MLDS database are mapped to the [Common Education Data Standards](#) (CEDS Version 6.0) when possible. CEDS represents a national, collaborative effort to develop voluntary, common data standards across the P-20W pipeline and provides nationally recognized naming conventions and definitions. Where data cannot be mapped to CEDS 6.0 standards, alternate domain, entity, and element names are provided, if applicable.

Database – an indication of the location of the data element within the MLDS. Data elements are either in the Operational Data Store (ODS) or the Master Data Management (MDM) database. The MDM database contains confidential and sensitive information on student and workers and is restricted to specified authorized staff of the MLDS Center. The ODS contains sensitive, de-identified information on students and workers and is restricted to authorized staff of the MLDS Center.

Description – a description of the Data Element that provides additional information related to how the data element is collected, used, or defined in the System.

Domain – Domains indicate the sectors that are part of the MLDS. The Data Inventory contains both internal and external domains. Internal domains relate to the MLDS partner agencies that provide

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student and workforce data directly to the MLDS through a memorandum of understanding. MLDS partners include: Maryland State Department of Education (MSDE), Maryland Higher Education Commission (MHEC), and Maryland Department of Labor, Licensing and Regulation (DLLR). External domains include publicly available information data or are data provided through a memorandum of understanding with the external entity. Data from external sources are used to enhance the data received from internal sources, and provide additional context to the data in the System.

Internal domains include:

- Workforce,
- Postsecondary,
- PK12.

External Domains include:

- Integrated Postsecondary Education Data System (IPEDS),
- U.S. Census Bureau (CENSUS), and
- Motor Vehicle Administration (MVA).

Element Name – describes the data element provided to the MLDS. These are attributes of the Entity. This may be the name used by the partner agency, or a standard name used by CEDS.

Entity – Entities represent persons, places, events, objects or concepts about which the data is collected or shared. The Entities in the MLDS Data Inventory are:

- | | | |
|----------------------|---------------------|------------------------|
| • Address | • Institutional | • NA |
| • AE Student | • Characteristics | • PS Institution |
| • Assessments | • K12 Class/Section | • PS Student |
| • Authentication and | • K12 Course | • Quarterly Employment |
| • Authorization | • K12 Organizations | • Tuition |
| • EL Child | • K12 School | • W Employer |
| • EL Organization | • K12 Staff | • W Person |
| • EL Staff | • K12 Student | |
| • Financial Aid | • LEA | |

Load Status – provides an indication of the status of the data element within the MLDS.

- **Active** data elements are loaded into the System and are currently in use.
- **Inactive** data elements are were approved for inclusion in the MLDS by the Governing Board, but are not currently loaded into the MLDS or have not yet been provided to the MLDS from the source agency.
- **Removed** data elements that have been eliminated from the MLDS even though they may have were been approved by the Governing Board for use.
- **Obsolete** data elements were approved for collection but are no longer available from the source. Data remains active in the System for the years the data element was available.

Source – indicates the origin of the data for the specific Domain. This may be the name of the data collection administered by the agency or the table name. The source is specific to the agency providing the data to the MLDS.

Workforce

Workforce domain data is provided to the MLDS from the Department of Labor, Licensing and Regulation (DLLR).

Proposed Sources - None

There are no proposed workforce data elements at this time.

Proposed Removals - None

There are no removals of workforce data elements at this time.

PK12

PK12 domain data is provided to the MLDS from the Maryland State Department of Education (MSDE).

Proposed Sources - None

There are no proposed PK12 data elements at this time.

Proposed Removals - None

There are no removals of PK12 data elements at this time.

Postsecondary

Postsecondary domain data is provided to the MLDS from the Maryland Higher Education Commission (MHEC).

Proposed Sources - None

There are no proposed postsecondary data elements at this time.

Proposed Removals - None

There are no removals of postsecondary data elements at this time.

External Domains

External domain data is acquired by the MLDS from:

- Integrated Postsecondary Education Data System (IPEDS);
- U.S. Census Bureau (Census); and
- Maryland Department of Transportation, Motor Vehicle Administration (MVA).

Proposed Sources - None

There are no proposed external data sources at this time.

Proposed Removal of External Source - IPEDS Data Elements

MLDS Center recommends removing the IPEDS Data Elements.

The Integrated Postsecondary Education Data System (IPEDS) is a system of interrelated surveys conducted annually by the U.S. Department of Education's National Center for Education Statistics (NCES). IPEDS gathers information from every college, university, and technical and vocational institution that participates in the federal student financial aid programs. Institutions report data on enrollments, program completions, graduation rates, faculty and staff, finances, institutional prices, and student financial aid. These data are made publicly available to researchers through the IPEDS Data Center. The available data is aggregated at the institution level and FERPA compliant.

While IPEDS contains a great wealth of institutional data, there are annual changes to IPEDS collections that create inconsistencies with using IPEDS data longitudinally. There other sources publically available that have normalized the IPEDS data, which are more user-friendly and consistent. Additionally, the current MLDS database schema is not structured to include this type of institutional data.

