Commission on Innovation and Excellence in Education
William E. Kirwan, Chair

Agenda

June 1, 2017
9:30 a.m.-5:00 p.m.
120 House Office Building, Annapolis, Maryland

9:30 a.m. **Chair's Opening Remarks**

9:40 a.m. **Career and Technical Education in Top Performing Systems**

- Bob Schwartz, Harvard University

How Maryland Compares to Top Performing Systems – Element #3, Building Block 7 Career and Technical Education

- Marc Tucker and Betsy Brown Ruzzi, National Center on Education and the Economy (NCEE)
- Bob Schwartz

Commission Discussion of Building Block 7 Gap Analysis and Q&A

11:15 a.m. **Maryland Examples of Building Block 7**

- Lynne Gilli, Maryland State Department of Education
- Michael Thomas, Baltimore City Public Schools
- Kristine Pearl, Frederick County Public Schools

12:15 p.m. **Break** – *Lunch Provided for Commissioners and Staff in Room 180*

12:45 p.m. **Breakout Group Discussions about Building Block 7** *(see separate handouts for group assignments and discussion questions)*

1:30 p.m. Early Childhood Education in Top Performing Systems

- Lynn Kagan, Columbia University and Yale University

How Maryland Compares to Top Performing Systems – Element #1, Building Block 1 Early Childhood Education

- Marc Tucker and Betsy Brown Ruzzi, NCEE
- Lynn Kagan

Commission Discussion of Building Block 1 Gap Analysis and Q&A

2:45 p.m. Breakout Group Discussions about Building Block 1

3:30 p.m. Breakout Group Report Out (*15 minutes each*) and Commission Discussion

4:30 p.m. Public Comment

5:00 p.m. Chair's Closing Remarks and Adjournment
- **Feedback Form**

Next Meeting: Wednesday, June 28, 2017, 9:30 a.m.-5:00 p.m., Room 120 HOB

SUMMARY

Gap Analysis for Building Blocks 1 & 7

Marc Tucker

and

Betsy Brown Ruzzi

National Center on Education and the Economy

1 June 2017

Support for Children 0-5 and Their Families

Three main arenas of support

- Broad-based support for children and their families, e.g.:

  - Family allowances

  - Pre-natal care and home visits

  - Parental education and social services

- Child care- child care for children 0-3

- Early childhood education- public and private programs for 4 and 5 year olds including Pre-K

Why top performers do it —

- *Raise the birthrate (Europe after WW II)*

- *Make it easier for women to enter the full time workforce (both Europe and Asia)*

- *Give students entering compulsory schooling a better chance of success in school (everywhere)*

Where Maryland fits in the big picture

- *Like other American states, way behind the world leaders in Europe and Asia*

- *But compares very favorably to most American states on most measures and is one of the US pioneer states in this field*

- ***Supports for Children 0-3 and Their Families***

  - *The top performers provide a very high level of support for families with young children; this typically includes: very well funded family allowances (e.g. Ontario pays monthly allowances of up to $533/month to families with children under age 6); universal parental leave of 4 months to over 1 year; universal access to free maternal and child health care services; access to parental education, home visits, infant-toddler education, developmental screenings and referrals.*

- ***Supports for Children 0-3 and Their Families***

  - *No U.S. state comes close*

  - *Very important to bear in mind that the U.S., in addition to providing much less support to families with young children than the top performers, also has:*

    - *the greatest income inequality of any of the advanced industrial countries and*

    - *A public school student population half of whom are eligible for free and reduced price lunches, many of them in concentrated poverty*

- ***Supports for Children 0-3 and Their Families***

  - *U.S. states provide means-tested health insurance to individuals and children in low-income families*

  - *States also provide coordinated social and related services to low-income families but reach only a small fraction of those who need them*

  - *Maryland coordinates services for children 0-4 and their families in Title I school neighborhoods through Judy Centers, but serves only a fraction of the Title I school neighborhoods in the state.*

- ***Supports for Children 0-3 and Their Families***

  - *Maryland's Family Support Centers serve all families but locates them in high-need neighborhoods. They provide programming for young children and their families and connect them to a wide range of agencies and services. These Centers use a different model than the Judy Centers, which coordinate services for income-eligible children. The Centers serve less than 5 percent of 0-4 year old children.*

  - *Maryland should consider greatly expanding the number of both Judy Centers and Family Support Centers in Baltimore and elsewhere in the state.*

- ***High-Quality Child Care***

  - *The top performers offer limited child care to families with 0-2 year olds, because of their generous family leave policies. They are all expanding coverage for this age group, except for Finland where slots are sufficient.*

  - *All have free or heavily subsidized high quality care for more than 60% of three-year-olds (close to 100 percent in Shanghai). Shanghai and Ontario subsidize only low-income families.*

  - *Salaries for child care providers in the top performers are substantially higher than in the U.S.*

- ***High-Quality Child Care***

  - *Benchmark states subsidize care for families at or below $60,000 per year (for family of four).*

  - *Maryland subsidizes care for families making $31,000 per year or less, a much lower ceiling.*

  - *Maryland should consider raising the income ceiling for families receiving child care subsidies and raising the level of the subsidy to allow families access to quality care.*

  - *Maryland should also consider creating a career ladder structure for child care providers and expand mentorships and professional development opportunities for them.*

Building Block #1
Broad-Based Support for Families

- **High Quality Early Childhood Education**

  ○ *Top performers provide free or very low cost early childhood education and/or kindergarten for all 4 and 5 year olds. None of the American benchmark states do that.*

  ○ *Maryland is the only benchmarked state that provides full day, compulsory kindergarten to all 5-year-olds. The other states fund voluntary half-day kindergarten, except NJ where full day is provided to low-income 5 year olds. In most of the states, pre-K is provided only for low-income 4 year olds.*

  ○ *Maryland should consider supporting universal early education for 4 year olds, but with state support provided on a sliding scale, so more money would be available to provide early childhood education to highly disadvantaged children at an even younger age.*

- ***High Quality Early Childhood Education***

  - *In Finland and Ontario, early childhood education workers make at least 85% of the average wage in those jurisdictions.*

  - *In Maryland, New Hampshire and Massachusetts, child care workers make 60% of the average wage. In NJ, it is a bit higher at 70%.*

Building Block #1
Broad-Based Support for Families

- ***High Quality Early Childhood Education***

  - *Maryland should consider adding early childhood educators to the career ladder system recommended for teachers and school leaders; this would raise the status of early childhood educators and create a path for high wages for the most capable. This would also create a structure for professional development that would increase the quality of early childhood education in Maryland.*

  - *Mentorships, collaborative planning, and learning opportunities could be linked to the career ladder structure.*

Building Block #7

Career and Technical Education

- **_Goals of CTE/VET systems_**

  - _MD Department of Ed: Chance to explore career options at no cost to student_

  - _MD legislation: Industry-recognized credential or early college credit_

  - _Despite apparent big difference, there is not much practical difference between these two goals, very different from…_

  - _Top performing countries: Goal for ALL students not going to four year college is qualification certifying student has skills needed to pursue further education at postsecondary level AND has earned an industry-recognized certificate needed to pursue a rewarding career right after high school. MARYLAND SHOULD CONSIDER ADOPTING SIMILAR GOAL_

Estimated Results of Maryland School System:

Students enter high school 2010

9% earn vocational certification

87% earn HS diploma 2014

13% did not earn HS diploma

22% enroll in 2-year public colleges	1% enroll in 2-year private colleges	12% enroll in 4-year public colleges	5% enroll in 4-year private colleges	24% enroll in college out of state	54% enroll but do not graduate from college*	35% do not enroll in college
14.5% graduate within 3 years	61.3% graduate within 3 years	60.8% graduate within 6 years	73.3% graduate within 6 years	59% graduate within 6 years		

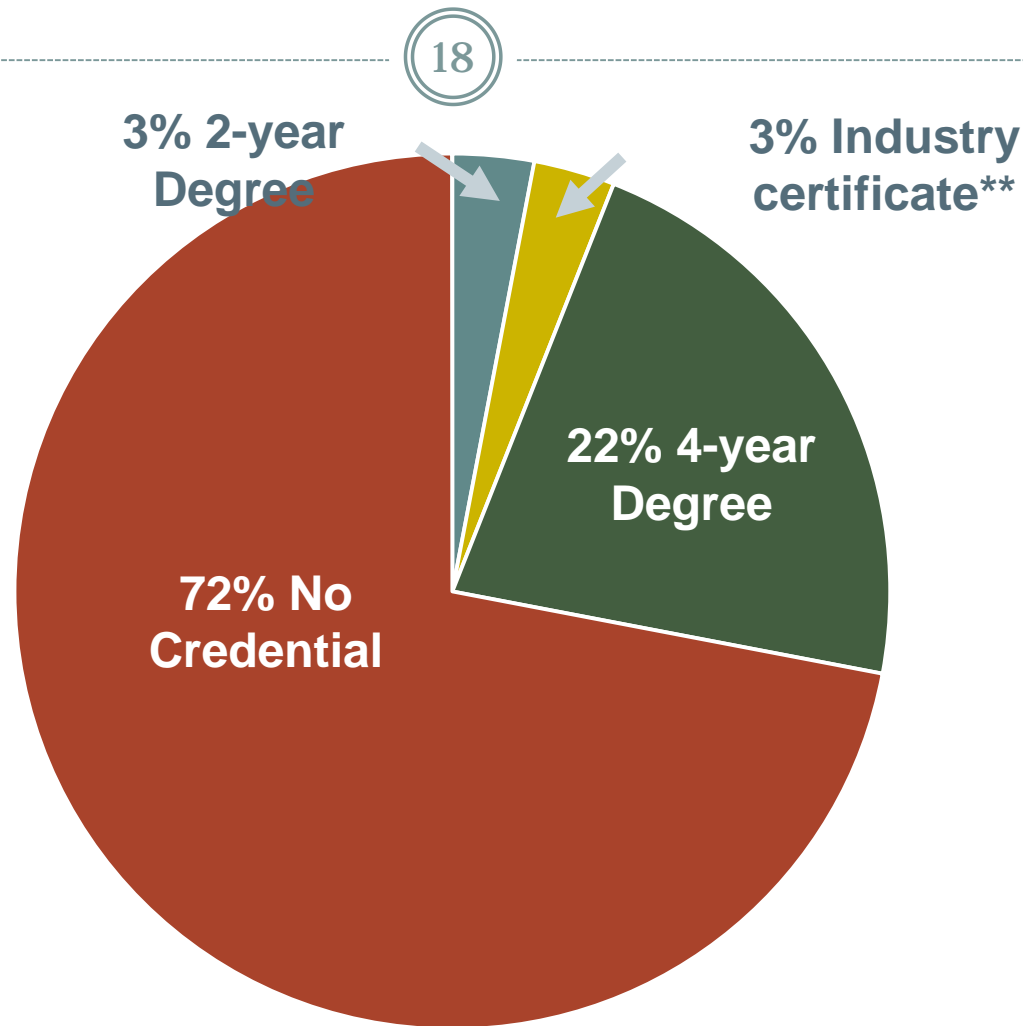**25% of original HS cohort graduate from college**

*Within 3 years for 2-year colleges and within 6 years for 4-year colleges.

Estimate of the Percentage of Students Entering Maryland Schools That Earn Post-Secondary Credentials*

18

3% 2-year Degree

3% Industry certificate**

22% 4-year Degree

72% No Credential

*Within 3 years for 2-year colleges and within 6 years for 4-year colleges.
** Industry-recognized certificates granted from community colleges, four-year institutions, private career schools, and for-profit schools

Very large proportion of the high school cohort

ends up without a qualification

In the top performing countries,

that proportion is less than 10%

- ***Qualifications system***

  - *In top-performing countries, VET begins in grade 11, AFTER students receive first qualification. That qualification certifies that the student HAS MET a high basic skills standard, typically so high that students meeting it would be qualified to attend US community colleges without remediation*

  - *Maryland should consider whether it wants to establish a NEW DIPLOMA STANDARD set to this standard, in addition to the current diploma*

- ***Skill standards system***

  - *Top-performing countries work with employers to develop comprehensive, coherent skill standards systems that shape guidance, curriculum, teaching and assessment for occupational skill development and signaling*

  - *Maryland has no such system. What it has is fragmentary and incoherent*

  - *We recommend that Maryland consider using Singapore's system as a model for developing its own skill standards system*

- ***Alignment of upper secondary and post-secondary CTE systems***

  - *Top performers closely align their upper secondary and post-secondary CTE systems (upper secondary leads to polytechnics in Singapore and Applied Universities in Switzerland)*

  - *Maryland should explore ways to better connect its high school and college-level CTE systems based on lessons learned from Singapore and Switzerland*

Building Block #7
Career and Technical Education

- ***Internship is not apprenticeship!***

  - ○ *Best systems use employers to create high standards for apprenticeships, set wages for apprenticeships, requirements that employers must meet to offer them, standards for instructors and mentors, etc.*

  - ○ *Best systems do what is necessary to have enough slots for all youth who need them*

  - ○ *We recommend that Maryland learn more about how these systems engage employers*

Building Block #7
Career and Technical Education

- ***A source of help!***

  - ***Pathways to Prosperity, a joint Harvard University/Jobs for the Future collaboration, working with a coalition of states on these issues***

  - ***The leaders of the Pathways project have worked closely with NCEE and are deeply familiar with the top performing countries' work in this arena***

  - ***We recommend that Maryland join the Pathways coalition to design a plan to put the best system elements in place***

- **_Aim high with long-range goals_**

  - _The recommendations above are long-term goals that will take years to accomplish_

  - _We recommend establishing a Study Group to visit top-performing international countries and report back to the Governor, legislature, education leaders, and public_

  - _The Study Group would then be responsible for setting goals, perhaps with support and consultation from the Pathways to Prosperity project, and designing a plan to put key system elements in place in Maryland_
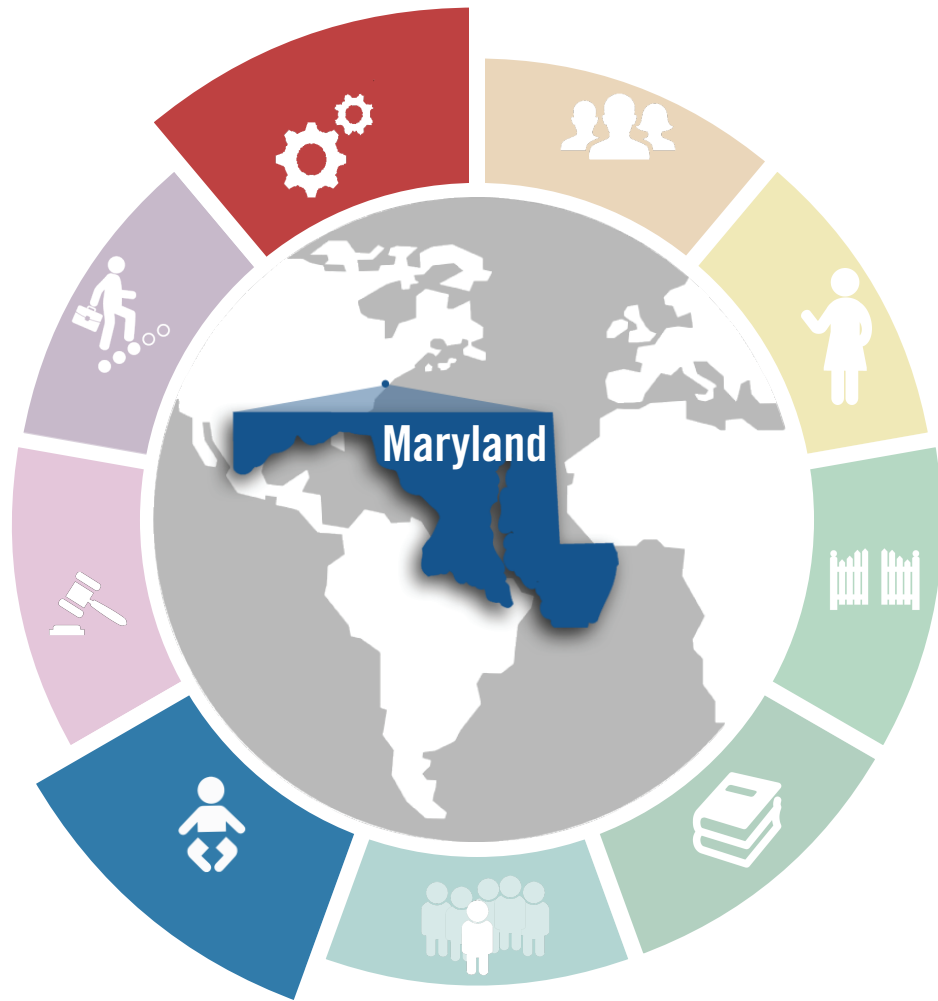
THANK YOU!

SUMMARY

The Nine Building Blocks of a World-Class Education System

Maryland

Building Blocks 1 & 7

Support for Students Before They Enter School

Career and Technical Education and Training

NCEE
National Center On
EDUCATION
And The Economy

BUILDING BLOCK 1

PROVIDE STRONG SUPPORTS FOR CHILDREN AND THEIR FAMILIES BEFORE STUDENTS ARRIVE AT SCHOOL

SUMMARY

Maryland has been a national leader in early childhood education for many years. The state has, over the years, strengthened and expanded its system using a common quality rating system, with incentives for program improvement and upgrading of the workforce, that goes beyond what the benchmark states have done. It has also dramatically expanded early childhood programming for low-income children in the state and is one of only a few states that funds full-day kindergarten for all students.

But it is also true that Maryland is way behind the international top performers and lags behind the benchmark states in some key arenas. Below, we summarize the state of play and make some recommendations for improvement, focusing on affordable childcare for families, expanding the reach of supports and services for children aged 0-3 and their families, building the capacity of the early childhood education workforce and the on-going expansion, improvement and intensification of early childhood education programming for pre-kindergarten children.

1. *Supports for Children 0-3 and their Families*

As you will see below, Maryland compares well to the other benchmark states, but all the states are far behind the countries and provinces that served as global benchmarks in this arena.

The international top performers provide a much higher level of financial supports to new families than Maryland or any U.S. state, with maternity and parental leaves of four months to over a year; universal access to maternal and child health services, often including home visiting; extensive, often universal, systems to provide parent education, infant/toddler education, developmental screenings and referrals to childcare and early childhood education to families with young children.

Some of the international top performers also have universal, very well-funded family allowances or other financial supports for families with young children, but they often provide that assistance at an even higher level for low-income families. The states have no family allowances of this kind.

Health care is free to everyone in Finland and Ontario. Singapore covers major medical expenses and all citizens and their employers are required to pay into a medical savings account for each worker. These two sources of funds pay for most health care costs, but if there are additional expenses that are not covered from these sources, the government subsidizes those costs for low-income families. Shanghai's policies are not yet as generous, but the province has a goal of universal insurance coverage by 2020.

U.S. states cover health insurance for low-income families and the elderly only through Medicaid. In the benchmark states, coverage thresholds for low-income families with children to be eligible for Medicaid are about $49,000 in Massachusetts and $47,000 in New Jersey, but both states cover children in families with incomes up to $73,000 in Massachusetts and $86,000 in New Jersey through the Children's Health Insurance Program (CHIP). New Hampshire and Maryland do not offer CHIP but instead use

Medicaid to cover all families with children with income levels up to about $78,000. (All of these income thresholds are for families of four.)

U.S. states coordinate services at community and regional levels and offer supports for families with young children but they reach only a fraction of the target population; the international jurisdictions offer these services universally and their reach is much broader. Compared to the benchmark states, Maryland does more to coordinate services than does New Jersey or New Hampshire. Massachusetts has similar networks to Maryland.

Maryland does not provide support for young children and their families that is even remotely comparable to that provided by the leading countries we benchmarked, but the state has made a strong effort to provide comprehensive community support to low-income families. Judy Centers are an innovative model, using the public school as a community hub for connecting young children with available services in the community and focusing on readiness for school. There are Judy Centers at only 51 Title I schools, however, with hundreds of Title I schools in the state. Baltimore alone has more than 130. And as Judy Centers can only coordinate available services within the local community, they cannot provide services that might be needed but which are not available in the local community. Family Support Centers, smartly located in high-need communities, offer programming for families and their children along with coordination services. Their universal open-door policy, inviting all families regardless of income, is a promising approach as it removes the stigma of the center and introduces opportunities for often-isolated disadvantaged populations to learn alongside a diversity of families. But again, they only reach 8,000 families a year, only a very small fraction of families who need these services. Maryland should consider expanding the number of Family Support Centers.

2. High-Quality Child Care

Data on enrollment in child care is hard to find, especially comparable data. The best comparable data we could find is related to capacity. Data on Maryland is similar to the other benchmark states, with capacity in licensed child care centers for about 60 percent of the 0-4 age cohort. The international jurisdictions have low numbers of children 0-1 in child care, as they have generous family leave policies and so at least one parent is at home. Shanghai and Ontario have shortages of spaces for the 0-2 age group, but they, along with the other two international jurisdictions, enroll about 60-70 percent of 3-year-olds in child care. Finland, the one jurisdiction with no shortages, considers child care a "right" and has adequate spaces for all children.

The cost of child care is highly subsidized for a broader range of families in Finland and Singapore. There are universal subsidies in Singapore, with additional supplements for families with incomes under US$64,000. Finland subsidizes costs for families with incomes under US$71,000 but keeps the full fee for families above that level low as well. Shanghai and Ontario, like the U.S. states, subsidize child care costs for low-income families only.

In the U.S., the three benchmark states subsidize child care for families with annual incomes at or below about $60,000 (for a family of four), while Maryland is much lower at about $31,000.

