![MLDS Center - Maryland Longitudinal Data System]

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Maryland Longitudinal Data System Governing Board
Meeting Minutes
June 14, 2019

The meeting of the Maryland Longitudinal Data System (MLDS) Governing Board was held on June 14, 2019, in the Maryland State Department of Education Board Room, at the Nancy S. Grasmick Building. Mr. James Fielder, Chairman of the Governing Board, called the meeting to order at 9:05 a.m. and noted that a quorum was present.

The following Governing Board members were in attendance:
Dr. James Fielder, Secretary of Higher Education
Mr. Michael Harrison, Director of the Office of Policy Development (Designee for Secretary
    Rzepkowski, Acting Secretary of the Department of Labor Licensing and Regulation)
Dr. Nancy Shapiro, Associate Vice-Chancellor for Education & Outreach (Designee for Dr. Robert Caret,
    Chancellor)
Dr. Sylvia Lawson, Deputy State Superintendent for School Effectiveness, & Chief Performance Officer
    (Designee for Superintendent Karen Salmon).
Mr. Dennis Hoyle, Director of Research (Designee for Tina Bjarekull, President, Maryland Independent
    Colleges and Universities Association)
Mr. Christopher J. Biggs, Information Assurance Manager, Raytheon Company
Dr. Scot Tingle, Assistant Principal, Snow Hill High School
Dr. Janet Wilson, Associate Superintendent, Office of Shared Accountability (Designee for Dr. Jack
    Smith, Superintendent of Montgomery County Public Schools)
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. David Blazar, Investigator with the MLDS Center Research Branch and Assistant Professor of
    Education Policy and Economics at the University of Maryland
Ms. Ann Kellogg, Director of Reporting Services, MLDS Center and MHEC Liaison
Ms. Molly Abend, Data Management Coordinator and MSDE Liaison
Ms. Dawn O'Croinin, Assistant Attorney General
Mr. Roy Enehiroana, Data Analyst and DLLR Liaison
Ms. Jamese Dixon-Bobbitt, Executive Associate, MLDS Center

Approval of the March 4, 2019 Meeting Minutes
Dr. Fielder asked for a motion to approve the minutes from the March 4, 2019 meeting. Mr. Rizzi noted that his name was mistakenly not listed under Board members in attendance, and requested that it be corrected. Mr. Biggs made a motion to approve the minutes as corrected, which was seconded by Mr. Rizzi. The motion was unanimously approved.

Research and Reporting Priorities

Mr. Goldstein began by noting that the creation of an annual *Research and Reporting Priorities Plan* began last year and is intended to inform and receive input from the Board on the Center's planned activities during the new fiscal year.

Dr. Henneberger began by presenting a recap of the Research Branch accomplishments during the past year.
1. Seven Research Series presentation, including the following topics:
    a. Effects of School Concentrated Poverty
    b. Poverty and Wage Trajectories
    c. Remedial Coursework
2. 5 research reports, including the following topics:
    a. Effects of School Concentrated Poverty
    b. Effects of CTE on Outcomes
    c. Effects of EA Grant on Outcomes
3. Other activities, including:
    a. Testified before commissions three times
    b. Five National Conference Presentations
    c. Seven Grant Submission to Federal and Foundation Funders

Dr. Fielder asked what type of feedback do researchers receive at the national conferences and whether Maryland is lead, pushing or pulling others along in the field. Dr. Henneberger responded that questions and comments generally focus on outcomes and the process of working with state agencies. In the area of prevention policy, the field is first turning to the use of administrative data, so the Research Branch's work is cutting edge. For education research, there is a lot of similar work going on across the country - so Maryland is not leading, but not lagging either.

Dr. Henneberger then presented the broad policy objectives of the Research Branch which include:
1. Complete in-depth statistical analyses, able to support causal inferences where appropriate;
2. Develop technical documentation to guide staff on the use of the System, data, appropriate methods, and best practices.
3. Applications for external funding to support priorities 1-2.

In response to a question from Mr. Rizzi, Dr. Henneberger noted that the research plan includes topics related to how Maryland can meet the needs of the future economy - specifically by analyzing the demands for high need professions. Also in response to Mr. Rizzi, Dr. Henneberger noted that some of this type of analysis requires data the Center does not have. For example, Center data cannot determine workforce demand.

Mr. Hoyle suggested that topic #9, "Maryland's production of high school and college graduates that meet the needs for Maryland's workforce demands" should be broadened to include all forms of completers, not just graduates. Dr. Henneberger agreed with the suggestion.

