

Mississippi Department of Education RESEARCH FRAMEWORK AND AGENDA



2018-2020

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Mississippi Board of Education 5-Year Strategic Plan 2016-2020

VISION: To create a world-class educational system that gives students the knowledge and skills to be successful in college and the workforce, and to flourish as parents and citizens

MISSION: To provide leadership through the development of policy and accountability systems so that all students are prepared to compete in the global community

GOALS:

1. All Students Proficient and Showing Growth in All Assessed Areas
2. Every Student Graduates from High School and is Ready for College and Career
3. Every Child Has Access to a High-Quality Early Childhood Program
4. Every School Has Effective Teachers and Leaders
5. Every Community Effectively Using a World-Class Data System to Improve Student Outcome
6. Every School and District is Rated "C" or Higher

Framework

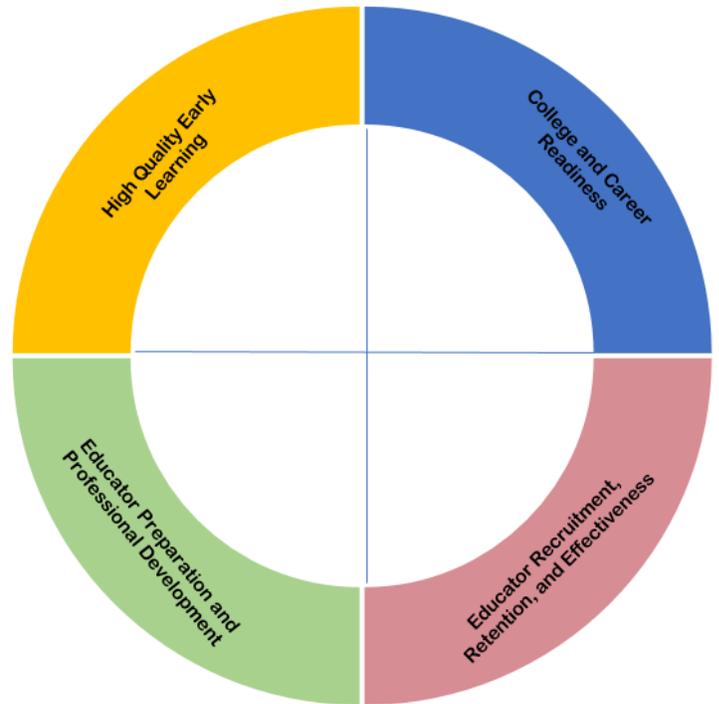
The MDE’s Research Framework includes three major components: the dimension, the indicator, and the change instrument. The Framework is not static, and will evolve over time to remain aligned with changes in factors that impact the public education system. The goal is to define a small number of research studies based on the Mississippi State Board of Education Strategic Plan.



