

## Monthly Report for November 2017

Submitted December 6, 2017

### Reporting/Data Requests

#### Statutorily Mandated Reports

The primary focus over the past month was the completion of the following three statutorily mandated reports:

1. *2017 Annual Report* - Education Article § 24-705, Annotated Code of Maryland, requires the Governing Board to report the Governor and General Assembly on the implementation of the MLDS and activities of the MLDS Center, a list of all studies performed by the Center during the reporting period, a list of all currently warehoused data that are determined to be no longer necessary to carry out the mission of the Center, any proposed or planned expansion of data maintained in the database, and any other recommendations made by the Governing Board. With the exception of Governing Board recommendations, the report has been fully drafted and shared with the Research and Policy Advisory Board.
2. *2017 Dual Enrollment Report* - Education Article § 24-703.1, requires the Center to report annually on the number of students who are dually enrolled and the courses in which students dually enroll.
3. *More Jobs For Marylanders Act Report* - Education Article, § 21-204(b), Annotated Code of Maryland, requires the Center and the Governor's Workforce Development Board (GWDB) to, "develop annual income earnings goals for high school graduates who have not earned at least a 2-year college degree by age 25." The Center's contribution to the report was to provide an analysis of the current earnings of 25 year olds who graduated in 2008-2010 and did not earn an Associate's or higher degree. To provide context and comparison points the Center compared the actual earnings to living wage estimates (from the M.I.T. Living Wage Calculator) and median annual earnings for workers from the American Community Survey 5 Year Estimates. The GWDB (in consultation with the P20 Council - MLDS Workgroup) used that information to establish a wage goal of 4% above the amount of the reported living wage for each jurisdiction.

Each of these reports will be presented and reviewed at the December 8<sup>th</sup> Governing Board meeting.

#### Output Matrix

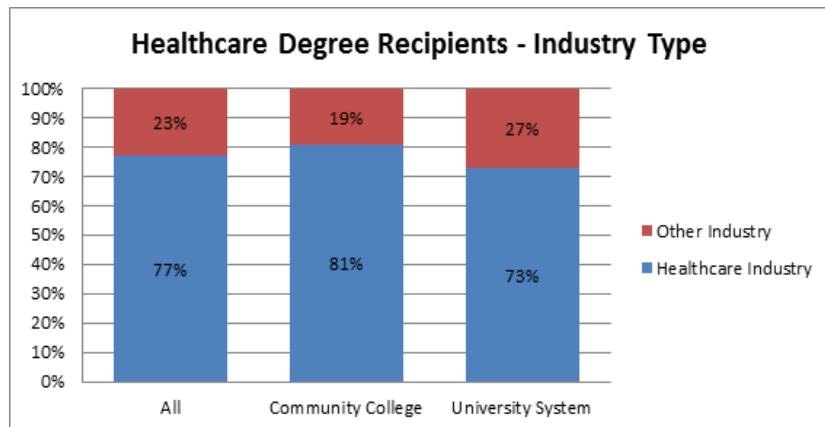
Over the past year the Center's output has increased in a variety of new and different ways. To ensure that all of the output is available and usable for stakeholders and the public on the website, staff developed an output matrix to identify different types of products for the Center to develop.

1. Indicators - High level data on key transition points (high school to college, high school to workforce, or college to workforce). These indicators will generally be one fact which can be further explored in other products.
2. Dashboards - Detailed tables and graphs on trends for key transitions.
3. By Request - Data tables and graphs based on public data requests that the Center has fulfilled.
4. Pathways - Cohort based analysis of the relationship between educational outputs and labor market demands.
5. Pipelines - Cohort based analysis focusing on how specified workforce outcomes are achieved.

6. Issue Spotlight - A summary of a Maryland public policy issue that provides policy-relevant actionable insight into the issue through text and data visualizations.
7. Information Brief - Information Briefs summarize information from dashboards and highlight one or two important data points from the dashboard.
8. Research Brief - A concise summary of a large research initiative conducted by the Center that can inform policymakers on important education and workforce outcomes.
9. Research Directions - A synopsis of the current and future direction of the Research Branch's work.
10. Technical Briefs and Guidance - A technical analysis of best practices for data use and research methods.
11. Research Reports - Reports on research conducted by the MLDS Center Research Branch.
12. Presentations and Workshops - MLDS Center conference presentations, workshops, training, roundtables, or other similar facilitated sessions that present information on research results, research methods, data governance or other topics to stakeholders.

#### Data Request

Staff completed an initial data request for the USM Healthcare Workforce Writing Group. The data request provides the number of Maryland postsecondary graduates from a healthcare program (43,000), the percent (71%) for whom there is a wage record, and of those with a wage record, the percent receiving wages from a healthcare related industry (77%).



#### **Research Branch**

##### Research Series

Dr. David Blazar, Assistant Professor of Education Policy and Economics at the University of Maryland College Park, presented a talk entitled “Validating Teacher Effects on Students’ Attitudes and Behaviors: Evidence from Random Assignment of Teachers to Students” for the November Research Series.

