

Preparation Work Group

Research Brief

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I. MICHIGAN'S CHALLENGE IN PREPARATION

High school students are underprepared to attend college. There may be no simpler or more profound description of our current situation. This is a national problem, but it is particularly acute in Michigan. Estimates of Michigan's graduation rates vary, but the most reliable estimates suggest that only 73 percent of Michigan ninth graders graduate from high school four years later (Greene and Forster, 2003)

In addition, of those students that do successfully complete high school, a significant percentage are not adequately prepared for college-level work. Greene and Forster estimate that only 32 percent of Michigan high school students are college-ready in terms of the curriculum they complete. In Michigan that would mean that about 48,000 high school graduates are at risk of failing to earn a degree because they are less academically prepared than they should be.

Nationally at least one in three entering college freshmen take at least one remedial course, and in urban community colleges that percentage can rise to about three in every four students (*R. Kazis, Toward Postsecondary Success for All, 2003*). Michigan higher education institutions report significant percentages of Michigan high school graduates attending college or community college are enrolled in remedial courses. Finally, one in four of young adults (aged 18–24) in Michigan, and a third of young adults in Detroit, were school dropouts without the barest requisites for successful futures (*Kids Count, 2004*).

Students require additional preparation in other ways as well. Perhaps one of the greatest challenges facing students and parents today is the preparation it takes to navigate the college application and admission processes. There are countless books, brochures, manuals, websites, and professional counselors that specialize in this sort of information, so the problem is not that the information is not available. Rather, there is too much information and no good way to ensure that students and parents, particularly from those families without a history of college attainment, are navigating this maze successfully.

If the assertion that 90 percent of parents in Flint know that college is the key to future success for their children but few know how to keep their sons and daughters on the path to higher education is correct, we need to find a way to make this information available and relevant to the challenges each community faces.

Young high school graduates face a number of additional preparation issues when considering whether and how to attend college:

Rigorous state standards—Michigan's state standards for proficiency in subject matter content do not necessarily correlate to college readiness and have not been aligned with college admissions expectations. State high school graduation requirements should be aligned with college admissions expectations, defined at a minimum standard (Greene & Forster, 2003). Many states have implemented more demanding curricula in terms of the type and number of courses required to earn a diploma.

Structural Barriers—High school course offerings are designed with the expectation that only a limited number of students will take a rigorous course load. For this reason, there are an inadequate number of teachers available to teach higher-level courses and there may not even

be adequate classroom space. Currently, there are not enough qualified teachers in math and science, for example, to teach all students trigonometry and chemistry, much less calculus and physics. There is also a shortage of school guidance for students and many continue to believe that certain students are not meant to attend college (ACT, 2000). Given that 75 percent of all high school graduates in the country attend some form of post-secondary education within two years, this assumption is problematic (National Commission on the High School Senior Year, 2000).

Cultural Capital—Not all students have equal access to books, computers, the Internet, out-of-class support, or family experience with higher education. Students accrue this cultural capital at home, in their neighborhoods, at church, and in their peer groups. Perna (2000) demonstrates that cultural capital is largely accrued at home from parents. It includes educational artifacts like encyclopedias and books as well as access to information about college. Minority students and those who are from less economically advantaged tend to have less of this capital (Lareau, 1987). Increasing cultural capital may or may not fall within the scope of the school's role, but it is an important factor influencing the educational pathways of many students.

Teacher Preparation—Teachers are often not adequately prepared to teach at the level or in the subject to which they are assigned. In particular, math and science courses are frequently taught by teachers who lack adequate math and science subject training. In some cases, teachers are not certified at all; this tends to be more frequent in poor and minority school districts (Nettles & Perna, 1997). In teacher preparatory programs, there is a growing concern over the balance between teaching content and pedagogy.

There are other issues affecting preparation including:

- *Technology Divide*: A growing technological gap between those who have access to technology and those who do not.
- *English as a Second Language (ESL)*: A growing population of students for whom English may be the second language in the home. Often these students lag behind their peers in English language mastery and as a result, fall behind in other subjects.
- *Migration*: Students today move frequently from city to city and from county to county. Perhaps the groups most at risk of falling through the cracks in K–12 education are the growing number of temporarily and permanently unemployed families and immigrant families.

Teacher Retention—The most effective teachers are those who have strong training and a number of years experience. Experienced teachers are not only more effective teaching the course; they are also typically more effectively controlling classroom behavior. For a variety of reasons, however, turnover in the teaching ranks is high, particularly in poorer schools. A variety of issues affect retention of teachers, including preparation, compensation, professional development, support of the principal, and parent involvement.

II. ADDITIONAL RESEARCH QUESTIONS/DATA DESIRED BY WORK GROUP

School district performance data disaggregated

(Work group will receive a background paper/presentation developed by MDE at the work group meeting.)