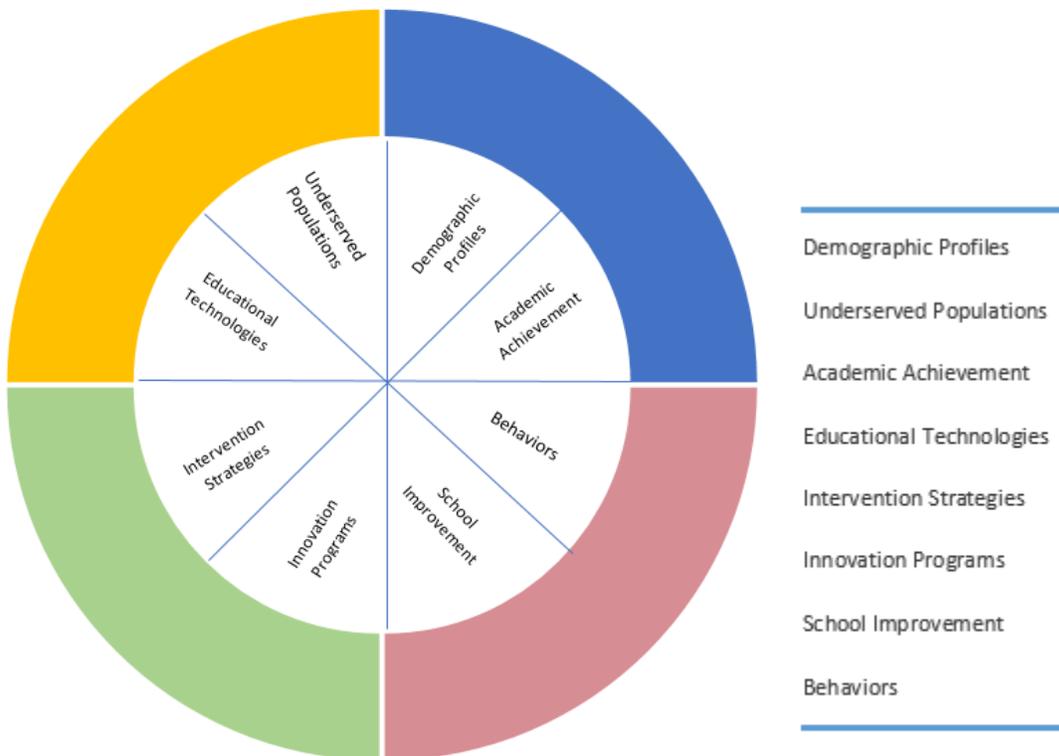
1. Framework Component - Dimensions

- High Quality Early Learning
- College and Career Readiness
- Educator Preparation and Professional Development
- Educator Recruitment, Retention, and Effectiveness

Dimensions are the keys perspectives through which MDE will focus its research development efforts.



2. Framework Component – Indicators



Indicators are the most critical part of the MDE’s Research Framework. They represent the broad categories that will be used to measure or assess each of the four dimensions.

Demographic Profiles are the information about quantifiable characteristics of a given student population (e.g., gender, and ethnicity).

Underserved Populations refer to students who do not receive equitable resources as other students in the academic pipeline. Typically, these groups of students include low-income, underrepresented, racial/ethnic minorities, and first generation students as well as many.

Academic Achievement refers to the extent to which a student, or teacher has achieved their short or long-term educational goals.

Educational Technologies are technologies devoted to the development and application of tools intended to promote education.

Educational technologies include technology resources and support; technology knowledge, skills, and attitude; and the integration of

technology (e.g., how a tool is incorporated into teaching and learning).

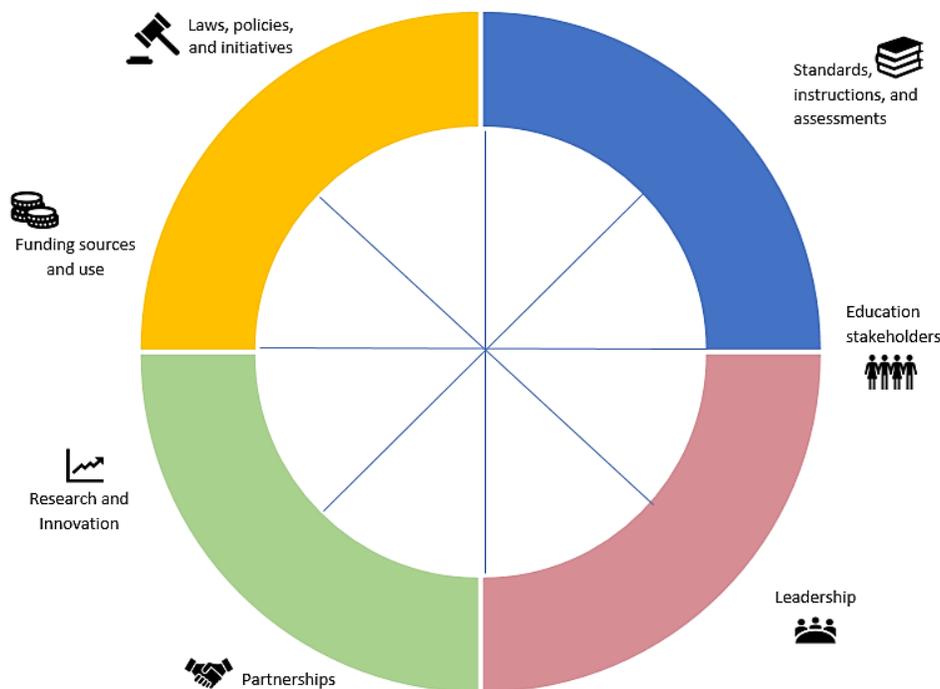
Intervention Strategies refer to the strategies used to teach a new skill, build fluency in a skill, or encourage a student to apply an existing skill to new situations or settings.