Maryland, like the benchmark states, pays child care workers relatively low salaries that are less than the average wage across the state, whereas the top performers we have data for pay their child care workers at least 60-70 percent of the average jurisdiction wage. Singapore has a career ladder for child care workers (called Educarers) with steps on the ladder that pay even higher wages.

Maryland, along with Massachusetts, has done significant work on using the QRIS system to improve quality throughout the system, with incentives for providers to improve their programs and develop their workers. The international jurisdictions generally have national standards and guidelines for child care that are overseen at a municipal level. National reviews of the system are done periodically with an aim of improving policy.

Maryland should consider making it easier for its families to access affordable child care. The price of quality child care in Maryland is a critical issue for many families. Child care makes employment possible for families, and families will turn to sub-adequate care for young children if they have no other options. Eligibility for subsidies, the level of subsidies and the availability of the subsidies are all issues being discussed in the legislature now, but their importance cannot be overstated. Maryland should, at a minimum, match the effort being made by the benchmark states.

3. High-Quality Early Childhood Education

All the international top performers provide free or very low-cost preschool/kindergarten for 4- and 5-year-olds. Where it is half-day, subsidized wraparound services are provided and made accessible for all families. The top performers also provide extensive additional supports for children enrolled in preschool, including health and developmental screenings.

In the U.S., the benchmark states vary in what they provide. Maryland is notable in providing free, full day kindergarten for all 5-year-olds. The other benchmark states all provide half day kindergarten but leave it to local districts to decide whether to fund the other half day. The exception is New Jersey where they are required by a court order to provide free, full-day pre-K/kindergarten to all low-income 4- and 5-year-olds. Massachusetts, New Jersey and Maryland provide pre-K for low income 4-year-olds and have all made significant strides in expanding this coverage and extending the program to full-day.

Maryland has made much progress in expanding programming for low-income 3- and 4-year-olds, but there are still many children unable to access this programming in the state, both low-income and not. And many of the current publically funded programs for these children are still half-day, which is difficult for working families and a missed opportunity to provide more support for these children to prepare them for school. Additionally, the state should continue work to connect the education programs available to this population with the additional supports and services they and their families need to ensure they are ready for school and are likely to continue to succeed.

In Building Block 5, we recommended that Maryland create an educator career ladder with clearly defined requirements for each step and a progression of roles with increasing responsibility. The ladder would serve as a framework for professional development and performance appraisal. Tying early childhood education to the K-12 career ladder, as is done in Singapore and Shanghai, would by itself raise the profile of

early childhood educators and attract a more highly skilled pool of applicants. The state would, however, need to address the salary issue alongside any effort to raise requirements for early childhood educators, particularly those in community-based settings. It would also need to increase the level of state assistance for professional development for the existing workforce and tuition for workers to pursue higher degrees to increase their expertise.

The Family Support Center model provides support for child care professionals. Maryland should build on these existing supports so that all early childhood and care workers have access to mentorships and collaborative planning and learning opportunities, in much the same way the state is trying to do for K-12 teachers.

QUESTIONS FOR MARYLAND

Does Maryland want to:

1. Expand and intensify support services for all 0-3-year-olds and their families in the state?

2. Make high-quality child care more affordable for working families?

3. Raise the quality of the child care and early education workforce by creating a career ladder in education that includes these workers?

4. Expand and intensify education and support services for all 3-4-year-olds in the state? If the answer is yes, how and who should do this?

BUILDING BLOCK 7

CREATE AN EFFECTIVE SYSTEM OF CAREER AND TECHNICAL EDUCATION AND TRAINING

SUMMARY

Summarized below are the key features of the top performing systems, the gap between Maryland and the top performers and the policies that Maryland may wish to consider going forward to close that gap:

1.   The top performers do not see CTE as the option for students who do poorly at academics. They see it as an option for students who do well at academics but who prefer a more applied form of education and who may want to start their careers without first obtaining a postsecondary education. Further, they see CTE as the route for all students who do not go on to postsecondary education, not just some of those who do not go on to a postsecondary education. This stance means that these countries set a high minimum goal for the academic achievement of all students, regardless of destination, typically to be achieved by most all students by the end of lower secondary school (that is, in American terms, by the end of the sophomore year). That level of educational achievement is captured in a qualification that all students are expected to get before moving on to upper secondary education. CTE (in these other countries, VET) does not begin until the 10ᵗʰ grade, after achieving this first qualification. Because it is done that way, designers of VET programs can assume that the students taking the courses they design have already achieved a high level of literacy in the basic skills.

   Maryland law requires CTE programs to lead to either an industry-recognized credential or to early college credit, which may appear to be much the same as the policies just described, but it is not. In practice, getting early college credit does not mean that the student is ready to succeed in a typical first year community college program, and getting credit for taking a 3-course sequence in CTE is not the same as meeting an industry standard for beginning a rewarding career. These standards are very far apart. Adopting a qualifications system comparable to those found in the top-performing countries would be a dramatic change for Maryland. While there are good reasons why the state may still want to grant a diploma on the current terms, a system like this would amount to creating a second diploma, certifying that the student was ready to undertake a serious program of either CTE or academic preparation at the upper secondary level. In American terms, this level of readiness would also certify that the student is ready to succeed in the first year of an open admissions postsecondary program in the state system. We recommend that the state consider creating a qualifications system designed in this way.

2.   There is a very important difference between the goal for secondary school CTE in Maryland and the goal for secondary school VET in the top performing countries. In Maryland, we were told, the primary goal is to provide students with a chance to explore career options at no cost to the student. In the top performing countries, upper secondary school VET programs are designed to result in qualifications, which means that all high school students in the VET program are working toward an industry-recognized certificate that qualifies them for the first job in a career line. In the best systems, that qualification will also set the student on a path toward further education at the post-secondary level, which the student may pursue right

after high school or after being in the workforce for years. This difference in goals is fundamental. It explains why participation in CTE in the Maryland system means taking a series of three or more courses which probably will not result in an industry-recognized certification sufficient to qualify the holder to begin a career after right after high school or for a serious program of continued education at the postsecondary level. It is also obviously true that high school students who are neither in an academic track nor in a CTE program will leave without a qualification that will enable them to begin a rewarding career.

The consequence of Maryland's policy for Maryland students is on graphic display in the following chart. It provides an estimate of the percentage of students leaving high school with a diploma and/or industry certification, then tracks student enrollment and earned degrees at the post-secondary level. Ultimately, only approximately 28 percent of the cohort of students entering high school in 2010 greaduated from college. We recommend that Maryland consider redesigning its system so that all CTE programs are designed to result in industry-recognized qualifications certifying that students are ready to begin jobs leading to rewarding careers, and, at the same time, also certify that the students is ready to succeed in the first year of a Maryland community college program without remediation.

ESTIMATED MARYLAND SCHOOL SYSTEM RESULTS
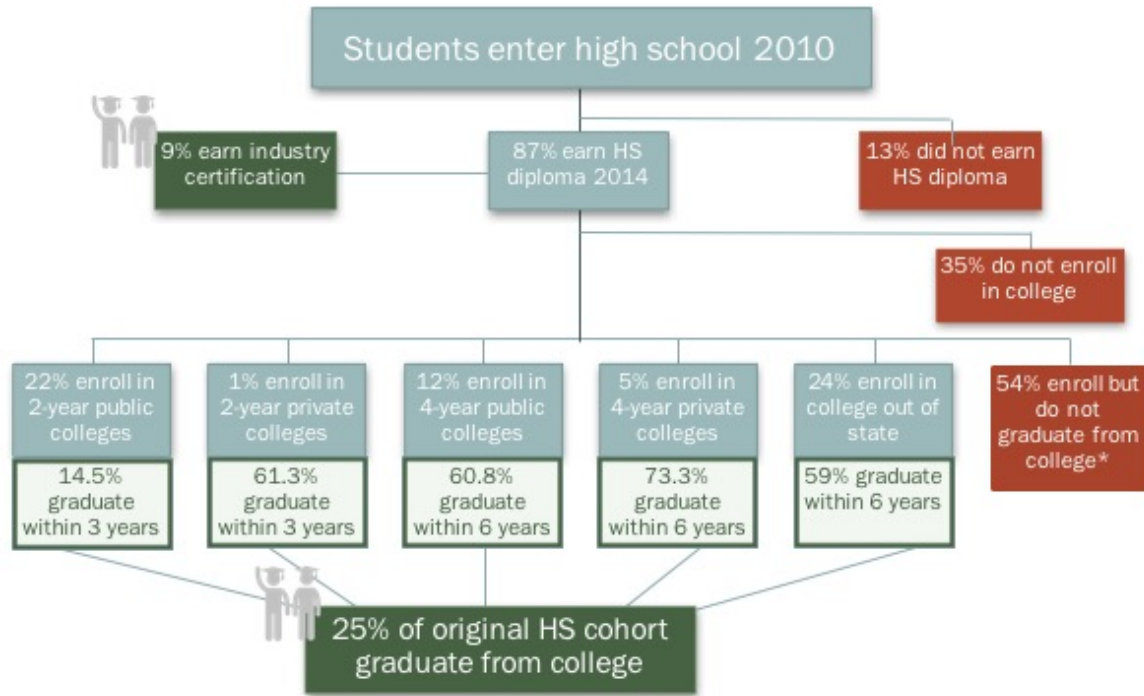
*Within 3 years for 2-year colleges and within 6 years for 4-year colleges.

Estimate of the Percentage of Students Entering Maryland Schools That Earn Post-Secondary Credentials*

3% Industry Certificate**

3% 2-year Degree

22% 4-year Degree

75% No Credential
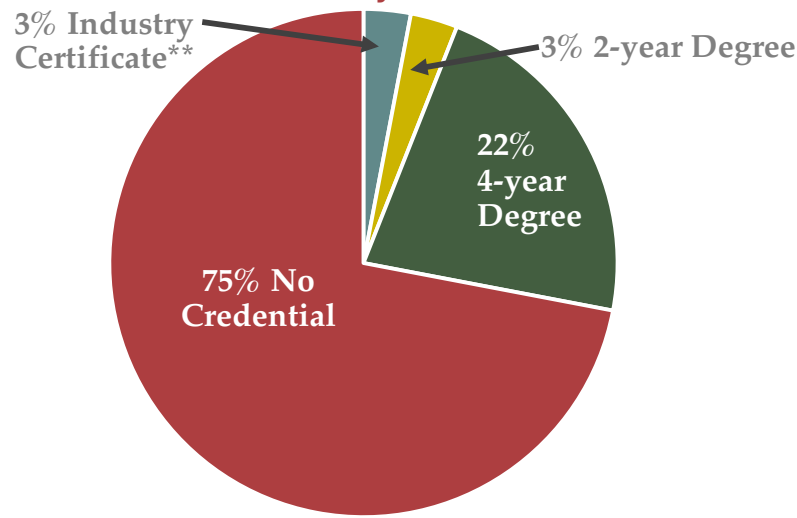
*Within 3 years for 2-year colleges and within 6 years for 4-year colleges.
** Industry certificates granted from community colleges, four-year institutions, private career schools, and for-profit schools

3. To implement the preceding recommendation, Maryland would have to have a system of industry-recognized qualifications, with associated performance examinations, that covers the entire range of occupations not requiring a four-year college degree. We recommend that Maryland initiate a process intended to lead to the design and implementation of such a system, based on benchmarking the best such systems worldwide. We would recommend in particular looking closely at the Singaporean system for setting skill standards, because it is the only one we know of that is designed to set standards at the industry state-of-the art rather than industry average practice, which can make a big difference in the quality and preparedness of the trained workforce and in the competiveness of the Maryland economy.

4. The countries with the strongest CTE systems all have strong upper secondary VET systems that are closely aligned with their postsecondary VET systems. Massachusetts has one of the strongest upper secondary CTE systems we have seen. Maryland may want to look closely at the Massachusetts secondary CTE system as a benchmark for taking the next step with its CTE work at that level. In both Singapore and Switzerland, the next step in the VET system beyond the upper secondary level is the polytechnic system in Singapore and the applied universities in Switzerland. In the United States, of course, the next step is community college. But the academic level of our community colleges is equivalent to the high school level in Singapore and Switzerland and the level of technical preparation in our community colleges varies widely.

We recommend that Maryland assemble a Study Group: a team of postsecondary system leaders from both the community colleges and the four year universities, industry leaders, CTE leaders from the schools and state government, and members of the legislature to visit in both Singapore and Switzerland and to report back to the Maryland government and citizens with recommendations for creating a world-class system of career and technical education in Maryland that will enable the majority

of Maryland's students to acquire the skills needed in the years ahead to earn a good living and adjust rapidly to the rapid changes certain to take place as evolving digital technologies eliminate a growing number of jobs, especially those available to students who lack the basic skills or, increasingly, to those who have only those skills.

5. While Maryland's CTE programs include in some cases the possibility of serving as an intern in organizations providing opportunities for work based learning, internships fall far short of true apprenticeships in providing the student/apprentice with the full range of opportunities to acquire all the skills needed to hit the ground running in highly technical jobs and many jobs requiring high initial levels of craft skills. Very few students in Maryland have access to apprenticeships that can be described in this way. Maryland should consider creating a system in the state, with regulated wages for apprentices, criteria for permitting firms to offer apprenticeships that are based on the criteria for earning the relevant qualifications, and the establishment by industry groups of industry associations that can offer the training that is required but individual firms cannot supply. We should note that Maryland has already set a target of getting 45 percent of high school students completing a CTE program, earning an industry-recognized credential or completing a youth apprenticeship program before graduation, but, as we pointed out above, completing a CTE program in most cases means nothing more than an opportunity to explore careers and does not necessarily involve acquiring the skills needed to begin a career in anything. There are very few apprenticeships available and very limited opportunities to get an industry-recognized credentials in occupations leading to rewarding careers, so this requirement, while laudable in theory, is not very consequential in practice. If Maryland decides to create a commission of the sort recommended in the preceding recommendation, it should be charged with proposing a design to accomplish the goals just described.

We recommend that Maryland join the Pathways to Prosperity project that originated at Harvard University and is now being supported by Jobs for the Future. The Pathways project was designed to assist states in designing and implementing world class CTE programs by people who are intimately familiar with the global benchmarks in CTE, including the Singapore and Swiss systems. We recommend that Maryland become an active member of the Pathways state coalition and use the Harvard/JFF team to advise on implementation of the previous recommendations.

QUESTIONS FOR MARYLAND

Does Maryland want to:

1. Benchmark the top performers in CTE, create goals for its CTE system comparable to the goals set by the top-performing countries and produce a detailed plan for matching the performance of the top performers?
2. Create a qualifications system that signals student readiness at the upper secondary level to greatly reduce the proportion of students failing to get any kind of qualification by the time they leave high school?
3. Create a set of skill standards and qualifications that represent state-of-the-art practice in industry comparable to those in Singapore?
4. Expand the youth apprenticeship system to give more students access to high-quality, industry-standard training in occupations leading to rewarding careers?
5. Get assistance from experts and the opportunity to interact with leading states in the Pathways to Prosperity project to design a world-class CTE program based on global benchmarks?

Maryland's System of CTE:

Promoting College and Career Readiness

Maryland Commission on

Innovation and Excellence in Education

Dr. Lynne M. Gilli

Assistant State Superintendent

Division of Career and College Readiness

Dr. Kristine H. Pearl, Supervisor

Career and Technology Education

Frederick County Public Schools

Mr. Michael Thomas, Director,

Office of Learning to Work

Baltimore City Public Schools

MARYLAND STATE DEPARTMENT OF
EDUCATION
PREPARING WORLD CLASS STUDENTS

P-20 System of Education

Every step along the pathway is crucial to making each student's future a success

Employment: Career Advancement
Continuing education and lifelong learning

Post-secondary: Career Preparation
Achieving credentials: college, certifications, apprenticeships, military

9–12: Career Preparation
Participating in academic and technical courses with guidance on graduation plans

8: Transition
Choosing a program of study and a career major (can change as a student matures)

6–8: Career Exploration
Discovering interest areas, identifying an educational path aligned with interests

K–5: Career Awareness
Learning about the world of careers and the ways in which people make a living

2

CTE: High Quality Pathways Leading to Career & College Readiness

✓ • Programs must include a sequence of courses (at least 4 credits) leading to advanced career entry <u>and</u> further study.

✓ • All programs must be state-approved. Local school systems adopt/develop and administer programs in partnership with community colleges and industry/business.

✓ • Federal funding is used for new program development, improvements, and professional development.

10 CTE Career Clusters
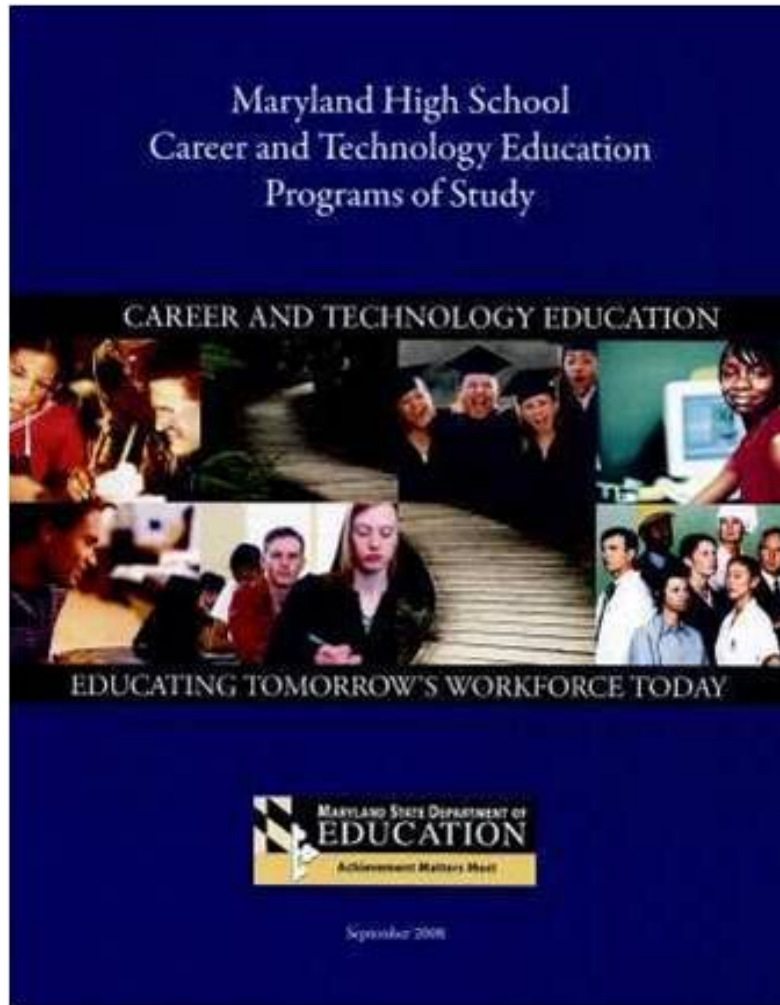
- Arts, Media, & Communication

- Business, Management & Finance

- Construction & Development

- Consumer Services, Hospitality, & Tourism

- Environmental, Agricultural, & Natural Resources Systems

- Health & Biosciences

- Human Resource Services

- Information Technology

- Manufacturing, Engineering & Technology

- Transportation Technologies

MDCTEPROGRAMS.ORG

4

Quick Facts About Maryland CTE - 2016

- 98,857 or more than one third (38.7%) of all high school students enrolled in 148 CTE programs in 237 high schools

- 22.8% of the class of 2016 completed a CTE program of study (13,258)

- 58% of the CTE graduates also completed the coursework for entrance to USM, this is a "Dual Completer" (7,703)

Percent of High School CTE Enrollment

38.7%
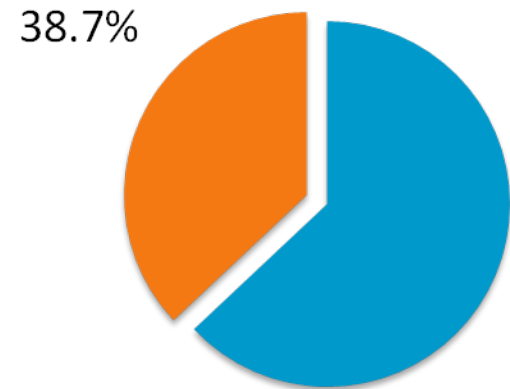
Percent of High School CTE Graduates

22.8%

5
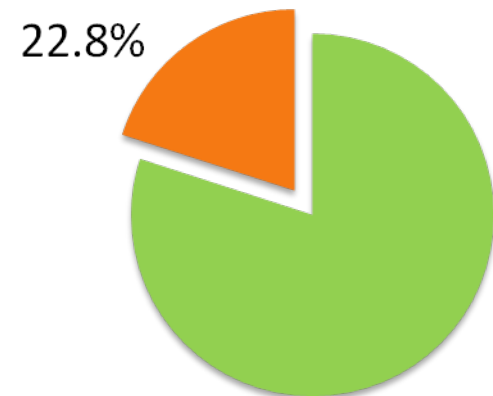
Career Exploration Through Career Preparation

