MLDS CENTER
Maryland Longitudinal Data System

Better Data • Informed Choices • Improved Results

Procedures for De-linking and Purging Workforce Data

June 29, 2016

Maryland Longitudinal Data System Center
550 West Baltimore Street
Baltimore, MD 21201
www.MLDSCenter.Maryland.gov
MLDS.Center@Maryland.gov
410-706-2085

Larry Hogan
Governor

James D. Fielder, Jr., Ph.D.
Secretary of Higher Education,
Chairman MLDS Governing Board

Ross Goldstein
Executive Director

Overview

This document outlines the procedures to implement the following requirements:

1. **Ed. Art., § 24-702(c), Annotated Code of Maryland**

   The linkage of student data and workforce data for the purposes of the Maryland Longitudinal Data System shall be limited to no longer than 5 years from the date of latest attendance in any educational institution in the State.

2. **Data Sharing Agreement Between the Maryland Department of Labor, Licensing & Regulation and Maryland Longitudinal Data System Center, 5.c. Disposal and Destruction of Transferred Student and Workforce Data, Signed August 6, 2014**

   i. TSWF Data must not be retained with personal identifiers for longer than such period of time as is necessary to match and/or de-identify data sets.

   ii. Unmatched Confidential UI Data will be not be kept for more than 90 days, at which point it will be returned to DLLR or destroyed, as directed by DLLR.

Definitions

Matching – The process of connecting personally identifiable information from across different source data to a unique identity maintained in the MLDS.

Linking – The process of connecting transactional information for a matched identity across sectors within the MLDS. Transactional data includes enrollment in education institutions, reported quarterly wages, educational outcomes, etc…

De-linking – The process of disconnecting the transactional information for a matched identity across sectors within the MLDS. Transactional data includes enrollment in education institutions, reported quarterly wages, educational outcomes, etc…

Procedures

1. An identity will only be created in the MLDS if the identity is from a student record.
2. When a workforce record is received, the record will be kept if that record can be matched to a student record. If the record cannot be matched to a student, it will be purged or returned to DLLR.
3. A student record includes a record from K-12, higher education, or a student engaged in a DLLR related education program such as GED or NEDP.
4. As specified in the Data Sharing Agreement between MLDS Center and DLLR, unmatched workforce data will not be kept for more than 90 days from the date the data were received, at which point the data will be destroyed or returned.

5. MLDS will request wage files be periodically resent in order to match against new education records that would be missed because of the six month lag between the receipt of an education record for the same period of time as a wage record (see Figure 1 on page 3).

6. Prior to returning or destroying DLLR data, MLDS will gather and maintain summary statistics of the full data set for the purpose of establishing baseline employment metrics.

7. After the five years from the date of last attendance in a Maryland educational institution, MLDS Center will not continue to link workforce data and student data. Specifically, each quarter after receipt and loading of UI data, staff will run a query to identify all students who have not been enrolled in a Maryland educational institution within the last 5 years. The wage records linked to those students will be removed from the wage table in the ODS and then encrypted and archived in the MDM.

8. Returning Student. If an individual who had been a student more than five years ago, enrolls in a Maryland educational institution, the MLDS Center will link that student to his or her prior student record and the prior linked workforce records, and any prior unlinked workforce records. The prior unlinked workforce records will be linked since those records no longer occurred five years after the date of the last attendance in a state educational institution. (See Figure 2 on page 4.)

Timeline

Labor data is submitted to MLDS on a quarterly basis. The DLLR submissions are lagged two quarters behind the collection of the quarterly wages. Education data is collected on an academic calendar schedule. Submissions to MLDS for education data are lagged close to a year behind the date of collection. The submission of data to the MLDS is guided by the Data Collection Calendar which is revised through the Data Governance Advisory Board (Data GAB), to allow partner agencies to align the Calendar to their unique needs. The Calendar is approved by the MLDS Governing Board annually in December.

Figure 1: Example of the Data Submission Timelines for Labor and Education Data

Year	Transactional Details for John Doe	Data Received for John Doe	
		Education	Workforce
2013			
Q1			
Q2			
Q3	Arrives in Maryland for college and enters Maryland workforce		
Q4			
2014			
Q1			~~UI Q3 2013~~
Q2			~~UI Q4 2013~~
Q3		MAC2 Enrollment – Fall 2013	UI Q1 2014
Q4			UI Q2 2014
2015			
Q1			UI Q3 2014
Q2			UI Q4 2014
Q3		MAC2 Enrollment – Fall 2014	UI Q1 2015
Q4			UI Q2 2015

Example of the De-Linking Procedures

Illustrated below is an example of de-linking an identity. This student, John Doe, graduates from high school in the 2010 and enters the Maryland workforce. John Doe works for five years in Maryland through 2015. The MLDS links the wage records and education records for him through 2015. Mr. Doe does not enter postsecondary education and his records are un-linked after 2015. In 2020, John enrolls in postsecondary education. Mr. Doe's records in the MLDS were matched from 2015 through 2020, but were un-linked. Upon his entry into postsecondary education, John's wage and education records are matched across all the years of data linked for his identity in the MLDS.

Figure 2: Visual Representation for De-Linked Identity

Student Identity	
Name	John Doe
DOB	05/25/1992
SSN	999-99-9999
SASID	1111-111-111

PII is removed →

De-identified	
✕	
05/1992	
Token ID	
✕	

Year	Student Record	Work Force Record	
2010	Token ID: 55555555 *Graduates high school and enters the Maryland workforce*	55555555, 2010 Q1-Q4	Matched Identity
2011		55555555, 2011 Q1-Q4	
2012		55555555, 2012 Q1-Q4	
2013		55555555, 2013 Q1-Q4	
2014		55555555, 2014 Q1-Q4	
2015		55555555, 2015 Q1-Q4	Linked
2016		55555555, 2016 Q1-Q4	
2017		55555555, 2017 Q1-Q4	
2018		55555555, 2018 Q1-Q4	
2019		55555555, 2019 Q1-Q4	
2020	Token ID: 55555555 *Enrolls in College*	55555555, 2020 Q1-Q4	
2021	Token ID: 55555555 *Enrolls in College Year 2*	55555555, 2021 Q1-Q4	
2022	Token ID: 55555555 *Enrolls in College Year 3*	55555555, 2022 Q1-Q4	
2023	Token ID: 55555555 *Enrolls in College Year 4*	55555555, 2023 Q1-Q4	
2024		55555555, 2024 Q1-Q4	
2025		55555555, 2025 Q1-Q4	
2026		55555555, 2026 Q1-Q4	
2027		55555555, 2027 Q1-Q4	
2028		55555555, 2028 Q1-Q4	
2029		55555555, 2029 Q1-Q4	De-link
2030		55555555, 2030 Q1-Q4	