2014 Environmental Scan
Midlands Technical College
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2014 Environmental Scan Background Methodology

In its strategic planning cycle, Midlands Technical College (MTC) collects and interprets relevant information about important influences on the college’s future, and uses this information to address opportunities that lie ahead. The first step in this dynamic, collaborative and continuous process is the completion of an environmental scan. Environmental scanning is the systematic evaluation of MTC’s external and internal environments. Its goal is to identify, clarify, evaluate and prioritize issues and trends that could impact the future direction and success of the college.

During the past two years, the college commissioned several studies and hosted a variety of events designed to assess MTC’s contribution to its various constituent groups and its position in the service area. The Assessment, Research and Planning (ARP) staff reviewed the findings from the commissioned studies and college events to determine their bearing on the environmental scan, and interviewed select faculty and staff to obtain their perspectives on trends relevant to the college’s future success. ARP also conducted independent research related to national, regional, state and higher education trends that will influence the college’s future priorities and direction.

Recent studies and events provided both internal and external perspectives on the college’s direction. Data was obtained from the four areas listed below.

- **MTC Visioning Summits** – These companion events reviewed external trends and perspectives, and highlighted MTC program and service innovations. *Visioning Summit 1* was externally focused and provided feedback from business and higher education customers. *Visioning Summit 2* was internally focused on new initiatives provided by the college to further enhance the student pipeline.

- **The Economic Contribution of Midlands Technical College** – This study was conducted by Economic Modeling Specialists Incorporated (EMSI) to determine MTC’s fiscal impact on the Central Midlands of South Carolina.

- **The CLARUS Corporation Study** – This comprehensive market assessment tool focused on positioning the college as a high-quality institution offering programs and services for a variety of students.

- **The MTC Marketing and Branding initiative** – This ongoing process will focus community awareness on the many opportunities available at MTC.
Internal perspectives were provided through formal and informal interviews with the following MTC Employees:

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<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>Division</th>
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<tbody>
<tr>
<td>Diane Carr</td>
<td>Associate Vice President for Arts and Sciences</td>
<td>Academic Affairs</td>
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<tr>
<td>Tony Hough</td>
<td>Director of Information Resource Management</td>
<td>Business Affairs</td>
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<tr>
<td>Mary Beth Lampe</td>
<td>Director of Human Resource Management</td>
<td>Business Affairs</td>
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<tr>
<td>Jason Stilwell</td>
<td>Employee Relations Manager</td>
<td>Business Affairs</td>
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<tr>
<td>Tammy Moye</td>
<td>Asst. Director of Human Resource Management</td>
<td>Business Affairs</td>
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<tr>
<td>Diane Yeoman</td>
<td>Director of Educational Technology</td>
<td>Institutional Support</td>
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<td>Michael Zanfardino</td>
<td>Multimedia Development Director</td>
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<tr>
<td>Danny Colligan</td>
<td>Multimedia Developer</td>
<td>Institutional Support</td>
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<tr>
<td>Sylvia Littlejohn</td>
<td>Director of Enrollment Services</td>
<td>Student Development Services</td>
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<tr>
<td>Derrah Cassidy</td>
<td>Director of Admissions</td>
<td>Student Development Services</td>
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<td>Linda Wyatt</td>
<td>Director of Student Assessment</td>
<td>Student Development Services</td>
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<td>Phil Morris</td>
<td>Director of Counseling Services</td>
<td>Student Development Services</td>
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<tr>
<td>Deborah Godfrey</td>
<td>Veterans Affairs Coordinator</td>
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<td>Kaye Shaw</td>
<td>Coordinator</td>
<td>Midlands Regional Education Center</td>
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The Executive Summary of the Environmental Scanning committees’ findings on the seven major trends is provided in the following pages.
The Executive Summary

Trend 1: The educational needs of students, especially the under-prepared, will increasingly challenge the college’s instructional, student service, and financial resources.

Midlands Technical College will continue to be challenged to meet the academic and support needs of a diverse student body. Many enrolling at the college are underprepared academically, are not engaged in their academic environment, and lack the personal skills and support necessary to succeed in their academic work. The faculty and staff of the college will seek new, innovative ways to meet the needs of these students while contending with resource constraints.

Trend 2: Funding for higher education, both federal and state, will continue to decline while the demand for access to higher education and student support services will increase.

As funding for higher education continues to decline, now more than ever, there is increased pressure on colleges to create avenues of access to higher education. This includes formulating strategies that address national and state initiatives designed to educate the changing workforce. Institutions of higher education will increasingly be required to document student success for federal, state, and accrediting agency assessment requirements. Access to higher education for low-income students will depend on adequate funding through the federal Pell Grant program along with state level merit and need-based scholarship programs, which will comprise an important piece of the student financial aid package.

Trend 3: The demands for a skilled workforce to meet the changing economic environment will require MTC to maintain and expand its workforce development role through collaborative partnerships with business and industry, local school districts, and post-secondary institutions.

While the economic outlook for the United States and South Carolina continues to improve, employers will continue to be challenged to find sufficient numbers of skilled workers. The challenge is to identify the employment skills needed and prepare graduates for the changing MTC service-area workforce. MTC will need to continue partnerships with local school districts, post-secondary education institutions, businesses, and the community to ensure access to higher education. MTC is beginning to realize the impact of legislative educational initiatives implemented over the past nine years.

Trend 4: Meeting the needs of a diverse student population will impact the delivery of programs and services.

Both MTC’s human and financial resources will be challenged to meet the needs of an increasingly diverse student body. Nationally and regionally, the number of Hispanics, African Americans, and students with disabilities attending college is expected to grow, becoming a larger percentage of the overall student population than in the past. Programs designed to increase the success rate of a diverse student population, such as African-American males, will need to be expanded, monitored, and evaluated.
Trend 5: As the demand for campus-wide technologies increases, the resources and capabilities of MTC will be challenged to manage and support appropriate information technology services.

MTC’s ability to creatively manage and implement new technology will be a struggle as innovations continue to escalate. Student preferences for smart phones and tablets have colleges moving to mobile apps to help integrate these devices into all phases of the college experience and meet each student’s unique needs. The expansion of wireless connectivity, the continued vigilant monitoring of security and network protection, developing digital content and course delivery capabilities as well as the necessary training and expertise to utilize these new tools will have a significant impact on college resources and planning efforts. The approach to addressing this trend will need to be comprehensive and collaborative in order to accommodate all stakeholders, policy controls, funding, and facilities.

Trend 6: MTC will be challenged to utilize advances in instructional technology, provide instructional design assistance, and implement quality standards as consumer and market expectations become more highly developed.

Leveraging technology at every point along the learner pathway will allow MTC to provide new student-centered experiences and success strategies. Students will benefit from personalized communications, automated course assistance based on interactions, clearer learning pathways, accelerated and redefined courses, and advances in course delivery such as flipped classrooms, blended models, 3D simulation and other emerging technologies. Data analytics made richer through capture of online activities will become more sophisticated and more widely utilized in support of broader institutional goals and priorities like improving student choice with personalized notifications, degree planning, advising systems, and early interventions for at-risk students based on activity or inactivity triggers. MTC will compete with a rapidly growing sector of web-based educational offerings and will be challenged in implementing and maintaining high quality standards and positioning the college as the consumers’ first choice in the digital delivery of education.

Trend 7: Pending retirements, continuing dependence on adjunct faculty and contract staff and geographic expansion of facilities will challenge MTC’s recruiting and hiring practices.

Similar to national trends, MTC is in the midst of a transition brought about by the pending retirements of significant numbers of administrators and faculty. Additionally, increased enrollment and the loss of financial support at the federal and state level have resulted in the ongoing employment of large numbers of adjunct faculty and contract workers. These changes will challenge MTC to recruit and train a diverse workforce that will assist the college in responding to the evolving demands impacting higher education institutions.

Trend 8: Increased emphasis on accountability measures at the federal, regional and state levels will challenge MTC’s ability to document student success, pinpoint areas for improvement and shape funding strategies.

Accountability for fostering student success has gained increased importance on the national higher education agenda during the past five years because of anticipated skill gaps in the
workforce. At the federal level, there is a call to establish a new ratings system to evaluate a college’s effectiveness, and states are implementing systems that attach funding to college performance. The lack of commonly accepted performance measures for community colleges has frequently led to an underestimation of the effectiveness and contributions of these colleges to their communities as well as limited their abilities to identify problems and set goals for the improvement of outcomes. MTC will need to choose from an array of recently proposed measurement criteria to establish an effective and sustainable measurement system that meets both the college’s need and those of external agencies.
The 2014 Environmental Scan: Trends and Findings

Trend 1: The educational needs of students, especially the under-prepared, will increasingly challenge the college’s instructional, student service, and financial resources.

FINDINGS:

1. **Student Preparation** - Many students entering community/technical colleges today are insufficiently prepared for college attendance. The Community College Research Center estimates that nationwide, 60% of community college students enroll in at least one developmental education/remediation course (Community College Research Center). Another study estimates that these remediation efforts cost approximately $7 billion nationally per year (Scott-Clayton, Crosta and Belfield).

Few students who have to take developmental courses actually complete them, and much fewer proceed to completing their academic programs. Nationwide, only 15% of entering students placed in developmental education complete their developmental education courses in one year. Forty six percent have not begun the courses after a year (Vandal). Bryk and Tock indicate that, nationwide, 70% of students with developmental math requirements do not complete them (Bryk and Toch).

South Carolina Technical College System (SCTCS) data shows that the number of first-time freshman students (including non-degree seeking) enrolling at the technical colleges in developmental/remedial courses statewide is increasing. In 2008, 33% took one or more developmental education courses. That percentage increased to 41% by the 2012 academic year (Midlands Technical College, ARP).

At MTC, approximately 65% of students taking placement exams score at a developmental level in English, math, and/or reading, a percentage remaining relatively consistent over the past several years. ARP data indicates that actual Fall semester enrollments in developmental English, math, and reading (defined as 032 and 100 courses) has risen from 2,669 in 2010 to 2,879 in Fall 2013, a 7.9% increase. As the number of students needing developmental courses increases, the college may need to examine course sections offered, faculty, space allocation, advisement and other resource issues.