Percentage of CTE Student Enrollment, Concentrators, and Graduates

- % CTE HS Enrollment
- % CTE Concentrators
- % CTE - HS Graduates
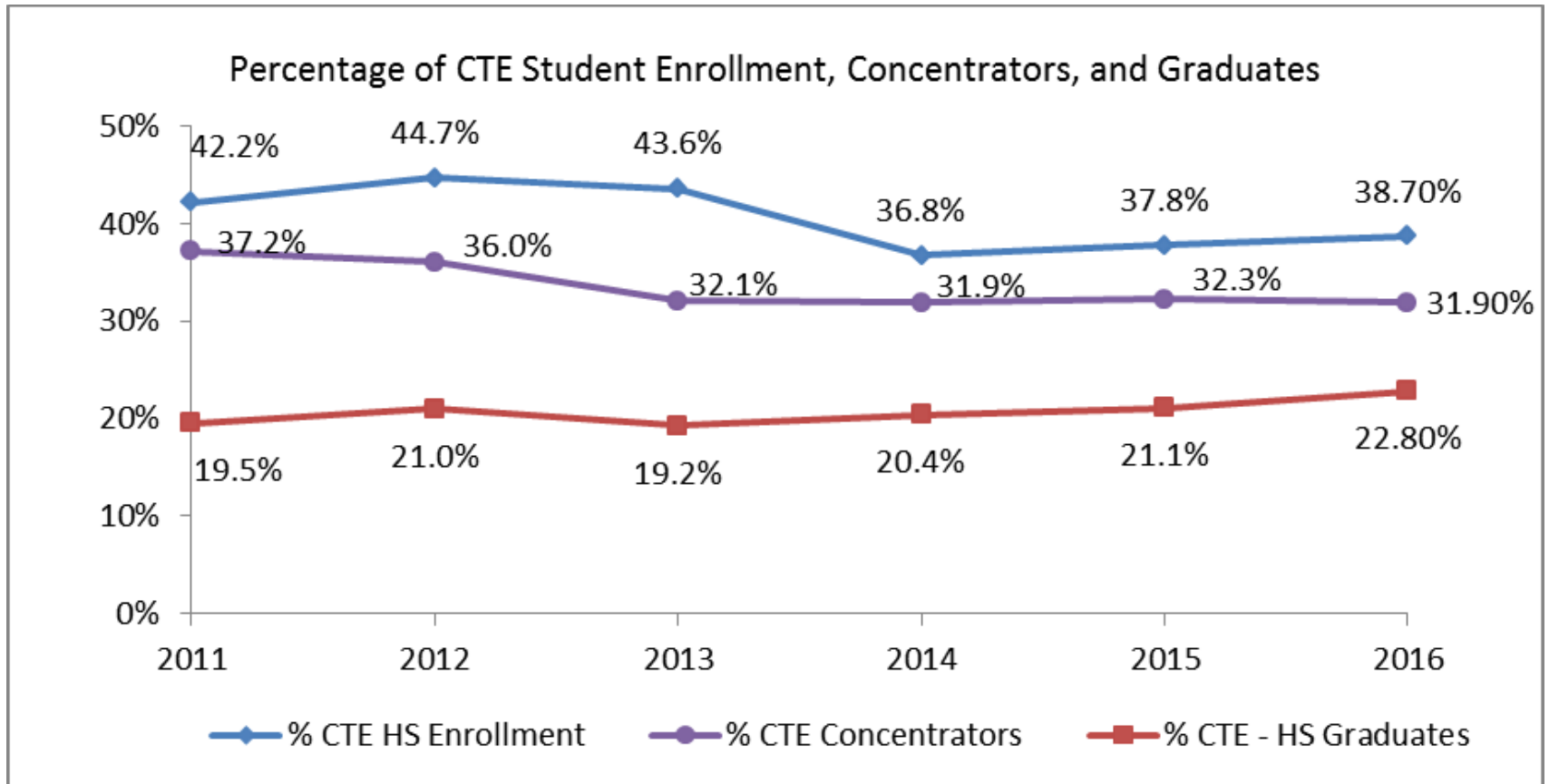
A Key Component of the High School Experience

Number of CTE Programs and the Percent of CTE Students by Local School System – 2016

(#) Number of Programs Offered

- 21 - 30%
- 31 - 40%
- 41 – 50%
- >51%
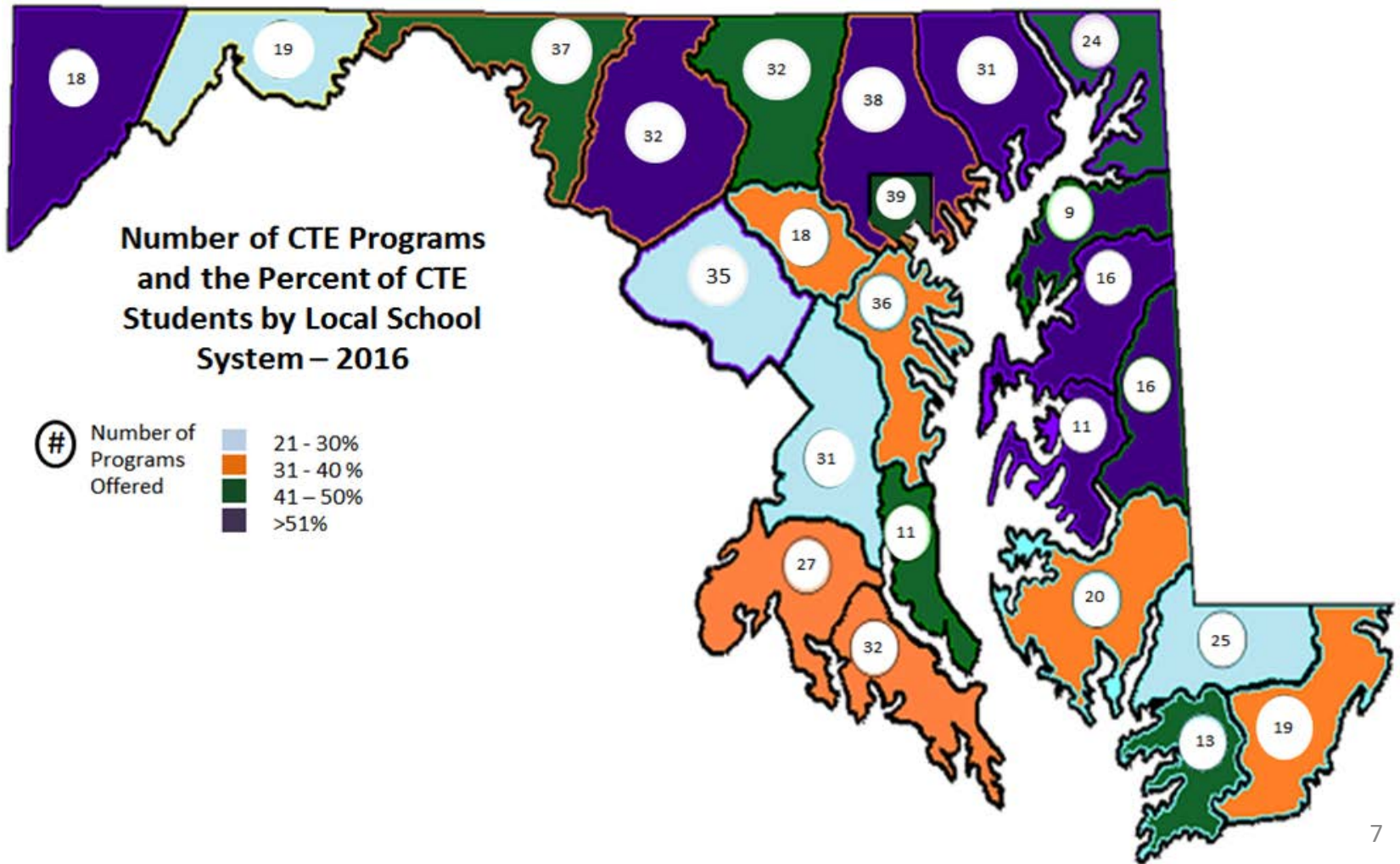
Quick Facts About FCPS CTE

- More than half (56.4%) of HS students participate in CTE

- 24% of the Class of **2016** completed a CTE program of study (693 out of 2906)

- 59.7% of the CTE graduates also completed the coursework for entrance to USM, this is a "Dual Completer" (405)

- 93.37% CTE Concentrators earn Industry Certifications
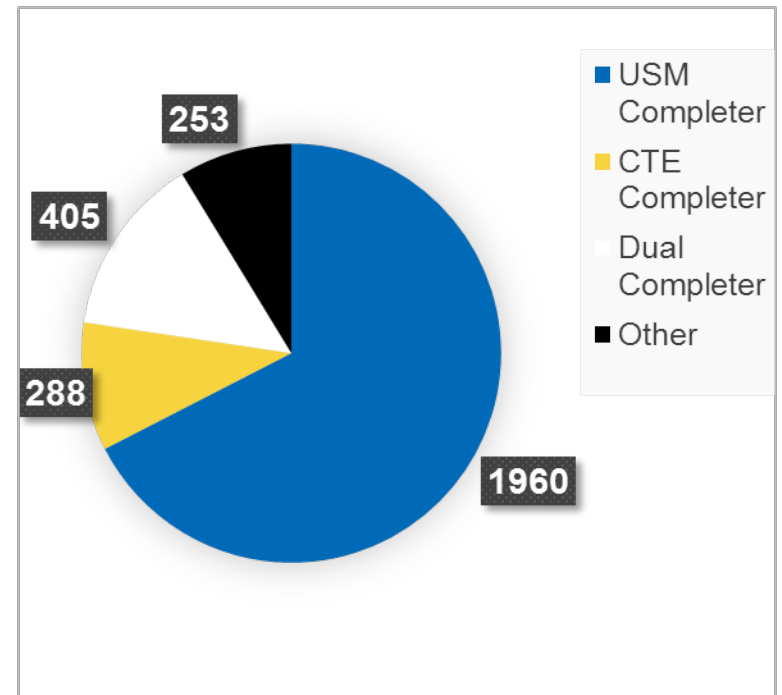
Increasing Enrollment in CTE

CTE Enrollment vs High School Enrollment

High School District Enrollment:
23,084 — 24,049 — 24,152 — 24,311 — 23,706 — 23,372 — 22,882 — 22,341 — 21,746 — 21,381

CTE Enrollment:
4,468 — 5,350 — 5,323 — 6,901 — 8,180 — 8,519 — 8,488 — 8,877 — 8,836 — 9,024

2016 GRAD RATE 98.3%

2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 Projection

—CTE Enrollment —High School District Enrollment
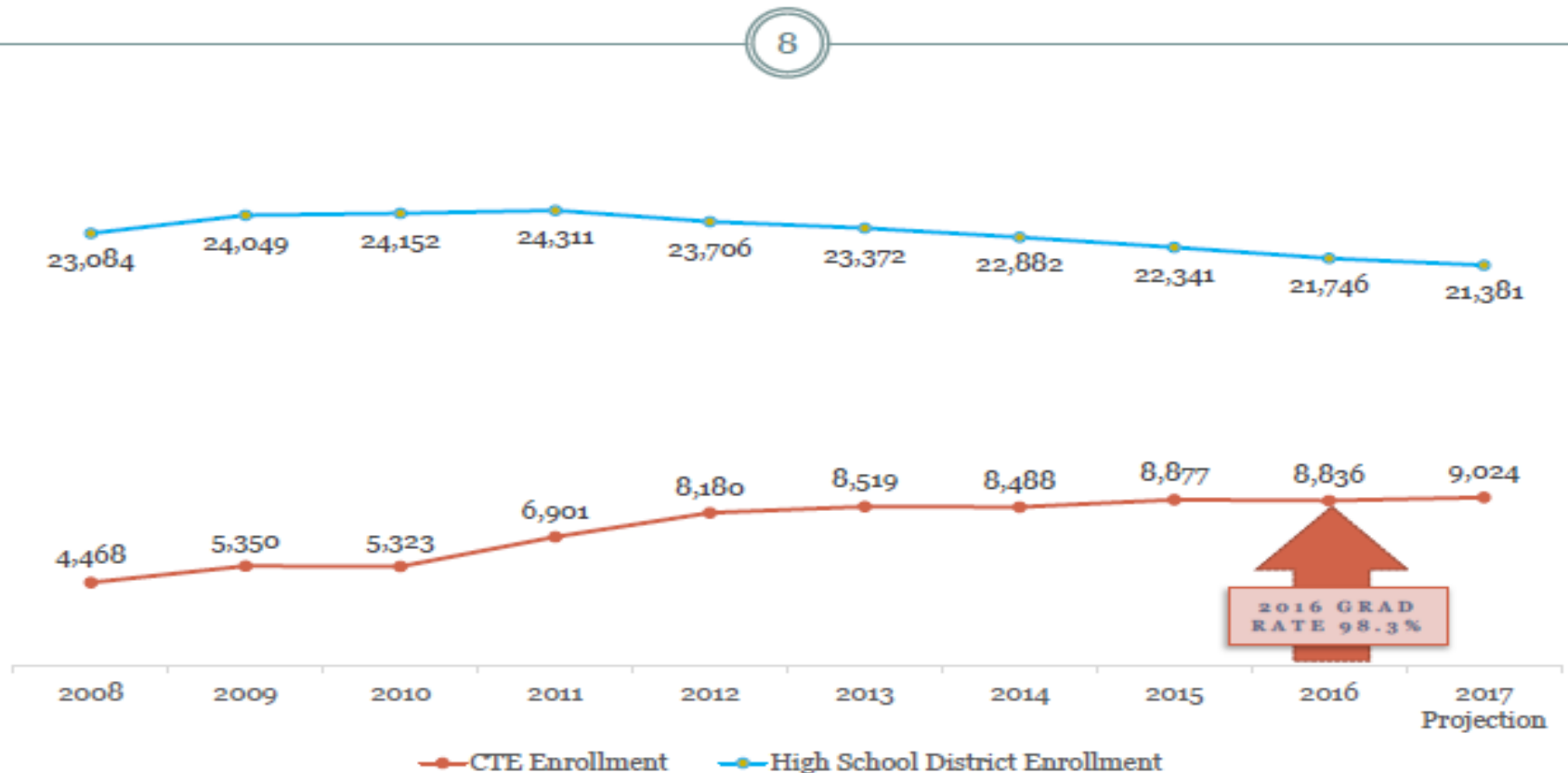
CTE enrollment Data is per official submissions to MSDE and is reported as posted on mdctedata.org. The MSDE CTE data reporting cycle is on a one year lag. Official data is as of school year 2015-16. High School district enrollment data is current through school year 2016-17 and is per official September Enrollment submissions to MSDE.

BALTIMORE CITY
PUBLIC SCHOOLS

Benefits of the "New" CTE

Students

- CTE and College Prep Academic Curriculum
- Sequenced Program of Study
  - Typically 4 Credits
- Value-Added Options:
  - Industry Recognized Credentials and/or
  - Early College Credit
- Work-Based Learning Experiences
- Leadership Skills – CTE Student Organizations

Stakeholders

- Standardized program design and delivery
- Industry partnership support for program implementation and improvement
- Statewide professional development opportunities
- Industry recognized certifications and licenses
- College credit and program articulation

CTE Provides Options and Opportunities
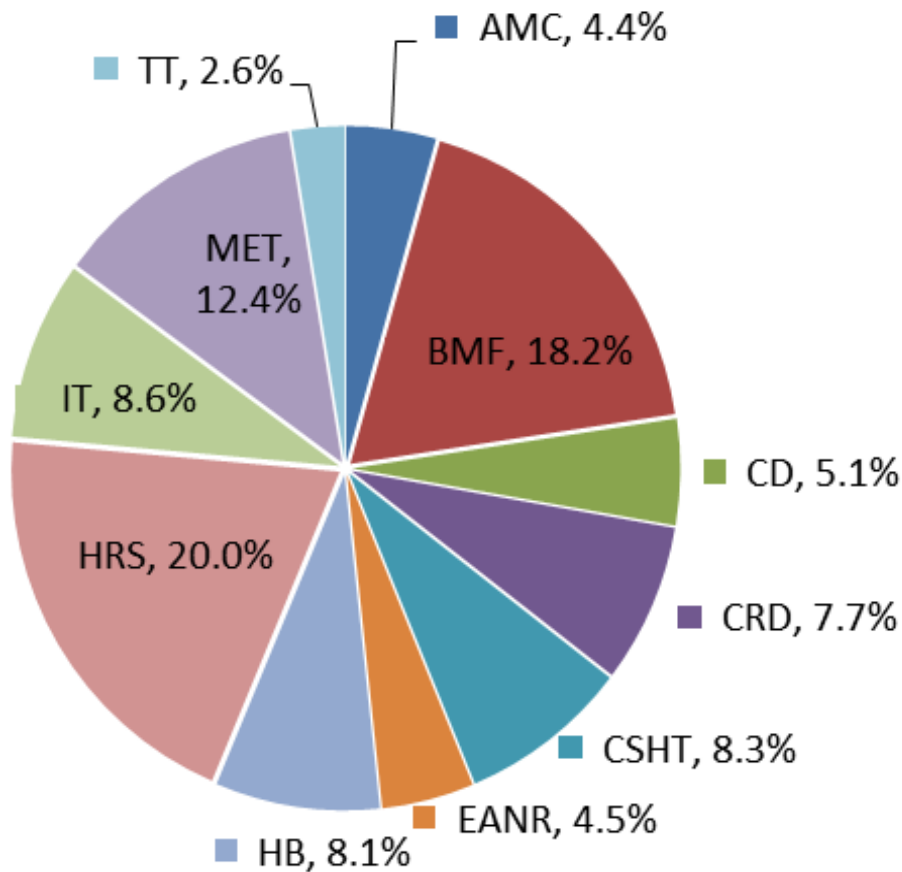
Statewide enrollment by Career Cluster:

- *97,857 students*
- *148 programs*
- *237 high schools*

For more information, please visit: *MDctedata.org*

Aligning to High Growth Industries
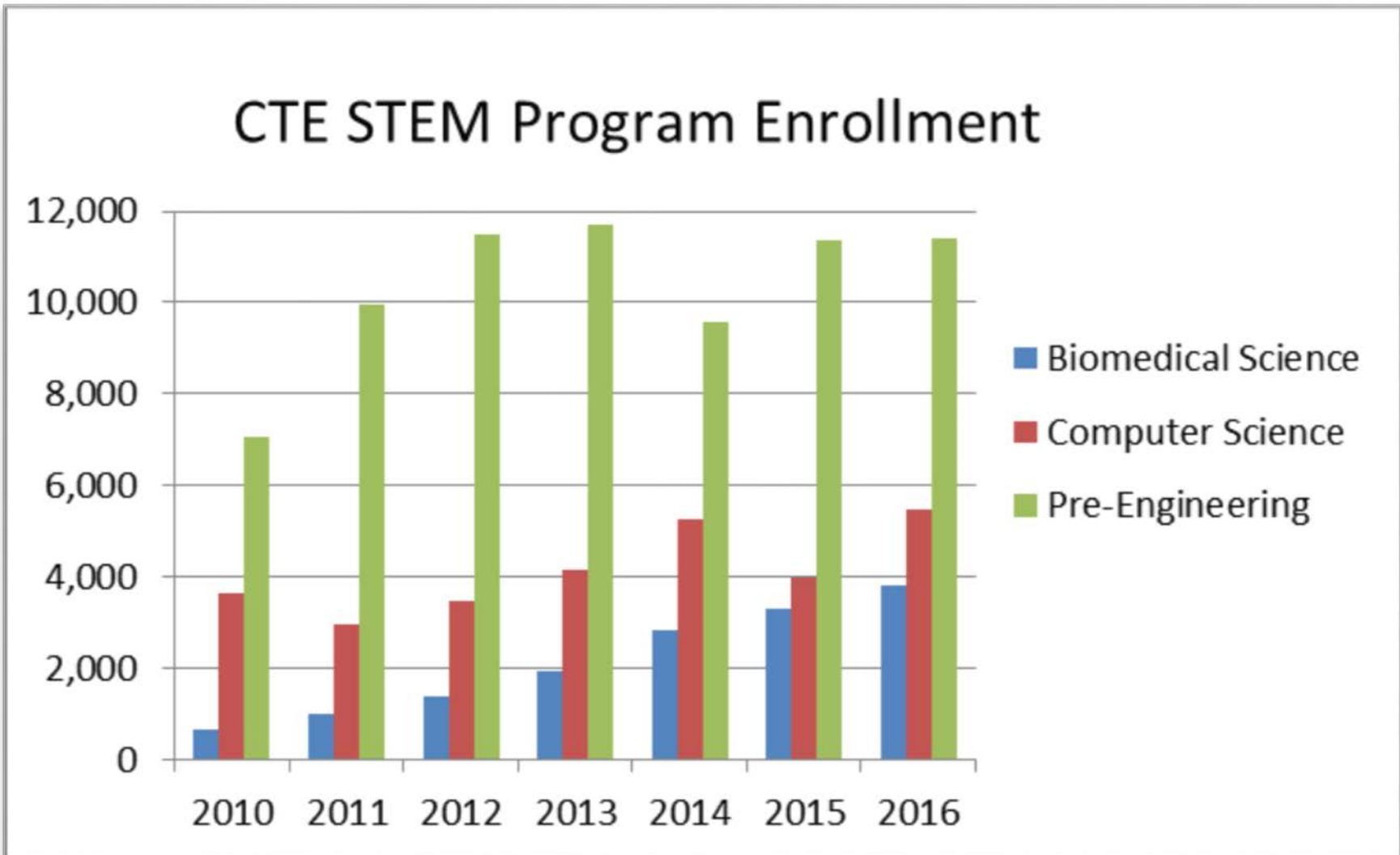
Adapting Programs of Study to Meet Labor Demand
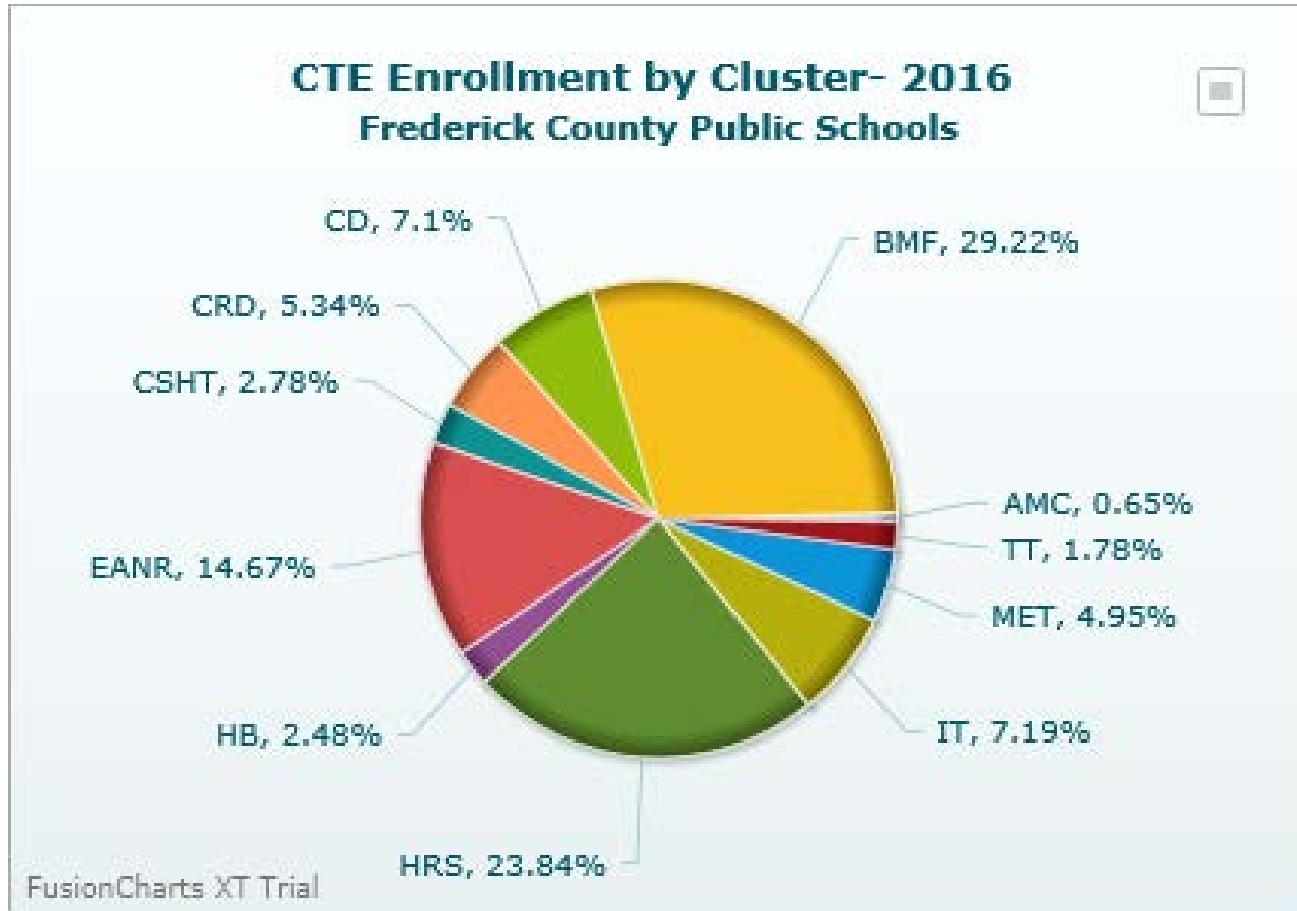
- Business Management and Finance - BMF 2,036
- Environmental, Agricultural and Natural Resources - EANR 1,022
- Human Resource Services - HRS 1,661
- Information Technology – IT 501

