

Completion Work Group

Research Brief

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I. THE CHALLENGE FACING MICHIGAN

There are two major issues confronting Michigan post-secondary institutions regarding completion. First, completion rates in both community colleges and four-year institutions are relatively low. The average completion rate of community college students after three years is about 16%, a full ten percent below the national average. Ten of the 13 public four-year colleges were below the national average. This finding suggests the entire process of access, recruitment and participation needs to be examined to determine how the state can improve completion rates.

However, equally important are the vast ranges of completion between the various institutions. The completion ranges for the two-year institutions range from 5% to 28%. The four-year colleges experience even greater ranges—from 27% to 84%. The variation indicates that within Michigan, there are differences on the institutional level with the significance of completion. This suggests that not only does the commission need to pay attention to the macro issues of accessibility and participation, but that there are also micro issues of how institutions within the state concentrate upon students completing their college with a degree.

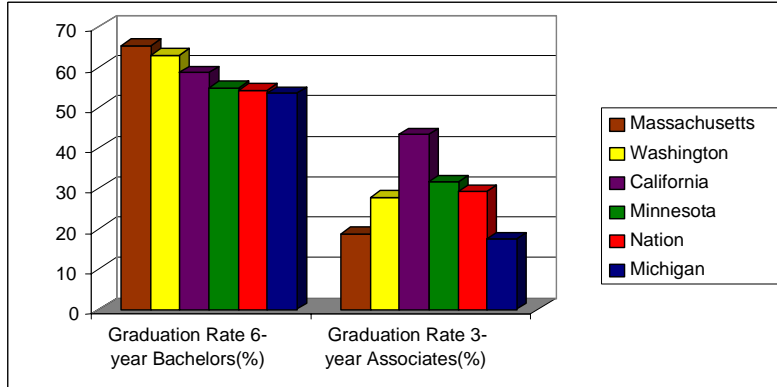
Finally, in comparison to the public institutions, the private college completion rate is greater. While in part this may be related to the backgrounds of the students attending private schools, especially income, there may also be specific practices of the private institutions that may be useful to examine.

Michigan is home to 179 colleges, universities, and vocational technical institutions (*National Center for Education Statistics, 2004b*) and as many as 632,000 students.

- Half of the students who enter college will not complete a college degree. Applied in Michigan, that means that more than 300,000 of the students currently enrolled will not achieve at least an associate's degree.
- Fewer than 20% of Michigan's full-time, two-year-degree students at community colleges graduate within three years, ranking Michigan 33rd in the country.
- Only 49% of first-year community college students in Michigan return for the second year, below the national median of 52%, and behind lead states of over 60% (*Working for a Living, 2003*).
- Approximately 300,000 students are enrolled in four-year institutions in Michigan and the overall completion rate is 50–55%. Among four-year institutions completion rates range from a high of 80%–90% at the University of Michigan to 60–70% at Michigan State University to under 50% at most Michigan institutions of higher learning (<http://nces.ed.gov/ipeds>).
- While percentages for some of Michigan's private colleges are slightly better (68.4% at Albion College, 73.1% at Calvin College, and 73.9% at Kalamazoo College), clearly quite a few students are lost from the state's educational pipeline.

Michigan's overall graduation rates are not as strong as in competitor states:

Graduation Rates for Selected States by Type of Degree



Source: The National Information Center for Higher Education Policymaking and Analysis (2003) and the IPEDS Graduation Rate Survey (2004)

Completion disparities exist based on race and income. In Michigan, more than 37% of Hispanics over the age of 25 have less than a high school diploma, while the same is true for 26% of African Americans and only 14% of whites (Ruppert, 2003). While 28.7% of state residents have at least an associate's degree, only 18% of African American and Hispanic residents have the same. Only 10.5% of Michigan post-secondary students enrolled in vocational programs earn a degree or certificate (Working for Living, 2003).

Post-secondary attrition has a number of causes. As will be discussed below, social and motivational factors once a student is in college can have a significant impact. For some students, cultural and family factors play a role, particularly for "first-generation" college students or those for whom college is perceived as a threat to existing social and cultural norms. Some students are forced to take time off from their studies for financial or family issues and never return. Others are not academically or socially prepared to attend college directly out of high school but later realize that a college degree is the only means to an economically prosperous life. Financial issues are another factor, in both paying for college and supporting oneself (or a family) while doing so. Family responsibilities can demand time and energy, leaving little of either for educational pursuits.

It is important to note that graduation rates do not take into account students who start at one institution but subsequently transfer and complete a degree elsewhere. Thus, a graduation rate of 60% for "X" University does not mean that 40% of its students failed to obtain a college degree; rather, it means that for a particular incoming cohort, 60% remained at "X" and earned a degree within six years while 40% left the cohort and are unaccounted for. Some of these students may have completed their degrees elsewhere, some may have joined the military, and others may have taken longer than six years to complete the degree. This caveat is particularly important in regard to community college graduation rates, as many community college students transfer to baccalaureate

institutions prior to obtaining an associate's degree while others enroll with the intent of taking a few courses but have no intention of completing a degree.

