A Dissertation

entitled

The Impact of Institutional Support Services, Policies, and Programs on the Completion and Graduation of African American Students Enrolled at Select Two-Year Colleges in Ohio

by

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Submitted to the Graduate Faculty as partial fulfillment of the requirements for the Doctor of Philosophy Degree in Higher Education Administration

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An Abstract of

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Two-year colleges are grappling with need to focus on student success outcomes driven by increasingly strict accountability standards implemented by state and federal government, while at the same time facing declining resources and increasing enrollments of diverse, underprepared students. According to the American Association of Community Colleges (2010), more than 40% of all African American students enrolled in postsecondary education are enrolled in two-year colleges. A review of the literature indicated that improving persistence and completion rates for African American students is a challenge that two-year colleges face.

This study examined whether institutional support services, policies, and programs influenced the completion and graduation of African American students at select Ohio’s two-year colleges. The study examined (a) general institutional interventions, such as advising, mentoring, orientation programs and courses, tutoring, and departments or programs that specifically target African American or other underrepresented students, as well as (b) special programs or staffing configurations dedicated to supporting the needs of African American students.
Two major gaps in the literature were addressed in this study: 1) the impact of interventions on African American completion and graduation enrolled at two-year colleges; and 2) the impact of interventions which specifically focus on the completion and graduation of African American students, e.g. Culture centers, Office of Minority Affairs, or Multicultural Centers.

The researcher’s interest in this study is due to his work in the field of college student retention and student success as well as the desire to gain and share knowledge about the impact of specific interventions in promoting the success of African American college students enrolled at two-year colleges. The researcher’s working knowledge of the subject matter and familiarity with many of the two-year colleges in the population aided in completion of this study; however, to prevent bias, the researcher used the literature and the findings to guide his conclusions.

The research included an observational study in which institutional intervention data were collected using a questionnaire sent to chief student affairs officers (CSAOs) at 14 (61%) of Ohio’s 23 of two-year colleges with an enrollment consisting of a minimum of 5% African American students. The CSAOs were asked whether particular interventions were used at their institutions; if so, these CSAOs were also asked to rate the impact of the intervention on completion and graduation rates for African American students. The respondents were given the choice of rating the intervention as having “no impact,” “some impact,” or “high impact.”

In addition to the survey, institutional data were collected from the Integrated Postsecondary Education Data System (IPEDS) and analyzed to determine whether the
predictor variables influenced the outcome variable, three-year completion and graduation rates of first-time, full-time African American students.

A total of 52 variables, including institutional characteristics, student enrollment, and institutional interventions, were included in this study. The 13 institutional and student enrollment variables were determined based on the IPEDS website, and 39 institutional intervention variables were determined using the questionnaire.

Two of the 13 institutional characteristics and student enrollment variables—(a) the percentage of African American students enrolled and (b) the percentage of African American students enrolled in remedial math and English classes—were found to be significant predictors of African American completion and graduation rates.

A total of 16 of the 39 institutional intervention variables from the survey were rated by the CSAOs as having a high impact on completion and graduation rates. Although the results were not statistically significant, they do reflect relationships that may be of practical significance. The 16 intervention variables were grouped into the following categories for analysis:

- Developmental education/at-risk student interventions
- Early alert/warning systems
- New-student orientation programs or courses for credit
- Advising for first-year students (mandatory)
- Mentorship programs
- Special office or department which targets the needs of African American or underrepresented students
Based on the findings of this study, it can be concluded that the following variables were correlated with African American completion and graduation rates: (1) use of the early alert/warning system; (2) use of supplemental orientation program or course for African American, at-risk, or underrepresented students; (3) implementation of mentorship program for students in select academic programs; (4) implementation of mentorship program for at-risk, African American, or underrepresented students; and (5) use of peer mentors.

A sixth institutional intervention (i.e., special office or department that provides programs or services targeting African American students) was included in the analysis due to the importance of that intervention to this study. Jenkins (2006) has emphasized the importance of interventions that target African American students by stating that “the clearest difference in high and low impact colleges is targeted support and specialized services for minority students” (p. 40).

Although it was difficult to draw a meaningful quantitative conclusion from the findings related to the institutional interventions due to the small size of the sample in the study, the CSAO impact ratings provided information that supports the literature describing the importance of effective interventions in increasing completion and graduation rates for African American students enrolled at Ohio’s two-year colleges.

The findings of this study provided opportunities for further research using a national population of two-year colleges that have a special office or department dedicated to serving the needs of African American students. This approach would ensure a sufficient sample size to make meaningful quantitative conclusions. Further research
may also incorporate follow-up case studies focused on groups of CSAOs and administrators as well as student focus groups.

This research provided a foundation for developing an understanding of specific institutional characteristics that serve as predictors of African American student completion and graduation rates and how impact ratings by key administrators can be used to guide research on the impact of those interventions on African American student completion and graduation rates. This study added to the scarce body of research that has examined the impact of institutional support services, policies, and programs on the completion and graduation rates of African American students enrolled at two-year colleges.
This work is dedicated to the memory of my mother, Beverly Marie Harmon, and to my father, James Daniel Harmon. Both parents always believed in me, and they instilled important qualities in me, such as care and concern for others as well as a strong work ethic—all of which were necessary to persevere and complete this goal. I am also dedicating this dissertation to my daughters, Adrianne Dorothy Harmon and Sydni Marie Harmon. I hope this accomplishment will serve as an inspiration to both of you to reach for your highest goals. Finally, this is dedicated to all of the students and young people I have been blessed to associate with and inspire over the years. It is my desire that this research be added to the body of literature ultimately used to help students achieve success.
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Chapter One
Introduction

For more than 100 years, American community colleges have played a key role in preparing students for additional higher education and the workforce by providing courses in developmental, general, and technical education. Hawley and Harris (2005) have described the historical significance of community colleges, which began when Joliet College became the first public two-year college to offer a core liberal arts education. “In the 1960’s, community colleges, as we know them today, operated a network poised to serve the baby boomers of the 1940’s and the growing economy of the 1960’s” (p. 119).

According to data provided by the American Association of Community Colleges (2009), approximately 1,100 community colleges in the United States enroll an estimated 13 million students both in credit and non-credit classes. As a result, more students are seeking a community college education due to lower costs, increased proximity, and open-access admission policies (Opp, 2002). The demographic characteristics of students who attend community colleges are changing. Recent growth has occurred in the number of high school graduates, and this growth consists of minority students, particularly African Americans and Latinos (College Board, 2008). Fall 2009 enrollment data provided by American Association of Community Colleges show that 44% of all the African Americans enrolled in undergraduate programs at colleges and universities are enrolled in community colleges. In addition, 51% of all Latino students enrolled in undergraduate programs are enrolled in community colleges.
Anticipating these changes, Helfgot (1998) has predicted that “community colleges will serve a greater number of students described as underprepared, underrepresented, and underachieving” (p. 258). Cohen and Brawer (2003) have observed that “ease of access, low tuition, and the open-door policy have contributed to the increased numbers of minority students in community colleges” (p. 56). Cohen and Brawer (2003) have described the following key characteristics of community college students:

- They tend to be 25 years old or older.
- They tend to need remediation.
- They tend to work full time while attending college part time.
- They may not intend to complete a degree at the two-year college.

Chief academic officers surveyed in a study conducted by Cejda and Leist (2006) identified student retention as the most frequently selected challenge facing community colleges. Hawley and Harris (2005) also have reported that many community colleges have identified retention of first-year students as a top strategic priority in their enrollment plans.

The unique mission of providing open-access education to a demographically diverse population with difficult social, economic, and academic needs has presented a challenge for community colleges, which, according to Hawley and Harris (2005), has resulted in the need for community colleges to address the following student needs: (a) increased levels of developmental education and remediation, (b) greater levels of student financial support, and (c) pressure from local and state legislatures to prove the value of community college education during a time of declining resources.
Coley (2000) identified seven key risk factors that contribute to lower attrition rates. These factors include the following: (1) delayed entry, (2) part-time enrollment, (3) full-time employment, (4) financial independence, (5) primary responsibility for one or more dependents, (6) single-parent status, and (7) lack of high school diploma. According to Coley, students entering community colleges are more likely than their peers at four-year institutions to experience each of the seven factors. The ability of two-year colleges to help students overcome these risk factors can be directly linked to the efforts of institutions to measure up to new state and federal government standards that are based on student success. Understanding how to address the low success rates of a growing college population, such as African American students, is one way community colleges can address the needs of this particular student population.

A national retention practices survey conducted by American College Testing (ACT, 2010) was administered to chief academic officers (CAOs) at 3,360 two- and four-year colleges and universities. A total of 83 respondents were employed at community colleges with a African American student enrollment of 20% or higher. The CAOs rated the following 9 out of 42 student and institutional characteristics as having the greatest influence on student attrition: (1) adequacy of personal financial resources, (2) level of student preparation for college work, (3) student study skills, (4) student low socio-economic status, (5) amount of financial aid available to students, (6) student family responsibilities, (7) level of job demands on students, (8) level of student commitment to earning a degree, (9) level of student motivation to succeed.

Aud et al. (2001) in a report titled “The Condition of Education, 2001” summarized the following trends that bring light to student risk factors:
• Disturbing gaps in academic performance and educational participation among different racial/ethnic groups.

• Socioeconomic gaps.

• Necessity of postsecondary institutions to prepare for a record number of enrollments.

• Higher percentage of community college students (63%) as compared to four-year college students (40%) assigned to at least one remedial course.

• Increasing enrollments of students with low persistence characteristics, such as a grade point average of 2.0 or lower; students delaying their college enrollment after graduating from high school; working 35 or more hours per week; and minimal to moderate participation in campus activities.

• Financial planning in ensuring students’ access to postsecondary education.

Budget shortfalls, beginning with the economic downturn in 2009, have resulted in new reviews of state funding formulas that are based not only on enrollment or access but also on student success. The Ohio Board of Regents implemented a new formula for the 2011 Shared State of Instruction funding system (Ohio Board of Regents [OBOR], 2011). A focus on outcomes instead of headcount enrollments highlights the need for improved retention and student success. African American student success can be connected with a college’s success, particularly among institutions with a substantial percentage of African American students.

**Problem Statement and Significance of the Problem**

Retaining African American students presents a challenge for institutions of higher education. African Americans have gravitated toward community colleges as a
gateway to higher education (Lewis & Middleton, 2003). Credle and Dean (1991) identified specific barriers institutions face in helping African American students succeed: (a) lack of orientation to the culture of Black students; (b) lack of awareness of the needs of Black students; (c) the inability to respond to the needs of Black students; (d) inappropriate academic standards for Black students; (e) inability to help Black students survive the complex systems of the institution; and (f) negative attitudes toward Black students by faculty, staff and administrators. Examining the impact of these support programs and services can be useful in efforts to retain and graduate African American students.

Figure 1 displays enrollment and completion data for the 2007 cohort provided by the American Association of Community Colleges (AACC, 2010) and shows that African American students comprised 14% of overall community college student enrollments and 12.8% of associate’s degree or certificate attainment at two-year public institutions. In comparison, White students enrolled in 2007 comprised 59.3% of the community college enrollments, and 66.8% of associate’s degree or certificate attainment at two-year public institutions (AACC, 2010).

![Figure 1. Imbalance of community college enrollment and degree attainment (American Association of Community Colleges, 2010)](image)
Gaps in completion rates, which occur when a cohort of students completes a certificate or associate’s degree within 150% (typically three years) of the normal time to completion, are a cause for concern. The completion rate for African American students enrolled in two-year colleges in the 2007 cohort is 11.9%, compared to the 23% completion rate for White students within the same cohort. Although this achievement data do not represent a large disparity, it is clear that African American students are underperforming when compared to their White counterparts. Disparities such as this will become more important as the enrollment of African American students increases and new accountability standards and budget issues affect institutional funding (NCES, 2010).

**Purpose**

The purpose of this study was to determine whether institutional support services, policies, and programs influence the completion and graduation rates of African American students. The study examined general institutional interventions, such as advising, mentoring, providing orientation programs and courses, and tutoring, as well as departmental interventions that specifically target African American or other underrepresented students (e.g., culture centers, programs, or staff dedicated to supporting the needs of African American students).

The key outcome variable used to define student success in this study was completion and graduation rates for full-time, first-time African American students. The terms “completion” and “graduation” are used interchangeably within this document because some institutions do not allow students who complete certificate programs to participate in graduation exercises; however, they are considered and counted as “completers.”
This study measured the impact of interventions such as programs, policies, and services designed specifically to retain and graduate African American students, as well as interventions that are not specifically focused on the needs of African American students, to identify which interventions, if any, influence completion and graduation of first-time, full-time African American students.

Culture centers or departments that have been created to serve African American or underrepresented students, served as a key point of reference in this study because of their historical role in providing specific services for students from underrepresented groups. The term “culture centers,” for the purpose of this study, refers to departments or programs that contain in their titles the words “African American,” “multicultural,” or “diversity.” Campuses name these centers to reflect different missions and services to student populations on their campuses. A “Black” culture center or a “multicultural/diversity” center offers programs and services that are generally designed to meet the needs of students from underrepresented populations.

The Association of Black Culture centers and the Ohio Consortium of Multicultural Centers served as resource organizations to benchmark and identify programs, services, or departments that provide interventions for African American or underrepresented students at Ohio’s two-year colleges. Although culture centers serve as a primary intervention for underrepresented students, this study included other interventions that focus on success of African American students. A preliminary search conducted by the researcher revealed that four of Ohio’s two-year colleges sponsored a program or service that could be described as an African American, multicultural, or diversity center.
African American students may also serve as the primary population of underrepresented students based on enrollment and the demographics of the campus. Within colleges that offer services or programs specific to the needs of African American students, the level of programming and engagement offered was a subject of data collection in this study. Other programs and services specific to the needs of African American students examined include mentorship programs, staff dedicated to the success of African American students, and interventions devoted specifically to the needs of African American students.

Research by scholars such as Ashburn-Nardo and Smith (2008) and Thompson and Fretz (1991) describes the challenges of African American and other minority students attending predominantly White postsecondary institutions. Additionally, Szelenyi (2001) and Mason (1998) have written articles that focus on retention of African American students at community colleges. This study includes scholarly research highlighting the reasons for low achievement rates among African American and other minority students by describing risk factors, such as lack of academic preparation, lack of financial resources, and being first-generation college students.

More recent research by authors such as Patton (2004, 2006) describes the current struggles faced by institutions with specific interventions (e.g., cultural centers). A review of the literature revealed little research that addresses the impact of focused retention programming on African American students enrolled at two-year colleges.

**Theoretical Framework**

Cross’s racial identity development theory, also known as nigrescence theory (1971), provides a theoretical framework for understanding the role of intervention
programs focused on race in the adjustment of African American students to college, and for addressing development (Evans et al., 1998). Cross’s racial identity development theory describes the stages of Black identity development: preencounter, encounter, immersion-emersion, and internalization. These stages illustrate the process through which African American students may move from a desire to be accepted by Whites to an awareness of events that cause them to acknowledge the impact of racism. Experiences during the “encounter” stage may lead to students’ immersion in African American culture, which then leads to a more developed internalization of racial identity grounded in self-confidence.

For the purposes of this study, the role and impact of targeted interventions aimed at improving retention of African American students was examined through the theoretical lenses of (a) racial identity development and (b) the socialization and adjustment processes of African American traditional-age and adult students attending predominantly White institutions (PWIs).

**Research Questions**

RQ1. What effect, if any, do institutional support services, policies, and programs have on the completion and graduation rates of first-time, full-time African American students enrolled in Ohio’s public two-year community colleges?

RQ2. Do interventions such as specialized programs and services, which focus on the needs of African American students, affect the completion and graduation rates of first-time, full-time African American students enrolled in Ohio’s public two-year community colleges?
RQ3. If the campus has specialized programs or support services for African American students, which specific services, if any, affect completion and graduation rates of African American students?

**Methodological Approach**

The research design consisted of an observational study to determine whether a relationship exists between (a) the outcome variables (i.e., completion and graduation rates) and (b) descriptor and environmental variables (i.e., student demographics, enrollment status, and institution characteristics) and (c) interventions.

Creswell (2003) has provided recommendations about the conditions under which quantitative approaches are most useful:

> When the problem or research problem calls for: a) identification of factors that influence an outcome; b) the utility of an intervention; c) understanding of the predictors of outcomes, then a quantitative approach is best used to test a theory or explanation (p. 18).

The first research step was to develop an online questionnaire, which was subsequently distributed to chief student affairs officers (CSAOs) at 14 (61%) of Ohio’s 23 public two-year colleges. The student population of colleges selected to participate in this study was required to consist of a minimum of 5% African American students. A preliminary investigation of enrollment, completion, and graduation data from the Integrated Postsecondary Education Data System (IPEDS; NCES, 2013) showed that completion and graduation rate data from institutions with less than 5% enrollment of African American students represented an insufficient sample size for reliable statistical
analysis; therefore, those institutions were excluded from the survey and data collection process.

The electronic questionnaire was used to gather information about support services, policies, and programs used at each college as well as the perceptions of the respondents about whether those interventions influenced completion and graduation rates of African American students. Institutions that respond to the questionnaire were also asked to submit additional institutional data. The data collected from the questionnaire were essential in determining whether general services, policies, and programs (as well as services, policies, and programs that target the needs of African American students) influenced completion and graduation rates.

Survey participants were asked to respond to 49 items about interventions that may impact completion and graduation rates. The respondents were asked to rate the impact of the service, program, or policy on the completion and graduation of African American students. Institutional policies, programs, and services that were measured include the following:

- Academic advising.
- Orientation programs and structure.
- Identification of at-risk students before enrollment.
- Tutorial services.
- Early alert or early warning systems.
- Mentoring programs.
- Office, department, or special intervention, i.e., culture center, that provides programs and services focusing on the needs of African American students.
An electronic letter was sent to the CSAOs at 14 Ohio two-year colleges inviting them to participate in the online survey. The Qualtrics electronic survey system provided a mechanism for sending and scheduling follow-up reminder emails. In addition to follow-up emails, the researcher placed a phone call to non-respondents just prior to the questionnaire closing date.

Responses related to the intervention variables on the questionnaire were collected and grouped for analysis based on the impact ratings scores provided by responses from the CSAOs. The variables were grouped based on the following criteria (see Fig. 2):

- Responses were grouped as having a “high impact” on African American completion and graduation rates when 40% or more of the institutions that used the intervention reported it as having a “high impact.”
- Responses were grouped as having “some impact” on African American completion and graduation rates when 90% or more of the institutions that used the intervention reported it as having “some impact.” The “some impact” group includes a combination of interventions with “high impact” and “some impact” scores.
- Responses were grouped as having “low impact” on African American completion and graduation rates when 30% or more of the institutions utilizing the intervention reported it as having “low impact.”

The researcher selected and used the 40%, 90%, and 30% benchmarks as a method of separating and categorizing the results of the impact ratings for analysis. A larger number of responses fell within the “some impact” category due to central
Central tendency bias occurs when respondents become less willing or unwilling to answer with extreme responses, and respondents select responses towards the middle of the response scale, such as “some impact,” even when they normally would be more passionate about a particular answer (Gingery, 2009).

In addition, the respondents to this survey rated the impact of their respective institution’s interventions; therefore, they may have been less likely to indicate that the intervention had “no impact” on completion and graduation of African American students. The statistical significance of the results for each variable was compared to the impact ratings. For example, an intervention may have been categorized as having a high impact, but the results may not reach the threshold of statistical significance (alpha = .05).

**Figure 2.** Impact rating groups.

After the questionnaire data were collected from respondents, institutional data were collected from the Integrated Postsecondary Educational Data System (IPEDS). The
results of the questionnaire did not influence the manner in which the data from IPEDS were collected. Institution and aggregate student demographic variables served as blocking variables used in the study (e.g., enrollment, graduation, completion, and retention rates for the student population as well as institutional descriptor data).

Completion and graduation rates of first-time, full-time students was the outcome variable in this study. An initial inquiry was made through the institutional research offices at three Ohio two-year colleges to determine why the word “completion” was included in reports of graduation rates. Some colleges do not allow students who complete short-term and long-term certificate programs to participate in graduation ceremonies; however, these students are often counted when calculating completion and graduation rates; therefore, the terms “completion” and “graduation” were used interchangeably in this study.

The Ohio Board of Regents (OBR) and the National Center for Educational Statistics (NCES) have calculated completion and graduation rates for students enrolled in two-year colleges based on completion within 150% of the normal time (expected time) for completion. Normal time has been defined as the time necessary for students to complete all requirements for a degree or certificate according to the institution’s catalog (NCES, 2012). This study included completion rates for first-time, full-time students who started matriculating during the fall term of 2008 and completed their program of study prior to the fall term of 2011.

To decide whether to use first-to-second-year retention rates, as opposed to completion and graduation rates, as the outcome variable, the researcher conducted a preliminary verbal inquiry with the OBR Higher Education Information (HEI)
department as well as an email inquiry with the departments of institutional research at all 23 Ohio community colleges to determine whether first-to-second-year retention data by ethnicity were available. Completion and graduation rates by ethnicity were available through the OBR HEI system, but completion and graduation rates by ethnicity were not.

The offices of institutional research at 7 of the 11 Ohio two-year colleges that responded to the email inquiry indicated that they do collect retention data by race and ethnicity; however, at the time that data were collected, there was no central requirement to report that data to the OBR. Four of the seven of the institutions that responded indicated that producing retention data by ethnicity would be very time consuming.

The lack of a central reporting system may have contributed to inconsistent reporting and collection methods, which could have influenced the validity of the research. In addition, two of the respondents to the verbal inquiry indicated that their colleges have a small number of African American students and do not track African American student retention. Completion and graduation rates are reported centrally through the OBR HEI system and are available for data collection. Two similar studies conducted by Wellbrook (1997) and Glenn (2001) used graduation rates as the outcome variable.

The means of the independent or predictor variables were compared using three statistical analyses: (a) analysis of variance (ANOVA), (b) independent samples t-test, and (c) simple linear regression.

The input-environment-output (Astin, 1991) theory provided a framework for the methods used in this study. The interventions provided by two-year colleges represent environmental characteristics that were examined by controlling for the input variables
and determining how the outcome variable would be impacted. Because of the number and variety of variables used, it was important to determine the relationship between the descriptor variables and the outcome variables. Figure 3 displays the conceptual framework of the research design based on the Astin (1991) I-E-O model.