High Skill
High Wage Options
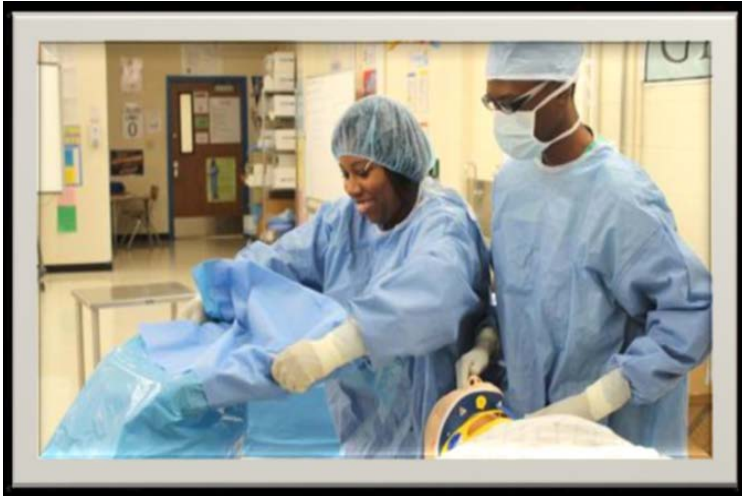
- **Health and Bioscience**
- **IT and Computer Science**
- **Human Resource Services (Law and Leadership)**
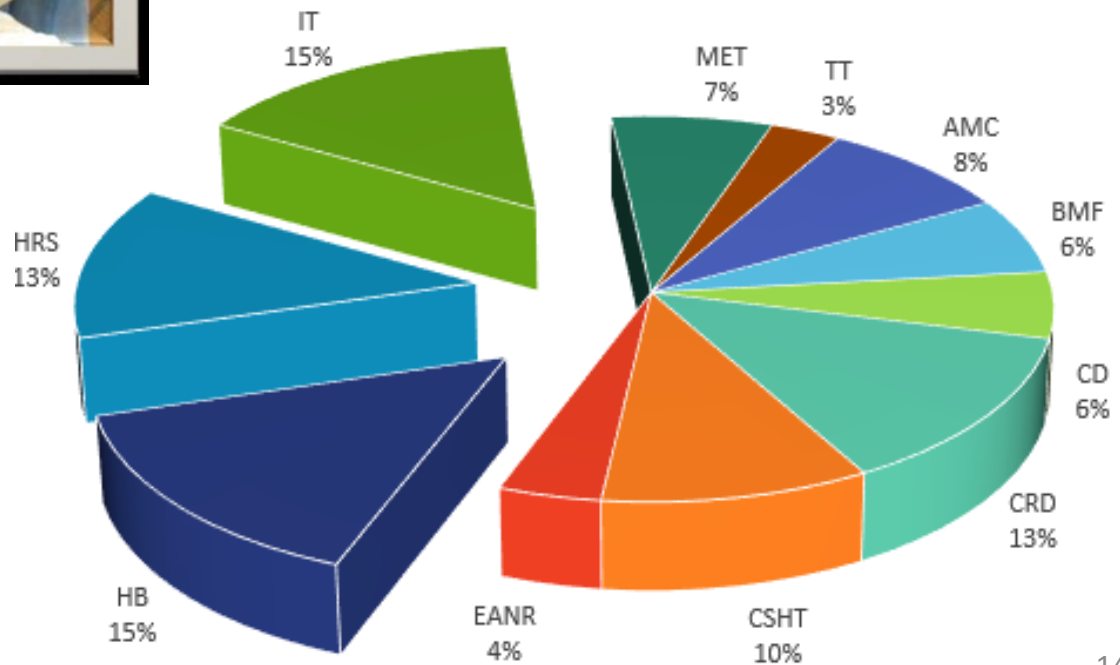
PLTW Biomedical Sciences

Statewide Enrollment in Biomedical Sciences (PLTW) 2008-2014
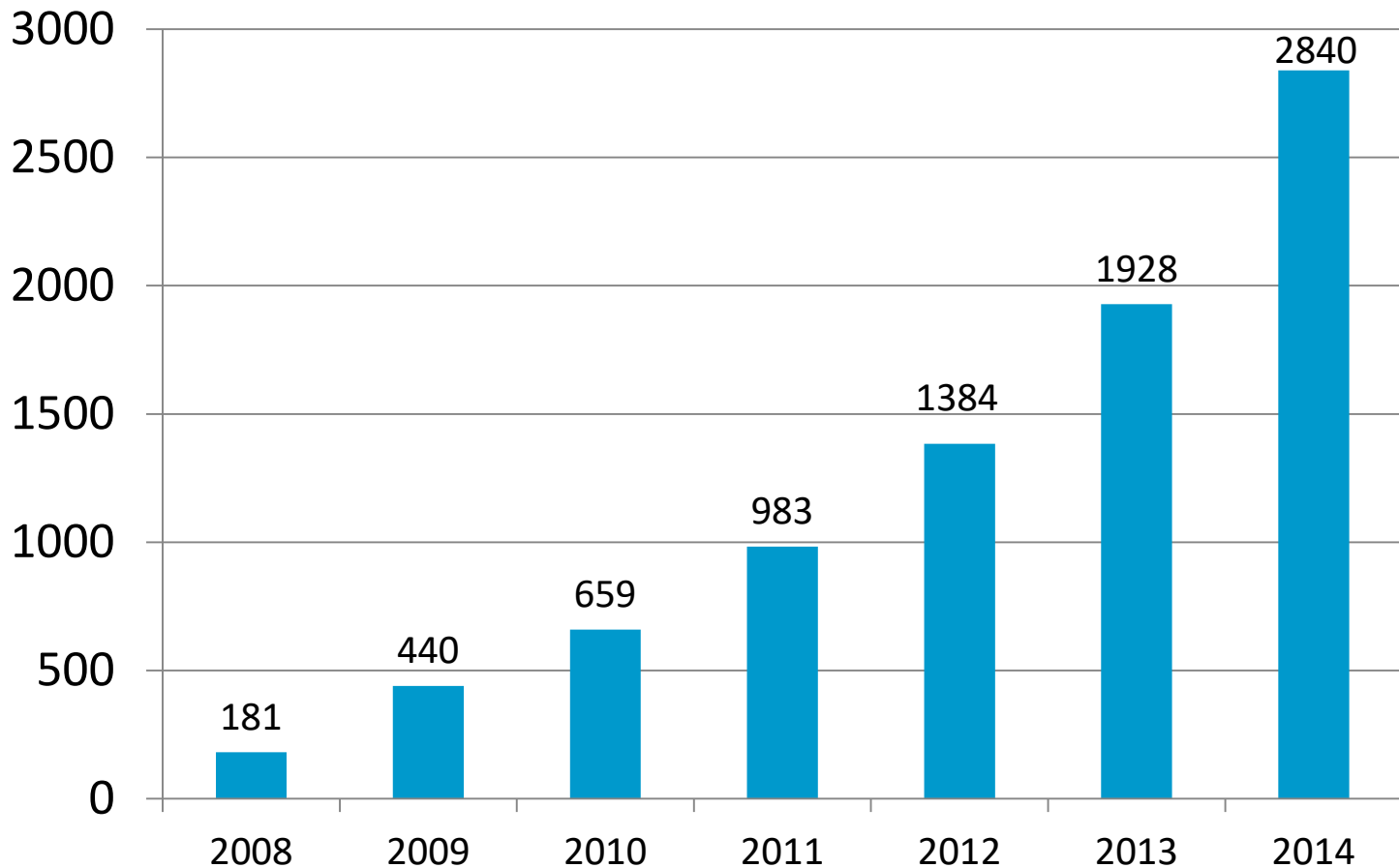
Supporting CTE Teachers

- Professional Development for teachers of State-approved programs through CTE Program Affiliates

- Access to Blackboard Resources and Professional Learning Communities

- Peer Instruction and Sharing of Best Practices

Programs are Aligned to Industry Standards and Economic Opportunity

Technical Skill Attainment: CTE Students Attempting and Earning Industry Certifications
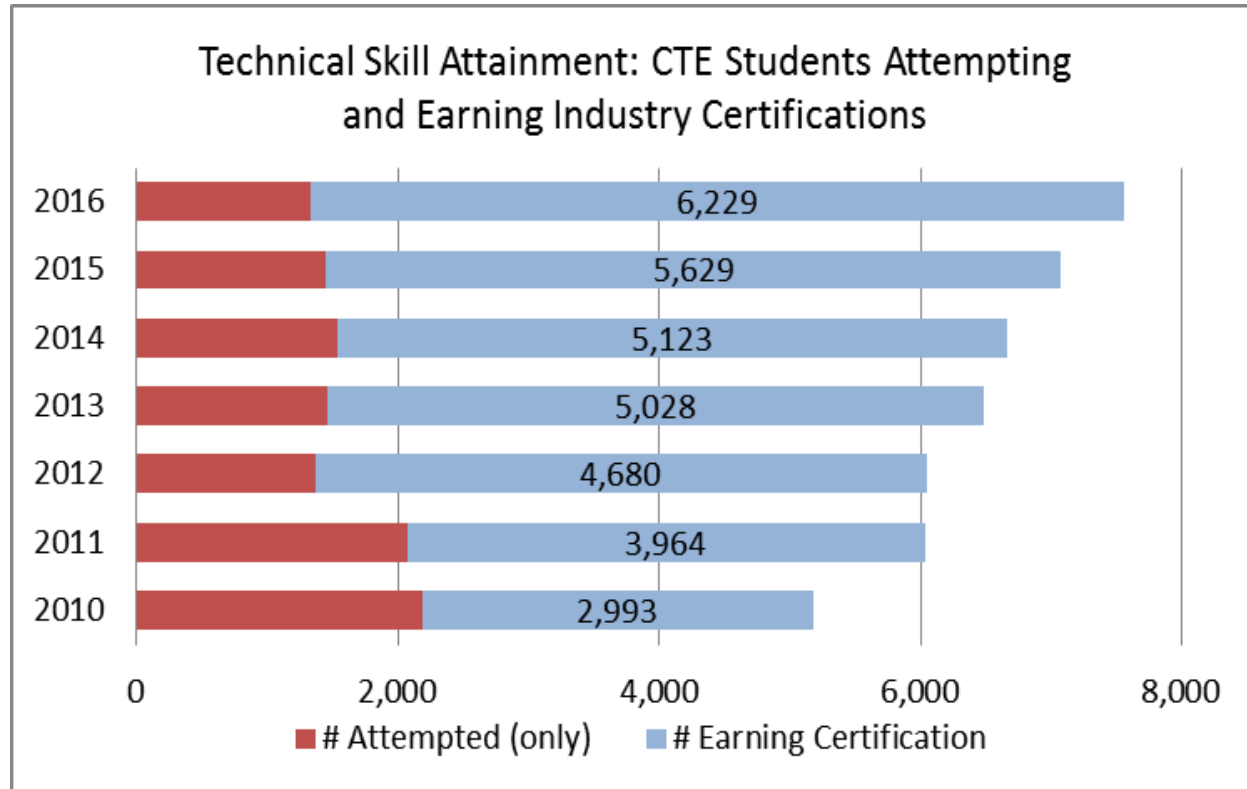
82.4% pass

All programs include opportunities for students to earn industry certifications and/or early college credit

Work Experiences of Grade 12 Students

- New data collection includes course-level information if Work-based Learning (WBL) is part of the high school program.
- MSDE Graduate Survey is administered within 45 days of graduation (82% response rate).

12ᵗʰ Grade Student Work Experience – 2015

Unduplicated Count

3,824 8%

7,783 17%

10,221 22%

24,546 53%

4,890 11%

4,353 9%

978 2%

Legend: ■ None ■ Internship □ Student Aid ■ Both ■ CTE Employment ■ Work Release
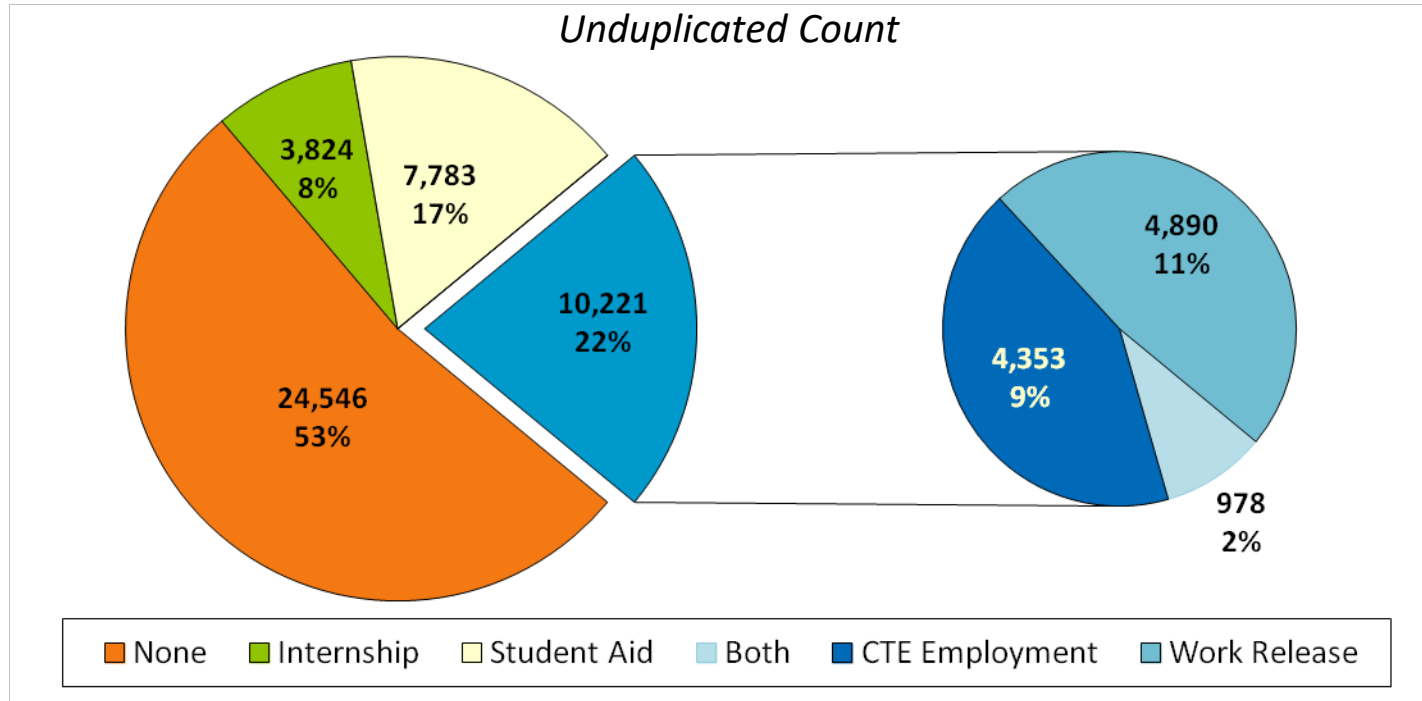
Career Development and Work-based Learning

- CTE programs include options for supervised work-based learning through:
  - internships
  - mentorships
  - youth apprenticeships
  - school stores
  - clinics
  - live-work performed in CTE classrooms
  - Career Research and Development (CTE Program of Study Consisting of work experience and two in-school courses)

- More than 12,000 students participate in leadership and skill development activities in Career Technology Student Organizations

Guided by Partnerships
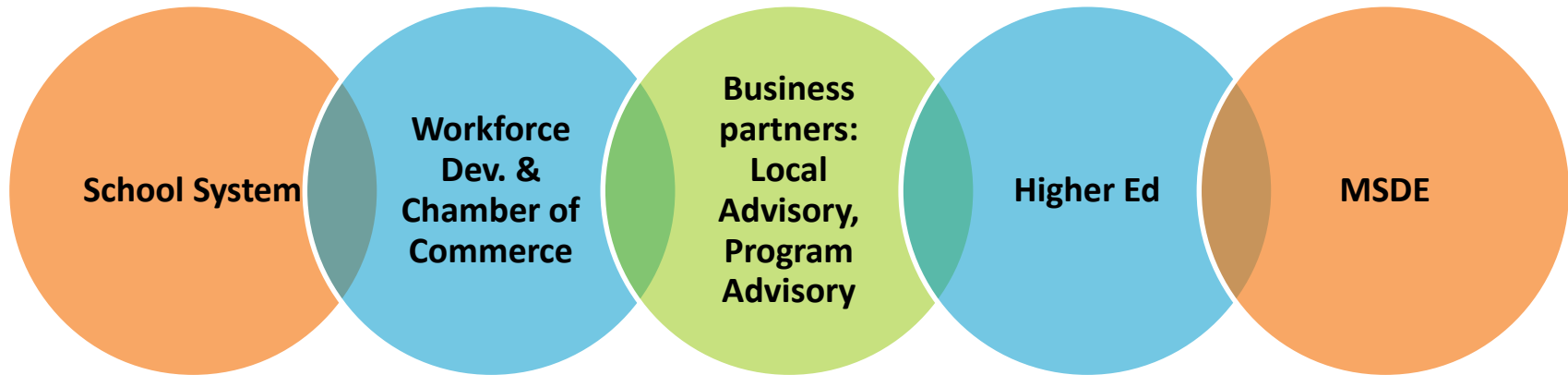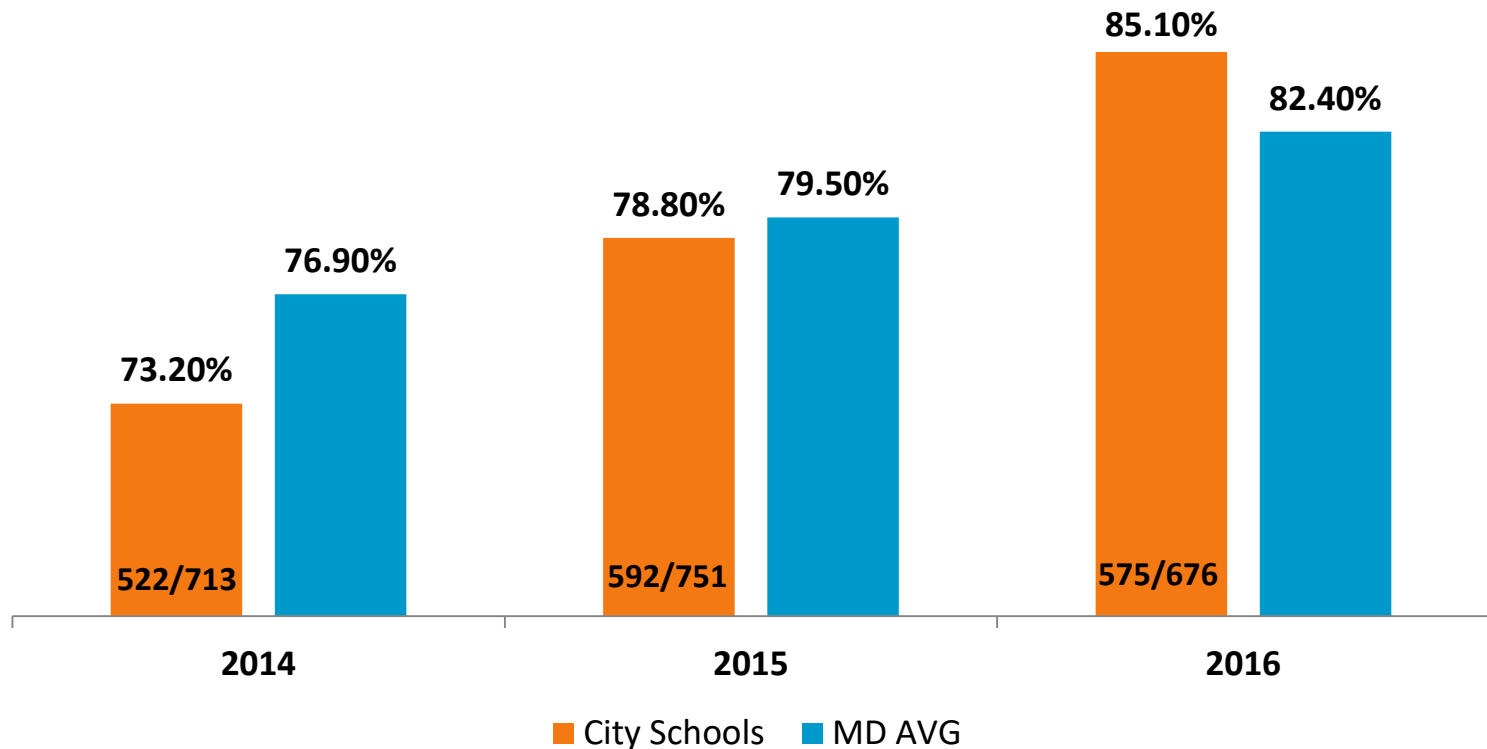
Work-Based Learning Options