II. ADDITIONAL RESEARCH QUESTIONS/DATA DESIRED BY WORK GROUP

Future Workforce/Occupational Presentation

(To be delivered at later date)

Who's leaving college and why? Where are they going? Specific issues pertaining to completion

Retention—Traditional Students

Factors influencing retention among traditional students can be clustered into three main groups: student factors, institutional factors, and systemic/state/national factors. These groups are by no means discrete and many of the factors overlap and reinforce each other.

Student Factors

Tinto (1993) and Astin (1993) have conducted detailed studies of student attrition. According to Tinto, student departure is the result of four primary factors: adjustment, difficulty, incongruence, and isolation. Involvement in campus life, including interaction with faculty and peers outside of the classroom, leads to both improved learning and to persistence. Financial aid plays a role in that students with sufficient resources do not have to work and thus have time to engage in social and educational activities that further their involvement in the campus environment. As most attrition takes place during the first year of college, Tinto suggests that institutional retention efforts be “front-loaded” to focus on that time period.

In a review of the research, Swail et al. (2003) identified five key factors related to student retention: academic preparation, campus climate, commitment to educational goals and the institution, social and academic integration, and financial aid.

Institutional Factors

Institutional factors cover a wide range of issues, including effective orientation and advising programs, specific degree requirements, course availability, articulation agreements with other institutions, and academic deadlines.

Tinto (1993) advises that institutions should develop supportive social and educational communities, including “living-learning” centers, in which students can develop supportive peer networks and a sense of inclusion. These programs are particularly important for minority and under-represented students, and research has demonstrated the effectiveness of such programs when targeted to under-represented students.

Degree requirements also play a role in student completion. Limiting degree credit requirements to 120 or 124 credits improves the possibility that students can complete all requirements for a degree in four years. Concurrent with this requirement is the guarantee that necessary “gateway” courses are available to students early in their careers.

Academic deadlines contribute to institutional accountability by ensuring that students make informed choices when mapping out their academic careers. Deadlines for course withdrawal and declaration of a major encourage progression to graduation by establishing tangible milestones at regularly scheduled intervals.

Systemic/state/national factors

Depending on the manner in which a particular state's higher education system is organized, systemic and state factors can differ broadly. In highly structured systems such as California and Montana, policies addressing tuition, curriculum, articulation agreements, and admissions can be enacted at the state level. In an autonomous environment such as Michigan, there is less direct state authority over individual institutions.

One significant state and national factor affecting student completion is financial aid and the availability of state and federal scholarships and loans. The commitment to supply adequate funds and reasonable interest and repayment terms, especially to low-income students, is critical to successful college completion. Yet many students find themselves essentially "penalized" when trying to survive financially. Some federal loans and institutional financial aid policies are structured such that any additional income students receive—be it through a job, a gift, or an award—is counted against them in their financial aid calculation. Earnings from part-time jobs in high school count as earned income for federal Pell Grant eligibility (Conlin and Bernstein, 2004). Income tax credits for educational expenses are of no help if the student's family income falls below the taxable level.

Retention—Nontraditional Students

As will be discussed in detail later, the obstacles faced by nontraditional student differ from those of traditional students. Nontraditional students—usually adults—frequently have job and family responsibilities and attend classes as time and money permit. Some of the factors associated with traditional student retention, such as integration into the academic environment, do not apply to nontraditional students. While these students may benefit from some of the institutional and systemic policies designed to enhance retention of traditional students (such as favorable financial aid policies, transfer and articulation agreements, availability of needed courses, and academic deadlines), issues such as child care, affordable housing, availability of post-secondary institutions, and scheduling of courses to accommodate work and family responsibilities are critical to the success of nontraditional learners. The advent of "distance learning" has facilitated access to post-secondary education for many nontraditional students, but does not benefit low-income students who cannot afford a computer (or the requisite software and internet connections) or cannot utilize public computing facilities.

College dropout rates by subgroup

Overall, we see evidence of differential success at completing a higher education degree in the extant population:

- In Michigan, more than 37% of Hispanics over the age of 25 have less than a high school diploma while the same is true for 26% of African Americans and only 14% of whites (*Ruppert, 2003*).
- While 28.7% of state residents have at least an associate's degree, only 18% of African American and Hispanic residents have the same.

A table of college graduation rates for higher education institutions in Michigan, showing the overall rate, and that of major racial subgroups, is provided in Appendix A. It suggests there are significant differences (lower) in graduation rates among black and Hispanic college students in Michigan.

Status of Michigan Alternative Credit Awarding Systems

Increasingly, colleges are recognizing that the traditional classroom experience is not the only way in which students acquire knowledge and skills, and this recognition is reflected through the establishment of mechanisms to award credit through alternative or “nontraditional” avenues. While many alternative credit award systems rely on skill and competency tests (such as the College Board’s College Level Examination Program [“CLEP”], the Department of Defense’s Defense Activity for Nontraditional Educational Support [“DANTES”], or an institution’s own assessment exam), other systems based on prior credentials, experiential learning, and contract learning are being developed. On-line and “distance” courses, once considered the primary “alternative” credit awarding mechanism, are now ubiquitous and accepted by most employers as on par with traditional classroom instruction. Credit can now be earned through a “learning portfolio” assessment, prior certificates or licenses, independent study, and employer partnerships. In 1995, The State College System of West Virginia published guidelines for granting academic credit for experiential learning through portfolio review, which allowed state institutions to “award academic credit for work or life experiences that are equivalent to coursework which meets the requirements for the degree program in which the student is enrolled” (www.wvhepc.org/scs).