Innovation Programs refer to programs that support educators to develop, learn from, and scale new and effective approaches to serving students.

School Improvement is the effort that provide adequate resources and strategies in order to substantially raise the achievement of students in lowest-performing schools.

Behaviors refer to the act of coming into a classroom or otherwise educational environment, and either adhering to or deviating from classrooms and school rules and expectations.

3. Framework Component – Change Instruments



Change Instruments are factors that motivate the potential changes of the MDE Research Framework.

Research Agenda

High Quality Early Learning.

Within the broader context of early childhood education, how effective are Early Learning Collaboratives programs in improving Kindergarten Readiness and the third-grade literacy?

Applicable Indicators:

- Demographic profile
- Behavior (e.g., chronic absenteeism)
- Intervention strategies
- Academic achievement

The Legislature passed the Early Learning Collaborative Act in 2013, which provided \$3 million to establish a limited number of ELCs in underserved areas throughout the state. The Mississippi State Board of Education has made increasing access to high-quality early childhood education one of its top priorities and has leveraged philanthropy to build the state's early childhood education infrastructure through coaching and professional development and by providing guidance and support to school districts. Based on the immediate results just two years later, the Legislature increased funding to \$4 million, and increased it to \$6.5 million for FY19.

Correspondingly, the National Institute for Early Education Research (NIEER) recognized Mississippi in its latest report on pre-K quality as one of only five states whose publicly funded pre-K program meets nine of NIEER's 10 new quality standards for early childhood education. In its 2015 and 2016 State of Preschool reports, NIEER recognized Mississippi's ELCs for meeting all 10 quality standards for early childhood education, making Mississippi one of only five states in the nation that met all 10 benchmarks.

To inform these efforts and achievement gains, we seek to gain a deeper understanding of the short-term and long-term impact of early learning, as well as the interactive effect of early learning with other education initiatives.

College and Career Readiness.

How effectively does Early College High School reduce gaps in secondary and post-secondary success for underserved students?

Applicable Indicators:

- Underserved population
- Demographic profile
- Behavior (e.g., school engagement, high school experience, out-of-school internships)
- Academic achievement
- Educational technology

Considerable scholarly attention has been paid to the impact of Early College High School since the Early College High School Initiative began in 2002 in the North Carolina. The literature on the relationship between the Early College High School program and student outcomes (e.g., eighth grade math and reading scores, high school completion, and postsecondary outcomes) has been consistent, based on the extensive explorations in the states of North Carolina and Texas.

Mississippi started its first Early College High School in 2015. We know, however, that the relationship between the Early College High School and student outcomes in Mississippi has not been addressed. This is an opportunity for us to better understand the promising phenomenon of Early College High Schools in a bigger picture. Mississippi differs in key ways from North Carolina and Texas: Mississippi is the fourth largest rural state and its population has the largest percentage of African Americans. In Mississippi, more than half of all births occurred to unmarried mothers, and one in two households is headed by unmarried mothers with incomes below the poverty line. We see the urgent need and value of evaluating the implementation of Early College High School in large rural states and exploring its effectiveness on underserved student population. We intend to lay the foundation for establishing a more generalized, rigorous causal relationship between Early College High School and student success, and furthermore, how does any potential interaction effect help address the alarming teacher shortage issue in Mississippi.

We aim to explore more factors with respect to underserved (and disadvantaged) students from multiple dimensions. We would like to implement a laser-focus on the African American student population, the low-income student population, and the other struggling student populations. Through the impact study of Early College High School, ultimately, we plan to learn the causality of Early Colleges on the targeted students' college admission and their college success. We also would like to explore more differences (and the statistical significance of the differences) of the implementation of Early Colleges between Mississippi and North Carolina (and/or, Texas). For instance, the difference in location and setting of the program sites, the culture, etc.

Educator (and Administrator) Recruitment, Retention, and Effectiveness.

What (Value-Added) model most reliably and accurately accounts for educator's effectiveness within MDE's Educator Evaluation System? How are educator qualifications, licensure, and retention linked to student achievement and growth and educator effectiveness?