Impact on student achievement of standards

Bishop (1977) argues that high standards improve achievement in high school students (1997). Effective standards have real consequences, define achievement relative to an external standard, are assessed by tests that are keyed to specific course sequences, allow for multiple levels of completion, and covers all secondary education students. Bishop considers data from The International Math and Science Study (TIMSS) and the International Assessment of Educational Progress (IAEP) to find that those nations with high standards tied to Curriculum Based External Exit Exams (CBEEE) outperform the United States by as much as an entire grade level.

Much has been said regarding the position of the U.S. in education, relative to the rest of the world, but what really matters is whether higher standards work at home. Achieve, Inc., set out to answer this question. Achieve, as part of the American Diploma Project (ADP) studied the effectiveness of mandatory high school graduation exams (2004). Today, nearly half of all states require content-based examinations as a condition for earning a high school diploma. In this report, Achieve considers high school graduation exams in six states—Florida, Maryland, Massachusetts, New Jersey, Ohio, and Texas—to assess whether these tests are a fair measure of academic preparation for college and the workforce. Achieve reached three conclusions as a result of this study:

1. It is reasonable to expect high school students to pass these tests.
2. These tests should be strengthened over time. Currently, the material covered should be expected of a ninth grade student. The tests do not fully assess whether students are prepared for the demands of college or the workforce.
3. States should not rely on these tests exclusively when making decisions about a student's overall preparation.

Achieve, Inc., believes that these tests currently provide a defensible floor for the minimum standard a student should achieve for graduation; but the standards need to be raised and more must be invested in teacher preparation and continued training.

Governor Granholm spoke of the need to think more broadly, not only about the status of Michigan in relation to the rest of the United States, but also about our place in the global economy. If we take her charge seriously, we cannot ignore the successes other developed nations have had when high standards are used in conjunction with CBEEEs to ensure the high achievement of its students. Our challenge is to develop a system that fits both with the spirit of No Child Left Behind and the outcomes of standards abroad while recognizing the unique nature of education in Michigan.

Examples of alignment of standards with diploma requirements, college admission, etc.: what other states are doing

A model that many states are adopting is the **American Diploma Project (ADP)**, which underscores the need for a strong statewide curriculum that demands the same rigorous courses for all students while preparing students either for college or the workforce (2002). The ADP is a collaboration of Achieve, Inc., The Education Trust, and the Thomas Fordham Foundation. Among its recommendations for states—particularly regarding English and math standards—are the following (American Diploma Project, 2002):

- High school graduation exams should ensure that students meet standards before earning a diploma.
- The standards should prepare all students for both college and the workplace.
- The graduation “floor” should not be set too low but it should also not be a “ceiling.” All 12th graders should be able to do 12th grade work.
- Find additional sources of assessment (above and beyond the large-scale paper and pencil examinations) that capture other skills like public speaking and the ability to conduct research.
- Regularly validate high school assessments to ensure they are accurate predictors of postsecondary performance.

In addition, ADP recommends that state standards for high school graduation go beyond indicating the number of courses in a content area to identify the level of achievement necessary. For example, a state might require three math courses AND that they include Algebra I, Geometry, and Algebra II. Next, ADP suggests that all courses be evaluated and made relevant to the lives of students. That may mean relevance in preparing for college or it may mean entry into the workforce.

Leading-Edge State Approaches to Standards and Alignment

New York State—New York established a model of education standards long before many states took up this form of education reform. The accountability system is the cornerstone, capped by the Regents Exams. Previously, New York State offered curricular tracks to complete “local” and “Regents” diplomas, but with the implementation of NCLB the state has moved toward one high standard for all students: the Regents standard. Students are required to pass at least 7 Regents exams in English, Math, History, Science, and Occupations or Foreign Language in order to earn a diploma. This system reflects in many ways the ADP approach to course requirements, with the possible exception of aligning the curricular standards with both college AND the workforce.¹ The New York standard has suffered like other reform efforts in recent years because pass rates decline when students who previously took the local diploma track are now taking the Regents exams. Similar to Texas, New York has had to relax standards in the short term by lower cut scores in order to graduate students.

Oregon—The key feature of the Oregon Proficiency-based Admissions Standards System (PASS) is the alignment of high school proficiency requirements with the Oregon University System (OUS) admissions standards. As a result of 1991 legislation geared toward K–12

¹ For more detail on the NYS system, see <http://www.emsc.nysed.gov/part100/pages/1005a.html>.

reform, the high school standards were shifted away from course content to areas of proficiency. In various core courses, students earn a series of Certificates of Initial (CIM) and Advanced (CAM) Mastery that demonstrate proficiency for graduation. For this system to work, both the State Department of Education and the State Board of Higher Education had to work together to define what proficiencies were necessary for students to succeed in college.² This model required a new set of assessments designed to measure achievement differently, which had to be developed by the state.