- Program completers are required to participate in a WBL experience

- Links classroom experiences with career tasks

- Students gain professional skills desired by future employers

- Resume building

Industry Field Trips

Guest Speakers

Job Shadow Days

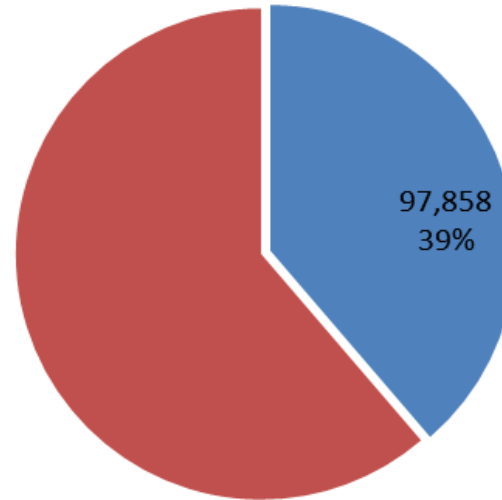**Mentorships**

Internships

Youth Works/ Externships

Pre- Apprenticeships

Work-Based Learning Options

- Fire Fighter and Emergency Medical Technician – approximately 4,500 training hours at the Fire Academy

- Academy of Health Professions – approximately 7,300 clinical hours at local hospitals, pharmacies, and nursing homes

- Cosmetology Students average 1,500 clinical hours (per student) to meet Board exam requirements.
  - 150+ Internships
  - 130+ Guest Speakers
 - 120+ Mentors
  - 100+ Field Trips
  - 60+ Job Shadowing Events

Quick Facts About Graduates

- More than one third (39%) of all high school students enroll in CTE courses (97,857)

- 23% of the Class of 2016 completed a CTE program of study (13,258 out of 58,042)

- 54% of graduates completed only the USM entrance requirements

- 10% of graduates completed only a CTE program

Pie chart: 97,858 / 39%

Pie chart: 23%, 13%, 10%, 54%

- USM Completers (only)
- CTE Completers (only)
- Dual Completers
- Other
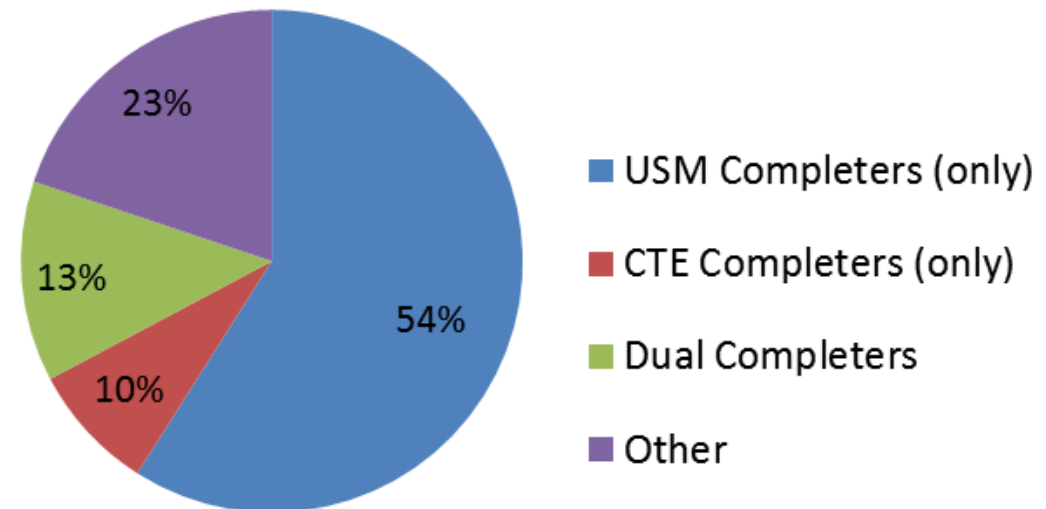
Federal Funding for CTE

- Federal appropriation comes from the Carl D. Perkins Career and Technical Education Improvement Act of 2006

- MD received $15,086,746 in federal funds in FY 2016 (a 2% increase over 1999 or $14,812,307).

- Thus, Perkins has been relatively flat funded for almost 20 years.

- 85% goes to eligible local recipients (24 school systems and 14 of 16 community colleges)

- Funds are to improve and upgrade state-approved CTE programs, provide professional development (may not go toward maintenance)

$2.2M

$2.2 M

$4.3

$8.3 M
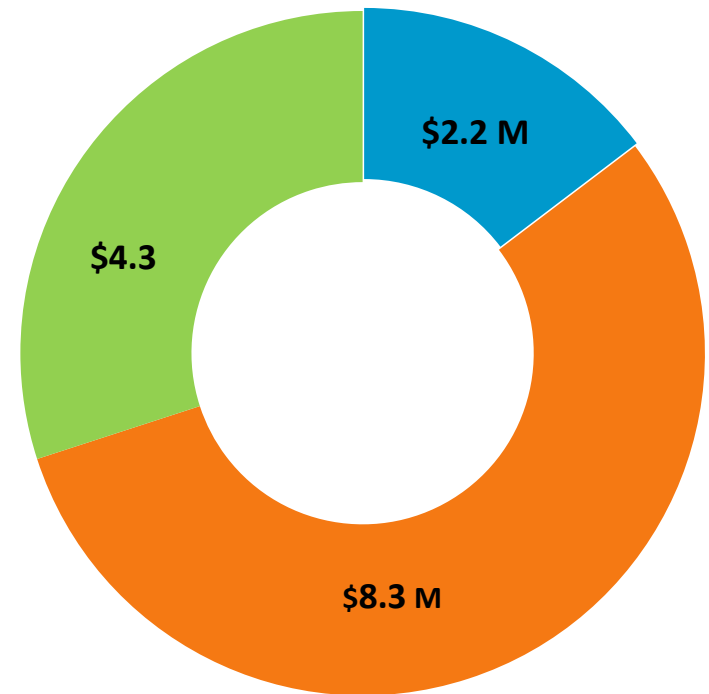
- ■ MSDE Administration and Leadership

- ■ Local School Systems

- ■ Community Colleges

25

Apprenticeship Maryland
Pilot Program

- Is for students ages 16 and up

- Designed to lead to sustainable employment and further education in STEM occupations and manufacturing

Participating Students:

- Start the program in the summer or fall of their junior or senior year in the program
- Complete at least 450 hours of work-based training under the supervision of an eligible employer and at least one year of related instruction

Apprenticeship Maryland Pilot Program

Partners:

- Department of Labor, Licensing and Regulation
- Maryland State Department of Education
- Department of Commerce
- Frederick County Public Schools
- Washington County Public Schools

What is the Goal? **The goal of Apprenticeship Maryland is to create** <u>**compensated, high quality**</u> **youth apprenticeships that prepare students to enter employment in high-skilled, high growth sectors in manufacturing and STEM occupations, such as healthcare, biotechnology, information technology, construction and design, and banking and finance.**

WCPS | Washington County Public Schools

EARN AND LEARN WITH **Apprenticeship** *Maryland*

FCPS

Maryland Youth Apprenticeship

Successes:

- Infrastructure refinement(Schools/DLLR/employers)
- Nine Employers approved by the Maryland Apprenticeship and Training Council (MATC)Resources
- Eight FCPS students participated in the first year
- Six students completed 450 on-the-job training hours and a year of related high school instruction

Challenges:

- Branding
- Limited resources
- Employer/Mentor Commitment

2017 FCPS Youth Apprenticeship Video

Pathways in Technology Early College High (P-TECH) Schools

- Early college high school model developed by IBM in partnership with NYC Public Schools (2011)

- Grades 9-14, must lead to an Associates Degree

Pathways in Technology Early College High (P-TECH) Schools

- Steering Committee must include *College and Industry Partners*, with *K-12 District* as fiscal agent

- Defining features include:
  - College-going climate/courses no later than grade 10
  - Well-defined pathway to two-year degree & employment
  - One-to-one mentoring and paid internships
  - "First in line" consideration for employment
  - Open enrollment and no cost to students

Choose a Path → Continue Path to College → Become Employed

P-TECH Baltimore City

- **Dunbar:** Health Careers with Johns Hopkins, Kaiser Permanente, and University of Maryland Medical System

- **Carver:** IT / Computer Science in partnership with IBM

- **Postsecondary Partner:** Baltimore City Community College

Post Graduation and Further Schooling
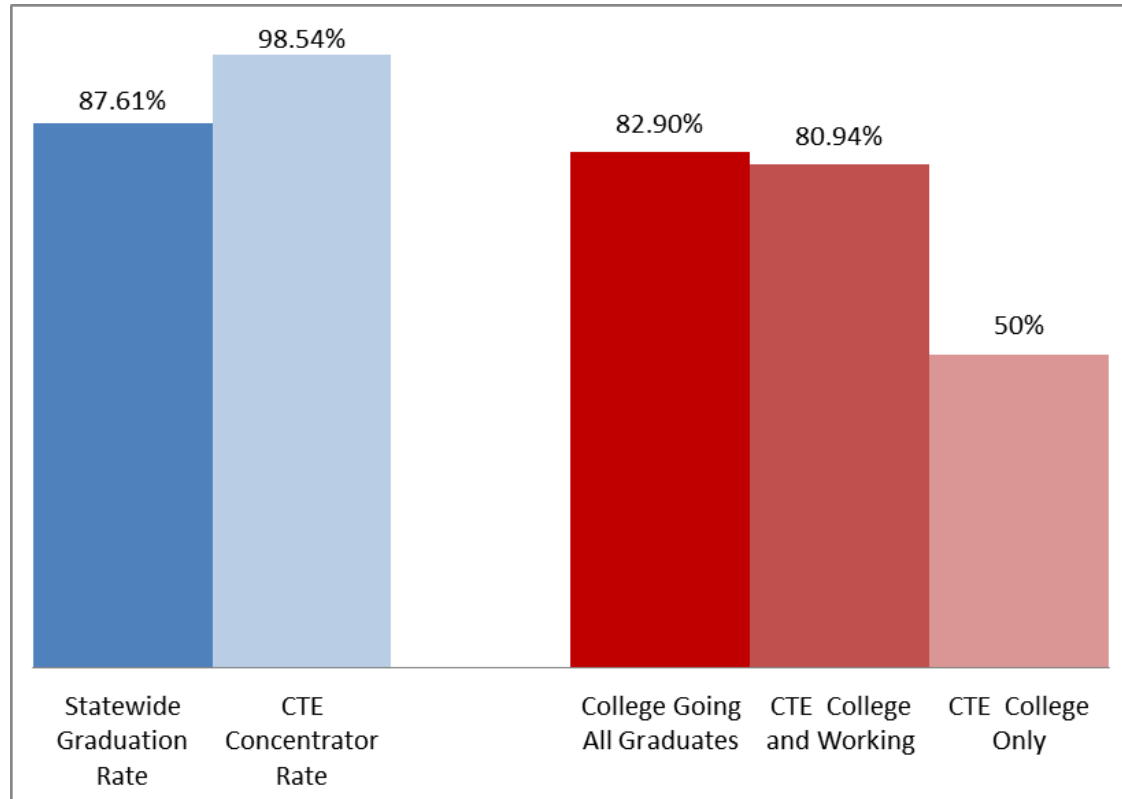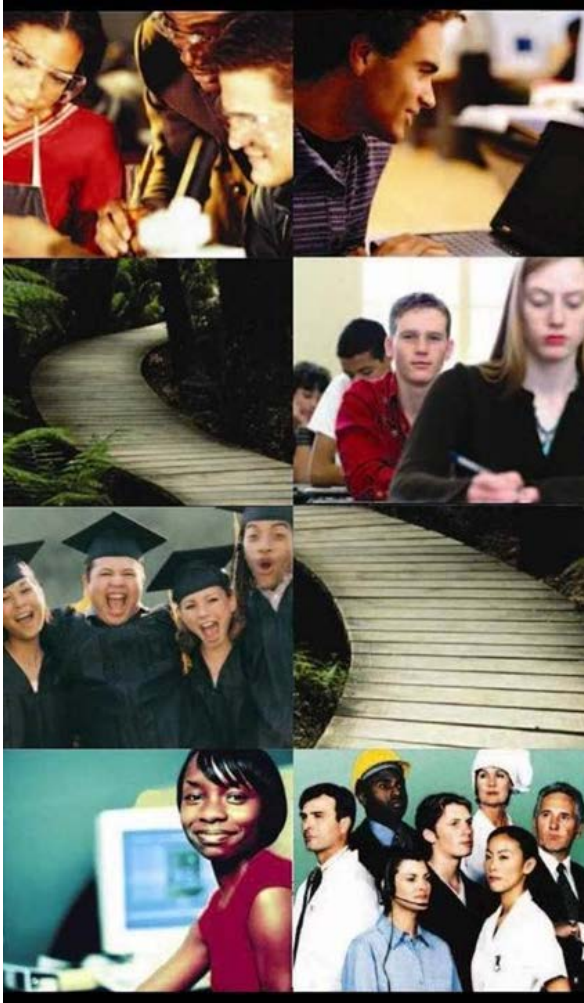
Challenges to the System

- Level federal CTE funding and potential future cuts (15%)

- Resources for program expansion (Biomedical Science Example)

- Challenge to find qualified CTE teachers, especially in STEM areas

- More Jobs for Marylanders' Act – 45% CTE completers by 2025

- Costs for assessments leading to industry certifications

- Providing ongoing high-quality professional development for teachers (stipends or substitute fees, costs associated with PD)

- Need for students to have ongoing career development experiences

- Expanding professional school counselors' knowledge of career options in today's global economy

- Lack of parent understanding of CTE (Social Media Campaign)

Career and College Readiness

College and career readiness includes mastery of rigorous content knowledge and the abilities to apply that knowledge through higher-order skills to demonstrate success in college and careers.

Celebrating Student Success

→ This includes the ability to think critically and solve problems, communicate effectively, work collaboratively, and be self-directed in the learning process.

ECE for Maryland's Tomorrow: Thinking Fresh-Acting Smart

Sharon Lynn Kagan, Ed.D.

Child Study Center, Yale University

Teachers College, Columbia University

June 1, 2017

Presentation Overview

Part I: Thinking Fresh

Part II: Acting Smart

Part III: Learning from
                Others: NCEE Study

Part I:
Thinking Fresh

Maryland, the Great

- Time traveler looking at MD past
  - Incredible progress
  - Incredible leadership for state and nation
  - Incredible lessons to build on

- But the time traveler would also realize that it is a new era that calls for fresh thinking
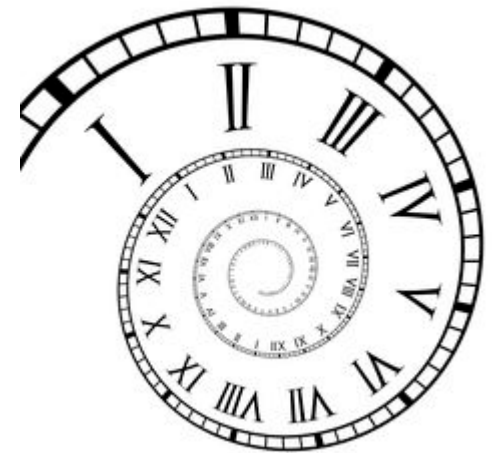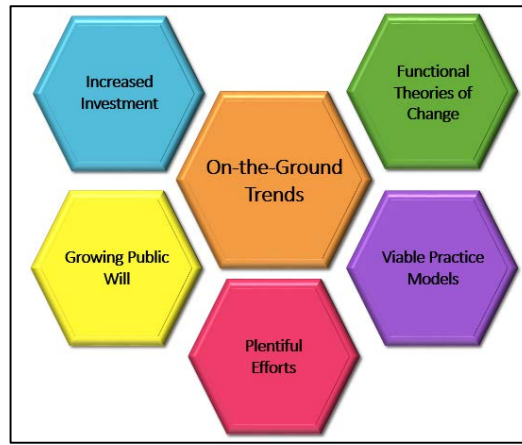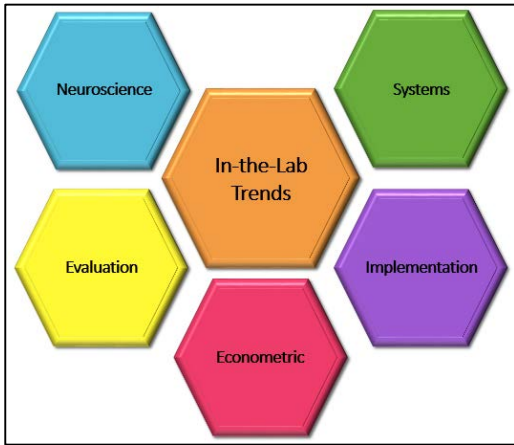
In-the-Lab Trends