Applicable Indicators:

- Demographic profile
- Behavior
- Intervention strategies
- Academic achievement
- School Improvement
- Underserved population

To improve education evaluation and feedback, MDE is working to design and develop an Educator Evaluation System that incorporate multiple measures such as student performance, classroom observation, and student survey. Through this effort, we intend to seek a better understanding of what model can most reliably and accurately accounts for educator's evaluation cycle for the state and school districts. We also seek to understand the implementation, benefits, challenges, and potential solutions of the evaluation model.

Most research on teacher effectiveness has examined a relatively small set of teacher characteristics, such as graduate education and certification. The narrow focus on commonly available data, however, is likely to restrain the success in predicting teachers' performance. In addition, studies that estimate the relation between achievement and teachers' characteristics have produced little consistent evidence that students perform better when their teachers have more desirable characteristics. This is all the more puzzling because of the potential upward bias in such estimates. For instance, teachers with better credentials (e.g., experience or selectivity of undergraduate institution) may be more likely to teach in affluent districts with high performing students. Therefore, we want to explore whether certain characteristics not typically collected by school districts can predict teacher effectiveness, which may include general cognitive ability, content knowledge, personality traits, personal beliefs regarding self-efficacy, etc.

On the other hand, the lack of supply of educators, the instability of educators in teaching positions, and inadequate work conditions contribute to the educator effectiveness. The dilemma of chronic educator shortage and increasing demand for effective educators is existing and needs to be acknowledged. Specially, excessive teacher turnover can be costly and detrimental to instructional cohesion in schools. Consequently, many policies have aimed to stem teacher attrition, particularly at those school that experience high teacher turnover. Yet, without a better understanding of the reasons teacher leave, these approaches may not be as effective as they could be at reducing detrimental attrition. Addressing early attrition is critical to stemming the continuing teacher shortage crisis. We want to better understand

teacher attrition by researching the relationship between teacher turnover and school contextual factors, such as teachers' influence over school policy, the effectiveness of the school administration, staff relations, student behavior, safety, and facilities. What impact do the working conditions in schools have on their ability to recruit and retain teachers? What impact do various strategies related to teacher preparation on teacher recruitment and retention? What is the efficacy of particular recruitment strategies and policies in bringing new teachers into the profession, including specifically targeted populations?

An ongoing objective for us is to better understand the human capital needs of Mississippi's school districts, address the need for comprehensive, coordinated, and sustained efforts to reduce the teacher shortage, and improve the likelihood that educators have the work conditions needed to use effective practices. Correspondingly, there is a need for evaluations of various approaches to teacher recruitment, retention, certification, assessment, and compensation implemented by the state and school districts, and the relation between these approaches and student education outcomes.

Lastly, student diversity is in stark contrast to diversity in teaching staff. Although quality teaching for diverse student populations depends on many factors, there are too few qualified teachers for diverse student populations and too few teachers with specific training in culturally responsive pedagogies. What factors influence minority students' decisions to enter teaching? What do the available data tell us about patterns of minority teacher retention? What in-service experiences support or discourage minority teachers? There is much yet for us to understand about teachers' effectiveness with students.

Educator (and Administrator) Preparation and Professional Development.

Based on pre-service training and student population served, how effective are the state's professional development offerings (particularly those focused on early grades literacy, middle grades mathematics, and data use) among Mississippi public school based on assessment results and other measures?

Applicable Indicators:

- Demographic profile
- Educational Technology
- Innovation programs
- Academic achievement
- School Improvement
- Underserved population

Educator professional development is essential to efforts to improve our schools. Professional development is considered an essential mechanism for deepening teachers' content knowledge and developing their teaching practices. Over the past decade, a large body of literature has emerged on in-service professional development and teacher learning. A professional consensus is emerging about particular characteristics of "high quality" professional development. These characteristics include a focus on content and how students learn content; in-depth, active learning opportunities; links to high standards, opportunities for teachers to engage in leadership roles; extended duration; and the collective participation of groups of teachers from the same school, grade, or department. Although lists of characteristics such as these commonly appear in the literature on effective professional development, there is little direct evidence on the extent to which these characteristics are related to better teaching and increased student achievement.

