

Building Block # 5: Abundant supply of highly qualified teachers

SUMMARY OF GAP ANALYSIS AND RECOMMENDATIONS

Ensure that Students Selected By Maryland Universities for Teacher Training Are Comparable in Quality to Those in the Top Performing Countries

The top performing countries recruit prospective teachers from the upper academic ranks of the college-bound graduating cohort: the top 50 percent in Shanghai, 33 percent in Singapore, 30 percent in Ontario, and 25 percent in Finland. In Maryland, as in most other states, there are few policies in place to influence selectivity in the admission of students to teacher preparation programs. For example, while the University of Maryland, College Park Campus (UMCP) and Towson University both require a 3.0 minimum GPA for candidates, the academic record of the high school students going into teacher education at UMCP are among the lowest of those going into any professional preparation program, and, alarmingly, only a handful of students among the thousands entering these two universities every year elect to prepare themselves to be teachers: fewer than 50 students out of more than 4,000 at UMCP and about 150 students out of about 3,500 at Towson. These policies and the data on students admitted to teacher preparation programs in the State fall far short of the policies typical in the top performing countries. Supplement with MLDS data in January when we have data for both public and private

It is very hard to get into teacher preparation programs in the top performing countries. In Finland, it is harder to get into such programs than it is to get into law school. The proportion of acceptances to applicants for places in university teacher education programs in the top performing jurisdictions range from 1 acceptance for every 10 applicants to a little more than 1 acceptance for every 4 applicants. In addition to presenting a strong academic record, top performers require that successful candidates complete demanding interview and assessment processes assessing zeal for teaching, ability to relate to children as well as collaborative and interpersonal skills.

Close to 100 percent of candidates who apply to teacher preparation programs in Maryland higher education institutions are admitted, which is to say that anyone who can get into the university can get into the teacher preparation program, unlike the law school or business, medical, engineering school-and-or school-of architecture programs.

Finally, the top performers are moving in the direction of limiting the right to offer teacher education programs to their research universities. This is not the case in Maryland or the benchmark states.

Because the average achievement of high school graduates is much higher in the top performing countries than in Maryland, *and* because they are selecting their teachers from a

higher segment of high school graduates than Maryland is, these countries are choosing their future teachers from a far better educated pool than Maryland is.

The top performers typically provide strong incentives to attract high school graduates with strong academic records into teaching, including paying the entire cost of attending college and graduate school, and, in some cases, providing, in addition, a salary to the teachers-in-training while in university. The Maryland legislature passed, and the Governor signed into law as Chapter 542, SB 666 in 2014, which sets up an incentive fund for prospective teachers.

Maryland residents who have strong academic records (a GPA of at least 3.3, combined math and reading SAT of at least 1100, composite ACT score of at least 25, or 50% on GRE) and pledge to teach in a high-poverty Maryland school for four years, are eligible to receive 100 percent of tuition, room, board and fees at a Maryland public institution of higher education, or 50 percent at a private institution. However, these incentives have not yet been funded by the State.

Recommendations

1. Maryland must work on several fronts to greatly strengthen the pool from which its future teachers come. Specifically, it must:
 - a. Charge universities to greatly expand their recruitment efforts, both broadly, to include more students from diverse backgrounds, and in shortage areas, as annually identified by MSDE.
 - ~~a.b.~~ Mandate that universities, and improve the quality and rigor of their teacher preparation programs ~~programs of teacher education~~ at both the undergraduate and graduate levels and hold them accountable for doing so.
 - ~~b.c.~~ Direct Maryland's teacher preparation programs to apply for grant funding currently available from multiple major foundations to help schools of education increase the size of the pool of high ability high school students interested in applying to their programs and help their teachers-in-training to succeed in the more rigorous program of teacher education the institutions will be required to offer
2. Maryland must provide strong incentives to students with strong records of academic achievement in high school to choose a career in teaching
 - a. ~~Given that Maryland's overall teacher attrition rate is 7%, which is roughly 4,200 teachers per year, t~~The State should significantly expand the program established under SB 666 of 2014 and ensure it is fully funded in the budget
 - i. The program should also be expanded beyond recent high school graduates who are interested in teaching to include students who change their major and graduates who seek to exchange careers and become teachers. ~~career changers~~
 - ii. Priority for awards should be given to those who commit to teaching at a high needs school in Maryland. If additional funds are available then the

~~awards can be made to those who teach at any school. The program should include students who teach at any public school in Maryland, not just a high needs school~~

~~The eligibility requirements of the program should be broad enough to not preclude talented students who have a passion and an aptitude for teaching~~

- iii. The eligibility requirements of the program should be broad enough to include not preclude talented students who have either a high GPA or SAT score and a passion and an aptitude for teaching

3. Given Maryland’s rapidly changing demographics, the State needs to make special efforts to recruit a more diverse teaching workforce. Currently, only 25% of Maryland’s teachers are under-represented minorities. The Commission believes that some school children respond better and are inspired by a teacher who “looks like me” and that if a diverse workforce is desired then diverse incentives must be provided.

