STATE OF MARYLAND
OFFICE OF THE GOVERNOR

May 27, 2016

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GOVERNOR

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The Honorable Thomas V. Mike Miller
President of the Senate
State House
Annapolis, Maryland, 21401

Dear Mr. President:

In accordance with Article II, Section 17 of the Maryland Constitution, Senate Bill 493 – *Teacher Induction, Retention, and Advancement Act of 2016* will become law without my signature.

Senate Bill 493 establishes a Teacher Induction, Retention, and Advancement Program for first-year teachers who participate in the program to be afforded at least 20% more time than other teachers to be spent on mentoring, peer observation, assistance with planning, or other preparation activities. The bill also increases the maximum State matching stipend for teachers who hold National Board Certification (NBC) from $2,000 to $4,000. These are worthy ideas that my Administration supports.

What I cannot support is the use of a bill focused on statewide education policy as a vehicle for the General Assembly to intervene in a labor dispute at the local level. Included with this legislation is a last-minute amendment that provides a $1,500 stipend to teachers in Anne Arundel County, following a decision by the local teachers union to jettison the special school-specific stipend program in favor of using those funds for across-the-board pay increases to teachers during the county salary negotiation process.

Our fiscal 2017 budget delivers a record $6.3 billion for K-12 education, including almost $418 million for Anne Arundel County, an increase of nearly four percent over fiscal 2016. Statewide, we are contributing more to education than any Governor in the history of the State.

While I support retention of teachers and providing the appropriate incentives to keep the most effective teachers in the classroom, I object to the last minute amendment specific to Anne Arundel County. Labor contracts between county leaders and local teachers unions are the business of the county officials. If members of the General Assembly are eager to have their voices heard in labor contract negotiations, I would suggest they lobby their county executives and county councils instead of seeking out backroom deals that contradict the negotiations of the local teachers union and that require taxpayers from across the State to fund a teacher incentive program in only one county.

Despite the reservations that I have expressed above, Senate Bill 905 will become law without my signature.

Sincerely,

Governor Lawrence J. Hogan, Jr.

Teacher Preparation Program Reform Efforts

Beginning in 2013 with the work of the P-20 council, The Maryland State Department of Education, the University of Maryland System, and MHEC have worked collaboratively to address the growing need for teacher preparation reform. Recruitment, preparation, induction, and retention have been the ongoing focus. Significant momentum the past year has positioned Maryland to begin to implement a variety of pilot programs aimed at increasing the teacher pipeline, providing more support to beginning teachers, and increasing the number of leadership opportunities for teachers. All work is aimed at putting high quality teachers in front of Maryland's children.

Recruitment

2015: P-20 Council and Quality Teacher Incentive Reports to the General Assembly

2015: Formation of P-20 Workgroup

2016: SB 493: Teacher Induction, Retention, and Advancement Act

+ Link Loan forgiveness to teaching in high needs school

2016 MSDE Intiatives

+ Examine certification options for individuals with specilized training for hard to fill positions (COMAR 13A.12.02.27)

+ Alternative Certification Programs Workgroup (MSAR 10533)

Preparation

2015: P-20 Council and Quality Teacher Incentive Reports to the General Assembly

+ Improve Teacher Quality State Grants

+ Transition to Professional Learning Networks built on a model of internships and residencies

+ Increase the number and variety of Field Placements

2015 Formation of P-20 Workgroup

2016: SB 493 Teacher Induction, Retention, and Advancement Act

+ Interweave NBC, APC, M.Ed., and teacher prep

+ Changes to the Teacher Quality State Grant

2016 MSDE Intiatives

+ NCATE to CAEP MOU & Workgroups

Induction

2015: P-20 Council and Quality Teacher Incentive Reports to the General Assembly

+ Professional Development to include collaboration with Higher Education

+ Establish a 3-year residency model

+ Establish Collaboratively supported teaching Innovation Centers

2015 Formation of P-20 Workgroup

2016: SB 493 Teacher Induction, Retention, and Advancement Act

+ Teacher Induction, Retention and Advancement Pilot

MSDE Intiatives

+ Teach to Lead Grant

+ NT3 Grant

+ Teachers of Promise

Retention

2015: P-20 Council and Quality Teacher Incentive Reports to the General Assembly

+ Create career ladder incentives

+ Reward teachers for NBC teaching in lowest performing schools

+ Restructure Quality Teacher Incentive Funds

2015 Formation of P-20 Workgroup

2016: SB 493 Teacher Induction, Retention, and Advancement Act

+ Increase NBC stipend for teachers in comprehensive needs

+ Utilize NBC teachers in leadership roles

+ Examine teacher recertification

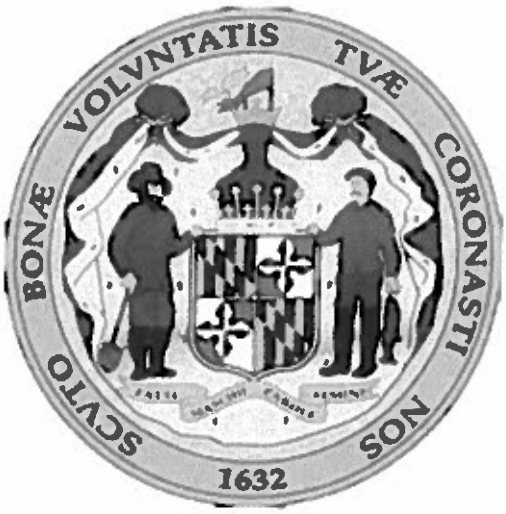
+ Teacher Induction, Retention and Advancement Pilot

MSDE Intiatives:

+ Examine the requirements of the conditional certificate (MSAR 10533)

Joint Chairmen's Report
Report to Ensure High Quality Teachers
(R75T00 PAGE 130)

Final Report



Annapolis, Maryland
December 1, 2015

R75T00 p. 130

Report to Ensure High Quality Teachers: The P-20 Council established a task force on teacher education to develop recommendations and an action plan to ensure Maryland Programs produce high quality teachers. The budget committees are interested in the task force examining identified best practices of high performing countries and developing recommendations to producing high quality teachers and making teaching a profession with career ladders. The committees request the task force to submit a report with recommendations to ensure Maryland produces high quality teachers based on identified best practices by November 14, 2015.

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Executive Summary

In response to the JCR request (R75T00), this report provides a review of best practices of high performing education systems from around the world, a set of recommendations for producing high quality teachers based on those practices, and recommendations for transforming teaching into a profession with career ladders. High performing systems have lower rates of teacher attrition, as teachers who are well prepared and supported stay on the job longer, become even more effective over time, and have positive impact on student achievement.

Enacting the reforms and recommendations included in this report will require rethinking how current resources are used, revising current regulations and legislation to allow for greater flexibility, being open to reallocating some current resources, and investing some additional resources to earn a higher return on investment in the form of both increased teacher retention and student achievement.

Key recommendations from this report fall into four categories:

1) Pre-service preparation and teacher induction;
2) Professional development for current teachers, including collaborations with higher education;
3) Continuous improvement through accountability; and
4) Career ladders for teachers that could include joint appointments in higher education.

This report concludes with the following recommendations:

1. The Maryland State Department of Education (MSDE) and the Maryland Higher Education Commission (MHEC) should prepare a cost analysis for the high priority recommendations offered in this report, and make recommendations for the 2017-18 fiscal year for budget reallocations to support those recommendations that have the greatest evidence of high return on investment as defined by higher teacher retention and student achievement.
2. MSDE, in collaboration with MHEC, should establish an incentive fund for pilot projects, and review evidence of progress on the key goals of recruiting and retaining high quality teachers in Maryland public schools, with the goal of improving student learning outcomes and increased college and career readiness.
3. A reallocation of current resources should be considered in several categories of current funding:
    - District-level and school-wide professional development funds: Current professional development funds in every district could be reallocated for new priorities and career ladder incentives.
    - Quality Teacher Incentive Funds (QTI): Restructuring the QTI funding to include several different buckets, including, but not limited to:
        - Rewarding teachers for National Board Certification and/or teaching in the lowest performing schools;

- Creating competitive pilot projects to improve teacher retention and recruitment and using 2015 PARCC scores as baseline; and
- Establishing three-year cycles with flexibility for determining the actual measures as needed.

- Projected teacher retention savings: an "advance" on teacher retention savings, based on the estimate that Prince George's County Public Schools (PGCPS) and Baltimore City Public Schools alone spend $42 million per year to attract and train replacement teachers (NCTAF, 2007).
- Improving Teacher Quality State Grants (ITQ): These grants, authorized by Title II, Part A of the No Child Left Behind Act of 2001, overseen by MHEC, support higher education to prepare quality teachers and principals.

Process

In November 2013, the P-20 Leadership Council charged a Task Force with making recommendations for ensuring all Maryland teacher preparation programs produce high quality teachers. Co-chaired by then-Deputy Superintendent Jack Smith and Towson University Provost Tim Chandler, the Task Force met five times between December 2013 and April 2014. Other appointed members of the task force included representatives from P-12 schools, institutions of higher education, parent organizations, and teacher associations. The co-chairs also convened targeted subcommittees. By April 2014, the Task Force offered recommendations on pre-service teacher preparation, teacher induction, professional development for teachers, and continuous improvement through accountability to the P-20 Council.

