



**Maryland Longitudinal Data System Governing Board
Meeting Minutes for December 10, 2021**

The meeting of the Maryland Longitudinal Data System (MLDS) Governing Board was held on December 10, 2021, via conference call. Dr. James Fielder, Chairman of the Governing Board, called the meeting to order at 9:00 a.m. and noted that a quorum was present.

The following Governing Board members were in attendance:

- Dr. James Fielder, Secretary of Higher Education and Chairman
- Mr. Sam Abed, Secretary, Department of Juvenile Services (John Irvine, Director of Research and Evaluation served as designee for part of the meeting)
- Dr. Nancy Shapiro, Associate Vice-Chancellor for Education & Outreach (Designee for Dr. Jay Perman, Chancellor)
- Dr. Sylvia Lawson, Deputy Superintendent for School Effectiveness, Maryland State Department of Education (Designee for Mr. Mohammed Choudhury, State Superintendent)
- Dr. Angela Sherman, Vice President for Academic Affairs, Maryland Independent Colleges and Universities Association (Designee for Ms. Sara Fidler, President)
- Mr. Gregory James, Deputy Secretary for Operations, Department of Human Services (Designee for Secretary Padilla)
- Mr. Jason Dykstra, Executive Director, Instructional Data Division, Anne Arundel County Public Schools
- Dr. Susan Sterett, Professor, University of Maryland, Baltimore County
- Mr. Maurice Good, Program Director, Maryland New Directions
- Mr. Chris Biggs, Information Assurance Manager, Raytheon Company
- Ms. Laurie Kendall-Ellis, Executive Director of the Maryland Board of Physical Therapy Examiners
- Mr. Steven Rizzi, Vice President, PAR Government

The following MLDS Center staff were in attendance:

- Mr. Ross Goldstein, Executive Director, MLDS Center
- Ms. Tejal Cherry, Director of System Management Branch, MLDS Center
- Dr. Angela Henneberger, Director of Research, MLDS Center and Research Assistant Professor, University of Maryland, School of Social Work
- Dr. Ann Kellogg, Director of Reporting Services, MLDS Center and MHEC Liaison
- Ms. Molly Abend, Data Management Coordinator and MSDE Liaison
- Ms. Dawn Luedtke, Assistant Attorney General
- Mr. Roy Enehiroana, Data Analyst and Department of Labor Liaison
- Ms. Jamese Dixon-Bobbitt, Executive Associate, MLDS Center

Approval of the June 11, 2021 Meeting Minutes

Dr. Fielder began by noting that he recently attended a meeting of the Southern Regional Education Board (SREB). The meeting focused on data use and Maryland received a lot of positive recognition for its data system and governance model. Dr. Fielder noted that Maryland is significantly more advanced than many other states.

Mr. Goldstein introduced Mr. Pat McLoughlin, State Chief Data Officer, and noted that the Governor's introduction of this new position shows Maryland's focus on the importance of data.

Board Action - Dr. Fielder asked for a motion to approve the minutes from the September 10, 2021 meeting. Mr. Rizzi made a motion to approve the minutes, which was seconded by Mr. Abed. The motion was unanimously approved.

Center Output

Reporting Service

Dr. Kellogg began updating the Governing Board about the Center's reporting output plan for the year. The Center is on track to fulfill its annual reporting obligations and has expanded the high school to college dashboard series. The series now contains 65 different dashboards; 40 of which provide analyses down to the school level. There are also downloadable tables that contain the aggregated and suppressed data that underlie the dashboards. The Center has also completed work for MSDE and the Department of Labor to assist them with their annual state and federal reporting requirements. The Center has also worked with MHEC to support the deployment of the non-credit data program. Specifically, the Center analyzed the data to determine that it can be matched to Center data. The Center also completed a report on registered apprenticeship program completers and presented that information to the Governor's 2 Gen Commission, which coincided with National Apprenticeship Week. Finally, the Center has begun work with DJS to develop a report on the education and workforce outcomes of DJS involved youth. There are still tasks to be completed before the report can be done, including additional data loading and defining cohorts.