Figure 3. Conceptual framework for research design (Astin, 1991).

The analysis of the data revealed whether or not the existence of institution-sponsored programs, policies, or support services designed to address the needs of African American students had a statistically significant influence on completion and graduation rates. The data illustrated whether these institutional efforts produced the intended result, which is to improve the completion and graduation rates for African American students.

Significance of the Study

Bailey et al. (2005) identified a lack of research that attempts to address the factors that affect outcomes of students enrolled at two-year colleges. Success of African American students enrolled at community colleges will continue to be a challenge as enrollment of these students increase. This study added to the relatively scarce body of
literature that may help determine (a) whether institutional programs, policies, or support services that focus on the needs of African American students actually aid in student success and should be part of a strategy to improve completion and graduation or (b) whether those programs, policies and services have no direct impact on completion and graduation.

The research helped two-year colleges determine (a) whether they should use programs and support services that focus on the needs of African American students specifically or (b) whether they should further develop and steer African American students to programs and services that are not race-focused. Further research utilizing direct student input from interviews and or case studies is recommended to provide a greater depth of information about the impact of interventions.

Limitations, Delimitations, and Definitions of Terms

Limitations.

The following limitations influenced this study:

The first limitation in this research was the fact that first-to-second-year retention data for African American students was unavailable in the OBR HEI system; therefore, it was not possible to include retention data in this study. Secondly, the use of completion and graduation rates affected validity because of the difficulty in establishing a strong causal relationship between interventions and a three-year completion and graduation. Third, chief student affairs officers were allowed to ask other staff members to complete the questionnaire, which could have impacted the validity of the research because responses may vary based on position within the institution. Fourth, chief student affairs officers or other respondents could have provided biased responses to questions about
programs or services designed to retain and graduate African American students in order to cast a favorable light on their respective program or institution. Fifth, resources such as time and funding to cover costs associated with contacting the two-year colleges to collect follow-up qualitative data were limited. Sixth, differences in two-year college missions (e.g., technical colleges, transfer colleges, etc.) and student educational goals and enrollment patterns (e.g., transfer, stop-out, complete technical program, etc.) may have influenced the validity and reliability of the results when comparing completion and graduation across institutions. Seventh, preliminary inquiry determined that only 4 of the 23 two-year colleges in Ohio had specific programs or institution-sponsored interventions that specifically focused on success of African American students, e.g., culture centers, dedicated staff members, or dedicated departments, and the researcher was unable to locate a national database of these services and programs. Eighth, the small sample size made it difficult to make meaningful quantitative conclusions.

**Delimitations.**

Delimitations provide boundaries for the scope of every research project. The following delimitations were established for this study:

- Completion and graduation data were focused on first-time, full-time students graduating within 150% of “normal time,” as defined by the National Center for Education Statistics.
- Institutions with less than 5% enrollment of African American students were not included in the study because the completion and graduation rate data were too small to draw meaningful conclusions.
Definitions of Terms.

*African American or Black.* “A person having origins in any of the Black racial groups of Africa” (The United States Office of Management and Budget, 1997). For the purposes of this study, these terms will be used interchangeably.

*Chief Student Affairs Officer (CSAO)*—“Individuals who are on the first line of administration within the student affairs unit on campus” (Woodard, 2009, p. 3)

*Completion Rate or Graduation Rate*—“Percentage of first-time, full-time degree-seeking enrolled students who graduate after 150% of the normal time for completion (three years for a two-year college)” (National Center for Educational Statistics, 2012, Online Glossary, “C” section)

*Culture Center*—“Department or program at a college or university designed to help underrepresented students enrolled on Predominantly White campuses to cope with the alienation, loneliness, and isolation so many of them often historically felt and still tend to feel” (Princes, 2005, p. 74.). “Culture centers may provide programming, academic support, research resources, and social outlets for students from underrepresented groups, or students from the predominant culture.

*First-Time Student*—A student attending any institution for the first time at the undergraduate level. This status includes students enrolled in the fall term who attended college for the first time during the prior summer term. It also includes students who entered with advanced standing (college credits earned before graduation from high school) (Common Data Set, 2012, p. 29).
**Full-Time Student**--“A student enrolled in 12 or more semester credits, or 12 or more quarter credits, or 24 or more contact hours per week per term” (National Center for Educational Statistics, 2012, Online Glossary, “F” section).

**Minority**--A group defined for reporting purposes in the 2010 United States Census (U.S. Census 2008) as people who reported their race or ethnicity as something other than White (White alone or single race White in the Census 2000).

**Multicultural/Multiculturalism**--“A system of beliefs and behaviors that recognizes and respects the presence of all diverse groups in an organization or society, acknowledges and values their socio-cultural differences, and encourages and enables their continued contribution with an inclusive cultural context that empowers all within the organization or society” (Rosado, 1996, p. 2).

**Persistence**--“The percent of entering students graduating or persisting at an institution” (Wyman, 2007, p. 32).

**Remediation**--“Instructional courses designed for students deficient in the general competencies necessary for a regular postsecondary curriculum and general education setting (IPEDS, 1995)”

**Retention**--The National Center for Educational Statistics (2012) has defined “retention” as the percentage of first-time, full-time degree-seeking students enrolled in the previous fall who either re-enrolled or successfully completed their program prior to the subsequent fall term.

**State Share of Instruction**--The formula used to distribute the bulk of state money provided to Ohio’s public colleges and universities (Ohio Board of Regents, 2010).
Stop-Out--“A stop-out occurs when a student leaves for one or more terms and returns” (Lillibridge, 2008, p. 23).

Underrepresented--The College Board (2011) has stated that “defining who is underrepresented may vary by institution, but in the context of race and ethnicity related policies, consideration should be given to defining this term with respect to groups of students of whom there are insufficient numbers to establish a critical mass that will advance the educational benefits of diversity” (Access and Diversity Toolkit, para. 11).

University Parallel--Also referred to as a “transfer program,” this degree is designed for students who plan to complete their first two years of college work at an Ohio community college and then transfer as juniors or seniors to other Ohio institutions of their choice (Ohio Board of Regents).
Chapter Two

Literature Review

A review of the literature in this study focused on the following major themes: (a) the adjustment and socialization of African American students attending predominantly White institutions (PWIs), (b) retention and persistence of African American students attending two- and four-year colleges, (c) programs and services aimed at improving success of African American, (d) creating a multicultural climate that embraces diversity, and (e) the history and purpose of Black culture centers.

Psychological Adjustment and Socialization of African American Students

Research within the literature based suggests that problematic issues surrounding the adjustment and socialization of African American students attending PWIs are often connected to racism, and much of this research has explored the reasons why African American Students often socially segregate themselves. In a study conducted by Fisher and Hartman (1995), African American students commented on the importance of sticking together as a source of security and as a way to maintain a sense of racial and ethnic identity. Fisher and Hartman (1995) stated that “social segregation has provided Black students with a sense of solidarity and the empowerment derived from common interests and collective goals” (p. 125).

Reynolds and Pope (1994) have suggested that racism involves...

...both prejudice against people of color and possessing the political, social, and economic power to reinforce that prejudice. Racism always exists at individual, cultural, and institutional levels, and can be both conscious and unconscious. (p. 2)
Racism on a college campus may manifest itself in different ways. African American students have reported everyday experiences with prejudice and racism through what Ashburn-Nardo and Smith (2008) have referred to as “micro aggression,” whereby African American students are the target of prejudiced verbal expressions, poor service, racial profiling, staring, and low or negative expectations resulting from stereotypes.

The impact of racial socialization and how it buffers racism is important in understanding why African American students may choose to segregate themselves. Racial socialization theory has been defined by Bynum, Burton and Best (2007) as the process of African American parents teaching their children about issues of race using multiple direct and indirect messages about culture, history, and the realities of racism.

Bynum, Burton, and Best (2007) investigated two types of racial socialization messages in their study: (a) messages focused on cultural pride and (b) messages focused on reliance of cultural resources to cope with racism. They found the messages based on cultural pride did not buffer students from the effects of racism. However, they found partial support that showed messages focused on reliance of cultural resources—e.g., religion, extended family, and organizations—did relieve some levels of cultural stress.

Racial socialization theory has been connected to prominent racial identity models developed by William Cross (1971). Cross’s racial identity theory, also known as nigrescence theory, or “becoming Black,” describes a negative-to-positive stage of racial identity. It features five developmental stages that can be impacted by racial socialization: (1) pre-encounter, (2) encounter, (3) immersion-emersion, (4) internalization, and (5) internalization-commitment. Racial socialization can influence
how African American students respond to the encounter stage and the immersion-emersion stage when they experience negative racial experiences and respond by immersing themselves in their own culture.

It is important to examine the impact of racial identity development among adult students because two-year colleges enroll a substantial number of adult students. Phinney (1990) has stated that the developmental model assumes that as individuals increase in age, they are more likely to achieve ethnic identity. Although there is little empirical evidence to support this claim, according to Phinney (1990), it is reasonable to suggest that there is a developmental progression in adults, much like there is in traditional-age college students.

Chavez and Guido-DiBrito (1999) offered several recommendations to educators designed to help promote identity development which include, “the creation of positive multicultural communities by teaching in authentic, relational, and self-sharing ways, by encouraging nonjudgmental processing of multiple perspectives, and by facilitating a sense of respectful community within the learning environment” (p. 46). Gardner (1997) has described how educators can benefit all type of learners “by creating learning environments that balance different cultural norms, such as designing collaborative and individual tasks; encouraging reflective and discussion activities; and using visual, written, relational, and other types of learning styles” (p. 45). In addition, Chavez and Gudio-DiBrito (1999) have offered the following suggestions for creating an educational environment that fosters multicultural learning for adults:

- Learning environments must be inclusive of all multicultural ways of doing, bases of knowledge, perspectives, and styles of educating.
A strong learning community must be created that honors, supports, and challenges each learner to provide unique contributions.

Anglin and Wade (2007) contend that colleges should develop an understanding of racial socialization and the impact of racism to help students develop a more inclusive racial identity whereby African Americans and other minorities feel connected with other cultural groups. In other words, colleges should foster the development of multicultural environments that promote development through Cross’s latter stages of internalization and commitment.

The goal of these academic environmental efforts is to ease the adjustment by providing a strong sense of connectedness and belonging. African American students can develop commitment by demonstrating bicultural competence. Bicultural competence imposes the burden of being able to develop a dual identity that often is required for African American students to navigate a predominately White campus while maintaining their African American identity (Rodgers & Summers, 2008). Tinto (1993) has indicated that bicultural competence helps African American students socially and academically integrate into the campus community (as cited in Rodgers & Summers, 2008). Essentially, these students not only carry the normal stresses associated with attending college (academic, financial, social), but they also have to face racism and rely on coping skills derived from racial socialization and bicultural competence.

Thompson and Fretz (1991) have theorized that African American students have developed bicultural adaptive variables--i.e., strategies--to help them cope in a predominantly White environment. Social bonding, group cohesiveness, and a willingness to understand Anglocentric stimuli, while maintaining stimuli relevant to the
African American experience at the same time, serve as coping strategies. It is important to note that these characteristics may not be displayed by all African Americans. For example, Maiter, Joseph, Shan, and Saeid (2013) have suggested that some African Americans may reject being identified with other African Americans for fear of being labeled, or they simply may not feel a need to affiliate. These individuals may have no difficulty interacting with Whites in a predominantly White environment and may not perceive a need for race-based social support systems.

Parker and Jones (1999) developed a multivariate model that provides a framework for understanding how African American students function psychologically and academically at a predominantly White campus. The model consists of four key components:

- **Background Variables**: Students’ background experiences and beliefs.
- **Sociocultural Orientation**: Behavioral preferences, perspectives on social issues, attitudes about racial identification, intra-racial and interracial interactions.
- **Minority Status Stress**: Stressors, actual or perceived, of African American students, such as feelings of racial discrimination, distrust of Whites, and insecurities associated with being an ethnic minority.
- **Psychological and Academic Adaptation**: The outcome variable impacted by background, sociocultural orientation, and minority status stress.

One example of a background variable is African Americans’ initial self-efficacy. Self-efficacy is an entry characteristic found in Bean and Eaton’s psychological model of retention (Rodgers & Summers, 2008). Bandura (1997) defined “self-efficacy” as the
“belief in one’s capacity to organize and execute the courses of action required to produce given attainments” (p. 3). Although initial self-efficacy is an entry characteristic, also defined as an input variable in Astin’s (1991) input-environmental-outcome model, positive self-efficacy can serve as a coping mechanism against negative environmental interactions and experiences. Bean and Eaton (2000) described four interactions African American students face in the college environment: bureaucratic, academic, social, and external. These four interactions, when mixed with entry characteristics, can influence attitudes toward the institution.

Bean and Eaton (2000) expanded Tinto’s sociological approach, which focused on the value of academic and social integration. While Tinto focused on how bicultural adaptation can lead to better academic and social integration, Bean and Eaton incorporated a psychological approach that focuses on academic and social integration as a way to increase positive self-efficacy, which can result in more positive attitudes and better persistence. Bean and Eaton (2000) suggested that interactions on and off campus can influence students’ psychological processes, and those sets of interactions may be associated with an outcome, such as retention.

Bailey et al. (2005) provided an analysis of the institutional characteristics across different institutions that influence student success—an analysis that differentiates Bailey et al.’s model from Tinto’s student integration model (1993) and Bean’s original student attrition model (1985), which focus on single institutions.

Sociocultural orientation can be determined through (a) racial identity and pride in one’s racial or ethnic heritage, (b) avoidance of Whites, and (c) feelings of rejection or alienation from one’s own racial group. Typically, students will encounter hostile
interactions, racist experiences, or general stress from being a minority, before and or during their college experience, which leads to immersion-emersion in Black culture, and avoidance of Whites as the more dominant culture.

Thompson and Fretz (1991) have described African American and minority student stress in detail. They conducted research suggesting that “Black students perceive greater racial tension and hostility, express lower levels of satisfaction with the institution, experience greater levels of isolation, and feel less identified with the institution than do White students” (p. 437). These perceptions can be attributed to background differences. For example, African American students tend to be from lower socioeconomic levels and are less likely to attend college preparatory high schools, more likely to achieve lower grade point averages and standardize test scores, and less likely to have parents who have completed postsecondary degrees (Thompson & Fretz, 1991).

Parker and Jones (1999) have explored the relationship between minority status stress and psychological and academic adaptation. These authors have focused on the importance of social support resources as a way to mediate the impact of minority status stressors. Parker and Jones (1999) found evidence which supported the linear relationship between social cultural orientation and minority status stress experienced, which impacted students perceived social support and adaption to a predominately White campus.

**Student Success and Retention among African American Students**

**Attending Two-Year and Four-Year Colleges**

Student success and retention among African American students are influenced by their ability to adjust psychologically, academically, and socially to the environment at
PWIs. Credle and Dean (1991) stated that evolving demographic characteristics, including a declining number of White students, traditional-age students, and middle-class students, coupled with an increasing number of minorities, lower-income students, and non-traditional-age students, will dictate the need for different institutional strategies that call for increased recruitment and retention of these students. Understanding how to help African American students and other minorities succeed is very important for institutions because more underrepresented students enroll in college as a result of demographic changes.

Research is readily available that compares how African American students succeed compared to White students, particularly those attending four-year colleges and universities. Allen (1985) conducted a unique study of African American student retention by comparing successful African American students to unsuccessful African American students. Allen’s study focused on how African American students adapt to college by measuring a combination of institutional and individual variables. Allen (1985) suggested that it is important to blend individual and institutional variables and to focus research both on factors internal to the student as well as characteristics of the institution. This approach provided a research framework for this study because of the focus on the characteristics that African American students enrolled at two-year colleges bring to the institution and the impact of the environmental and institutional characteristics.

Studying retention of African American students enrolled at two-year colleges can be complex because of differences in institutional characteristics, student characteristics, and student goals. Retention studies need to account for variations in student
characteristics and institutional characteristics. The number of non-traditional students could influence the results of retention studies because research has indicated that non-traditional students face particular challenges which impact persistence (Walleri, 1981; Wynman, 1997; Lilibridge, 2008). If the data are available, retention studies should include variables such as the type of institution as well as whether the student intends to transfer, complete an associate’s degree, or complete a certificate program. Educational outcomes differ for students attending two-year colleges; therefore, measures such as graduation rates are not always appropriate for the entire population of two-year college students (Cejda & Leist, 2006).

Wild and Ebbers (2002) examined the difficulty that researchers have experienced when investigating African American students attending two-year colleges. They observed that most retention studies focus on traditional students in residential settings. Pascarella and Terezini (1998) estimated that roughly only 5% of studies focus on community college students. Jenkins (2006) also observed that very little research has focused on the institutional effectiveness of two-year community colleges.

One of the recommendations researchers have offered for two-year colleges is to start by carefully defining the concept of “retention.” Walleri (1981) has offered an alternative to the university-based definition of “retention,” suggesting that retention should be defined as “program completion.” This definition encompasses students who are completing associate’s degrees, certificates, or programs with the goal of preparing to transfer.

Bailey et al. (2005) have addressed the problem of tracking students who transfer from two-year colleges to community colleges by using individual student transcript data
from the National Education Longitudinal Study of 1988 (NELS, 1988). This provides researchers with a mechanism to track students as they move among institutions. In their study, “transfer,” regardless of whether accompanied by a degree at the transfer-out or transfer-in institution, was included as a positive outcome for community college students (Bailey et al., 2005.)

More recently, institutions that decide to acquire individual student data may use the National Student Clearinghouse (Romano & Wisniewski, 2003) to track student movement and report transfer rates with some level of reliability for cohorts of students. More than 3,300 postsecondary colleges and universities enrolling over 96% of the students in public and private institutions participate in the National Student Clearinghouse (National Student Clearinghouse, 2012). Although Clearinghouse data were originally limited to transcripts from students receiving federal financial aid, the number of students in the National Student Clearinghouse is large. Romano and Wisnieski (2003) stated, “Participating colleges provide the Clearinghouse with regular updates on student enrollments for almost all students, not just those on financial aid” (p. 8). Institutions tracking first-to-second-year retention may consider transfer rates to get a more complete picture of student outcomes.

Wyman (1997) offered an alternative method of defining “retention,” which was by measuring the “persistence rate,” which has been defined as “the percent of entering students graduating or persisting in their students at an institution” (p. 32). Lillibridge (2008) added complexity to the process of defining retention by identifying the need to account for a common occurrence that exists with two-year college students, called “stopping-out.” A stop-out occurs when a student does not attend college for one or more
terms and then subsequently returns. Stop-outs are more common among two-year college students than they are among four-year college students because of the higher rate of non-traditional students who experience issues with family, jobs, and finances.

To properly account for the differences in definitions of “retention,” Wild and Ebbers (2002) recommend that two-year colleges carefully examine three factors when defining retention: (a) the initial indication of the student’s goal, (b) periodic verification or adjustment of the goal, (c) persistence of the student toward the goal.

Willingham (1985) suggested that high school academic performance was the most important factor in predicting college grades, followed by standardized test scores and high school grade point average. Glenn (2001) has supported Willingham’s assertion that GPA is the most accurate predictor but also has stated that students with lower Standard Achievement Test (SAT) scores are more likely to leave. Glenn (2001) also has stated that “Black students correlate greater financial need and lower SAT scores, which tend to result in more Black students dropping out of school than Whites” (p. 21).

Hagedorn, Maxwell, and Hampton (2001) blocked pre-college variables such as age, parents’ level of education, years of high school, high school GPA, highest level of math, and years of science to determine the correlates of retention for African American males. Of all the variables in the pre-college block, high school GPA was a significant predictor of retention. These results are supported by Willingham’s (1985) earlier research, which suggested that “the most important factor in the prediction of college grades was a student’s academic performance in high school and their cumulative GPA” (p. 121).
Hawley and Harris (2005) also have pointed to economic factors as a major determinant of persistence for students attending two-year colleges. These researchers used data from the National Postsecondary Student Aid Survey, which found that two-year students were 18% less likely to persist for each $100 increase in tuition. The survey showed that students are more likely to persist if financial support is available to them. In other words, the socioeconomic status of many two-year students plays a major role in their persistence.

Coley, (2000); as well as Schimid and Abell (2003) have identified seven significant risk factors related to student demographics that can negatively influence persistence: (a) delayed entry, (b) part-time enrollment, (c) full-time work, (d) financial independence, (e) having dependents, (f) single parenthood, (g) and enrollment without a high school diploma.

Hawley and Harris (2005) also have identified factors and actions that could increase persistence, such as goal attainment and aspirations. While students may bring aspirations to college through their previous experience with socialization, aspirations and goal attainment also can be developed during college. Voorhees and Zhou (2000) found that “students who mapped out their educational plans, established goals or benchmarks, and effectively managed their college course load had greater persistence in college” (p. 122).

Voorhees and Zhou (2000) also have suggested that students who had a strong support network, enjoyed their college experience, established social connections, and performed well in their first academic term were more likely to persist. These researchers
also noted that institutional commitment to first-year students was related to higher rates of persistence.

Hawley and Harris (2005) identified four additional factors as impediments to student persistence:

- Starting date of the enrollment process--i.e., persistence is negatively impacted when students begin the enrollment process closer to the start of the term.
- Employment obligations.
- Childcare needs.
- Length of time between high school graduation and college entry.

Furthermore, Newman and Newman (1999) provided three key factors related to degree completion: (a) factors that precede college enrollment; (a) factors related to the college or university--e.g. environment, policies, and outreach; and (c) factors related to personal development, such as identity resolution and the ability to handle/balance the demands of school, work, and family (as cited in Hawley & Harris, 2005).

Success rates for students enrolled in community colleges reflect the challenges associated with diverse student types and backgrounds, such as low income, higher numbers of non-traditional students, part-time enrollees, and more minority students. McClennegy (2009) has provided the following statistics that illustrate the difficulty of achieving two-year college student success:

- Approximately 14% of students who begin their studies at community colleges do not complete a single credit during their first term.
• At least a quarter of entering fall-term students do not return for the next term; almost half, on average, drop out by the next fall term.

• Just fewer than 30% of the students have earned an associate’s degree after three years.

• Fewer than half of community college students, who intend to earn an associate’s or bachelor’s degree, or transfer to a four-year college, actually do so within six years.