Several accredited colleges have been created around the alternative credit model. These colleges are designed to provide educational opportunities to nontraditional students who have accumulated considerable job and life experiences but may have had little experience in a traditional college classroom.

- Thomas Edison College (New Jersey) was founded in 1972 on the belief that “the college-level knowledge adults gain outside the classroom could be measured or applied toward an academic degree.” The college awards credit based on independent study and documentation of existing college-level knowledge (www.tesc.edu).
- Charter Oak State College (Connecticut) was established in 1973 by the Connecticut Legislature “to provide an alternative way for adults to earn associate and baccalaureate degrees.” Students can earn credits through non-collegiate sponsored instruction, standardized tests, special assessments, contract learning, and portfolio assessments (www.cosc.edu).
- Excelsior College (NY) was established in 1971 as Regents College with the intent to “make college degrees more accessible to busy, working adults [by] focus[ing] on what students knew, rather than where or how they learned it.” The college grants

credit for its own courses, courses accessed through its distance-learning database, traditional coursework, Excelsior College Exams, and credit for training (www.excelsior.edu).

The Michigan Situation

On-line and distance learning opportunities are available through a number of Michigan colleges and universities. In particular, the Michigan Virtual University and University of Phoenix offer a wide array of educational programs. While the University of Phoenix offers programs leading to undergraduate and graduate degrees, the Michigan Virtual University does not grant its own degrees but offers on-line education and training opportunities through contracts with Michigan colleges and universities, and credentials are issued through the contracting institution (www.phoenix.edu; www.mivu.org). Michigan Virtual University, which was created in 1998, is a private, not-for-profit corporation. The University of Phoenix, which has several campus locations in southeastern and western lower Michigan, awards credit through previous college attendance, corporate training, prior learning assessment, national tests, and military experience (www.phoenix.edu/transfer).

Other Michigan colleges offering alternative credit awarding mechanisms include:

- Davenport University, which has 27 locations throughout Michigan including the northern lower peninsula, offers credit for life learning, job knowledge, and military service (www.davenport.edu). The college also offers a variety of on-line courses and programs.
- Northwood University is a multi-campus system of private institutions located in several states that offers undergraduate and graduate degree programs in Business, Human Resources and Information Technology. The Michigan campus is located in Midland, and its “University College” grants the “Work Life Learning Credit,” which is a portfolio assessment based on the student’s employment resume and an autobiography (www.northwood.edu).
- Madonna University’s Prior Learning Program (PLP) awards credit for work experience, military training, travel, internships or in-service, seminars and workshops, independent study or research, art, music, filmmaking, and journalism. The prior learning is evaluated by an exam, a portfolio, certificates and registrations, products, presentations, and exhibits. Up to 60 of the required 120 credits for a degree may be earned through the PLP (<http://www.madonna.edu/pages/plphighlights.cfm>).

Transfer Agreements between Community College and Higher Education— How do they work? How can they be improved?

(Topic of Shared Interest with Participation Group)

In February 2001, the Education Commission of the States (www.ecs.org) published a comprehensive list of transfer and articulation policies for all 50 states. The list included the following programs (numbers in parenthesis indicate the number of states offering the program):

- **Legislation** addressing transfer and articulation (30)

- **Statewide cooperative agreements** (course-to-course, department-to-department, or institution-to-institution) (40)
- Transfer data reporting (33)
- **Incentive and rewards**, such as financial aid, guaranteed transfer of credit, or priority admission to transfer students (18)
- **Statewide articulation guides** outlining any and all requirements for transfer (26)
- **Common core** of courses required to fulfill graduation requirements (23)
- **Common course numbering system** between community colleges and baccalaureate institutions (8)

Aside from a statute allowing students to receive “advanced college placement and credit for federally registered apprenticeships” (Mich. Stat. Ann § 15. 1919), Michigan does not offer any of the above-listed transfer/articulation programs. While no state offers every program, several states, including Alabama, Florida, Illinois, Maryland, North Carolina, Oklahoma, and Wyoming, offer six of the seven.

Currently, articulation/transfer agreements among Michigan colleges are developed individually between institutions. These agreements range from individual course transfers to program and degree “partnerships” between certain community colleges and four-year institutions. The individual nature of these agreements, however, means the amount of credit accepted, and the application of that credit to graduation and degree requirements, vary by institution. In addition, at some colleges credits are evaluated on a “two-tier” system: introductory courses and advanced courses. At the University of Michigan in Ann Arbor, for example, introductory courses are evaluated by the Office of Undergraduate Admissions, but advanced courses are evaluated by the academic department. Also, at U-M two types of transfer credit are awarded: equivalent course credit (e.g., Calculus 115), and “departmental” credit (e.g., “Math Department 4 credits”). Departmental credit counts toward a student’s cumulative total but cannot be used to fulfill graduation requirements. A student whose calculus course from ABC Community College transfers as “departmental credit” cannot use that course to satisfy the introductory calculus requirement for a major, and thus must take calculus at U-M.