Proposed Inclusion and Use of Publicly Available Aggregate Data

Publicly available aggregate data sources provide contextual information to Center analyses. These sources of data provide stakeholders context in decision making, assist staff in analyzing the data, and inform the public on understanding output. The use of publicly available aggregate data sources are included in the Data Inventory to provide transparency on stakeholders.

Criteria

Listed below are the criteria for utilizing publicly available aggregate data in MLDS output. The data must be:

1. Publicly available;
 - a. The term “publicly available” means the following:
 - i. information that has been published or broadcast for public consumption;
 - ii. is accessible online or otherwise to the public.
2. Aggregate data;
 - a. The term “aggregate data” means the following:
 - i. Individual observations are replaced with summary statistics;
3. From a trusted source;
 - a. State or federal agency;
 - b. Research organization or educational organization;
 - c. Nationally recognized expert source.

Supporting Information

For more information on the MLDS Center please visit the MLDS Center website at mldscenter.maryland.gov.

For additional information on CEDS 6.0 Data Standards visit ceds.ed.gov.

[CEDS 101](#) describes what the CEDS standard is, why it is needed, and the parts of the CEDS standard.

Contributors and Change History

Date	Description/Reason for change	Authors/Contributors	Version
07/25/2012	Initial Draft	John Bruns	1.0
09/1/2012	Revision of content, addition of tables	John Bruns, Rob London	1.0
10/2/2013	Revision of content, addition of person, organization data elements; mapping to CEDS workforce elements added	John Bruns	2.0
10/29/2013	Added CEDS 4.0 details and data elements planned for the MLDS Master Data Management system	John Bruns	2.0
10/31/2013	Review and update	Chandra Haislet	2.0
11/1/2013	Updates to sections 2.0-5.0	Ross Goldstein	2.1
11/1/2013	Inactive CEDS 4.0 elements removed from Appendix B	John Bruns	2.2
11/15/2013	Active and Approved elements added to Appendix B and C; reserved elements removed	John Bruns	2.3
11/20/2013	Removed Appendices related to elements by policy question and system source; added active and Approved elements; denoted elements not mapped to CEDS 4.0	John Bruns	2.4
11/25/2013	Defined Approved elements as those approved by agencies for submission; removed Approved elements not approved	John Bruns	2.5
12/13/2013	All "Approved" data elements in Version 2.5 marked as active following MLDS Board approval	John Bruns	2.6
1/4/2014	Initial Draft of CEDS Elements	John Bruns (MSDE)	3.1
1/31/2014	Research Request of CEDS Elements	Mike Woolley (UMB)	3.1
2/28/2014	Availability of Data Alignment – K12	Janice Johnson (MSDE)	3.2
2/28/2014	Availability of Data Alignment – Workforce	Donni Turner (DLLR)	3.2
2/28/2014	Availability of Data Alignment – Postsecondary	Andrew Nichols (MHEC)	3.2
3/13/2014	Approved Items for Inventory	Chandra Haislet (MLDS Center)	3.3
5/28/2014	Availability of Data Alignment – Postsecondary	Jon Enriquez (MHEC)	3.4
6/2/2014	Approved Items for Inventory (Data Gab)	Chandra Haislet (MLDS Center)	3.5

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Date	Description/Reason for change	Authors/Contributors	Version
6/6/2014	Availability of Data Alignment – Early Learning	Phil Koshkin (ECE)	3.6
6/6/2014	Additional Postsecondary Data	Jon Enriquez (MHEC)	3.7
6/9/2014	Availability of Data Alignment – Workforce	Donni Turner (DLLR)	3.8
12/8/2014	Availability of Data Alignment – Governing Board Meeting 12/16/2014	Laia Tiderman (MLDS Center)	4.0
12/18/2014	Proposed Data Elements Approved by the Governing Board 12/16/2014	Laia Tiderman (MLDS Center)	4.1
11/10/15	Inclusion of Data Elements approved in previous versions (MHEC and DLLR) Inclusion of MVA Data Elements for approval by the MLDS Governing Board	Laia Tiderman (MLDS Center)	4.2
12/8/2015	Revisions by MHEC to Postsecondary Data Elements	Parris Jackson	4.3
12/9/2015	Final Revisions prior to presentation at the MLDS Governing Board	Laia Tiderman	4.5
12/15/2015	Final with approval from Governing Board	Laia Tiderman	4.5
10/13/2015	Revisions for Data GAB 10/19/2016	Laia Tiderman	4.7
11/1/2016	Published Data Inventory on MLDS Website Revised document to include substantive changes Included definitions for all fields included in online Data Inventory	Laia Tiderman	5.0
11/21/2016	Changes to proposed workforce sources and elements	Laia Tiderman	5.1
12/2/2016	Updates to <i>Overview</i> , inclusion of <i>Process</i> , <i>Student Data</i> and <i>Workforce Data</i> definitions, updates to <i>Understanding the Fields</i> in the Data Inventory	Laia Tiderman	5.2
5/16/2017	Proposed and Removed data elements for 2017 June Governing Board Meeting	Laia Tiderman	6.0
5/24/2018	Proposed removal of IPEDS Data and Inclusion of Publicly Available Aggregate Data; Annual updates for 2018 June Governing Board Meeting.	Laia Tiderman	7.0