Students who enroll in developmental education courses, also known as remedial courses, also face challenges to complete their program of study. The Center for Community College Student Engagement (CCCSE, 2012) has stated, “The longer it takes a student to move through developmental education, the more likely he or she is to drop out” (p. 14). Muraskin and Wilner (2004) have agreed with the conclusion that students enrolled in developmental education graduate at a lower rate than those who start in college-level courses. Bailey and Alfonso (2005) stated that “although students who start in remedial courses tend to have weaker academic skills, it is possible that the remediation was effective and the students could have performed worse without it” (p. 14). These challenging conclusions apply generally to all two-year college students but do not take into account specific African American or minority student retention data. Wild and Ebbers (2002) have recommended strategies to address overall retention: (a) develop retention indicators, such as early alert tracking; (b) create learning communities and other cohort groups; (c) develop specifically directed retention programs; and (d) develop tutoring programs and supplemental instruction.
Schwartz and Jenkins (2007) described how an early alert system can be used to improve persistence and student success with developmental students:

Developmental faculty and staff send alerts to administrators or counselors about students in need of extra help. Staff can move swiftly to provide the appropriate academic or personal support, and monitor students to be sure that they are benefitting from the supports. (p. 19)

Rodgers and Summers (2008) have defined campus climate by “current perceptions, attitudes, and expectations that define the institution and its members” (p. 176). According to Cabrera and Nora (1999), minority students tend to perceive a more generally negative campus climate, racial climate, and academic climate compared to White students. As a result, other researchers have supported the need to address campus climate by creating a sense of belongingness:

African American students’ sense of belongingness to the institution is negatively impacted by their perception of a hostile climate. Belongingness and connectedness are affiliated with students’ social acceptance and professors’ pedagogical caring. Therefore, if students are disconnected and do not feel like they belong, they are less likely to be retained. (Freeman et al., 2007, p. 176).

Institutions that recognize the need to create a warm climate and foster a sense of belongingness create opportunities to help African American students meet their specific involvement, financial, and academic performance needs. Culture centers, mentorship programs, minority clubs and organizations, workshops, and specialized academic initiatives are examples of outreach efforts designed to improve student success.
Groups such as African American-centered organizations, with or without support of the institution, may rely on their own efforts to increase connectedness. Subcultures, also called enclaves (Kuh & Love, 2000), allow African American students to bridge the cultural distance between the African American community and predominantly White campus communities. These organizations provide support and seek to make the academic environment more welcoming and comfortable. Institutions that provide a welcoming environment and special support recognize the stages of racial identity development described by Cross (1971).

Lewis and Middleton (2003) conducted a review of articles published in the *Community College Journal of Research and Practice* (CCJRP) from 1990 to 2000 and identified a variety of environmental factors that exist at institutions that foster success of African American students enrolled in community colleges:

- An established childcare facility on campus increases African American students’ persistence toward their academic goal.
- College counselors who focus on helping African American students identify their goals foster greater academic success.
- Involving family members and significant others in educational experiences helps ensure connection to the campus environment.
- Proactive approaches help African American students succeed, such as coordinated advising, workshops, links to student services, and mentoring.
- Counseling and advising, involving family and significant others, and initiating proactive programs and services are all strategies that can be focused on the needs of African Americans or other minority students. Lewis and
Middleton (2003) also have emphasized the need to increase the diversity of faculty members and administrators as a way of overcoming racism in community college environments and providing role models that students can look up to.

Community colleges have devoted resources specifically to addressing the needs of African American males. Mason (1998) conducted a study of King-Kennedy College in Chicago, a two-year college with declining success rates for African American males. The study identified the variables that had the greatest influence on persistence. Educational goals served as a background variable and were reported to have a strong connection with persistence. Higher levels of certainty of educational goals were linked with lower absenteeism, longer hours of study and higher grade point averages.

Colleges that devote resources to career advising and mentoring could see positive results with retention of African American males based on the research in Mason’s study. Other variables in the study that significantly influenced persistence were encouragement from important individuals and other supporters; utility, or the belief that achieving the educational goal would improve the future; and the “helplessness/hopelessness” factor, which is a belief that no matter what students do, they will not be successful or get a job (Mason, 1998).

The Kennedy-King College study illustrates the importance and value of utilizing counseling, mentoring and involving families, and offering special programming that helps create confidence and self-efficacy. Bush and Bush (2005) also recommended that community colleges focus on the needs of African American males by implementing formal mentorship programs and by establishing learning communities and cohorts.
As a result of Mason’s (1998) research, King-Kennedy College strengthened and coordinated the following activities: advising and counseling focused on skill development and career identification, academic skills and financial aid workshops, job placement and transfer seminars, faculty development workshops, additional student activities, faculty and staff educational outreach into the community, and more institutional research to study data on students and better understand their needs.

A study of community colleges in Florida provided strong evidence of the need for targeted support for minority students. The study ranked all 28 Florida community colleges according to the probability that entering African American and Latino students would complete their program, transfer, or persist within three years (Jenkins 2006). The study incorporated a ranking system identifying three “high-impact” colleges from the top-ranked institutions, and three “low-impact” colleges from the low-ranking institutions.

A set of seven hypotheses was used as a basis for the study of effectiveness of Florida’s 28 community colleges. Jenkins (2006) hypothesized that community colleges would be more effective if they do the following:

- Have an institutional focus on student retention and outcomes, not just enrollment.
- Offer targeted support for underperforming students.
- Have well-designed, well-aligned, and proactive student support services.
- Provide support for faculty development focused on improved teaching.
- Experiment with ways to improve the effectiveness of instruction and support services.
- Use institutional research to track student outcomes and improve program impact.

- Manage the institution in ways that promote systematic improvement in student success.

In Jenkins’ (2006) study, targeted support for underperforming students became a factor differentiating effective and non-effective institutions:

The clearest differences between high-impact and low-impact colleges are those that offer “targeted support for minority students,” have a “minority-inclusive campus environment,” and provide “specialized retention services for minority students.” Thus minority community college students are more likely to succeed at colleges where they are made to feel welcomed and where there are support services and programs specifically designed for them. (p. 40)

Institutions seeking to provide targeted support for African American and other minority students may choose a more comprehensive approach that involves creating a climate that embraces multiculturalism and diversity through programs, services, and institutional policy.

**Targeted Programs, Services, and Policies Designed to Support African American Students and Promote a Multicultural Environment**

In order for an institution to create a multicultural campus environment, it is important to start by defining what is meant by “multicultural campus environment.” Creating a multicultural environment involves much more than enrolling people from different backgrounds and cultures.
Reynolds and Pope (1994) have defined a multicultural campus environment as follows:

A community in which significant time, attention, and resources, both human and monetary, are dedicated to creating openness to all cultures and peoples and to eradicating social injustice. This commitment is shown through an inclusive mission statement; a strict antidiscrimination policy; extensive recruitment and retention efforts; and programs, curricula, and activities that create an awareness and celebration of diversity. (p. 2)

A multicultural environment requires more than recruitment efforts. It requires a change in the institution’s culture and way of operating. The goal is to create a culture that stresses a commitment to multicultural ideals among to all students and provides a structure for openness and learning. The concept of “culture” expands beyond the cultures that exist within the individuals that comprise the institution and rather creates a shared institutional culture. Sue and Sue (1990) defined “culture” as all the customs, values, and traditions that are learned from one’s environment. An institution that reflects a multicultural environment includes people with a common culture that celebrates, embraces, and values differences.

After investigating the culture of an institution with regard to multiculturalism, Bensimon and Tierney (1993) offered a four-step institutional analysis process that includes the faculty, the mission, the structure, and the curriculum. The analysis should include not only the student demographics but also the composition of faculty, staff, and administrators to ensure that the employees are reflective of the student body and society at large. The mission statement should include not only a commitment to diversity, but
according to Bensimon and Tierney (1993), it also should advocate a main position that articulates multiculturalism in the definition of educational excellence.

According to Bensimon and Tierney (1993), the structure should include an analysis of the decision-makers to ensure there is cross-cultural representation; identify the number of individuals who have tasks related to promoting multiculturalism and diversity; and identify the number of individuals who understand their role, direct or indirect, in the promotion of multiculturalism and diversity. Finally, the role of curriculum must be closely analyzed. The analysis of the curriculum should include not only a review of the course offerings and content but also a review of the opportunities in place for faculty development to ensure that faculty members are empowered to make curriculum changes if needed.

The development of a multicultural environment requires differences that students, faculty members, and staff members bring based on their background and experiences. Stage and Manning (1992) described the “cultural lenses” that impact how individuals view the world. Cultural lenses are influenced by the culture, history, and experiences that individuals bring to an institution. Cartledge and Fellows-Milburn (1996) have supported the concept of cultural lenses by stating that “people of all races, creeds, and colors tend to view the world about them through their own eyes or through the lenses of their own culture” (p. 4). Campus administrators who fail to acknowledge the existence of cultural lenses could miss opportunities to construct an environment that recognizes the unique perspectives students bring with them to campus. Fellows (1972) noted that “American society has yet to come to understand or accept the importance of the cultural lenses that people bring with them” (p. 4).
Institutions also have attempted to create a multicultural campus environment free of bias by offering awareness and educational programs as well as specific interventions, such as Black History Month, Hispanic Heritage Month, gay-lesbian-bisexual-transgender programs, and diversity training. These efforts are valuable but tend to address only short-term specific needs as opposed to creating structural and comprehensive institutional change (Reynolds & Pope, 1994).

Eckel and Kezar (2003) suggested that transformation is necessary to create an institution-wide change in climate. For example, Harper and Hurtado (2007) stated “A Black Culture center alone can’t create institutional transformation if the professors routinely perpetuate racist stereotypes in the classroom” (p. 20).

Nora and Cabrera (1996) stated that it is important for institutions to develop initiatives that will lead to transformational change because one of the factors most positively associated with success of minority students is positive interactions with faculty members and staff members. Pascarella, Edison, Nora, Hagedorn, and Terezini (1996) and Rendon (1994) made the following recommendations with respect to creating transformational change:

Institutions promote cultural awareness workshops for students, faculty, and staff with careful thought to sensitivity and compassion. Both faculty and staff should receive on-going training to learn how to handle discussions about race-ethnicity. In addition, colleges need to make a commitment that they will not tolerate bias, racism, or discrimination in class, outside of class, or in departments or offices. Lastly, colleges should commit to continue affirmative action through hiring faculty and staff of color that can serve as mentors and role models. (p. 40)
Young (1990) has cited feedback from a panel reporting on recruitment and retention programs at selected predominantly White colleges. The panel stated, “The poor quality of Black campus life was the underlying cause of Black student attrition. Many administrators are therefore professing that the relatively piecemeal retention efforts and special programs represent a Band-Aid approach and are not the answer to what is the more complex and deeply rooted problem” (p. 8).

A primary goal in creating a multicultural campus is to help develop minority students. If a campus is perceived as hostile and unsupportive, development will be much more difficult to achieve, and those who do persist may do so under great stress (Reynolds & Pope, 1994). Institutions that focus on the needs of the students seek to promote and not suppress racial identity development because some studies have supported a connection between self-esteem and racial identity, according to Reynolds and Pope (1994).

In addition to promoting racial identity development, a comprehensive multicultural institutional approach should seek to identify, understand, and reduce stress and pressures students of color experience at PWIs. Lastly, Reynolds and Pope (1994) recommended using multicultural organization development (MCOD) as a strategy to build connections between students of color and thereby decrease feelings of isolation.

Esther (2006) reviewed case studies of institutions to identify common characteristics among institutions that successfully promote multicultural excellence. The review of institutions focused on structures that best support the development of ideas, strategies, priorities, and programs that emphasize multicultural excellence and the success of students from diverse backgrounds and cultures.
Esther (2006) hypothesized that institutions with symmetric orientations that are decentralized, organic, participative, and that encourage innovation and collaboration are more conducive to developing multicultural excellence than organizations with asymmetric orientations that are centralized, bureaucratic, exclusionary, traditional, rigid, and that promote individualism rather than collaboration. Iowa State University in Ames, Iowa; Texas A&M University in College Station, Texas; the University of St. Thomas in St. Paul, Minnesota; and Georgia College and State University in Milledgeville, Georgia, were all recognized for creative effective programs that created multicultural excellence at their institutions in a comprehensive way.

Studies that use responses from students to measure the impact of college diversity initiatives can be useful to institutions developing multicultural excellence. A longitudinal study conducted by Villalpando (2002) used the Cooperative Institutional Research Program (CIRP) to examine the differential impact of a range of college diversity initiatives on White, African American, Mexican American, and Asian American students. Respondents to the CIRP were from a sample of 15,600 students from 365 four-year colleges and universities.

The students were initially surveyed in 1985 and again in 1989 to determine whether their overall level of satisfaction with their college experience was positively influenced by (a) attending racial/cultural awareness workshops; (b) socializing with students of different racial/ethnic groups; (c) taking courses from faculty members who use instructional methodology with content on ethnic/racial issues, research, or writing addressing women, ethnicity, or race; (d) and campus policies and practices that promote diversity initiatives (Villalpando, 2002).
The results showed that students from all ethnic groups found that attending cultural awareness workshops, taking courses from faculty who incorporate diversity in their instructional methodology, and experiencing campus policies and practices that promote diversity initiatives influenced their satisfaction with the institution. All students except African Americans reported that socializing with students of different racial and ethnic groups had a positive effect on satisfaction with the college (Villalpando, 2002). One might conclude that African Americans did not perceive any positive value in socializing with students from different racial or ethnic groups.

Villalpando (2002) suggested “the need for additional research that explores what can be happening during this exchange that would lead African American students to be dissatisfied with their overall college experience” (p. 139). Additional information about the socialization experiences of African American students can be found through research that focuses on cultural centers and programs that provide space for interaction of students from the same race or cultural background.

Research has suggested that for almost every group except Mexican-Americans, an institution with a strong emphasis on diversity enhances college satisfaction. Villalpando (2002) defined an institution with a strong emphasis on diversity as “a college or university that is committed to increasing their numbers of women, faculty, and students of color, creating a diverse multicultural environment and an appreciation for multiculturalism” (p. 140).

Cheng and Zhao (2006) provided research on the benefits of the involvement of African American students in cross-cultural extracurricular activities—a process they referred to as “cross-internalization.” The results of this research contradicted
Villalpando’s (2002) findings, which were that African American students did not report satisfaction derived from socializing with students of different racial/ethnic groups. Cheng and Zhao’s (2006) study identified African American student satisfaction related to socializing with different groups of students, such as student government, social action groups, cultural organizations, and volunteer/community service groups.

Cheng and Zhao (2006) have suggested that student involvement in these types of organizations has the potential to contribute to multicultural learning, and students participating in the research who were involved with other groups found the campus environment to be diversity-friendly. This type of African American cross-cultural student development could contribute to students reaching Cross’s (1971) internalization-commitment stage.

Mentoring has been recognized as a strategy used by colleges to help students integrate into the college environment. Mentorship programs have been commonly used by community colleges to integrate minority students into campus life (Pope, 2002). Pope (2002) conducted a study of the perceptions of 375 minority students at 15 community colleges around the country to explore multiple levels of mentorship on their campuses. The participants in Pope’s (2002) study rated each type of mentorship relatively high with a substantial number responding positively to each type of mentoring. Pope’s (2002) research supports the belief that mentorship programs aid in the retention, transition, and success of minority students.

Recent legal attacks on Affirmative Action programs in higher education have called into question institutional initiatives that focus on the needs of minority students. Collison (1999) observed how legal challenges to special programs and initiatives based
on race and ethnicity are creating a change in the nature of these programs. One example of these challenges is a blistering critique of colleges and universities written by Afshar-Mohajer and Sung (2002). They reviewed multicultural departments; campus organizations, academic programs and services, and cultural-based living options that they contend promote separatism and racial paternalism. Afshar-Mohajer and Sung (2002) called for ending the allocation of resources to programs they claim create a separatist agenda.

Proponents of this view found support in Supreme Court cases that changed Affirmative Action in college admissions. The first major challenge to Affirmative Action in higher education came in the landmark 1978 *Regents of the University of California v. Bakke* Supreme Court case. In that case, a mixed decision was rendered that allowed for the consideration of race, but reserved places for minority applicants was deemed unconstitutional.

The next historic Supreme Court cases involved the University of Michigan’s undergraduate and law school admissions processes. The *Gratz* and *Grutter* decisions affirmed the *Bakke* decision by allowing for the consideration of race in admissions only if it were narrowly tailored but disallowed a specific point system used in the University of Michigan’s undergraduate admission process that gave specific points to minority candidates (Long, 2007).

After the *Grutter v. Bollinger* University of Michigan case, some colleges focused on other demographic factors when reviewing students’ qualifications. Factors such as socioeconomic status, whether students were the first in their family to attend college, the number and types of high school courses completed, and whether students experienced
disabilities have become part of a more holistic admissions review. Although no major legal challenges have been presented to date to strike down programs and initiatives that target multicultural or ethnic minority students, some colleges have changed or eliminated programs to avoid potential legal challenges. One example is Michigan’s Proposition 2, passed by 58% of Michigan voters in 2006, which banned preferential treatment for minorities in any publicly funded institution, including colleges (Mack, 2012). Opponents of Michigan’s Proposition 2 have sought a review by the U. S. Supreme Court.

Institutions have made programs more inclusive based on concerns over possible legal scrutiny. Fred Hord, president of the National Association of Black Culture Centers, said, when speaking of the survival of Culture centers, “Culture centers that will survive in the future are Centers that affiliate with academic programs, do research, have libraries, and become connected with the critical academic component of the university” (as cited in Collison, 1999, p. 34).

The History and Role of African American Culture Centers

Black culture centers (BCCs) have been a tool to foster adjustment and promote student success for African American students at predominantly White colleges and universities (PWCUs). Williamson (1999) provided historical context by stating that “BCCs were established to promote greater retention, academic success, and resiliency at PWCU’s” (p. 92).

Williamson (1999) also provided a legislative history of the growth of BCCs, which found their roots in the Civil Rights Act of 1964--an Act that ordered a census of all United States postsecondary institutions by race and ethnicity. Federal funding would
be withheld from institutions not in compliance with providing equal opportunity in education. This Act, coupled with the Higher Education Act of 1965, expanded the number and types of financial aid, opened the doors for increased enrollment of African Americans in predominantly White colleges and universities. African American student enrollment at PWCUs doubled, according to Williamson (1999), between 1964 and 1970.

African American students encountered racially hostile campus environments where White students, professors, and administrators openly challenged their right to attend. Rogers (2006) cited other notable historical developments, such as in 1966 when African Americans, referred to as Negros during that time period, began to refer to their identity as “Black” and the “Black Power Movement”—a change that signaled a shift in civil rights issues.

Patton (2006), who has written several recent articles and books on Black Culture centers, provided an additional historical analysis. She identified the significance of the Civil Rights Movement of the 1960s, and student unrest on campus in the 1960s and 1970s, as significant factors in efforts to enroll African American students and provide services for the increasing population. Patton (2006) stated, “Predominantly White Institutions were not equipped to meet the needs of an increasing African American student population, which led to campus unrest and protests” (p. 3). The new militant population of African American students pressured campus officials to hire African American faculty members, recruit more African American students, establish Black Studies programs, and create departments such as Minority Affairs and or Black Culture centers.
Williamson (1999) described other student-driven initiatives that originally emerged from the need for self-preservation and academic survival, such as tutoring networks and services; informal academic advising; and departmental organizations such as the National Society of Black Engineers, Black Pre-Law/Law Associations, and Black Social Workers. These programs were often housed in Black Student Union offices. Williamson (1999) provided an analysis of the present-day impact of these organizations by stating that although many of these organizations still exist, “Black students continue to be disadvantaged on White campuses relative to their White peers and continue to suffer from isolation, alienation, and lack of support” (p. 103).

BCCs did more than stage academic services for African American students. Pittman (1994) has contended that BCCs facilitated the identity development process, enhanced the campus climate for African American students (leading to higher retention), and offered academic and social opportunities. Stewart, Russell, and Wright (1997) highlighted other support systems as providers of support and social interaction—e.g., campus housing for African American students, traditional African American fraternities and sororities, and Black Student Unions.

According to researchers, Black culture centers foster the development of social networks by serving as hubs of activity. For example, Brown (2000) emphasized the importance of social networks for African American students. Brown argued that “social support is arguably the most important determinant of college success and satisfaction, particularly for African American students attending predominantly White institutions” (p. 629).
Research describing Black or Multicultural centers on two-year campuses has been limited; however, available information has indicated that these centers focus on building bridges in the community by developing connections with community centers and high schools. In addition to offering the traditional programs and services, Black cultural centers (also referred to as “multicultural centers”), such as the College of DuPage in Illinois, offer bridge programs, intensive academic and personal advising, and programs that include family members (Illinois Community College System, 2004).

Patton (2006) has described critical race theory (CRT) as a framework for scholars to understand the impact of race on identity development of Blacks in higher education. Patton (2006) suggested that critical race theory is developed when “a body of scholarship emerges from legal studies, which provides a lens for challenging the methods in which race and racial power is constructed” (p. 630). There are three key points that describe CRT:

- CRT recognizes that racism is normal and seeks to implement methods to challenge racism.
- CRT recognizes interest-convergence, which is described as the process by which the White power structure supports advances for Blacks and other persons of color when such advances also promote a White agenda.
- CRT critiques ideologies that focus on neutrality, objectivity, and colorblindness to camouflage the socially constructed meanings of race.

CRT can be connected to movements to establish programs and services designed to address the impact of racism on predominantly White campuses because those efforts are meant to challenge racism and other concepts, such as “neutrality” and
“colorblindness.” Early support for BCCs could be viewed as interest-convergent because the need to reduce campus unrest and provide resources for a growing population of African American students could be seen as advancing the agenda of the White power structure (Patton, 2006)

Patton (2006) conducted a study to examine students’ perceptions of the Institute of Black Culture at the University of Florida to provide a greater understanding of the historical, current, and future role of BCCs as well as their importance in serving the needs of African American students enrolled at PWIs. Patton’s (2006) goal was to understand how participants made meaning of their interactions within BCCs and the ways that their perceptions of the physical space, programming, staff, and general atmosphere of the BCC shape their involvement with it. The researcher conducted 31 semi-structured student interviews, and the article presents feedback from 11 students (6 males and 5 females).