Some Michigan colleges subscribe to a voluntary agreement designed by the Michigan Association of Collegiate Registrars and Admissions Officers (MACRAO). The MACRAO Transfer Agreement “provides for transferability of up to 30 semester credits to meet many (in some cases all) of the General Education Requirements at participating Michigan four-year colleges and universities” (www.macrao.org). The 30 semester hours are broken down into specific credit hours in each of English Composition, Science & Math, Social Science, and Humanities. Not all colleges and universities participate in the agreements, and some participate with various exceptions and limitations. Twenty-eight community colleges and 29 baccalaureate colleges adhere to the agreement, although one community college and 15 of the baccalaureate colleges have limitations or exceptions to it.

Retention rates and the factors that affect them: e.g., to what degree do preparation and other factors affect retention?

Appropriate preparation in high school is a critical factor for academic success in college. 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% 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% of Hispanic students and 18% of black students in Michigan meet this criteria.

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 the students risk exhausting their financial aid benefits before they have completed degree requirements.

III. POTENTIAL STRATEGIC POLICY RESPONSES TO MEET THE COMPLETION CHALLENGE

This balance of this brief is organized to begin to introduce in more detail strategies and topics that have been identified by research and policy development work to date as potentially powerful responses to the Completion challenges described above, including those identified at the July 14, 2004 workgroup meeting in Lansing. Invite work group members to explore these or other important and powerful approaches to improve completion.

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 on-line.

1. Articulation Alignment

Build on existing bilateral articulation agreements to create state system or state standards to help students who attend multiple institutions to stay on track; speed their completion of degrees by having credits count and track. Build in reverse articulation (award associate’s degree for 2 years of college), and other strategies for “chunking” credentials for adult learners.

Articulation policies are a critical aspect of educational attainment among Michigan residents because vocational schools and community colleges are points of entry to post-secondary education for many people, particularly older students with jobs and families, minorities, economically disadvantaged students, and students living in regions that are not served by a baccalaureate institution (Hungar & Liberman, 2001; Rifkin, 1998;

Wellman, 2002). Rifkin (1998) notes that of the roughly 6 million students enrolled nationally in community colleges, 25% are minorities, 58% are women, 65% attend part-time, and the average age is 32. According to the Center for Education Statistics, in Fall, 2000, 192,051 students were enrolled in public 2-year colleges in the state of Michigan, and an additional 1,334 students were enrolled in private 2-year institutions. Without effective articulation policies, many at-risk students may be lost from the educational pipeline, wasting time, money and economic potential. In addition, some students migrate between associate, baccalaureate and technical colleges, amassing a set of academic credits that essentially do not result in a tangible credential. Efficient and effective articulation policies not only help ensure that valuable classroom time and money are not wasted, they also provide incentive for students to pursue baccalaureate studies without the financial and psychological burden of “starting from square one.”

Hungar and Lieberman (2001) categorize transfer issues as either financial or academic. Financial issues include the rising cost of tuition, financial aid policies (including eligibility for aid, time limits for receiving financial aid, the complex nature of finding and applying for aid) and difficulties in balancing work and school. Academic issues include the need for remedial coursework (which students must pay for but which often does not transfer or count toward a degree), lack of streamlined articulation agreements among colleges, differing course requirements for general education (the “core”) and the major, and changing course requirements for the major.

In a report for the National Center for Public Policy and Higher Education, Wellman (2004) noted that transfer from community college to baccalaureate institutions (“2/4 transfers”) is “rapidly becoming the most common route to the baccalaureate for a simple, sound reason: it costs less” (p. 1). Her study of state transfer policies revealed that ineffective state policies are a “major contributor” to the high rate of students who fail to obtain a baccalaureate degree. Her proposed blueprint for improving transfer performance includes the following components:

- Developing baseline information
- Clarifying policies and plans
- Setting goals and measures
- Investing in core resources
- Performing statewide audits
- Forging agreements
- Boosting low-performing institutions
- Using financial aid as an incentive
- Bringing private institutions into the discussion

Reverse Articulation

As found in the literature, the term “reverse articulation” refers to students who begin post-secondary education at a four-year college but then transfer “back” to a community college. While many institutions have “2+2” transfer agreements whereby students with an associate’s degree are accepted with junior standing at a baccalaureate institution, an initial review of the literature did not reveal any programs in which students begin at a

community college and then transfer to a baccalaureate institution, “retroactively” applying credits earned at that institution to fulfill associate degree requirements. Bristol Community College (MA) and the University of Massachusetts - Boston’s Center for Technical Education have a program in which students enroll at UMass, transfer credit to the community college toward an associate’s degree in General Studies, and then return to the University to complete a bachelor’s degree. In order to complete the associate’s degree, however, students must complete at least 30 hours of resident coursework at the community college.

The Michigan Situation

As noted previously, Michigan does not have a well-developed transfer/articulation regime. Currently, articulation/transfer agreements among Michigan colleges are developed individually between institutions. These agreements range from individual course transfers to program and degree “partnerships” between certain community colleges and four-year institutions. The individual nature of these agreements, however, means the amount of credit accepted, and the application of that credit to graduation and degree requirements, vary by institution.