The No Child Left Behind (NCLB) Act of 2001 requires that states ensure the availability of "high-quality" professional development for all teachers. NCLB does not, however, address questions such as what constitutes high-quality professional development or how professional development should be made available to teachers. The Every Student Succeeds Act (ESSA) of 2015 provides a new definition of professional development that includes activities that are: (1) An integral part of the school/district strategy for increasing the knowledge and skill of teachers to enable students to succeed in a well-rounded education; (2) Focused on meeting challenging academic standards; (3) Required to be sustained, intensive, and collaborative; and (4) Data driven. Given the size of investment in professional development and the dependence of education reform on providing effective professional development, the knowledge based on what works must be strengthened.

Sykes (1996) characterized the inadequacy of conventional professional development as "the most serious unsolved problem for policy and practice in American education today". Indeed, while the field of research on teacher learning is relatively young, we have made a great deal of progress in the last 20 or so years. For example, despite that some research has shown many professional development initiatives appear ineffective in supporting changes in teacher practices and student learning, we have evidence that professional development can lead to improvements in instructional practices and student learning. We are only beginning to learn, however, about exactly what and how teachers learn from professional development, or about the impact of teacher change on student outcomes. We have a full research agenda ahead of us to gather the information necessary to guide professional development policy and practice.

In addition, the professional development of teachers is studied and presented in the relevant literature in many different ways. Teacher professional learning is a complex process. All this occurs in particular educational policy environments or school cultures. The instruments used to trigger development also depend on the objectives and needs of teachers as well as of their students. Not every form of professional development, even those with the greatest evidence of positive impact, is of itself relevant to all teachers. There is thus a constant need to study, experiment, discuss and reflect in dealing with teacher professional development on the interacting links and influences of the history and traditions of groups of teachers, the educational needs of their student populations, the expectations of their education systems, teachers' working conditions and the opportunities to learn that are open to them.

What do we know about professional development programs and their impact on teacher learning? What are important directions and strategies for extending our knowledge? How do the effective strategies from educator professional development affect student achievement in mathematics, science, and reading and English/language arts? The connection seems intuitive, but demonstrating it quantitatively and qualitatively is difficult. Accordingly, we set out to discover the features of effective professional development. We want to investigate whether professional development programs with demonstrated effective strategies and best practices for elementary mathematics teachers can be adapted to different subject areas and grade levels. We also want to explore the tradeoffs between fidelity and adaptation that are necessary to ensure program effectiveness across multiple settings.

Although there is a large body of literature on professional development, surprisingly little attention has been given to what teachers actually learn in professional development activities, that is, their content. In particular, little research has been conducted on the relative efficacy of professional development activities that focus on different types of knowledge, skills, and teaching practices. First, activities vary in the relative emphasis they give to the subject matter that teachers are expected to teach and the teaching methods teachers are expected to employ. In addition, activities vary in the goals for student learning that they emphasize. Lastly, activities vary in the emphasis they give to the ways students learn particular subject matter. If we are serious about using professional development as a mechanism to improve teaching, we need to invest in activities that have the characteristics that research shows foster improvements in teaching.

Therefore, what are the characteristics of professional development that affect teaching practice in Mississippi? We plan to conduct a research project focusing on the effects of professional development on changing classroom teaching practice and improving student outcome. Through this study project, we aim to add to the knowledge base of Mississippi's public education system on effective professional development. Most importantly, we aim to have a more comprehensive and testable theoretical framework for understanding how teaching affects student outcomes. Particularly, we will benefit from understanding the key constructs of teaching and the processes by which these constructs are interconnected, and circumstances under which these interconnections influence student outcomes. This knowledge will help pinpoint the specific knowledge and skills needed by a K-12 teacher to promote student learning, focus efforts to develop psychometrically strong measures of teaching, and focus professional development interventions.

Moreover, the cultural, linguistic, and ethnic diversity of student population continues to grow and education disparities persist. Some teachers lack preparedness to instruct students who are from low socioeconomic backgrounds, racial minorities, or English learners. We also want to study the actual skills teachers need to provide effective instruction to students from various backgrounds.