Patton’s (2006) analysis of the semi-structured student interviews resulted in four major themes: (a) a climate of covert racism, separatism, and apathy; (b) learning about the Center and student impressions; (c) use of the Center; and (d) why the BCC is needed.

Six key findings emerged from Patton’s (2006, p. 640) study:

- Staff members of the BCC play a key role in student perceptions of the BCC.
- BCCs are beneficial in helping first-year Black students become acclimated and adjusted to the campus environment.
- Students perceive that merging the BCC into a multicultural center would be counter to the role originally intended for BCCs.
• Location, size, and available resources of the BCC influence usability and student perceptions.

• BCCs provide an historical and personal identity for Black students at PWIs.

• Black students perceive BCCs as “home.”

Patton (2006) made a key statement that serves as a foundation for much of her research on this subject: “Campuses that lack Culture centers or multicultural centers should consider establishing these facilities given their past and current relevance” (p. 642). In another article, Patton (2006) described student gains that result from involvement with BCCs: (a) involvement and leadership experience, (b) community connections and the development of a sense of community, (c) historical pride and Black identity, and (d) self-preservation and having a sense of comfort and relief that is acceptable to be Black (p. 6-7).

Patton (2006) addressed some of the misconceptions and challenges associated with BCC. For example, proponents of BCCs believe the following:

• BCCs foster separatism and self-segregation.

• BCCs are for Black students only.

• BCCs serve only a social mission.

Patton (2006) suggested that these misconceptions and challenges are rooted in a misunderstanding of the original purpose of BCCs, which were founded because of the exclusion of Black students from the mainstream of campus life, which, according to Patton and other scholars, still exists. The expectation that African American students will readily immerse themselves in the broader culture is false, according to Patton (2006). BCCs help students integrate into campus life.
Patton (2006) also addressed the perception that BCCs are for African American students only. Patton provided examples of instances in which BCCs were used as a source of diversity education through research, speakers, workshops, and celebrations. Patton (2006) has not discount the importance of BCCs’ social focus but rather points to the wealth of scholarly activity and academic programming that can occur through BCC-sponsored activities. For example, BCCs can serve as a source of retention activities, such as advising and tutoring, and can be used to engage students in the community at-large.

Despite strong arguments presented by scholars such as Patton and Pittman, Black Culture centers have been under pressure by administrators at PWIs to broaden their efforts to serve more than just Black students (Walker, 2007). Proponents of this broadened approach have argued that some students stay away from BCCs due to the perception that they are only for African American students, a point that BCC directors and scholars have maintained (Walker, 2007). However, detractors have questioned the relevancy of BCCs and pointed to legal concerns over Affirmative Action.

According to Walker (2007), Dr. Willena Kimpson Price, director of the University of Connecticut African American Culture center, made a case for the need for BCCs by pointing out the role of BCCs in leveling the playing field for students who come from poorly resourced schools and may not have had the experience of being in a predominantly White environment. Price pointed to the value of services such as peer mentoring, counseling, academic services, and other programs (as cited in Walker, 2007). Price also mentioned the need for students to build a community and the importance of institutions having and showing a commitment to diversity (as cited in Walker, 2007).
Hefner (2002) provided insight into the controversy over whether to broaden the focus of BCCs by transitioning them to multicultural centers. Hefner raised the following questions: Whom should the Culture center serve? What should these centers be called? Should there be a culture center for every sizeable ethnic group on campus? According to Hefner (2002), many Black Culture center directors believe this new broader focus will lead to campuses dropping the word “Black” from the title and instead including the word “Multicultural.” The concern of these directors is that the culture center will completely lose its historical ties and the focus on the success of African American students, a population considered in high need.

Dr. Fran Dorsey, an associate professor in Pan-African Studies at Kent State University in Ohio and then president of the Association of Black Culture Centers, has stated, “As the new code words of diversity and multiculturalism have allegedly embraced this nation, it has done so at the expense of Black Culture centers” (as cited in Hefner (2002, p. 23). Dorsey contended that the development or formation of multicultural centers will consume resources that would have or could have been used for Black Culture centers, which could undermine or eliminate BCCs (as cited in Hefner, 2002).

Hefner (2002) described the approach some institutions have taken of creating separate centers within a center. For example, Indiana University had been home to the Neal-Marshall Black Culture Center for 30 years before the center was moved into a new theater and drama building. The building houses three centers: a center focusing on African American students, a center for Latino students, and a center for Asian-American students.
Criticism of BCCs has been fueled by the belief that many centers have become social hangouts for African American students (Hefner, 2002). Dr. Pamela Hill, director of the Student Ethnic Enrichment Center at the University of North Texas, was highly critical of BCCs that only offer social engagement (as cited in Hefner, 2002). Hill stated that once the word gets out that the BCC consists only of students and administrators hanging out, watching television, and playing cards, it will be known as not the place you go to for help with tutoring, research, or study. She believes that social functions have a place but also that social functions cannot be the primary focus of Black Culture centers.

Budget concerns that call for new efficiencies also threaten BCCs. Whether budget restrictions, transformative forces, or legal challenges, the future of Black Culture centers depends on the vision of the directors, the strength of their students and faculty members, and the involvement of surrounding communities (Hefner, 2002).

The emergence and recent challenges to the role of BCCs on PWIs is relevant to this study when viewed in the broader context as an example of an intervention created to serve the needs of African American, minority, or underrepresented students. Although some campuses may not have a BCC or multicultural center or an assigned staff person, any institution-sponsored program designed to focus on African American or underrepresented student populations will be examined in this study to determine its impact on the success of African American students.
Chapter Three

Research Methodology

The research design, including the variables studied and the research questions will be described in this chapter. This chapter also describes the participants, the survey instrument, as well as the collection and analysis of institutional and survey data. Efforts to establish validity and reliability, as well as key limitation to the study, were included in this chapter.

Research Design

The researcher collected data from participants through questionnaire sent to chief student affairs officers (CSAOs) at 14 (61%) of Ohio’s 23 two-year colleges that featured a African American student enrollment of 5% or higher. The CSAOs were invited to participate in an online questionnaire about the existence and utilization of programs, policies, and services at their institution designed to promote completion and graduation. The CSAOs were asked to rate those interventions based on theirs perceptions of the impact that these programs had on completion and graduation rates of African American students.

The research in this study focused on the impact of institutional characteristics and student enrollment/demographic data, as well as institutional interventions (e.g., policies, services, and programs), on the completion and graduation rates of first-time, full-time cohorts of African American students enrolled at select Ohio two-year colleges.

The researcher’s approach was consistent with that described by Creswell (2003) in which “a researcher may compare groups on an independent variable to see its impact on a dependent variable” (p. 109). Creswell (2003) emphasized the importance of
measuring the relationship between variables separately in quantitative research to produce a cause-and-effect logic. The primary research questions in this study sought to determine the effect of the environmental intervention variables on the outcome variable. This study was designed to answer the following three research questions:

RQ1: What effect, if any, do institutional support services, policies, and programs have on the completion and graduation rates of first-time, full-time African American students enrolled in Ohio’s public two-year community colleges?

RQ2: Do interventions such as specialized programs and services, which focus on the needs of African American students, affect the completion and graduation rates of first-time, full-time African American students enrolled in Ohio’s public two-year community colleges?

RQ3: If the campus has specialized programs or support services for African American students, which specific services, if any, affect completion and graduation rates of African American students?

Nakajima, Dembo, and Mossler (2012) categorized variables that impact student persistence in community colleges into three groups: psychosocial, demographic, and environmental. Goals and self-efficacy have been considered psychosocial variables that are important predictors of student persistence (Nakajima et al., 2012). “Demographic risk factors that influence community college student retention include any student characteristics initially brought to the college, such as gender, age, and race” (Nakajima et al., 2012, p. 594). Other demographic variables identified by Nakajima et al. (2012) include socioeconomic status (SES), employment, and receipt of financial aid.
According to Nakajima et al. (2012), “Environmental factors are any external variables that may influence student retention, such as student-faculty interaction, student-student interaction, extracurricular activities, involvement in student organizations, and student services” (p. 594). This research study focused on the environmental variables that are institutionally influenced or controlled, such as programs, policies, and interventions designed to impact persistence and graduation.

Nakajima et al. (2012) acknowledged the significant influence of demographic variables as risk factors, but those variables cannot be influenced for intervention purposes. Nakajima et al. (2012) have recommended that researchers investigate environmental and psychosocial variables when studying variables that influence persistence. Nakajima et al. (2012) also have recommended a multivariate approach that includes psychosocial, environmental, and demographic variables. This study included an analysis of aggregate student characteristic and enrollment descriptor variables as well as institutional intervention variables.

There has been a limited amount of community college research conducted on independent variables associated with retention of African American males; however, Hagedorn, Maxwell and Hampton’s (2001) research has indicated that the following variables are positively associated with retention:

- High school grades.
- Number of course credits earned.
- Academic self-confidence.
- Certainty of major.
- High educational goals.
The institutional characteristic, student demographic, and environmental data served as blocking variables. The three-year completion and graduation rate for each responding institution, served as the outcome variable for this study.

Figure 4 displays the variable blocks that will be collected for each institution responding to the survey. Block one includes aggregate student characteristic and enrollment variables, such as enrollment by student demographic and credit hours per term, percentage of students qualifying for federal student aid, and the percentage of students enrolled in developmental courses. Block two includes institutional characteristic variables, such as institutional size, Carnegie classification, institutional expenditures, three-year graduation rate, and retention rate. The variables in blocks three and four include institutional intervention variables that were included as items on the questionnaire.

In a study of the student characteristics related to persistence for first-year community college students, Hawley and Harris (2005) identified independent variables similar to variables examined in this study. Variables such as the number of developmental courses taken and lack of focus on an educational goal have been associated with students who are less likely to persist (Hawley & Harris, 2005). Conversely, students who are actively involved in campus leadership activities have been identified as more likely to persist, according to Hawley and Harris (2005).
Figure 4. Description of variable blocks.
This study examined colleges’ utilization of interventions, such as developmental courses and placement procedures, educational and career goal setting through academic and career advising, and promoting and providing opportunities for involvement. Data from the Community College Center for Student Engagement (CCCSE) (2012) survey illustrates the importance of academic goal setting and planning. To focus on the effect of the intervention variables and to examine the impact on the outcome variable (i.e., completion and graduation rate), institutional characteristics were controlled for. Bailey, Calcagno, Jenkins, Kienzl, and Leinbach (2005) described four groupings of institutional characteristics:

...general institutional characteristics, which are under control of the colleges or state policy makers, compositional characteristics of the student body, financial variables relating to revenue and expenditures, and fixed locational characteristics.

(p.12)

General institutional characteristics include variables such as institution size, percentage of part-time of versus full-time faculty members, and percentage of associate’s degrees versus certificates. Alfonso (2004) suggested that institutional characteristic variables have differential effects on degree completion depending on the race/ethnicity of the student.

Bailey et al. (2005) found that the mission of a college or the type of institution could have an impact on degree attainment. Bailey et al. (2005) suggested that “community colleges have many missions, including preparing students to transfer to baccalaureate institutions and training them in occupational fields where they work immediately after college” (p. 13). However, Bailey et al. also reported that colleges
focus on preparing students for occupations through technical associate’s degrees or certificates tend to have higher completion rates, as opposed to colleges that focus on preparing students to transfer.

The ratio of associate’s degrees to certificate degrees conferred is an important variable that was examined in this study. Ohio’s two-year colleges consist of (a) community colleges that focus on transfer and (b) technical colleges that focus on preparation for occupations. Institution type served as an institutional characteristic variable.

The student behavior variables measured in this study were collected in aggregate form by participating institutions. Hagedorn et al. (2001) blocked for a set of college-related student outcome variables when studying data obtained from 202 African American males from a large, urban, west coast college that participated in a Computerized Assessment and Placement Program (CAAP) test. The variables used by Hagedorn et al. (2001) are similar to some of the variables used in this study. The college-related variables in Hagedorn’s (2001) college-related block include the following:

- Orientation.
- Average credit hours enrolled.
- Success as defined by the number of credit hours successfully earned in past semesters.
- Cumulative college G.P.A. for each semester.
- “Day” or “time of enrollment” as determined by whether students attended classes during the day, evening, or weekend.
• Vocational education or certificate program.
• Certainty of major.
• Study hours reported.
• Reverse transfer indicated by whether or not students held a prior degree.
• Stopout rate indicated if students stopped attending for one semester.

Two of the college-related variables used in Hagedorn et al.’s (2001) study were found to be the most accurate predictors of retention: (1) number of credit hours of enrollment and (2) certainty of major. The findings of this study concluded that community colleges should provide financial assistance to African American males to encourage them to invest more time into attending college on a full-time basis rather than working and to help students identify an occupational goal early in their enrollment.

The percent of full-time credit hour enrollments served as an institutional independent blocking variable from IPEDS were used in the study of select Ohio two-year colleges. Student participation in interventions such as academic advising, counseling, or mandatory orientation programs can impact the number of credit hours enrolled, therefore these interventions were included as independent variables in this study.

Participants

According to the information available on the Ohio Association of Community Colleges’ website, Ohio’s two-year college system is comprised of 23 State-assisted and locally autonomous community and technical colleges. In 2007, two-year colleges in Ohio enrolled 177,106 students in college credit courses, and 13% of those students were African American (Ohio Board of Regents, 2010).
Ohio two-year colleges were chosen as the research participants for this study because research has indicated that there is a lack of research exploring African American student completion and graduation rates at two-year colleges and their potential relationship with institutional programs, policies, and services. By selecting two-year colleges from the same state, the researcher was able to collect the African American student completion and graduation data using a consistent data collection procedure.

The colleges selected for this study have African American student enrollments of 5% or more. A preliminary investigation of enrollment, completion, and graduation data from the Integrated Postsecondary Education Data System (IPEDS) (NCES, 2013) indicated that completion and graduation rates of institutions with less than 5% enrollment of African American students may be insufficient to conduct a meaningful statistical analysis; therefore, those institutions were excluded from the survey and data collection process.

Table 1

*Community Colleges with 5% or Higher Black Student Enrollment*

<table>
<thead>
<tr>
<th>Institution</th>
<th>Black Non-Hispanic % of Total Enrollment 2011</th>
</tr>
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<tbody>
<tr>
<td>Cuyahoga Community College District</td>
<td>32</td>
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<tr>
<td>Cincinnati State Technical and Community College</td>
<td>30</td>
</tr>
<tr>
<td>Columbus State Community College</td>
<td>24</td>
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<tr>
<td>Stark State College</td>
<td>19</td>
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<tr>
<td>James A Rhodes State College</td>
<td>16</td>
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<tr>
<td>Clark State Community College</td>
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<td>Owens Community College</td>
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<td>Sinclair Community College</td>
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<td>Lorain County Community College</td>
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<td>College</td>
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<tr>
<td>Central Ohio Technical College</td>
<td>9</td>
</tr>
<tr>
<td>Lakeland Community College</td>
<td>8</td>
</tr>
<tr>
<td>Marion Technical College</td>
<td>5</td>
</tr>
<tr>
<td>North Central State College</td>
<td>5</td>
</tr>
<tr>
<td>Zane State College</td>
<td>5</td>
</tr>
<tr>
<td><strong>Average</strong></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>

*Note. Percentages are rounded to whole numbers.*

The Ohio Board of Regents classifies two-year colleges in Ohio in one of several ways: (a) technical, (b) state community, and (c) community colleges. Technical colleges provide hands-on education in a specific field. Graduates from technical two-year colleges may transfer to baccalaureate programs. State community and community colleges both offer technical programs and university parallel programs, otherwise known as transfer programs, and provide students with a variety of options (Ohio Association of Two-Year College Admissions Officers, 2009).

The following Ohio two-year colleges are considered state-supported technical colleges: James A. Rhodes College, Marion Technical College, North Central State College, Central Ohio Technical College, Hocking College, Stark State College, and Belmont Technical College.

The following two-year colleges are considered state-supported community colleges: Northwest State Community College, Cincinnati State Community College, Edison State Community College, Sinclair Community College, Clark State Community College, Jefferson Community College, Southern State Community College, Owens Community College, Terra Community College, Columbus State Community College, Lorain County Community College, Rio Grande Community College, Cuyahoga Community College, Washington State Community College, and Zane State Community College.
College. Table 2 illustrates the 14 two-year colleges in Ohio with an enrollment of 5% or more of African American students (IPEDS, 2011).

**Survey Instrument**

The purpose of using an institutional questionnaire was to collect information from chief student affairs officers regarding programs, policies, and services that cannot be obtained from state or federal data warehouses. McGraw and Watson (1976) defined survey research as “a method of collecting standardized information by interviewing a sample of the population” (p. 343). A questionnaire can be used to provide quantitative or numeric descriptions of trends, attitudes, or opinions of a sample with the intent of generalizing from a sample to a wider population (Creswell, 2003). The questionnaire was considered cross-sectional because the data was collected at one point in time.

Hackett (1981) identified three major purposes for the use of surveys: (1) descriptive, (2) explanatory, and (3) exploratory. Descriptive surveys are commonly used to gather demographic information, such as age, sex, ethnic background, etc. A descriptive survey, such as those used in political polling, might gather information involving attitudes rather than facts. An explanatory survey explores the reasons behind facts or opinions that are of interest to the researcher. An exploratory survey is used when the researcher has little to no information about the subjects. The survey used in this study is a combination of descriptive and explanatory because it blends inquiry about specific programs, policies, and services, and it also includes items that ask participants to rate or provide an opinion about how they believe programs, policies, or services impact completion and graduation rates of African American students.
Data and standard information reflecting types of programs, policies, and procedures are not currently systematically collected in institutional databases for Ohio’s two-year colleges. Data gathered from the questionnaire is needed to assess institutional intervention variables in order to determine whether they influence the outcome variable.

A review of the literature identified two studies that employed similar surveys. First, a questionnaire used by Wellbrook (1997) to study the impact of programs and services on graduation rates of African American male students in the community college system of New Jersey served as a model for the questionnaire used in this study. Wellbrook (1997) collected graduation and institutional data from the 19 New Jersey community colleges, and developed a survey that was sent to chief student affairs officers at each college.

Glenn (2001) created a similar survey that gathered information regarding policies and/or practices directly related to retention of African American male students enrolled at community colleges in Texas. Glenn’s (2001) survey, modeled after a similar survey used by Wellbrook (1997), was mailed to colleges in Texas with the highest (top 25%) and lowest (bottom 25%) graduation rates for African American males. The researcher of this dissertation decided to use a questionnaire that was a modified version of the questionnaires used by Wellbrook (1997) and Glenn (2001) because of the similarities in the data that were collected. Both studies conducted by Wellbrook (1997) and Glenn (2001) also focused on two-year colleges in a particular state.

A similar survey focusing on colleges with a culture center was given to campus administrators from 15 four-year institutions to determine the center’s impact on retention of African American students (Lang & Ford, 1992). The survey items for this
dissertation were derived from a literature review of common institutional practices used to enhance retention and graduation rates at community colleges.

The institutional questionnaire was sent to CSAOs because of they are responsible for coordinating programs and setting policies related to student success. Although retention-focused academic support services sometimes report to academic departments, CSAOs typically are aware of and have a direct or indirect connection to a variety of programs and services that impact student success.

Various administrators could have provided responses to the items on the survey, but the researcher determined that the CSAOs would be the most appropriate administrators to complete the questionnaire in order to maintain consistency in the data collection process. To prevent answers from different types of administrators adversely affecting content validity and to maintain consistency in the data collection process, it was important that each survey was directed to the CSAO at each institution. The CSAOs were generally more aware of cross-functional programs, such as those reporting to Academic Affairs.

Wellbrook (1997) and Glenn (2001) incorporated an interview of a select group of survey respondents. Glenn’s (2001) study used interviews and observations with students and administrators from one campus in the highest quartile and one campus in the lowest quartile. Wellbrook (1997) conducted phone interviews with administrators during the survey development process to enhance the quality of the items and after receiving responses to get additional information.

This study did not include qualitative research because of the expense and time associated with traveling to campuses to conduct interviews of chief student affairs.
officers in a statewide study. Because of differences in institution types and geographic settings, the researcher believed qualitative research would require interviews at a variety of institutions to maintain content reliability. In addition, the transitional enrollment of two-year college stop-outs would make assembling a group of interviewees at various campuses challenging.

The items used in the questionnaire for this dissertation were modified and expanded from the existing surveys to capture additional feedback. Electronic questionnaires, which were not used by Wellbrook (1997) and Glenn (2001), provided opportunities to gather feedback more quickly, and electronic text boxes allowed participants to provide additional, more comprehensive responses.

The survey included items designed to gather information about the institution and the participant. Two items were included in order to determine whether the participant was the chief student affairs officer, and, if not, what his or her professional role was at the college. Like previous surveys conducted by Wellbrook (1997) and Glenn (2001), the questionnaire for this dissertation contained items that required a “yes” or “no” response to determine whether the policy, procedure, or program was used. Wellbrook (1997) used a range from 1 to 3 to determine whether participants who answered “yes” believed the policy, program, or procedure made an impact or was “effective” in increasing graduation rates. Glenn (2001) asked participants who answered “yes” to rate from 3 to 1 how effectively the program, policy, or procedure contributed to student graduation.

The researcher modified previous surveys by using the following three rating criteria: (a) no impact, (b) some impact, and (c) high impact. The word “impact” was
used as a rating mechanism instead of numbers to reduce the chance of error that could result from the participants mistakenly selecting a “1” instead of a “3.” In addition, the Qualtrics software has an automated coding feature that places numeric values to the data; therefore, numbered rating scales were not necessary.

The participants could have rated the intervention as effective or impactful on completion and graduation for the general student population, but it was important for the purpose of this study to assess whether participants believed there was an impact on the completion and graduation rates specifically of African American students. The specific items that were included in the questionnaire can be found in Appendix A.

An electronic survey format was developed and the questionnaire was distributed via email using the Qualtrics survey software. Electronic surveys can be developed quickly and emailed to a large number of potential respondents at no cost. Qualtrics is licensed to The University of Toledo and is readily available to students. Qualtrics was relatively simple to use and familiar to staff members in the University of Toledo Institutional Research department, which the researcher found helpful if there were questions. The survey software enabled the researcher to produce reports and monitor participant activity. CSAOs were able to access the Qualtrics survey via a separate link that was included in the email inviting them to participate.