Since April 2014, members of the P-20 Task Force have continued to work together to address the recommendations put forth in their original report. Representatives from the University System of Maryland (USM), MSDE, and various institutions of higher education in the state have collaborated on collecting additional evidence and through meetings such as the P-20 Task Force Focus Group of Deans, Superintendents, Principals, and Teachers, which convened on September 1, 2015 (see Appendix 1). Further, the USM's P-20 office continues to support Chancellor Robert Caret's work with the Governor Larry Hogan's P-20 Leadership Council. On October 19 2015, the USM P-20 office collaborated with MSDE and arrived at consensus on needs and priorities with regard to teacher preparation. At that meeting, the co-chairs of the P-20 Task Force agreed to link the two JCR reports addressing this topic: JCR R74T00 p. 130 and JCR R00A02.55 p. 107, which is why they are being submitted together.

Finally, when the Task Force met in 2014, it considered the proposed federal regulations on teacher preparation that were under discussion. The current projection is that the federal government will release the final teacher preparation regulations in December 2015, and that they will call for states to rank and evaluate all teacher preparation programs and use "student

learning" as a metric. The recommendations in this report are consistent with the national conversations regarding teacher quality.

Introduction and Context

Despite longstanding myths about who enters the teaching profession, today's teaching force does not come from the bottom half of high school achievers. Rather, they are from the middle of the college-attending cohort.[1] Since 2000, the academic ability of both individuals certified and those entering teaching has steadily increased.[2] In order to accelerate this trend, policy makers are formulating ambitiously high admission requirements for entry into teaching, and preparation programs are admitting more high-quality candidates. The challenge, we believe, is that public education faces a serious threat as those who enter find little support and, as a result, leave quickly. In fact, focusing on recruiting top performers into the profession is proving to be a short-sighted method, as suggested in a new analysis. The study, *Beginning Teacher Longitudinal Survey*, reveals that teachers who come from highly selective universities were 85% percent more likely to leave the profession by the third year.[3]

The climate under which teachers enter their preparation programs, as well as the first job of successful candidates, heavily influences whether and how long they will stay in the classroom.[4] While there are different definitions of teacher turnover (leaving one school for another) and teacher attrition (leaving the profession), to address staffing shortages we must focus on both the retention of teachers to the profession and to their schools.[5] It is estimated that one-third of teachers leave the job during their first three years, and up to one half leave within the first five years.[6] In 2012-13 in Maryland, the attrition rate for teachers with up to five years of experience was 39 percent.[7] Further, turnover at high poverty schools is nearly one-third higher than for all teachers in all other schools.[8] In Baltimore City, the attrition rate was 50 percent in 2012-2013, and in Prince George's County it was 58 percent.[9]

According to the Alliance for Excellent Education, a conservative estimate of the cost of teacher attrition in the United States is $4.9 billion per year.[10] However, the actual cost for replacing and training teachers who leave the profession and those who transfer to other schools is estimated at $7 billion dollars, nationally.[11] For Maryland, that amount is over $42 million dollars annually.[12]

Below is a table indicating a variety of studies trying to pin down the cost of teacher attrition. While the results vary from state to state and from study to study, there is no question that teacher attrition accounts for a significant drain on public school funds.[13]

Study	Area	Number of Teachers	Reported Turnover Rate	Claimed Cost of Teacher Turnover	Claimed Cost per Turnover
Texas Center for Educational Research (2000)	Texas Public Schools	258,000	15.5%	Model 1: $329M Model 2: $2.1B	Model 1: $8,227 Model 2: $52,513
Chicago ACORN (2003)	64 Chicago Public Schools	2377	22.9%	Model 1: $ 5.6M Model 2: $42.2M Model 3: $34.7M	Model 1: $10,294 Model 2: $77,574 Model 3: $63,787
Breaux & Wong (2003)	Nation			Model 1: 2.5 x initial salary Model 2: 1.75 x initial salary	
Alliance for Excellent Education (2005)		2,998,795	13.1%	13.1%	$12,546
Shockley et al. (2006)	2 Florida districts	Broward: 1206 St. Lucie: 320	Broward: 7.25% St. Lucie: 16.4%	Broward: $15.3M St. Lucie: $1.48M	Broward: $12,652 St. Lucie: $4,631

The financial costs alone are worrisome, but the costs paid by students and their families are even more important. Teacher turnover has a negative impact on school quality, instruction and student achievement.[14] According to the National Council on Teaching and America's Future and The New Teacher Project, those leaving the profession now exceed those entering.[15] Teacher retention is the key issue in addressing teacher shortages.

Overwhelming evidence points to the need for teacher education programs and school districts to provide the conditions that make successful preparation and on-going teaching and learning possible in order to discourage high-quality educators from leaving the profession. The most widely recommended practices include

- Extensive and rigorous clinical experiences;
- Systematic induction programs that include mentorships; and
- Effective, job-embedded professional development.[16]

Multiple studies have confirmed that beginning teachers who are supported through comprehensive induction programs are less likely to transfer schools or leave the profession altogether, even when controlling for teacher and school characteristics. Within induction programs, elements like mentorships, dedicated time for collaboration, common planning time, and belonging to an external network of teachers, have the strongest impact on reducing the chance of a teacher leaving after the first year.[17] Teacher retention is an urgent policy issue. Stakeholders throughout school districts bear the brunt of these costs.

Experienced, high-quality teachers are positively associated with higher student achievement, better student attendance, and lower instances of disciplinary infractions. Research indicates that it may take teachers a decade to become consistently effective once they are in the classroom, making it that much more important to get teachers to enter and stay in the profession.[18] Papay and Kraft found that teachers in their tenth to thirtieth years of teaching increased student test scores by an average of 40 percent.[19] Attracting high-quality candidates and keeping high-performing teachers in the profession have widespread implications for the academic and social well being of Maryland's students.

Maryland P-20 Teacher Education Task Force Recommendations

On November 18, 2013, the Governor's P-20 Leadership Council charged a P-20 Task Force on Teacher Education with making recommendations and creating an action plan to ensure that all teacher preparation programs in Maryland will produce the high-quality teachers Maryland's students deserve. Co-chairs Jack Smith (Deputy Superintendent, Maryland State Department of Education) and Tim Chandler (Provost, Towson University) convened five meetings of the Task Force between December 2013 and April 2014. The appointed members included representatives from PreK-12 schools, the higher education community, parent organizations and teacher associations. In addition to the monthly Task Force meetings, the co-chairs presided over sub-committee meetings, conference calls, and electronic reviews of documents.

The Task Force on Teacher Preparation grew out of a collaboratively planned Teacher Education Summit[1] which was held on October 11, 2013, at Towson University. The keynote speaker, Chancellor Nancy Zimpher of the State University of New York System, challenged the assembled participants to think broadly about their aspirational goals and the changing context of teaching and teacher preparation. The Task Force accepted the charge and framed a set of recommendations that attempts to balance the on-the-ground realities with transformational best practices. The Task Force agreed that the recommendations should:

- Address the gap between teacher preparation programs and the on-the-ground realities in schools.
    - Align and integrate teacher preparation programs with the world of classroom teachers.

[1] Partners for the Summit included USM, MSDE, MHEC, MICUA, and MACC.

    - Prepare all teachers with background and strategies to understand and adapt to changing student populations; including cultural differences, poverty, and special learning, social and emotional needs.
- Recognize that while new teachers must be adequately prepared in advance to enter the classroom, preparation must link seamlessly with school district induction and embedded professional development to ensure a successful and long-lasting teaching career.
- Use multiple qualitative and quantitative measures to study teacher preparation and look for evidence-based ways that lead to building continuous improvement.
- Develop a common Maryland framework that, while allowing for program flexibility and innovation, holds all education preparation providers - both traditional and alternative - accountable to a common set of rigorous expectations.
- Address the need for cycles of regular review and evaluation.

In responding to the charge, the Task Force examined national research reports and policy documents assembling categories of best practices; reviewed existing Maryland statutes and regulations related to teacher preparation; reached out to stakeholder groups; and circulated multiple drafts of the recommendations. The Task Force engaged with a variety of stakeholders including deans and directors of education at Maryland's two-year and four-year colleges and universities; principals and professional development coordinators convened by the University of Maryland; local school district superintendents; teachers and teacher association representatives; alternative certification providers; parent organizations; a number of national professional organizations; and the business community.

Maryland has also been a leader, through the use of Race to the Top (RTTT) funding, in reflecting global priorities. The increase in the quality and quantity of teachers in the science, technology, engineering and mathematics (STEM) areas has been a focus for the last four years. Additionally, RTTT prioritized preparing principals and teachers to be effective in challenging schools. The Task Force recommendations underscore the belief that closing the achievement gap is paramount in preparing all of Maryland's students for college and for successful careers.

Building on a strong foundation of educational excellence in Maryland, and taking lessons from many sources, the P-20 Task Force on Teacher Preparation offered recommendations in four key areas:

A. Pre-service teacher preparation;
B. Pre-tenure teacher induction;
C. Professional development for current teachers; and
D. Continuous improvement through accountability.