~~3. [PREVIOUS RECOMMENDATION 4 HAS BEEN MOVED TO BB#6] Maryland should identify and implement best practices to attract a diverse pool of teachers. The following could be evaluated for effectiveness:~~

- ~~a. Providing child care incentives to teachers, which in combination with a higher salary (BB6), could prevent teachers from stopping out of the profession when they have children of their own~~
- ~~b. Providing incentives such as statewide property tax abatement or home mortgage assistance~~
- ~~c. Expand current tuition remission or discounts available to children of higher education employees.~~
 - ~~d. Recruiting future teachers who attended primary and secondary school in that school system should be encouraged as a way to lower teacher attrition rates~~

~~4.~~

~~5. Maryland must enhance the current alternative pathway into the teaching profession for career changers. This pathway allows a professional with demonstrated mastery of a certain subject matter and years of experience in the workforce to become school teachers by “testing out” of the subject matter requirement and taking only a masters level one-year program in the craft of teaching to get a license as a teacher. Each person entering this alternative route should be paired with a teacher in a classroom as their practical experience.~~

6-4. Maryland should Require MHEC, MSDE, and MLDS to report periodically to the legislature on the academic ability of high school graduates going into teacher education in Maryland as compared to the quality of high school graduates opting for majors in other professional fields as well students entering selected for teacher training programs in the top performing countries

Ensure That Candidates in Preparation Programs Master the Content They Will Teach and How to Teach It

Maryland’s regulations for teacher preparation largely resemble those of the benchmark states. Teacher preparation programs in Maryland offer either a bachelor’s or a master’s degree route into teaching. In the three programs studied – UMCP, Towson University, and Notre Dame of Maryland University – candidates take methods of teaching courses in the subjects they will teach. Prospective secondary school teachers are required to major in the subject they will teach. but candidates teaching in elementary school do not have to specialize in one or two academic disciplines as they often do in the top performing countries. ~~Prospective secondary school teachers are required to major in the subject they will teach.~~ Programs varied in the extent to which they imparted research skills to prospective teachers: no courses were offered in this arena at Towson, one course in research was required at Notre Dame of Maryland, and three courses in research were offered at UMCP, but only at the master’s degree level. These courses were not required.

~~These~~ programs of study at these insitutions in Maryland, consistent across most of the ~~top~~ U.S. education programs, differ from the top international jurisdictions in several ways. They do not emphasize, or even address, research skills and diagnosis and prescription, which teachers in the top performing countries use to assess the quality of the research on education, formulate strategies for improving student outcomes appropriate for the students in their classes and evaluate the impact of those strategies as they implement them in their schools. They do not require elementary school teachers to specialize in either humanities or math and science, which would by itself be a powerful lever for improving mathematics and science instruction in elementary school and mastery of the STEM subjects in the upper grades. And most importantly, they do not enable teachers to develop the kind of deep conceptual understanding of the subjects they teach that will be required of all students when digital devices take over most of the routine cognitive work that many people now do in their jobs. It is this kind of conceptual understanding that makes it possible for good teachers to grasp the misunderstandings that students typically have when they cannot grasp the material being taught and correct those misunderstandings. It is also the kind of understanding that is required to prepare students for more advanced work at the upper grades.

One way in which Maryland distinguishes itself from the benchmark U.S. states, and resembles the highest-performing international jurisdictions like Finland, is in its requirement that all teacher candidates must have an internship experience in a designated Professional Development School. In these schools, candidates receive coaching and feedback from staff that have been specially selected and trained. The schools partner with local universities to stay up-to-date on what teacher candidates are learning. The Professional Development Schools also serve as sites where teachers have career-long access to ongoing professional development and training. All full-time students must have a minimum of 100 days in the Professional Development School, which is approximately the same length, or slightly longer, as the practical experiences in the top-performing international jurisdictions. In the programs we reviewed in Maryland, teachers began their practical experience in their junior year, with

observations and small group work, and progressed to full-time student teaching in the senior year.

