



Monthly Report for April 2017

Submitted April 5, 2017

Meetings

State Workforce and Education Alignment Project (SWEAP)

The Center, in collaboration with the [Workforce Data Quality Campaign](#) (WDQC), held a meeting on April 18th (9 a.m. to 12 p.m.) to learn about and discuss the WDQC's SWEAP data tools. Those tools include:

- Dashboards that use a small number of common metrics to report on education and employment outcomes across workforce development programs;
- Pathway evaluators that show the best pathways to gain skills for work in particular industries; and
- Supply and demand reports that compare the number of trained workers in a state to the number of workers that employers need, in order to help align training with employer demand.

The WDQC brought in Domenico "Mimmo" Parisi and Zack Krampf, of the National Strategic Planning and Analysis Research Center (nSPARC) at Mississippi State University. Dr. Parisi and Mr. Krampf developed these tools for Mississippi and shared the process for developing the tools and the impact that they have had.

Thirty-five people attended the meeting, including representatives from all three partner agencies, MICUA, MACC, researchers, local government, and local foundations. The meeting also included a discussion about how the tools could be used to further Maryland's policy priorities.

Advisory Boards

Both the Data Governance (Data GAB) and Research and Policy Advisory Boards (RPB) met this month. The Data GAB discussed new sources of data and potential updates to the data inventory. The Data GAB also discussed the pros and cons of dynamic versus static data dashboards. The RPB discussed the Center's response to the P20 Annual Report and the proposed changes for dashboard layout. Center staff also provided the RPB with an overview of how it plans to update and improve dashboard production through the identification and development of key population groups.

Maryland Commission on Innovation and Excellence in Education

The [Maryland Commission on Innovation and Excellence in Education](#) met on April 26, 2017. One of the topics at the Commission meeting focused on teacher education programs. Legislative staff is interested in working with the Center to determine whether MLDS data could support certain analyses of teacher education programs, including the type of students who go into the programs and the teaching outcomes produced. Ross Goldstein attended the meeting to gain a better understanding of the topic and the potential research questions that may be asked.

Senator Bill Ferguson

Angela Henneberger and Ross Goldstein met with Senator Bill Ferguson to discuss his research inquiry regarding the impact of the socio-economic status (SES) of a school's student population on individual student outcomes and whether student outcomes change as the SES of the student population changes.

Dr. Henneberger is reviewing the request and available data to determine the feasibility of addressing this research question.

WDQI - Grant - discussion

MLDS Staff met with DLLR staff to discuss the possibility of submitting an application for the U.S. Department of Labor's Workforce Data Quality Initiative (WDQI) Grant. The WDQI grants (there have been 5 previous rounds) support the development of state workforce longitudinal database and the use of those databases to conduct analysis of state workforce and education systems. Only state workforce agencies can apply for the grant. DLLR staff made the decision not to pursue the grant due to the short application period (less than a month) and the limited number of possible awards (3 nationwide).

Reporting

Dashboard Layout

New layout options for dashboards were developed and reviewed. The revised layouts allow for better integration of text and graphics as well as for inclusion of high-level "fast facts" to prominently display a key data point related to the research results. Additionally, the new layouts all information on data calculations and limitations to be moved into hyperlinks to allow more space for graphics and text.

Predefined Population Groups

Currently, the Center defines unique population groups for each dashboard as part of the dashboard development process. Rather than develop unique populations that can only be used for a single dashboard, the Center is considering developing predefined population groups that align to key sector transitions that can be repeatedly queried for dashboard development. The concept for predefined populations was developed during the April Research and Policy Board meeting and from the SWEAP presentation. A preliminary flowchart has been developed to capture the major population groups and subgroups.

Research

Presentations

The April research series featured a discussion of the ongoing MLDS project "Investigating the 'Brain-Drain' Phenomenon in Maryland." Amber Bloomfield presented initial analyses investigating whether Maryland public high school graduates who attend out-of-state postsecondary institutions are less likely to be employed in Maryland after completing their postsecondary study than are graduates who stay in Maryland for postsecondary education. Analyses included imputing missing data to retain as many graduates in analyses as possible and propensity score matching to control for differences in demographics, high school characteristics, and achievement between students who attend in-state PS institutions versus out-of-state institutions.

During the month of April, Heath Witzon, Doctoral Fellow, presented work building from his March research series presentation entitled "Need-based Grant Aid in Higher Education: The Effects of the Howard P. Rawlings Educational Assistance (EA) Grant on Financial Aid, Academic Persistence, and Working while in School" for (1) the Economics Poster Session at the University of Maryland, College Park; (2) the Association for Public Policy Analysis and Management (APPAM) DC Regional Student Conference at George Mason University on a panel focused on investments in higher education; and (3) the ECON 708 student brown-bag seminar in the Department of Economics at the University of

Maryland, College Park. Each presentation added useful feedback to incorporate into the upcoming Center research report.

The research team began to determine the best approach to answer the Research Question #12 (Which institutions are graduating students most effectively and in the timeliest fashion?) and to extract data that could inform this question. Although a value-added model would typically be used, such an approach may not be supported given assumption violation. Therefore the team has examined utilizing propensity scores to develop more appropriate comparisons across institutions. This potential approach was presented at the *11th International Multilevel Conference* at Utrecht Netherlands for feedback and comment (from about 60 international methodologists) on April 12, 2017. Additionally, the approach was presented at the MLDSC Research Series on May 4, 2017.

Synthetic Data Project

Assessing, understanding, and preparing the data for the project are ongoing. The team convened the End User panel on 4/4/17, and received a lot of very valuable input from 15 education and workforce researchers. The team is still working on what was learned from the panel. The team is also working to transcribe the end user panel meeting to gain a better understanding of the data they want and the analyses they are interested in doing. Dr. Jeorg Drechsler, one of the technical expert consultants, is coming on May 10 to give input on the synthetic data model development. The team is currently in preparation for hosting him.

The team is also working to hire both a full-time database engineer and an IT project manager in the next couple months. Both searches have been going for a few months. In addition, the team is hiring two more doctoral students onto the project to start this summer and next fall.

Systems Management

Tasks

The system management team worked on the following tasks this month:

1. Completed taking a consistent cold backup of the system databases;
2. Completed applying Windows update, Adobe flash update and Java updates on all the workstations, VMs and servers; and
3. Completed improving the security rating of the website from C to A- after changing the Cypher configuration on the webserver.

Data Loading

Staff completed loading MHEC End of Term (EOTS) collections for the following terms:

- Summer 2013 - 133,826 records
- Fall 2014 - 352,344 records
- Summer 2014 - 131,344 records
- Fall 2015 - 352,793 records

Of the 975, 271 total records, 245,410 (25%) represent attendance records not previously in the system. For the remaining 75%, EOTS data were used to update these facts for attendance records that had been previously loaded from either MHEC EIS or National Student Clearinghouse.