On-the-Ground Trends

Increased Investment

Functional Theories of Change

On-the-Ground Trends

Growing Public Will
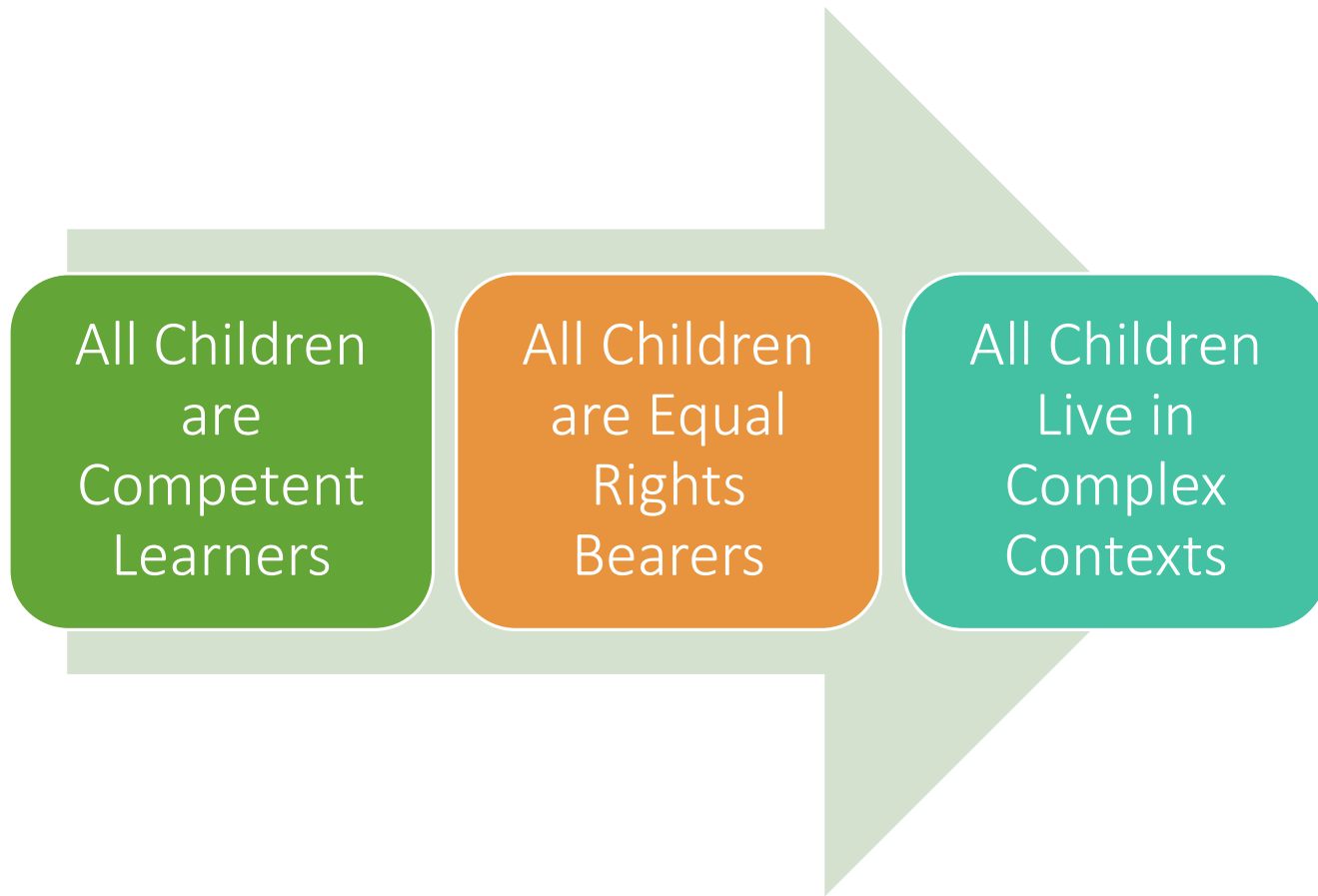
Viable Practice Models
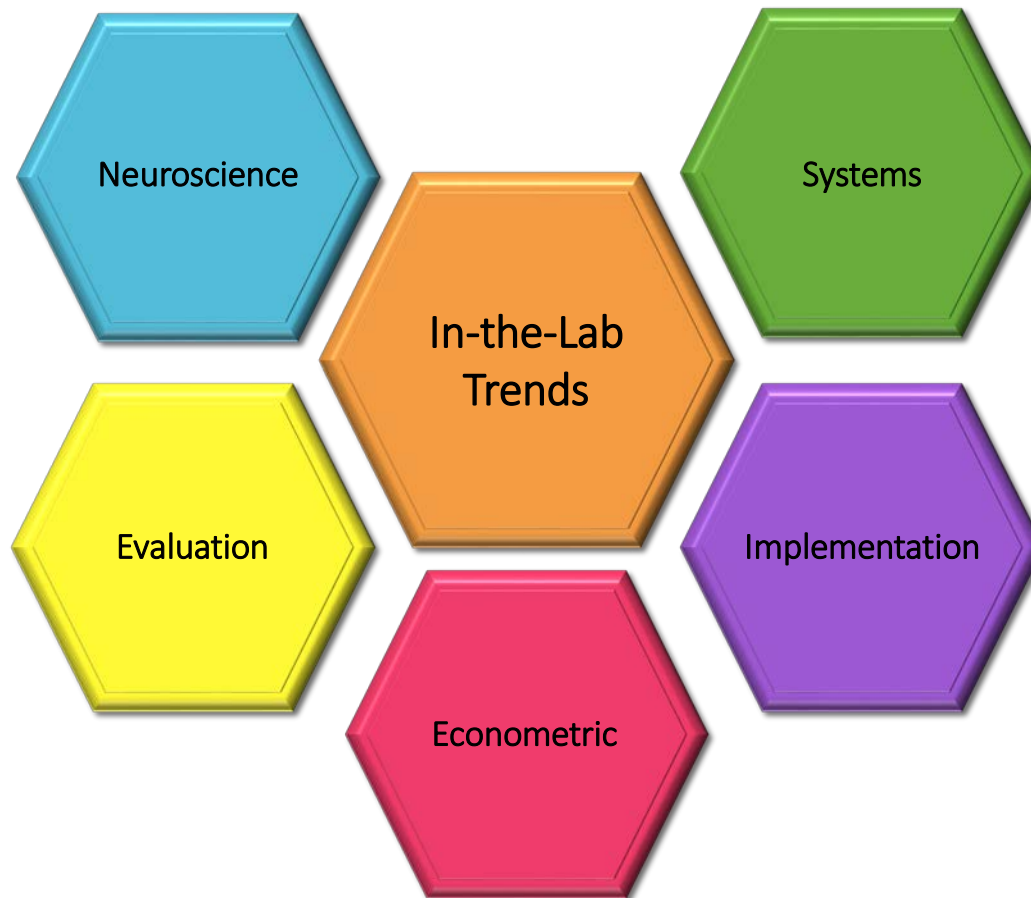
Plentiful Efforts
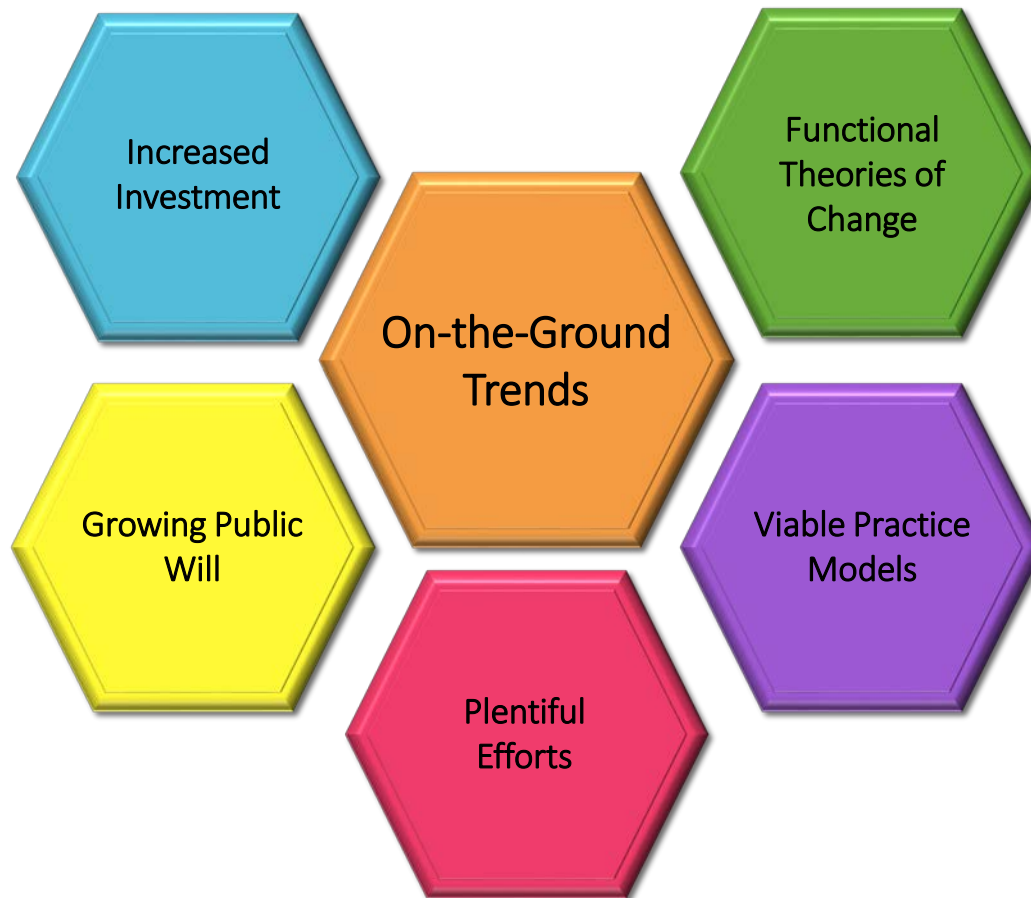
Around-the-Globe Trends
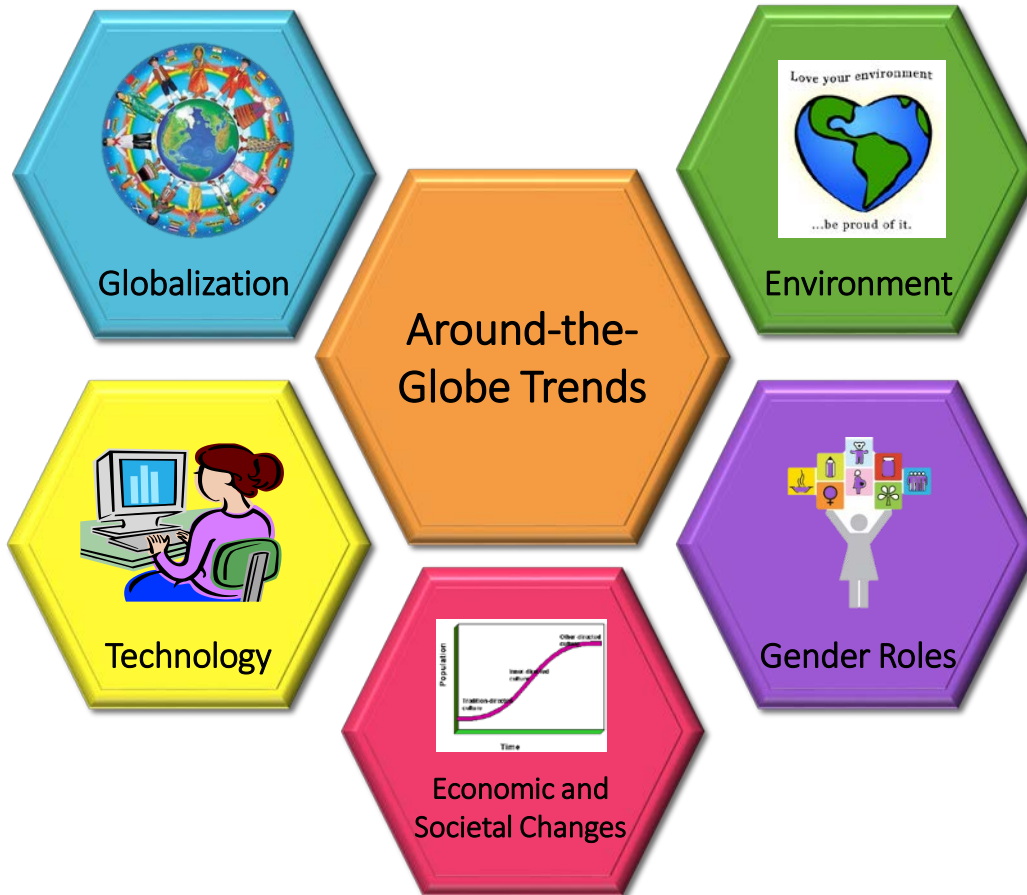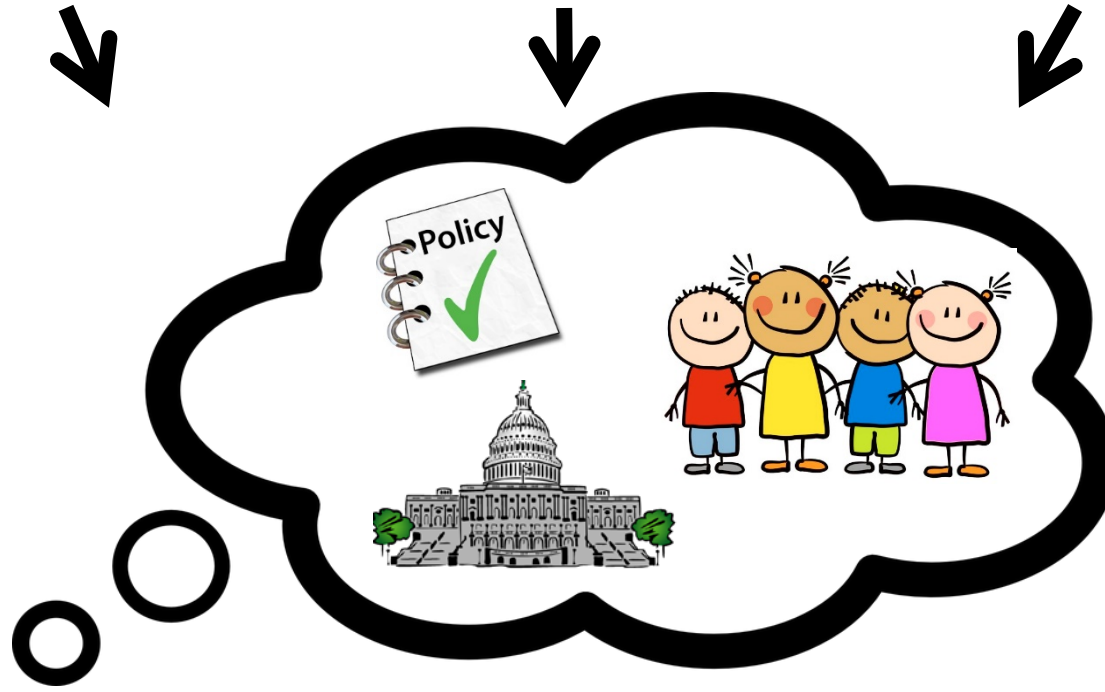
Think Fresh About Children

All Children are Competent Learners

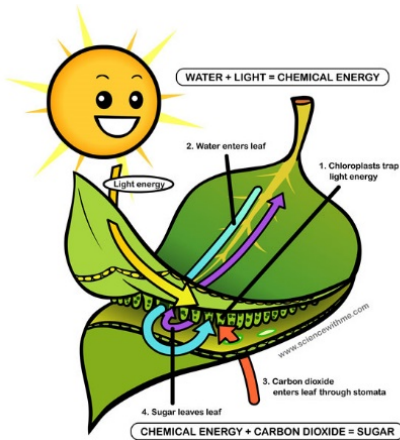All Children are Equal Rights Bearers

All Children Live in Complex Contexts

Children are Competent Learners

Children are Equal Rights Bearers

- Children have entitlements:
  - Safety
  - Protection
  - Education
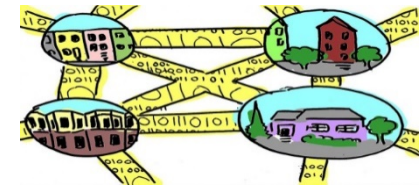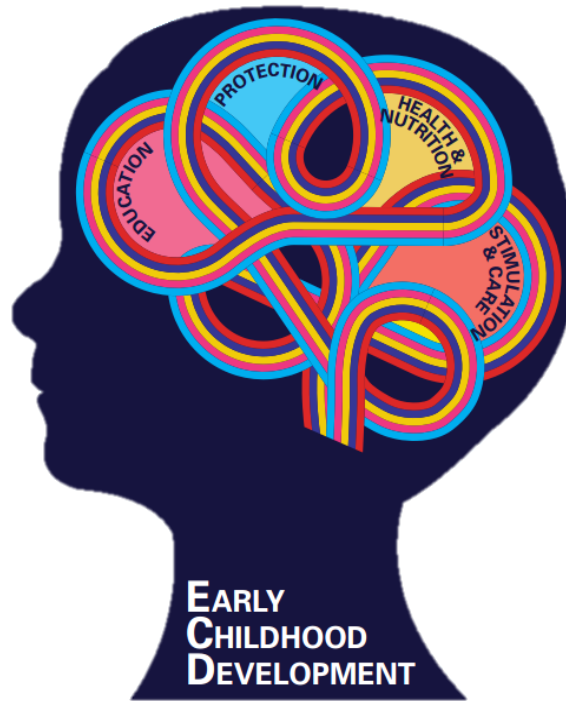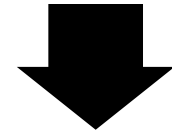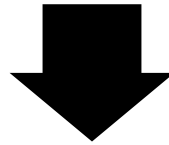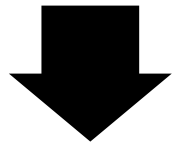 - Health and nutrition
  - Equality
  - Environment

Children Live in Complex Contexts

Obligated to Focus on All Three Areas
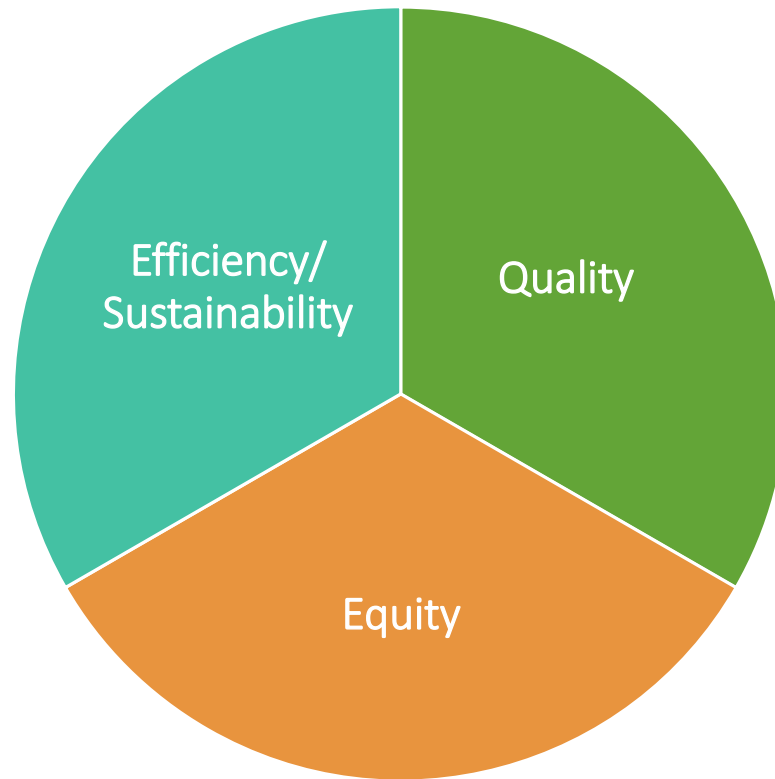
The USA Quality Challenge

Presence of well-defined quality* guidelines to cover basic ECEC needs
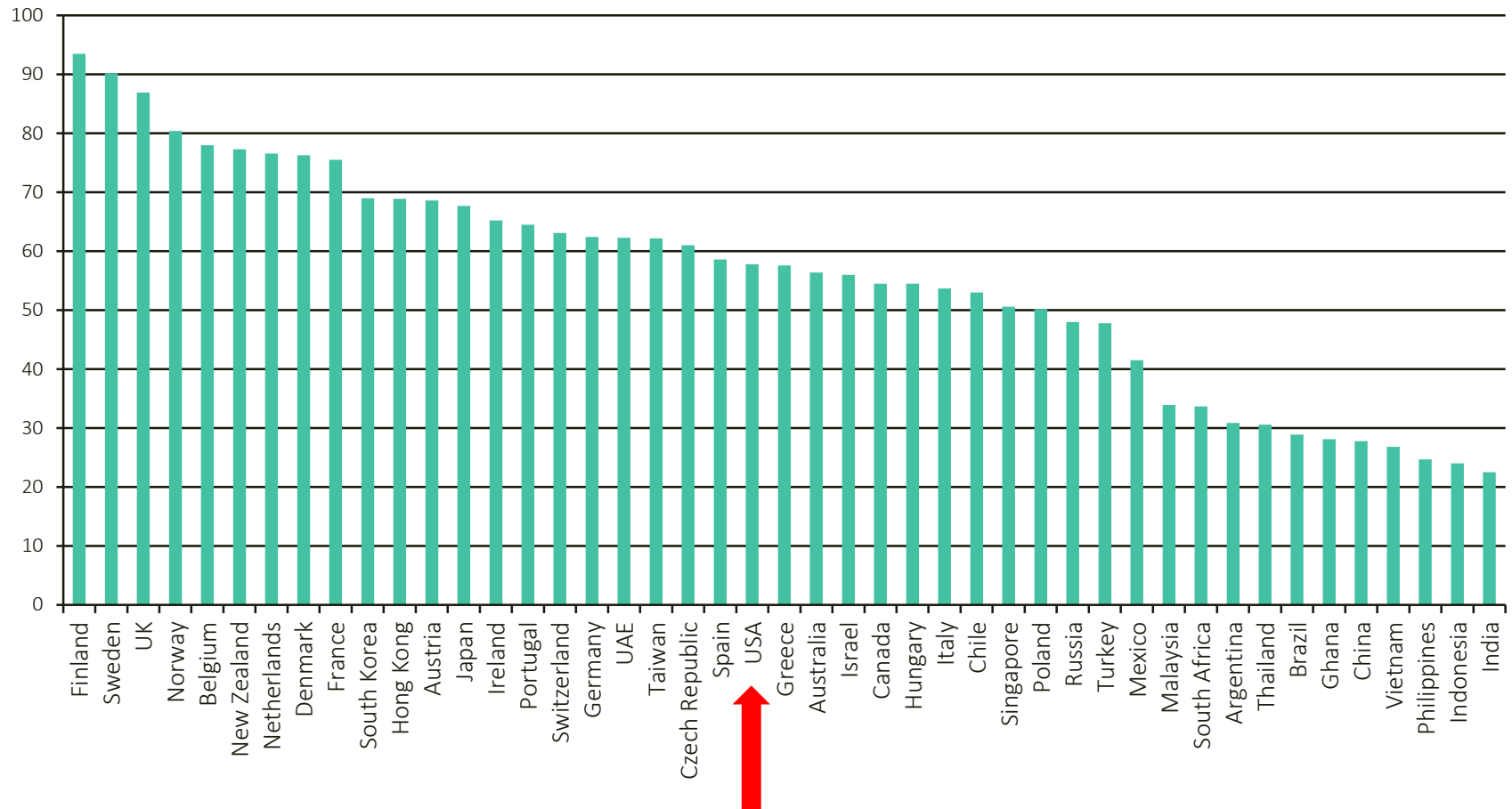
* Quality is assessed according to: student-teacher ratio, average teacher wages, curriculum guidelines, teacher training, health and safety guidelines, date collection mechanisms, linkages, and parental involvement

Neuman, M. J., & Devercelli, A. E. (2013). What matters most for early childhood development: A framework paper. Systems Approach for Better Education Results (SABER) Working Paper, No. 5. Washington, DC: The World Bank; Adamson, P. (2008). The child care transition: A league table of early childhood education and care in economically advanced countries. Florence, Italy: UNICEF.