Ms. Kellogg provided a recap of the Reporting Services output for the prior year, noting that it has been a very productive year, producing forty-six new products compared to sixteen last year.
1. Dashboards - 24 updated, four expanded, and 11 new
2. Reports
    a. Dual Enrollment Report 2018

           b.   Career Preparation Expansion Act Report 2018
           c.   GED®/NEDP Report - *in progress*
           d.   Associate's Degrees - *in progress*
    3.   Other Output and Activities
           a.   Participation in the *Common Education Data Standards Workgroup*
           b.   Presentation of the Career Preparation Expansion Act Report at the MHEC Completion Summit
           c.   Presentation to the Illinois Longitudinal Data System Task Force
           d.   Transfer and Applied Degree Pipelines

Next, Ms. Kellogg reported on data requests received and completed during the past year. Ms. Kellogg noted that there were fewer requests than the prior year (31 compared to 48). The reason for the reduction was a result of fewer requests during the legislative session and the fact that the Center has turned some requests into Center output in cases where the topic can be of use to numerous stakeholders.

Ms. Kellogg noted that a major focus of the data requests was to obtain information about "state impact" of a program or institution, i.e. how is my institution contributing to Maryland. Many of those requests were tied to teachers and their impact. As a result, the Center is engaging in conversations with different teacher education groups to determine how the Center can produce dashboards to support their reporting requirements.

Finally, Ms. Kellogg presented the priorities for the coming year. The new priorities will be to continue the work on critical workforce areas. For example, the Center is uniquely positioned to study nursing, including how nurses are educated, what degree they complete, and how long they obtain and remain in nursing jobs in Maryland. Another priority topic will be to look at Associate degree earners and understand the outcomes for both Transfer Associate's Degrees and Career Associate's degrees. The Center also plans to expand its dashboards and add new mapping capabilities to allow users to visually understand the impact of certain programs and degrees.

Dr. Fielder noted the importance of being able to visually understand where there are education deserts and the fact that those areas are also the areas with the greatest need for public assistance and a high occurrence of crime. Mr. Rizzi agreed noting that the ability to map data will help policymakers and employers understand where their workforce resides and how the state can save on transportation costs by encouraging employers to locate to those areas.

Data Inventory and Collection Calendar
<u>Upcoming Data Inventory Changes</u>
Molly Abend began by discussing the upcoming data inventory changes that will be proposed over the next year as a result of new legislation. Specifically, Senate Bill 978 of 2018 directed MHEC to collect and provide business license data from DLLR and the Maryland Department of Health (MDH) to the Center. The Center is taking the lead on gathering the data on MHEC's behalf. Work has already been done to gather information on the DLLR business license data, including the development of a file layout. Center staff will attend the July meeting of the executive directors of MDH boards and commissions to present an overview of the Center and the type of information that can be gained by the inclusion of the business license data into the MLDS. Ms. O'Croinin noted that she has worked with MDH counsel and there is agreement that there will only be one agreement for all 22 MDH boards and commissions to sign. Ms. Abend also explained that SB 978 provides for the collection of industry certificates. The process for identifying and collecting those certificates will take considerable time and effort.

Next, Ms. Abend addressed the new data that will be collected under House Bill 704 of 2019. That bill allows for the collection of juvenile delinquency records from the Department of Juvenile Services and school discipline records. In response to a question from Mr. Rizzi, Ms. Abend explained that the discipline data is captured for each occurrence and includes a discipline code that describes the conduct that resulted in disciplinary action and the services provided. In response to a question from Dr. Fielder, Ms. Abend responded that the primary purpose of these new data is to be able to study the issue of the school to prison pipeline.

The final new legislation that will result in new data sources is HB 1206 of 2019. This bill requires local school systems to convert student addresses into the census block or tract codes and provide that information to MSDE, which in turn is required to provide it to the Center. Ms. Abend noted that this information will be tied to attendance records and will provide information on student socioeconomic status.

Data Inventory
Ms. Abend next turned to the proposal to include apprenticeship data in the Data Inventory. The data will include data going back to 2007-2008. The data will begin with the current data system in use by DLLR (AIMS - Apprenticeship Information Management System) and will transition to the new system that DLLR is implementing (RAPIDS - Registered Apprenticeship Partners Information Data System). There are 44 new elements proposed for inclusion in the Data Inventory including demographic information, employer and sponsor information, and wage information.