A. Pre-Service Teacher Preparation

1. Establish higher Maryland standards for admission to all teacher preparation programs.
2. Align teacher preparation programs, including Associate of Arts in Teaching (AAT) programs, with Maryland College and Career Readiness Standards (MCCRS).

3. Transition to Professional Learning Networks built on a model of internships and residencies to increase the number and variety of field placements for teacher candidates.
4. Increase the number and variety of field placements to promote adaptive expertise, with the final placement organized in a way that simulates what is expected in the first year of teaching.
5. Prioritize in-state programs for field placements, internships, and post-baccalaureate residencies.
6. Invest in scholarships, loan forgiveness, and early college/teacher academies to recruit highly qualified students into teaching careers.

B. *Pre-Tenure Induction*
   1. Establish a three-year residency model for all pre-tenured teachers that engages higher education teacher preparation programs in collaborative partnerships with school districts.
   2. Establish collaboratively supported Teaching Innovation Centers (hubs of innovation).
   3. Fund three initial pilot Teaching Innovation Centers with state "seed" money – and subsequently with savings from reduced teacher attrition.

C. *Professional Development for Current Teachers*
   1. Establish career-long professional development programs and career ladders for educators that are aligned with the high expectations of MCCRS.
   2. Establish a school/university partnership process for building professional development programs for educators:
      a. Programs should be collaboratively developed by PreK-12 and higher education; and
      b. Programs should build strong content and pedagogy competencies.
   3. Reallocate existing funds for professional development to support the new collaboratively developed models.

D. *Continuous Improvement through Accountability*
   1. Build Maryland accountability recommendations around the ideal conditions that contribute to the development of highly effective teachers and set a high bar for qualifications and expectations for all teacher preparation programs;
   2. Align current Institutional Performance Criteria to reflect school reform initiatives;
   3. Ensure that higher education institutions have access to all data necessary for continuous improvement research; and
   4. Align elements of the Council for the Accreditation of Educator Preparation (CAEP) standards for accreditation with Maryland's priorities to ensure efficient and effective use of resources.

Career Ladders: An idea whose time has come to the teaching profession

Over 30 years ago, in 1983, *A Nation at Risk*[20] recommended:

> "The teaching profession needs to recognize and reward expertise by following the lead of other professions that create diverse and flexible career options; link compensation to performance, expertise and responsibilities; and work to retain 'high achievers'."

That landmark report included a number of recommendations that have yet to be fully implemented in school improvement plans:

- Insist on higher standards for teacher-preparation programs;
- Introduce teacher salaries that are professionally competitive and based on performance;
- Introduce 11-month contracts for teachers allowing more time for curriculum and professional development;
- Introduce career ladders that differentiate teachers based on experience and skill, and infuse more resources into teacher-shortage areas;
- Build incentives for drawing highly qualified applicants into the profession; and
- Create and support mentoring programs for novice teachers that are designed by experienced teachers.

Today, 30 years and a generation later, "Gen Y teachers"—a new generation with different career aspirations—are projected to make up nearly half of the workforce in 2020.[21] According to the 2012 MetLife Survey of the American Teacher, fewer teachers in general want to become principals, but there is growing interest in teachers teaching in "hybrid roles"—those roles that keep them part-time in the classroom combined with other roles of service and leadership in education.[22] Interest in these hybrid roles is particularly strong among mid-career teachers, high school teachers, and those in urban schools or schools with high proportions of low-income students.[23]

In 2013, the National Network of State Teachers of the Year did a state-by-state analysis of the different state-based policies and initiatives related to recognizing and promoting teacher leadership, as well as teacher career advancement initiatives in local districts. Their recent publication *Creating Sustainable Teacher Career Pathways: A 21st Century Imperative*, presented a comprehensive look at the most promising, evidence-based alternatives to our traditional career trajectories for teachers.[24] Examples included: tiered teacher licensure systems that include "master" or advanced level status; teacher leader/master teacher endorsements or designations; the development of continuums of teaching practice that distinguish the competencies of teachers throughout their careers; and more comprehensive teacher career advancement initiatives. Their thesis is undeniable: The teaching profession needs to evolve to meet 21st-Century career expectations for a new generation of teachers and learners.

Unlike most professions requiring licensure (nursing, architecture, law, civil engineering), teaching has historically been described as an "unstaged occupation," with fewer opportunities to access higher earning and higher status positions than one would experience in other "staged professions." In addition, in most states, upward movement on the salary scale is determined by number of years served, together with degree attainment, rather than actual performance, although that appears to be changing. This form of rank and pay movement is used across Maryland school districts, with the exception of Baltimore City.[25]

Although much has been written about the stages in the professional life of teachers, the "career path" of a teacher is generally flat or narrowly linear.[26] The main opportunity for career advancement for teachers has been leaving the classroom to become a school administrator. "Mid-career" teachers often experience burnout, stress, and dissatisfaction.

Research shows that teachers improve their proficiency and effectiveness the most during the first seven years of teaching; and the failure to provide comprehensive, high-quality induction programs is costly in terms of lost human capital and diminished teacher effectiveness in the early career stages[27].

It is clear that, without structural changes to the teaching profession—including better working conditions, competitive compensation, flexibility, and career staging—it will be increasingly difficult to attract and retain enough highly motivated and qualified teachers into the profession. Currently, only nine percent of students in the "top third" of their academic cohort express interest in going into teaching.[28] Building additional career stages that value and reward high performing teachers may be one way to motivate promising newcomers to the profession to set longer-term goals that involve leading from the classroom.[29]

The over-arching goals of a teacher career advancement continuum is to ensure consistent access by all students to excellent teachers and teaching teams, create the conditions for advancing student learning for all students, increase the effectiveness of all teachers, and to retain the most effective and talented teachers.

Teacher leadership opportunities will likely be critical in recruiting talented individuals into the teaching profession who might otherwise choose other professions. In addition, these teachers will expect opportunities to participate in decision-making at the school and district level, to assume specific leadership roles, and to be provided with recognition and financial rewards for high performance.

The P-20 Task Force on Teacher Preparation included recommendations for implementing career ladders in Maryland.

What Can We Learn from International Models?

Some international systems have more defined career paths than those in the U.S, examples of which are Singapore, Shanghai, and Australia. Others, such as Finland, Ontario and Japan, have less defined career ladders; but seek to engage all teachers in more collaborative work, sharing practice and research on teaching. What appears to be universal in all these countries is that teachers generally come from the top of their graduation cohort; and that the teaching profession is conferred with high status and, often, high pay. Many countries set attracting the "best and the brightest" into teaching as a national priority.

The table below summarizes some of the characteristics of the international models that are most commonly used as examples of best practice when describing teacher preparation and the teaching profession.[30]

Teacher Policies in Select Countries

SINGAPORE

Recruitment and training: Teachers are recruited from the top third of high school graduates, with only one of eight applicants accepted for admission to the only teacher training institute in Singapore (the National Institute of Education [NIE], located in the Nanyang Technological University, one of the most prestigious institutions of higher education).

Career advancement: A teaching career can take the following tracks: the teaching track which can lead to becoming Principal Master Teachers, the leadership track for those seeking a formal leadership position in the school (the highest being Director-General of Education); and the specialist track focused on research and teaching policy (Chief Specialist). Singapore also has a new performance management system with a clearly defined, comprehensive teacher competency model designed to attain work-related goals, match teachers to a career path, and determine annual bonuses.

SHANGHAI

Recruitment and training: Teacher recruitment is not standardized across China, but is often competitive in urban areas. Teachers may be educated in special upper secondary schools (for pre-school and primary positions), normal colleges (equivalent to junior colleges), and normal universities in a four-year bachelor's degree program. Teachers must pass the National Mandarin Language Test; and those who do not graduate from a university must also pass four examinations in the areas of pedagogy, psychology, teaching methods and teaching ability. Shanghai requires that primary school teachers must hold post-secondary subject degree diplomas, and secondary school teachers must hold a bachelor's degree plus a professional certificate.

Career advancement: Schools have multiple levels of leadership, including the principal and party secretary, three directors, and teaching and research groups. These consist of teachers of the same subject and grade level who are led by master teachers. These groups meet together for up to two hours each week to plan lessons and examine student progress. Teaching and research groups are led by senior or master teachers and are designed to support junior teachers and improve overall instruction in the schools.

FINLAND

Recruitment and training: Teaching is regarded as Finland's most respected profession. Finnish teacher education programs are extremely selective, admitting only one in every ten students who apply. All teachers must now hold a master's degree.

Career advancement: Finland does not have specific leadership roles for teachers; rather, teachers are provided with significant autonomy in how they approach curriculum design and instruction. This professional autonomy and high degree of trust makes teaching a very attractive job, with 90 percent of trained teachers remaining in the profession for the duration of their careers. There are no formal teacher evaluations with the focus instead on self-evaluation. There is neither performance pay nor bonuses.