Appendix 1: Research Agenda Focus Group

STAFF

Alan Burrow	Director, Office of District and School Performance
Albert Carter	Office Director, Educator Preparation, Office of Teaching and Leading
Anna Furniss	Director of Data Analytics, Office of District and School Performance
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Benu Vargheese	Data Architect, Core School Applications, Office of Technology and Strategic Services
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Brendsha Roby	Director, Division of Schoolwide Development, Office of Federal Programs
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David Kay	Enterprise Architect, Office of Technology and Strategic Services
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Demetrice Watts	Division Director, Office of Chief Accountability
Donna Nester	Bureau Manager, Office of School Financial Services
Gretchen Cagle	Executive Director, Office of Special Education
Gwen King	Migrant/English Language Learners & Immigrants Coordinator, Office of Federal Programs
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Jennifer Robinson	NAEP State Coordinator, Office of Student Assessment
Jill Dent	Director, Office of Early Childhood
Jo Ann Malone	Director, Office of Accreditation
Joyce Greer	Early Childhood Instructional Specialist, Office of Elementary Education and Reading
Kyle Huffling	Lead Business Analyst, Office of Technology and Strategic Services
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Libby Cook	Mathematics Content Specialist, Office of Student Assessment
Madelyn Harris	Staff Officer, Office of Special Education
Marla Davis	Director, Secondary Curriculum and Instruction, Office of Career and Technical Education
Melissa Banks	Instructional Technology Specialist, Office of Elementary Education and Reading
Melissa Beck	MKAS2 Coordinator, Office of Student Assessment
Mike Kent	Director, Office of Consolidation
Monique Henderson	Director, Division of Special Populations, Office of Federal Programs
Nathan Oakley	Executive Director, Office of Elementary Education and Reading
Paul Bryant	Director, Data Management and Integration, Office of Technology and Strategic Services
Quentin Ransburg	Executive Director, Office of Federal Programs
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Sandra Elliott	English Learner Intervention Support Specialist, Office of Elementary Education and Reading
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Sharon Prestridge	ELL Coordinator, Office of Student Assessment
Sonja Robertson	Executive Director, Office of School Improvement
Stacey Donaldson	Bureau Director, Office of Teaching and Leading
Teresa Jones	Staff Officer, Office of Accreditation
Teresa Washington	Project Manager, Office of Project Management, Office of Technology and Strategic Services
Toni Kersh	Director, Office of Compulsory School Attendance
Vernesia Wilson	Office Director, Office of Teaching and Leading
Walt Drane	Executive Director, Office of Student Assessment
Wendy Clemons	Director, Office of Professional Development

Appendix 2: Associated Questions

The following are the questions/ideas/needs program offices articulated during the focus group discussions. They are organized by the associated Dimension from the Research Framework and clustered by the strength (strong, moderate, or marginal). Any questions/ideas/needs that do not associate with a particular Dimension are listed at the end.

Dimension 1 - High Quality Early Learning

STRONG QUESTIONS:

1. What is the influence of Pre-kindergarten programs on student performance in early schooling? Do students who perform well in Pre-kindergarten programs continue to perform well in Kindergarten and the third grade?
2. Examine and compare the effects of early learning collaboratives (ELCs) and other Pre-kindergarten programs.
3. What is the longitudinal effect of the ELCs program on 3rd grade performance? For kids who were in the ELCs program, what is the effect of the ELCs program on their performance in RLA, Math, and retention?
4. What is the impact of the early learning collaboratives (ELCs) program on first grade retention and second grade retention?

MODERATE QUESTIONS:

1. What is the portrait of chronic absenteeism in Mississippi? What does it look like in early grades?
2. Are there disparities in attendance, enrollment, and performance in areas that have publicly funded Pre-K programs as compared to those who do not?
3. Using the Brigance Early Childhood screener data, examine the improvement on developmental measures of students who enrolled in publicly-funded Pre-Kindergarten programs.
4. For Kindergarten students enrolled for school year 2016-2017 and 2017-2018, what type of Pre-Kindergarten programs were they enrolled in? Are there any trends or patterns?
5. What are the short-term and long-term academic effects of early childhood education on children in poverty?
6. Does the early learning collaboratives (ELCs) program have a positive impact on third grade academic performance in terms of reducing the achievement gap for low-income students?

MARGINAL QUESTIONS:

1. Do additional teacher resources, such as coaches, have a significant impact on Pre-Kindergarten student success and attendance?
2. Examine and compare Title-funded programs and locally-funded programs, to others.
3. What is the relationship between the results of early childhood assessments and teacher quality?