Mr. Rizzi made a motion to approve the proposed changes to the Data Inventory, which was seconded by Dr. Shapiro. The motion was unanimously approved. Dr. Fielder noted that apprenticeship is an important workforce development program and that DLLR has been very successful in expanding participation.

2019-2020 Data Collection Calendar
The data collection calendar is substantially the same as last year. New dates were added for the anticipated new data sets including apprenticeship and discipline. Also, the proposed calendar consolidates the data calendar steps down to four: agency data verification period; data received; data loading and feedback period; and completion date. The changes reflect the current process.

Dr. Lawson made a motion to approve the 2019-2020 Data Collection Calendar, which was seconded by Mr. Rizzi. The motion was unanimously approved.

Requirements for Cross-Sector Analysis
Ross Goldstein noted that the current Research Agenda contains a preamble that limits the work of the Center to cross-sector analyses, which is defined as analyses that utilize data from at least two of the three partner agencies. The issue with this definition occurs when one agency provides data sets that are from different sectors. For example, the Department of Labor provides both workforce data and education data.

The revisions continue to require cross-sector analysis and provide a definition of cross-sector to include Early Childhood Education, K-12 Education, Adult Education, Juvenile Delinquency, Postsecondary Education, and Workforce. After discussions with stakeholders, it was determined that the preamble would continue to require cross-agency analyses - but with specific exceptions carved out. The exceptions include:

1. Maryland Higher Education Commission: Business license data collected under the Education Article, § 11-1501 et seq., Annotated Code of Maryland and postsecondary education data.
2. Department of Labor - Adult education data, including LACES, Apprenticeship, and GED/NEDP data and Workforce data.
3. State Department of Education - Pre-K Education data and K-12 Education and Teacher Staffing data and K-12 Education data (both of which the Center has already received MSDE's consent).

In response to a question from Mr. Rizzi, Mr. Goldstein responded that these changes were vetted by the Research and Policy Advisory Board, which includes a representative from each of the partner agencies. There was a broad agreement with the change. Mr. Goldstein also noted that in most cases, the data sets proposed for the single agency exception are not data sets that the agencies have linked. Dr. Shapiro noted her agreement and noted instances where the Center has not been able to address the questions raised by USM due to the cross-agency requirement. Mr. Goldstein noted that the Center has been collaborative with the partner agencies and has proposed staff appointments to do their own research with Center data.

Dr. Shaprio made a motion to approve the changes to the preamble of the Research Agenda, which was seconded by Mr. Rizzi. In response to a question from Dr. Fielder, Ms. O'Croinin stated that she did not think the proposed changes would impact the data sharing agreements between the Center and the partner agencies. The motion was unanimously approved.

Maryland Center for Computing Education
Mr. Goldstein noted that at the last meeting Dr. Shapiro requested a presentation by Dr. Megean Garvin, Director of Research and Assessment at the Maryland Center for Computing Education (MCCE). Dr. Shapiro noted that the MCCE role developed when the State had big questions about how the state was going to produce enough IT professionals to meet anticipated demand, especially when schools do not have programs to teach computer science and related courses of study. In response, several institutions applied for and received a National Science Foundation grant to work on computer science access in the schools. Governor Hogan recognized the importance of this initiative and provided funding in his budget to have a professional development center placed at the USM.

Dr. Garvin stated that the Center started with the development of a set of 15-year goals by a broad and comprehensive set of stakeholders. The primary question was how can we broaden access to computer science education and move students directly into the workforce or on a path to a computer science career through higher education.

On May 8, 2018, the Governor signed into law the bill formally creating the MCCE and providing $7 million over three years to offer computer science teachers professional development and limited money to colleges to develop pre-service teacher education programs to include computer science.

Dr. Garvin next provided an overview of the leadership of the MCCE, the grant submissions they have pursued, and publications developed to date.   The work that MCCE and the Center are collaborating on includes the development of public facing interactive reports that describe the current scope of computing education in Maryland public schools. The data sets developed to support these reports will also be used for future academic research and potential publications.

Dr. Shapiro added that very few teachers currently in public schools have a computer science degree. That's a deficit that leads to concerns over where the State is going to get the pipeline of students

interested in computational thinking and computer science. Further, there is only one teacher program in the State that certifies computer science teachers, therefore, the work of MCCE is critically important. MCCE is required to report on the baseline, and over the years, how effective the State is at training teachers in the schools. In addition, the legislation also requires a study on what happens to students who are taught by the teachers who have gone through teacher professional development programs. All of these connected pieces are information that the Center can provide.