The Maryland Quality Challenge

QUALITY STANDARDS CHECKLIST

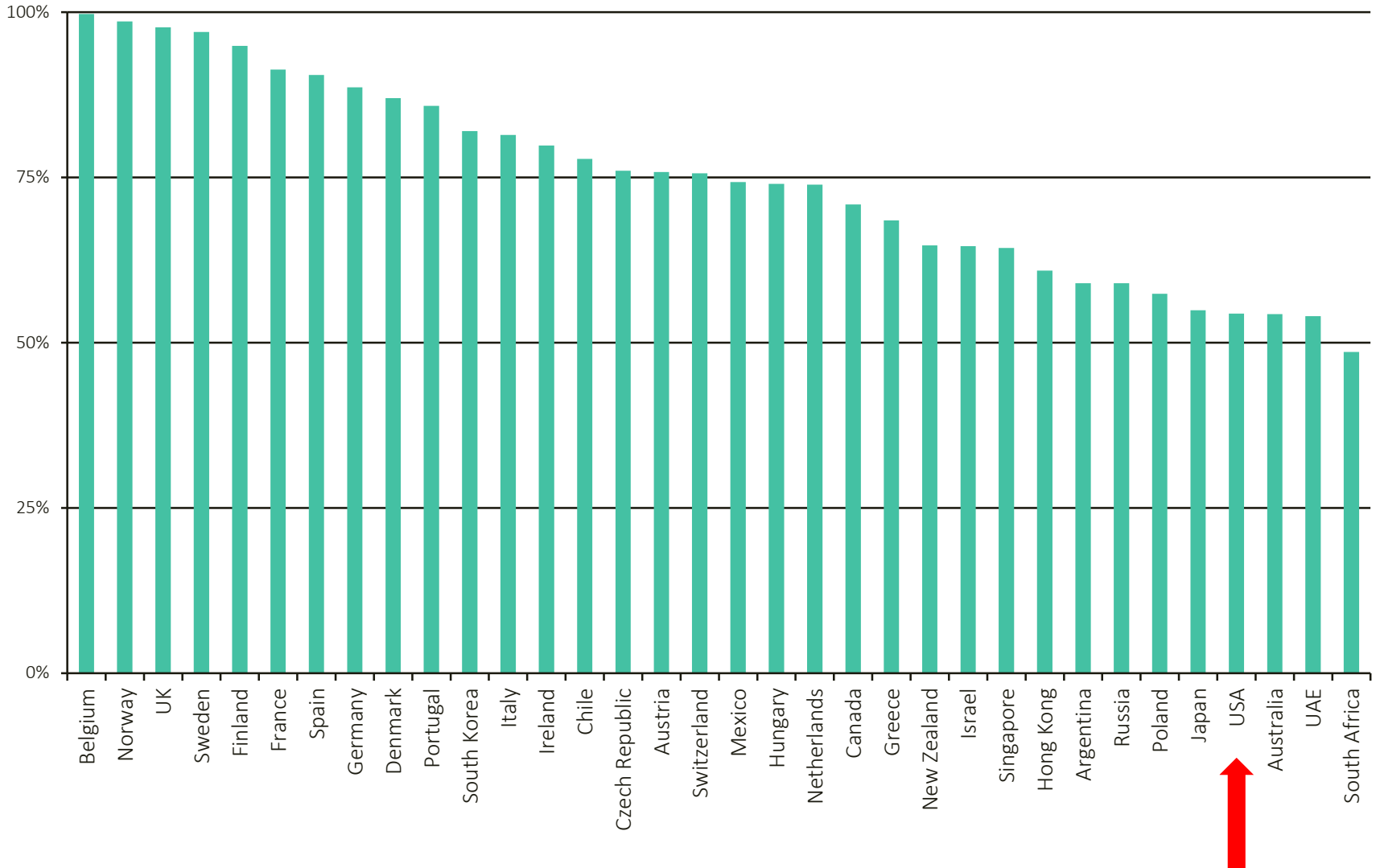| POLICY	MD PRE-K REQUIREMENT	CURRENT BENCHMARK	MEETS CURRENT BENCHMARK?	NEW BENCHMARK	MEETS NEW BENCHMARK?
Early learning & development standards	Comprehensive, aligned, supported, culturally sensitive	Comprehensive	☑	Comprehensive, aligned, supported, culturally sensitive	☑
Curriculum supports	Approval process & supports	New in 2015-2016	—	Approval process & supports	☑
Teacher degree	BA	BA	☑	BA	☑
Teacher specialized training	ECE	Specializing in pre-K	☑	Specializing in pre-K	☑
Assistant teacher degree	HSD	CDA or equivalent	☐	CDA or equivalent	☐
Staff professional development	6 credit hours/5 years (teachers); 24 hours/year (assistants); PD plans	For teachers: At least 15 hours/year	☑	For teachers & assistants: At least 15 hours/year; individual PD plans; coaching	☐
Maximum class size	Average of 20 (3- & 4-year-olds)[7]	20 or lower	☐	20 or lower	☐
Staff-child ratio	1:10 (3- & 4-year-olds)	1:10 or better	☑	1:10 or better	☑
Screening & referral	Vision, hearing, health & more; Support services	Vision, hearing, health & at least one support service	☑	Vision, hearing & health screenings; & referral	☑
Meals	Lunch & snack (school-day); Lunch (part-day)	At least one meal/day	☑	Discontinued	—
Monitoring/ Continuous quality improvement system	Structured classroom observations (more than once/year); Improvement plan	Site visits	☑	Structured classroom observation; program improvement plan	☑
			8		7

The USA Equity Challenge

Availability of preschool for families in countries around the world

Source: Unit, E. I., & Britain, G. (2012). Starting well: Benchmarking early education across the world. Economist Intelligence Unit.

The Maryland Equity Challenge

United States Preschool Enrollment Gap:
Differentials Between Low-income and Other Families

- In 2013, the gap in enrollment in preschool between children from low-income and other families was 17.9% in MD, above the national average of 15.8% and 9th largest gap among states
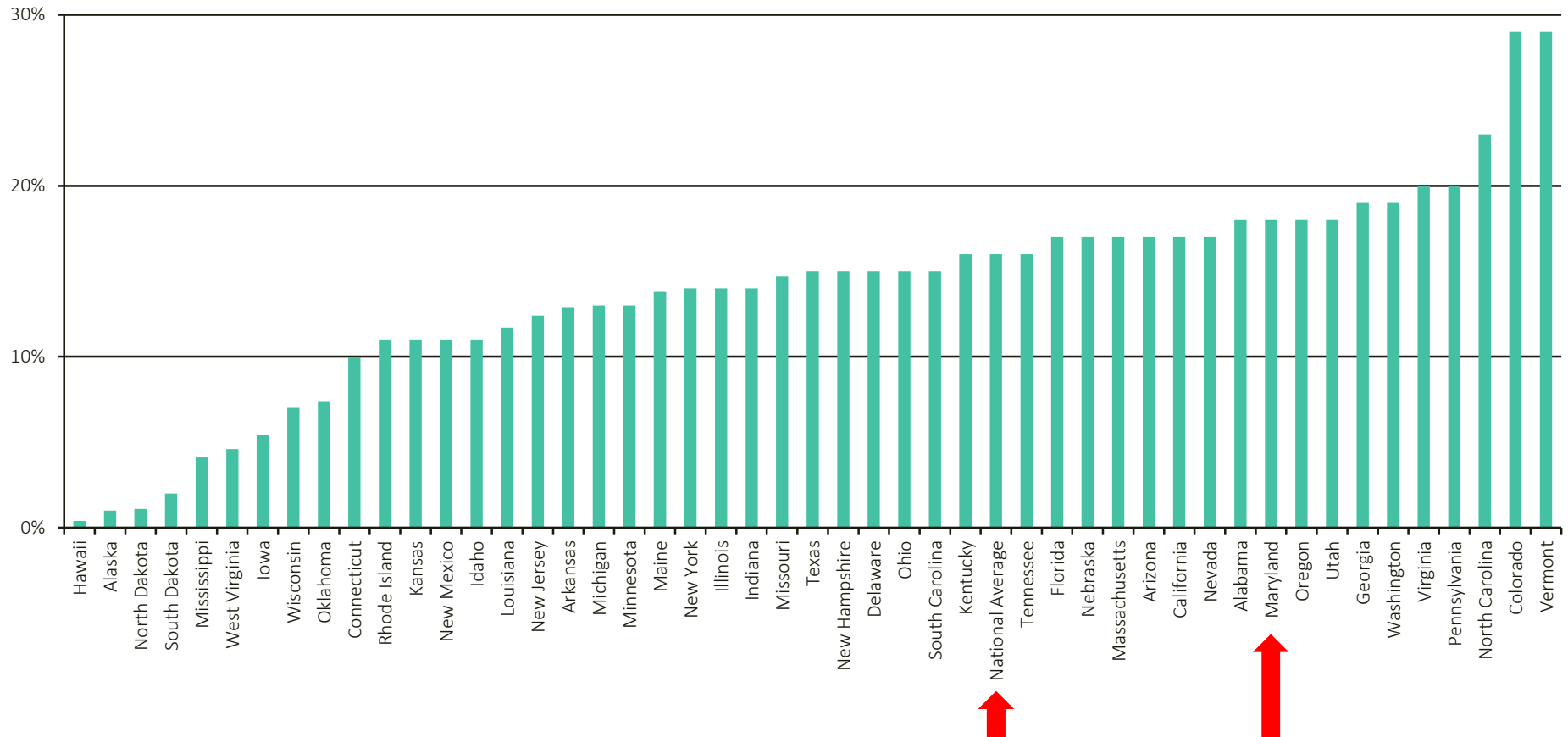
The Maryland Efficiency-Sustainability Challenge

Pre-k Resources per Child Enrolled by State

State	State $ per child enrolled in preschool	Change in the state per child spending from 2014-2015 to 2015-2016
Alabama	$4,290	-$1,052
Colorado	$2,471	-$39
Connecticut	$7,905	-$216
Hawaii	$7,467	-$218
Louisiana	$4,530	-$48
Maryland	$3,441	-$138
Massachusetts	$4,049	-$594
Michigan	$6,291	-$168
Nebraska	$2,302	-$462
Nevada	$2,132	-$261
New York	$6,507	-$121
North Carolina	$5,301	-$48
Oklahoma	$3,476	-$240
Rhode Island	$6,650	-$3,008
Tennessee	$4,753	-$476
Wisconsin	$3,677	-$111

Part II:
Acting Smart

Three Environments for Acting Smart: Programs, Services and Policies

All Children are Competent Learners	All Children are Equal Rights Bearers	All Children Live in Complex Contexts
⬇	⬇	⬇
Policies That Promote High *QUALITY* Pedagogy and Learning	Policies That Distribute A Range of Services *EQUITABLY*	Policies that are *EFFICIENT, ORGANIZED, and SUSTAINED*
⬇	⬇	⬇
Optimize Learning Environment (Program)	Create a Range of Services (Service)	Create Integrated System (Policy)

Implications for Acting Smart

All Children are Competent Learners

↓

Policies That Promote High *QUALITY* Pedagogy and Learning

↓

Optimize Learning Environment (Program)

All Children are Equal Rights Bearers

↓

Policies That Distribute A Range of Services *EQUITABLY*

All Children Live in Complex Contexts

↓

Policies that are *EFFICIENT, ORGANIZED, and SUSTAINED*

Learning/Program Environment
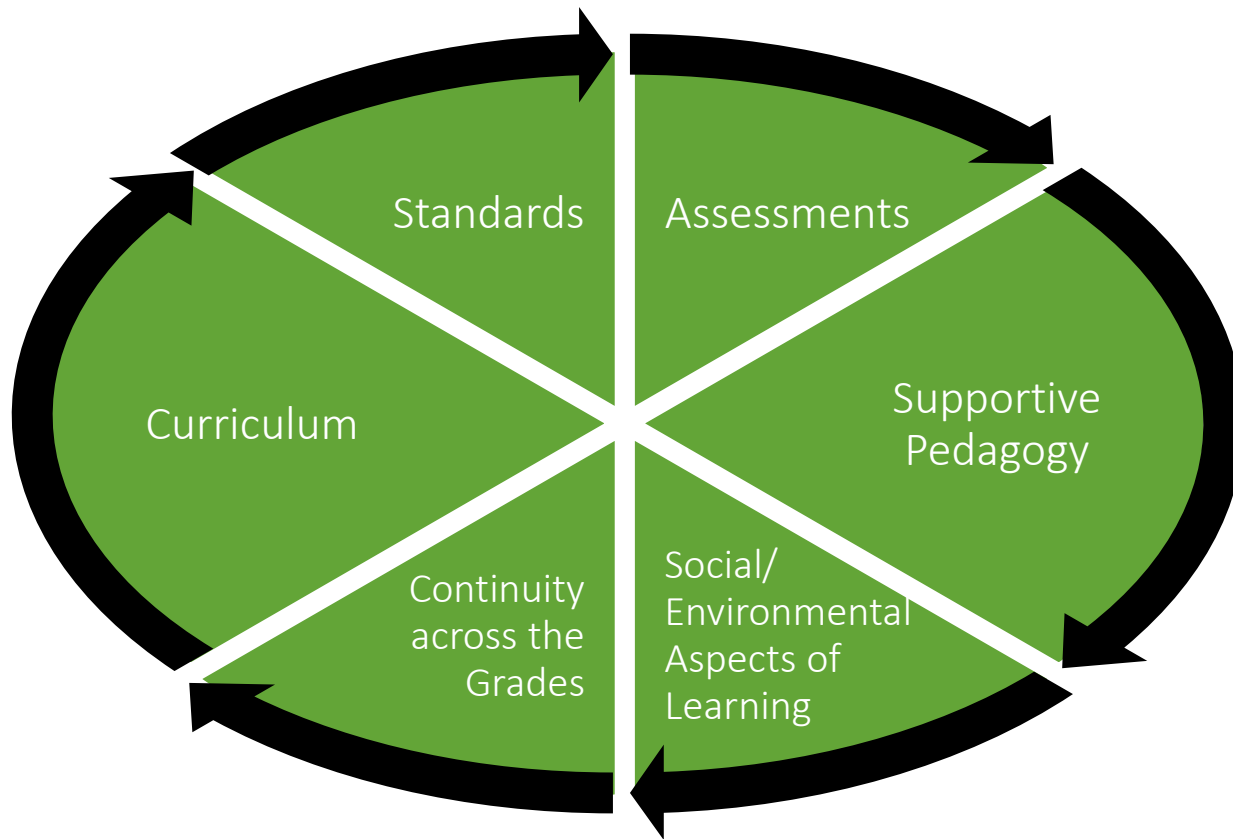
Implications for Acting Differently

All Children are Competent Learners

⬇

Policies That Promote High *QUALITY* Pedagogy and Learning

All Children are Equal Rights Bearers

⬇

Policies That Distribute A Range of Services *EQUITABLY*

⬇

Create a Range of Services (Service)

All Children Live in Complex Contexts

⬇

Policies that are *EFFICIENT, ORGANIZED, and SUSTAINED*

Services Environment

PROGRAMS/SERVICES

Pre-kindergarten

Health Programs

Parenting Education
and Home Visiting

Child Care

Transition

Parental Leave

All Children in a Holistic Context
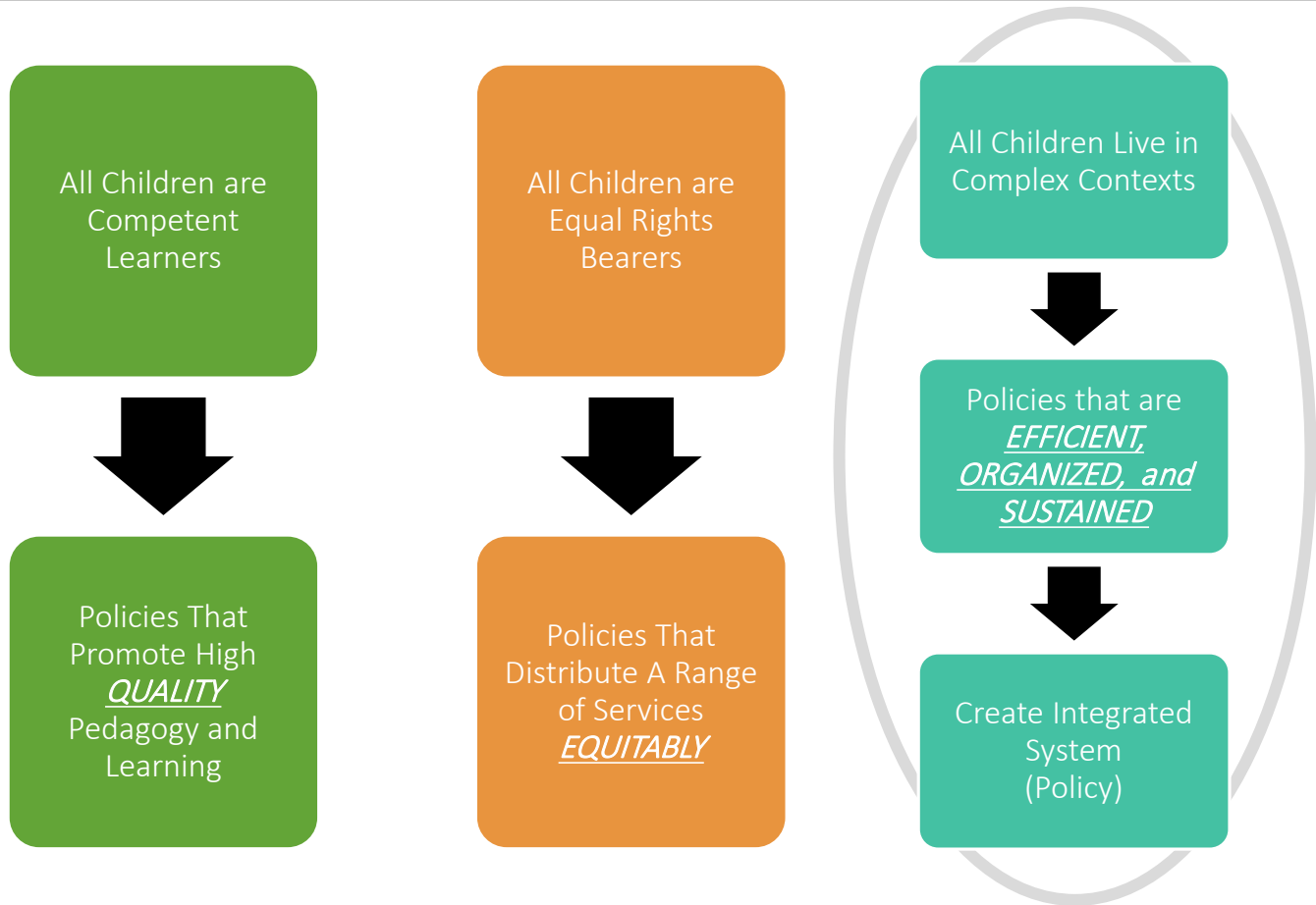
All Children are Competent Learners	All Children are Equal Rights Bearers	All Children Live in Complex Contexts
↓	↓	↓
Policies That Promote High *QUALITY* Pedagogy and Learning	Policies That Distribute A Range of Services *EQUITABLY*	Policies that are *EFFICIENT, ORGANIZED, and SUSTAINED*
		↓
		Create Integrated System (Policy)

ECE SYSTEM

The ECE System: A Metaphor

Home Visiting

Child and Family Child Care

Pre-Kindergarten

Transition

K-3

Infrastructure

Source: Kagan, S. L., & Cohen, N. E. (1997). Not by chance: Creating an early care and education system. New Haven, CT: Yale University Bush Center in Child Development and Social Policy.
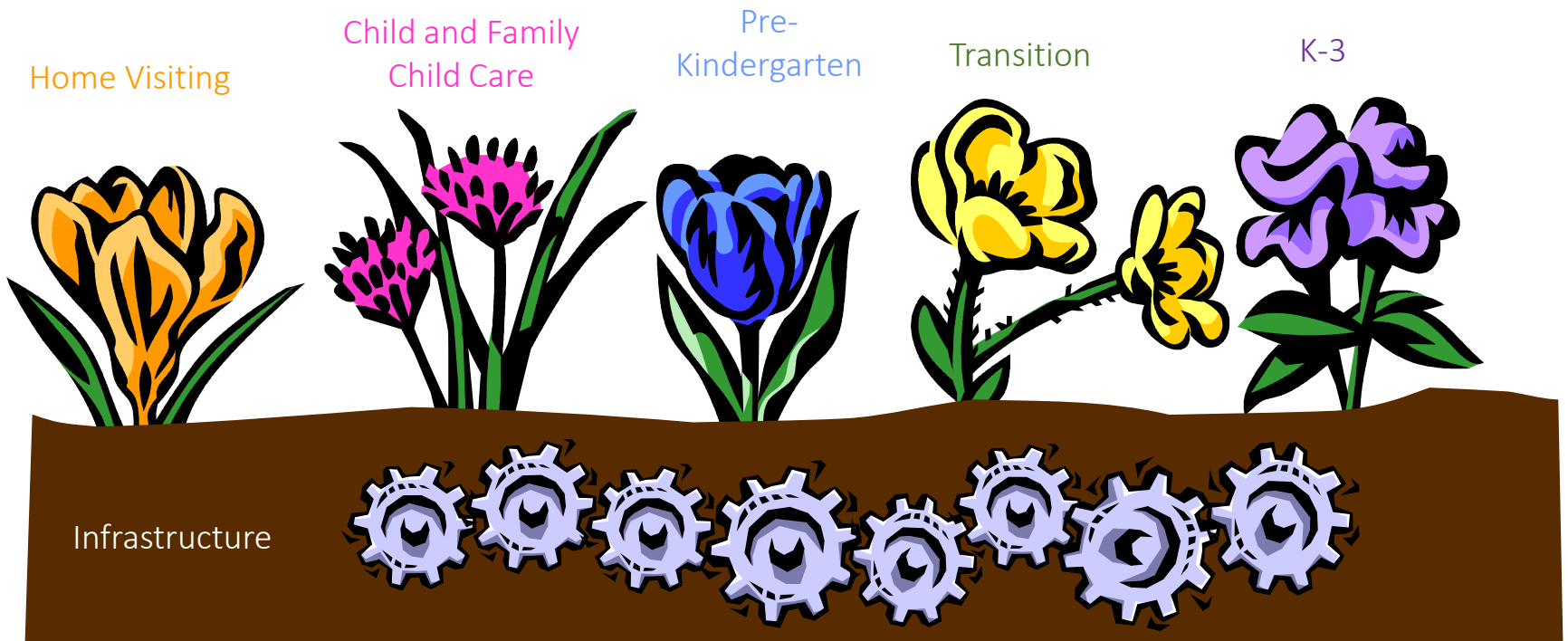
ECE System