According to the company website, Qualtrics (2013) is a private research software company which produces software enabling users to perform online data collection. Qualtrics software is used for market research, customer satisfaction and loyalty research, product and concept testing, employee evaluations, and website feedback. It provides
easy access to participants, and the tools manage the survey data were available to the researcher.

Researchers have provided pros and cons associated with the use of online versus paper surveys. Eaton and Struthers (2002) reported fuller and more incisive responses to an online survey compared with a paper survey. Glover and Bush (2005) supported the belief that online surveys encourage deeper reflection because paper surveys allow for responses only in the space made available. They also contend online surveys save time and money because data entry and transcription can be performed electronically, and an online survey can be sent to a large number of participants at no cost (Glover & Bush, 2005).

Harlow (2010) cautioned researchers using a combination of online and paper questionnaires to ensure that items on both versions are identical, especially if the researcher sends a follow-up survey via regular mail. It is important to make sure coding is consistent when using online and paper surveys. An additional concern with online surveys is to ensure invitations to participate are not tagged as spam that will not arrive in the inbox of the intended recipient. (Harlow, 2010)

Recent developments in online survey formats have allowed for open-source formatting, which allows researchers to choose item types and designs in the same way a paper survey is created (Capiluppi, 2002). More sophisticated data packages and the ability to control for conditional items are recent enhancements designed to improve online survey development.

Pandi (2002) identified strategies that can be used to increase response rates to an online questionnaire, such as a welcoming email note, a letter of notification, and a
reward for participating. Participants are more likely to respond quickly and more readily to an online survey after a reminder than they would to a paper-based survey (Forsman & Varedian, 2002).

An online questionnaire was used in this study for the following reasons:

- The electronic format provided the benefit of ease of use for the participants and the researcher.
- The data could be collected and stored electronically, easily transferred into a spreadsheet, and then exported into the SPSS software.
- Completion of the electronic questionnaire presented a time savings for participants compared to a paper survey, which would have required written responses and mailing the survey back to the researcher.
- The electronic format reduced the possibility of transmission errors that could have occurred from transmitting responses from paper to an electronic storage system.
- There were no expenses associated with preparing and administering the electronic questionnaire.

A modified version of the four-phase process recommended by Salant and Dillman (1994) was used to increase participation in the survey. The process included the following steps: (1) seven to ten days prior to the email distribution, a short, advance-notice email was sent to the chief student affairs officers at the 14 institutions; (2) the electronic survey was sent via email to each CSAO; (3) a reminder email was sent using Qualtrics to non-respondents approximately four to five days after the survey was sent, which was followed by a second email reminder to non-respondents; (4) a personalized
email, followed by a phone call, was then sent to non-respondents unless they indicated in prior communications that they were unwilling or unable to participate. The initial communication inviting participation indicated that participating institutions would receive access to the results of the survey and the study.

The intervention variables from the survey were collected and then grouped for analysis based on the impact ratings scores provided by responses from the CSAOs. The variables were grouped based on the following criteria:

- Responses are grouped as “high impact” on African American completion and graduation rates when 40 percent or more of the institutions that responded to utilizing the intervention rated it as having “high impact.”
- Responses are grouped as “some impact” on African American completion and graduation rates when 90 or more of the institutions that responded to utilizing the intervention rated it as having “some impact.” The “some impact” group includes a combination of interventions with “high” and “some” impact scores.
- Responses are grouped as “low impact” on African American completion and graduation rates when 30 percent or higher of the institutions which responded to utilizing the intervention rated it as having “low impact.”

The researcher anticipated that a larger number of responses would fall within the “some impact” range due to central tendency bias. Central tendency bias occurs when participants become less willing or unwilling to answer with extreme responses. Participants select responses towards the middle of the response scale, e.g., “some
impact,” even when they would be normally more passionate about a particular answer (Survey Methods, 2011).

In addition, the participants were rating the impact of their own institution’s interventions; therefore, it may be less likely that they would indicate that the intervention had “no impact” on completion and graduation of African American students. The tested significance of the variables was compared to the impact rating for the purpose of analysis. For example, an intervention may be rated as having a high impact, but may not be statistically significant.

A pilot survey was developed and sent to 10 two-year colleges in various states to elicit feedback about the survey items. Two-year colleges from states such as Florida, Kentucky, Illinois, Michigan, and Maryland were selected to participate in the pilot survey. The two-year colleges were selected based on an Internet search and information from the Association of Black Culture Centers’ membership list. Pilot survey colleges located in these states were also selected because of their similarity to Ohio in structure of two-year colleges and population of African American students. The feedback from the pilot survey was used to clarify some of the survey items. For example, the use of the word “impact” was clarified after the pilot survey to include language that asked the respondent to rate the extent to which the intervention affects completion and graduation rates of African American students. Additionally, the pilot survey provided feedback related to the amount of time required to complete the questionnaire, which was reported by the participants as taking between 17-20 minutes.

Based on a review of the state websites, the higher education systems in Michigan, Illinois, and Maryland have coordinating Boards, much like Ohio. Colleges in Kentucky
(Kentucky Higher Education Assistance Authority, 2013) and Florida (State University System of Florida, 2013) are part of a comprehensive state higher education system but were included in the pilot study because the researcher was able to make personal contact with the CSAOs at those institutions.

The researcher sought responses from at least three pilot colleges. Wellbrook (1997) suggested that three responses from the pilot group is sufficient for feedback. After administering the pilot survey, the researcher obtained verbal feedback about the clarity of the questions, the length of the survey, the ability of the questionnaire to elicit meaningful responses, and the potential usefulness of the questionnaire data.

**Institutional Data Collection**

After the questionnaire was launched, data were then collected from participants; additional institutional data was collected from responding institutions. The results of the questionnaire had no bearing on the manner in which the data were collected. Blocking variables, which consisted of institutional and student demographic data, such as enrollment rates, graduation rates, completion rates, retention rates, and institutional descriptors, were collected from the Ohio Board of Regents Higher Education Information (HEI) database and reports. Additional data from the Integrated Postsecondary Education Data System (IPEDS) national educational and enrollment data website were also collected.

The HEI website includes several summary reports that capture key data sets for all Ohio two-year colleges and four-year colleges. All Ohio HEI data are acquired from IPEDS reporting; therefore, the data were consistent with state and federal data collection methods. The IPEDS system was used to capture any data not readily accessible in the
HEI system. HEI captures data from the IPEDS because institutions are required to report data to IPEDS.

Bailey et al. (2005) controlled for student compositional characteristics or individual characteristics, such as full- or part-time enrollment, overall household income levels, minority status of students (comprising African American, Hispanic, and Native American), and student gender. Toutkoushian and Smart (2001) predicted that colleges that featured a higher proportion of women, students with higher incomes, and more full-time enrollees would have more successful students.

Bailey et al. (2005) also blocked for financial characteristic variables, such as federal student aid per FTE; average undergraduate tuition; and average expenditures per FTE in instruction, academic support, support services, and administration. Federal student aid is closely related to household income, according to Bailey et al. (2005). Higher undergraduate tuition rates were negatively associated with persistence because the greater the financial burden, the more difficult it is for students to stay in college (Gailey et al., 2005). Bailey et al. (2005) predicted that expenditures in (a) instruction and (b) instruction and support services could have a positive effect on the probability of success of students enrolled in community colleges; however, colleges that spend more on student services might not be able to help their students overcome other barriers.

The fixed location variable refers to the college’s location in an urban, suburban, or rural area. Although Bailey et al. (2005) found no strong evidence of any particular effect; they included this variable to control for any factors that might be captured by the college’s location.
Validity and Reliability

Using a modified survey increases the possibility of altering the original validity and reliability ratings for the new instrument. Creswell (2003) emphasized the importance of re-establishing validity and reliability when using a modified instrument. A questionnaire used in this study was modified after questionnaires used by Wellbrook (1997) and Glenn (2001) in two separate studies of graduation rates of African American males in New Jersey and Texas. The items were not specific to any institution and were responded to by each institution involved in the study. The use of a pilot survey in this study, also used by Wellbrook (1997), was an important step in increasing validity and reliability because feedback from the pilot survey provided an opportunity to refine and clarify the instrument and its content.

Forced-choice response scales, such as “yes/no,” and impact ratings were used to increase reliability. Using forced-choice questions increases reliability according to Fowler (1984). Fowler (1984) stated that forced-choice items are easy to use, score, and code for analysis. Uniform data provided by using forced-choice items in the questionnaire also contributed to the reliability of the instrument (Fowler, 1984).

Specific strategies to enhance validity and reliability of this survey included the following:

- A concerted effort to receive responses from the chief student affairs officers and not a delegate.
- Included two-year institutions from the same state to reduce any possible impact of varying state policies.
• Included only institutions with 5% or higher African American enrollments to ensure that completion and graduation data would not be too small and thereby prevent statistical analysis.

The invitation-to-participate letter included a request from the researcher to ask the CSAO not to forward the survey to other staff members unless the CSAO was unable to respond to the questionnaire. The researcher did not find evidence that the two similar surveys previously used stipulated that the CSAO serve as the respondent.

All institutional data were collected uniformly from the HEI, IPEDS systems to increase validity and reliability. Although efforts were made during data collection not to identify responding institutions, it was not possible to guarantee absolute anonymity because of the small sample size. To maintain reliability, the researcher remained unaware of the responding institutions during the data analysis phase.

Data Analysis

The survey responses, once received, were downloaded from the Qualtrics system into the Statistical Package for Social Sciences (SPSS) so the data could be analyzed. A review of the number of respondents versus non-respondents was used to determine if the results might have been affected by response bias. Response bias may be present if non-respondents had responded and their responses would have substantially changed the overall results (Fowler 1984).

The institutional student demographic, enrollment, and institutional characteristic data were collected from IPEDS and entered into the SPSS package. Three-year completion and graduation rates of full-time, first-time African American students served as the outcome variable.
Rudestam and Newton (1992) described the use of regression analysis to determine the potential influence that environmental, demographic, and characteristic variables had on the outcome variable. Astin’s (1993) input-environment-outcome (I-E-O) model was used as the framework for analysis of the variables used in this study.

A linear multiple regression analysis, an analysis of variance (ANOVA), and an independent samples t-test were used to analyze the data. The four variable blocks that were analyzed included (a) institutional aggregate student demographic, (b) institutional characteristics and enrollment variables, (c) institutional intervention variables, and (d) interventions specifically designed to address the needs of African American or other underrepresented students.

The null hypothesis in general terms for this study stated that the mean median scores of African American students are equal to students of other races in the sample; alternatively, if the scores of African American students were not equal to students of other races in the sample and the p-value was less than or equal to .05, the null hypothesis was rejected. The researcher considered the use of a lower p-value of .01 due to the probability of a Type I error occurring (rejecting the null hypotheses when it is true) and due to large number of variables being tested; however, the researcher determined that the small sample size would have made it difficult to identify statistically significant variables using a p-value of .01; therefore, a p-value of .05 was appropriate for this study.

This quantitative analysis was designed to show whether or not institution-sponsored programs, policies, or support services had any impact on completion and graduation rates of African American students. The purpose of the study was to
determine whether these institutional efforts are producing the intended result, which is to improve the completion and graduation rates of African American students.

**Limitations**

Various limitations serve as potential threats to validity and reliability: response rates related to the use of an electronic survey, the reliability of institutional data collected from different types of two-year colleges, and the challenges associated with demonstrating a causal relationship between institutional interventions and three-year completion and graduation rates. First, although Internet-based surveys are inexpensive to produce and distribute, they have been known to generate lower response rates than mailed surveys (Converse et al., 2008). A number of steps were taken by the researcher to increase response rates. For example, in addition to follow-up emails, a phone call was made to non-respondents just prior to the survey closing date.

A second limitation is the possibility that the chief student affairs officer, the intended respondent, may have delegated the survey to another administrator with more engagement and involvement in retention of African American students but who might not have had broader institutional knowledge. A participant with direct responsibility for coordinating or directing interventions specifically targeting African American students could have provided biased responses based on the need to validate his or her work. A variety of personnel that might respond to this survey could have included administrators from multicultural/minority student services or student activities as well as the dean of students. The complexity of a director of multicultural services being asked to rate the impact of departmental interventions is an example of respondent bias.
In addition to the possibility that the survey could have been delegated to another staff member, the CSAOs, or their delegates, participants were asked to respond based on their perceptions of how interventions may or may not affect completion and graduation rates. The participants were not asked to provide data-based evidence to support their responses, and some interventions might have been managed by other departments of the college, such as Academic Affairs, so first-hand knowledge might not have been available and therefore not provided.

Institutional type and “transfer out” rates were included as variables because of the potential effect on completion and graduation rates. For example, persistence data are impacted and can be interpreted differently because students enrolled in Ohio technical colleges tend to remain in college until completion of their certificate or associate’s degree, while students enrolled in community colleges are more likely to transfer after one year.

**Conclusion**

This chapter provided an overview of the research purpose, the research questions, the variables, and the methodology. In addition, the chapter identified the sample and population, the instruments used to gather the data, the measures used to address validity and reliability issues, and the statistical analysis procedures used to analyze the data. The chapter concluded with a review of the limitations of this approach, efforts taken to overcome these limitations, and the potential influence that these limitations might have had on the outcomes of this research.
Chapter Four

The Findings

The purpose of this study was to determine whether institutional support services, policies, and programs, affect the completion and graduation rates of African American students. The study examined general institution interventions, such as advising; mentoring; orientation programs and courses; tutoring; and departments or interventions that specifically target African American or other underrepresented students, including departments, programs or staff dedicated to support the needs of African American students.

This chapter provides a detailed account of the research findings based on the statistical analyses and an observational study conducted utilizing an online questionnaire. In order to clarify the results of the analysis, descriptive statistics of the research sample are presented. In addition, a summary of the findings based on the research questions is included. Next, a summary of the methods used to analyze the data is provided, followed by the findings for each of the research questions. The chapter concludes with a summary of the findings.

Population and Sample

The population included 14 Ohio two-year colleges with 5% or higher enrollments of African American students. Institutional characteristic data and aggregate student demographic data were collected from each institution using IPEDS. An online survey using the Qualtrics software system was sent via email to the CSAOs from each institution in the population. The email addresses and contact information for each CSAO were obtained from each institution’s website, and in some cases, the researcher
personally contacted CSAOs to request their participation and confirm their email addresses.

After the survey was sent electronically in April 2013, a reminder was sent to non-respondents using the Qualtrics email reminder system eight days after the initial survey was sent. Three days later, a final email reminder was sent, and phone calls were made to non-respondents. The survey was closed two weeks later in May 2013 after receiving responses from 11 out of the 14 (78.5%) of the CSAOs.

The CSAOs were asked to voluntarily identify their race or ethnicity. Ten of the eleven participants identified themselves as White, and one participant self-identified as Hispanic/Latino. The small sample size, and the overrepresentation of CSAO’s who self-reported that they are White (91%), makes it difficult to draw meaningful conclusions using race or ethnicity as a variable in this study.

CSAOs were also asked to identify their gender. Six of the 11 respondents (54.5%) identified themselves as females, and the other five respondents (45.5%) identified themselves as males. The gender of the participants was not a focus of this study; however, the researcher collected the data to gain more information about the respondents.

The participants were asked whether another staff person or administrator at the institution forwarded the survey to them. Ten out of the 11 respondents (90.9%) were the original recipients. The recipients chose to participate based on their title and leadership role on campus relative to their involvement with and perceived knowledge of student persistence strategies.
Descriptive Analysis

The institutional characteristic and aggregate student characteristics from IPEDS, as well as the outcome variable, are presented in the following sections. Descriptive statistics, which included, when appropriate, frequencies, means, and standard deviations, are presented in order to describe the participants and the institutions that they represent.

Institutional characteristic, student enrollment, and intervention variable groups. The institutional characteristics and the aggregate student demographic and enrollment data were downloaded from the National Center for Educational Statistics’ Integrated Postsecondary Education Database System (IPEDS). A total of 13 institutional characteristic and student demographic or enrollment variables were collected. Additionally, 39 intervention variables from the survey were collected for analysis. The variables were collected and grouped into four blocks:

- Student demographic/compositional and enrollment pattern aggregate variables (IPEDS).
- Institutional characteristics variables (IPEDS).
- Institution interventions-support services, policies, and programs (survey).
- Intervention programs or services specifically targeting African American or multicultural students (survey).

Institutional characteristics. The following institutional data were collected electronically from the IPEDS website included the following characteristics that were common to all of the institutions in the population:

- Control: Public institution.
- Sector: Public 2-year.
• Institutional category: Degree-granting, associate’s, and certificates.

• Geographic region: Great Lakes, Ohio.

The unique institutional data that were collected for this study included institution size based on enrollment, Carnegie classification, academic support expenses per full-time equivalent (FTE), student services expenses per FTE, and institutional support expenses per FTE, which can be defined as non-academic or student services expenses.

Table 2 displays a summary of the institutions by size and by Carnegie classification. The number of enrolled undergraduate students was used in this study as a measure of size. There are four IPEDS “enrollment” categories that can be used to categorize institutions in this study. Institutional size, as determined by overall enrollments, were categorized in four Carnegie classifications: (a) 1000-4999, (b) 5000-9999, (c) 10,000-19,999, and (d) 20,000 and above. For the purpose of this study, institutions with fewer than 5,000 students were considered small; institutions that enroll between 5,000 and 9,999 students were considered medium-sized; institutions with enrollments between 10,000 and 19,999 students were considered large, and institutions with 20,000 or more students were considered very large. Six institutions (43%) were considered small. One institution (7%) was considered medium-sized. Four institutions (29%) were considered large. Three institutions (21%) were considered very large.

Although all the institutions in this study were associate’s degree-granting and certificate-granting institutions from the Ohio geographic region, the specific Carnegie classifications collected from the IPEDS database, which designates whether the institution is urban, suburban, or rural, was as a variable to control for. The “fixed
location” variable referred to whether the college was located in an urban, suburban, or rural area. This study controlled for the following Carnegie classifications:

- Public suburban-serving single campus
- Public urban-serving single campus
- Public urban-serving multi-campus
- Public rural-serving medium
- Public rural-serving large

Seven institutions (50%) were classified as urban, 5 institutions (36%) were classified as rural, and 2 institutions (14%) were classified as suburban.

Table 2

Basic Descriptive Data of the Sample and the Population

<table>
<thead>
<tr>
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<th>Sample</th>
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<th>Population</th>
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<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>Total</td>
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<td>100.0%</td>
<td>14</td>
<td>100.0%</td>
</tr>
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<td>Size</td>
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<td>Rural</td>
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<td>Suburban</td>
<td>2</td>
<td>18</td>
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<td>14</td>
</tr>
</tbody>
</table>

Note. Percentages are rounded to whole numbers.

Institutional data, such as financial expenditures per FTE for academic support, student services, and institutional support dollar amounts, were collected from IPEDS for each institution and served as blocking variables in this study.

Student demographic and aggregate enrollment variables. Student demographic and aggregate enrollment data collected from IPEDS for this study include
full-time versus part-time enrollment, race and ethnicity, gender, first-to-second-year retention rates for full-time and part-time students, the transfer-out rate, and the percentage of students receiving any financial aid (specifically, the percentage of students receiving a federal Pell grant). Additionally, the percentage of first-year students taking remedial math or English during 2010-11, as well as the percentage of students taking remedial math and English, was collected from the Ohio Board of Regents Higher Education Information (HEI) System.

**Outcome variable.** Outcome data representing completion and graduation rates of first-time, full-time cohorts of African American students enrolled at Ohio’s two-year colleges, was collected from the IPEDS database. Table 3 displays a summary of the African American mean enrollment and graduation rates. The mean six-year graduation rate for African American students for the institutions in the population was 6.07%, and the mean enrollment percentage for the institutions in the population was 14.57%.

**Table 3**

*Black Student Enrollment and Graduation Rates*

<table>
<thead>
<tr>
<th></th>
<th>n</th>
<th>M</th>
<th>SD</th>
<th>SEM</th>
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<td>Black/African American</td>
<td>14</td>
<td>6.07</td>
<td>6.933</td>
<td>1.853</td>
</tr>
<tr>
<td>Graduation Rate</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black/African American</td>
<td>14</td>
<td>14.57</td>
<td>8.959</td>
<td>#</td>
</tr>
<tr>
<td>Enrollment</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Three statistical analyses were conducted to determine whether there was a relationship between the mean scores of the independent variables and the dependent variables:
• An analysis of variance (ANOVA) was used to determine if there was a relationship between completion and graduation rates and data such as Carnegie classifications, and the race and gender of the CSAOs.

• The independent samples t-test was used to compare the mean scores of the institutions that responded “yes” to utilizing an intervention, to the mean scores of the institution which responded “no” to utilizing an intervention to determine if there was a relationship between the two groups.

• Simple linear regression was used to determine if there was a relationship between the completion and graduation rates and institutional numerical data such as enrollment, institutional expenditures, and the percent of students enrolled in remedial math and English.

The means of the independent variables were tested for significance at an alpha level of .05. The researcher considered the use of a lower p-value of .01 due to the probability of a Type I error occurring (rejecting the null hypotheses when it is true) and due to large number of variables being tested; however, it was concluded that the small sample size would have made it difficult to identify significant differences using an alpha level of .01.

**Analysis of institutional characteristic and student enrollment variables from IPEDS.** Linear regression analysis identified two variables that were found to be predictors of graduation and completion rates for African American students (see Table 4). The percentage of African American enrollment at the institution and the percentage of first-year students requiring remedial math and English classes were significant
predictors of graduation and completion rates for African American students \((p < .05)\).

These predictor variables served as control variables in this study.

Table 4

**Variables Serving as Predictors of Black Graduation Rates**

<table>
<thead>
<tr>
<th>Institutional Variables*</th>
<th>(F)</th>
<th>Sig.</th>
<th>df</th>
<th>(R^2)</th>
<th>(\beta)</th>
<th>Std. error</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent of Black/African American Enrollment</td>
<td>4.924</td>
<td>.047\textsubscript{b}</td>
<td>1</td>
<td>.291</td>
<td>- .417</td>
<td>6.077</td>
</tr>
<tr>
<td>Enrollment in Remedial Math and English</td>
<td>7.708</td>
<td>.017\textsubscript{b}</td>
<td>1</td>
<td>.391</td>
<td>.474</td>
<td>4.346</td>
</tr>
</tbody>
</table>

\*Note. \* = from IPEDS

A linear regression analysis was conducted to test the means of African American completion and graduation rates as the dependent criterion variable, and African American enrollment as the independent variable. African American enrollment was a significant predictor of African American completion and graduation rates \((p = .047, R^2 = .29)\). This indicates that enrollment accounted for 29\% of the variance in graduation rates.