In addition, Dr. Blazar took part in the Center’s second workgroup meeting of stakeholders who are helping to develop a research plan for evaluating the outcomes of teachers prepared in Maryland. Dr. Blazar presented relevant research from his work at Harvard University on the validity of teacher effect estimates. Teacher effects calculated in non-experimental data were related to the same outcomes following random assignment, revealing that they contain important information content on teachers. However, for some non-experimental teacher effect estimates, large and potentially important degrees of bias remained. These results suggest that researchers and policymakers should proceed with caution when using these measures. The measures are likely to be more appropriate for low-stakes decisions, such as matching teachers to professional development, than for high-stakes personnel decisions and accountability.

##### Reports

The research team continues work on creating an analytic data file for the study examining student- and school-level socioeconomic status. This month, the cohort was identified, student and school level poverty, demographic, performance, and attendance variables were operationalized and created, and extant public school-level data files were compiled from external sources (CCD and MSDE). Initial data cleaning was completed, and the created data file was used to run preliminary descriptive statistics. The team is now in the process of transposing and merging the data to create a person-level analytic file.

Additional analyses were run for the dual enrollment propensity score project that examines the causal effects of dual enrollment on college and workforce outcomes. Analyses aim to determine whether dual enrollment program participation is more effective for certain subgroups of students: low SES students, minority students, and low achieving students.

A full draft of the “brain drain” research report has been completed. This report examines the workforce outcomes of students who attend college in-state versus out-of-state. The next step is to have suppression review completed and begin final edits to the draft.

The 2016 research report on the workforce outcomes of high school students by achievement type was used to create the first research brief for the Center. The main points of the complicated report were distilled down into a shortened version that can be easily digested. The research team plans to continue working on this output for the additional research reports already published.

A first draft of analyses to replicate relevant tables from the MHEC alumni report using MLDS data was completed. The analyses focused on the workforce outcomes (workforce participation and wages) of college students by college attended. The results were presented and discussed with the MHEC data advisory group. The discussion focused on explaining the findings with stakeholders, and the research benefits of adding the MLDS data as a supplement to the MHEC alumni report.

### Synthetic Data Project (SDP)

This month the SDP Team was busy with several tasks. First, the team was reviewed and incorporated into the project the excellent input received from the *Expert Advisory Panel* held at the end of October. The Gold Standard Data Set (GSDS) Work Group, in collaboration with members of MLDS data staff, worked on finalizing the variables to include in the PostSecondary to WorkForce GSDS as well as procedures for pulling student to workforce cohorts from the system to create those data sets. The Synthesization Work Group was also engaged in the procedures to efficiently identify and pull from the system, student cohorts for the GSDSs and have been running synthetic models and working on variables and data file management as well as model and synthesization procedures. The Database Work Group has continued working on building the databases for the GSDSs and working with the other two Work Groups on variable and data file structure and management. All member of the team have been working with the MLDS data staff to advance the quality of the data in the system and the data that are then brought into the GSDSs.

### **System Management Tasks**

The System Management team worked on the following tasks this month:

1. System Patches - The Center has completed implementing all remediation patches with coordination from DoIT. The Center is now on DoIT’s regular patching cycle for all servers. The Center is also working with DoIT to regularly patch desktops, laptops and virtual machines.

2. Encryption of desktops - DoIT encrypted the MLDSC desktops similar to what was done for laptops. Unfortunately, the Center's desktops "Dell Optiplex 920" are having multiple issues with this encryption. Staff is exploring other options for desktop encryption with DoIT.
3. Master File Transfer Software (MFT) - The Center procured "GoAnywhere" product for MFT solution. Staff is working on implementing and configuring licenses.
4. Intrusion Detection System - Staff worked with CyberESI to refine the weekly report and implement additional monitoring rules. IDS is monitoring all traffic that accesses the secured database with PII information.
5. Website - Staff completed adding banner scrolls to the dashboard homepage and completed other website updates.

### Data Loads

1. Completed updating first math and English grades, cumulative credits earned, and cumulative GPA for 125,000 students.
2. Completed loading 2017 second quarter GED, NEDP and Claimant files from DLLR.
3. Performed identity resolution for individuals who have multiple system ID's for the same identifier (SSN).

### Website:

Top 10 dashboards hits:

<u>Dashboard Name</u>	<u>Number of Hits</u>
11. High School Graduates with Initial Postsecondary Enrollments	40
1. High School Graduates - Initial Postsecondary Enrollments	37
13. Highest Enrollments by Out-of-State Institution	20
2. High School Graduates - Initial Postsecondary Enrollments By Year	20
3. High School Graduates Initial Postsecondary Enrollments By County	16
7. Initial Postsecondary Enrollments - In State vs Out of State	14
15. Initial Postsecondary Enrollments - Type of Institution by Gender	13
10. High School Graduates - Initial Postsecondary Enrollments By FARMS Status	10

4. High School Graduates - Initial Postsecondary Enrollments By Gender	<b>10</b>
12. Highest Enrollments by In-State Institution	<b>9</b>
18. Students Who Initially Enrolled In a Maryland Community College - Outcomes	<b>9</b>
28. High School Outcomes by Industry	<b>9</b>
5. High School Graduates - Initial Postsecondary Enrollments By Race Ethnicity	<b>9</b>