Dr. Tingle shared his experience with teaching computer science at the high school level and asked whether Educational Testing Services (ETS) has computer science certification exams, which would, at a minimum help guide teachers interested in going back to school to study computer science in know what courses they need to take. Dr. Garvin confirmed that ETS does now have tests and that Maryland teachers can get certified to teach computer science by either MSDE or Praxis. Mr. Biggs cautioned that a computer science/engineering degree may indicate high technical skills, but not necessarily the ability to teach and explain content to students. Dr. Garvin agreed noting that MCCE is working to help determine which courses lead to effective teachers.

Fiscal Year 2020 Budget Presentation
Mr. Goldstein began by noting that the total General Fund Operating Budget is 1.9 million, which is a slight reduction (approximately $65,000) from last. The reduction was primarily in Object 01 - salaries, which is problematic since we are starting off the year, and hopefully will remain fully staffed throughout the year. The budget breakdown results in 77% of funds going to salaries, 17% to the research branch, and the remaining 6% to IT and other operational cost.

Last year, the Center requested and received an over-the-target request for $800,000 to assume the full cost of the Oracle license (as a result of MSDE's decision not to continue the license). The over-the-target funds can only be spent on Oracle license costs. The funds cannot be used to supplement spending in other areas.

Mr. Goldstein next provided a breakdown of the planned spending of the $518,000 in Object 08 - contracts.
1. Research Branch - $320,000 which is a reduction of the usual funding level of $365,000
2. MHEC reimbursement for salaries;
3. IT software costs (other than Oracle licenses) - $26,000
4. Oracle DBA - $80,000

While this is slightly over the budgeted amount, Mr. Goldstein noted that funds can be used from other budget objects if necessary. For example, there are no planned hardware needs next year, leaving that money available to make up a deficit in Object 08.

Finally, Mr. Goldstein discussed the impact of the significant reduction in the Research Branch Budget. It appears that there is a lot of funding available due to the federal grant. However, that money has strict limitations on how it can be used; and it cannot be used to fund the Center's general research. The Center has used some federal funds for IT operations since the project relies heavily on the system and the expertise of the Oracle DBA. The Research Branch needs a dedicated budget to allow the Center to meet

state research needs in a timely manner. Relying on grants will result in a research agenda driven by grants topics - not state needs. The poverty study provides a good example of how having funds for a Research Branch allows for timely and meaningful research - as evidenced by testimony to the Kirwan Commission and the Equity Commission.

Dr. Shapiro spoke of the need to fully fund research. The need to research this data should be treated as urgently as the IT infrastructure needs. Dr. Shapiro urged the Governing Board to take on an advocacy role on behalf of the Center to help lobby for funds. In addition, Dr. Shapiro asked whether the indirect costs from grants are available to the Center and could help support operations. Mr. Goldstein responded that the Center has not been the direct recipient on the grants and therefore has not been the one to recover indirect costs.

In response to a question from Mr. Rizzi, Mr. Goldstein said that general questions and data requests are answered by the Reporting Branch, not the Research Branch, but also noted that the Research Branch works collaboratively with the Center to provide input and expert advice on all aspects of the Center's work. The impact of the reduction will reduce Research Branch output and the Center's ability to respond to some questions.

Mr. Rizzi also asked whether the Center can charge other state agencies that ask the Center for reports or data. Ms. O'Croinin responded that the Center can charge for the staff time spent (after the first two hours) responding to a request. Mr. Goldstein noted that the Center's work with MCCE started because the Center wanted to support the work. However, MCCE is now paying the Center for its services as a result of available funding. This shows that there are opportunities to receive funding for services provided. However, Mr. Goldstein noted that the Center is trying to establish a culture of data use in the State and creating roadblocks (i.e. requires funding for services) we may frustrate that purpose. Dr. Fielder agreed, noting that there are models where agencies seek reimbursement from participating agencies, but there is little appetite for that type of model. The real solution is to raise the base spending.

Dr. Henneberger stated that the goal of the Research Branch is to use advanced analyses for program and policy evaluations in order to provide the most rigorous answers to causal questions. The goal of the contract is to leverage expertise from Maryland universities (UMB, UMCP, and UMBC). The cuts are substantial - 12% cut from last year. Most of the budget is for personnel - faculty expertise and graduate students. The cuts will negatively impact the Research Branch's ability to provide policy-relevant research to help workers and students in Maryland.