The beta weight \(\beta\) value of - .417 indicated that for every 1\% increase in African American enrollment, there was a decrease in graduation rate by .417 percent. Figure 5 displays a scatterplot showing a negative linear relationship between institutions with African American enrollments of 10\% or lower and African American graduation rates. As African American student enrollments exceed 10\%, the strength of the correlation decreases. Completion and graduation rates at institutions with a total enrollment of more than 10\% African American students are less affected by changes in enrollment of that population of students.
Figure 5. Percent of Black enrollment/Black graduation rate.

A linear regression analysis was conducted using African American graduation rates as the dependent criterion variable and the percentage of first-year students taking remedial math and remedial English serving as the independent variable. The percentage of first-year students taking remedial math and English was a significant predictor of graduation rates ($p = .017$, $R^2 = .39$). This indicates that the percentage of first-year students taking remedial math and remedial English classes accounted for 39% of the variance in graduation rate.

The beta weight $\beta$ value of .474 indicates that for every increase of 1% in first-year students taking remedial math and English courses, there was an increase in graduation rates of 47.4%. The results, when displayed on a scatterplot (see Figure 6), do not show a linear relationship and reveals the influence of an outlier institution. The African American graduation rate of the outlier institution was 27%, the highest graduation rate of all the institutions in the sample. The outlier institution also has the highest percentage of first-year students taking remedial math and English courses (42%).
which produced an outlier effect that could explain the significance level of .017 and the absence of a linear relationship.

Figure 6. Students in Remedial math and English/Black graduation rate.

Other institutional characteristic variables from IPEDS that were not statistically significant but produced relatively low $p$-values close to the .05 level of significance include the following:

- Total enrollment ($p = .072$, $R^2 = .244$).
- Full-time enrollment ($p = .115$, $R^2 = .194$).
- Part-time enrollment ($p = .054$, $R^2 = .275$).
- Carnegie classification ($p = .110$, $R^2 = .166$).

Although these results were not statistically significant, they do reflect relationships that may be of practical significance.

Figure 7 displays a scatterplot with the independent variable, total enrollment, and the outcome variable, African American completion and graduation rates. As total enrollments increase, African American completion and graduation rates decrease, which indicates a negative linear relationship. The findings of this data suggests that institutions
with smaller enrollments have higher completion and graduation rates; however, this data was affected by an outlier institution that featured low total enrollment and a high completion and graduation rate for African American students.

![Figure 7](image)

**Figure 7.** Total enrollment/Black graduation rate.

Although not statistically significant \((p = .072, R^2 = .244)\), a simple linear regression analysis of two variables, percentage of African enrollment and total enrollment, indicated a positive linear relationship (see Figure 8). As total enrollments increased, the percentage of enrollments of African American students also increased, which indicated a positive correlation between these two variables. This further suggests that as total enrollments increase (larger institutions), it is expected that the percentage of African American enrollments are likely to increase. Although this result was not statistically significant, \((p = .072, R^2 = .244)\), it was included for analysis because it reflects a relationship of practical significance.
Figure 8. Total enrollment/percent of Black/African American student enrollment.

Figure 9 displays a scatterplot indicating African American student completion and graduation rates and part-time enrollment. Although not statistically significant ($p = .054$, $R^2 = .275$), there was a slight negative linear relationship between African American completion and graduation rates and institutions with fewer part-time enrollments. This suggests that institutions with fewer part-time enrollments (approximately 2,500 students or fewer) had higher graduation rates. It further suggests that as part-time enrollments increase, completion and graduation rates are less affected. An outlier institution affected the results of this analysis. Although this variable was not statistically significant, it was included in the results because it reflects a relationship of practical significance.
Figure 9. Part-time enrollment/Black/African American student graduation rate.

An analysis of Carnegie classification and the percentage of African American enrollment (see Figure 10) suggests that institutions classified as urban had a larger median African American student enrollment (Mdn = 14%) compared to institutions classified as rural and suburban. A rural institution was as an outlier, which affected the median enrollment data of rural institutions.

Figure 10. Carnegie Classification/percent of Black/African American student enrollment.

Figure 11 displays the difference in African American graduation rates by Carnegie classification. Although institutions classified as urban tended to have higher
median African American enrollments than rural or suburban institutions, urban institutions also had smaller median completion and graduation rates (Mdn = 2.7%) when compared to institutions classified as rural and suburban. Rural and suburban institutions had larger median African American median completion and graduation rates (Mdn= 7%, Mdn = 7%) when compared to institutions classified as urban; however, the results were influenced by an outlier, which was classified as rural.

![Figure 11. Carnegie Classification/Black/African American student graduation rate.](image)

**Analysis of CSAO impact ratings from the survey.** Tables 5 and 6 display the variables that were rated by the CSAOs as having a “high impact” or “no impact,” respectively, on completion and graduation rates. Interventions were categorized as having a “high impact” on African American completion and graduation rates if 40% or more of the institutions that used that intervention also indicated that that intervention had a high impact. For example, if 3 out of 6 (50%) of the institutions that reported using mentorship programs for African American students also rated that intervention has having a high impact on completion and graduation rates, that intervention was placed in the “high impact” category because the responses met the 40% or higher threshold.
Interventions were rated as having no impact on African American completion and graduation rates if 30% or more of the institutions that employed that particular intervention also rated it as having “no impact.”

The columns labeled “Frequency of Responses” displays the number of “high impact” or “no impact” responses, and the column labeled “No Intervention” displays the number of institutions indicating that they did not employ that particular intervention; in the latter situation, an impact rating was not applicable.

A listing of the variables by impact rating (e.g., “high impact” or “no impact”) enabled the researcher to compare the respective $p$-values to the impact ratings for each intervention variable. Several intervention variables from the survey were rated as having “some impact” however that data was not presented for analysis due to the large number of interventions in that category and duplication between variables rated as having “some impact and “high impact.” The large numbers of “some impact” ratings were affected by central tendency bias, which occurs when the respondent becomes less willing or unwilling to answer with extreme responses, such as “high impact” or “no impact.”

Four intervention variables that had $p$-values of .138 or less using an independent-samples $t$-test were included among the High Impact at 40 Valid Percent variables in Table 5. The data on the following four variables were analyzed: (a) use of early alert/warning system; (b) supplemental orientation program or course for African American, at-risk, or underrepresented students; (c) mentorship for students in select academic programs; and (d) mentorship for at-risk, African American, or underrepresented students.
Table 5

**High Impact at 40 Valid Percent or Higher**

<table>
<thead>
<tr>
<th>Survey Question/Variable</th>
<th>Frequency of “High Impact” responses</th>
<th>Valid Percent of institutions responding “yes” to having the intervention</th>
<th>No intervention institutions *Rating NA</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>At-risk students identified prior to enrollment (11#1.7)</td>
<td>6</td>
<td>100</td>
<td>5</td>
<td>.380</td>
</tr>
<tr>
<td>Special programs or support services provided for at-risk students (11#1.8)</td>
<td>8</td>
<td>80</td>
<td>1</td>
<td>.415</td>
</tr>
<tr>
<td>Special programs or services for developmental education students (11#1.9)</td>
<td>7</td>
<td>88</td>
<td>3</td>
<td>.634</td>
</tr>
<tr>
<td>Early alert/Warning system used (11#1.10)</td>
<td>4</td>
<td>50</td>
<td>3</td>
<td>.102</td>
</tr>
<tr>
<td>NSO includes information about extracurricular opportunities (11#1.5)</td>
<td>4</td>
<td>40</td>
<td>1</td>
<td>.292</td>
</tr>
<tr>
<td>Supplemental orientation program or course for African American/underrepresented students (11#1.13)</td>
<td>2</td>
<td>50</td>
<td>7</td>
<td>.138</td>
</tr>
<tr>
<td>Advising for first-year students is mandatory (11#1.14)</td>
<td>5</td>
<td>83</td>
<td>5</td>
<td>.417</td>
</tr>
<tr>
<td>Mentorship program are available (11#1.20)</td>
<td>4</td>
<td>67</td>
<td>5</td>
<td>.338</td>
</tr>
<tr>
<td>Mentorship programs for first-year students (14#1.2)</td>
<td>2</td>
<td>67</td>
<td>8</td>
<td>.866</td>
</tr>
<tr>
<td>Mentorship for students in select academic programs (14#1.3)</td>
<td>2</td>
<td>50</td>
<td>7</td>
<td>.099</td>
</tr>
<tr>
<td>Mentorship for at-risk, African American, or underrepresented students (14#1.4)</td>
<td>3</td>
<td>50</td>
<td>5</td>
<td>.109</td>
</tr>
<tr>
<td>Special office or department that provides programs or services targeting African American students (15#1.1)</td>
<td>4</td>
<td>50</td>
<td>3</td>
<td>.491</td>
</tr>
<tr>
<td>Special office provides expanded access to financial aid/scholarships (16#1.6)</td>
<td>2</td>
<td>67</td>
<td>8</td>
<td>.538</td>
</tr>
<tr>
<td>Special office provides bridge/pre-enrollment college readiness</td>
<td>2</td>
<td>50</td>
<td>7</td>
<td>.554</td>
</tr>
</tbody>
</table>
program (16#1.3)
Special office provides diversity awareness programs/training (16#1.5)
Special office provides recognition programs for achievement (16#1.8)

2 40 6 .292
2 40 6 .366

Note. n=11, * = CSAOs responded “no” to intervention, impact rating not applicable.

Table 6

No Impact at 30 Valid Percent or Higher

<table>
<thead>
<tr>
<th>Survey Question/Variable</th>
<th>Frequency of “No Impact” responses</th>
<th>Valid Percent of institutions responding “yes” to having the intervention</th>
<th>No intervention institutions *Rating NA</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job Placement is available for first-year students (11# 1.17)</td>
<td>2</td>
<td>33.3</td>
<td>5</td>
<td>.298</td>
</tr>
<tr>
<td>Mentorship-community/alumni mentors (13# 1.3)</td>
<td>1</td>
<td>50</td>
<td>9</td>
<td>Not comp</td>
</tr>
<tr>
<td>Mentorship offered to all students (14#1.1)</td>
<td>1</td>
<td>50</td>
<td>9</td>
<td>Not comp</td>
</tr>
<tr>
<td>Student clubs or organizations which focus on African American students</td>
<td>2</td>
<td>29</td>
<td>4</td>
<td>.297</td>
</tr>
</tbody>
</table>

Note. n=11, * = CSAOs responded “no” to intervention, impact rating not applicable.

A fifth intervention variable from the questionnaire, “peer mentors used,” was not listed in Table 5 due to the low number of responses to that particular item. Although the two institutions that indicated they used peer mentors and that peer mentoring was a high impact intervention, 9 out of 11 institutions indicated that they did not use peer mentors and therefore could not provide any impact rating; as a result, this variable did not meet the “40 Valid Percent or Higher” threshold to be included in Table 5. However, it was included for analysis because of its relatively low p-value of .098 and high impact ratings.
Research Question 1

RQ1. What effect, if any, do institutional support services, policies, and programs have on the completion and graduation rates of first-time, full-time African American students enrolled in Ohio’s public two-year community colleges?

Although none of the intervention variables were statistically significant at the $p$-value of .05 or less, four variables representing institutional support services, policies, or programs had low $p$-values and were rated by the CSAOs as having a high impact on completion and graduation rates of African American students were analyzed in this study.

Figure 12 displays boxplots showing the median completion and graduation rates for institutions reporting that they used alert/warning systems and institutions reporting that they did not use early alert/warning systems ($\text{Mdn}_1 = 6\%, \text{Mdn}_2 = 3.7\%$). Although the results were not statistically significant, ($p = .102$), they were included here because this variable has practical significance. The median values for African American graduation rates were similar for institutions indicating they used the early alert system as well as institutions indicating that they did not use it; however, an outlier institution with a high African American/graduation rate (27%) influenced the data. The median completion and graduation rate for the institutions utilizing early alert/warning system was higher than institutions not using it which when combined with following findings, (a) the variance in the interquartile range associated with the eight institutions indicating that they used early alert systems, (b) the high impact ratings, (c) the relatively low $p$-value, and (d) the information found in the review of the literature together suggest that use of the early alert system most likely has a meaningful influence on the graduation
rates of African Americans. The small sample sizes and effect of the outlier made it difficult to make any meaningful quantitative conclusions.

Figure 12. Early alert/warning system used.

1 = institutions which responded “yes” to utilizing the intervention; 2 = institutions which responded “no.”

Figure 13 displays boxplots showing the median values for the supplemental orientation program or course for African American students, and the African American completion graduation rate variables. Although the results were not statistically significant, \( p = .138 \) they were included here because this variable has practical significance. The median values for African American completion and graduation rates were slightly lower for institutions offering a supplemental orientation program or course than they were for institutions not offering a supplemental orientation program or course (\( \text{Mdn}_1 = 3.5\% \), \( \text{Mdn}_2 = 5\% \)). The outlier institution had an effect on the median completion and graduation rate for the institutions not offering supplemental orientation. In addition, only four institutions indicated that they offered supplemental orientation for African American students, and seven institutions responded that they offered no supplemental orientation.
These results suggest that the median completion and graduation rates for institutions that do not offer supplemental orientation are higher than they are for institutions that do offer supplemental orientation; however, the small number of institutions which responded “yes” to utilizing the supplemental orientation, and effect of the outlier made it difficult to make any meaningful quantitative conclusions.

Figure 13. Supplemental orientation program or course offered for Black students.
1 = institutions which responded “yes” to utilizing the intervention; 2 = institutions which responded “no.”

Figure 14 displays boxplots comparing the median completion and graduation rates for institutions utilizing the mentorship for students in select academic programs and institutions that do not use this intervention. Although the results were not statistically significant, \( p = .099 \), they were included here because this variable has practical significance. The median values for African American completion and graduation rates were slightly lower for institutions offering mentorship opportunities for students in select academic programs, compared to institutions not offering mentorship opportunities (\( \text{Mdn}_1 = 3.7\% \), \( \text{Mdn}_2 = 5.1\% \)). The outlier institution had an effect on the
median graduation rate for the institutions not offering mentorship opportunities in select academic programs. Similar to the supplemental orientation program or course variable, there were only four institutions indicating that they offered supplemental orientation for African American students. The results of this study indicated that the outlier institution influenced the median completion and graduation rate. The low number of institutions that responded “yes” to offering mentorship in select academic programs, and effect of the outlier, made it difficult to make any meaningful quantitative conclusions.

Figure 14. Mentorship for students in select academic programs.

1 = institutions which responded “yes” to utilizing the intervention; 2 = institutions which responded “no.”

Figure 15 displays boxplots showing the median values for the “mentorship for African American, at-risk, underrepresented students” variable and the African American graduation rates. Although the results were not statistically significant, ($p = .105$), they were included here because this variable has practical significance. Outlier institutions affected the median completion and graduation rates for institutions that responded “yes” to offering this form of mentorship, as well as institutions that responded “no” to utilizing this form of mentorship ($\text{Mdn}_1 = 4\%$, $\text{Mdn}_2 = 9\%$). It can be concluded based on the
findings of this study that the independent-samples $t$-test of the means could have produced different results without the effect of both outliers. Although the total number of “yes” and “no” responses to this question are almost equal, at 6 and 5 responses, respectively, the overall small sample size made it difficult to draw any meaningful quantitative conclusions.

**Figure 15.** Mentorship for African American, at-risk, or underrepresented students.  
$1 =$ institutions which responded “yes” to utilizing the intervention; $2 =$ institutions which responded “no.”

Figure 16 displays boxplots showing the median values for the use of peer mentors and the African American graduation rates. Although these results were not statistically significant, ($p = .098$) they were included here because this variable has practical significance. The median completion and graduation rate for African Americans at institutions that do not offer peer mentoring ($\text{Mdn}_2 = 5\%$) is higher than the median completion and graduation rate at institutions that do offer peer mentoring ($\text{Mdn}_2 = 2.5\%$). The outlier institution had an effect on the median graduation rate for the institutions that do not offer peer mentoring. In addition, only four institutions indicated that they offer peer mentoring, and seven institutions indicated that they did not offer peer mentoring.

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The results of this study indicate that the median completion and graduation rate for institutions that do not offer peer mentors was higher than it was for institutions that do offer peer mentoring; however, the low number of institutions indicating that they did use peer mentoring and the effect of the outlier made it difficult to draw any meaningful quantitative conclusions.

Figure 16. Use of peer mentors.

1 = institutions which responded “yes” to utilizing the intervention; 2 = institutions which responded “no.”

Four additional intervention variables were rated by the CSAOs as having a high impact on African American student graduation rates. This data was tested using the Independent Samples t-test and were not statistically significant at the $\alpha = .05$ level. These variables included (a) at-risk students identified prior to enrollment ($p = .380$), (b) special programs or support services available for at-risk students ($p = .415$), (c) special program available for developmental education students ($p = .634$), and (d) mandatory advising for first-year students ($p = .417$).
Research Question 2

RQ2. Do interventions such as specialized programs and services which focus on the needs of African American students affect the completion and graduation rates of first-time, full-time African American students enrolled in Ohio’s public two-year community colleges?

The variable “special office or department provides programs or services targeting African American students” was tested using the Independent Samples t-test and was not statistically significant ($p = .491$) but was rated as having a high-impact by the CSAOs. Although the $p$-value tested well above the .05 level of statistical significance, it was included for analysis in this study because it reflects relationships of practical significance.

Figure 17 displays boxplots showing the median values for the use of a special office or department that provides programs or services targeting African American students. Eight institutions indicated that they use a special office or department to provide programs specifically targeting African American students, and four institutions indicated that they did not use a special office or department to provide programs specifically targeting African American students. The median completion and graduation rates for both groups of institutions are equivalent ($Mdn_1 = 4\%, Mdn_2 = 4\%$). An outlier institution with a high graduation rate influenced the median for the institutions responding “yes.”

The findings suggest that without the outlier being in the group of institutions responding “yes” to having an office or department targeting African American students, the median completion and graduation rate would be lower than the median completion
and graduation rate of the institutions responding “no,” which suggests that graduation rates were not affected by having such a special office or department. However, the small sample size made it difficult to make any meaningful quantitative conclusions.

Figure 17. Special office or department targeting African American students.

$1 = \text{institutions which responded “yes” to utilizing the intervention; } 2 = \text{institutions which responded “no.”}$

**Research Question 3**

RQ3. If the campus has specialized programs or support services for African American students, which specific services, if any, affect completion and graduation rates?

The intervention variable, “special office or department provides expanded access to financial aid and scholarships” refers to a particular intervention or service provided by an office or department that focuses on the needs of African American students. This intervention was rated as having a high impact on completion and graduation rates of African American students by the CSAOs. The variable was tested using the Independent Samples t-test and was not statistically significant ($p = .540$) but was rated as having a high-impact by the CSAOs. Although the $p$-value tested well above the .05 level of
statistical significance, it was included for analysis in this study because it reflects relationships of practical significance.

The boxplots in Figure 18 display a large difference in the median completion and graduation rate of (a) institutions responding “yes” to indicate that they did provide expanded access to financial aid and scholarships through a specialized office (Mdn\textsubscript{1} = 15.1\%) and (b) institutions responding “no” to indicate that they did not provide expanded access to financial aid and scholarships (Mdn\textsubscript{2} = 4\%); however, only 3 out of 11 institutions responded “yes”; therefore, the small sample size of the institutions that responded “yes” made it difficult to draw any meaningful quantitative conclusions.

![Boxplot](image)

*Figure 18. Special office or department provides expanded access to financial aid/scholarships.*

1 = institutions which responded “yes” to utilizing the intervention; 2 = institutions which responded “no.”

**Summary of Findings**

Two institutional characteristic and student demographic or enrollment variables were significant predictors of African American students’ completion and graduation rates. The percentage of African American enrollment and the percentage of first-year students requiring remedial math and English, served as predictor variables in this study.
Although these variables were statistically significant predictors, it was difficult to make a clear quantitative conclusion due to the small sample size and the impact of outlier institutions on the median values.

A total of 16 of the 39 intervention variables from the survey were rated by the CSAOs as having a high impact on completion and graduation rates of Black students. None of the variables rated as high impact tested at the statistically significant $p$-value of $\leq .05$ using the independent sample t-test; however, four of the variables rated as having a high impact that tested at a $p$-value of .138 or lower was included for analysis because it reflects relationships of practical significance. The four variables are as follows: (a) early alert/warning system used ($p = .102$); (b) supplemental orientation program or course for African American, at-risk, or underrepresented students ($p = .138$); (c) mentorship for students in select academic programs ($p = .099$); and (d) mentorship for at-risk, African American, or underrepresented students ($p = .105$).

The findings also identified four institutional intervention variables that were rated by the CSAOs as having “no impact” on completion and graduation rates for African American students. None of the four “no impact”-rated variables tested at the $p$-value of $\leq .05$; therefore, the researcher concluded based on the findings that the “no impact” intervention variables did not warrant further analysis.

The additional 19 intervention variables were rated by the CSAOs as having “some impact.” None of the 19 intervention variables rated as having “some impact” were statistically significant; therefore, it can be concluded from the findings of this study that no meaningful conclusions could be drawn from further analysis of the intervention variables rated as having “some impact” on completion and graduation rates.
Four institutional and enrollment variables that were not statistically significant but had low $p$-values include the following: (a) total enrollment ($p = .072$, $R^2 = .244$); (b) full-time enrollment ($p = .115$, $R^2 = .194$); (c) part-time enrollment ($p = .054$, $R^2 = .275$); and (d) Carnegie classification ($p = .110$, $R^2 = .166$). There was a positive linear relationship between the enrollment variables, which shows that smaller institutions or institutions with smaller enrollments are correlated with higher graduation rates. As enrollment levels increased at larger institutions, completion and graduation rates declines.

An analysis of the Carnegie classifications revealed that institutions classified as “rural” tended to have higher African American graduation rates than did institutions classified as “urban” or “suburban.” Institutions located in urban areas tended to have larger enrollments, and institutions located in rural areas tended to have smaller enrollments. An outlier rural institution with a high African American student graduation rate influenced the results.