SOUTH KOREA

Recruitment and training: Teaching is a highly respected career with good working conditions (a high degree of collaboration among teachers), competitive pay and job stability. It is highly regulated at the elementary level, with the country's 11 teachers' colleges being relatively selective. At the secondary level, there are multiple pathways to certification including attendance at a comprehensive university, with selection occurring at the hiring phase. As a result, there is a shortage of elementary teachers and only 30 percent of secondary candidates can find jobs. All teachers must pass an employment test administered by the Metropolitan and Provisional Offices of Education to be hired.

Career advancement: South Korea is currently institutionalizing a Master Teacher system, piloted in 2008. Master teachers must have ten to 15 years of experience. They remain in a teaching role, but are expected to share their expertise with less experienced teachers as well as develop curriculum, instructional practices and evaluation systems. They receive a small monthly stipend for these roles.

ONTARIO

Recruitment and training: Canada is consistently able to recruit high quality students into teaching, with the majority drawn from the top 30 percent of their college cohorts. Ontario requires a minimum three-year postsecondary degree from an acceptable post-secondary institution, plus one year of teacher education, before one can teach. Teachers must apply to the Ontario College of Teaching (OCT), an autonomous licensing body for the province of Ontario. Currently, there is an oversupply of teachers in Ontario, enabling districts to be selective in hiring.

Career advancement: Teachers apply for "additional qualification" in order to allow the career teacher to pursue different career options and specialist positions, including supervisory or leadership positions. The OCT recently implemented a professional designation for teachers called the "Ontario Certified Teacher." Designed as a symbol of respect for the role of teachers versus other educational roles, it is available for all teachers in good standing.

JAPAN

Recruitment and training: Teaching is a highly respected profession, and the system is highly selective at both the admission and hiring stages. Only 14 percent of applicants are accepted into preparation programs, and only 30 to 40 percent are hired in public schools. Teachers must pass a National Entrance Examination to be admitted to an undergraduate program. A teacher's certification depends on the amount of education a teacher has when graduating. Most teachers hold a bachelor's degree. Teachers

undergo a one-year induction program before becoming a full-teacher.

Career Advancement: Teachers may move from teacher to head teacher and then to principal. There are multiple salary grades within, based on performance and experience. Japan is known for its "lesson study" system in which groups of teachers meet to learn informally from their colleagues and exercise significant professional autonomy over the delivery of instruction.

AUSTRALIA

Recruitment and training: Each state or territory has jurisdiction over how teachers are recruited, trained, and certified, although all require a bachelor's degree. Recruiting and retaining highly qualified teachers is a priority of the Department of Education, Employment and Workplace Relations (DEEWR), as a result of concerns over teacher shortages.

Career Advancement: Although there are no specified career paths in Australia, teachers typically have access to a career structure that involves two to four stages, with annual salary increments associated with each stage. These stages range from beginning teacher to experienced teacher, lead teacher, or learning area/grade-level co-coordinator. By the "lead teacher stage," teachers are expected to demonstrate exemplary teaching, educational leadership, and the ability to initiate and manage change.

A summary of the outstanding common elements used abroad does not lead to any surprises and comparisons to Maryland's context are revealing.

1. High performing systems have many practices in common, but funding and programming is different across contexts:

What do high performing systems include?	How are they funded and actualized?
• Competitive entry to programs • Longer course of study, longer practicum • University-school partnerships • Sustained mentorships • Devoted time for collaboration and professional learning • Action research • Teacher-led problem solving • Training institutions • Time and resources devoted to professional development	• Subsidized undergraduate education • Professional development (PD) providers compete for contracts • Some mentor programs are voluntary • Mix of training institutes in local government-run locations as well as universities • High- and low-achieving schools are paired

2. Low teacher attrition rates are associated with high performing systems:[31]

Maryland	6-8% annual, 13% 1st year, 30% by 5th year
Finland	<1% annual 90% retained to retirement
Ontario	2% annual
Singapore	<3% annual
Australia	
Japan	most through retirement
Shanghai	"very few"
Korea	1% annual

3. How does student performance in these international comparisons compare to Maryland students' performance?

Many of these systems share reasonably high student outcomes on indicators like higher education enrollment rates and TIMSS / PISA scores:

	Maryland	Finland	Ontario	Singapore	Australia	Japan	Shanghai	Korea
Higher Ed Enrollment	64.1%	92%	83%	27%	89%	61%	60%	97%
TIMSS	509	514	512	611	505			613
PISA	481, 498	519, 524	518, 523	573, 542	504, 512		613, 570	554, 536

While international comparisons have their limitations, clearly, these international comparisons point to opportunities for expanding our thinking in Maryland. The P-20 Task Force recommended piloting the best practices recommended by research and international models. In early September 2015, the P-20 Task Force Co-Chairs opened a dialogue with deans of education and local education agency superintendents to explore the possibility of pilot programs related to teacher preparation, induction, and professional development. Both deans and superintendents were receptive to the idea of pilot projects, and we recommend that MSDE explore opportunities for reallocating funds to fund pilot project in diverse locations across the state.

Focus Group of Maryland LEA Superintendents and Maryland's Education Deans

On September 1, 2015, the P-20 Teacher Preparation Task Force Co-Chairs convened an all-day focus group of seven deans of education (both public and private universities); eight local education area superintendents; one principal; and five teachers currently teaching in Maryland public schools (both traditionally trained and trained through alternative preparation

programs).[2] The purpose of the focus group was to open a dialogue between deans and superintendents that might lead to innovative, collaborative pilot projects.

The focus group addressed the following questions in a free-flowing and open discussion:

- Describe the ideal teacher preparation program. (What are the essential elements for the preparation and training of teachers?)
- What would need to change in current settings to get us closer to your vision? What would be the ideal relationship, in your opinion, between higher education and school systems? How can (or should) the higher education community contribute? What do teachers need most – and, is the need dependent on professional experience? Do new or novice teachers need different PD from experienced teachers? What should we do about that?
- Professional Development of current teachers: What would be the ideal relationship, in essential elements, for the preparation and training of teachers?
- Do you think superintendents and deans would be willing to work together to create a few pilots across the state in exchange for waivers or exceptions from specific regulations? What, specifically, might be areas of partnership or collaboration between IHEs and LEAs?

Discussion questions for conversation: P-12 Principals and Teachers and Education Deans:

- What are the greatest challenges to having enough quality mentors?
- What are the greatest challenges and opportunities for partnerships between IHEs and schools?
- How are professional development decisions made in your school? How are time and resources allocated?
- How would you create a career ladder for teachers other than the traditional route of having teachers move into administrative and supervisory roles?

Over the course of the day, a series of themes emerged that resonate with the themes of this report: the importance of high quality teacher preparation; the importance of high quality mentoring and professional development; the challenges of teacher recruitment, retention and screening; and the tight connections that must be established between public schools and educator preparation programs. The deans and superintendents universally praised the professional development school (PDS) model, but it became clear during the discussion that the PDS model needed to be redefined to become more flexible and more accessible.

Superintendents agreed that newly-hired teachers do not all arrive with the soft skills necessary for the job (i.e., organizational skills, collaboration skills, experience communicating with families, and cultural proficiency, including proficiency with "learning systems" and "high

[2] Full focus group report is in Appendix A

leverage practices").

A continuing concern of superintendents is that a large number of newly hired teachers have been trained in other states, and professional development for those teachers has been a huge burden.

All superintendents agreed that, like teachers in high performing systems, all teachers should be trained to use data and trained as researchers. All teachers need to understand the "what, how, and why" of student learning assessment.

Both deans and superintendents agreed that internships need to start before the third undergraduate year, and they should include early field experiences to give both the candidates and the university programs an opportunity to confirm candidates have dispositions for teaching.

Deans strongly endorsed the recommendation that induction should be a collaborative effort with schools spanning a three-year period, including the final academic year of internship and the first two years of employment as teachers. It was suggested that edTPA or other approved performance assessments be moved to the end of the first year of teaching rather than to the end of the teacher preparation program. This reaffirmed the recommendation that induction should be considered a collaborative part of a five-year teacher preparation sequence that extends from the sophomore or junior year of college to the tenure decision by the district at the conclusion of the third year of teaching.

Both deans and superintendents supported the idea of providing teachers time to mentor and to observe each other. This topic of career ladders for experienced educators was also raised in the discussion. Principals have used experienced teachers as mentors, but they have not had extensive experience or models that extend the mentor model beyond an "add on" to teacher workload. There was general interest in exploring the use of full-time coaches as a pilot project in some districts.

Deans and superintendents agreed that we need to develop a strategy for recruiting a diverse population of teachers. All districts are chasing the same limited population of teachers of color and/or teachers who speak languages other than English. The focus group participants recommended creating an active recruiting effort that would focus on under-represented populations. Broadening the recruitment efforts raised a question about entry-level standards: Should there be a wider opening and narrower back end to recruit more candidates and then ensure good training?

Having qualified teachers in every classroom can be a challenge. This raises the question: Are there ways that the teacher of record can oversee a teacher corps that works directly with students?

Alternative preparation programs were part of the discussion with the principals and

teachers. Maryland could benefit from policies that would create a way for alternative certification for academic core teachers that could mirror the idea of the adjunct professor. These teachers could teach specific courses such as foreign language and advanced mathematics and sciences. Also, MSDE should explore how technology can be leveraged to expand certification offerings. In both traditional and alternative programs there was agreement that better quality control is needed, but there was also an understanding that we need multiple ways to fulfill entry point requirements. Using GPA and national test scores solely as measures may exclude potential candidates with promise to be good teachers.

