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Maryland Longitudinal Data System

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Memorandum

TO: Members of the MLDS Governing Board
FROM: Laia Tiderman, Data Management Coordinator, MLDSC
DATE: March 11, 2016

SUBJECT: Match Rate Update and Impact from MVA Data

The purpose of this memorandum is to provide the Governing Board with updated information on the number of identities within the Maryland Longitudinal Data System and the impact of the MVA data in matching identities across sectors.

Background

The Center's 2015 Annual Report provided detailed information on the counts of people within the System, the number of persons linked across sectors, how they were linked, and the number of persons linked across sectors.

In November, the Center finalized a data sharing MOU with the Maryland Department of Transportation, Motor Vehicle Association (MVA). This agreement allows MVA to provide personally identifiable information for the Center to utilize in the data matching process. The Center determined a gap in accurately identifying identities when matching records directly from K12 to workforce data. While K12 identities contain full names, dates of birth, and other identifying information, a social security number is not always accurate or available. Workforce identities rely solely on social security number. For students who enter postsecondary institutions, higher education bridges the gap between the K12 and workforce data due to the inclusion of a social security number. For those persons who do not enter higher education, there is a missing link between K12 and workforce. The MVA data will assist the Center in resolving identities across all of our collected data.

Current Status

To date, the MLDS Center has loaded all data from 2007-2008 to 2014-2015. New files continue to be received as the partner agencies provide them. The following table shows the summary individual person counts from the data loaded into the system from the partner agencies.

Table 1: Person and Identifier Counts by Agency

Data Source	Distinct count	Identifier Counts		
		SASID	Valid SSN	Name and DOB
K12 (includes teachers)	1,730,153	1,570,964	1,194,257	1,728,847
MHEC	1,101,929	213,731	1,059,067	601,699
DLLR	4,947,462	502,657	4,944,623	1,498,708
Net Total as of 3/8/2016	*6,460,760*	*1,611,530*	*5,879,424*	*2,817,679*
Net Total as of 12/1/2015	*6,366,937*	*1,498,721*	*5,769,881*	*2,676,558*
Increase from 12/1/2015	*+93,823*	*+112,809*	*+109,543*	*+141,121*

Impact on Identity Matching Process

The Center is receiving file submissions from the MVA on a regular schedule. Staff have begun to incorporate the MVA data into the identity match process. The tables provided below detail the positive impact of the MVA data in resolving K12 identities across sectors.

Table 2 (below) provides the number of 12th grade public school students for academic years 2007-2008 through 2013-2014 and the number of those students who can be linked to a college record, workforce record, both a college and a workforce record, or cannot be linked at all. The Center is able to match 93% of students across one or more sectors, a 5% increase from December (88%).

Table 2: Maryland Public School 12th Graders, Cross Sector Match Rates, School Years 2008-2015

Maryland Public School 12th Graders Cross-Sector Match	Total for all 12th Grade Cohorts	Totals by year of 12th-grade attendance						
		2007-2008[1]	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014
Total count for 12th-grade cohorts	431,045	63,291	61,337	61,411	61,727	61,276	61,281	60,722
K12 only (no links to other sectors)	30,198	5,272	3,438	3,286	3,787	3,916	4,515	5,984
K12 and College (no Workforce)	46,550	8,286	5,059	5,136	5,427	6,073	7,194	9,375
K12 and Workforce (no College)	88,401	11,459	11,654	11,669	12,755	13,256	13,491	14,117
K12 and College and Workforce	265,896	38,274	41,186	41,320	39,758	38,031	36,081	31,246
Percent matching across all 3 sectors	*62%*	*60%*	*67%*	*67%*	*64%*	*62%*	*59%*	*51%*
Percent with 1 or more cross-sector matches as of 3/8/2015	***93%***	***92%***	***94%***	***95%***	***94%***	***94%***	***93%***	***90%***
Percent with 1 or more cross-sector matches as of 12/1/2015	*88%*	*87%*	*91%*	*91%*	*90%*	*89%*	*87%*	*82%*
Percent Increase from 12/1/2015	***+5%***	***+4%***	***+3.5%***	***+3.7%***	***+4.3%***	***+4.7%***	***+5.3%***	***+8.4%***

Notes*:*

1. *12th Grade Cohort for the 2014-2015 Academic Year*
Data for the 2014-2015 academic year has been submitted and loaded into the System. However for comparison purposes this data is not included in the table.