1. **Quality pedagogy, teaching, and learning**
   - Rich, varied learning opportunities that engage children and produce positive outcomes
   - Characterized by activity, inquiry, reflection, and curiosity
   - Standards, curriculum, and assessments

2. **Data use for program improvement-program regulations and inspection**
   - Done regularly by professionals
   - Information from inspections needs to be used for quality improvement

3. **Professional development**
   - Pre-service and in-service
   - Consistent requirements for all teachers

ECE System (continued)

4. <u>Financing mechanisms</u>
    - Too much focus on quantity, not quality
    - Need consistency in funding, and to blend public/private funds inventively

5. <u>Governance</u>
    - Horizontal: which ministry (e.g., health, education)
    - Vertical: which level (e.g., national, local)
    - Brings clarity on who does what, for whom, when, and with what authority
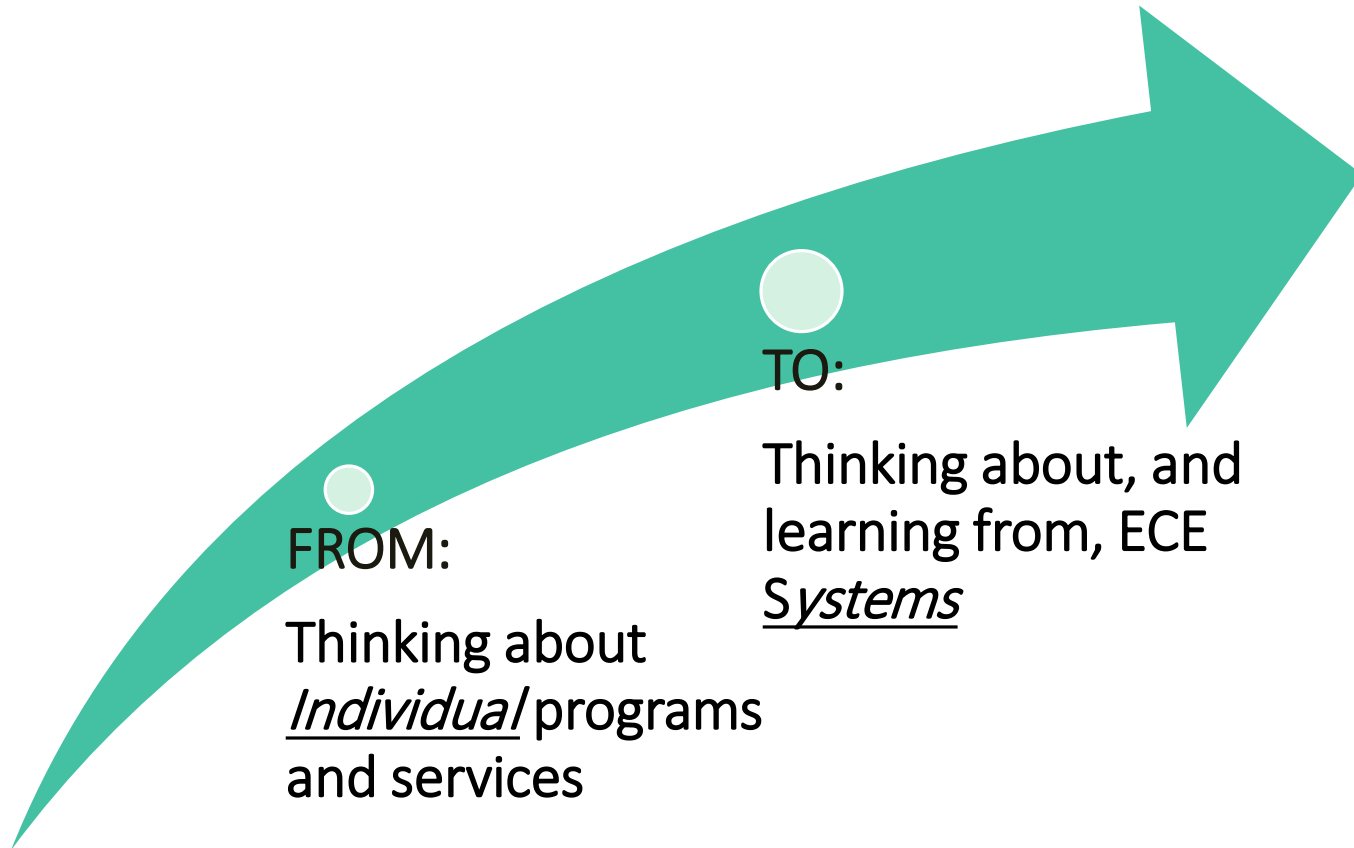
6. <u>Family and community engagement</u>
    - Major commitment to family engagement in programs and governance
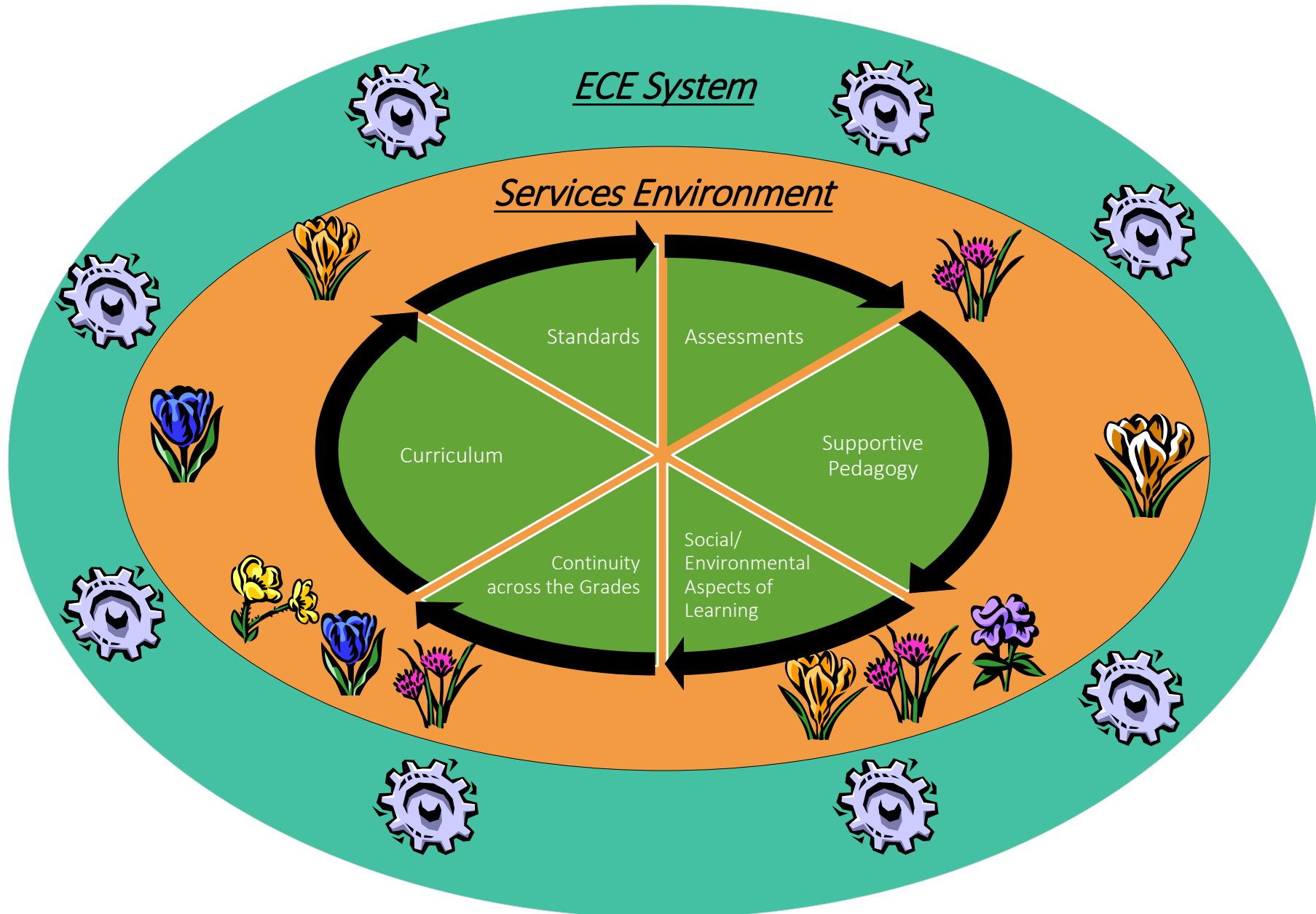   - Helps keep programs responsive, builds advocacy base for social change

7. <u>Transitions/linkages</u>
    - From pre-primary to primary
    - Among health, education, social services

Changing Our Thinking

FROM:

Thinking about *Individual* programs and services

TO:

Thinking about, and learning from, ECE *Systems*

Part III:
Learning from Others: NCEE Study

Preliminary Lesson I: Context Matters

Nordic Western European Model	• Heavily public model • Loosely structured pedagogy • Limited, if any, reliance on formal accountability
Asian Model	• Heavily market-based • Highly structured pedagogy • Medium structured accountability
Anglo Model	• Mixed public/market model • Moderately guided pedagogy • Highly structured accountability

Preliminary Lesson II: Dispersed and Plentiful Services Matter

Pre-Peri Natal

All had paid Family Leave, with many having special provisions for fathers' leave

All had some form of secured health, beginning at pregnancy onset

All had some type of home visiting service

Infants and Toddlers

Most had subsidies for low-income/at-risk families

Most had supports for some form of on-going parenting support

Most had some form of transition

Preschoolers

All had services fro children in the year preceding formal school entry

Most had some form of transition

Most had supports for those working with young children
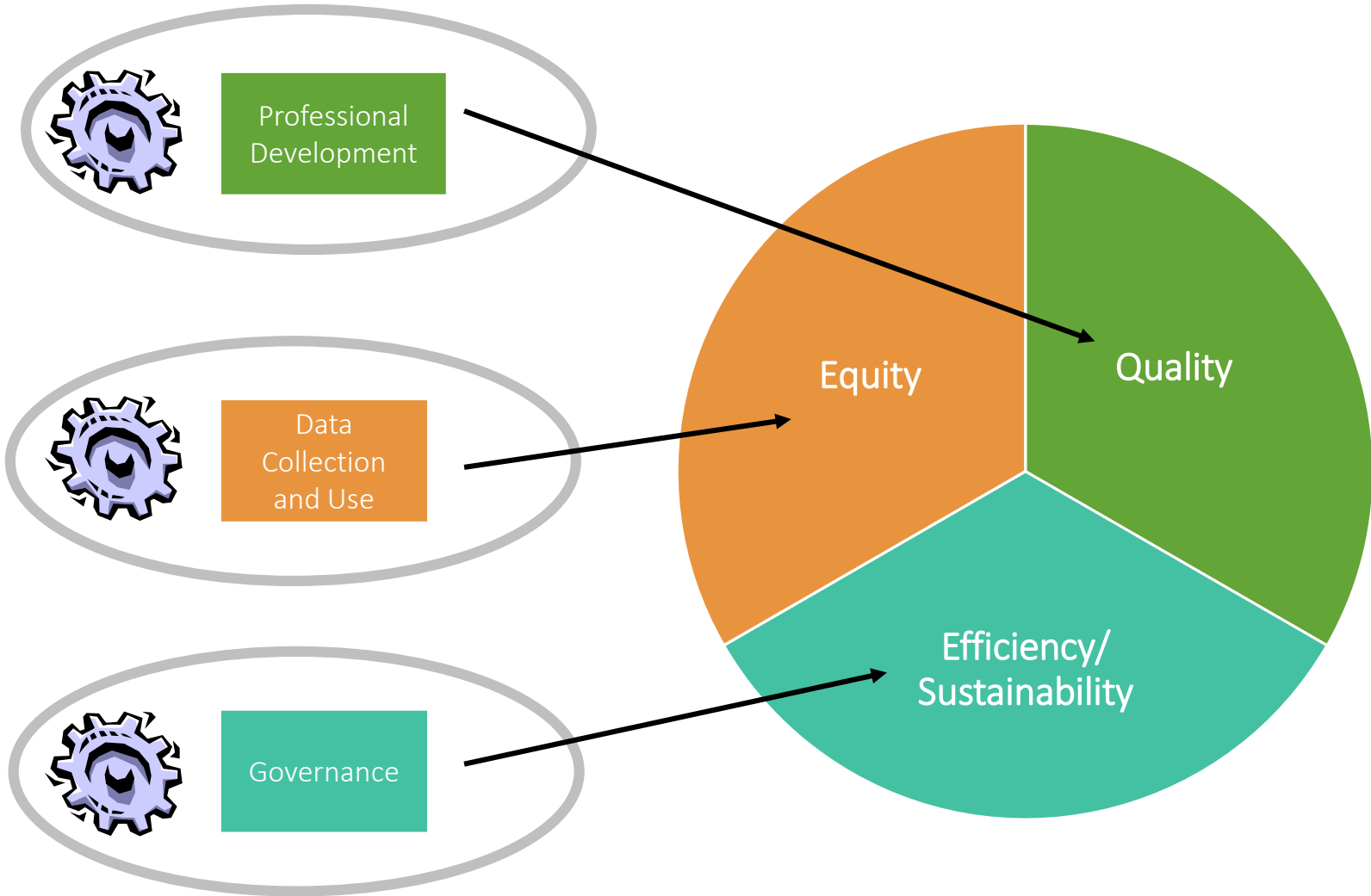
Professional Development

Data Collection and Use

Governance

Equity

Quality

Efficiency/ Sustainability

Think Different

Steve Jobs to John Sculley:

- "Do you want to spend the rest of your life selling water, or do you want a chance to change the world?"

They did revolutionize six industries:

- Personal computers, animated movies, music, phones, tablet computing, and digital publishing

"The people who are crazy enough to think they can change the world are the ones who do."

BREAKOUT GROUPS (Brit Kirwan will float among the groups)

Session 1 – All groups will meet in the lunch room immediately after lunch.
Session 2 - Group A and Group B will meet in the Appropriations Committee Room. Group C will meet in the Ways and Means Committee Room.

Group A	Group B	Group C
Morgan Showalter *	Stephen Guthrie *	Scott Dorsey *
David Brinkley	Robert Caret	David Helfman
Chester Finn	Buzzy Hettleman	Richard Madaleno
Anne Kaiser	Adrienne Jones	Maggie McIntosh
Elizabeth Ysla Leight	Nancy King	Craig Rice
Paul Pinsky	Leslie Pellegrino	Karen Salmon
David Steiner	Alonzo Washington	Joy Schaefer
Steve Waugh	Margaret Williams	Bill Valentine

* is group leader/reporter for today

BREAKOUT SESSION 1

BUILDING BLOCK 7: CREATE AN EFFECTIVE SYSTEM OF CAREER AND TECHNICAL EDUCATION AND TRAINING

Does Maryland want to:

1. Create a system of Career and Technical Education that would be designed to make sure that every student leaving high school is ready to be successful in the first year of a two-year or four-year college program, AND has met the standards set by employers for employment in a job leading to a rewarding career upon graduation from high school?

2. Create a study group to look at high performing CTE systems and recommend whether Maryland should, among other things, align CTE with industry standards tied to industry certifications, structure a skills standards system, design an apprenticeship system with policies concerning wages paid to apprentices, and partner with higher education institutions for selected industries?

3. Partner with groups such as the Pathways to Prosperity project run by Harvard University and Jobs for the Future (a coalition of states working together to build modern CTE systems)?

4. Require annual reporting on how students progress after high school to include: (1) the proportion of students who enter institutions of higher education, do not receive a degree from a two-year or four-year institution, but receive an industry-recognized credential; and (2) the proportion of students who do not receive a degree or a credential? Other?

BREAKOUT SESSION 2

BUILDING BLOCK 1: PROVIDE STRONG SUPPORTS FOR CHILDREN AND THEIR FAMILIES BEFORE STUDENTS ARRIVE AT SCHOOL

1. How can Maryland improve its system of early education?

   Consider the following issues and identify whether and how to address them:
   a. Expand access to publicly funded prekindergarten to:
      i. All 4 year olds?
      ii. All or low income 3 year olds?
      iii. Full or half day?
   b. Subsidize low-income and working families by using a fee-based sliding scale of State support?
   c. Raise the quality of the child care and early education workforce by establishing a career ladder? Blend this career ladder with K-12 teacher workforce?
   d. Make use of a mixed delivery system of public (including Judy Centers) and private providers for 3 and 4 year olds?

2. How does Maryland want to measure school readiness?
   a. Use a diagnostic test that is administered to all children *prior to arriving* in kindergarten to provide teachers and parents with information about their readiness for school?
   b. Use a sample of the diagnostic test to provide accountability and inform the state on the effectiveness of early childhood education? If a sample is used, how often should it be administered?

An Improved Local Wealth Measure Would Expand Educational Equity and Opportunity

Statement Given before the Commission on Innovation and Excellence in Education

Maryland delivers some of the highest-quality education in the country by some measures, and yet too many students still see their educational opportunities limited based solely on where they live. The Commission on Innovation and Excellence in Education presents a once-in-a-generation opportunity to improve Maryland's education policies, leading to better outcomes for students and our economy.

It is essential that we provide schools across our state with the resources they need to deliver a first-rate education. When students have access to high-quality public schools, they are better prepared to succeed in college, find good jobs, and fully participate in their communities. A well-educated workforce means a stronger economy for everyone.

KEY FINDINGS

- **EQUITY IS AN ESSENTIAL ATTRIBUTE** of an effective education system.

- Maryland's current school finance system leaves significant inequities, **HARMING THE STUDENTS WITH THE GREATEST NEEDS**.

- An **IMPROVED MEASURE OF LOCAL WEALTH** would direct more funding to the places where it can do the most good.

On the other hand, when resources are distributed inequitably among school districts, it makes it harder for some schools to compete for highly qualified teachers and harder for the students who attend these schools to compete for good jobs later in life. Most importantly, it undermines the principle that education should provide all children with a fair shot. For this reason, it is vital to consider equity at every step of the deliberative process.

An analysis by the Maryland Center on Economic Policy shows that Maryland's current school funding formula does not provide sufficient resources to the districts with the greatest needs. On average, school districts with lower incomes, higher levels of school-age poverty, more students of color, and more students with disabilities are not as well equipped as other districts to provide a high-quality education. To address this shortcoming, we should fix Maryland's school aid formula

to accurately measure local wealth.

Like in other states, state aid to schools in Maryland is distributed according to a formula that measures each district's needs as well as its wealth. This way, districts that have less capacity to fund education on their own receive more help from the state. This can be an effective way to distribute resources, provided that the formula measures local wealth accurately.

Maryland should take four steps to improve the way we measure local wealth and thereby ensure that students across our state have access to a high-quality education:

- **INCORPORATE INCOME IN THE RIGHT WAY.** Using a multiplicative wealth measure, which involves multiplying property wealth by a local income index, is the strongest single step the state can take to measure local wealth more accurately. This approach more effectively measures local jurisdictions' capacity to raise revenue through property taxes, and would direct more funding to the districts with the greatest needs.

- **EXPAND THE GUARANTEED TAX BASE.** The existing guaranteed tax base program leverages state and local resources to ensure that areas with lower incomes and property values have the education funding they need. Expanding this program would make education funding in Maryland more equitable.

- **IMPROVE TRANSPARENCY, ACCURACY, AND EQUITY IN THE FUNDING FORMULA.** The state has an opportunity to make education funding more straightforward and accurate by making three small changes to the formula: measuring a jurisdiction's income only one time per year, streamlining the way a district's property wealth is measured, and eliminating arbitrary funding floors.

- **COMBINE THE MOST EFFECTIVE IMPROVEMENTS TO MAXIMIZE GAINS.** Even the most effective improvements would leave inequity in Maryland's school finance system if done in isolation. Combining the most effective changes is the only way to ensure that all students can access the education they deserve.

The full report, *Expanding Educational Opportunity in Maryland: The Role of Funding Formulas in Increasing Equity*, was supported by a generous grant from the Abell Foundation. It is available at mdeconomy.org/edfunding.