2. **Developmental Programs** - There is substantial evidence that effective developmental instructional programs do assist underprepared students. The literature is rife with examples of national, statewide, and individual college initiatives to strengthen the delivery of developmental programs, with varying levels of assessment and success depending upon local college culture and structure. Included are customized instruction approaches, accelerated course work, tutoring models, competency-based course progression, learning communities, model transition courses, benchmarking, technology-based delivery models, and so on. Further, there are initiatives to prepare instructors to utilize these new instructional approaches (Bryk and Toch). MTC’s developmental education program utilizes aspects of these.
Like other colleges, MTC will be challenged to design, test, and scale cutting-edge instructional models and strategies for developmental due to resource requirements (Hamilton, McCaffrey and Stecher). Scaling reform requires deep levels of faculty commitment, and challenges faculty autonomy and workload concerns (Edgecombe, Cormier and Bickerstaff) (Elmore).

3. **Non-Traditional Population** - The fastest growing population on America’s campuses is the non-traditional population. In fact, only 29% of undergraduates are traditional. Typical college students today juggle work, children, and other adult responsibilities (National Conference of State Legislators) (Casselman).

Students who have been out of high school for some time and want job training or to earn an academic credential often need developmental courses. Nationwide, 41% of Hispanic students and 42% of African-American students require remediation, compared with 30% of whites. Low-income students more often need developmental course-work than those more affluent.

Because non-traditional students often need supplemental or different counseling, advising, tutoring and orientation; student services and instructional staff are challenged to foster an engaging environment through individual and group action, both inside and outside the classroom (Brown).

4. **Student Engagement** - Over the years, Tinto, other researchers, and the Center for Community College Student Engagement have held that college persistence and success are directly proportional to a student’s engagement. A student who is involved with the college, actively participates in learning, interacts with faculty and other students, and utilizes the resources of the college without difficulty is engaged and more likely to succeed. The more involved and the more motivated, the more likely a student will be successful (Astin). Engagement in college life is primarily affected by the classroom environment, but interaction with advisors, counselors, and other college staff members plays an important role too (Alford and Griffin).

To measure relative student engagement, the Center for Community College Student Engagement at the University of Texas (Austin) has developed two, nationally recognized survey research instruments, the CCSSE (Community College Survey of Student Engagement) and the SENSE (the Survey of Entering Student Engagement).

Results of the 2013 CCSSE survey showed the following on the five benchmarks:

a. **Active and Collaborative Learning** - Students contribute to class discussions and work with other students, but many fewer report working with other students outside of the classroom or in their communities.

b. **Academic Challenge** - Students report using skills such as critical thinking, but sometimes find exams and homework do not require it.

c. **Student Effort** - Many students report preparing for class, but many also report coming to class without completing assignments or taking advantage of tutoring.
d. Supports for Learners - Most students indicate their college provides support services, but fewer report they actually use them.

e. Student-Faculty Interaction - The majority of students report they communicate with instructors in class, but many indicate that interaction ends as they exit the classroom door (Center for Community College Engagement).

Analysis of MTC data over the past five surveys showed an increase in student engagement on four of the five benchmarks. Student Effort, the fifth benchmark, showed a decline. However, when compared to 2012 national data from colleges with similar enrollment, MTC scored lower on three benchmarks: Active and Collaborative Learning, Student Effort, and Support for Learners. When compared with the participating South Carolina technical colleges, MTC scored lower on all five benchmarks.

5. Student Support - To meet the needs of the community college student population that is predominantly first generation, commuter, underprepared and diverse in all ways including age, ethnicity, ability, and socioeconomic background, colleges across the nation have focused on two primary areas, advising and pedagogy.

Advising efforts

a. MDRC (founded as Manpower Demonstration Research Corporation) suggests advising be integrated into the classroom, lowering the advisor/student ratio, and strengthening advising programs for new students (MDRC).

b. Intrusive advising strategies are helpful, especially at the time of initial enrollment (Miller and Murray).

c. Probably the key advising barrier at community colleges is the diverse nature of the community college. This means that advisors often need to focus on the basics, “what is a credit, what does it mean to be matriculated, how do you create a class schedule, how should I manage my time, etc.,” rather than academic advising (King) (Frost).

Pedagogy

a. Some colleges are innovating with learning communities to enhance student-instructor and student-student communication. See, for example, (Lardner and Malnarich); (Smith and MacGregor).

d. Others are increasing the use of technology in the classroom.

e. Still, other colleges have started faculty development/professional learning programs that focus on innovation in day-to-day classroom instruction.

Changes and reforms to improve student engagement require substantial financial resources, staff time, and commitment. Innovations are difficult to scale up from one
teacher/one classroom to an entire campus or college; may run counter to prevailing instructional culture; are difficult to implement if the faculty is heavily adjunct; and often are not effectively assessed (Bickerstaff and Edgecombe).

6. **Academic Integrity** - Plagiarism and other forms of academic dishonesty among college students will continue to increase (Campbell). Studies of traditional cheating and plagiarism as well as electronic plagiarism show both are significantly rising. McCabe’s nationwide research shows 70% of students admit to some cheating. Internet use has spiked cheating since students do not properly know how to use it. Experts say that many incoming students are “skilled at and not morally troubled by cheating” (Jaschik, Cheating in College) (McCabe, Butterfield and Trevino).

In order to maintain academic integrity with employers and senior institutions, colleges will be called upon to increase awareness of and efforts to prevent academic dishonesty. Honor codes, educational programs, and detection software have all failed to impact the moral decision-making process to cheat, and students have ready access to the tools to do so.

**Finding 1 - Sources**

**Finding 2 - Sources**

**Finding 3 - Sources**


Finding 4 - Sources

Finding 5 - Sources

Finding 6 - Sources
Trend 2: Funding for higher education, both federal and state, will continue to decline while the demand for access to higher education and student support services will increase.

FINDINGS:

1. **Institutional Support** - MTC has experienced declining contributions from the state of South Carolina in recent years. It is projected that the state will struggle with fiscal stress in the foreseeable future; therefore Institutions of Higher Education (IHE) cannot reasonably expect an increase in state support. It is also projected that growth in demand for other services such as K-12 Education, Medicaid, Social Services, etc., will compete with higher education for limited resources. As a result of the under-funding from the state, it is necessary for IHEs to look at options for providing needed programs and services, including increases in tuition, eliminating programs and services, and managing enrollment. All the options have a negative impact on selected groups of citizens. The fiscal condition of the state has had the effect of limiting access to IHEs (Walker).

IHEs have lost nearly 50% of their base recurring state funding since the beginning of the Great Recession (FY 2008-09). FY 2013-14 appropriations from recurring, nonrecurring, Capital Reserve Fund (CRF) and the S.C. Education Lottery totaled $885.4 million, which was down 1.2% from FY 2012-13. For institutions, funding included an increase of just over $11 million in general fund operating appropriations for select colleges and universities. Non-recurring funding for colleges and universities (including nonrecurring provisos, CRF and Lottery for educational and general purposes) totaled approximately $70 million with $36 million appropriated from the CRF and the Education Lottery for institutional maintenance needs and facilities (2012-2013 SCTCS State Accountability Report).

2. **Student Support** - With 65% of future jobs requiring more than a high school diploma and less than a four-year degree, the South Carolina Technical College System (SCTCS) is educating and training SC’s future workforce. Enrollment increases across the system has averaged 22% since 2008. Unfortunately, declining state resources has placed an enormous strain on the 16 college’s abilities to carry out their missions (2012-2013 SCTCS State Accountability Report). Since Fall 2001, general fund appropriations per student have decreased by 65% and are currently at $2,305. “Given the current economic environment, the technical colleges’ enrollment trend will continue to increase as the South Carolina’s general fund appropriations per student continue to decrease,” according to SCTCS (2012-2013 SCTCS State Accountability Report).

a. **State Funding** - Formula funding from the state is expected to remain flat. In 2012-13, MTC received approximately 15% of needed revenue based on the state’s funding formula compared to 30% of the revenue needed in 2005-06. The college anticipates funding for the Merit Nursing Program to remain stable for the foreseeable future at approximately $0.3 million; down from $0.6 million in 2005-06 (Walker).

b. **State Mandates and Federal Position** - In 2014, The SCTCS established a Performance Funding Formula Review Committee to review and make recommendations on the current Performance Funding Model. This Performance
Funding Model is used for distribution of new state funds appropriated above the base from 2012-2013 to the Technical College System. The model was established in 2011 as a response to Governor Haley’s request for measurement standards for the 33 public colleges in SC. The established measurement standards are: (1) Graduate Placement Rates; (2) Licensure Exam Pass Rates; (3) Persistence Rates; and (4) Underrepresented Populations (Market Penetration: Non-White Students). MTC met the benchmarks in each area, qualifying for the maximum amount of additional funding.

President Barack Obama has challenged community colleges to educate an additional five million students with degrees, certificates, or other credentials by 2020. As state funding for education and other revenue sources continue to decline, now more than ever, there is a need to formulate innovative strategies to address proposed measurement standards at the federal level.

National community college leaders have released two initiatives designed to create a consistent system so that community colleges have a common understanding of what is being used to measure performance. These are the Voluntary Framework of Accountability (VFA) (Phillippe) and the Final Report on the 21st-Century Initiative Listening Tour by the American Association of Community Colleges (Final Report on the 21st Century Initiative Listening Tour).

c. Federal Grants and Student Loans - The Federal Pell Grant Program serves as the foundation of the Federal Student Aid system, with more than 9.5 million students relying on the program to provide access to higher education in 2010–2011. However, the Pell Grant program is in a precarious position, given the substantial increase in the cost of the program over the past three years.

i. The percentage of low-income high school graduates enrolling in college the fall following graduation has risen from 31% in 1975 to 54% in 2009.

ii. Nearly 80% of Pell Grant recipients attending community colleges in 2009–2010 had family incomes of less than 150% of the federal poverty threshold, and 61% were below the poverty threshold for a family of four ($22,050).

iii. The $5,550 Pell Grant in 2010–2011 accounted for just 29% of a student’s estimated total budget for nine months of education (Promoting Educational Opportunity: The Pell Grant Program at Community Colleges).