In response to research question 1, the findings of this study identified the following 4 high impact rated institutional interventions that are correlated with African American completion and graduation rates:

- Use of early alert/warning systems.
- Mentors for African American, at-risk, underrepresented students.
- Mentors for students in select academic programs.
- Supplemental orientation program or course offered.

In the case of the four intervention variables, the effect of the outlier institution and the small sample size made it difficult to draw any meaningful quantitative
conclusions; however, in cases of equivalent or near equivalent median completion and graduation rates for institutions that responded “yes” and institutions that responded “no,” a larger sample size would have provided more reliable conclusions, particularly because of the high-impact ratings.

This chapter presented the results of Research Question 2, which focused on specialized programs and services that focus on the needs of African American students. The findings identified one intervention that had a relatively high $p$-value of .491: “special office or department providing programs or services which targeted African American students.” The “special office” variable was analyzed in this study because of its high impact rating, and the literature review provided information about the strong impact of specialized offices, departments, or staff that focuses on African American students. The results suggest that an outlier institution influenced the median African American completion graduation rates, which made it difficult to draw a meaningful quantitative conclusion.

Finally, in response to Research Question 3, a special office serving the needs of African American students which provides “expanded access to financial aid or scholarships” was a intervention variable of practical significance to this study. The variable was tested using the Independent Samples t-test and was not statistically significant ($p = .540$) but was rated as having a high-impact by the CSAOs Additionally, access to financial aid was cited in the review of the literature as a key intervention strategy. It was difficult to draw any meaningful quantitative conclusions from the results of this analysis because of the small sample size.
Conclusion

Three research questions guided this examination into the influence of institutional support services, policies, and programs on the completion and graduation rates of first-time, full-time African American students enrolled in Ohio’s public two-year community colleges. The results of this study were based on data gathered from IPEDS and an online questionnaire administered to 14 chief student affairs officers at two-year colleges in Ohio with 5% or higher enrollment of African American students.

A descriptive analysis was conducted using SPSS to describe the general characteristics of the sample and population. SPSS was used to compare the mean scores of each variable using an ANOVA, an independent samples t-test, and a linear regression.

Chapter five presents the conclusions drawn from the results of the study and discusses the implications of those findings for theory, for policy, and for practice. The limitations of the study are discussed in Chapter five along with suggestions for further research and concluding thoughts.
Chapter Five

Discussions, Recommendations, and Conclusions

This chapter presents an overview of the study and the major findings; the limitations of the study; and implications for policy, practice, and theory. Recommendations for future research also are provided.

Overview of the Study

The purpose of this study was to determine whether institutional support services, policies, and programs influence the completion and graduation rates of African American students. The study examined institutional interventions, such as advising, mentoring, providing orientation programs and courses, tutoring, and establishing departments or interventions that specifically target African Americans or other underrepresented students (e.g., culture centers, programs, or staff members dedicated to supporting the needs of African American students). The key outcome variable used to define student success in this study was completion and graduation rates for full-time, first-time African American students.

Since 2009, new national community college completion goals set by President Obama (Lewin, 2010), and state accountability standards, have changed the focus of community colleges from access to student success. Budget shortfalls, which have occurred since the economic downturn in 2008, have placed scrutiny on state funding formulas as well as additional focus on student success. The Ohio Board of Regents (OBOR) recently revised the 2011 formula for the Shared State of Instruction funding system by shifting funding from 90% enrollment and 10% Success Points in financial
year 2013 to 50% enrollment and 50% Success Points and Course Completions (Ohio Board of Regents [OBOR], 2013).

To facilitate the movement towards a student success agenda, OBOR recently produced a series of recommendations in a report called *Complete College Ohio*. The report provides recommendations for Ohio two-year and four-year colleges as well as a mandate for each college to submit a completion plan by spring 2014 that describes how the institution will implement strategic initiatives designed to improve completion and graduation rates. A focus on completion and graduation rates instead of headcount enrollments highlights a dramatic emphasis on improved retention and student success. African American student success can be connected with an institution’s success, particularly for colleges with significant enrollment of African American students.

This study presented findings and recommendations designed to aid college administrators in determining which interventions have the greatest impact on improving completion and graduation rates among African American students enrolled at two-year colleges.

Scholarly research on student persistence and completion focused on the impact of interventions that relate theory to practice. More specifically, a review of the literature focused on the following major themes related to persistence and completion rates among African Americans and other at-risk students enrolled in two-year colleges:

- Psychological adjustment and socialization of African American students.
- Retention and student success for African American students attending two-year and four-year colleges.
- Targeted programs, services, and policies designed to support African American students and promote a multicultural environment that embraces diversity.

- The history and role of Black culture centers.

The research methodology in this study included a collection of respondent data from a survey sent to chief student affairs officers (CSAOs) at 14 of Ohio’s 23 (61%) two-year colleges with an African American student enrollment of 5% or higher. The CSAOs were invited to participate in an online questionnaire about the existence and utilization of programs, policies, and services designed to increase completion and graduation rates at their respective institutions. The CSAOs were asked to rate those interventions in terms of the potential impact on completion and graduation rates of African American students.

Two similar studies were discovered through a review of the literature that employed similar surveys. Wellbrook’s (1997) questionnaire, which also was sent to CSAOs, served as a model for the questionnaire used in this study. Wellbrook’s questionnaire was designed to elicit information from CSAOs about the impact of programs and services on graduation rates among African American male students in the community college system of New Jersey.

Glenn (2001) created a similar questionnaire, which gathered information about policies and/or practices directly related to retention of African American male students enrolled at community colleges in Texas. Glenn’s (2001) questionnaire, modeled after Wellbrook’s (1997) questionnaire, was mailed to colleges in Texas with the highest (top 25%) and lowest (bottom 25%) graduation rates for African American males.
This study used a modified version of the questionnaire used by Wellbrook (1997) and Glenn (2001) because of the similarities between the institutional interventions explored in both of their studies and in this present study. Studies conducted both by Wellbrook (1997) and Glenn (2001) focused on two-year colleges in one state and sought to explain the relationship between graduation rates among African American male students at specific institutions and the interventions used at those institutions. The results of this study differ from those of Wellbrook’s (1997) and Glenn’s (2001) studies because this study focused on determining which interventions have the most impact on completion and graduation rates regardless of the institution.

Data in this study were collected and grouped into four blocks:

- Student demographic/compositional and enrollment pattern aggregate data (IPEDS).
- Institutional characteristics (IPEDS).
- Institutional interventions/support services, policies, and programs (questionnaire).
- Intervention programs or services specifically targeting African American or multicultural students (questionnaire).

This study included the following three research questions:

RQ1. What effects, if any, do institutional support services, policies, and programs have on the completion and graduation rates of first-time, full-time African American students enrolled in Ohio’s public two-year community colleges?

RQ2. Do interventions, such as specialized programs and services, which focus on the needs of African American students, affect completion and graduation rates of first-
time, full-time African American students enrolled in Ohio’s public two-year community colleges?

RQ3. If the campus has specialized programs or support services for African American students, which specific services, if any, affect completion and graduation rates of African American students?

Discussion of the Findings

A total of 52 variables representing institutional characteristics, student enrollment, and institutional interventions were included in this study. Data for the 13 institutional and student enrollment variables were collected from the IPEDS website, and data for the 39 institutional intervention variables were collected by administering a questionnaire to chief student affairs officers. This section begins with a discussion of the findings related to 2 of the 13 institutional characteristic and student enrollment predictor variables from IPEDS. This section continues with a discussion of the 16 high-impact intervention variables, with specific emphasis on the 6 intervention variables that CSAOs indicated were the most impactful.

Institutional Characteristics and Student Enrollment Variables from IPEDS.

Two of the thirteen institutional characteristics and student enrollment variables (percentage of African American enrollment and enrollment in remedial math and English courses) were found to be significant predictors of African American completion and graduation rates. The variables “total enrollment” and “part-time enrollment”, while not statistically significant predictors, served as related variables of practical significance. The findings of this study concluded that as African American enrollment increases, completion and graduation rates decline for that population.
The findings of this study also indicated that institutions with increased student enrollments in remedial math and English courses can anticipate potentially higher completion and graduation rates. An outlier institution with high enrollments in remedial math and English courses and the highest African American completion and graduation rates in the sample influenced the findings.

A review of the literature showed that institutions with large numbers of students enrolled in remedial education coursework typically have lower persistence rates; however, the findings of this study suggest that targeting at-risk students in remedial courses with effective interventions may lead to improved student performance and higher persistence rates.

**Percentage of African American enrollment discussion.** The findings of this study suggest that as African American enrollment increases, institutions should anticipate a decrease in completion and graduation rates for that population of students. The findings also demonstrated that there is a relationship between increases in total enrollment and increases in African American student enrollment, especially at urban institutions. As institutions seek to increase total enrollment, African American student enrollment may also increase, which may result in a decrease in completion and graduation rates.

In addition to African American enrollment and total enrollment, there was also a relationship between part-time enrollment and African American student completion and graduation rates. Although the relationship was not statistically significant, it was concluded from the findings that as part-time enrollments increase, African American student completion and graduation rates declined. The relationship was consistent with
existing research, which identified part-time enrollment as a significant risk factor for student persistence (Coley, 2000; Schimid & Abell, 2003).

Conclusions about percentage of African American enrollment. Based on the findings of this study, administrators and enrollment managers should consider the impact of recruitment strategies and demographic trends that could result in larger enrollments. If increases in enrollment of African American students result in a decline in completion and graduation rates, the decline could mitigate the benefits of increased enrollment. An enrollment management plan that calls for increases in African American enrollment also should include well-coordinated interventions and support systems that are intended to improve persistence. Institutions also should include appropriate advising and registration practices that encourage full-time enrollment.

Enrollment in remedial math and English discussion. Enrollment in remedial math and English courses was a statistically significant predictor variable in this study. However, the results indicate that this variable was affected by an outlier institution with a large percentage of students enrolled in remedial math and English courses and a high African American completion and graduation rate. The outlier institution had the highest completion and graduation rate (27%) of the 14 institutions in the sample.

The results are contrary to the theory that institutions with a greater number of students taking remedial education courses will experience lower persistence rates. The Center for Community College Student Engagement (CCCSE, 2012) has pointed out that “the longer it takes a student to move through developmental education, the more likely he or she is to drop out” (p. 14). Muraskin and Wilner (2004) also observed that students enrolled in developmental education graduate at a lower rate than those who start in non-
remedial college-level courses. Bailey and Alfonso (2005) stated, “Although students who start in remedial courses tends to have weaker academic skills, it is possible that the remediation was effective and the students could have performed worse without it” (p. 14).

The findings indicated that institutions with a large number of students in remedial math and English courses could improve completion and graduation rates by targeting them to receive specific interventions. The review of the literature and findings of this study also suggest that effective interventions that target at-risk students, many of whom are enrolled in remedial education, may potentially reduce any performance gaps between students in remedial courses and students in non-remedial college-level courses.

**Conclusions about enrollment in remedial math and English.** Although the findings of this study suggest higher enrollments in remedial math and English courses lead to higher completion and graduation rates, the results are inconclusive because of the effect of an outlier institution. Further research conducted on institutions with high enrollments of students in remedial education courses may reveal whether institutions with high enrollments of students taking remedial courses provide interventions for those students. These research efforts could result in better completion and graduation rates for students enrolled in developmental education courses.

Interventions such as early alert/warning systems, required academic advising and mentoring, tutorial services, and high-impact strategies designed to improve performance for students enrolled in developmental education could actually improve student performance in those courses. A review of the literature highlighted the following
specific interventions for students enrolled in developmental education courses: (a) accelerated courses, (b) supplemental instruction, and (c) learning communities.

The findings of this study were consistent with Jenkins’ (2006) recommendations that “community colleges are more effective if they offer targeted support for underperforming students, such as students enrolled in remedial education” (p. 41). In summary, it can be concluded from the findings of this study that it is not necessarily the number of students enrolled in developmental education that predicts completion rates; rather, completion rates can be influenced by the support that is provided for those students. Students enrolled in remedial math and English courses represent a specific population of students upon which institutions should focus their intervention strategies. It is imperative that institutions develop effective interventions to assist these students in order to prevent reductions in completion and graduation rates.

**Institutional Intervention Variables from the Survey.**

A total of 16 of the 39 institutional intervention variables from the survey were rated by the CSAOs as having a high impact on completion and graduation rates. Although none of the institutional intervention variables were statistically significant predictors, several of the 16 interventions were analyzed because of their impact ratings and importance in this study based on the review of the literature. The 16 intervention variables (see Table 5) are grouped into the following categories for analysis:

- Developmental education/at-risk student interventions.
- Early alert/warning systems.
- New student orientation programs or courses for credit.
- Advising for first-year students (mandatory).
Mentorship programs.

Special office or department which targets the needs of African American or underrepresented students.

Based on the findings of this study, it can be concluded that the following institutional intervention variables are the most impactful of the 16 interventions: (1) the use of an early alert/warning system; (2) supplemental orientation program or course for African American, at-risk, or underrepresented students; (3) mentorship for students in select academic programs; (4) mentorship for at-risk, African American, or underrepresented students; and (5) the use of peer mentors.

Habley (2010) used a similar impact rating system in the ACT survey sent to CAAOs. The results of the ratings for two-year colleges whose enrollments include at least 20% African American students identified 20 ratings of practices that made the greatest contribution to the success of African American students, according to the CAAO’s (Habley, 2010).

Although the interventions included in this study were not intended to match Habley’s (2010) 20 interventions, three of the highly rated interventions in Habley’s study were also rated as having a high impact on completion and graduation rates by the CSAOs in this study: (1) freshman seminar/orientation course for credit, (2) academic advising, and (3) peer mentoring.

Glenn’s (2001) study of African American male graduation rates at Texas community colleges with low and high graduation rates identified the following interventions, which also were rated as having a high impact by CSAOs in this study:

- Freshman-only academic advising.
• Orientation course for credit.
• Required tutorial programs.
• Mandatory meetings with advisors for at-risk students.
• Monitoring at-risk student attendance.
• Targeting minority groups with specific plans.
• Identification of at-risk students prior to enrollment and monitoring progress.

The CSAOs in this study and in Glenn’s (2001) study selected six common high-impact interventions. All of the high-impact interventions identified in Glenn’s study, except “required tutorial programs,” were identified as high-impact interventions in this study.

*Developmental education/at-risk student interventions discussion.* Three interventions designed to improve the success of developmental education or at-risk students were rated as having a high impact by the CSAOs: (1) at-risk students identified prior to enrollment, (2) special programs or services for at-risk students, and (3) special programs for developmental education students.

A review of the literature revealed a robust body of research highlighting the importance of interventions for students who are academically underprepared, at-risk, or enrolled in developmental education. There is uncertainty about the most effective approach to designing these interventions. Bailey and Alfonso (2005), Habley (2010), and Jenkins (2006) cited several interventions aimed at improving persistence and completion rates for at-risk or developmental education students.

None of the specific interventions for at-risk or developmental education students were rated as having a high impact were statistically significant predictors of completion
and graduation rates; however, the results for students enrolled in remedial math and English courses can be applied to interventions for developmental education and at-risk students. Three interventions were rated by the CSAOs in this study as having a high impact on completion and graduation rates, and it can be concluded that a strategic focus on interventions for developmental education students, also defined as “at-risk students,” should be part of a strategy to improve completion and graduation rates.

**Conclusions about developmental education/at-risk student interventions.** Two-year colleges continue to enroll a large number of at-risk or academically underprepared students who also are often enrolled in developmental education courses. Institutions seeking to improve completion and graduation rates will need to develop effective interventions to help these students complete their educational goals. It is imperative for institutions to focus resources and interventions on these students, and the findings of this study suggest that institutions that identify these students prior to enrollment, and create high-impact interventions for them, can increase completion and graduation rates.

Because of the small sample size, the findings of this study did not allow for meaningful data-driven conclusions; however, this research provided an opportunity to focus further research on the specific interventions that are perceived to have the most impact on completion and graduation rates of African American students.

**Early alert/warning systems discussion.** Early alert/warning systems were rated by CSAOs as having a high impact on completion and graduation rates. Although the results of this study did not find that early alert/warning systems were statistically significant predictors of completion and graduation rates, the high-impact rating and
relatively low $p$-value ($p = .102$) indicate that this result has practical significance. Additionally, early alert/warning systems were cited in the review of the literature as a communication tool used by colleges to provide interventions when students are experiencing difficulties.

Jenkins (2006) also described early alert/warning systems as one of several key academic support interventions used by two-year colleges. According to Jenkins (2006), early alert/warning systems, in-depth new-student orientations, proactive advising, and well-organized academic support services need to be in place and coordinated across campus.

Early alert systems are capable of serving as a communication vehicle for several intervention strategies. Communications can be sent from faculty members to academic advisors who monitor at-risk students. Early alert communications also can be sent to monitor the progress of students involved in mentorship programs. Additionally, offices or departments that focus on the needs of African American students can use an early alert system to track and monitor students in need of interventions.

Schwartz and Jenkins (2007) described how an early alert system can be used to improve persistence and student success with developmental students:

Developmental faculty and staff send alerts to administrators or counselors about students in need of extra help. Staff can move swiftly to provide the appropriate academic or personal support, and monitor students to be sure that they are benefitting from the supports. (p. 19)

Early alert/warning systems can range from elaborate computer software programs to rudimentary paper-and-pencil reporting. Because of the variety of early
warning systems used, it is difficult to make general conclusions about the effectiveness of these systems. In addition, the impact of early alert/warning systems depends on the engagement of faculty members and staff members in using the system. If faculty members feel that the system is too complex, they will likely not use it. If staff members are unable to address the student issues that arise because of the volume of alerts received, they are not likely to provide the needed interventions.

The CCCSE Promising Practices report (CCCSE, 2012) highlights the differences in reported results of institutions that use an early alert/warning system. Fifty-two percent of the students who took the 2011 Survey of Entering Student Engagement (SENSE) responded “no” to the following questionnaire item: “Someone at the college contacts me if I am struggling with my studies to help me get assistance.” Ironically, 77% of the faculty members and staff members at the same colleges who responded to the Community College Institutional Survey (CCSI) indicated that their institution has a systematic early alert/warning system. It is possible that these institutions use the system to target at-risk students, but perhaps the students are not aware of the system because communication and intervention systems are lacking.

**Conclusions about early alert/warning systems.** The findings of this study, as well as empirical studies included in the review of literature, suggest that early alert/warning systems should be part of an overall student completion plan. Early alert/warning systems can have a far-reaching impact that enables institutions to facilitate interventions for a variety of students. It is important for institutions to determine the most effective systems and provide training and resources to ensure that faculty members
and staff members use the system to maximize the positive impact on students.

Institutions strategically using an early alert/warning system must do the following:

- Ensure that the system is simple for faculty members and staff members to use.
- Provide adequate and timely systems for meaningful circular feedback to students, staff members, and faculty members (e.g., positive reinforcement for good performance)—especially feedback related to attendance problems, difficulties on quizzes, difficulties with homework, etc.
- Include students in the communication loop.
- Provide appropriate staffing and resources necessary to react to issues and concerns with appropriate interventions.

**New student orientation programs or courses discussion.** Two interventions related to new-student orientation programs or courses were rated as having a high impact on completion and graduation rates. The new-student orientation variables that were rated by CSAOs as having a high impact on completion and graduation rates include the following: (a) orientation includes information about extracurricular activities and (b) supplemental orientation program or course for credit offered. Neither intervention was a statistically significant predictor of completion and graduation rates; however, the supplemental orientation program or course-offered intervention warrants further analysis because of the high-impact rating and the relatively low $p$-value ($p = .138$).

Jenkins (2006) cited the importance of an in-depth new-student orientation program, which was used by high-impact two-year colleges in his study. The use of an orientation course for credit is included on both Habley’s (2010), and Glenn’s (2001) list.
of high-impact interventions. Schwartz and Jenkins (2007) have contended that students who enroll in orientation courses for credit have better college outcomes. Stovall (2000) explored the benefits of enrolling in an orientation course for minority students through research that resulted in an increase in first-term GPAs for minority students at a rural, Midwestern public community college when compared to the increase in first-term GPAs for White students enrolled in the orientation course at the same college.

The benefits of implementing a comprehensive orientation program and course are evident based on the findings of this study, but the CCCSE study indicated that merely offering an orientation program and or an orientation course is not enough. CCCSE (2012) survey data indicated that 83% of the institutions reporting having an orientation course, but only 15% of those institutions actually required that students enroll in and complete the course. The CCCSE (2012) data also reflects a similar gap between new-student orientation programs offered and programs required. As many as 96% of the institutions reported offering a new student orientation program, and only 38% of the institutions reported requiring the course.

**Conclusions about new student orientation programs or courses.** The results of this study suggested that two-year colleges should not only offer effective comprehensive new-student orientation programs and courses for credit, but students also should be required to participate in courses and strongly encouraged to participate in orientation programs. Supplemental orientation programs, which may occur days or weeks before the start of students’ first term, or may occur as a pre-enrollment bridge program, provide foundational information to incoming students. Supplemental orientation courses provide information beyond the standard orientation information all students receive. Institutions
can tailor the program to address specific student needs. For example, if students are expected to enroll in remedial courses, the orientation or bridge program may include a math, or writing refresher. Supplemental orientation courses can connect students to faculty members, staff members, or peer mentors, before the start of the term. These programs also can take extra time to make students aware of campus resources by encouraging them to engage with staff members, faculty members, and institutional facilities. Mandatory participation will require an additional investment of resources, but the results of this study suggest that the overall benefits resulting from improved completion and graduation rates should offset the investment in effective orientation initiatives.

*Advising for first-year students is mandatory discussion.* The survey of CSAOs included only one item that inquired directly about the impact of mandatory academic advising for first-year students, and that intervention was rated as having a high impact. Mandatory advising for first-year student was not a statistically significant predictor of completion and graduation rates. However, the review of the literature indicated that institutions place a great deal of importance on academic advising as a key intervention strategy.