Next, Dr. Kellogg noted that there were fewer data requests. One reason is that some activities, such as providing data for federal reports, are part of the Center's annual projects and not initiated as data requests. Dr. Kellogg did note the Center's completion of a data request for Frederick County Community College and Anne Arundel Community College in support of their application for an Aspen Institute prize (a prestigious award for which they were invited to apply). The Center's data will help the community colleges demonstrate the outcomes of their students. Finally, Dr. Kellogg noted that the Center is completing another "five-year out report" on bachelor's degree earners and is working on adding to its teacher dashboards.

Next Dr. Kellogg turned to the Annual Dual Enrollment Report, noting that the requirement has changed from a report to "easy to understand graphic data dashboards." The change has been implemented with a new online report that focuses only on the two reporting requirements: the number of students who are dually enrolled and the courses in which they are enrolled. Additional dual enrollment information is

provided through various dashboards on the MLDS website. In terms of the findings, Dr. Kellogg noted that the percentage of students who dually enroll increases each year. Currently, almost 20,000 students dually enroll in a year. Course enrollment trends continue to look the same as in prior years, with most enrollments in college-focused courses, such as English, math, science, and history. There is also a concentration of students engaged in career and technical education (CTE) courses.

Research Branch

Dr. Henneberger began by reviewing the Research Branch's four overarching priorities:

1. In collaboration with MLDS Center stakeholders and with a commitment to social justice and equity, conduct advanced statistical analyses to inform decision-making in Maryland in order to optimize public education and workforce systems that serve Maryland children, youth, adults, and families.
2. Build capacity to conduct rigorous research through providing technical and methodological documentation.
3. Establish and maintain diverse and inclusive research partnerships by promoting equitable access to data and resources.
4. Support the above goals through the pursuit of additional funding opportunities.

Next, Dr. Henneberger provided brief highlights of some of the accomplishments. First, she noted that the Research Branch completed requests from MHEC to update prior research on dual enrollment and remedial education. The updated results are published on the MLDS Center website. The Research Branch is also working on a grant-funded project to apply machine learning methods to longitudinal data, through an analysis of MHEC's promotion of *15 to Finish*. The Research Branch has also expanded its research partnership to include Morgan State University. There is a formalized agreement and the Morgan State team is working on accessing the system and completing IRB documentation. Finally, Dr. Henneberger recognized the full research team (currently 25 individuals) for their efforts and accomplishments. She also thanked the stakeholders and the Governing Board for their support of research initiatives.

In response to a question from Mr. Rizzi, Dr. Henneberger agreed that a more detailed presentation to the Research and Policy Advisory Board was a good idea. She also noted that the research team was aware of the ethical issues surrounding the use of artificial intelligence (including machine learning) algorithms and is including them in their analysis of the usefulness of these methods for educational research.

Data Inventory

Ms. Abend presented 12 new data elements proposed for inclusion in the MLDS Data Inventory and one data element presented for informational purposes.

First, the Maryland Motor Vehicle Administration (MVA) is implementing a new data system in December 2021. The new system will not impact the MLDS Center's matching ability, however, two data elements will need to be added to the MLDS. The first data element, 'Mailing County', requires approval from the MLDS Governing Board. The MLDS Center currently has the approval to include an identification number provided by the MVA. The specific data element named 'Previous Customer ID'

will be included in the Data Inventory but does not require MLDS Governing Board approval as the definition matches the already approved 'SX_Owner' data element.

Next, the Maryland Higher Education Commission (MHEC) is adding 11 demographic data elements to the End-of-Term System (EOTS) data collection beginning with the 2021 Summer/Fall EOTS submission. These elements will be optional in 2021-2022 and required in 2022-2023. The postsecondary data elements proposed are the following demographic elements: First Name, Last Name, Middle Name, Gender, Birthdate, Hispanic/Latino Ethnicity, White, Black/African American, Asian, American Indian/Native Alaskan, and Native Hawaiian/Pacific Islander.

In response to a question from Dr. Fielder about the need for including a bi-racial demographic element, Dr. Kellogg responded that the current categories are driven by federal reporting requirements. Mr. James also noted that DHS is working on the issue of ensuring comprehensive demographic data.

Board Action: Mr. Biggs made a motion to approve the proposed data elements for inclusion in the data inventory, which was seconded by Mr. James. The motion was unanimously approved.