Mr. Hoyle pointed out that there is a need for a well funded research branch that can add context to data tables produced by the Reporting Branch. Mr. Hoyle cited an example of a data table produced for USM that needed additional context and explanation of the implications of the information. According to Mr. Hoyle, the unavailability of the research branch to provide that context is a real concern. Dr. Fielder expressed his opinion that the Center reports do provide oversight and interpretation. Ms. Kellogg pointed out that she is only half time with the Center and the staff who support her work are also heavily involved in the ongoing work of data loading. Accordingly, there are limits to what can be produced. Ms.

Kellogg also noted that reports and data requests provide extensive footnotes and caveats to help users understand the data and its limitations.

Mr. Biggs, with input from Ms. O'Croinin and Dr. Henneberger, made a motion to proceed with requesting additional funding necessary to meet the requests and the projected growth in requests to the Research Branch. Mr. Rizzi seconded the motion. Mr. Goldstein noted that at this point in the process a request to the Secretary of the Department of Budget and Management to increase the Center's budget target. The motion was unanimously approved.

Next Mr. Rizzi made a motion to approve the FY 20 budget plan, which was seconded by Dr. Shapiro. The motion was unanimously approved.

Legislative Proposals for 2020 Legislative Session
Mr. Goldstein began by noting that the Center met with the Research and Policy Advisory Board to determine if there are any proposals for legislation. While it was a good discussion, the group did not propose legislation. Proposed departmental legislation has to be submitted to the Governor in early September, before the next Governing Board meeting. Accordingly, decisions about department legislation have to be made at this time. The Governing Board members also did not have any proposals.

External Research and Grant Funded Projects
Mr. Goldstein noted that there is one application for *External Research and Grant Funded Projects* and an update on the grant submission to the National Science Foundation.

AERA Grant
Dr. David Blazar, Professor at the University of Maryland College Park and Research Branch member, presented his AERA grant project: *Long-Run Relationships Between Teachers, Their Characteristics, and Student Outcomes.* The project would use MLDS data to study the long-run relationships between teachers and student outcomes. Dr. Blazar noted that after decades of research it is well understood that teachers are the most important in-school resource that we can provide to students - as demonstrated by both short term test scores and long term outcomes. However, this type of research has lead to controversial applications - such as value added modeling and holding teachers accountable for student test scores, which has resulted in a pullback from research on this topic. Nonetheless, this type of research is important and may help schools identify characteristics of teachers that may be effective for students and may help address teacher gaps by identifying what teacher characteristics are most effective for certain students. The application of this research could help schools target programs. For example, teacher coaching has been shown to be an effective professional development tool. The use of coaching could be enhanced if there is good information about what teachers need and how they could benefit from this type of support.

Given this background, Dr. Blazar stated that his research project is to better understand the multiple dimensions and characteristics of teachers who contribute to student academic, workforce, and behavioral outcomes. The data used for this project goes across several agencies with a specific focus on linking students to teachers. The teacher data points would focus on teacher demographics and experience in the

classroom. For students, the data points would include test scores, school absences, college completion, and wages.

Dr. Blazar went on to note the challenges with modeling a statistical analysis to support causal conclusions on this topic. Student assignment is not completely random due to a variety of factors. However, there are tools and strategies to control for these factors that Dr. Blazar plans to utilize.

The American Education Research Association (AERA) has already awarded a two year $35,000 grant, which will support his time and student time on the project. The project aligns with the MLDS Governing Board's Research Agenda and is consistent with the research priorities discussed earlier in the meeting. The project is cross-sector, using K-12, higher education, and workforce data. The project provides a benefit to the state in that it will support practice and policy decisions. Finally, Dr. Blazar stated that the work will result in a Research Series presentation, a research report for the Center to post on the website, and scholarly work that will be submitted to academic journals.

In response to a question from Dr. Fielder, Dr. Blazar responded that his research will support the work of the Kirwan Commission by providing support for their commitment to getting high-quality teachers. In addition, the work will also help address some of the questions raised by MCCE, such as the impact of teacher education and certification on student outcomes.