In recent years, funding for merit-based scholarships has grown to keep pace with increased numbers of eligible students. Current state appropriations allocate 70% of funds for merit-based programs. The balance of funding (30%) is split almost equally between need-based and lottery tuition assistance. For FY 2012-2013, the need-based grant programs lost $2.2 million (2012-13 CHE State Accountability Report).

For the S.C. Need-Based Grant Programs, funding continues to be allocated according to a methodology enabled by the General Assembly in 2008 to ensure that
funds are reaching the neediest students. The change in methodology, which was made permanent in 2011 with the passage of S.172 (Act 24), allows for additional funds to be allocated on the basis of Pell Grant recipients as a measure of financial need instead of enrollment (2012-13 CHE State Accountability Report).

d. **Military and Veteran’s Funding** – As more veterans transition to the civilian workforce, members of Congress are introducing legislative initiatives to both educate as well as provide consumer protection to veterans. These bills are designed to help them achieve their educational goals. Recent bills introduced include the Military and Veterans Educational Reform Act, GI Bill Consumer Awareness Act, GI Educational Freedom Act, and Recognizing Excellence in Veterans Education Act among others (Sander).

In addition, organizations like the American Council of Education (ACE) have created the ACT Veterans Programs. These programs are designed to “promote access to and success in higher education for more than 2 million veterans and their families who are eligible for benefits under the Post-9/11 Veterans Educational Assistance Act of 2008” (American Council on Education - Supporting Student Veterans).

Since 2009, veteran enrollment at MTC has increased 42%. Deborah Godfrey, Veteran Affairs Coordinator at MTC, believes veteran enrollment will continue to increase in the coming years. While funding may be an issue for some returning veterans, Ms. Godfrey believes most veterans will have adequate funding through the Post-9/11 Veterans Assistance Act of 2008. In addition, MTC has benefited from being selected as one of the 94 VetSuccess on Campus (VSOC) sites. The VSOC counselor started in October of 2013 at MTC and serves as a “one-stop liaison” for veterans on campus. This programs runs for two years, after which MTC may renew for an additional two years (Godfrey).

e. **Marketing and Rebranding of MTC** - In 2013, MTC began the first steps in the rebranding effort to “reflect the college’s status as a first-choice, high-quality education provider” (Midlands Technical College). First-choice means that potential students in the MTC service area view MTC as a top choice. First-class means that our marketing, branding and image reflect the high quality that MTC offers (Midlands Technical College). The goals of this effort are to:

i. Improve the perception of the quality and value of MTC, two-year colleges and certificate programs.

ii. Help improve perceptions and remove the stigma associated with technical and manufacturing careers.

iii. Educate the public about the skills gap and how MTC (and technical education) help solve the skills gap, increase employment and promote economic development.

iv. Increase interest in MTC and create a pipeline of prospective students.
particularly in key areas where local employers have a shortage of high-skilled employees (Midlands Technical College).

By December 2014, MTC plans on finalizing the new website as well as unveiling new brand materials.

3. Fiscal and Marketplace Constraints  – Community colleges across the nation are faced with continued pressure to operate more like a business in order to keep tuition fees low, operate in a fiscally responsible manner while responding to market encroachment by for-profit institutions and four-year institutions.

   a. Fiscal Pressures – The enrollment boom at community colleges throughout the nation may be coming to an end. While enrollment at two-year colleges is up by about 22% since 2007, it has leveled off in recent years. According to IPED’s data, between 2011 and 2012, enrollment at two-year associate-degree granting colleges has dropped by 4% (Bradley). This combined with state budget cuts have forced community colleges to become even more fiscally responsible (Fain, Inside Higher Education). According to a survey of college and university trustees, money issues are the biggest challenge they are facing. While two-thirds of trustees feel that their colleges fiscal conditions are “somewhat healthy”, they are concerned with what the future will bring (June).

   b. Fundraising – Deep cuts in state appropriations combined with increased student attendance has forced community colleges to create independent fundraising foundations. These foundations are designed to keep fundraising efforts separate from traditional college finances. By doing so, institutions can increase board leadership and volunteer opportunities for substantial donors. Many community colleges’ have separate foundations that are managed as long-term endowment structures (Nichols).

   According to the Council for Advancement and Support of Education, “donations to colleges, universities, and private elementary and secondary schools rose an estimated 5.1% in the 2013 fiscal year, and fund-raising professionals expected to see that rate increase to 5.2% in 2014 (Troop). Unfortunately, the vast majority of alumni giving are directed to research or doctoral universities. Less than one percent of all dollars donated to higher education goes to community colleges (Marcus). MTC, like many other community colleges, will be challenged to increase its percentage of fundraising dollars.

   c. Increased Competition – MTC is facing increased competition from for-profit colleges, four-year institutions as well as distance online courses from both in-state and out-of-state institutions. Institutions such as Western Governors University and Liberty University have been aggressively marketing their online education programs and have increased enrollment “by at least 15% a year since 2006” (Blemenstyk).

   Within the MTC service area there are five for-profit institutions that compete directly with MTC for students and replicate numerous MTC’ program offerings. Specifically, since 2009, for-profits have dramatically increased the number of
graduates in the Health Information Management and Electronic Engineering Technology programs (EMSI Analyst).

d. **Affordability** – College affordability and student-loan debts are issues that are the focus of legislative discussions at the highest levels of government. U.S. Senate hearings on the reauthorization of the Higher Education Act were meant to focus on campus innovations but quickly shifted to affordability and student-loan debt issues. Sen. Chris Murphy of Connecticut expressed concern that the committee was ignoring the issues of rising costs, and said it was important to examine “how this innovation is going to lead to college costing less for students” (Thomason).

**Finding 1 – Sources**


**Finding 2 – Sources**


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**Finding 3 – Sources**


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Trend 3: The demands for a skilled workforce to meet the changing economic environment will require MTC to maintain and expand its workforce development role through collaborative partnerships with business and industry, local school districts, and post-secondary institutions.

FINDINGS:

1. **Demands for a Skilled Workforce (National)** – National trends continue to show that jobs with the brightest outlook will require some form of postsecondary education. Business leaders and industry experts are calling for an educated and highly qualified workforce that can meet the demands of the growing healthcare, technology, construction, and manufacturing industries.

   a. Nineteen of the 30 occupations with the largest projected employment increases over the next decade typically require some form of postsecondary education for entry. These jobs generally had higher median wages ($57,770) in 2012 and are projected to grow faster (14%) over the next decade than occupations that typically require a high school diploma or less (United States Department of Labor).

   b. Nationally, of the 30 occupations with the largest projected increase in employment over the next decade, five are related to construction and 14 are related to healthcare (United States Department of Labor).

      i. Occupations that do not typically require postsecondary education are projected to add 8.8 million jobs over the next ten years. These occupations employed nearly two-thirds of workers in 2012 (United States Department of Labor).

      ii. Occupations that typically require an apprenticeship, such as a trade skill, are projected to grow 22.2% over the next decade, faster than any other occupation requiring either an internship/residency or on-the-job training (United States Department of Labor).

      iii. Insulation workers/mechanical, helpers – brick masons, block masons, stonemasons, tile and marble setters, helpers-electrical, brick and block masons, and segmental pavers will account for 7.4 million new jobs, almost half of the total projected employment growth (United States Department of Labor).

2. **Demands for a Skilled Workforce (South Carolina)** – Approximately 64% of all occupations within the MTC service area require less than a baccalaureate degree as a requirement for employment. Sixty percent require a minimum of either an associate degree or post-secondary certificate (EMSI Analyst). The need to educate a skilled labor force that can meet the local employment demand will continue to challenge MTC.

   a. Employment opportunities within the MTC service area are projected to increase an average of 1.25% per year over the next 10 years. Employment opportunities for the state of South Carolina are projected to increase an average of 1.36% per year over the next 10 years. According to economists in the Moore School’s Division of
Research, the rate of job growth in South Carolina is expected to increase 1.7% during 2014 (Darla Moore School of Business’ 33rd Annual Economic Outlook Conference). The largest openings/completions gaps will be in the occupations of Computer Programmers, Medical and Clinical Laboratory Technologists, Sales representatives, Wholesale and Manufacturing, Technical and Scientific products, Radiologic Technologists, Training and Development Specialists (EMSI Analyst).

b. Companies choosing to locate or expand a business in South Carolina report the number one challenge is building an educated and highly qualified workforce that is sustainable in a globally competitive economy. Jim Reynolds, Chief Executive Officer of Total Comfort Solutions states, “By sustainable, employers are looking for states and nations that have policies and an education system that will ensure a robust pipeline of students coming through K-12 and 2 and 4 year colleges career and citizenship-ready” (Reynolds).

c. A resurgence of manufacturing is occurring throughout the United States and in South Carolina. Experts are beginning to refer to this as “re-shoring.” The major obstacle in meeting the resurgence of manufacturing in the United States and South Carolina is the development of a trainable and trained workforce (Hartley).

d. Skilled labor is a deciding factor in many business locations and expansions. The skills required for jobs have changed. Technical workers must be creative, knowledgeable, multi-skilled, problem-solvers, and responsive to changes in technology. Having citizens with the right skills are the main way for most communities to compete successfully in a global market (Hoke, Abernathy and Doron).

e. The need for workers in the healthcare industry will continue to grow throughout the United States and in South Carolina. U.S. Bureau of Labor statistics (BLS) estimates that occupations and industries related to healthcare are projected to increase 10.8% during the next decade. Hospitals are among the growing industries within the MTC service area (EMSI Analyst) (United States Department of Labor Bureau of Labor Statistics).

f. Healthcare will become more patient-centered. There is a need for multi-modality technicians who have blended roles in the hospital system. Need for multidisciplinary individual with several skills. Palmetto Health could not continue to operate without MTC. Continue to strengthen education and workforce relationships with healthcare industry leaders like Palmetto Health and others within the MTC footprint (Beaman).