Some Michigan colleges subscribe to a voluntary agreement designed by the Michigan Association of Collegiate Registrars and Admissions Officers (MACRAO). The MACRAO Transfer Agreement “provides for transferability of up to 30 semester credits to meet many (in some cases all) of the General Education Requirements at participating Michigan four-year colleges and universities” (www.macrao.org). The 30 semester hours are broken down into specific credit hours in each of English Composition, Science & Math, Social Science, and Humanities. Not all colleges and universities participate in the agreements, and some participate with various exceptions and limitations. Twenty-eight community colleges, and 29 baccalaureate colleges adhere to the agreement, although one community college and 15 of the baccalaureate colleges have limitations or exceptions to it.

Articulation Policies/Programs in Other States

Most states have enacted at least one or two programs designed to facilitate articulation and transfer. Two that appear frequently in the literature are Illinois and Florida.

Illinois

The Illinois Articulation Initiative (IAI) was established in 1998. The Initiative covers two key areas of articulation. The General Education Core Curriculum is a “package” of lower division courses providing foundation skills and “breadth of knowledge” courses required for all baccalaureate degrees. The IAI Major assists students in choosing courses that can later be applied toward a baccalaureate major. Information about both areas, as well as transfer planning tools and lists of courses that qualify for the GECC and IAI Major, is available on the IAI website (www.itransfer.org).

According to an October, 2003, report from the State of Illinois Board of Higher Education, the IAI model has recently been used in the development of a statewide transfer policy in Colorado. While input from Illinois college faculty and students has indicated that the IAI initiative is generally successful, the report states that not enough

time has passed yet to empirically determine the success of the Initiative, and the lack of a centralized, integrated student unit record system complicates this effort. However, one unanticipated benefit of the Initiative has been the bringing together of faculty from institutions throughout the state to discuss issues of curriculum and course requirements. The extensive reviews of course syllabi have also functioned as de facto “quality assurance mechanisms” as each IAI course is reviewed and approved by faculty from public and private 2-year and 4-year institutions (www.ibhe.state.il.us/Board/Agenda/2003/October). In addition, the IAI will serve as the foundation for a planned Illinois Course Applicability System (CAS) that will provide information on all courses and degree requirements at institutions, not just GECC and IAI Major courses.

Florida

Starting in the mid-1950's, Florida's community college system was carefully integrated into the state's post-secondary education system. A legislatively mandated Articulation Coordinating Committee oversees all articulation and transfer policy formation within the state. There is a stateside course numbering system covering all post-secondary courses at public vocational-technical centers, community colleges, universities, and participating nonpublic institutions. A website is in place that assists students in locating specific courses and that also provides database workbooks (http://scns.fl DOE.org/scns/public/pb_index.jsp#). State law requires that all public colleges and universities must accept the common general education core and the associate's degree as equivalent to the first two years of a baccalaureate degree (Hungar and Lieberman, 2001). Florida has a “2+2” system that guarantees that students can complete the associate's degree at a community college, are guaranteed admission with 60 credit hours to the state university system or one of the independent colleges and universities of Florida, and thus complete their bachelor's degree (<http://www.myfloridaeducation.org/postsecondary/pdf/booklet.pdf>).

While Florida has an extensive data tracking system, the Florida Education Data Warehouse (discussed below), at this time the data has been used primarily for descriptive and not analytical purposes (DesJardins, personal communication, July, 2004). Data have shown, however, that retention and graduation rates for students who transfer with an associate's degree are exceeding the rates for students who start on the baccalaureate track, and that cumulative grade point averages for community college transfers equal those of students who begin in state university schools.

2. Completion goals

Develop campus-based goals at each of the state universities and Michigan's community colleges for significantly increasing the number of graduates through various means (retention programs, support systems, advising, mentoring, etc., increased reliance on transfer students to allow focus on third- and fourth-year students, increased outreach to get credit holders to finish degrees, more targeted use of financial aid). Universities adopt goals, report success at year-end.

In *A Matter of Degrees: Improving Graduation Rates in Four Year Colleges and Universities* (Education Trust, 2004), Carey argues that system-wide reform is needed in order to improve completion rates at all colleges and universities. There is also good

evidence that the institutions that make completion a priority are able to demonstrably improve those rates through a variety of means.

Systemwide reform

Elements of that reform include:

- Intensive study of institutions that consistently outperform their peers at supporting successful completion, and replication of best practices. For example, Elizabeth City (NJ) State University, University of Northern Iowa, and Miami University of Ohio boast graduation rates that are 13–19% higher than peer institutions. Close examination of the policies and programs at these schools could shed light on effective student retention practices.
- Real accountability in higher education, including public information regarding institutional graduation rates disaggregated by gender, income status and race/ethnicity, as well as concrete goals for improvement at the institutional, state, and federal levels.
- Improved alignment between K–12 and higher education to ensure that high school graduates are prepared for college-level coursework, including feedback to high schools on how well their graduates perform in college.
- Improved access through affordability, with an increase in the amount of federal funding earmarked for student aid.
- Increased quality of learning at colleges and universities.
- A change in the way that public institutions are funded, from total aggregate enrollment to an “escalating” amount based on number of credit hours each student completes.
- Improved data collection methods for monitoring student progress, including institutional data based on socio-economic status, race, and academic major.