2. *Changes in the Reported Number of Total 12th Grade Student Cohorts*
In the 2015 December Annual Report, the Center Reported 439,588 total count for 12th grade cohorts (MLDSC 2015 Annual Report, page 9). The current match tables reports 431,045 total for all 12th grade cohorts, a difference of 8,543 from December. In the process of refining the match criteria, Center staff discovered that MSDE and the Center were reporting students who graduate the summer following their fourth year in high school in different ways. MSDE reports these summer graduates as on-time as part of the class graduating in the Spring of the academic year. The Center had included those students as part of the upcoming academic year. The Center has since realigned

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[1] The numbers in this column differ from later years because labor data from the 4th quarter of 2008 was not available. The lack of labor data results in a lower number of students that match all three categories (K-12, college and workforce) and a higher number that only have a match between K12 and college.

these summer graduates to be aggregated as part of the class graduating the Spring of the academic year. This results in the 8,543 students previously reported in the 2007-2008 12th grade cohort now aligned to the 2006-2007 academic year in the System.

Table 3 (below) provides the same information reported in Table 2, by each Maryland county. The number of 12th grade public school students for academic years 2007-2008 through 2013-2014 and the number of those students who can be linked to a college record, workforce record, both a college and a workforce record, or cannot be linked at all. With the inclusion of the MVA data, the Center was able to reduce the percent of students with only a K12 record by almost 5%. Additionally, the percentage change was 10.8% for Prince George's County, and 16.6% for Carroll County.

Table 3: Maryland Public School 12th-graders, Cross Sector Match Rates by County, School Years 2008-2015

County	Total 12th Graders	K12 only (No links)	K12 to College (No Workforce)	K12 to Workforce (No College)	K12 to College to Workforce	Percent visibility across all 3 sectors	Percent with K12 only	Percent Change from 12/1/2016
Allegany	4,866	569	605	1,274	2,418	50%	12%	-1.2%
Anne Arundel	36,885	1,988	3,173	7,741	23,983	65%	5%	-5.4%
Baltimore City	33,076	2,966	1,887	10,773	17,450	53%	9%	-4.3%
Baltimore County	53,964	2,974	4,447	11,780	34,763	64%	6%	-2.7%
Calvert	9,766	364	832	2,115	6,455	66%	4%	-0.7%
Caroline	2,680	194	128	899	1,459	54%	7%	-1.6%
Carroll	16,266	1,024	1,605	3,145	10,492	65%	6%	-16.6%
Cecil	8,043	513	676	2,438	4,416	55%	6%	-1.5%
Charles	15,556	981	1,637	3,454	9,484	61%	6%	-6.6%
Dorchester	2,198	160	114	740	1,184	54%	7%	-1.8%
Frederick	21,673	936	1,920	3,828	14,989	69%	4%	-3.3%
Garrett	2,386	82	103	677	1,524	64%	3%	-0.5%
Harford	20,053	1,093	2,482	3,522	12,956	65%	6%	-2.3%
Howard	27,845	1,156	3,569	2,479	20,641	74%	4%	-3.3%
Kent	1,159	91	61	412	595	51%	8%	-2.4%
Montgomery	75,808	5,860	13,514	8,220	48,214	64%	8%	-3.9%
Prince George's	61,746	7,415	7,532	15,106	31,693	51%	12%	-10.8%
Queen Anne's	4,129	132	171	993	2833	69%	3%	-1.1%
Somerset	1,241	129	84	353	675	54%	10%	-2.0%
St. Mary's	8,624	481	804	2,234	5,105	59%	6%	-2.0%
Talbot	2495	115	137	579	1,664	67%	5%	-1.1%
Washington	11,160	576	684	3,189	6,711	60%	5%	-1.8%
Wicomico	6,752	382	383	1,819	4,168	62%	6%	-1.8%
Worcester	3,720	177	110	953	2,480	67%	5%	-1.1%
Total Maryland	**432,091**	**30,358**	**46,658**	**88,723**	**266,352**	**62%**	**7%**	**-4.9%**