Teacher Certification Feasibility Study

Ms. Abend presented the Teacher Certification Feasibility Study completed by Center staff. The study was the result of a recommendation from the MLDS Governing Board in the 2020 Annual Report to determine the feasibility of collecting teacher certification data. Staff reviewed available information on the MSDE website, relevant laws and regulations, and met with staff at Anne Arundel and Garrett County school systems for an overview of what happens at the local level for hiring and certification. Staff also met with MSDE to learn about the current Educator Information System (EIS) and plans for a new system due out in 2022. Staff also provided MSDE with a list of teacher certification data needs and potential research topics that the data will support. The list and topics were developed in consultation with various stakeholders, including Towson University's Associate Dean for the College of Education.

Center staff found that MSDE, as the certifying authority, maintains the teacher certification data in an outdated EIS. A new system is being implemented and should be live early next year. Local school systems maintain all information relating to applications for a teaching position. That information is not reported to MSDE or managed in a uniform manner.

In conclusion, Ms. Abend noted that collecting the teacher certification data is highly feasible. MSDE has agreed to work with the Center to share data related to teacher certification once the new system is implemented. Collecting employment application data is not feasible. The data are not reported to MSDE and would have to be collected from each local school system. MSDE has no plans to collect the information nor does the Center have the resources to do so.

Dr. Shapiro noted the importance of the teacher certification data and the important questions it can help answer about the P20 pipeline and asked whether the certification data will indicate where a teacher received their certification, i.e. a traditional program, out-of-state programs, etc. This will allow researchers and policymakers to understand which pathways seem to provide successful teachers who

remain in teaching. Ms. Abend noted that some of that information about current teachers is already provided to the Center through the teacher staffing data. Mr. Goldstein noted that additional information may be collected and reported during the certification process.

Annual Report

Mr. Goldstein stated that the Center is required to annually produce this report for the Governor and General Assembly. The report must be filed each year by December 15th and must include the following sections. (1) *Implementation of the MLDS and Activities of the Center*. In this section, the report focuses on system implementation and Center activities. Under system implementation, the report includes a record count and match rate, which is determined by the number of 12th-grade high school students that have at least one cross-sector match. The match rate has consistently been around 94%. The report also discusses the Center's cybersecurity audit, creation of the cybersecurity subcommittee, and data center hosting move. Under activities of the Center, the report provides information on stakeholder engagements, data requests, external research and presentations, including the research series. (2) *List of all studies performed by the Center*. In this section, the report includes research reports, dashboards, and interactive reports. The report also provides an update on the required annual reports: dual enrollment, Career Preparation Expansion Act, and a third new report on the outcomes of youth who experienced an out-of-home placement (the report cannot be filed this year since there was not enough time since the authorization to receive child welfare data). (3) *Data Determined to be Unnecessary*. This section lists all data removed from the system during the past year. (4) *Data Added to the system*. This section includes all of the 150 new data elements added to the data inventory over the past year. Before reviewing the fifth section of the report, Mr. Goldstein also noted that the Annual Report includes a list of highlights, which include the following:

- a. The Center added 151 new data elements to the Data Inventory;
- b. Conducted a five-part Lunch and Learn Series for the General Assembly members and staff;
- c. The Research Branch hosted a symposium at the Society for Prevention Research that won a prestigious award from the Society;
- d. The Center continued to prioritize system security by engaging in a security assessment, penetration test, and creating a new Cybersecurity Subcommittee;
- e. Established a research partnership with Morgan State University;
- f. The MLDS Center was part of the Maryland Team that was awarded a \$2 million Workforce Data Quality Initiative Grant; and
- g. MLDS Center Research Branch members were awarded over \$1.5 million in grant funding to pursue research projects using MLDS data.

Finally, for the last section of the report, (5) *Recommendation of the Governing Board*, Mr. Goldstein discussed the following proposed recommendation for the Board's consideration:

The MLDS Center's Research Agenda was developed by the Governor's P20W Development Council over 10 years ago. While minor changes have been made, there has not been a comprehensive review of the Research Agenda, such as:

- i. *What purpose should the Research Agenda serve;*

- ii. *Are the current questions/topics sufficient to address the Center's added scope of work as a result of legislative changes and new data sources; and*
- iii. *How can the agenda address questions of social equity?*
- b. *Accordingly, the Governing Board directs the MLDS Center staff, in consultation with Governing Board designees and other stakeholders, to undertake a comprehensive review of the current Research Agenda and provide conclusions and any proposed changes for the Board's consideration later next year.*