Recommendations

- ~~7.5.~~ Maryland must use its ~~authority to approve~~ teacher education program approval authority to ensure that the content of these programs meets ~~international/global~~ standards of subject matter as well as mastery of the craft of teaching and, further, that the approved programs are aligned with the goals and structure of the public education system in the state. The institutions should be required to offer programs that incorporate the following features of global best practice:
- a. ~~Provide~~ instruction practices designed to enable ~~their~~ graduates to teach the specific elementary and secondary school standards adopted by the State to students from ~~many~~ different racial, ethnic and economic backgrounds, in such a way as to enable all students to reach the standards established by the State with respect to College and Career Readiness
 - b. ~~Teacher preparation programs must include~~ courses that that train ~~enable the~~ teachers ~~they produce~~ to quickly identify students who are beginning to fall behind and just as quickly diagnose the problem and implement solutions to assist the student to catch up (see Building Blocks 2, 3 and 4)
 - c. ~~Teacher candidates must be trained~~ on how to routinely use research methods and data analysis tools that help teachers improve student performance
 - d. Ample opportunities for A-students wishing to enter a teacher preparation program ~~should have an opportunity~~ to be in a classroom to confirm their interest in and aptitude for teaching early in their college careers. ~~This would be helpful so that a student can make a decision early in their college career on whether to continue in the field of teaching as well provide faculty with the opportunity to counsel a student into a more suitable major~~
 - e. The expectation that upper level students in teacher preparation programs will ~~As the student moves through college, the student should have significant~~ experience embedded in a high quality professional development school working under the tutelage of. ~~Building on the impressive work currently underway in the state's Professional Development Schools, provide to students well-developed clinical programs based in carefully selected schools, which include extended opportunities to apprentice to teachers with the rank of Master Teachers in the new Career Ladder system (See Building Block #6); such~~ these teachers ~~would~~ have a reduced teaching load to enable them to perform this mentoring function well and the opportunity to gain full clinical faculty rank at the sponsoring university
6. Maryland teacher preparation programs and local school systems must collaborate regularly and develop closer working relationships to strengthen both teacher preparation and ongoing teacher training/professional development programs.

MSDE should increase its capacity to provide technical assistance and support to teacher preparation programs and develop a systematic means of providing feedback to e. programs so as to ensure they are better informed about the content and expectations of the pre-K-12 classrooms.

~~f. The State must make a strong commitment of support to teacher preparation programs~~

~~8. MSDE should use its newly granted program approval authority to more rigorously assess teacher preparation programs. Assessments should be based primarily on the success of a program’s graduates in the classroom and not on input measures such as the Praxis exam. strengthen programs~~
~~Each teacher preparation program’s performance should be based on assessments of their graduates and the graduates’ performance in a clinical experience. There is significant room for improvement over the currently used Praxis exams. The reapproval of each teacher preparation program should be based on the success of the graduates they produce~~

~~7.~~

~~9. MSDE should use its newly granted program approval authority to more rigorously have a stronger role in evaluating assess teacher preparation programs. Assessments should be based primarily on the success of a program’s graduates in the classroom and not on input measures such as the Praxis exam.~~

~~Each teacher preparation program’s performance should be based on assessments of their graduates and the graduates’ performance in a clinical experience. There is significant room for improvement over the currently used Praxis exams. The reapproval of each teacher preparation program should be based on the success of the graduates they produce~~

~~10.~~

Ensure That All Candidates Being Licensed and Hired Meet the Same High Standards

Policy can be used to regulate teacher quality at the point of entry into teacher education or at the point of exit, or both. As we noted above, the top performers put their emphasis on the first of these options, at the front end of the process, by restricting the right to offer teacher education programs to their best universities. Only Shanghai implements a standardized exam measuring whether teachers have mastered the content and skills they learned in teacher preparation when they exit preparation programs. Maryland, like the benchmark states, attempts to compensate for the relatively loose regulation at the front end by controlling teacher quality at the end of the process, with licensure. All states require all teachers to pass an exam of baseline knowledge of content. The exams used in Maryland for this purpose are less rigorous than those employed in Massachusetts and New Jersey. In Maryland, candidates must earn passing scores on one of several approved assessments of mastery of core academic content. The cut scores are generally set to a low college admissions standard. Candidates must also pass the relevant Praxis content area tests. In 2015, the average passing rate

statewide for all Praxis Core and Praxis content area tests for which data are available was 98.5 percent. This suggests that the licensure standard in Maryland represents a standard of expectation academic excellence far below that typically met by prospective teachers in the top performing countries.

Not only do the top performers set very high standards for the students going into teacher education and for the completion of a program of preparation for teaching, but they do not compromise on those standards by allowing alternative routes that bypass those standards. In contrast, like all the benchmark states, Maryland has created alternative routes that enable candidates in high-need fields to circumvent the usual statutory requirements to be a teacher. Thirteen percent of Maryland program completers came from alternative routes in 2014, higher than eight percent in both Massachusetts and New Hampshire, but lower than 38 percent in New Jersey. While Maryland compares favorably to New Jersey on this indicator of teacher quality and is not far behind Massachusetts, it still has a long way to go to match the top performers.

Furthermore, Maryland, unlike the other benchmarked states, has to recruit a large number of teachers from out of state (61 percent in 2015). This presewnts a significant challenge into ensureing the quality of these teachers. 61 percent of certified teachers coming from out of state (2015). Teachers from out of state with a valid out-of-state teaching license and at least three years of teaching experience in good standing are eligible for immediate licensure in Maryland even though they are not familiar with the curriculum, standards and assessment policies of the Sstate. Those without three years of teaching experience can apply for reciprocity by submitting their transcript and proof of passing scores on Praxis Core and Praxis II subject test to the Maryland Department of Education, a very low standard.

Recommendations

8. Maryland must ensure that all teachers licensed to teach in Maryland, whether they have attended a teacher education program in Maryland or in another state or country, meet standards comparable to the standards met by teachers licensed to teach in the top performing countries. Specifically, Maryland must:
 - a. Consider, through established agencies and processes for determining licensure standards, adopting for use in Maryland the teacher licensure examinations used in the state of Massachusetts, or edTPA, a performance assessment of teaching ability developed at Stanford University
 - b. Phase in these requirements so that the institutions responsible for preparing teachers in Maryland have time to make sure their students can meet these standards and to make sure that the new incentives intended to attract high performing high school graduates have time to affect the career decisions of high school students

- c. Require Teachers from another states should be required to pass the same certification exam as teachers prepared in a Maryland teacher preparation program

~~11.9.~~ Maryland must enhance the current alternative pathway into the teaching profession for career changers. This pathway allows a professional with demonstrated mastery of a certain subject matter and years of experience in the workforce to become school teachers by “testing out” of the subject matter requirement and taking only a masters level one-year program in the craft of teaching to get a license as a teacher. Such teachers should be assigned an experienced mentor during their first year in the classroom.

~~12.10.~~ Because raising standards for licensing new teachers in Maryland might greatly reduce the number of applicants to those programs if teaching does not become a much more attractive career option for high school students with strong academic records, Maryland school districts must raise teacher compensation and improve the conditions under which teachers work (see recommendations for Building Block #6).

~~13.~~

~~The national Teach for America (TFA) program attracted a high proportion of African American teachers. The program was considered prestigious and it had an outreach and advertising campaign at Historically Black Colleges and Universities. Although teachers in the TFA program did not stay for many years, it could serve as a model for Maryland. If such a model were to be adopted, Maryland should establish incentives to reduce not only the attrition rate of TFA teachers, but the attrition rate of all teachers.~~

Seed Grants to Form Collaboratives between Teacher Preparation Programs and School Districts to Begin Implementing These Strategies

~~14.11.~~ In order to accomplish the strategies and achieve results, Maryland should create a seed grant program for school districts to partner with teacher preparation programs at Maryland universities. These collaboratives will each be composed of one or more preparation programs and one or more school districts. These entities will work together to create the conditions under which the universities will raise their standards for teacher admission and reform their education and training programs at the same time that the districts are making teaching a more attractive occupation for the high school students the university is trying to attract including implementing a career ladder and improving working conditions (see Building Block 6)

~~15.12.~~ The structure of the seed grants would be short term, but multiyear, grants to help the collaboratives build their programs and “show the way” to other school districts and teacher preparation programs in the State as they implement the Commission’s recommendations in Building Blocks 5, 6 and 8. Technical assistance must

be provided to applicants so that each applicant has an equal chance to put their best proposal forward.

~~16.13.~~ An objective awards process should be established with very specific criteria. Grant applicants would be required to present a detailed plan for addressing all of the Commission’s recommendations related to teacher quality, including training all future teachers in basic research and data analysis methods; using formative evaluation, diagnostics, and prescription to identify student difficulties quickly and use appropriate research-based responses; and teaching future teachers how to teach the specific courses in the state curriculum to students from many different backgrounds. Part of the grant application should include how the applicant proposes to achieve greater diversity in workforce pool

~~17.14.~~ A critical aspect of managing the seed grants is to ensure that each proposal includes a plan to monitor the success of the innovations to be implemented. If the innovation is producing the desired results, then there would be greater comfort that scaling that program up would lead to success and ensure a high return on investment of funds. It would be optimal that a few ways to implement the Commission’s recommendations are explored as one size may not fit all LEAs when it comes to scaling up. This will also ensure that each LEA has control over how best to implement the recommendations for their school. One of the data points would be the impact on teacher attrition rates.

~~18.15.~~ The districts in this grant program should be expected to serve as State pilots for implementing the new leadership development systems, teaching career ladder systems and advanced forms of school organization and management described in Building Blocks #6 and #8. Both the universities and the school districts would be expected to work very closely with each other to develop the clinical training schools for new teachers

~~19.16.~~ The university and district partners must take joint responsibility for building on the current Professional Development Schools to create a network of high quality Professional Development Schools serving very different kinds of students and communities in the State, schools that will implement the emerging career ladder system design and use it to manage the new forms of school organization recommended by the Commission.