All participants felt there was an urgent need to find out what is driving teachers out or driving prospective teacher education students away from the major.

Special attention must be given to addressing the bureaucratic problems associated with special education that lead to teacher burnout and teacher turnover. Best practices, such as hiring secretaries to manage IEPs (Individual Education Plans for special education), reorganizing casework, and differentiated teacher roles, should be explored and considered. These could include master teachers who oversee work and success coaches, creating career ladders for teachers.

The discussion of career ladders included considering the medical school model of mentors and clinical professors coming from the teacher profession, and building a statewide cadre of master teachers to be shared by districts. (One superintendent shared an anecdotal observation: There is less teacher turnover at schools with high rates of mentorships.) Mentors would benefit from online training opportunities and refresher courses.

Participants agreed that higher education needs to be more involved in the first one- to two years of teaching – bridging the gap between college, induction, and professional development. Beginning teachers are only "3/4 baked" and need support during first two years or leading up to the tenure decision.

Suggestions for pilot projects included the development of a menu of options for continuing education for entering teachers with options for entry into master's programs and MSDE credit. Courses could be held in schools and focus on how to translate theory into the classroom.

Professional Development Schools

Many higher education and school leaders see professional development schools as a beneficial structure that lends both coherence and direction to the internship process, but critics raised concerns that current outdated PDS regulations impede innovation by reducing alternative structures and paths.

All participants wanted more evidence of the effectiveness of professional development schools in Maryland. Twenty years after the introduction of PDS, few studies offer insight into the effectiveness of the model with respect to student success or retention of teachers in the field. The PDS has not been examined to determine if certain elements such as mentoring, IHE engagement with the schools or professional development are the lynchpin for success or if the synergy of the process creates the impact for success. It is equally true that little is known about the variability of effectiveness across sites within a university network as well as across universities.

The group recommended that MSDE encourage universities to collaborate with local schools to design alternative PDS models. These proposals should include identifiable innovations and incorporate an evaluation component that compares the model with current PDS practices. A review process prior to implementation that includes schools, universities, and MSDE or an alternative independent group should be in place. Examples of this strategy exist in the proposed model developed by Baltimore County Schools in conjunction with Towson University. The model addresses the needs of the county, while providing Towson University an enhanced model of internship.

In the mid-term, selected data currently collected by universities to meet CAEP/NCATE requirements should be collected and analyzed across sites by an independent organization to offer comparable data reviews and inform universities of their current strengths and areas for improvement. Data from employers, teacher graduates, and mentors would be sources of data for this reporting as well as employment records.

In the long term, the Task Force should take this and other findings, including economic costs and benefits, into restructuring PDS models and guidelines. The goals of the restructuring should be clearly defined early in this process and include teacher retention, teacher professional development, and student learning.

PD schools need to focus on and reflect today's students who are currently sitting in Maryland's classrooms. They need to:

- Establish more diverse programs and good mentors;
- Train in well-functioning schools with diverse populations; and
- Have access to students in all areas of the university (e.g. nursing, social work) to offer wrap-around services.

At the conclusion of the focus group, deans at the higher education level and superintendents, teachers and principals at the K-12 level agreed that they would welcome an opportunity to apply for funding for pilot projects to address these shared goals.

Council for the Accreditation of Educator Preparation (CAEP) Accreditation

The CAEP accreditation standards call upon all educator preparation programs to create a culture of evidence to inform their work, and we strongly support this fundamental orientation. However, currently, neither the state nor individual institutions have the infrastructure to support that comprehensive data collection. The Task Force acknowledged that another group, the National Council of Teacher Quality (NCTQ), is attempting to usurp the regular accreditation process, but the P-20 Task Force categorically rejects the premise that NCTQ can replace national accreditation standards as accountability standards for Maryland teacher preparation programs.

The education deans recommended that MSDE appoint a study group to address the following issues with particular attention to effectiveness and efficiency of Maryland's CAEP agreement:

- Entry criteria (3.0 and consideration of SAT or ACT scores) with recommendations that accommodate Maryland's special relationship with community colleges through the AAT programs;
- Data collection, including employer surveys, measures of impact on student learning, and indicators of teacher effectiveness;
- Cost analysis and recommendations to address possible cost-sharing agreements with MSDE;
- Fairness with respect to accreditation of both EPPs and MAAPs; and
- Sampling as an acceptable method of data collection and analysis to allow for program-level generalization back to the institution.

Recommendation for the Creation of an Implementation Group

Maryland has an opportunity to lead the nation in a reconsideration of teacher preparation and professional development that could lead to dramatic improvements in student learning and student success. Maryland is not only a "Race to the Top" state, Maryland is also a "First in the World" state, and together those two designations catapult Maryland to a position of national visibility and national leadership in public education P-20 -- from pre-school through college and career.

The co-chairs of the P-20 Teacher Preparation Task Force recommend the creation of an implementation group to be made up of stakeholders with an interest in the improvement of the teaching force, including: MSDE, P-12 local education agencies, and public and private two- and four-year institutes of higher education, to make recommendations that would lead to significant policy changes in:

- The program approval process for teacher preparation programs (redesign of teacher education) that would expand on the current PDS model to establish shared funding, responsibility, and accountability for preparation and induction;

- The allocation and uses of state and local professional development resources to support induction and career ladders; and
- Designated funding for pilot projects that would provide demonstration models and rigorous evaluation of scalable innovations in preparation, retention, professional development, and career ladders.

Pilot projects might propose some or all of the elements below:

- Re-examination of district human resource policies to see if they are effective in recruiting teachers who are high academic achievers; identifying and managing talent; and providing diverse and flexible career options as part of retaining "high achievers;"
- Proposals for federal and state legislation and grant programs that support new school staffing structures and leadership roles for teachers as well as advance teacher career paths;
- Proposals for policies that encourage higher education institutions to match the supply of prospective educators to demand and increase the selectivity of admissions policies to undergraduate and graduate programs for educators;
- Removal of barriers to the mobility of teachers between districts and states, as well as between careers inside and outside of education, by re-structuring teacher pension systems and making them more portable;
- Structures to incorporate teacher leadership roles into state licensure systems, and districts to recognize and deploy teachers in leadership positions and differentiated roles with appropriate credentials;
- Implementation of [state level] guidelines for standards-based assessment and teacher evaluation systems that create the groundwork for differentiated career paths and compensation systems;
- Re-thinking the one teacher/one classroom organization of schools to facilitate new staffing structures that differentiate roles of teachers and extend the reach of highly effective teachers;
- Re-structuring time, space, scheduling, and other support structures within schools to ensure all teachers have opportunities for collaboration, peer learning, and sharing of practice;
- Implementing shared leadership and collaborative structures between principals/administrators and teachers/teacher leaders, and encourage decision-making at lower levels of the organization with substantive teacher input;
- Encouraging collective responsibility by teachers for the success of their colleagues by promoting peer coaching and peer input into teacher evaluation;
- De-emphasizing seniority in the assignment of teachers to leadership roles and identifying highly effective teachers regardless of years of experience;
- Implementing flexible job structures that recognize the life and career cycles of teachers; such as sabbaticals, job-sharing, and part-time work;
- Taking advantage of technology in extending the reach of highly effective teachers through blended learning structures and promoting teacher

collaboration and professional development through social media and other technological tools; and

- Developing sustainable systems for teacher career advancement that are not dependent on one-time grants or discretionary state or federal funding streams.

Conclusion

Maryland has an opportunity to be a national leader in recruiting, preparing and keeping the highest quality teachers in public schools. Intensive work with stakeholder groups over the past two years has resulted in an assessment and analysis of national and international best practices as they relate to the Maryland context.

Furthermore, the current projection is that the federal government will release the final teacher preparation regulations in December 2015, and that they will call for states to rank and evaluate all teacher preparation programs and use "student learning" as a metric. As noted in JCR R00A02.55, new assessment data, such as the Partnership for Assessment of Readiness for College and Careers (PARCC) scores, will be released at various times this fall and early winter and will have two years of data on student achievement that will allow for a stronger evidence-based analysis.

Given the breadth and depth of the recommendations that have earned consensus and approval from a broad group of stakeholders, including K-12 leaders and teachers, higher education leaders, deans and faculty, teachers and teacher unions, and parents and public education policy makers, **the co-chairs of the P-20 Teacher Education Task Force recommend that the legislature task MSDE and MHEC to prepare a cost analysis for the high priority recommendations offered in this report and make recommendations for the 2017-18 fiscal year for budget reallocations to support those recommendations that have the greatest evidence of high return on investment as defined by higher teacher retention and student achievement .**

Furthermore, MSDE should establish an incentive fund for pilot projects and review evidence of progress on the key goals of recruiting and retaining high quality teachers in Maryland public schools, with the goal of improving student learning outcomes and increased college and career readiness. Funding incentives will not necessarily be completely dependent on new dollars. Rather, there are several opportunities for reallocation of current resources that should be considered:

- District-level and school-wide professional development funds: Current professional development funds in every district could be reallocated for new priorities and career ladder incentives.
- Quality Teacher Incentive Funds (QTI): Restructuring the QTI funding to include several different buckets, including, but not limited to:
    - Rewarding teachers for National Board Certification and/or teaching in the lowest performing schools;

- Creating competitive pilot projects to improve teacher retention and recruitment and using 2015 PARCC scores as baseline; and
- Establishing three-year cycles with flexibility for determining the actual measures as needed.