Institutional Incentives

Institutional completion incentives can originate at the state or federal level, and most are tied to funding. In Illinois, the Graduation Incentive Grant program provides grants to public universities that offer contracts to their students in which the university pledges to provide the courses, programs, and student support services necessary for students to complete their degrees in four years. Allocation amounts are based on the state appropriation and the number of students accepting the contracts. In FY 2004, Eastern Illinois University and Western Illinois University applied for the grants and were awarded \$83,140 and \$16,800 respectively. In New York, the Bundy Aid is based on the number of degrees awarded by independent institutions of higher education. In recent years, however, the amount of money allocated for Bundy Aid has decreased significantly.

Student Incentives

Given the impact of financial issues on college completion, incentives that target these issues have the best likelihood of success. As Tinto (1993) has noted, the more time a student spends in activities that remove her from the college environment, the lower the

odds of degree completion. Increases in grant (not loan) monies, work-study allocations, tuition discounting, and perhaps post-graduate tax and loan initiatives (e.g., forgiveness of a percentage of the student loan or a one-time tax deduction upon completion of a bachelor's degree or higher) are a few examples.

3. Completion Outreach:

Organize multi-year state campaign to encourage and facilitate degree completion by those who have left higher education, involving the colleges and universities, employer paid funds, community leaders (perhaps with amnesty for those with "stale" credits). Organized by state universities and colleges.

Completion outreach efforts must be tailored to the needs of both traditional and nontraditional (often adult) students. As noted previously, research has shown that traditional students benefit from involvement in academic and environmental engagement, mentoring, small learning communities, and financial aid policies. The unique needs of nontraditional students are examined below.

Adult Learners

Adults learners constitute a growing segment of the post-secondary population. According to the National Center for Educational Statistics, the number of adults engaged in post-secondary education increased by 60% between 1985 and 1996. The needs of these students differ from those of most "traditional" post-secondary students and are focused in three primary areas (Bailey & Mingle, 2003; Matus-Grossman et al., 2002):

- **Opportunity:** Location of post-secondary institutions and availability of degree programs, course schedules, and academic calendars that accommodate job and family responsibilities.
- **Academic preparation:** Ability to successfully complete college-level work. Many adult learners are long removed from the academic environment, or have had substandard preparation in high school, and thus find college-level work challenging.
- **Finances:** Affordability of attending college, not just in terms of direct costs like tuition and supplies, but also through indirect costs, such as child care, and opportunity costs, such as decreased income from reduced work hours. Institutional aid is increasingly awarded based on merit, with scholarships going to students with the best secondary preparation, and Pell Grants have not kept pace with the rising cost of tuition. Other financial incentives, such as the Lifetime Learning Credit, are not effective for low-income students. At some colleges, remedial courses do not count toward degree requirements even though the students must pay for them.

Community colleges have long sought to accommodate the needs of adult learners through low tuition, availability of remedial classes, creative course scheduling, and geographic accessibility. As noted above, in many states the colleges are now trying to meet the needs of baccalaureate-seeking students through the Community College Baccalaureate Movement. Some four-year colleges are also trying to accommodate the adult market through creative degree programs and course delivery systems structured in a nontraditional format. For example:

- Governors State University (IL) has launched the “Board of Governors B.A. Degree Program” in which the GSU partners with Illinois community colleges and other accredited institutions to grant a Bachelor of Arts degree. This program also utilizes the Illinois Articulation Initiative to facilitate credit transfer and degree completion (www.govst.edu).
- Excelsior College (NY) has developed the “Excelsior College Credit Bank,” an evaluation and transcript service through which Excelsior students (and others for a fee) can consolidate their academic records and gain credit for prior academic and non-academic learning experiences. The Credit Bank then issues a single transcript listing all credit. Students submit documentation of the learning experience, which is then evaluated by Excelsior administrators. If the documentation meets established standards, a prescribed amount of credit is granted. This credit can be used to complete an Excelsior degree or can be transferred as regular credit to other colleges and universities (www.excelsior.edu).
- The Genesis Single Parent Program at Andrews University (MI) provides financial assistance, child care, affordable housing, and academic and psychological support services to students who are single parents and have completed one year of transferable college coursework with a GPA of 2.25 or above (www.andrews.edu/GENESIS).
- Wayne State University’s (MI) Interdisciplinary Studies Program is designed to make college degrees accessible to working adults. The average age of an ISP student is 41. Small classes, individualized attention, convenient class schedules and locations, and the self-contained nature of the program facilitate the completion of baccalaureate degrees for people with a variety of lifestyles and educational backgrounds (www.is.wayne.edu).

Employer-Paid Tuition Programs

Employer-paid tuition programs help offset the financial burden of earning a college degree. According to Cappelli (2004), nearly all employers offer some type of tuition assistance program. The amount of assistance offered, the kind and level of education covered by the program, and employee eligibility standards vary by employer. Cappelli’s (2004) research indicates that workers who make use of tuition assistance programs have higher levels of productivity and tend to stay with employers longer to take full advantage of the benefit. Tuition assistance may also be available to employees through labor organizations such as the UAW. Yet these programs are much less effective if the benefits are considered taxable income, or if the employees are unable to attend classes due to work and family responsibilities. Thus, tuition benefits must be partnered with work release programs and favorable tax codes.