3. Changes in the American Workforce – Experts are predicting that more Americans will be staying in the workforce longer and that workforce participation is expected to slow over the next decade.

a. Experts are predicting that in the coming years as the population ages so will the workforce. U.S. Bureau of Labor Statistics estimates that there are approximately seven million people, 65 or older, currently in the labor force. By the year 2050 that
number will have almost tripled to 19.6 million. In the future, older workers will comprise a larger portion of the workforce (Heidkamp, Mabe and DeGraaf).

b. The labor force is expected to grow 0.5% over the next decade, compared with an annual growth rate of 0.7% over the previous decade. There are projected declines in labor force participation over the next decade. Slower labor force growth is expected to limit potential economic growth (United States Department of Labor).

c. The MTC service area population has grown 7.9% over the past five years as compared to South Carolina State growth of 6% (EMSI Analyst).

4. **Educational Outlook** – Workers must demonstrate competence through attainment of industry credentials, academic degrees or certifications, and soft skills. Fewer and fewer jobs will be available in the future for students without post-secondary education and credentials beyond high school. Even fewer jobs will be available for students not completing high school.

a. The United States continues to maintain a position of leadership in the area of Science and Technology (S&T) but is experiencing gradual erosion. Two factors contributing to this erosion are the rapid increase in a broad range of Asian Science and Technology (S&T) capabilities outside of Japan and the effects of European Union (EU) efforts to boost its relative competitiveness in R&D, innovation, and high technology. Approximately 33% of American undergraduates receive degrees in natural/social sciences and engineering compared to 23% for Japan and 62% for China (2008 or latest data) (National Science Board).

b. In South Carolina, approximately 60% of the population does not matriculate to a four-year college. Soft skills training and WorkKeys testing will continue to grow in the Midlands. In the future, soft skills and WorkKeys testing will be done electronically and become a part of the personnel hiring process in most Human Resources departments (EMSI Analyst).

5. **Education Legislation** – MTC is beginning to realize the impact of legislative educational initiatives implemented over the past nine years. The Education and Economic Development Act of 2005 (EEDA) encompasses several career-based programs designed to assist K-12 students and adult learners matriculate to post-secondary education.

a. Education and Economic Development Act (EEDA) calls for aligning curricula with national career clusters beginning at the elementary school level. The act was fully implemented in 2011. The comprehensive act calls for the establishment of career guidance programs, declaration of student majors or plans, dual high school student enrollment in accredited colleges, and strengthened alignment with college curricula. In 2010–11, the EEDA regional career specialists delivered resources and workshops to over 97,800 students, 32,249 educators, and 10,504 business and industry representatives (South Carolina Department of Education).

EEDA legislation continues to pay for career specialists who provide career
awareness and exploration activities to middle and high schools students. The legislation also established 12 regional education centers geographically matched to Workforce Investment Act (WIA) centers. Most of these are housed in the technical colleges throughout the state (Shaw).

b. The Personal Pathways to Success program works to prepare South Carolinians by improving career, workforce, and economic development through early career planning and individualized curriculum. Over 10,000 8th through 12th graders in the Midlands Workforce Area can work with career specialists to develop individual graduation plans (IPGs), explore the 16 career clusters, and access information on job openings. Parents are encouraged to participate in the programs as well as adults seeking information on education options and training opportunities (South Carolina State Department of Education - Personal Pathways to Success).

c. Common Core State Standards (CCSS) for English Language Arts and for Mathematics were adopted by South Carolina as its standards in July of 2010. The standards will be fully implemented in school year 2014-15. The standards will help students become more college and career ready over the coming years (South Carolina State Department of Education - Common Core Standards).

6. **K-12 Partnerships** - MTC and high schools in the service area are in the early stages of collaboration to increase the percentage of college-going students and retention through curriculum alignment and college credits while in high school. Attention is needed in the following areas:

   i. Alignment of the high school sequence of courses to ensure compatibility with MTC cluster areas (Woodward, Panel Presentation at the MTC Visioning Summit).

   ii. Preparation of high school graduates to participate in the WorkKeys testing.

   iii. Discussions on how MTC will prepare for a new kind of student. MTC will need to be prepared to relate to young people, their interactive learning styles and technology savvy (Woodward, Panel Presentation at the MTC Visioning Summit).

   iv. Improvement in the regional high school graduation rate. Over the past ten years, the high school graduation rate has consistently remained at approximately 75%, meaning that one fourth of high school students are dropouts by their graduation date (South Carolina State Department of Education).

**MTC Fairfield Central Success Center** – The MTC Fairfield Central High School Success Center serves the students and parents of Fairfield County. By partnering with MTC, area high school students are able to connect with employers who “provide career information, professional networking, and work experience for students” (Midlands Technical College). The success center strives to increase student access in the areas of alternative energy, advanced manufacturing, health sciences, as well as information technology.
7. **Post-Secondary Institution Partnerships** – Articulated transfer agreements continue to be important to both students and colleges within South Carolina. Currently, MTC has bridge programs with seven four-year colleges as well as a separate Gamecock Gateway residential program with USC-Columbia (Littlejohn, Cassidy and Wyatt).

MTC Bridge Programs provide opportunities for students to successfully transfer to selected four-year colleges and universities. Students who plan to pursue a baccalaureate degree at a college with which MTC has a Bridge Program agreement can participate in activities that will strengthen their opportunity to seamlessly transfer to a selected four-year college. Bridge program students may successfully complete a minimum of 30 semester hours of college-level coursework to earn the GPA required by the receiving college (MTC Bridge Programs).

MTC’s Gamecock Gateway Program was established in 2012 as a residential bridge program that furthers the successful collaboration between the University of South Carolina and Midlands Technical College. This one year, invitation-only program for first-time college students enables students to complete their first 30 credit hours at Midlands Technical College while living on campus at the University of South Carolina and engaging in university opportunities (Admissions Gamecock Gateway). By year three (2014-15), the Gamecock Gateway program is expected to grow from 157 students to 350 students (Littlejohn, Cassidy and Wyatt).

**Business and Industry Partnerships** - Community colleges have service areas that cover virtually every square inch of the country. This local orientation makes them unique in postsecondary education in that they have a strong commitment to their community. Community colleges maintain economies by partnering with existing business and industry. As businesses continue to grow, they need to expand to better serve their customers. A vital part of expansion is the preparation of skilled workers by community colleges (Mullin and Phillipp).

As the economy continues to evolve, so will the types of jobs that become available. Workers will have to retrofit their current skills, acquire and apply interdisciplinary knowledge and skills, or be able to engage in activities that require an expanded foundation of knowledge (Mullin and Phillipp).

MTC has formed key partners with local companies to ensure the availability of a workforce that matches the skills needs of business and industry. Business partners in this effort include: the Midlands Education and Business Alliance (MEBA), BlueCross BlueShield, Oracle, Colonial Life, Cisco, Pure Power, Electric Co-ops of SC, ReadySC, EngenuitySC, FN Manufacturing, Ft. Jackson, SCANA/SCE&G, Westinghouse, Michelin and all of the service area hospital facilities.

**Finding 1 – Sources**


Finding 2 – Sources
EMSI Analyst. 6 January 2014. 6 January 2014.

Finding 3 – Sources
EMSI Analyst. 6 January 2014. 6 January 2014.

Finding 4 – Sources
EMSI Analyst. 6 January 2014. 6 January 2014.

Finding 5 – Sources

Finding 6 – Sources
—. "Panel Presentation at the Visioning Summit." Midlands Technical College Visioning
http://www.midlandstech.edu/fairfieldsuccesscenter/about.html. 27 February 2014.

**Finding 7 – Sources**


Trend 4: Meeting the needs of a diverse student population will impact the delivery of programs and services.

FINDINGS:

1. **Student Enrollment Trends** - The nation’s college-going population is continuing to grow and change. According to the National Center for Educational Statistics (NCES), a record 21.8 million people are projected to attend college in Fall 2013. This is an increase of 6.5 million or 42%, from year 2000 (National Center for Educational Statistics). The increase is for three reasons:

   a. An increase in the number of people in the traditional college-going age, 18-24;
   b. An increase in the rate of college-going for those 18-24; and
   c. An increase in the number and rate of older Americans attending college.

Just as the college-going age demographics are growing and changing, an increasing number of minorities (African Americans and Hispanics) are attending college as undergraduates (National Center for Educational Statistics). From 2000 to 2011, African American and Hispanic undergraduate enrollments have increased from 13.3% to 15.3% and 10% to 15.2% respectively of the total college going population (National Center for Educational Statistics).

According to IPEDS data, in U.S. public two year colleges, the overall enrollment will have increased nearly 35% from 2000 to 2011, with an increasing number of full time students attending two year colleges. This is due to the rising net cost of education, limiting access at four year colleges (National Center for Educational Statistics).

2. **Student Demographic Trends** - According to the Southern Regional Education Board (SREB), racial/ethnic trends in the 16 southern states mirror those at the national level (Southern Regional Education Board).

   a. **Hispanic Students** - By the year 2020, Hispanics in the 16-state southern region are projected to account for 25% of the high school graduates, second only to the western region in the United States. The college-going rate for Hispanic young adults in the region increased 11% to 35% from 2006-2011. In 2012, the Hispanic population in South Carolina was approximately 250,000, or 5.5% of the total state population (United States Census Bureau). In Fall 2012, 3,214 Hispanic students were enrolled in credit courses at colleges in the South Carolina Technical College System (South Carolina Technical College System). This is 3.2% of the total headcount enrollment in the System. MTC reported to SCTCS and IPEDS an enrollment of 275 Hispanics in Fall 2008 and 372 in Fall 2013, a 35% increase.

   b. **African-American Students** – African-American student college enrollment increased 33% (or 367,000) from 2006-2011 in the 16 southern states the last year IPEDS data for the region was available (Southern Regional Education Board). In the Fall of 2011, African Americans made up 23% of undergraduates and 19% of
graduate/professional-level students across the region. According to the US Census, in 2012, African Americans made up 28% of the South Carolina’s population (United States Census Bureau), but made up 33.8% of the student body of the South Carolina Technical College System. The number of African-American males enrolled at MTC increased from 1229 in Fall 2008 to 1508 in Fall 2013, a 23% increase.

c. **Reverse Transfer Students** – Reverse transfer programs are designed to award associate degrees to community college transfer students who continue their education at a four-year institute. Select universities and community colleges across the country are working together to develop fully automated reverse-transfer degree arrangements. These arrangements allow community colleges to award students, who transfer credits to select universities, associate degrees once they have completed the necessary coursework at their transfer university (Ekal and Kerbs). Sylvia Littlejohn, MTC Director of Enrollment Services writes, “in SC there is little incentive for students to complete the associate degree program” (Littlejohn, Cassidy and Wyatt).

d. **Retraining Returning Students** – Nationally, many graduates with bachelor’s degrees, in areas such as sociology or philosophy, are having a difficult time finding employment in their field of study. They are returning to community colleges to retrain in careers such as radiation therapists, registered nurses, IT specialists, or medical technicians. Associate degrees often take less than two years to complete, are less costly than a graduate degree, and allow for flexibility for those who work full time (Koeppel). Sylvia Littlejohn, MTC Director of Enrollment Services writes, “MTC is now enrolling a significant number of students who have completed their baccalaureate or master’s degrees and are returning to MTC to obtain a technical credential or associate degree that will advance their employability in today’s shifting workforce” (Littlejohn, Cassidy and Wyatt).

e. **Low Income Outreach and Support** – The federally funded TRIO and Community Support Programs at MTC are designed to provide financial assistance and promote academic success. These programs include the Educational Opportunity Center, Educational Talent Search, Upward Bound, and Student Support Services. They are designed to assist “economically disadvantaged individuals, students with disabilities, dislocated workers, single parents, displaced homemakers, single pregnant women, potential first-generation college students and individuals pursing non-traditional careers” (Student Development Services).

