# PERCEPTIONS OF ACADEMIC DEANS ON PROGRAMS <br> AND SERVICES FOR UNDERPREPARED 

STUDENTS AT TWO-YEAR
INSTITUTIONS

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## TABLE OF CONTENTS

Chapter Page
I. INTRODUCTION ..... 1
Rationale ..... 1
Problem ..... 4
Purpose ..... 5
Research Questions ..... 7
Scope and Limitations ..... 8
Assumptions ..... 10
Definitions ..... 10
II. REVIEW OF THE LITERATURE ..... 18
Overview ..... 18
Rationale for Establishing High School
Curricular Requirements ..... 21
National Trends Toward Admission
Criteria for Two-Year Colleges ..... 24
Studies and Reports Focusing on
Developmental Collegiate Courses ..... 31
Typical Programs and Services for Underprepared Students ..... 36
The Matriculation Issue ..... 42
The Role of the Academic Dean ..... 47
Summary ..... 48
III. METHODOLOGY ..... 51
Introduction ..... 51
Population of the Study ..... 53
Conduct of the Study ..... 54
Analysis of the Data ..... 57
IV. RESULTS OF THE STUDY ..... 59
Overview ..... 59
Analysis of the Data ..... 61
Research Questions ..... 78
Summary ..... 84
Chapter Page
V. SUMMARY, CONCLUSIONS AND RECOMMENDATIONS ..... 87
Introduction ..... 87
Summary of Findings ..... 89
Conclusions ..... 91
Recommendations ..... 94
BIBLIOGRAPHY ..... 96
APPENDIXES ..... 104
APPENDIX A - COVER LETTERS ..... 105
APPENDIX B - SURVEY ..... 108
APPENDIX C - MAP OF NCA ..... 111

## LIST OF TABLES

Table Page
I. Number And Percentage Of Council Of NorthCentral Community And Junior CollegeInstitution Responses62
II. Entry Assessment Tests Used In Council Of North Central Community And Junior College Institutions ..... 63
III. Specially Provided Programs And Services For Underprepared Students At Council Of North Central Community And Junior College Institutions ..... 65
IV. A Listing Of "Other" Special Programs And Services Which Received Write-In Acknowledgment ..... 67
V. Years Of Experience By Academic Deans Within The Council of North Central Community And Junior College Institutions ..... 68
VI. Overall Academic Dean Perceptions ..... 69
VII. Academic Deans' Support For Students With Curricular Deficiencies To Take Developmental Courses ..... 70
VIII. Academic Deans' Perceptions Of Student Support For Taking A Developmental Course To Better Prepare Them For Advanced Courses ..... 70
IX. Academic Deans' Perceptions Of Governing Board Support For Students With Curricular Deficiencies To Take Developmental Courses . . 71
X. Academic Deans' Perceptions Of Faculty SupportFor Students With Curricular DeficienciesTo Take Developmental Courses72
XI. Academic Deans' Perceptions That Students WhoSuccessfully Complete A Developmental CourseHave Confidence To Do College Work . . . . . . 72
XII. Academic Deans' Perceptions That Students Who Have Taken Developmental Courses Have Better Retention Rates ..... 73
XIII. Academic Deans' Perceptions That Students Who Have Taken Developmental Courses Have Better Graduation Rates ..... 74
XIV. Academic Deans' Perceptions That Students Who Take Developmental Courses Expand Their Problem-Solving/Critical Thinking Abilities ..... 75
XV. Academic Deans' Perceptions That General Academic Achievement At Their Institution Has Increased In Recent Years ..... 75
XVI. Academic Deans' Perceptions That New Assessment Mandates Will Require Additional Changes In College's Developmental Curricula ..... 76
XVII. Academic Deans' Perceptions That GraduateTracking Will Indicate DevelopmentalCoursework Was A Positive Factor InPreparing Students For Employment77
XVIII. Academic Deans' Perceptions By Type Of College ..... 78
XIX. Measures of Variability of Academic Deans' Perceptions By Type Of College ..... 79
XX. Academic Deans' Perceptions By Type Of Degrees Conferred ..... 80
XXI. Differences Of Academic Deans' Perceptions Between Types Of Degrees Conferred ..... 81
XXII. Academic Deans' Differences of PerceptionBetween Colleges With State- OrInstitutionally-Mandated High SchoolCurricular Requirements82
XXIII. Correlation Of The Eleven Perception Statements ..... 83
XXIV. Correlation Of The Academic Deans' Perceptions With His/Her Perceptions Of Students, Board and Faculty ..... 84

## CHAPTER I

## INTRODUCTION

## Rationale

"More and more young people emerge from high school ready neither for college nor for work" reports the National Commission on Excellence in Education in A Nation At Risk: The Imperative For Educational Reform (1983).