- Projected teacher retention savings: An "advance" on teacher retention savings, based on the estimate that PGCPS and Baltimore City alone spend $42 million per year to attract and train replacement teachers (NCTAF, 2007).
- Improving Teacher Quality State Grants (ITQ): These grants, authorized by Title II, Part A of the No Child Left Behind Act of 2001, overseen by MHEC, support higher education to prepare quality teachers and principals.

A summary of the high priority recommendations found in this report is listed below:

Pre-Service Tenure Induction
Establish a 3-year residency model for all pre-tenured teachers that engages higher education teacher preparation programs in collaborative partnerships with school districts. • Fund initial pilot Teaching Innovation Centers with state "seed" money and subsequently with savings from reduced teacher attrition. • Create Professional Learning Networks built on a model of internships and residencies to increase the number and variety of field placements for teacher candidates. • Increase the number and variety of field placements to promote adaptive expertise, with the final placement organized in a way that simulates what is expected in the first year of teaching. • Prioritize in-state programs for field placements, internships, and post-baccalaureate residencies.
Professional Development for Current Teachers
Create effective, job-embedded professional development that is aligned with the needs of students and teachers. • Establish a collaboratively-developed P-20 school/university partnership process for building professional development programs that meet individual teacher needs. • Reallocate existing professional development funds to support collaboratively-developed models.

Continuous Improvement through Accountability
Align current Institutional Performance Criteria and Council for the Accreditation of Educator Preparation (CAEP) standards with Maryland's education priorities to ensure efficient and effective use of resources. • Ensure that higher education institutions have access to all data necessary for continuous improvement research. • Build Maryland accountability recommendations around the ideal conditions that contribute to the development of highly effective teachers and set a high bar for qualifications and expectations for all teacher preparation programs.
Career Ladder
Introduce career ladders that differentiate teachers based on experience and skill, and infuse more resources into teacher-shortage areas. • Create and support mentoring programs for novice or struggling teachers that are designed by more experienced teachers. • Introduce 11-month contracts for teachers allowing more time for greater leadership roles that could include writing curriculum and planning, facilitating professional development, or observing and giving feedback to other teachers.

Appendix A: Focus Group Report

P-20 Teacher Preparation Task Force Focus Group:
Deans, Superintendent, Principals and Teachers
September 1, 2015
10:00 a.m.-3:00 p.m.
Carver Professional Development Center

Attendees:
Education Deans: Donna Wiseman (UMCP), Laurie Mullen (TU), Traki Taylor (BSU), Joshua Smith (Loyola), Deborah Kraft (Stevenson), Pat Welch (MSU), Gene Schaffer (UMBC)
Superintendents: Kevin Maxwell (PGCPS); Henry Wagner (Dorchester); Kimberly Hill (Charles); John Fredericksen (Wicomico); Susan Brown (Harford); Heather Moorefield (Harford); Karen Salmon (MSDE); Renee Spence (PSSAM)
Principals: Shantay McKinily (Baltimore City)
Teachers: Heather Husk (SMCPS); Colleen Gill (SMCPS); Michelle Batten (AACPS); Casey Kirk (MSDE); Susannah Miragliuolo (Baltimore City)
Facilitators: Jack Smith (MSDE); Nancy Shapiro (USM);
Staff: Gail Hoerauf-Bennett (MSDE); Dewayne Morgan (USM); Stephanie Hall (USM)

All participants were given a set of questions in advance

Discussion questions for conversation: LEA Superintendents and Education Deans

- Describe the ideal teacher preparation program. (What are the essential elements for the preparation and training of teachers?)
- What would need to change in current settings to get us closer to your vision? What would be the ideal relationship, in your opinion between Higher Ed and School Systems? How can (or should) the higher education community contribute? What do teachers need most---and is the need dependent on professional experience? Do new or novice teachers need different PD from experienced teachers? What should we do about that?
- Professional Development of current teachers: What would be the ideal relationship, in essential elements, for the preparation and training of teachers?)
- Do you think superintendents and deans would be willing to work together to create a few pilots across the State in exchange for waivers or exceptions from specific regulations? What, specifically might be areas of partnership or collaboration between IHEs and LEAs?

Discussion questions for conversation: P-12 Principals & Teachers and Education Deans

- What are the greatest challenges to having enough quality mentors?
- What are the greatest challenges and opportunities for partnerships between IHEs and schools?
- How are professional development decisions made in your school? How are time and resources allocated?

- How would you create a career ladder for teachers other than the traditional route of having teachers move into administrative and supervisory roles?

Over the course of the day, a series of themes emerged:

- Knowledge and Skills Gained Through Teacher Training
- Mentoring and professional development
- Teacher retention and professional development
- Teacher Recruitment and Screening
- Teacher retention and professional development
- Professional development schools

Knowledge and Skills Gained Through Teacher Training:

Superintendents agreed that newly hired teachers do not all arrive with the soft skills necessary for the job (procedural things, collaboration skills, communication with families, cultural proficiency/ AKA "learning systems" AKA "high leverage practices").
A large number of newly hired teachers have been trained in other states.

All Superintendents agreed that all teachers should be trained to use data, trained as researchers (this is supported by what high performing systems are doing). Teachers need to arrive in schools understanding what, how, and why to assess.

LEAs need to define what all new teachers need to know and be able to do

- IHEs need to provide opportunities – online and through MATs
- Hubs of Innovation where IHEs provide theory and abstract, working with LEAs to make it practical
- Make opportunities available to all areas of the State

Both deans and superintendents agreed that internships that start at the third year are problematic. The consensus was that all candidates should have early field experiences to give them and the university programs an opportunity to confirm they have dispositions for teaching.

Deans were strong supporters of the idea that induction should be a collaborative effort with schools, spanning the year of internship and the first two years of employment as teachers. One dean suggested that EdTPA or other approved performance assessments be moved to the end of the first year of teaching rather than the end of the teacher preparation program, reaffirming that induction should be considered a collaborative part of teacher preparation.

Can there be regional meetings with superintendents and education deans?

Mentoring:

Both deans and superintendents supported the idea of providing teachers time to mentor and time to observe each other, if resources were available. This topic was also raised in the discussion of career ladders for experienced educators. Principals have used experienced teachers as mentors, but they have not had extensive experience or models that extend the mentor model beyond an "add on" to teacher workload. Some school districts have full time coaches, but it is not a generalized practice in Maryland.

Teacher Recruitment and Screening:

All participants in the focus group expressed concern about the drop-off in numbers of students entering teacher preparation programs. The teacher shortages in the districts will be exacerbated by the lower enrollments in teacher preparation programs.

There is a need to develop a strategy for recruiting a diverse population of teachers. All districts are chasing the same limited population of teachers of color and/or teachers who speak languages other than English. The discussants recommended creating an active recruiting effort that would focus on some of the less represented populations. Should there be a wider opening and narrower back end to recruit more candidates and then ensure good training?

Having qualified teachers in every classroom can be a challenge. Are there ways that the teacher of record can oversee a teacher corps that works directly with students?

Alternative preparation programs were part of the discussion with the principals and teachers. Maryland needs a way for alternative certification for academic core teachers that could mirror the idea of the adjunct professor. These teachers could teach specific courses such as foreign language and advanced. Also, MSDE should explore hoe technology can be leveraged to expand certification offerings. In both traditional and alternative programs there was agreement that better quality control is needed, but also an understanding that we need multiple ways to fulfill entry point requirements. Using GPA and national test scores may end up excluding potential candidates with promise to be good teachers.

Clear indicators need to be set for:

- Entry into higher ed
- Entry into teacher ed
- Entry into practicum year
- Placement as a full time teacher
- Granting of tenure

Is there a correlation between Praxis scores and good teaching? Is Praxis I serving as a barrier to potentially good teachers gaining entry into the teaching profession?

We need to fully engage the community colleges (AAT) in recruitment/attraction efforts.

Teacher retention:

We need to find out what is driving teachers out or driving prospective teacher ed students away from the major.

We need to address the bureaucratic problems associated with special education that lead to teacher turnover. We should search for best practices such as hiring IEP secretaries and reorganizing the work. Could there be a different type of teacher, such as a case management specialist. (This could include teachers that are master teachers that oversee work and success coaches, creating career ladders for teachers.)

Consider differentiated levels of teaching (analogy to medical profession).

Build a master teacher statewide pipeline.

Anecdotally shared: Less turnover at schools with high rates of mentorships.

Higher ed needs to be more involved in the first 1-2 years of teaching – bridging the gap between college, induction and professional development. Beginning teachers are only "3/4 baked" and need support during first 2 years.

Mentors would benefit from online training opportunities and refresher courses.

There could be a menu of options for continuing education for entering teachers with options for entry into Master's programs and MSDE credit. Courses could be held in schools and focus on how to translate theory into the classroom.