3. **African-American Males** - One of the challenges facing community colleges is retaining African-American males through the obtaining of a degree or preparation necessary to transfer to a four-year school. There are a number of factors that affect the persistence of African-American males in community colleges. Wood and Williams examined data from National Longitudinal Data Study for African-American males at public colleges and found that “engagement” plays a part, but environmental factors such as time spent at work, high school GPA, and various social factors also play a role. Curiously, the researchers found
that participation in college extracurricular was a “negative predictor of persistence” (Wood and Williams).

Harper and Kuykendall find that African-American males tend to be less prepared for the challenges of college-level work than their peers (Harper and Kuykendall). They are less engaged in the classroom, in structured activities outside the classroom, and in clubs and other college-based social groups (Cuyjet).

Many public two-year colleges across the country have instituted programs to strengthen African-American male student persistence. While MTC has an African-American male mentoring program, the fall-to-fall retention rates of this group has lagged behind the college’s overall retention rate. Over the past five years, MTC’s retention rate has ranged from 44.9% to 54.9%. During this same time period, the retention rates for African-American males has ranged from 38.1% to 41.2% (Assessment, Research and Planning).

4. Students with Disabilities - Most students with disabilities choose community colleges as their first or only post-secondary education experience (Savukinas).

Sixty percent of students with disabilities attend postsecondary institutions with two-year programs or less (National Center for Educational Statistics). Recent research indicates that students with disabilities choose community colleges over four-year colleges because two-year institutions tend to offer more varied, specialized services for educating students with disabilities while maintaining stronger community linkages (Chang and Logan).

An estimated 681,000 people in South Carolina have a disability, 17.7% of the population age five and over (2005). Colleges are bound to provide “reasonable accommodations” for those identified as needing them.

The challenge to serving MTC students with disabilities has grown enormously in the past five years. The challenge comes in several ways:

a. Legislative changes - A recent amendment to Americans with Disabilities Act (ADA) broadened the definition of a person with a “disability.”

b. Enrollment increases - In 2008-09, MTC reported to the Department of Education that the college served 364 students identified with disabilities. In Fall 2013, MTC served 598 students. Persons with disabilities, who never considered college, are beginning to attend. Finally, de-institutionalization of persons with psychiatric/psychological disabilities have impacted enrollment.

c. Complexity of disabilities - The needs of disabled students are becoming more complex. In 2012, MTC served 15 students on the Autism Spectrum and this increased to 30 students in Fall 2013.

d. MTC resources - Financial resources for disabilities have not increased during the last five years. Technological advances in instruction must be accessible. In addition, students coming from high school, their parents, community providers, and often
members of the faculty and staff do not understand the law and services; professional development needs must also be considered (Morris).

e. Many colleges are vulnerable to being out of compliance with the ADA because their current online programs do not allow full access to students with disabilities (Parry). Dr. Ronald Drayton, Vice President for Academic Affairs at MTC stated, “MTC may have to re-do all of its online programs to come into compliance with the ADA act” (MTC Executive Council).

**Finding 1 – Sources**
National Center for Education Statistics. "Total Fall Enrollment in Degree granting institutions." *IPEDS Table 224. 2012.*


—. "Total Enrollment in Degree Granting Institutions." *Table 228. 2013.*

—. "Total Fall Enrollment in Degree Granting institutions." *IPEDS Table 263. 2013.*

**Finding 2 – Sources**


South Carolina Technical College System. *SCTCS 1-7; Student Fall headcount by IPEDS Ethnicity and Gender.* Columbia, 2013.


*Student Development Services.* 4 March 2014.


**Finding 3 – Sources**


**Finding 4 – Sources**

National Center for Education Statistics. "Total Fall Enrollment in Degree granting institutions." *IPEDS Table 224. 2012.*


—. "Total Enrollment in Degree Granting Institutions." *Table 228. 2013.*
—. "Total Fall Enrollment in Degree Granting institutions." *IPEDS Table 263*. 2013.
Trend 5: As the demand for campus-wide technologies increases, the resources and capabilities of MTC will be challenged to manage and support appropriate information technology services.

FINDINGS:

1. **Growth in Wireless Technology** - Wireless technologies continue to grow in importance to the college community. Students and faculty progressively want more unrestrained network access from classrooms to social meeting areas. Wireless technology can support the college’s mission and provide solutions for accessibility.

   Students arrive with expectations of using mobile apps on their smart phones and tablets to access resources, classes and campus services according to the 24th National Survey of Computing and Information Technology in US Higher Education. Consumer preferences for smart phones and tablets have colleges moving to mobile apps to help integrate these devices into all facets of the college experience. By the end of the 2013-14 academic year, 95% of private universities, 93% of public universities, and 70% of community colleges will implement mobile apps. Additionally, the use of mobile apps in key instructional resources is showing steady gains (Green).

   In its 11th year of polling K-12 parents, teachers and administrators, the 2013 national survey “Speak Up” found that 73% of students would like to use a mobile device such as a smart phone or tablet to look up information online when needed, 69% said they’d like to record lectures or labs for review later, and 61% wanted to collaborate with peers on these devices. Fewer than half of the high school students are currently allowed to use their smart phone in class for academic purposes (Powering the Digital Classroom - Staff Report).

   MTC is doubling its wireless access points, going from 200 to 400, primarily within campus buildings, but has begun to receive requests for outside access as well. Programming manpower has moved from programming college databases to providing more customized web-based services (interfaces) for users. These IT services require new skill sets for staff programmers (Hough, MTC Director of Information Resource Management).

2. **Growth in Web Services** - Web Services requiring XML, Java and .NET programming continue to grow at MTC as more users require web-based interfaces. Web services are programs that run on application servers and are accessed by client web browsers. You can access web services from anywhere you can get an Internet or LAN connection. Programming is very modular, meaning that it needs to be written only once and can be accessed everywhere, making maintenance, upgrading and controlling very easy.

   Web services provided by IT staff or purchased from vendors have greatly increased, replacing client-based programming on local servers. Web-based services (programs) are more efficient and more accessible. The last three MTC Information Resource Management (IRM) hires were required to have web service developer skills (XML, Java and .NET). MTC will be challenged to recruit, hire, and retain IRM staff to address the demand for web services and other programming needs (Hough, MTC Director of Information Resource Management).
3. **Online Technologies** - Podcasts, YouTube, blogs, tweets, and live or on-demand video streaming of content and full lecture recordings are high-growth technology mediums becoming increasingly popular for instruction and campus-wide communication. MTC will be challenged in assisting faculty and staff with the use of this technology while remaining compliant with federal and state regulations as well as MTC policies. Additional college resources along with ongoing faculty development will need to be provided to ensure quality standards are met in the use of technology.

Video is increasingly important for hybrid, flipped, and online courses. Nationally, the impact of video is greater due to increased use in large lower-level undergraduate classes. Most faculty would like to offer video lecture capture (92%), but only 65% do. Approximately 85% of faculty would like to offer audio lecture capture, while only 60% do. The use of YouTube has grown among all sectors of higher education, but community colleges showed the largest gain at 10% annually, going from 42% in 2009 to 85% in 2013 (Green).

A new court ruling requires that all college courses be compliant with the Americans with Disability Act (ADA) regulations at all times. All D2L videos will need to have closed captions. MTC will need to address this and other issues to maintain quality standards and meet all regulations impacting online courses and online materials (Yeoman).

Video streaming can greatly impact MTC’s wireless connections and data network depending on the host site or origin of the materials. MTC’s IRM department reviews peak access patterns. Solutions include external hosting by purchasing space on an external server for specific needs versus purchasing more bandwidth (Hough, MTC Director of Information Resource Management).

4. **Business Continuity** and the technological and human support required to ensure that MTC functions optimally 24/7 is of utmost importance in our ability to remain a leader in providing technical education.

As the continuity of MTC services become more dependent on technology, college divisions will need to work together on contingency plans in case of technology failure. Options range from redundancy systems to external data center duplication that can require substantial capital investment (Hough, MTC Director of Information Resource Management).

5. **Management of Technology** - The deployment and management of wireless technology will become more crucial as more students and staff bring multiple wireless devices, making it harder to provide quality and consistent connections.

The proliferation of mobile devices is becoming more challenging in terms of access and security. As students bring more mobile devices to campus, each device can demand connection to networks impacting current connections and making it harder to provide quality and consistent connections. Options for prioritizing devices per person may need to
be implemented. Security risks are also greatly multiplied by the increase in mobile devices. Options for scanning device status for the latest virus and patch updates before allowing access to campus resource networks may need to be implemented (Hough, MTC Director of Information Resource Management).