Massachusetts—Massachusetts has only two state-mandated graduation requirements—history and physical education—and allows the Local Education Agency (LEA) to set diploma requirements. The cornerstone of their reform was the creation and implementation of the Massachusetts Comprehensive Assessment System (MCAS), a tenth-grade examination keyed to the state curricular standards. It is a “high stakes test” in that students are required to pass the exam as a condition for earning a diploma.³ The MCAS evolved from a reform effort in the early 1990s that included a reallocation of state support to less advantaged communities, the development of state curricular frameworks to define the high school diploma, and the implementation of the MCAS as an accountability standard. State Representative George Field, supporter of the legislation, summarizes the progress Massachusetts has seen as a result: (1) The English pass rate in Cambridge rose from 33 percent to 70 percent and poorer districts on average improved their pass rates by 14–20 percent since the legislation was enacted. Representative Field also warns, however, that students less likely to pass are those in impoverished communities and are most often underrepresented minorities. He recommends that more should be done with remediation and tutoring efforts to bring students up to the standard.

The factors that affect postsecondary completion (in conjunction with completion work group)

The completion work group is also addressing the relative weight of different factors that ultimately impact completion of a postsecondary degree. It is clear that poor preparation in K–12 is a significant factor diminishing postsecondary completion. An ETS policy information report, *Parsing the Achievement Gap* (Barton, 2003), summarizes the contributions of 14 factors to the achievement gap. Included in this report are sections on the rigor of the curriculum, teacher preparation and experience, class size, technology, and the role of parents. (See the Commission Website Resources section under Preparation for the complete report.)

In a study of degree completion among a national cohort of students, Adelman (1999) determined that the two most important variables in degree completion were the academic content and performance that students obtained in high school and continuous enrollment in college. Green and Forster (2003) estimate that only 32 percent of Michigan high school students graduate with “college-ready transcripts,” meaning that they have taken courses that provide the skills they will need in college and that they have basic literacy skills. Among this group, it is estimated that only 15 percent of Hispanic students and 18 percent of black students in Michigan meet this criteria.

² For additional information, see the AERA paper presented by D. Conley at http://www.ous.edu/pass/documents/archive/research/97_aera_oregons_pass.pdf.

³ See <http://www.doe.mass.edu/edreform/edreformreport/erprogrrpt597-1.html> for a description of the test.

Inadequate high school preparation affects students in two primary ways. First, these students struggle academically in college and may either drop out voluntarily due to frustration or are dismissed for poor performance. Second, students may be required to enroll in remedial coursework that often does not count toward degree requirements but must be paid for at regular tuition rates. Not only is the students' progress toward degree delayed for a semester or more, the courses use valuable financial resources and the delay in degree progress may mean that students risk exhausting their financial aid benefits before they have completed degree requirements.

(Appendix A. offers college completion rates and breakouts developed by the Completion work group).

III. POTENTIAL STRATEGIC POLICY RESPONSES TO MEET THE COMPLETION CHALLENGE

The balance of this brief introduces in more detail strategies and topics that have been identified by research and policy development work to date as potentially powerful responses to the preparation challenges described above, including those identified at the July 14, 2004 work group meeting in Lansing. Work group members are invited to explore these or other important approaches to improve completion rates.

The brief is organized according to the following format: background on the topic; Michigan-specific information about the topic; and examples of policies/initiatives from other states. Key readings and resources are referenced and will be available to the work group online.

A major arena of policy innovation to enhance preparation for college and next steps, revolves around two interrelated policy choices:

- 1. Curriculum**—Make a rigorous preparatory curriculum the norm for all high school students and define a standards-driven curriculum within meaningful parameters that integrates 21st century skills with postsecondary readiness, recognizing that students planning to enter the workforce require the same demanding curriculum in order to succeed.
- 2. Assessment**—Make a recommendation on how best to assess the curriculum in order to support student readiness for college-level work and college admission standards, and to help students gain the skill/competencies needed for life/work after high school. Integrate assessment that supports planning/readiness for college prep path at middle/high school bridge, with high school completion assessments/standards linked to college entrance and needed life competencies.

Increasingly, educators speak of a K–16 (Kirst & Venezia, 2001) or even a K–20 approach to providing education for future generations. The underlying assumption is that the bachelor's degree is becoming the standard for employability that the high school diploma once was. It is true today that 75 percent of all high school graduates attend some form of postsecondary education within two years of earning their diploma (National Commission on the High School Senior Year, 2000). It is also becoming clear that technological advances in virtually every field have eliminated unskilled, well-paying manufacturing and industry jobs and embedded higher skill levels in any decent-paying job.

How we reconceptualize education consistent with this emerging reality has led to the embrace of standards and linking those standards to next steps in higher education and work. The roots of standards-based reform can be found in an early set of literature that examines what factors contribute to an effective school. Edmonds generally found that effective schools had a clear vision for student success and strong principal leadership, and believed that all students can learn and that the school held the keys to improving student achievement through the curriculum (Effective Schools Products, 2002). Similarly, the cornerstone of the standards movement is the unwavering belief that all students can learn at the same high level. It is on this point that most educators and policymakers agree.

It is also becoming clear that the current way secondary school is organized does not embrace this expectation. High school only really works for some of the kids – those tracked for college prep. Other students are offered a “general ed” track, or a vocational program, which despite efforts to reform and integrate with high academic content, is still viewed (accurately) as a second-choice for those who can’t make the college prep regime.