Board Action: Mr. Abed made a motion to approve the Annual Report, which was seconded by Dr. Sterett. Mr. Abed asked how staff will go about developing the new agenda. Mr. Goldstein responded that the U.S. Department of Education's SLDS Support Team has a lot of resources on the subject of creating a Research Agenda that can be utilized. Also, the Center will work with the Research and Policy Advisory Board. In response to a question from Dr. Fielder, Mr. Goldstein responded that he anticipated that the development of a new research agenda would take a full year; allowing staff time to develop an initial recommendation and then work closely with stakeholders, through the Research and Policy Advisory Board. In response to a question from Dr. Shapiro, Mr. Goldstein agreed that the inclusion of representatives from the Blueprint's Accountability and Oversight Board would be useful. The Annual Report was unanimously approved.

In response to a question from Mr. Rizzi, Mr. Goldstein stated that the Board can make recommendations for research projects annually when the output priorities are presented. In addition, the Board will have an opportunity to help shape the Research Agenda. Mr. Goldstein also indicated that staff will discuss the Research Agenda revisions with the Governing Board throughout the year to get their feedback and input.

Career Preparation Expansion Act Report

Dr. Kellogg provided highlights of the Career Preparation Act Report, which is a statutorily required annual report on the outcomes of high school graduates five years after graduation, including their wages earned, hours worked and industry of employment. Dr. Kellogg noted that this year's report analyzes the 2015 high school graduating class, for whom five years after high school graduation is also the first full fiscal quarter under COVID. Highlights from the report include:

1. Overall, median wages per quarter for students with full-quarter wages five years after high school are comparable to prior years - around \$5,700 - and bachelor's degree recipients have the highest median quarterly wage.
2. Only 27% of all high school graduates with full-quarter wages have a median quarterly wage that is above the living wage.
3. The sector of employment showed a slight change with a decrease in the number of high school graduates engaged in the Leisure and Hospitality sector, likely due to COVID shutdowns which impacted that industry most directly.
4. In six of the ten industry sectors, high school graduates with wages five years after high school had median wages at or above the living wage. The sectors include Goods Production, Information, Finance and Real Estate, Professional and Business Services, Educational Services,

and Public Administration. However, these six industries only represent 36% of high school graduates. Graduates in the remaining four sectors have median wages below the living wage.

5. In comparison to prior cohorts, the 2015 high school graduate cohort showed a 30 percentage point reduction in wage visibility, which indicates a significant labor force disruption due to COVID shutdowns. Dr. Kellogg noted that the Center will produce supplemental reports exploring the impact of COVID on labor sectors, demographic/economic groups, and education attainment groups.

In response to a question from Mr. Rizzi, Dr. Kellogg noted that the Center can also look at the impact of COVID on prior-year cohorts to see whether they experience similar impacts from the shutdown.

External Research and Grant Funded Projects

Dr. Henneberger began by presenting a research project entitled, *Researching Early Access to Computing and Higher Education (REACH)*. The project, which was submitted by Dr. Megean Garvin, is designed to investigate computer science pathways, with a particular focus on black women. Dr. Garvin applied for a grant from the National Science Foundation (NSF) in the amount of \$500,000. Dr. Jayce Warner, Research Associate at the Texas Advanced Computing Center (TACC), University of Texas at Austin, is a co-investigator on the project. This external research falls under the expedited review process. Dr. Garvin has experience working with MLDS, and this project will provide funding to directly advance the MLDS Center's research agenda. Additionally, the project benefits the State by examining computing equity, a topic of high priority to the State. NSF is an approved funding source in the external research procedures. The Research and Policy Advisory Board gave a positive recommendation on this proposal.

Next, Dr. Henneberger turned to a grant project for which the MLDS Center has provided conditional support. The project is a collaborative proposal submitted by members of the Eastern States Longitudinal Data Collaborative to the Coleridge Initiative's *Democratizing our Data: A Challenge to Invest in Data and Evidence-based Policy*. The proposal is being led by Rutgers University. The focus of the project is to develop dashboards that replicate the multi-state dashboards developed by KYStats (Kentucky's longitudinal data system). The dashboards, which are one of the first to combine workforce data on recent college graduates from contiguous states, are a powerful resource to provide a more complete picture of higher education outcomes in those states. The MLDS Center currently lacks the capacity to analyze the education and employment outcomes of graduates who leave the state. This is a particular concern given the number of neighboring states that surround Maryland. This project will explore options for creating a similar set of dashboards for the contiguous states in the northeast corridor, with a particular focus on the critical knowledge gaps in our region. The MLDS Center intends to support this initiative by participating in the preparation of the full proposal, the development of common identifiers, variables, and definitions; and exploring solutions for participation, in a manner consistent with Maryland legal and stakeholder requirements.