MTC must continue to monitor network bandwidth utilization for both Internet and local on-campus (Intranet) networks. Increased use of online delivery of instruction and services will require additional bandwidth capability. Recently, Internet bandwidth has become a commodity and therefore much more affordable. This has facilitated significant improvements over the past five years including increasing MTC’s available Internet bandwidth from 30Mb to a total of 800Mb (Hough, MTC Director of Information Resource Management).

6. **Security of Technology** - Information technology security and protection involves identifying potential security risks and taking steps to minimize the damage and prevent attacks. As software is enhanced and updated, numerous vulnerabilities may be introduced, which can be exploited by both internal and external sources. MTC must continually update security technology and lead efforts to provide best practices and training for the college community to prevent the possibility of attacks.

Attacks on the campus network remain the highest IT security issue. Identity theft is the second most frequent IT security incident. Incidents are also rising in device theft including computer, phone and USB drives (Green).

MTC must continue to educate the faculty and staff on security issues. Access to the college network is possible with only one compromised login. Each user must be vigilant in maintaining the security of the network. An Internet security professional development series was made available online for faculty and staff at MTC starting January 6, 2014. The series includes 23 personal awareness modules and 18 compliance modules addressing FERPA, HIPPA and Payment Card Industry issues (Hough, Cyber Security).

**Finding 1 – Sources**

**Finding 2 – Sources**

**Finding 3 – Sources**


**Finding 4 – Sources**


**Finding 5 – Sources**


**Finding 3 – Sources**


Trend 6: MTC will be challenged to utilize advances in instructional technology, provide instructional design assistance, and implement quality standards as consumer and market expectations become more highly developed.

FINDINGS:

1. **Growth in Online Enrollment, Degrees and Open Online Courses** - MTC faces a growing market of technology-rich offerings in online courses and high expectations from experienced online learners. Online learning has transitioned from just a convenience to a more personalized, on-demand learning tool. It is preferred by students who want more control over their learning experience or seek courses not currently available or offered at their primary institution.

By 2018, there will be more full-time online post-secondary students than students who take all their classes in a physical location, if current trends continue. Online learning was reported as critical to the college’s long-term strategy by 69% in 2012, up from 56% in 2005 according to the SREB report, “Changing Course: Ten Years of Tracking Online Education in the United States” (Allen and Seaman, Going the Distance).

Online learning is advancing at an even faster rate on the K-12 level. In a recent SREB survey, 67% of school districts reported offering online learning, with the percentage expected to reach three-quarters by 2015 (Hoke, Abernathy and Doron). At both higher education and K-12 levels, students are demanding online and blended (hybrid) courses. Currently, four of the five states in the nation requiring online learning before exiting high school are in the Southern Regional Education Board (SREB) region. High schools in the SREB states are making online learning an integral part of education and ensuring students have access to technology as a learning tool (Lynde).

Comparatively, current enrollment in online courses at MTC has dropped 23% from the Fall 2009 level of 3,689 to 2,827 by Fall 2013. In 2009, 250 sections were offered compared to 186 sections in the Fall of 2013. Tracking of hybrid courses began in the Fall of 2010 with 133 sections offered and 1,990 students enrolling. Only 109 hybrid sections were offered in the Fall of 2013 with an enrollment of 1,523. A more detailed examination of this data is needed to determine the reasons for a decline in the numbers (Garner).

a. **Growth in Online Degrees** - Top-rated universities are now launching online learning efforts for both degrees and even certificates of participation. Seven prominent universities, including three in the South—Emory University, UNC at Chapel Hill and Washington University—have formed a consortium called Semester Online. Semester Online will offer approximately 30 online, for-credit courses to students from participating universities as well as others who are accepted and pay a per-course tuition fee (Hoke, Abernathy and Doron).

In February 2013, the online course creator edX, originally founded by Harvard and MIT, announced the addition of six international schools to its roster, bringing its total to 12. Coursera announced the addition of 29 new institutions, bringing its total to 62.
Virtual support groups, study sessions and discussion forums have formed on Facebook, Google+, Reddit and other sites, enabling students to receive help at any hour of the day from peers across the globe. Colleges are finding flexible learning options can be effective recruitment tools as well (Hoke, Abernathy and Doron).

b. **Growth in Open Online Courses** - Open source software and content is growing, supported by federal grant requirements. Open source saves students and institutions money on licensing fees. Perhaps more importantly, open source also promotes collaboration and innovation by inviting users to improve, customize, and build on initial solutions. Some see communities of interest around open software and content as potentially the next hotbeds of innovation for institutions as they seek new paths to address the challenges and opportunities (O’Neil).

Massive Open Online Courses (MOOCs) are showing incremental gains with 51% of colleges in a recent survey seeing them as a viable model for online instruction while nearly 70% are uncertain about their revenue generating abilities. In addition, outsourcing some online education services is well underway. Private universities are more supportive of outsourcing instructional services than their peers (Green).

Florida has determined that MOOCs present a viable alternative to remedial education in college. By 2014, colleges in Florida will no longer be able to require recent high school graduates to take the state’s standard placement test or to enroll in noncredit remedial courses.

The new law builds on previous legislation and essentially pushes the responsibility for remediation back to the public K-12 system (Fain, Remediation if you want it). A 2011 Florida law made college placement testing mandatory for most 11th graders. High school students who don’t make the cut are required to take courses during their senior year that are designed to address remedial needs. While 85% of MOOC students don’t finish the coursework, they have completed enough to improve their placement test scores and start at the collegiate level in their courses (Yeoman).

2. **Implementation of Quality Standards and Content** - Information, media, and technology skills can enhance delivery of core subject content according to The Partnership for 21st Century Skills, a national coalition of business, education and policy leaders focused on 21st century readiness. The Partnership challenges states to “redefine rigor” to think beyond the mastery of core subjects alone to the skills and knowledge that are important for success. Students will also need learning and innovation skills—including critical thinking, communication, collaboration and creativity skills (Hoke, Abernathy and Doron).

Colleges will need to address the growing importance of video in hybrid, flipped, and online courses. Percentages underestimate real numbers of students impacted since much of the activity is in large lower-division undergraduate courses. Most would like to offer video lecture capture (92%), while only 65% currently make this available, most would also like to offer audio lecture capture at 85%, while 60% have this service. Among the higher education institutions surveyed, Community Colleges show the largest gain in the use of YouTube, going from 42% in 2009 to 85% in 2013 (Green). Lecture capture is also
growing rapidly in higher education. Recorded lectures and other content were found to increase student comprehension and test prep, and helped some students score higher on tests (Hoke, Abernathy and Doron).

Digital content, instructional materials and online and blended learning courses will need to be high quality. Colleges will need to go beyond simply overlaying technology on top of traditional teaching practices. K-12 students report their frustration and disappointment with the use of technology at school. Educators will need assistance in thinking through the process and professional development to gain the skills to address the technology transformation (Powering the Digital Classroom - Staff Report). Some state virtual schools were created over 10 years ago; however, the potential of online education is just now being realized and embraced. Secondary schools are recognizing the need to ensure the quality of online courses. As the prevalence and popularity of online courses grow, SREB states are implementing a variety of measures to regulate the quality of online courses and providers (Lynde).

Both online and hybrid (blended) educational delivery methods will continue to grow dramatically. Academic leaders now rate the learning outcomes in online education the same or superior (77%) to those in face-to-face classes. Challenges will continue with the realization that online delivery requires more time and effort on the part of faculty. One out of three academic leaders responding struggle with the acceptance by faculty of the value and legitimacy of online education. Student barriers persist in the areas of self-discipline and retention as well as the acceptance of online degrees by potential employers (Allen and Seaman, Going the Distance).

Computerized simulation will continue to grow as competency-based training becomes essential to skills assessment for employment. This media rich technology requires specialized software, equipment, training for faculty and students, and storage of large files. Simulation is currently growing at MTC in engineering and health science/nursing covering training in the operation of nuclear reactors and caring for human patients. This technology is available in the market for advanced manufacturing and science as well and is becoming more affordable. Delivery of this technology requires the integration of computerized scenarios, technical expertise, interactive digital imagery, video capture, and large file storage.

All MTC faculty teaching online courses are required to complete the D2L training modules for Level One Certification by Fall of 2014. Academic Affairs is in the process of hiring a Director of Online Teaching and Learning to address quality of instruction and accessibility. This person will be looking at existing and new technologies to make recommendations for use and to provide training; help with ADA accessibility compliance; evaluate the pedagogy of MTC’s current online and hybrid courses; and coordinate training for faculty in the best educational technology practices (Carr). Faculty will need support and encouragement to expand their skills in reaching online learners by expanding their technology skills (Yeoman).
3. **Data Analytics** will become more widely adopted in support of broader institutional goals and priorities like improving student choice and success. Performance metrics and dashboards have inspired the use of data to understand how colleges are performing internally and relative to their peers. Using data to understand deeper correlations and causality is the next step in advancing the effectiveness of education (Phillippe).

College data management systems have supported the birth of performance metrics and led to benchmarks and comparisons among college peers. The college has an opportunity to select among emerging programs in accountability metrics such as the Voluntary Framework of Accountability (VFA) discussed in Trend 1: “Funding for Higher Education …” to begin self-assessment, identify challenges, set goals for improvement, and implement evidence-based models.

Leveraging data analytics technology to improve student success is among the top priorities for community colleges according to the 2013 Campus Computing Survey (Green). Data analytics can improve services such as degree planning and advising, provide clearer learning pathways, and user-friendly degree audits showing options or linked postsecondary award options, provide alerts triggering interventions for at-risk students, and other opportunities for improvement across all segments from teaching and learning to operations (O’Neil). MTC has a rich resource of information to support a better understanding of correlations and causality.

4. **The Personalized Learning Pathway** is a product of technology and will continue to grow in popularity with students. The college has the opportunity to coordinate and utilize technology resources to bring the learner pathway to its virtual doors. Harnessing technology throughout the learner pathway can facilitate preparing high school students for college and credit transfer, implement student-success strategies, emphasize greater student engagement, define clearer learning pathways, personalize the learning experience, and provide greater cost-effectiveness. The new level of consumer experience with technology will play a large role in determining their choice of educational institutions.