This system gives up and fails many students as the data on dropouts and under-prepared young people in Michigan confirms, and particularly fails the economically disadvantaged. A growing movement insists on high expectations for all students and new rigor for all education combining academic, with “new basic” skills: problem solving, critical thinking, self-starting, teamwork (Murnane & Levy, 1996).

Setting a high set of standards that can drive curriculum and assessing those standards in a meaningful way to join strong academic preparation and “new basic skills” with college preparation is the key challenge.⁴ The current assessment debate in Michigan revolves around the tradeoffs between standards-based testing for the high school curriculum (MEAP), which can be used to align curriculum and drive instructional pedagogy, and admissions testing like the ACT and SAT that is not linked as tightly to standards, but is valued by colleges and parents/students alike as a proxy for college readiness.

Policy goal should be to integrate these two ideas into one standards-driven assessment regime, linked to next steps in college, life, and work (as in the American Diploma project). Consider, for example, two programs published by ACT: EXPLORE and the Educational Planning and Assessment System (EPAS). Taken together, these programs are designed to assist students through the transitions they experience in secondary education, including a systematic approach to educational and career planning, assessment, instructional support, and evaluation.⁵

Standards and Assessment in Michigan

During the first work group session there was considerable discussion about the nature and extent of state standards here in Michigan. Currently, we have an established curricular framework⁶ that articulates standards for schools and districts to assess the quality of their curriculum grades K–12. State standards and curricular alignment have been recently updated

⁴ See description of book at <http://www.aypf.org/forumbriefs/1997/fb022897.htm>.

⁵ For more information on EPAS or EXPLORE, see <http://www.act.org/explore/index.html>.

⁶ The curriculum framework can be found at http://www.michigan.gov/documents/MichiganCurriculumFramework_8172_7.pdf.

grades 3–8 in math and language arts, and will be aligned in social studies and science similarly in the near future. Work is starting on development of content benchmarks and curricular alignment in high school in math and language arts. Michigan's higher education institutions recommend variously a core set of college preparatory courses, but Michigan has only one course required by the state as a condition for earning a high school diploma: civics. The remainder of course requirements are left to the discretion of the Local Education Authority (LEA) and may vary from district to district.

While the standards movement has encouraged a commitment/belief that all students can learn to highly proficient levels and the practice of curricular and pedagogical alignment, for many, standards are a euphemism for testing. In fact, much of the debate revolves around the types of assessment tools to use and for what purposes. Some of this focus can be traced to the 1983 report, *A Nation at Risk* (National Commission on Excellence in Education, 1983), but clearly in the past five to ten years, there has been a great deal of national attention paid to assessing what students are learning. No Child Left Behind (NCLB) is the most recent legislation to highlight the role of testing in an educational setting—insisting all states test to their own state standards in math and language arts, grades 3–8.

In Michigan, we are faced with a policy decision. Currently, we utilize the MEAP tests in elementary and secondary school, as a measure of how well students are learning according the state-established standards and related curricular framework. At the same time and in growing recognition of the need to prepare students for college, there is discussion about utilizing the ACT tests as the primary high school level assessment tool. Below are descriptions of each.

MEAP - According to the Michigan Department of Education (2004) the MEAP tests were developed to measure what Michigan believes all students should know and be able to achieve in five content areas: mathematics, reading, science, social studies, and writing. The test results paint a picture of how well Michigan students and Michigan schools are doing when compared to standards established by the State Board of education. The MEAP test is the only common measure given statewide to all students. It serves as a measure of accountability for Michigan schools.

Results of MEAP tests can be used by schools for school improvement purposes. The results indicate overall strengths and weaknesses of a school district's curriculum, and can be used to modify instructional practice. Results have been used for the Michigan Accreditation Program, and will continue to be used as one piece of this program as it evolves into an accountability model.

Strengths of the MEAP

Michigan's MEAP tests are based on the Model Core Curriculum Outcomes and the Content Standards approved by the Michigan State Board of Education. Most MEAP test questions have been written by Michigan educators. Also, Michigan's MEAP tests are criterion referenced, meaning that the results are reported as performance against a standard. These standards are set by Michigan educators and approved by the Michigan State Board of Education. Student performance is judged according to whether or not each student met the achievement standard. If a student meets the standard, it means he/she meets expectations set by the State Board of Education on the recommended curriculum. In theory, all students in the state could achieve the standard in every subject.

Most published tests are norm-referenced. This means that each student's performance is compared to other students' performance, and *not* to expectations set by educators. No matter how well students do on a norm-referenced test, half of them will always be "below average," even if they meet expectations. For example, imagine a foot race involving 100 people. The person who finishes first performed better than the other 99 participants. Every person who runs is rank-ordered according to the time it took to finish. Someone must finish first and someone must finish last, but only half of the people can finish in the top 50 percent.

The primary incentive tied to the MEAP is qualification for the Michigan Merit Scholarship. Students are automatically considered for the award if they meet or exceed the standards in all four core content areas. They can also qualify by successful scores on the ACT or SAT, or if they meet a certain standard on the WorkKeys job skills assessment test.