Mandatory academic advising for first-year students is included on Glenn (2001) and Habley’s (2010) list of high-impact interventions. Jenkins (2007), Karp (2013), Lewis and Middleton (2003), and Mason (1998) addressed the importance of academic advising that is well coordinated with other academic interventions. Research strongly suggests that academic advising should be integrated with career advising to create a pathway leading to improved student outcomes. Karp (2013) addressed this integration
by cautioning against the creation of separate academic and career advising programs in order to avoid a fragmented approach that can create a barrier to effective advising.

Data from the CCCSE (2012) survey illustrate the importance of academic goal setting and planning, but the data also highlight the delivery gaps. The CCCSE (2012) survey data indicated that 91% of the students reported that academic goal setting and planning is important, but only 46% responded on the SENSE questionnaire (CCCSE 2012) that they never used advising and planning services. Even more stunning, only 38% of students who did see an academic advisor reported that the advisor actually helped them set academic and career goals (CCCSE, 2012).

Conclusions about mandatory advising for first-year students. The findings of this study revealed the importance of institutional efforts to create advising programs that are integrated with career planning activities and coordinated with other academic support services. Institutions should review academic advising systems to ensure that all students (particularly at-risk students) receive advising that includes career planning and that is coordinated with other academic support services. The results of the study also suggest that the comprehensive advising program should be mandatory for first-year students to ensure that academic and career pathways are set and being followed or adjusted.

Mentorship program discussion. Several interventions involving a variety of mentorship offerings were identified as high-impact interventions by the CSAOs who participated in this study. CSAOs rated the following mentorship offerings as having a high impact on completion and graduation rates: (1) mentorship programs are available; (2) mentorship programs are available for first-year students; (3) mentorship programs
are available to students in select academic programs; (4) and mentorship programs are available for at-risk, African American, or underrepresented students. One additional mentorship intervention, “peer mentors are available,” was rated as having some impact but had a low \( p \)-value (\( p = .098 \)).

None of the six mentorship interventions that CSAOs rated as having a high impact were statistically significant predictors of completion and graduation rates; however, three of the six mentorship interventions had \( p \)-values of .105 or less:

- Mentorship programs are available to students in select academic programs (\( p = .099 \)).
- Mentorship programs are available for at-risk, African American, or underrepresented students (\( p = .105 \)).
- Peer mentors are available (\( p = .098 \)).

The findings of this study highlighted the perceived high impact of mentoring as a general intervention. Pope (2002) stated in a review of community college mentorship programs that “mentoring programs are conducive to the transition, retention, and success of minorities in higher education” (p. 41). Pope (2002) also contended that mentorship programs for community college students must assist them in dealing with the everyday life challenges non-traditional students face, such as family issues and work responsibilities.

Mentorship programs can take on a variety of formats with different types of mentors to meet the needs of students. The findings of this study indicated that mentorship programs that focus on first-year, African American, underrepresented, or at-risk students were the most impactful. The findings further indicated that mentorship
programs housed in academic departments or that have an academic program theme, such as minorities in engineering, were the most impactful. CSAOs responded to a variety of items on the questionnaire about types of mentors, such as faculty members, staff members, community members, alumni, and peers. The use of peer mentors was rated as having “some impact” by a small number of institutions in the sample. The small number of institutions that responded “yes” to utilizing peer mentors made it difficult to draw a meaningful quantitative conclusion from the impact ratings of mentor types.

**Conclusions about mentorship programs.** The array of mentorship interventions that were rated as having a high impact on completion and graduation rates illustrated the potential benefits of effective mentorship programs. It is recommended based on the findings of this study that institutions carefully examine the needs and composition of the student body to determine which students are in greatest need of mentorship and how to create a mentorship structure that fosters student engagement. It can be concluded based on the findings of this study that the mentorship programs that have the greatest impact on completion and graduation rates should focus on African-American, underrepresented, and at-risk students as well as students in select academic programs. The findings also concluded that peer mentors are an effective component of any mentorship program.

**Special office or department that provides programs or services targeting the needs of African American or underrepresented students discussion.** Five interventions related to the existence of a special office or department were rated by CSAOs as having a high impact on completion and graduation rates. The five interventions that were rated as having a high impact include (1) special office or department that provides programs or services targeting African American students, (2) special office or department that
provides expanded access to scholarships and financial aid, (3) special office that provides bridge/pre-enrollment college readiness programs, (4) special office that provides diversity awareness programs and or training, and (5) special office that provides recognition programs for achievement. None of these interventions was a statistically significant predictor of completion and graduation rates, but they were included due to their importance in this study. A review of the literature concluded that a special office or departments plays a key role in coordinating a variety of interventions that focus on the needs of African American students.

Based on the findings of this study, it can be concluded that a special office or department, such as an office of minority/multicultural affairs or Black culture center, would assume a vital role in coordinating a number of interventions, such as expanded access to scholarships or financial aid, mentorship, bridge or supplemental orientation programs, recognition events, or diversity awareness or training.

**Conclusions about special office or department that provides programs or services targeting the needs of African American or underrepresented students.**

Without actually integrating it into student services, the mere existence of a special office or department may not improve completion and graduation rates for African American students; however, it can play a key role in coordinating interventions, such as mentoring, supplemental orientation or bridge programs, and early warning response interventions.

In addition, the literature review highlighted the important role that these offices or departments play in creating a welcoming, caring, and nurturing environment that can help African American students successfully make the psychosocial adjustment to a predominately White college campus (Jenkins, 2006). Practitioners should carefully
examine the comprehensive role played by offices or departments that develop and coordinate interventions targeting African American students.

Although few intervention variables were statistically significant predictors of completion and graduation rates, and the small sample size made it difficult to draw a meaningful quantitative conclusion, the number of special office or department interventions that were rated as having a high impact by the CSAOs, and the review of the literature, suggest that these interventions should be incorporated into student services activities in two-year colleges. The increasing enrollment of large numbers of African American students, many of whom will be underprepared if current trends continue, necessitates a special focus on assisting this population of students. The findings of this study support the need for future research on the impact of special initiatives that target African American or other underrepresented students.

**Implications for Policy and Practice**

The implications presented in this section are based on findings of the study. The implications for policy and practice add to the body of literature and can assist administrators and higher education practitioners in assessing interventions designed to improve completion and graduation rates for African American students attending their respective institutions.

The findings of this study suggest that enrollment managers seeking to increase overall enrollment (specifically, enrollment of African American students) should anticipate declines in completion and graduation rates and should prevent those declines by implementing the following interventions:
• Implement registration and academic advising strategies that encourage full-time enrollment and include time management strategies to help students enrolled full time.

• Develop mandatory academic advising programs for first-year students that include career development and that are well coordinated with campus academic support programs.

• Identify at-risk students and students enrolled in remedial courses prior to enrollment to target interventions such as early alert/warning, mentoring, supplemental orientation, etc.

• Use an early alert/warning system to track student progress by engaging faculty members, staff members, and students in communications that lead to early interventions, and ensure that systems are simple to use and combined with appropriate resources needed for interventions.

• Create effective and mandatory orientation programs, bridge programs, or courses for credit, especially supplemental orientation programs for African-American, multicultural, or at-risk students.

• Consider establishing a special office or department that can coordinate interventions targeting African American or underrepresented students.

The debate described in the review of the literature about the value of offices, departments, and culture centers that focus on the needs of African American or underrepresented students largely focus on four-year institutions. This study highlighted the value of measuring the impact of interventions specifically designed to address the
completion and graduation rates of African American, multicultural, or underrepresented students at two-year colleges.

An office or department that focuses on African American students can play an integral role in coordinating services and interventions. A review of the literature did not reveal information that would provide clear, data-driven evidence of the impact of these departments or services; however, the results of this study indicated that high-impact institutions have targeted interventions, and those interventions can be best deployed by an office or department focusing on minority students. A variety of qualitative studies and anecdotal information was discovered while reviewing the research literature—information that supported the value and impact of specialized services and the need for further research to produce quantifiable results.

**Implications for Theory**

Perhaps the most well-known theorist to describe issues related to socialization is William Cross. Cross’s (1971) theory of nigrescence, also known as racial identity theory, describes five stages of racial identity that can be impacted by racial socialization: (1) pre-encounter, (2) encounter, (3) immersion-emersion, (4) internalization, and (5) internalization-commitment. Cross provides a theoretical framework for examining the impact of programs or services that specifically focus on the needs of African American students.

The results of this study did not provide statistically significant quantitative evidence that directly supports the connection of Cross’s theory to the utilization of specific departments, programs, or services by African American students, to the racial identity development of African American students. However, the findings of this study
suggest that the impact of interventions such as culture centers, culturally based programs, diversity training, or African American/multicultural student clubs or organizations plays an important role in providing a sense of belongingness and in fostering racial identity development.

**Limitations of the Study**

There were three significant limitations to the study: (a) the sample size was too small to generalize the results to a larger population, (b) the validity of the impact responses from the CSAOs may have been affected by a potential lack of data, and (c) the inability of the researcher to gather follow-up data via a qualitative process.

**Recommendations for Further Research**

Further research with a larger population and sample size may result in meaningful quantitative conclusions about the impact of various interventions. A combination of quantitative and qualitative research methods using a similar national study, such as the study conducted by ACT (Habley, 2010), will yield more quantifiable results.

This study adds to the body of literature examining the potential impact of support services, policies, and procedures on completion and graduation rates of African American students enrolled at select Ohio two-year colleges. Further research will guide policy and practice at a time when student success initiatives have been tied to accountability and funding.

It is recommended that a national study be conducted that collects quantitative and qualitative data from a wider sample of two-year colleges that have special departments, programs, or offices, such as a culture center, that focus on the needs of
African American or underrepresented students. A larger sample of institutions will allow future researchers to identify additional institutional characteristic, student enrollment, and intervention variables that are statistically significant predictors of completion and graduation rates.

Before this national study is conducted, extensive research prior to the beginning of the study needs to be conducted to identify two-year colleges with special departments or offices that serve African American students. The colleges with identified special departments or offices would serve as the sample in the study. The researcher conducted an initial search and could not identify any national listing of special offices or departments. The Association of Black Culture Centers (ABCC) has a membership listing on its website, but the ABCC president, Dr. Fred Hord, indicated that there are several programs located at community colleges that are not members of ABCC.

After the sample of institutions has been established, quantitative data can be collected utilizing a questionnaire similar to the questionnaire used in this study. The findings of this study can be used to refine the questionnaire items. Institutional characteristics and student enrollment data should be collected from the IPEDS database. The research will produce variables that can be tested for statistical significance. The larger sample size will produce data that can be used to generalize the results. The statistically significant interventions that were rated as having a high impact on completion and graduation rates will serve as the focus of the qualitative component of further research.

The next step would be to conduct follow-up qualitative case studies or interviews, similar to Wellbrook (1997) and Glenn (2001), and gather additional information from
two separate groups--one consisting of CSAOs and other administrators and the other consisting of students. To account for differences between urban and rural institutions, three to four institutions should be selected for the follow-up case studies. Follow-up data can be gathered via electronic questionnaire, or, if time permits, focus groups can be assembled that would provide detailed questions and responses. Qualitative data will provide future researchers with information to make a more complete analysis of the impact of interventions. For example, students can be asked if an early warning system changed their behavior or which type of interactions they had with staff members in a special office, such as a culture center.

A qualitative study using student case studies or focus groups should include the use of reflective practice, which involves the researcher collecting feedback from students about their past experiences in order to draw conclusions about their future judgment, decision-making, and actions (Lupinski, Jenkins, Beard, & Jones, 2012). The use of reflective practice is intended to provide information that may lead to conclusions designed to help influence outcomes for institutions serving future students.

In addition to utilizing reflective practice, case studies or focus groups should include successful students in order to ensure that future researchers better understand which approaches work. Lopez and Louis (2009) have suggested that researchers emphasize the positive aspects of student effort by using a strengths-based approach. The strengths-based approach enables future researchers to gain information about interventions from students who have experienced success.

Conducting additional qualitative case studies or survey research would enable researchers to collect the following data about high-impact interventions: (1) additional
data that describes completion and graduation rates for students participating in the intervention; (2) length of time the intervention has been in place; (3) participation rates for students by race and ethnicity; and (4) resources used to implement certain types of interventions, as determined by annual expenses per full-time equivalent (FTE) student, which can be collected from the IPEDS database.

Conclusions

The growing number of underprepared students enrolling in two-year colleges, a disproportionate number of underprepared African American students, and new accountability measures tied to funding highlights the importance of this study. Research focused on determining the effectiveness of intervention strategies on completion and graduation rates enables higher education professionals at two-year colleges to make data-driven decisions.

The results of this study add to the existing body of research by helping institutional leaders determine which interventions are considered to have the most impact on completion and graduation rates of African American students enrolled at Ohio’s two-year colleges. The study aids practitioners in determining areas of focus in the development of comprehensive enrollment and completion plans specifically for African American students. The study helps address the debate about offices or departments that focus on the needs of African American students by illustrating the role these programs can play in coordinating a variety of high-impact interventions.

In conclusion, the results of this research suggest that a national study, with the addition of qualitative research, would have provided more meaningful and conclusive data. The findings also suggest that some interventions are perceived by CSAOs as
having more impact than others on completion and graduation rates, and it highlighted the difficulties associated with attributing completion and graduation rates to one intervention. The findings of this study provide evidence that institutions should use a combination of coordinate impactful interventions to improve completion and graduation rates for African American students.
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Appendix

Survey Instrument

The Impact of Institutional Support Services, Policies, and Programs, on the Completion and Graduation of Black Students Enrolled at Select Two-Year Colleges in Ohio

(Questionnaire)

Institutional Support Services, Policies, and Programs Survey

Q1 Institutional Support Services, Policies, and Programs Survey

Q2 Purpose: The purpose of this survey is to provide research data that will be used to determine if you perceive that policies, programs, procedures designed to provide support for students on your campus, have an impact on the completion and graduation of first-time, full-time Black students enrolled at your institution. Participants will be asked questions about the existence of interventions such as services, programs, and policies designed to improve success for all students, as well as those interventions that provide support specifically for Black students and or other underrepresented students. Respondents will be asked whether or not they perceive the interventions impact completion and graduation of Black students at their institution by rating the intervention as having "no impact," "some impact," or "high impact."

Q3 Click on the link below to view the informed consent information for this study.

Q4 Please answer the following about yourself:
   First Name: (1)
   Last Name: (2)
   Job Title: (3)
   Department/Division: (4)

Q5 Race/ethnicity (voluntary):
   o Hispanic/Latino (non-White) (1)
   o American Indian/Native Alaskan (2)
   o Asian (3)
   o Black/African American (4)
   o Native Hawaiian/Pacific Islander (5)
   o White (6)
   o Two or more races (7)
   o Prefer not to respond (8)
Q6 Gender
- Male (1)
- Female (2)
- Transgender (3)
- Prefer not to disclose (4)

Q7 College (name of college will not be published in the results):

Q8 Contact Information:
   - Phone: (1)
   - Email: (2)

Q9 Were you the original recipient of this survey?
- Yes (1)
- No (2)

Q10 If this survey was forwarded to you from another staff person at your institution, or if another assisted in the completion of responses, please provide the following information about the person that forwarded the survey or assisted you:
   - Name: (1)
   - Title: (2)
Q11 Please respond to all questions with a “yes” or “no” response. If the answer to the question is “yes” please rate the impact of the intervention by selecting “no impact” “some impact” or “high impact.” Your selection represents to what extent you believe the service, policy, and program, affects the completion and graduation rate of Black students on your campus and to what degree. You will be asked to provide supplemental responses to a few of the questions. Regarding general institutional support services, policies and programs designed to support students, does your institution provide the following:

<table>
<thead>
<tr>
<th>Does institution provide these interventions?</th>
<th>If YES, rate the extent to which this affects completion and graduation rate of Black students.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Placement test scores are used in course placement? (1)</td>
<td>Yes (1)</td>
</tr>
<tr>
<td>Required orientation program for new students? (2)</td>
<td></td>
</tr>
<tr>
<td>New student orientation includes advising and registration? (3)</td>
<td></td>
</tr>
<tr>
<td>New student orientation includes information about support services? (4)</td>
<td></td>
</tr>
<tr>
<td>New student orientation includes information about opportunities for involvement in extracurricular activities? (5)</td>
<td></td>
</tr>
<tr>
<td>New student orientation includes workshops or meetings for African American and or underrepresented students or minorities? (6)</td>
<td></td>
</tr>
<tr>
<td>At-risk students are systematically identified before enrollment? (7)</td>
<td></td>
</tr>
<tr>
<td>Special programs or</td>
<td></td>
</tr>
</tbody>
</table>

162
<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
<th>Not Applicable</th>
<th>Not Available</th>
<th>Not Provided</th>
</tr>
</thead>
<tbody>
<tr>
<td>support services are provided for at-risk students? (8)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Special programs or support services are available for students enrolled in developmental education courses? (9)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Early Alert/Warning system utilized to communicate student issues? (10)</td>
<td></td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>Orientation course for new students available for credit? (11)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enrollment in orientation course is mandatory? (12)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Supplemental orientation program or course for new African American or underrepresented students offered? (13)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Advising for first-year students is mandatory? (14)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tutorial services are mandatory for any of the following students: identified as at-risk, underrepresented/minority, or students experiencing difficulty after the first term? (15)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Work-study programs are available for first-year students? (16)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Job placement is available for first-year students? (17)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Counseling services are available at no cost? (18)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Career counseling is</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mentorship programs are available? (20)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Q12 Regarding mentoring:

<table>
<thead>
<tr>
<th>Does your institution offer mentorship programs for students? (1)</th>
<th>Does institution provide these interventions?</th>
<th>If YES, rate the extent to which this affects completion and graduation rate of Black students.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes (1)</td>
<td>No Impact (1)</td>
<td>High Impact (3)</td>
</tr>
<tr>
<td>No (2)</td>
<td>Some Impact (2)</td>
<td></td>
</tr>
</tbody>
</table>

If “Does institution provide these interventions?” is answered “no,” then skip to the next item. If “yes,” rate the extent to which the intervention affects completion and graduation rates of Black students.

Q13 If mentorship programs are available, what types?:

<table>
<thead>
<tr>
<th>Peer mentors? (1)</th>
<th>Does institution provide these interventions?</th>
<th>Extent to which this affects completion and graduation rate of Black students.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes (1)</td>
<td>No Impact (1)</td>
<td>High Impact (3)</td>
</tr>
<tr>
<td>No (2)</td>
<td>Some Impact (2)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Faculty and staff mentors? (2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes (1)</td>
</tr>
<tr>
<td>No (2)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Community/alumni mentors? (3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes (1)</td>
</tr>
<tr>
<td>No (2)</td>
</tr>
</tbody>
</table>

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Q14 Mentorship programs, if offered, are available to which students?:

<table>
<thead>
<tr>
<th>Mentorship for all students? (1)</th>
<th>Mentorship for first-year students? (2)</th>
<th>Mentorship for students enrolled in selected academic programs? (3)</th>
<th>Mentorship for at-risk students, African American, or underrepresented students? (4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes (1)</td>
<td>Yes (1)</td>
<td>Yes (1)</td>
<td>Yes (1)</td>
</tr>
<tr>
<td>No (2)</td>
<td>No (2)</td>
<td>No (2)</td>
<td>No (2)</td>
</tr>
<tr>
<td>No Impact</td>
<td>No Impact</td>
<td>No Impact</td>
<td>No Impact</td>
</tr>
<tr>
<td>Some Impact (2)</td>
<td>Some Impact</td>
<td>Some Impact</td>
<td>Some Impact</td>
</tr>
<tr>
<td>High Impact (3)</td>
<td>High Impact</td>
<td>High Impact</td>
<td>High Impact</td>
</tr>
</tbody>
</table>

Q15 The question refers to the existence of an office, department, or student club/organization, i.e. Culture center, Multicultural/Diversity center, that provides specialized services that specifically focus on the needs of African American and or other underrepresented groups of students.

<table>
<thead>
<tr>
<th>Office or department that provides programs or services targeting African Americans and or underrepresented students? (1)</th>
<th>Does institution provide these interventions?</th>
<th>Extent to which this affects completion and graduation rate of Black students.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes (1)</td>
<td>Yes (1)</td>
<td>Yes (1)</td>
</tr>
<tr>
<td>No (2)</td>
<td>No (2)</td>
<td>No (2)</td>
</tr>
<tr>
<td>No Impact</td>
<td>No Impact</td>
<td>No Impact</td>
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<tr>
<td>Some Impact</td>
<td>Some Impact</td>
<td>Some Impact</td>
</tr>
<tr>
<td>High Impact</td>
<td>High Impact</td>
<td>High Impact</td>
</tr>
</tbody>
</table>
If “Does institution provide these interventions?” is answered “no,” then skip to the next item. If “yes,” rate the extent to which the intervention affects completion and graduation rates of Black students.

Q16 If office or department exists, what types of programs or services are provided by that office or department?

<table>
<thead>
<tr>
<th>Does institution provide these interventions?</th>
<th>Extent to which this affects completion and graduation rate of Black students.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes (1)</td>
<td>No Impact (1)</td>
</tr>
<tr>
<td></td>
<td>Some Impact (2)</td>
</tr>
<tr>
<td></td>
<td>High Impact (3)</td>
</tr>
<tr>
<td>No (2)</td>
<td></td>
</tr>
</tbody>
</table>

- Supplemental advising? (1)
- Special supplemental orientation program? (2)
- Bridge/pre-enrollment college readiness programs? (3)
- Culturally-based events/programs? (4)
- Diversity awareness programs/training? (5)
- Expanded access to financial aid/scholarships information? (6)
- Leadership development opportunities? (7)
- Recognition programs for achievement? (8)
- Other department sponsored programs or interventions (9)
Q17 Student clubs or organizations:

<table>
<thead>
<tr>
<th>Does institution provide these interventions?</th>
<th>Extent to which this affects completion and graduation rate of Black students.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student clubs or organizations which focus specifically on the needs of African American students? (1)</td>
<td>Yes (1)</td>
</tr>
<tr>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

Q18 Are you aware of the first-to-second year retention rates for African American/Black students on your campus?
- ☐ Yes (1)
- ☐ No (2)

Q19 If Yes, please select the rate you believe most accurate reflects average first-to-second year retention:
- ☐ 0 - 9.9% (1)
- ☐ 10 - 19.9% (2)
- ☐ 20 - 39.9% (3)
- ☐ 40% or higher (4)

Q20 Any additional comments related to the impact of programs, policies, services on your campus that do or could impact completion and graduation of African American/Black students: