

Maryland Commission on Innovation and Excellence in Education



SUMMARY

Gap Analysis for Building Blocks 5, 6 & 8

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What You Have



- Detailed analyses of the gaps between the policies and practices of:
 - Four of the top-performing jurisdictions (Finland, (China) Shanghai, Singapore, (Canada) Ontario)
 - The three states topping the NAEP league tables (MA, NH, NJ)
 - Maryland
- Complete lists of the sources of data on which each analysis is based
- Short summaries of each gap analysis
- Questions for the Commission that emerge from the analysis

Building Block #5

Abundant Supply of Highly Qualified Teachers



Three points of leverage on teacher quality

- Quality of pool
- Quality of teacher education and training
- Licensure standards

Building Block #5

Abundant Supply of Highly Qualified Teachers



Comments on these three strategies for raising the quality of teachers

- ***Top performers:*** Focus on quality of the pool of high school grads, quality of institutions.
- ***U.S. states:*** Focus on licensure, the least effective and least efficient of the available strategies (after-the-fact quality control).

Building Block #5

Abundant Supply of Highly Qualified Teachers



POOL QUALITY: Teacher compensation

- ***Top-performing countries:*** Starting pay for teachers in is typically at the top of the civil service scale and higher than or equal to beginning engineers, accountants and registered nurses.
- ***U.S. states:*** Starting pay for teachers is at or near the bottom of the range for college-educated professionals.
- ***Maryland:*** The difference between the average pay of teachers and engineers is 41%, between teachers and accountants is 21%, and between teachers and registered nurses is 10%.

Building Block #5

Abundant Supply of Highly Qualified Teachers



POOL QUALITY: Other financial incentives

- ***Singapore:*** Forgives the entire cost of teacher education and training for very highly qualified high school graduates who commit to teach in the public schools for 3 or 4 years and provides a modest salary to these students while in university.
- ***Massachusetts and New Hampshire:*** Provide financial assistance to talented high school graduates who commit to teaching STEM disciplines. New Hampshire has a similar initiative for rural teachers.

Building Block #5

Abundant Supply of Highly Qualified Teachers



POOL QUALITY: Other financial incentives *(cont.)*

- **Maryland:** Incentive fund would fund 100% of cost of teacher training at public colleges and 50% at private colleges for prospective teachers for students who meet a bar substantially lower than that in top performing countries. Fund recipients must commit to teaching. The state has not yet funded this initiative.

Building Block #5

Abundant Supply of Highly Qualified Teachers



POOL QUALITY: Working conditions

- MOVING FROM A BLUE COLLAR FORM OF WORK ORGANIZATION TO A PROFESSIONAL FORM OF WORK ORGANIZATION
 - ✦ SEE BUILDING BLOCK #6 FOR DISCUSSION

Building Block #5

Abundant Supply of Highly Qualified Teachers



POOL QUALITY: Quartile from which high school grads who become teachers come

- ***Top-performing countries:*** Ranges from top 25% in Finland to top 50% in Shanghai.
- ***U.S. states, including Maryland:*** No policy comparable to top performers, not enough data to specify quartile, estimate needs to account for fact that average high grad years behind those abroad. States are not tracking the data needed to know from what quartile their teachers are coming.

Building Block #5

Abundant Supply of Highly Qualified Teachers



POOL QUALITY: Selectivity and status of teacher education institutions

- *Top global performers:* Moving toward greatly reducing the number of higher education institutions permitted to offer teacher education preparation programs and limiting them to research universities. Finland's universities now admitting 1 in 10 applicants to teacher education programs, other countries also very selective.

Building Block #5

Abundant Supply of Highly Qualified Teachers



POOL QUALITY: How it works

- ***Highly selective countries:*** Finding that poorly qualified high school grads no longer apply; highly qualified applicants that would never have applied before now applying.
- ***Top performers:*** Screening teacher education applicants not just for academic performance in high school, but also for ability to relate to young people and passion for teaching.

Building Block #5

Abundant Supply of Highly Qualified Teachers



POOL QUALITY: University selectivity strategy

- ***No U.S. state*** is restricting the right to offer teacher education to high-status universities or restricting admission to very high performing high school graduates the way top performers do.

Building Block #5

Abundant Supply of Highly Qualified Teachers



TEACHER ED QUALITY: Content

- ***Top-performing countries:*** Research university standard.
- ***Top-performing countries:*** Elementary school teachers typically specialize in either math and science or native language and social studies and must major or at least minor in subjects to be taught.
- ***U.S. and Maryland:*** Wide variation in content offerings in university.