Michigan employers offer a variety of tuition assistance programs. Interestingly, companies that count a large number of college-educated people among their workforce (e.g., University of Michigan, Ford, and General Motors) tend to offer excellent benefits while companies that employ a substantial number of people with little or no post-secondary education (e.g., Wal-Mart, Meijer, McDonald’s, Kroger) offer limited options or nothing at all. Thus, ironically, a college educated engineer at Ford can take advantage of the company’s tuition plan to finance an MBA or advanced degree while a sales clerk

at Meijer receives no assistance toward completing an associate's degree (www.ford.com, www.gm.com, www.umich.edu, www.meijer.com, www.kroger.com, www.mcdonalds.com, www.walmart.com).

4. University Centers

Expand the use of these centers to increase access to bachelor's level programs. Encourage community colleges to create centers with state-assisted capital funding.

A University Center is a physical location housed and administrated by a community college that offers baccalaureate education to citizens in the district served by the community college. The first University Center in the United States was established at Macomb Community College in 1988, when the voters of Macomb County approved a special millage to construct a building totally dedicated to baccalaureate education provided by four-year institutions. Currently Macomb Community College offers 26 baccalaureates and 17 master's degrees from 10 universities ranging from the University of Michigan to Wayne State University. There is also a University Center at Northwestern Michigan Community College.

The University Center innovation has spread outside of Michigan. Lorain Community College in Ohio has entered into partnerships with University of Toledo and Bowling Green University to offer a computer science and engineering degree and biology degrees. Greenville Technical College in South Carolina operates a university center offering more than 500 courses during evenings and weekends year-round in more than 46 undergraduate and graduate programs from seven different South Carolina four-year colleges and universities.

Related strategies—Applied Baccalaureate Degrees

Applied baccalaureate degrees enable people to gain the benefits of a baccalaureate credential in fields that are not usually part of a traditional liberal arts-based baccalaureate curriculum. Many of these degrees are in technical and vocational areas such as computers/information technology, medical technology, and trades.

The increased popularity of these degrees is due, in part, to two primary factors. One is the rapidly changing workforce environment, in which a college degree is now the prerequisite for employment regardless of the industry and a bachelor's degree is necessary for career advancement. The second factor is the desire of individuals interested in technical and occupational jobs to attain the economic benefits of a baccalaureate degree.

In 2000, the Ontario Ministry of Training, Colleges and Universities approved the granting of applied degrees by colleges of applied arts and technology. Until that time, these colleges awarded certificate, diploma, and post-diploma credentials but were prevented by law from awarding degrees. The degrees are offered in areas where employer demand has been identified but current certificate/diploma programs are not meeting those demands. The applied degrees are offered in a limited number of areas that are not available at four-year colleges and universities (<http://www.edu.gov.on.ca/eng/document/discussi/degree/degree.html>).

In the United States, the model most closely resembling the Ontario initiative is the Community College Baccalaureate Movement (<http://www.accbd.org/>). In several states, community colleges are permitted to offer baccalaureate degrees in limited majors based on student and employer demand. Like the Ontario model, these degrees are offered in fields that are generally not represented at the “traditional” baccalaureate level, or in locations that do not have convenient access to baccalaureate education. Proponents of the community college baccalaureate movement argue that it is the logical next step in the community college mission of responding to workplace needs and providing convenient, affordable, and quality education to people for whom the traditional baccalaureate model is not feasible.

The Michigan Situation

Currently, applied baccalaureate degrees are available through individual partnership agreements between community colleges and baccalaureate institutions. For example, Macomb Community College offers a Bachelor of Applied Arts in Administration in conjunction with Central Michigan University, and a Bachelor of Technical and Interdisciplinary Studies in conjunction with Wayne State University. Delta College has similar partnerships with Central Michigan University. There are no community college baccalaureate programs in the state.

Policies/Programs in Other States

Currently, 10 states allow community colleges to offer baccalaureate degrees within certain guidelines (Florida, Utah, Nevada, Arkansas, Minnesota, Texas, New York, Pennsylvania, Vermont and Hawaii), and legislation is pending in New Mexico, Arizona and California. Earlier this summer, the Board of Trustees of Harper College voted 5-2 to authorize the College to begin lobbying for a change in Illinois state law that would allow Harper to offer baccalaureate degrees in select fields (www.harpercollege.edu/bachelor).

5. Data tracking

Create a lifelong learning data system tracking all learners in Michigan from preschool to workplace training. This kind of system would improve the accuracy of high school and college graduation rates (taking into account students who transfer to different school districts or colleges within the state) and would allow for mapping of educational and employment migration factors within the state.

Data tracking systems allow states to collect data about the educational and professional (employment) progression of their citizens, and use this information to guide policy and investments in education, higher education and job-training. Ideally, these systems begin capturing data at the elementary or even pre-elementary level and continue through post-college employment, and would include information about institutional attendance (where and for how long), degrees or certificates earned, financial aid data, and employment histories. The systems would provide valuable information regarding educational attendance patterns, institutional benchmarks and accountability, statewide educational and employment migration patterns, and longitudinal education/employment analyses.

The Michigan Situation

Currently, Michigan does not have an integrated statewide data tracking system.