Nationally, since this report, there has been an increased commitment to make higher education more accessible as well as improve quality and raise standards, and much effort has gone into the developing of programs and services which will better prepare students for the rigors of college.

Stated in a report by the Higher Education Research Institute at the University of California at Los Angeles comparing the values and career hopes of some six million freshmen: "Students entering college today are much less likely than those of 25 years ago to have done extra reading for a course, or check a book or journal out of the library" (Dodge, 1991, p. A38).

Only within the last decade or so have colleges become concerned with the level of academic preparation of their students:

Most of their students came from middle and upper socio-economic classes. Such traditional students had good educational experiences, sufficient financial resources, and sound family background which helped assure success in college. Many of these students attended college preparatory high schools which emphasized academics. Students from the lower socio-economic classes did not normally attend college and often quit their formal education before graduating from high school (Lott, 1990, p. 1-2).

Many states have found that one-half their beginning students are not prepared to do college-level work. Various policy-making boards feel strongly that developmental (or deficiency) courses must be required for underprepared students.

Beginning with the Spring Semester, 1990, Arkansas implemented its Freshman Assessment and Placement Program at State Colleges and Universities. This new policy required all first-time entering freshmen at all state-supported colleges and universities to be tested by the admitting institution for placement purposes in either college-level credit courses in English and mathematics or remedial courses in English composition, reading and mathematics. And, of course, the remedial courses would not count toward completion of a degree.

Further, the Arkansas State Board of Higher Education determined which tests would be used, all testing procedures to be implemented, and the cutoff score below which students at all institutions would be required to take a zero-level developmental course (Arkansas Department of Higher Education, 1989).

The national trend is toward high school subject requirements for admission to public two-year colleges. In 1989, the Oklahoma State Regents for Higher Education made major changes in their "Policy Statement on Admission To, Retention In, and Transfer Among Colleges and Universities of the State System." High school curricular requirements for admission to programs leading to degrees increased to four units of English, three units of mathematics, and two units each of laboratory science and history (Oklahoma State Regents for Higher Education, 1989).

Additional subjects for college preparation (including Computer Science, Foreign Language, Speech, Economics, Geography, Government, Psychology and Sociology) were recommended to total the required 20 units.

Students were required to meet all curricular requirements to be admitted to comprehensive, regional or special purpose institutions. Those who did not meet these curricular requirements were denied admission and referred to any of the state's 16 public two-year institutions.

Any student lacking curricular requirements was required to remove the deficiencies through zero-level courses at the earliest possible time but within the first 24 hours attempted (Oklahoma State Regents for Higher Education, 1989).

For the Oklahoma State Regents, this was a major change in policy and required students to meet retention standards earlier in their academic career. Responsibility was also
placed on the institutions to work more quickly with students who found themselves in academic difficulty.

## Problem

Like Oklahoma and Arkansas, a majority of states have implemented new policies which require the colleges to provide an entry assessment of the academic preparation of first-time students.

Institutions who must make the decision about which test to implement face an enormous problem. The Southern Regional Educational Board reports that almost 100 combinations of about 70 different tests in the areas of reading, writing, and mathematics are used to place students in either college degree credit or remedial development courses. Tests in all three areas range from in-house institutionally developed exams to nationally normed and standardized tests, such as the American College Test (ACT) or the Scholastic Aptitude Test (SAT). Some institutions even use more than one test (Abraham, 1986).

Where the institutions distinguish between the need for remediation and the ability to successfully do college-level work varies dramatically from state-to-state and even college-to-college within a particular state.

According to recently published data by the National Center for Educational Statistics (1989), 30 percent of all college freshmen in the United States took at least one remedial course, and three out of four colleges and
universities offered at least one remedial course in the fall of 1989. Of students taking remedial courses, only 77 percent passed remedial reading, 73 percent passed remedial writing, and 67 percent passed remedial mathematics.

Approximately one-fourth of institutions were unable to provide passing rates for freshmen in remedial courses, and about one-half were unable to provide passing rates by racial/ethnic breakdowns. Forty percent of colleges providing remedial courses were not engaged in any activities to reduce the need for remedial education. Forty-seven percent of institutions were unable to provide retention rates to the second year for freshmen who enrolled in at least one remedial course.

Regardless of legislation and mandates, the problem for the study was that we still don't know the best way to remediate students.

## Purpose

In 1894, Wellesley College (a women's college in eastern Massachusetts) developed what was perhaps the first remedial course for college students (Cross, 1976) and by the 1930 s other colleges were offering courses to help students overcome deficiencies in their academic backgrounds and skills (Lott, 1990).

This was a period when an important criterion of institutional success was increasing the percentage of the population who enrolled in college and participated in some
type of organized learning experience. Today success is more often defined as the percentage of the two-year college students who transfer to senior institutions or accept employment as a result of completing an appropriate educational sequence (Fadale, 1985).