Mid-Year Budget Update

Mr. Goldstein began by noting that the Governing Board reviewed and approved the Center's FY 22 annual budget during the June meeting. There have been no changes to the budget or spending plan. Next, Mr. Goldstein provided the following updates. First, a request for a deficiency appropriation has

been submitted to the Department of Budget and Management (DBM). The Center has been working to move the system to the State Enterprise Data Center. To do this, new hardware and software are required. The software was purchased last fiscal year and the hardware is being purchased this year. The total hardware cost is \$300,000, of which the Center only had \$120,000 available in the budget. Accordingly, a deficiency appropriation request was submitted. While the request has not been officially approved, DBM gave DoIT the go-ahead to purchase the servers, which has occurred. The servers are anticipated to arrive early next year. Second, Mr. Goldstein informed the Board that the Center has been working on a procurement for the services of a senior Oracle Database Engineer and a data analyst. The procurement and resulting contract will replace a current contract for a Database Engineer. The term of the current contract including extensions has ended. The new procurement process is delayed by approximately four months due to problems originating with the MSDE procurement office (Mr. Goldstein noted that the procurement issues have been addressed by the new manager of business services for MSDE). This has resulted in the need to execute a retroactive sole-source contract to continue the services with the current vendor while MSDE's Office of Procurement completes its work. As a result of the procurement delays, the Center does not have the services of the additional data analyst. That position was added to the contract in order to increase the Center's capacity to meet data loading and data modeling needs. The absence of an additional data analyst has put a strain on the Center's ability to complete projects in a timely manner. Additionally, the existing contract has a high hourly rate that the Center will have to absorb for a longer period of time. This may reduce the amount that can be spent on the new contract later in the year once it is finally in place. Finally, Mr. Goldstein reported that the Center's FY 23 budget has been submitted to DBM.

Mr. Rizzi, commented via chat, about the need for the Center to conduct research relating to the impact of COVID, including documenting whether there are gaps in the data. Mr. Goldstein noted that the Center can include COVID-related research in its next Output Plan and in the Research Agenda. An analysis will also be conducted to determine missing data, which will be added to the Data Gap Analysis.

Old Business

There was no old business.

New Business

There was no new business.

Closed Session

Mr. James made a motion to move to closed session for the purpose of discussing financial matters related to the budget and to discuss sensitive cybersecurity matters that, if disclosed, would compromise the security of the data system. The motion was seconded by Mr. Biggs and unanimously approved.

Summary

The closed session began with the following individuals in attendance: members of the Governing Board (see the list on page 1), Ross Goldstein, Tejal Cherry, and Dawn Luedtke. Ms. Cherry provided a detailed overview of the findings related to the Security Assessment conducted by the Department of Information Technology (DoIT). The assessment included a review of the

Center's ability to identify risks, establish procedures for protecting the system against threats, the ability to detect issues, the capability to respond to issues, and plans for recovery. Ms. Cherry discussed action plans to address assessment findings. In addition, Ms. Cherry also discussed the penetration test that was performed on the system, the findings, and corrective action plans. Next, Mr. Goldstein reviewed the Center's FY 23 budget submission. Both issues were for informational purposes only. No actions were taken.

Closing

Mr. Goldstein asked the Board for their input on how to conduct future meetings: in-person, virtual, or hybrid. Members expressed their appreciation for in-person meetings, but also noted the flexibility and ease of attending remotely. Dr. Shapiro proposed virtual meetings for cold-weather months and hybrid or in-person meetings for warm-weather months. Mr. Rizzi agreed with this proposal. Mr. Goldstein stated that the next meeting is scheduled for March 11, 2022 (9 a.m. to 12 p.m.). Mr. Rizzi made a motion to adjourn the meeting, which was seconded by Dr. Sterett. The motion was unanimously approved.

Respectfully submitted,
Ross Goldstein
Executive Director

Approved: March 11, 2022