ACT – The ACT is one of the widely accepted college admissions tests in the country and it is the primary test accepted at all Michigan colleges and universities. There are two advantages to using the ACT that proponents emphasize: ACT is already required for admission to most Michigan colleges and universities and this plan would shift the cost burden of the ACT from the parents to the state. By requiring this test for assessing student's achievement, the state would be underscoring the importance of going to college. Advocates of this approach also emphasize, as Governor Granholm did during her welcome to the commission, that the ACT allows Michigan to compare itself nationally.

The test faces several challenges however. First, it is a norm-referenced test that was not created with the Michigan Curriculum Framework in mind. Second, it does not currently cover social studies and writing, which are required by NCLB. State Senator Wayne Kuipers, in an interview with the Detroit News (Feighan, 2004) suggested that while a combination of both tests would be ideal, it would cost \$6 more per student to use the ACT exam.

3. Professional Development—Define and support an enhanced professional development focus for school districts to ensure high school staff readiness to help students achieve the above-mentioned curriculum goals.

No serious effort to improve the academic achievement of students in high school will succeed without a concerted effort to improve and update the capacity of our teaching corps. It has been long acknowledged that the quality of teaching is an important factor in a student's ability to learn. In a review of 65 studies of teacher quality, Darling-Hammond (2000) found six teacher characteristics commonly used as proxies for teacher quality: general academic ability and verbal ability, subject matter knowledge, knowledge of teaching and learning, teaching experience, certification status, and teacher behaviors and practices. The impact of these characteristics varied. One recent study of teacher certification effects on student achievement found that twelfth graders whose teachers have standard certification scored significantly higher on the mathematics portion of the NAEP than children whose teachers were uncertified (Goldhaber & Brewer, 2000).

The emerging consensus is that investment in teacher quality yields higher returns in the form of achievement gains than any other education investment/reform, particularly among poor and minority populations. Sanders and Horn (1998) found that the two most important determinants of a child's academic achievement in a given year are the child's prior achievement level and the effectiveness of his or her classroom teacher. The impact of teacher quality was far greater

than the impact of other factors, including oft-mentioned class size: Investment in teacher education, retention of experienced teachers, and higher teacher salaries have each been shown to produce larger gains than the same investment devoted to reducing class size (Darling-Hammond, 2000). This holds true in district level (Haycock, 1998) as well as in national studies (Darling-Hammond, 2000; Wenglinsky, 2000).

Professional development for teachers may be seen in stages from the point of entering a teacher preparation program, to accepting their first teaching position, to their mentoring of young teachers entering the profession. At every stage, development must occur and it must be both substantial and relevant. Teachers, like students, must be provided development that meets their needs at all stages of their careers. Too often, professional development is required of teachers with little consideration of how those efforts are relevant to the classroom and how the cumulative body of professional development opportunities interrelates to create a cohesive learning experience. Professional development should be considered for each of the following stages:

- **Teacher preparation programs**—This is the point of entry to the profession and it is where the greatest amount of training occurs. A well-constructed teacher preparation program requires a demanding curriculum that addresses both the content of what will be taught and the pedagogy that informs how teaching and learning is facilitated in the classroom. In Michigan, we have several of the most highly regarded teacher preparation programs in the country, particularly regarding the most cutting-edge research on classroom teaching. The issues to consider here are these: (1) Given that students attend school fairly close to home and often wish to return to their communities to work, are teacher preparation programs spread throughout the state and in particular, in the areas with high demand? (2) Can independent colleges offer teacher preparation and maintain their commitment to graduating students in four years? and (3) Is the research generated in these programs finding its way into the hands of veteran teachers? In times when teachers are scarce, it is also worth considering how teachers are recruited to the profession. For example, there is a move toward providing preparation for college-educated professionals who return later to become teachers.

Consider the example of New York City. Faced with a serious teacher shortage, New York began to recruit and train lawyers, engineers, computer professionals, and a host of other professionals to become teachers in the school system. Each teacher in training entered an accelerated program of education courses and was ready to face a class within as few as several months. In most cases, these individuals were looking for career changes and had extensive knowledge in their intending teaching areas. The University of Michigan offers a similar program in the **Masters of Arts with Certification (MAC)**. This is a one-year intensive preparation designed to train those who have already earned a bachelor's degree and wish to teach.

Educators continue to recognize that effective teacher preparation must account for the local context within which teaching and learning occurs. Michigan residents recognize that while students may be equally under prepared to succeed in college or the workforce without adequate teacher preparation, what works in Flint may be considerably different than an effective approach in Oscoda. Currently, there is a great deal of attention paid to

the urban context. For example, Centers for Urban Education now exist in San Francisco⁷, Los Angeles⁸, Boston⁹, and Chicago¹⁰ consider how teachers and educators must be prepared to best serve students from urban settings that often are heavily minority, have fewer economic resources, and exist in an environment rich in unique and under-utilized resources. This is a critical context in the state of Michigan but it is not the only one. Currently, there are districts in Newaygo that experience graduation rates and MEAP pass rates as low as some of the most challenged districts in Detroit. Newaygo is a more rural context with a different set of assets and as such, must consider the training of teachers differently.