Mr. Rizzi asked how Dr. Blazar will establish a causal relationship between a teacher and a student long-term outcomes given all of the intervening factors. Dr. Blazar responded by citing research that in fact documented a link between a students' kindergarten teacher and workforce outcomes. That research was enabled by the fact that teachers were randomly assigned to students. Dr. Blazar will extend that type of research to see whether causal links persist on other sorts of outcomes.

Dr. Wilson asked about the implications of class size, noting that research has shown that lower class size results in better student outcomes. She also noted that novice teachers are often assigned to students in most need of support. Dr. Blazar agreed with both observations and noted that there is a need to find proxy measures for teacher quality (not just years of experience) with a focus on the characteristics that students need most. Regarding class size, while it does seem to impact student outcomes in the short-term, research has shown that the quality and characteristics of the teacher are what impacts long-term outcomes. Nonetheless, there is a need to control for class size because it is not random. He will utilize prior research that he has done to address these issues.

Dr. Lawson asked for an overview of the planned research design for the project. Dr. Blazar began by restating the research question: what is the relationship between teachers, their characteristics, and outcomes. To do this, Dr. Blazar explained that he will predict students' long-term and short-term outcomes and then build an equation, where one side has the predicted student outcome and the other side has teacher characteristics. This equation would create a correlation. But, correlation does not mean causation. Accordingly, the equation needs to be more complicated - add to the equation to get from correlation to causation. For example, student long-term outcome on one side of the equation, while also controlling for students' test scores one year prior.

Dr. Lawson responded that there is a tremendous amount of research that says effective teachers are the ones that establish relationships with students and asked how the research will capture that aspect. Dr. Blazar responded by noting his agreement with Dr. Lawson's assertion and that understanding relationship building requires classroom observation. However, projects that require observation are limited in capacity, whereas this type of study expands to an entire state, which increases the generalizability of the outcomes and costs less. Other work outside of Maryland has shown that teachers reducing the number of absences may serve as a proxy measure for interpersonal relationships.

Dr. Tingle noted that important characteristics of teachers include concepts such as relationship building, passion for content, passion for teaching, passion for students and teacher expectations. Dr. Tingle also noted that all of these things require a qualitative analysis. Dr. Wilson agreed with Dr. Tingle and spoke about how class size determines the structure of time and attention teachers give students.

Dr. Blazar noted that he was a teacher and has conducted qualitative studies that relied heavily on observation. No one study can do it all - this work will have to be paired with qualitative works.   In this study, the research is taking advantage of scale, which is what makes this useful. Further, a large data set (such as the MLDS) has indicators that can address some of the qualitative factors: test scores as a proxy for learning; absences as a proxy for engagement in school; and suspensions and disciplinary actions as a proxy for self-regulatory actions of students.

Mr. Goldstein noted that in order for the project to move forward using MLDS data, the Governing Board must approve the application for *External Research and Grant Funded Projects*. Mr. Goldstein recommended approval based on the fact that the work is cross-sector, it is responsive to the *Research Agenda,* and addresses important policy questions for the state, Dr. Blazar has the demonstrated experience to work with the data, and the project was reviewed favorably by Center staff and the Research and Policy Advisory Board. Mr. Hoyle made a motion to approve Dr. Blazar's application which was seconded by Dr. Shapiro. In response to a question about indirect costs by Dr. Fielder, Dr. Blazar responded that this is not a federal grant and there are no indirect costs being charged. The motion was approved as follows: Dr. Fielder, Mr. Harrison, Dr. Shapiro, Mr. Hoyle, Mr. Biggs, Dr. Tingle, Dr. Wilson, and Mr. Rizzi voted for the motion and Dr. Lawson voted against the motion.

National Science Foundation Grant
Dr. Shapiro began by noting that the *External Research and Grant Funded Project* application to allow the Center to participate in the grant proposal to the National Science Foundation (NSF) was submitted to and approved by the Governing Board at the last meeting. A pre-proposal was submitted to NSF and the team was invited to submit a full proposal, which was completed on May 20th. The NSF grant is for $20 million over five years to support infrastructure - which in this case is the MLDS.   The project will answer key stakeholder questions and fill in gaps in the data that currently exist. The project goal is to enhance the system by adding data elements and to provide additional privacy protocols to enhance the protections currently in place. The project is a collaborative endeavor among USM, UMB, UMBC, UMCP, and the MLDS Center. USM is providing the organizational structure, which is consistent with the mission of Dr. Shapiro's office within USM which focuses on P-20 Education.