Learning management systems, like Desire2Learn at MTC, offer numerous intelligent agent tools that can help personalize the online learning experience for students. If they are struggling with homework or test questions, a wrong answer can trigger the “release” of or access to additional information the student can review to get a better understanding of the material. Automated tests can also zero in on a weakness and provide additional problems in that area until mastery is achieved (Yeoman).

Many of the new technologies support study groups for students as noted in the Growth in Open Online Courses section of this report. More than two-thirds of online courses at the community college level use collaboration tools, according to the 2011 Community Colleges Survey (Center for Digital Education and Converge). Virtual support groups, study sessions and discussion forums have formed on Facebook, Google, Reddit and other sites, enabling students to receive help at any hour of the day from peers across the globe (Hoke, Abernathy and Doron).

The 2013 national survey “Speak Up” found that 73% of K-12 students would like to use a
mobile device such as a smartphone or tablet to look up information online when needed, 69% said they’d like to record lectures or labs for review later, and 61% wanted to collaborate with peers on these devices. In its 11th year of polling K-12 parents, teachers and administrators, the survey showed fewer than half of the high school students are currently allowed to use their smartphones in class for academic purposes (Powering the Digital Classroom - Staff Report). As these students matriculate, MTC will be challenged to incorporate these technology skills into tools for student success like personalized communications, diagnostics, assessments, assignments, reminders, due dates, and other customized services.

Technology can support more meaningful connections between MTC and high school students. High school students are interactive learners and technology savvy – they interact differently from students in the past. MTC needs to be ready for a new kind of student and more aware of how the college relates to young people (Woodward, Panel Presentation at the MTC Visioning Summit).

Today’s technology devices have fueled the potential for personalized, hybrid, and virtual learning. The new generation of students wants convenience. Going to class is not a priority if they can get the information elsewhere. Students don’t feel the need to wait for office hours and think the instructors should have virtual office hours. The mentality is anytime/anywhere. Personal learning pathways are becoming part of our culture and especially for this generation (Center for Digital Education and Converge).

5. **Technology Resources in Support of Instruction** - MTC faces an escalating demand for an array of instructional technology resources and services that will require prioritization. Substantial investments will be needed beyond a learning management system to be competitive in this area of education delivery. Additional funding will be needed for faculty training to reach online learners, for instructional design assistance to utilize the growing technology, and for implementation of high standards in content and delivery. In return, online coursework will assist more students in obtaining certificates, diplomas and degrees and help make MTC more competitive in the global education market.

Additional funding will be needed to address the following demands to remain competitive in a growing market of technology-based education options:

a. Mobile application development for multiple platforms, e.g., smartphones, tablets, etc.

b. Scaling technology so every student can benefit from high quality, personalized learning, e.g., MOOCs, Khan Academy’s 4,300 mini-video lectures, virtual high school, advanced placement classes, and other digital resources and services (Hoke, Abernathy and Doron).

c. Support and assistance to integrate technology into instruction.

d. Professional development to meet and exceed quality standards.

e. Skills training for students in technology and access to computers.
f. Infrastructure that supports video, simulation, lecture capture, etc.

6. **Growth in Digital Textbooks** - The definition of a textbook is expanding in state legislation to include digital or electronic resources according to the Southern Regional Education Board (Lynde). While over 90% of colleges report eBook content will be an important source for instructional resources in five years, students remain less enthusiastic about eBooks than publishers. Students are still waiting for eTexts to deliver on added-value AND lower cost (Green).

Only about 2% of textbooks sold at college bookstores are fully digital titles, according to a survey of 940 bookstores run by Follett Higher Education Group. As online education expands, eTexts raise questions about the control publishers have over curriculum and the teaching process. Most publishers are realizing the escalating cost of “producing” eTexts. The latest trends reveal partnerships between publishers and colleges to produce digital content (Young).

Digital textbooks are really software programs built to deliver a mix of text, videos, and assignments and to grade homework. So far, publishers produce only a limited number of titles in these born-digital formats, and the number of professors assigning them is relatively small. As eTexts (courses in a box) continue to improve, instructional delivery options will continue to challenge the role of faculty (Young).

**Finding 1 – Sources**


**Finding 2 – Sources**


Finding 3 – Sources

Finding 4 – Sources

Finding 5 – Sources
Green, Kenneth C. "www.campuscomputing.net/item/2013-campus-computing-survey-0." October
Young, Jeffrey R. "The Object Formerly Known as the Textbook." *Chronicle of Higher Education*
27 January 2013. website.
Trend 7: Pending retirements, continuing dependence on adjunct faculty and contract staff, and geographic expansion of facilities will challenge MTC’s recruiting and hiring practices.

FINDINGS:

1. **Retirement Trends** - Community colleges are in the midst of a transition brought about by the numerous retirements of administrators and faculty members. Many now retiring have worked at community colleges since the late 1970s and 1980s, a time during which community colleges grew at the rate of almost one a week. The rate of retirements has both negative and positive consequences (AACC, American Association of Community Colleges).

   a. The retirement of such large numbers of dedicated leaders and workers will result in a significant knowledge drain.

   b. These retirements may lead to a lack of preparation of potential leaders in the pipeline.

   c. Conversely, the departure of so many people offers community colleges an excellent opportunity to update outdated practices, create new workplace policies, and introduce organizational structures and models that promote greater efficiency.

   d. Vacancies created from retirements may be used to increase diversity in leaders and faculty and to be more reflective of the communities these colleges serve. Colleges are using this opportunity to create more inclusive staffs, and increasingly women and members of minority groups are being selected to fill leadership positions.

   e. This time also provides an opportunity to hire or promote energetic new leaders and workers with new ideas that will help colleges respond to the new demands on higher education institutions (Promoting Educational Opportunity: The Pell Grant Program at Community Colleges).

Of the 370 presidents who responded to the American Association of Community Colleges’ “Compensation and Benefits of Community College CEO’s: 2012 Survey”, about 75% indicated they plan to retire within the next 10 years (43% within the next five years and another 32% the following five years). An additional 15% of the respondents plan to retire in the next 11-15 years. The median age of the respondents was 60 years, with about 50% between the ages of 55 to 64; and 23% between the ages of 65 and 75 (Tekle).

Currently, 33% (76 of 230) of the college’s full-time faculty members will be eligible to retire in the next five years. Fifty-four percent (125 of 230) of the college’s full-time faculty members will be eligible to retire in the next ten years. Thirty-five percent (132 of 375) of MTC’s full-time staff members will be eligible to retire in the next five years; an increase from 25% in 2006. Approximately 48% of the full-time staff are eligible to retire in ten years (Lampe, Stilwell and Moye). (This includes current TERI employees.)
2. **Staff Hiring Trends** - Colleges and universities over the last decade have hired "an explosion of new workers" to fill administrative jobs while relying increasingly on part-time faculty and graduate students to teach students, a new report finds. Spending grew fastest for jobs that involve direct contact with students, such as financial aid, counseling, student activities and health care. The report contrasts with a recent string of studies, including one by the non-profit American Council of Trustees and Alumni, and a 2010 analysis by the Goldwater Institute, a Phoenix-based think tank, that have blamed rising college costs on an expansion of jobs that have little to do with the education of students or discovery of knowledge (Marklein).

   a. The national projected increase in employment for post-secondary administrators from 2012 to 2022 is 15% and for post-secondary teachers is 19%. The average growth rate for all occupations nationally is 11%. The trend for both groups of employees is faster than the national average (Bureau of Labor Statistics).

   b. MTC’s overall employment of individuals in staff positions increased by 14% from fall 2006 (515 employees) to fall 2012 (586 employees). This growth was primarily in the number of part-time/contract employees, which increased from 166 in fall 2006 to 226 in fall 2012; an increase of 36%. Part-time staff now makes up 47% of MTC’s staff employees, an increase from 32% from the fall 2006 level (U.S. Department of Education). This may be explained in part by the opening of new campuses, Batesburg-Leesville and Fairfield, and expansions, Northeast, in the past several years.

3. **Faculty Hiring Trends** - Community colleges rely on a blend of full- and part-time faculty to offer the broadest array of courses to meet varying student curricular and scheduling demands. Adjunct professors, or part-time faculty members, have long been part of community college staff (AACC, American Association of Community Colleges).

   From Fall 2006 to 2012, the number of full-time and adjunct faculty employed at MTC has remained relatively unchanged. While full-time faculty increased from 221 in Fall 2006 to 225 in Fall 2012, the number of adjunct faculty declined slightly from 471 to 467 during the same time period (U.S. Department of Education). The percentage of adjunct faculty remained virtually unchanged from 2006 to 2013 at 68%. This consistency in the data may be due in part to MTC’s implementation of a requirement to increase the faculty teaching load from 15 to 18 credit hours per semester.

   Compliance with federal mandates, such as the Affordable Care Act, will require MTC to review its policies and procedures and adjust its employment practices related to part-time faculty and contractual workers. The strategic plan of MTC’s Office of Human Resources Management focuses on:

   a. Diversity and recruitment practices

   b. Cross-training within college administrative areas

   c. Identifying and developing managers internally by offering leadership classes (Lampe, Stilwell and Moye).
Regardless of the technology or the environment, administration, and organization, leaders need to have strategies and practices for effective change management structures. They need to think beyond providing more hardware, software, and Internet connecting, and instead think about keeping universities and faculty well-informed and trained in the effective use of technology for educational purposes. Institutions must provide faculty with the relevant and current technology tools, best practices, and strategies when appropriate (Keengwa, Kidd and Kyei-Blankson).

Finding 1 – Sources
Lampe, Mary Beth, Jay Stilwell and Tammy Moye. Recent Trends in Human Resources Dorcas Kitchings. 4 February 2014.

Finding 2 – Sources
Marklein, Mary Beth. "College Hiring: Helping Students or Padding Payrolls?" USA Today 5 February 2014: 1. Web article.

Finding 3 – Sources
Lampe, Mary Beth, Jay Stilwell and Tammy Moye. Recent Trends in Human Resources Dorcas Kitchings. 4 February 2014.
Trend 8: Increased emphasis on accountability measures at the federal, regional and state levels will challenge MTC’s ability to document student success, pinpoint areas for improvement and shape funding strategies.

FINDINGS

1. **Factors Driving Accountability** - The U.S. government has made a commitment to lead the world in postsecondary degree attainment. Community colleges have been challenged to educate an additional five million students with degrees, certificates, or other credentials by 2020.