- **Teacher Mentoring**—Transitioning into a new position is critical to the continued success of a new teacher. While they may be eminently qualified to teach via their teacher preparation program, they will face adjustments that cannot be anticipated by the best of curricula. Providing young teachers with some guidance and support as they learn the ropes as a teacher and as a member of a new school culture is essential and it is best provided by someone who has experience in the classroom. There appear to be two primary ways this is actively facilitated: (1) Senior teachers within the school or district are given the responsibility of providing this mentorship as part of their regular responsibilities, or (2) a curriculum specialist is assigned to assist all teachers in a given academic area across the district (i.e., a physics specialist to work with all of the physics teachers).
- **Teacher Continuing Education**—This is what is most commonly thought of as professional development and is typically offered or required through the school, district or state. Professional development at this level can take two principal forms: (1) advanced instruction in an approved graduate program working toward a master's degree or above and (2) professional development opportunities offered in small increments that either recognize current individual efforts or promote the development of skills and knowledge through one-time workshops and meetings. Like many professions, the field of education is constantly changing, evolving and improving and in order to keep pace with the developing trends, it is important that teachers keep pace. It is within these efforts that relevance and substance become important. There are two approaches that capture each of these concepts well.

Consider the summer immersion experience for **science teachers at Wright State University**. During the course of the summer, teachers were introduced to the inquiry-based modes of teaching by attending classes taught with those approaches. The advantage of this method is twofold: the approach is being modeled for the teachers and it is based upon the curricula they are intending to teach, which reinforces their knowledge of the

⁷ The program is offered out of UC Berkeley and can be found at http://www-gse.berkeley.edu/research/urbaned/Center_urban_ed.html.

⁸ The University of Southern California runs this center out of the Rossier School of Education and can be found at <http://www.usc.edu/dept/education/CUE/>.

⁹ The Center for School Improvement is located at Boston University and can be found at <http://www.bu.edu/education/csi/>.

¹⁰ Chicago has at least two centers. The first located at DePaul University (<http://teacher.depaul.edu>) and the second is at the University of Chicago (<http://usi.uchicago.edu/aboutnew.html>). Based upon descriptions, the DePaul program focuses on teacher preparation while the University of Chicago emphasizes research in the urban school context.

material. Every teacher who volunteered for the summer experience was given a stipend to begin and a small equipment budget at the end of the course.

Another approach to professional development is to provide opportunities for teachers to meet with others in their academic discipline to discuss problems, challenges, successes, and innovations. As with most professions, the more specialized you become, the greater the need for colleagues and peers who share similar interests and experiences. The Wright State program provides this benefit, but it can be done on a smaller scale. It might be, for example, that all of the trigonometry teachers across Calhoun County gather to present promising practices and curricular innovations to one another.

It is essential to keep in mind that while incentives are important, teachers want to succeed in the classroom and it might not be the lack of incentive alone that serves as a barrier to participation. For example, it is common to provide release time for teachers to attend day-long or half-day training seminars. This approach appropriately recognizes the value of the teachers' time, but it fails to recognize that good teachers prefer not to be away from their classes during school hours. This might suggest that summer or break experiences are ideal. It might also suggest that whatever experience is offered is not seen as directly relevant to work in the classroom. When this is the case, greater effort should be made to draw those connections and to provide opportunities that are integrated in a meaningful way and not just a patchwork of dissociated, albeit valuable, experiences.

- **Teacher Promotion** – one of the unique challenges of the teaching profession is that there is not much upward mobility. Beyond the probationary period or possibly department chair, there are few opportunities to move up the ladder and remain a teacher. For some, this may mean boredom and burnout. It may not be possible to create new positions for advanced teachers but there are responsibilities that could evolve over time. The roles of mentor and curriculum specialist are two possibilities. But in order for these roles to be considered, it is also important to reallocate previous responsibilities. For example, a seasoned teacher may provide mentoring for 3–4 new teachers in the school; in exchange, their teaching load would be reduced to offset that new responsibility.

4. New Strategies for High School Success—recommend new research-based approaches like small high schools and blended institutions, career academies, other contextualized learning environments to increase the performance of students in districts that currently have low levels of educational attainment.

With high and integrated academic and skill expectations embedded in a core curriculum, and linked to college, work, and other “next steps”, many schools—particularly high schools—will be challenged to succeed. There is good evidence that the focus on standards and curricular alignment to help all students, including poor students, achieve high standards has paid dividends in Michigan in grades K–8. There is a growing recognition that significant work must be done at the high school level, where performance has been poor, to re-conceive these institutions in order to improve learning and learning outcomes.