Policies/Programs in Other States

Florida

Florida has one of the most comprehensive data tracking systems in the country. The K-20 Educational Data Warehouse (EDW) is a comprehensive system that integrates data drawn from multiple sources into “a single repository of data concerning kindergarten through graduate school students served in the public education system as well as educational facilities, curriculum and staff involved in instructional activities” (http://edwapp.doe.state.fl.us/doe/EDW_Facts.htm). The EDW contains student-specific data in the following areas:

- demographic — race and gender
- enrollment — participation in a given program or school for a given period of time (enrollment, attendance, discipline, exceptionality program)
- courses — participation of student in specific courses
- test scores — SAT, FCAT, etc.
- financial aid — program data collected by and/or reported to the state (federal, state, local)
- awards
- employment — during study years as well as post-graduation

The EDW also collected data on educational curricula at state institutions and on the staff involved in instructional activities. Public and private post-secondary institutions are included in the data collection. At this time it appears that private secondary education is not included in the collection.

Illinois Shared Enrollment/Graduation Data System

The Illinois Shared Enrollment/Graduation System facilitates the tracking of students through the state's community colleges and public universities. The system was developed in the early 1990s upon the recommendation of the Committee for the Study of Undergraduate Education, and data from the system have been used in numerous analytical reports in the past decade (available on www.ibhe.state.il.us). Unfortunately no information regarding the development of the system, its structure or design, has been located on the State Board of Higher Education website.

COMPREHENSIVE LIST OF KEY RESOURCES

Data Tracking:

Florida Education Data Warehouse: <http://edwapp.doe.state.fl.us/doe/>

Illinois State Board of Higher Education” www.ibhe.state.il.us

Retention:

Astin, A. (1993). What matters in college? Four critical years. San Francisco: Jossey-Bass Publishers.

Carey, K. (2004). A matter of degrees: Improving graduation rates in four-year colleges and universities. Washington, DC: The Education Trust.

Conlin, M., and Bernstein, A. (2004). Working... and Poor. *Business Week*, May 31, 2004. 58-68.

Swail, W. S., K. E. Redd and L. W. Perna (2003). Retaining minority students in education: A framework for success. ASHE-ERIC Higher Education Report, 30(2).

Tinto, V. (1993). Leaving college. Chicago, IL: University of Chicago Press.

Alternative Credit Systems:

Bear, J. B. and M. P. Bear (2001). Bears' guide to earning degrees by distance learning. Berkeley: Ten Speed Press. (Although intended for consumers, this book, which was previously titled “Bears' Guide to Earning Non-Traditional College Degrees,” is a useful resource for examining various distance and non-traditional degree mechanisms, and also provides cautionary information about “diploma mills” and other unaccredited educational organizations.)

Articulation/Transfer:

Websites:

Illinois Articulation Initiative: www.itransfer.org

Illinois Board of Higher Education: www.ibhe.state.il.us/Board

Florida Department of Education Office of Articulation:
<http://www.myfloridaeducation.com/doe/postsecondary/posthome.htm>

Michigan Association of College Registrars and Admission Officers: www.macrao.org

Education Commission of the States: www.ecs.org

National Center for Public Policy and Higher Education: www.highereducation.org

State Higher Education Executive Officers: www.sheeo.org

Articles:

Education Commission of the States (2001). Transfer and articulation policies. Denver, CO: Education Commission of the States. Downloaded July, 2004, from: www.ecs.org.

Hungar, J. Y., and J. Lieberman (2001). *The road to equality: Report on transfer for the Ford Foundation*. New York: Ford Foundation. (ERIC Document Reproduction Service No. ED455856).

Rifkin, T. (1998). *Improving articulation policy to increase transfer*. Denver, CO: Education Commission of the States. Downloaded July, 2004, from: www.ecs.org.

State of Illinois Board of Higher Education (2003). *The Illinois articulation initiative: Annual report 2002-2003*. Downloaded August, 2004, from: www.ibhe.state.il.us/Board/Agendas/2003/October.

Wellman, J. V. (2002). *State policy and community college-baccalaureate transfer*. Washington, D.C.: National Center for Public Policy and Higher Education and The Institute on Higher Education Policy. Downloaded July, 2004, from: www.highereducation.org/reports/transfer/transfer.shtml.

Institutional/Student Incentives:

United States General Accounting Office (2003). *College Completion: Additional efforts could help education with its completion goal*. Washington, DC: GAO (<http://www.gao.gov/new.items/d03568.pdf>).

Adult Learners:

Bailey, A. A. and J. R. Mingle (2003). *The adult learning gap*. Denver, CO: Education Commission of the States.

Matus-Grossman, L, S. Gooden, M. Wavelet, M. Diaz, and R. Seupersad (2002). *Opening doors: Students' perspectives on juggling work, family and college*. New York: MDRC. Downloaded July, 2004, from: www.mdrc.org/publications/260.

Employer-Paid Tuition Programs:

Cappelli, P. (2004). Why do employers pay for college? *Journal of Econometrics*, 121, 213-241.

Applied Baccalaureate/Community College Baccalaureate

Community College Baccalaureate Association: <http://www.accbd.org/>

Harper College Bachelor's Initiative: www.harpercollege.edu/bachelor

Ontario Ministry of Education: www.edu.gov.on.ca

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