Career ladders:

- Having the opportunity to mentor a teacher can change the mentor teacher's outlook
- Teachers should be offered leadership opportunities
- Teachers can serve as adjunct faculty to IHEs
- Master teachers can provide PD in their own and other counties
- Principals need to be trained to recognize teacher leadership talents

Professional Development Schools:

Professional Development Schools have been a signature element of Maryland's teacher preparation model. PDS's are defined by collaborations between IHE's and schools, but both deans and superintendents noted that PDS regulations need to be updated to accommodate different models, including broader geographic networks, virtual communities of practice, and alternative certification for career changers. In addition, the committee recommends a research study to assess the return on investment of PDS networks.

Twenty years after the introduction of PDS, few studies offer insight into the effectiveness of the model in terms of teacher intern success with students or retention in the field. The last study that was done, (Tom Proffitt, 2000) indicated that students trained in PDS schools were retained at a significantly higher rate than non-PDS trained teachers.[32] The co-chairs of the P-20 Task Force on Teacher Preparation recommend that MSDE work with IHEs to systematically examine which elements and interventions lead to the greatest success for PDSs. Such a study would assess elements such as mentoring, job-embedded professional development and/or school leadership development with respect to teacher retention and student achievement.

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Meanwhile, MSDE can invite K-12/ higher education pilot projects that expand the definition of the PDS. These pilot project proposals would incorporate an evaluation component that compares the innovation model with existing PDS practices. Examples of this strategy exist in the proposed model developed by Baltimore County Schools in conjunction with Towson University. The model addresses the needs of the county while providing Towson University an enhanced internship model.

In the mid-term, selected data currently collected by universities to meet CAEP/NCATE requirements should be collected and analyzed across sites by an independent organization to offer comparable data reviews and inform universities of their current strengths and areas for improvement. Data from employers, teacher graduates and mentors would be sources of data for this reporting as well as employment records.

In the long term, the taskforce should take this and other findings, including economic costs and benefits, into restructuring PDS models and guidelines. The goals of the restructuring should clearly defined early in this process and include teacher retention, teacher professional development, and student learning.

PD schools need to focus on and reflect today's students who are currently sitting in Maryland's classrooms

- Need more diverse programs and good mentors
- Need to train in well-functioning schools with diverse populations
- Schools should be able to access students in all areas of the university (e.g. nursing, social work) to offer wrap-around services

Follow up items:

- Send teacher prep report to all participants
- Send draft report to all participants
- Send meeting notes to all participants

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Table 5A

Teacher Attrition: By Years of Experience
Maryland Public Schools
October 16, 2014 Through October 15, 2015

Local School System	Years of Experience								Total Attrition*	Total Teachers	Percent Attrition
	Less than One	One to Five	Six to Ten	Eleven to Fifteen	Sixteen to Twenty	Twenty One to Twenty Five	Twenty Six to Thirty	More than Thirty			
State	262	1,549	888	517	317	239	198	561	4,531	60,053	7.0
Allegany	0	2	2	3	4	2	4	15	32	609	5.0
Anne Arundel	31	154	104	54	36	36	23	64	502	5,524	8.3
Baltimore City	21	296	91	52	50	22	14	69	615	5,264	10.5
Baltimore	66	159	115	63	51	48	24	62	588	7,373	7.4
Calvert	0	13	5	9	4	6	2	13	52	1,005	4.9
Caroline	0	10	3	3	2	0	4	10	32	405	7.3
Carroll	0	30	25	21	9	5	4	10	104	1,856	5.3
Cecil	2	17	19	14	5	2	2	20	81	1,160	6.5
Charles	11	40	38	11	5	1	1	17	124	1,791	6.5
Dorchester	2	9	8	4	1	1	2	1	28	386	6.8
Frederick	1	69	41	31	17	18	14	37	228	2,640	7.9
Garrett	0	10	3	0	3	0	2	2	20	292	6.4
Harford	18	57	35	15	16	9	15	22	187	2,609	6.7
Howard	8	56	62	39	31	24	24	54	298	4,148	6.7
Kent	1	3	0	1	1	0	0	1	7	156	4.3
Montgomery	27	130	104	59	29	26	26	64	465	10,541	4.2
Prince George's	54	424	173	93	33	16	20	23	836	8,901	8.6
Queen Anne's	2	6	1	5	1	2	1	5	23	518	4.3
SEED School	0	2	2	3	0	0	0	0	7	39	15.2
St. Mary's	2	15	12	9	6	6	5	19	74	1,061	6.5
Somerset	5	7	6	1	0	0	0	0	19	229	7.7
Talbot	0	5	4	2	1	2	1	4	19	321	5.6
Washington	11	17	20	15	8	3	4	24	102	1,524	6.3
Wicomico	0	14	12	9	3	6	4	12	60	1,111	5.1
Worcester	0	4	3	1	1	4	2	13	28	590	4.5

es not include 638 teachers who transferred from one LEA to another.

Teacher Attrition: By Years of Experience

Maryland Public Schools : 2013-2014

Local School System	Less Than One	One to Five	Six to Ten	Eleven to Fifteen	Sixteen to Twenty	Twenty One to Twenty Five	Twenty Six to Thirty	More Than Thirty	Total Attrition	Total Teachers	Percent Attrition
State Total	**204**	**1,396**	**940**	**454**	**238**	**205**	**162**	**562**	**4,161**	**59,315**	**6.6**
Allegany	0	0	5	2	2	2	5	17	33	634	4.9
Anne Arundel	21	128	108	28	21	23	26	67	422	5,405	7.2
Baltimore County	64	135	115	66	37	36	23	62	538	7,440	6.7
Calvert	1	5	19	6	10	2	4	13	60	1,049	5.4
Caroline	0	3	4	3	2	0	1	1	14	405	3.3
Carroll	0	22	13	22	4	4	2	3	70	1,897	3.6
Cecil	0	28	10	5	3	3	6	3	58	1,149	4.8
Charles	3	11	7	3	1	1	0	2	28	1,704	1.6
Dorchester	6	7	4	2	1	0	3	6	29	373	7.2
Frederick	0	42	47	23	14	10	6	39	181	2,704	6.3
Garrett	0	1	1	2	2	0	1	5	12	295	3.9
Harford	8	36	30	14	13	11	1	28	141	2,826	4.8
Howard	6	68	49	29	17	14	10	47	240	3,858	5.9
Kent	0	8	2	0	0	0	1	1	12	161	6.9
Montgomery	22	123	84	39	27	17	14	62	388	10,394	3.6
Prince George's	40	375	262	99	25	16	13	28	858	8,364	9.3
Queen Anne's	0	11	5	3	1	0	1	2	23	510	4.3
Saint Mary's	1	26	22	8	2	2	8	12	81	1,069	7.0
Somerset	0	5	1	4	1	3	1	6	21	224	8.6
Talbot	0	6	3	3	0	0	1	3	16	316	4.8
Washington	6	21	20	9	6	8	7	27	104	1,532	6.4
Wicomico	1	8	16	8	4	2	3	11	53	1,089	4.6
Worcester	0	8	7	2	0	2	2	14	35	594	5.6
Baltimore City	25	314	103	72	45	49	23	103	734	5,284	12.2
SEED	0	5	3	2	0	0	0	0	10	39	20.4

NOTE: Only includes staff whose primary position is a teacher, including reading specialists.

Teacher Incentives By State

State	Incentives
Alabama	Scholarships up to $20,000 over four years for undergrads who agree to teach in Alabama public schools. Loan forgiveness for teachers in high-need schools. Various monetary incentives by district.
Alaska	Due to budget cuts in recent years, few incentive programs are currently funded.
Arizona	The Arizona Ready-for-Rigor Project provides pay-for-performance incentives to encourage high-quality teachers to teach in high-needs schools.
Arkansas	Arkansas offers increased pay to teachers of high-need subjects or teachers willing to work in high-demand districts. The state provides bonuses for teachers with National Board Certification; between $1000-$2000 in 2005/2006. Formally offered housing support for teachers, however the program no longer appears to be funded.
California	California rewards teachers with a slight increase in salary for each semester unit of undergraduate coursework taken, as well as for years of experience. Additionally, teachers are eligible for the Good Neighbor Next Door program, which provides a significant discount on housing in certain areas. State and local agencies can issue tax-exempt mortgage revenue bonds or credit certificates to credentialed teachers and administrators who are employed at a low preforming K-12 CA schools. .
Colorado	Colorado offers differential pay and loan forgiveness to teachers working in high needs schools. Teachers receive compensation based on a variety of criteria including; length of employment, school performance level, school growth level, general performance, demand for position, loan reimbursement, level of education, and the current year's evaluation compared to the previous year's.