To reach our goal of more Michigan citizens “to and through” postsecondary education or relevant workforce training (e.g., apprenticeship, technical training) Michigan must first improve its completion rate of high schoolers and their successful transition to career-building postsecondary education or work. To do this, we must ensure that the high school experience has meaning, is motivating for students and gives them direction for their future. High schools

are often large, boring, impersonal, and disconnected from life, and the senior year is largely wasted. Michigan must improve the relevance of high school; making sure high schools work for kids, create learning environments that engage, are personalized, and have self-generated, entrepreneurial, and contextual learning built into the experience.

Decades of research have demonstrated the numerous academic, social, and developmental advantages of smaller contextual learning environments in high schools for students, teachers, and parents. New strategies for high school success that have been proven effective are built around the following principles:

- *Motivation*—There must be a connection and reason for learning. This can include clear connections of learning program to work, higher education, and the broader community.
- *One high expectations system*—End the split between “college-prep” and vocational – it’s outdated. System must deliver academic plus vocational/“new basics” higher-order skills— together—and at the same time.
- *Seamless*—Blur the lines between high school and postsecondary education handwork and increase the overlap to increase motivation and speed progression.
- *Choices*—Enhance choices among high school learning environments for different learning styles and interests.

A number of promising practices have emerged from these principles:

1. **Blended Institutions**—Blended institutions are an attempt to collaborate between a high school and a local area college, typically a community college. Through this partnership, the college offers high school students the opportunity to take college-level courses and earn college credit, while simultaneously earning credit toward their high school diploma. In exchange for providing the advanced courses, the school district covers the cost of the tuition, which in some cases is negotiated to be lower than the actual cost of tuition. For many, this practice is referred to as dual enrollment.

Initial programs in this group focused on the needs of high-achieving students who were either ready for college-level work or had exhausted the high school offerings for college preparation. **Consider Jamestown Community College in New York State.** JCC began by offering summer courses to all of the college prep students at Jamestown High School and those from adjacent communities in their service area. They have expanded these offerings to provide distance courses that are offered via the Web to local high schools during the school year to serve the same high-achieving population of students. It is essentially a cost-sharing mechanism for the districts and a revenue stream for the community colleges. The schools that participate could not afford to offer a full AP curriculum but they could pay to have that offered through the community college. At the same time JCC was challenged by lower enrollments with an aging population and this was one way to maximize the use of their faculty while bringing in the necessary revenue to cover costs.

More recently, there has been a move towards developing blended institutions as a key strategy for helping at-risk and middle-range high school students reach higher levels of achievement and college aspiration and success.

Expanding from initial models such as the **LaGuardia Middle College in NYC**, research on middle college high schools indicates these comprehensive programs are successful with at-risk students. Graduates do better on state assessment tests, graduate from high school at higher rates than peers, and do better in college. (Bailey/Karp 2003).

Michigan has one leading example: **Mott Middle College**. This program is a middle college/high school for at-risk youth in Genesee County, as well as districts geographically adjacent to Genesee County. Open to students in all 21 public school districts, Mott Middle College (MMC) is designed to provide "intensive care education" to students with academic potential at risk of dropping out before graduation from high school or who are achieving well below their potential. The middle college approach recognizes that these students are not likely to attend college if they are not given additional attention and support. Educators promoting this model believe that students must aspire to college, and one way to infuse this is to give this group of students a series of attainable goals that reinforce that they can succeed at this level.¹¹

Early College High School—Middle College's success has prompted funders such as the Bill and Melinda Gates Foundation to pledge over \$40 million to start 70 new middle college high schools (called Early College High Schools by the Foundation). Gates, the Walton Foundation, and others including Michigan's W. K. Kellogg Foundation have invested considerable money and resources in this approach to improving the life chances of under-represented students. The early college is similar to the middle college but takes the integration of the college curriculum a step further. In this model students complete a full two years or an associate's degree by the time they complete high school (Hoffman, 2003). Consider **Washtenaw Technical College in Ann Arbor**. This is a high school partnership with Washtenaw Community College where students begin taking high school courses in the core subjects and by their junior year they are taking career focus courses and a college course load that will either result in or place them on the path to completing an associate's degree at WCC.¹²

2. **Schools within Schools (SWS)**—During the 1980s and 1990s, there was considerable attention paid to defining what constituted an effective school. For many years the size of the learning environment was frequently questioned, but it was not until recently that there has been an effort to figure out whether class or school size matter. There is considerable correlational data that students at small schools tend to perform better, but there are enough high-performing large schools that the relationship is difficult to establish. **Consider Chicago Public Schools**. In the mid to late 1980s, Chicago schools were perilously underserving its students. Through a series of reforms, Chicago was able to stem the trend of declining performance and in fact, was able to slowly improve test scores and graduation rates. One of the methods utilized during the transformation was an approach designed to create learning communities within larger high schools. The belief was simple: students could not find their sense of self in the large institution, but if it were broken into a smaller unit, their investment would grow. Those most successful were the SWS programs that had a curricular or vocational emphasis (to

¹¹ For more information, see <http://www.geneseeisd.org/mott/mmc.htm>.