Dimension 2 - College and Career Readiness.

STRONG QUESTIONS:

1. What is the generalized effectiveness of Early College High School (ECHS) in Mississippi? What potential differences does it create between students enrolled in the ECHS program (i.e., treatment group) and students not enrolled in the ECHS program (i.e., control group)?
2. What is the impact of Early College High School on reducing the achievement gap in terms of graduating on time, particularly for African American and low-income students?
3. Measure the effectiveness of Career Academy. Does student attendance improve in Career Academy? Does student behavior change over time? Does post-secondary enrollment increase? Do students engage more in school? Are students more likely to graduate or complete Career Academy?
4. Evaluate the effectiveness of the New Endorsement of High School Diploma. Do the diploma endorsement options increase college and career opportunities for students?

MODERATE QUESTIONS:

1. What is the influence of third grade reading proficiency on student graduation status? Does third grade reading predict a student's likelihood to graduate from high school on time?
2. What is the relationship between the Pre-K scores among SPED students and graduation/or dropout rates in later academic years?
3. What is the course-taking pattern that links to higher ACT results?
4. Compare Advanced Placement (AP) and the Dual Enrollment. How to promote AP based on the current statewide accountability model?

MARGINAL QUESTIONS:

1. What is the effect of the implementation of waivers for districts participating in the Mississippi Innovation Lab Network?
2. What are the benefits of reducing the "seat time" in Carnegie Units? What kind of changes will benefit students?

Dimension 3 - Educator Recruitment, Retention, and Effectiveness.

STRONG QUESTIONS:

1. What is the portrait of an effective teacher in Mississippi, with respect to the demographic factors, the educator preparation program, student impact, and more?
2. Teacher shortage: what do we know? What does the data tell us (the teacher labor market, long-term trends-teacher production and teacher turnover)? Where do shortages exist?
3. Is Mississippi's teacher shortage alarming? Is there any national trend? How can Mississippi's teacher shortage issue be addressed? What's in the literature? What's the best practice from other states?
4. Is the cause of teacher shortage the same in the four subject shortage areas (special education, math, science, and foreign language)? Are there any differentiations regarding the contributing factors?

MODERATE QUESTIONS:

1. What are the characteristics of educators who succeed in low-performing (or the most challenging) schools? What are effective strategies to recruit and retain them?

2. How to address the “culture deficit” in teaching? What support should be provided to classrooms if teachers lack the knowledge to connect to students from different cultural backgrounds?
3. What are potential weaknesses and support areas needed in classroom management, using the Student Teacher survey results? What kind of program changes do the results suggest for the educator preparation programs?
4. How are standards for math practice and science being addressed at the classroom and assessment level among students in Mississippi? Do elementary school teachers feel adequately prepared to teach these subjects?
5. Do superior teachers employ more (or certain types of) technology tools in their classroom?

MARGINAL QUESTIONS:

1. What is the current state of educational technology utilization in Mississippi’s public education system? How often do teachers use educational technology in their classroom?
2. What is the annual trend in certification by type of certification? How does this compare with vacancies? What percentage of teachers are employed in MS are certified? What is the average length of time a teacher is employed in the same school (MS vs National)?
3. How are literacy coaches spending their time (e.g., coaching, conferencing, professional development, and etc.), particularly in the case of low-performing schools using third grade data?
4. What are the turnover rates of administrators and teachers in literacy support schools? What do the statistics tell us?
5. Does National Board Certification have an impact on school culture? How can teachers with National Board Certification be placed in the most needed areas?
6. What are the student and staff mobility within low-performing schools?

Dimension 4 - Educator (and Administrator) Preparation and Professional Development

STRONG QUESTIONS:

1. Evaluate the effectiveness of the Phonics First’s Orton Gillingham-based Professional Development Training system.
2. Evaluate the difference in impacts of educator preparation programs on student learning. Where did effective teachers receive their preparation? What are the best practices those preparation programs utilize which can be implemented by other programs in Mississippi?
3. What are the influential factors in successful first year teachers, in terms of preparation programs and school support strategies? What are the impacts of different approaches towards teacher preparation on teaching practice?
4. Compare traditional-preparation teachers and alternate-route teachers. What are the differences between them in terms of effectiveness?
5. What are the differences in impact of various educator preparation programs on student learning?