Connecticut	Elementary and secondary school teachers who teach in high-needs school districts (those serving low-income families) may qualify for student loan forgiveness after five years. The borrower must have taught full-time for five consecutive academic years at a qualifying school.
Delaware	The Delaware Talent Cooperative program provides between $5,500 and $7,500 over two years for eligible educators already working in participating schools. Educators can earn this award annually, for a total of up to $15,000. Initial training and ongoing professional learning is covered at no cost to the educator.
District of Columbia	Any WTU member who earns an IMPACT rating of Highly Effective is eligible for IMPACTplus. IMPACTplus has two parts: an annual bonus after one year of being rated Highly Effective and an increase in base salary after two consecutive years of being rated Highly Effective.
Florida	Florida provides differential pay as an incentive to get teachers into high needs schools and shortage subjects. All teachers hired after July 1, 2012 are to be placed on the new performance pay scale. Veteran teachers may move to the new performance pay schedule. If they relocate or are transferred to a new district, they will automatically be put on annual contracts for life and lose their Professional Service Contract.
Georgia	Georgia provides additional pay incentives for those willing to teach in high needs school districts, or in shortage subjects. The state provides support stipends, currently $500 per semester, for individuals seeking secondary credentials, or degrees in early childhood education, or child development. Georgia rewards early care and education professionals for their educational attainment and for remaining employed in the same child care program for at least 12 consecutive months. Awards range from $250 to $1250 depending on the level of education attained.

Hawaii	Hawaii is currently experiencing a shortage in special education trained teachers, so additional salary and benefits are being offered in that area. Incentives range from $10,000 over 3 years to $3,000 for each year of employment (no time limit denoted).
Idaho	Idaho uses a salary schedule that rewards teachers for years of service to the state, as well as higher levels of education. There is no differential pay offered for teaching in high need districts or subjects.
Illinois	The Illinois Teacher's Loan Repayment Program provides awards to encourage academically talented Illinois students to teach in Illinois schools in low-income areas.
Indiana	The Next Generation Hoosier Educators scholarship awards up to $7,500 for no more than 4 years to 200 applicants at accredited post-secondary educational institutions approved by the commission.
Iowa	Iowa offers between $5,000 and $17,500 in loan forgiveness benefits to certain full-time teachers who serve in designated low-income schools. The Teach Iowa Scholar (TIS) Program provides qualified Iowa teachers with awards of up to $4,000 a year, for a maximum of five years, for teaching in Iowa schools in designated shortage areas.
Kansas	The Governor has expressed an interest in instituting a merit pay system for teachers in the state.
Kentucky	Salaries and incentives are determined on a district by district basis.
Louisiana	Louisiana provides differential pay for teachers willing to work in high demand districts and in shortage subjects. Teachers also receive merit pay based on Compass evaluation ratings.
Maine	Maine does not provide incentives for teachers in high needs schools or shortage subject areas.

Maryland	Maryland provides additional pay support to teachers working in high needs schools and shortage subjects. Salary schedules are left up to the individual school districts.
Massachusetts	The aMAzing Educators program provides; performance based compensation, scholarships for those who agree to become teachers for at least one year, loan forgiveness for teachers in hard to staff assignments, special education, and in high need schools.
Michigan	Michigan does not provide additional pay for teachers working in high needs schools or shortage subjects. The State recently conducted buyouts of teachers in 2016 having previously conducted buyouts in 2010.
Minnesota	Minnesota does not currently provide differential pay for teachers in high needs schools or shortage subjects; however teacher shortages are resulting in calls for financial incentives for teachers who want to work in high-need areas.
Mississippi	Mississippi provides additional salary for teachers in high needs schools and shortage subjects. Teachers in critical shortage areas may receive two years of - tuition, fees, books, and average cost of room/meals for two years of teaching. The state offers up to $4000 in loan forgiveness for one year of teaching.
Missouri	Missouri does not provide any additional pay for teaching high-demand districts or school subject. Districts offer various monetary incentives for national certification.
Montana	Montana provides loan forgiveness to teachers willing to work in high demand schools and shortage subjects.
Nebraska	Nebraska provides loan forgiveness to teachers in high needs schools and shortage subject areas. Salary bonuses for ESL teachers are offered by some schools in the state.

Nevada	Nevada offers $4000 per new teacher working in under preforming schools. The Teach Nevada scholarship provides $3,000/semester, per-student, not to exceed an aggregate of $24,000 per-student.
New Hampshire	New Hampshire provides loan forgiveness for teachers willing to work in high need schools or shortage subjects.
New Jersey	New Jersey does not provide any additional pay for teaching high-demand districts or school subject.
New Mexico	New Mexico does not provide any additional pay for teaching in high needs schools or shortage subjects
New York	Recently hired teachers working in select high-need schools may be eligible for an annual award of $3,400 for up to four years through the Teachers of Tomorrow (TOT) program. Master Teachers, who work intensively with other teachers, providing one-on-one coaching and guiding professional development, earn a $20,000 salary differential. Model Teachers share and model proven teaching techniques with their peers, inviting other teachers into their classroom, and demonstrating those techniques in practice. They receive a $7,500 salary differential. New York further provides loan forgiveness and scholarships for teachers willing to work in high-needs areas.
North Carolina	Teacher pay increases each year, and those who hold advanced degrees, such as a Master's degree, are also paid higher salaries. Mentoring new teachers and becoming National Board Certified Teachers can also result in additional salary in North Carolina.
North Dakota	The Teacher Incentive Grant Program provides financial assistance to teachers who wish to explore new and creative ways of integrating the arts into other areas of the curriculum.

Ohio	Ohio school districts follow a salary schedule for minimum teacher pay that starts at $17,300 for 1st year teachers with no college degree, and culminating at $32,460 for teachers with more than 11 years of experience and a master's degree. The Ohio Department of Education also rewards teachers with different monetary awards and recognitions, including the Ohio Teacher of the Year Award.
Oklahoma	The Teacher Shortage Employment Incentive Program (TSEIP) is a legislative ruling administered by the Oklahoma State Regents for Higher Education. TSEIP was designed to recruit and retain mathematics and science teachers in Oklahoma. Successful candidates will be reimbursed eligible student loan expenses (a set amount, which may vary yearly) or an equivalent cash benefit.
Oregon	Oregon provides loan forgiveness for teachers in high needs schools.
Pennsylvania	The state offers differential pay and loan forgiveness as incentives for teaching in high-needs schools or in subject areas with shortages.
Rhode Island	Rhode Island completed a trial pay-for-performance program in two districts in the 2013-2014 school year. At this point the program has concluded and no further action appears to have been taken.
South Carolina	South Carolina provides loan forgiveness for teachers in high needs schools and shortage subjects. The state also provides incentives for attaining National Board Certification, ranging between $5,000 and $7,500.
South Dakota	South Dakota dedicates revenue from video lottery for the purpose of supplementing teachers' salaries.
Tennessee	An LEA may be awarded incentive funds up until the maximum threshold of $5,000 per year. Incentive funds are awarded on a first come, first served basis up to a statewide ceiling of $100,000 per fiscal year.

Texas	First year teachers are provided with a minimum salary of $27,320, and teachers with 20 or more years of teaching experience are provided with a minimum salary of $44,270. The most successful teachers in Texas can also receive merit awards, such as the Texas Educator Excellence Award and District Awards for Teacher Excellence.
Utah	House Bill 203 extends income supplements that are already offered to teachers of math and science classes to those that teach courses in engineering, special education, and computer science. The annual compensation is also being increased; qualified teachers would receive a supplemental $5,100 to their income in 2016 (up from $4,100), with incremental $1,000 increase up to $10,000 in 2021.
Vermont	Vermont does not seem to have any ongoing teacher incentive programs. In its recent Educator Equity report the state identifies issues which run counter to the national trend with regards to teacher retention. The major issue appears to be rural isolation and cultural acclimation rather than working in a high-minority environment.
Virginia	The Virginia Teaching Scholarship Loan Program (VTSLP) provides financial support to students who are preparing to teach in one of Virginia's critical shortage teaching areas. The critical shortage teaching areas are determined annually through the Supply and Demand Survey for School Personnel, based on data received by school divisions in Virginia. Shortages in specific subject areas are derived from the top 10 academic disciplines identified by the survey as shortage fields.
Washington	Teachers in qualifying challenging schools will receive an additional bonus up to $5,000. This additional bonus is based on the teacher's percentage of time spent at the qualifying challenging school.
West Virginia	HB 2389: Teachers receive an annual $1000 permanent salary increase per year.
Wisconsin	Teachers who receive performance based bonuses fall into one of four categories, with different dollar amounts assigned to each. They include "distinguished" ($2,800), "high performing" ($1,900), "proficient" ($1,575) and "average" ($500). The two lowest categories – basic and unacceptable – do not come with bonus money. After six years teachers are expected to rank above the "average" category to get a bonus.

Wyoming	In 2014 Gov. Mead recommended that educator's salaries be increased to a more competitive level in order to attract/retain teachers. However, Wyoming does not appear to offer any incentives at this time.

Teacher Education: A Bibliography

The following bibliography is meant to serve as a reference guide for teacher education workgroups. References are categorized as: teacher preparation program accreditation, the future of education, high performing school systems, school leadership, teachers in general, teacher leadership, teacher quality, teacher recruitment and retention, teacher induction, clinical experiences, the need for education reform, school-university partnerships for teacher preparation, teacher professional development, the school environment and professionalization of teaching, and the teacher pipeline and data on teacher education programs. A select few of the references have annotations with brief explanation of the item's significance.

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