Next, Dr. Shapiro provided an overview of the kinds of questions that the MLDS will be able to answer if this project is carried out. Notably, each of these questions have been asked by key stakeholders.
1. Dr. Fielder - When do students get motivated to go into STEM and are there early predictors?
2. Kirwan Commission - What's the best way to measure poverty?
3. Dr. Salmon - How can the State get more high quality and diverse teachers into classrooms?
4. Delegate Washington - How can the State best provide resources to dismantle the school to prison pipeline?

Dr. Henneberger discussed the MLDS Center Data Gap Analysis, which catalogues key areas of data that the system does not receive. In particular, workforce data does not include federal employees, contractors, and information on students who go to school in Maryland but work out-of-state. The grant would address these shortcomings by working with the Comptroller's office to implement the recent legislative changes to allow limit data sharing by MLDS Center and aggregate reporting by the Comptroller. The grant would also allow the team to explore arrangements with surrounding states. Other ways the grant would address data gaps is by expanding the panel of state back to the 1990s. Finally, the grant would provide funds to implement the inclusion of discipline and juvenile delinquency records.

Dr. Henneberger clarified that all of the changes and additions of new data require Governing Board approval. Further, nothing in the grant changes the role of the Governing Board to provide oversight of the data system and decline initiatives that it determines are not in the best interest of the state.

Dr. Blazar noted that the plan for carrying out the project is to create project teams on data quality and use; data privacy and security; and governance and ethics of data use.

Dr. Henneberger pointed out that the project provides a great benefit to the Center and the state. It will fill in data gaps and expand capacity to answer innovative and important questions; while at the same time providing grant funds to ensure ethical governance and use and top-notch security and privacy.

Following up from prior discussions during the meeting, Dr. Shapiro noted that this grant would immediately make the MLDS a demonstration project for the nation. She also noted the USM has led several collaborative grants and it is their practice to provide the indirect costs recovered to the entity that is receiving and using the grant funds.

In response to a comment from Mr. Rizzi, Dr. Henneberger noted the various challenges with the multi-state data collection but noted that states are interested, including New Jersey SLDS which organized a phone call last week to discuss the topic. Dr. Blazar noted that multi-state data sharing is currently prohibited and therefore the grant will need to explore ways that it could be feasible and work within existing constraints - such as protocols to conduct analyses across systems without actually sharing or giving up data (i.e. a distributed model). Mr. Rizzi noted that this would allow for a lot of very exciting research, including looking at geospatial correlations.

Dr. Lawson made a motion to approve the project, which was seconded by Mr. Rizzi. The motion was unanimously approved.

Mr. Hoyle and Mr. Harrison left the meeting.

Old Business
There was no old business.

New Business
There was no new business.

Closed Session
Ms. O'Croinin stated that pursuant to General Provision Article § 3-305(b) the body will move into a closed session to discuss cybersecurity having determined that a briefing in an open meeting will constitute a risk to the agency's security system. Mr. Rizzi made a motion to close the meeting, which was seconded by Dr. Tingle. The motion was unanimously approved.

> Summary
> The Closed session began with the following members in attendance by Dr. Fielder, Dr. Shapiro, Dr. Tingle, Dr. Lawson, Mr. Biggs, Dr. Wilson, Mr. Rizzi. First, Ms. Cherry informed the Board about the discussion notes generated during the IT Security Audit performed by the Office of Legislative Audits and the steps that Ms. Cherry and the Center's IT staff have taken to address those issues. Second, Ms. Cherry presented the findings from the voluntary IT security audit recently completed by the U.S. Department of Homeland Security, National Cybersecurity and Communications Integration Center (NCCIC). Ms. Cherry discussed NCCIC's findings, which included both the strengths of the Center's security system and recommendations for improvements. Third, Mr. Goldstein briefed the Board on the infrastructure architecture analysis and its implications for the budget and future decision making. Finally, Ms. Cherry addressed news reports about recent IT security threats and how the Center is protected against such threats.
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> Dr. Tingle left prior to the conclusion of the closed session - at which point the Board no longer had a quorum. No votes were taken during the closed session. Mr. Rizzi made a motion to adjourn the closed meeting and return to the open meeting. The motion was seconded by Mr. Biggs and unanimously approved.

Closing
The open meeting reconvened at 12:16 p.m. Mr. Biggs made a motion to adjourn the meeting, which was seconded by Mr. Rizzi.

> Respectfully submitted,
> Ross Goldstein
> Executive Director

Approved: September 13, 2019