MODERATE QUESTIONS

1. What is the impact of the State Systemic Improvement Plan? How to support teachers and provide them with tools to help struggling students read.

2. What is the relationship of academic success to first year phonics training? Does having this training show via improvement in the third-grade reading gate?
3. What are the benefits of online professional development practices?
4. What is the feasibility of developing an individualized approach to professional development tailored to the specific needs of the teacher and/or administrator, and develops a plan of improvement for all teachers within the state of Mississippi?
5. How does the National Board Certification align with the goals to help teachers and improve learning?

MARGINAL QUESTIONS:

1. What professional development sessions given to school staff are implemented with fidelity? What strategies in literature which have a positive impact on student achievement are sustainable?
2. How to measure professional development effectiveness.
3. What are the differences in access for professional development in regular education classrooms as opposed to SPED classrooms for teachers?
4. Does teacher training that stresses cultural competence and culturally responsive pedagogy (measured by course work/credit hours in these areas) impact student academic success, as measured by grades, and performance on state assessments/college readiness assessments (ACT, SAT)?
5. Evaluate whether the literacy support schools have been able to sustain success after moving from full support to limited support.

Unassociated Questions

1. Evaluate the effectiveness of the newly developed Four-Area Intervention Framework? Do schools using funding who focus on the Four-Area framework perform better than others?
2. How well do highly rated districts perform on achievement gap measures? What interventions, incentives, and accountability elements work best to help alleviate achievement gaps in highly rated districts?
3. What is the demographic makeup of the highest and lowest rated districts in MS? How does poverty affect the demographic makeup of the highest and lowest rated districts?
4. Getting to the Root of the Problem: What are the causes of chronic absenteeism in Mississippi? Are there any differentiations in the causes across subgroups, across grades, or across regions?
5. What are the effects of chronic absenteeism in Mississippi? How does school attendance influence student success?
6. How can the attendance gap be closed?
7. What intervention strategies have been working effectively in schools of Mississippi? What intervention models have been approved to be effective in other states? Are there any collaborative solutions? How to reduce chronic absence by aligning school and community resources?

8. What is the relationship between teacher absenteeism and student academic performance for elementary, middle, and high school? Does absenteeism have a differential impact among different subject areas?
9. What is the relationship between school attendance and academic performance, for third graders and ninth graders among students in Mississippi? How do the findings in Mississippi compare with what current literature indicates?
10. How to accurately identify low-income students, English Learners, homeless students, and neglected and delinquent students, given that the current identification relies on self-reported data? How can a student with many labels can be accurately identified?
11. What are the results of the STEM initiatives at early grades among students in Mississippi? Are these initiatives influencing later academic success?
12. How do the instructional materials/textbooks affect student performance on state assessments and college admission? Specifically, is there a relationship between the various instructional materials used in schools and student performance on state assessments?
13. What type of Blended Learning works most effectively? What kind of equity issue should be addressed in this process? What are the best guidelines for schools and districts?
14. How is it possible to promote the best personalized learning experience?
15. How is educational technology practiced across different subject areas in Mississippi and what is the associated effectiveness?
16. Evaluate the effectiveness of open education resources. Does the use of “open source software” offer compelling benefits in public k-12 education in Mississippi?
17. What are the impacts of different types of e-learning strategies used on learners from disadvantaged, marginalized, and/or minority communities?
18. Do students with internet access at home perform better than their peers with no internet access at home?
19. Given the five-year target set for English-Learner students, why don't English-Learner students exit in year five? What are the root-cause factors? What are the best practices other states are utilizing to help English-Learner students exit?
20. How to best define a “persistently dangerous school”? What parameters should be included in the definition?
21. How does school funding impact opportunities and outcomes for students? What are the effects of school-level resources when controlling for student-level characteristics and contexts, such as race or ethnicity, economically disadvantages, etc.?
22. For schools who share facilities, how to attribute costs accurately?
23. How Per Pupil Expenditures across subgroups, particularly for low-income students, can be tracked and compared?
24. Are schools effectively making “data driven” decisions when making decisions to place students in intervention? (Star, MAAP, Dyslexia Screener, other universal screener measures)?
25. What are the differences in student-centered factors, such as attendance and growth, between regular students and SPED students? Are disparities larger among SPED students?