Building Block #5

Abundant Supply of Highly Qualified Teachers



TEACHER ED QUALITY: Craft

- ***All top-performing countries:*** All future teachers must have at least a year of preparation in craft; no alternate routes allowed.
- ***Most top-performing countries:*** Apprenticeship must be served to Master Teachers.
- ***U.S. including MD:*** States implementing new requirements for more practice teaching in schools, but not a requirement that they must apprentice to Master Teacher.

Building Block #5

Abundant Supply of Highly Qualified Teachers



TEACHER ED QUALITY: Alignment with Schools

- ***Top-performing countries:*** Curriculum of schools of education is tightly aligned with curriculum and work organization structures of schools.
- ***U.S. States:*** There is no such alignment.

Building Block #5

Abundant Supply of Highly Qualified Teachers



LICENSURE

- ***Most top-performing countries:*** Provisional license granted to teacher education graduates; a full license is granted after certification by Master Teacher after mentoring for a year or more.
- ***Most U.S. states:*** License granted to graduates who can pass a low-level test (ETS Praxis Core and Praxis II). MA has implemented more demanding content tests. New Jersey has implemented a new Stanford University test of craft. Towson University is piloting it.

Building Block #6

School Organization and Management



USE OF TIME, SCHOOL ORGANIZATION, CLASS SIZE

- Teaming in top-performing countries:
 - As much as 70% of teachers' time not spent teaching; instead, it is used for systematic improvement of instruction, work done in teams organized by subject, grade, special research topics, and with struggling students.
 - Teacher/pupil ratios about the same as the U.S.
 - Class sizes larger: data shows that this trade-off between larger class size and time for disciplined improvement regime greatly improves student performance.

Building Block #6

School Organization and Management



USE OF CAREER LADDERS

- Career Ladders in top-performing countries:
 - Work organization complemented by very well-developed career ladders.
 - Y-shaped, leading to Master Teacher and School Principal from same root.
 - As teachers get better and better at the work, more responsibility, authority, status and compensation—a true professional services organization.

Building Block #6

School Organization and Management



USE OF CAREER LADDERS

- Career Ladders in top-performing countries:
 - Based on demonstrated skill as teacher, team member, team leader, mentor and research leader.
 - Combination of career ladder and new form of school organization create truly professional organization.
 - Professional development integral part of the work: learning while working.

Building Block #6

School Organization and Management



ORGANIZATION AND TEACHER SPECIALIZATION

- Specialization in top-performing countries:
 - Elementary teachers required to specialize in either math and science or native language and social studies.
 - Matched by requirement that teacher education institutions require prospective elementary teachers to major or minor in the subjects they will specialize in. Teaching of craft in teachers college is closely linked to the way they learn the content.

Building Block #6

School Organization and Management



THE STATES COMPARED TO TOP PERFORMERS

- No U.S. state has implemented career ladders, these new forms of school organization, or specialization in elementary school teaching by subject as a matter of policy.
- Baltimore City schools have begun to develop a career ladder that has the potential to grow into something like the much more developed models seen in the top-performing countries.

Building Block #8

School Leadership



LEADERSHIP DEVELOPMENT, U.S. MILITARY STYLE, IN TOP-PERFORMING COUNTRIES

- Potential leaders identified early and carefully groomed for further development.
- As they go up the leadership career ladder, leaders offered training for the next step on the ladder.

Building Block #8

School Leadership



LEADERSHIP DEVELOPMENT, U.S. MILITARY STYLE, IN TOP PERFORMING COUNTRIES

- Go up the ladder based on 1) leadership performance in current job, 2) evaluation of performance on training for the next step in the ladder (carefully sequenced to match the ladder)—*NO alternative routes up the ladder!*
- Supervisors evaluated as they go up the ladder on their record in developing next-gen leaders.

Building Block #8

School Leadership



LEADERSHIP DEVELOPMENT, U.S. MILITARY STYLE, IN TOP-PERFORMING COUNTRIES

- As sequenced training goes up the ladder, focus moves from tactics to strategy.
- As adapted to elementary and secondary education in top performers, main emphasis throughout is understanding how the new system based on professional standards, roles and responsibility works and how to implement it.

Building Block #8

School Leadership



LEADERSHIP DEVELOPMENT IN THE STATES

- No state has developed a leadership development system of the sort just described.
- Only Massachusetts has developed an overall strategy based on the top performer's design.
- Massachusetts engaged NISL to train principals statewide to develop capacity to implement design.

Building Block #8

School Leadership



LEADERSHIP DEVELOPMENT IN THE STATES

- Prince George's County did something similar with NISL a few years ago for aspiring principals.

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THANK YOU!