¹² For information on this program, see <http://www.wccnet.org/wtmc/story/story.html>.

borrow from the magnet school approach of previous reform efforts). Success of these programs has been predicated on the autonomy granted to the units, the strength of principal leadership, control of the school budget, and clarity of the stated vision of the particular learning community.

3. **Themed High Schools**—A variation of the magnet school, themed high schools recognize the value of small learning communities organized around a curricular focus. Many of these programs develop around curricular content areas, the most notable of which are typically science, foreign language immersion, theater and the arts, or a career-oriented context. The Manpower Development Research Corporation (MDRC) recently conducted a study of the impact of **career academies**, one of the most established themed and contextualized learning models, as a way to improve the labor market chances of students at risk of failing to complete high school. Their report found that young men whose enrollment and achievement has been slipping increase their likelihood of graduating high school, continuing to college, finding meaningful employment, and increasing the average wage upon entering the workforce by attending a career academy.¹³

Another variant of a themed/contextualized high school experience are effective **career pathway programs** that have emerged in Michigan and the nation. The School-to-Work, Tech-Prep, and Career Preparation programs (now largely defunded) have led, *in some places*, to effective career path development that integrates academic and vocational programs into programs attractive to *all* students, while incorporating entrepreneurial and new basic skills into a challenging academic program. Where done well (as in Berrien County and Kalamazoo County, Michigan, for example) these initiatives result in the creation of smaller learning units and have been found to improve attendance, academic achievement, postsecondary attainment, and other key variables

Employer-linked, or institutionally linked charter high schools provide still another variant. Consider the Henry Ford Academy, in Dearborn as a leading example. This is a charter school developed jointly by a global corporation, public education, and a world-renowned cultural institution. Conceived, developed, and implemented in cooperation with **Ford Motor Company** and **The Henry Ford**, and chartered by **Wayne County Regional Educational Service Agency**, this model partnership focuses some of the best thinking from the business, nonprofit, and public education worlds toward the common goal of building a school that will prepare students for life in the 21st century. Henry Ford Academy is dedicated to developing self-initiated learners and critical thinkers who function as responsible citizens in a global community. Notably, HFA serves a population as diverse in terms of race and ethnicity as its Wayne County, Michigan catchment area, and has had high rates of graduation and high test scores

(Steve Hamp and Mike Schmidt are participating on the Commission and work group and can describe HFA in more detail.)

¹³ For the full report, visit <http://www.mdrc.org/publications/366/full.pdf>.

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Appendix A

College Graduation Rates

	Overall Rate	Men	Women	Black	White	Hispanic
Public Colleges						
Ferris State University	27.5	29	24.8	2.4	30	–
Saginaw Valley State University	31.1	26.7	34.4	14.3	32.4	31.6*
Wayne State University	33.7	30.9	35.6	12.3	44	–
Lake Superior State University	38	33.9	42.8	–	38.7	–
Eastern Michigan University	38.3	31.9	42.5	28.1	40.9	25.5
Oakland University	41.1	37	43.6	21.6	43.3	22.2*
Northern Michigan University	42.3	40.9	43.4	–	42.5	–
Central Michigan University	47.4	42.2	50.9	41.8	48.4	27
Grand Valley State University	48.3	42.6	52.3	34.7	48.6	45
Western Michigan University	53.2	49.3	56.1	33.6	56.4	36.5
National Data	53.3	48.4	57.8	37.1	57.5	39.5
Michigan Technological University	64.5	63.1	68.5	33*	66.4	–
Michigan State University	69.1	67.9	70	53.5	71.4	56.6
University of Michigan - Ann Arbor	84.2	82.2	86.2	65.9	87.8	74.7
Community Colleges						
Wayne County Community College System	5.0	4.3	5.3	2.7	6.5	–
Jackson Community College	6.7	5.1	7.9	0*	7.8	0*
Mott Community College	7.8	7.5	8.1	3.9	8.4	10*
Oakland Community College	8.1	5.4	10.9	4.0	9.0	6.7
Lansing Community College	10.6	7.8	13.3	2.6	12.8	0*
Washtenaw Community College	12.5	7.4	17.8	9.8	13.5	–
Grand Rapids Community College	18.4	14.7	22.8	7.4	19.6	–
Alpena Community College	24.0	33.0	15.3	–	24.5	–
Kellogg Community College	26.3	46.9	12.2	46.7*	27.5	–
Bay De Noc Community College	28.1	29.2	27.3	–	28.0	–
National Data	29.9#	–	–	–	–	–
Private Colleges						
Finlandia College	20.5	24.4	17.6	11.8*	21.1	–
Marygrove College	30	–	21	20	–	–
Adrian College	45.6	39.7	54	50*	45/9	–
National Data	53.3	48.4	57.8	37.1	57.5	39.5
University of Detroit-Mercy	56.1	54.7	57.5	40.5	65.1	26.3*
Albion College	68.4	64.6	71.8	66.7	70.4	58.6*
Calvin College	73.1	71.1	74.5	–	73	–
Kalamazoo College	73.9	75.3	72.8	50*	76.4	–

* = Estimate
= Estimate