   The United States, by 2018, will have several million fewer degree recipients than the economy needs. Closing this gap requires that more college students gain the knowledge and skills to become productive workers. It also requires that colleges and universities enroll and graduate students from previously underrepresented populations, including minority group, first-generation, and non-traditional-age students.

   Success in the 21st-century knowledge and skills economy will require greater levels of formal education. Employer surveys indicate increased emphasis on hiring individuals with postsecondary degrees, and college graduates entering the workforce will be asked to apply a broader range of skills, think critically, solve problems, utilize existing knowledge, and learn on the job.

   Among the public champions of competency-based education, MOOCs, and other innovations have been President Obama and members of his administration. The President has urged educators to look for ways to educate many more people, and to do so without charging high tuition rates. One way the President has proposed to help students make good choices about college is through a new ratings system in which colleges would be evaluated on such factors as providing access, graduation rates, job success of graduates and more. Students who attend colleges that do well -- compared to others that share their missions -- would be eligible for larger Pell Grants or better rates on student loans (New Leadership Alliance).

2. **Accreditation Reform** – The call for accreditation reform has come from both the President of the United States as well as legislators from both parties. According to the President’s Plan for a Strong Middle Class and a Strong America, released as part of President Obama’s 2013 State of the Union address, Congress should establish, “a new, alternative system of accreditation that would provide pathways for higher education models and colleges to receive federal aid based on performance and results” (White House).

   Senator Marco Rubio of Florida is pushing for an overhaul of U.S. accreditation of colleges, seeking to open up federal student aid to non-traditional forms of higher education as a way to lower costs and broaden access. Senator Marco Rubio called on Congress to push for accreditation reform that would allow for the accreditation of free online courses by states and companies “Action on this issue can and should be swift,” Rubio said, adding that “members of both parties are beginning to realize that for every day we delay bold
accreditation reform, our education system leaves more Americans behind to languish in a dwindling market of low-skill jobs” (Inside Higher Ed).

Accreditation, in the eyes of reformers, needs to change to put higher education on a path of booming innovation that will expand access and lower costs. At the 2014 annual Council for Higher Education Accreditation’s meeting, Senator Tom Harkin, Chairman of the Senate Education Committee, told accreditors that changing accreditation is one way to achieve the goal of promoting accountability for colleges in the Higher Education Act. Additionally Harken stated; “accreditors need to do more to be accountable for how long it takes a student to complete, provide public awareness of what their success rates are, and increase the level of transparency provided to prospective students to prove their effectiveness (Stratford).

Assessment of student learning keeps climbing upward on the national higher education agenda. The many reasons for this include persistent prods from external bodies such as accrediting and governmental entities and, increasingly, the recognition by institutions of the need for more and better evidence of student accomplishment. Employers, policy makers, and governmental officials agree that the nation needs greater numbers of students from more diverse backgrounds to succeed and achieve at higher levels—all of this while at the same time containing and reducing college costs. Meanwhile, regional and specialized program accreditation organizations, the traditional arbiters of quality assurance, are caught in the middle and are under fire from critics, magnifying the external pressure campuses feel. Public and for-profit institutions, more so than private colleges, report pressure to assess student learning from a statewide coordinating or governing board, state mandates, or other external pressures (Kuh, Jankowski and Ikenberry).

During the past decade, pressure from the federal government has resulted in the Commission on Colleges of the Southern Association of Colleges and Schools (SACS) implementing and/or tightening oversight of colleges within its region. These actions include implementing:

a. A major overhaul of its accreditation standards to produce the current “Principles of Accreditation.”

b. A five-year interim review requirement of its accredited colleges.

c. A new Principle that requires colleges to develop a Quality Enhancement Plan (QEP) which focuses on student learning.

d. Additional Principles that assess both student learning outcomes (online learning and the integration of technology must be addressed) and administrative outcomes.

e. Criteria requiring colleges to establish definitions of a credit hour.

f. The revision of its substantive change policy to emphasize compliance with federal regulations (Kitchings).
3. **Measurement Standards – National Perspective** - Lack of commonly accepted performance measures has led to misperceptions and an underestimation of community college effectiveness and contributions. It has also limited the ability of the institutions to identify problems and to set goals for improvement of outcomes. In the past several years, a number of national projects have been advanced to collect data for benchmark comparisons or to develop performance standards. These attempts are varied and will challenge MTC to closely review the offerings to determine the best options. The primary responsibility for assessing and improving student learning falls on (two- and four-year) colleges and universities. Each college and university is encouraged to articulate its specific goals for student learning and prominently announce these goals to various stakeholders and the public (New Leadership Alliance). A sample of the national-level projects follow:

a. Integrated Postsecondary Education Data System (IPEDS) is a system of interrelated surveys conducted annually by the U.S. Department’s National Center for Education Statistics (NCES). IPEDS gathers information from every college, university, and technical and vocational institution that participates in the federal student financial aid programs and completion of all IPEDS surveys is mandatory for these institutions. IPEDS collects data on postsecondary education in the United States in seven areas: institutional characteristics, institutional prices, enrollment, student financial aid, degrees and certificates conferred, student persistence and success, and institutional human and fiscal resources. More than 7,500 institutions complete IPEDS surveys each year.

b. The Voluntary Framework of Accountability (VFA) is a nationally funded project designed to develop a set of appropriate measures to determine how well community colleges are serving students. Thus, the VFA was designed to help community colleges create sector-appropriate reporting formats and share them publicly in the following major categories: Student Cohort Tracking; Career and Technical Education (CTE); Adult Basic Education/GED; and Student Learning Outcomes (Phillippe).

c. The National Higher Education Benchmarking Institute at Johnson County Community College houses three benchmarking projects.

i. The National Community College Benchmark Project (NCCBP) is the largest, most representative, and comprehensive benchmarking initiative for two-year institutions in the United States and was conceived to take a “balanced scorecard” approach to community college benchmarking. The peer comparison tool lets colleges compare themselves to others on student outcomes, cost data, satisfaction and numerous other benchmarks. In 2013, 270 community colleges from across the United States participated in NCCBP.

ii. The Cost and Productivity Project, formerly known as "The Kansas Study", provides discipline-level data and benchmarks on instructional costs and workload. Benchmarks are used for staffing plans, decisions about faculty positions, academic program planning and assessment, and documentation of compliance for accreditation purposes. This project is over a decade old.
iii. The Workforce Training Benchmark Project provides community colleges with national metrics to express workforce division efficiency to internal and external stakeholders. This national initiative benchmarks standardized information from community college workforce education divisions, and 2014 is its initial year of implementation (National Community College Benchmark Project).

d. **The Student Achievement Measure (SAM)** was designed as an alternative system to the federal system for measuring college completion. Six higher education associations (representing two-year and four-year institutions, public and private) have endorsed the project that looks at a number of student cohorts not measured by the federal rate and reporting on multiple success measures for each of them, using different time frames than the federal system. For associate and certificate programs, SAM examines data on: (1) full-time students attending the reporting institution for the first time (including both new students and students who transfer in from another institution) and (2) part-time students attending the reporting institution for the first time (including both new students and students who transfer in from another institution). For each of these groups, SAM would record the students who had: graduated from the reporting institution, are still enrolled at the reporting institution, transferred to one or more subsequent institutions, and have unknown transfer, current enrollment or graduation status. The associate and certificate data would be provided for a period of six years after enrollment, which matches the VFA methodology (Jaschik, Inside Higher Education).

e. **The National Governors Association (NGA)** in 2010 convened a Work Group on Common College Completion Metrics, to make recommendations focused on increasing degree completion at America’s public colleges and universities. Specifically, the work group recommends the following completion metrics: Outcome Metrics: Degrees and certificates awarded; Graduation rates; Transfer rates; and Time and credits to degree. Progress Metrics: Enrollment in remedial education; Success beyond remedial education; Success in first-year college courses; Credit accumulation; Retention rates; and Course completion (Reyna).

4. **Measurement Standards – State Perspective** - In 2014, The South Carolina Technical College System established a Performance Funding Formula Review Committee to review and make recommendations on the current Performance Funding Model. This model is used to distribute 2012-2013 new state dollars above the appropriated funding base to the Technical College System. The model was established in 2011 as a response to Governor Haley’s request for measurements standards for the 33 public colleges in SC. The established measurement standards are: (1) Graduate Placement Rates; (2) Licensure Exam Pass Rates; (3) Persistence Rates; and (4) Underrepresented Populations (Market Penetration: Non-White Students).

**Impact on Funding** – The Postsecondary Institutional Ratings System (PIRS) is a US Department of Education (USED) initiative designed to assess the performance of all institutions of higher education with the stated goals of advancing institutional accountability while also enhancing consumer information. The Department intends,
through these ratings, to compare colleges with similar missions and identify colleges that do the most to help disadvantaged and underrepresented students, as well as identify colleges that are improving their performance. In the upcoming reauthorization of the Higher Education Act, it is anticipated that the President will propose allocating financial aid based upon these college ratings by 2018. The ratings will be available for students who are choosing colleges in the 2015 school year.

State accountability and performance mandates will continue to drive higher education funding. Higher education in the United States is primarily a state and local function, however, the federal government plays an important role. The tax cuts in the current Federal Administration’s 2007 fiscal year budget are projected to cause state governments to lose an additional $38 billion over the next decade. South Carolina stands to lose $693 million as a result of federal tax cut (AACC).

As state funding for education and other revenue sources continue to decline, now more than ever, there is a need to formulate innovative strategies to support the goal of educating an additional five million students with degrees, certificates, or other credentials by 2020. The American Association of Community Colleges in its Final Report on the 21st-Century Initiative Listening Tour proposed several strategies for positioning community colleges to dealing with budget constraints:

a. Higher education outcomes-based funding.

b. A budget reengineering dream team to help colleges design programs in a much smarter way while working with the budgets they do have.

c. Tuition incentive programs.

d. Enrollment caps.

e. Redesigning the institution’s budget as a student success budget (AACC).

Finding 1 – Sources

Finding 2 – Sources

**Finding 3 – Sources**

**Finding 4 – Sources**