Such performance became particularly problematic for students lacking basic skills who, as a result, were prevented from successful completion of programs necessary to compete for many career opportunities. Research has shown that lack of proficiency in basic skills contributes to reduced opportunities regardless of whether a program has or has not been completed (Patterson-Griffith, 1983; Brawer, 1982) •

Through the years colleges have been guilty of recruiting as many students as possible since maximum enrollments have equaled maximum dollars. Nationwide, the decade of the eighties saw higher education in state after state establish academic entry requirements, and it is likely that public policy will continue to focus on student achievement rather than numbers of participants.

Many colleges were beginning, or had already initiated, changes in policy areas to place more emphasis on development and assessment of academic skills and to require evidence of progress (Richardson, 1982).

As Patricia Cross (1987) had stated, equal opportunity is not just gaining admission to college: "Educational opportunity means more than the right to meet minimal
standards; it means the right to develop one's talents to maximum effectiveness" (p. 3).

The purpose of this research study was to identify programs and services provided underprepared students at two-year institutions and the effectiveness of these programs and services as perceived by the Academic Dean.

## Research Questions

Certain demographic data was elicited from the Academic Dean of each institution within the Council of North Central Community and Junior Colleges region. The Academic Dean was asked: What type of college best identified their institution? Which Associate Degrees were conferred at their institution? Had their state mandated high school curricular requirements for admission to their college's degree programs? Which entry assessment tests were in use at their institution? Did their institution provide an Adult Admission category which waived curricular deficiencies for students 21 and older? What special programs and services were provided for underprepared students at their institutions?

Research Question I. Is there a significant difference of perception by type of college (comprehensive community college, technical institute, junior college, or two-year branch campus of a college or university) as to the services provided underprepared students?

Research Question II. Is there a significant difference of perception between those colleges who confer the Associate of Arts (A.A.), Associate of Science (A.S.), and/or the Associate of Applied Science (A.A.S.) Degrees as to the services provided underprepared students?

Research Question III. Is there a significant difference of perception between those colleges with stateor institutionally-mandated high school curricular requirements and those who do not have mandated high school curricular requirements as to the services provided underprepared students?

Research Question IV. Is there a significant relationship between the support of the Academic Dean for students with curricular deficiencies to take developmental courses, and his/her perception of the support of students, faculty, and the governing board requiring students with curricular deficiencies to take developmental courses?

Scope and Limitations

Within the United States there are six regional educational accreditating agencies, the largest of which is the North Central Association of Colleges and Schools, hereafter referred to as the North Central Association (NCA). Nineteen states maintain membership status (see Appendix $C$ for map of the member states).

Its Commission on Institutions of Higher Education (CIHE) oversees the activities related to higher education. Because the Commission is so large (940 accredited colleges) and its membership so diverse (two-year colleges to doctoral-granting research universities, public, private, parochial and proprietary), the North Central Association recognizes several affiliates including the Council of North Central Community and Junior Colleges (CNCCJC), to which two-year institutions typically belong.

The CNCCJC reported a membership base of 357 two-year colleges in its 1990 membership directory. (State educational boards and agencies, and four-year institutions holding membership were purposely excluded from this count since they were not two-year associate degree-granting institutions.)

Recognizing that the issue of underprepared students at the two-year college level is a major concern of the membership of the CNCCJC, this research study was fully endorsed by the organization.

A major limitation to the research was that surveys were simply addressed to the Academic Dean of each institution rather than to a specific individual and his/her exact title. According to the returned response cards, titles varied from Vice-President of Instruction to Department Chair, and some respondents obviously had multiple campus responsibilities.

Another limitation was that the population was limited to institutions within the 19 state membership region of the North Central Association. It is possible that there are two-year colleges within this 19 state geographic region who are not members of the Council of North Central Community and Junior Colleges, and were, therefore, not included in this research.

Assumptions

One assumption of this research was that the respondent of each institution was truly that individual charged with maintaining the academic integrity of his/her institution. A second assumption was that the demographic data was accurate, and that the perceptions of the respondent were representative of their institutions was a third assumption.

Definitions

Definitions of terms that follow were offered to provide clarity and consistency throughout this study.

Ability To Benefit is the intent of the Student Loan Default Prevention Initiative Act of 1990 which amended section 484(d) of the Higher Education Act (HEA) of 1965. A postsecondary institution may admit as a regular student, a student who does not have a high school diploma or its equivalent, but does have the ability to benefit from the education or training offered. For a student who is admitted on the basis of ability to benefit from the
education or training to be eligible for any grant, loan, or work assistance under title IV of the HEA, the amended act requires the student, prior to enrollment, to pass an independently-administered, approved examination (Federal Register, 1990).

Academic Dean is the College's administrator charged with the institutional responsibility for maintaining academic standards. Other terms may include Chief Academic Officer, Vice-President for Instruction, or Provost depending on the size and organization of the college.

Accuplacer is a computerized adaptive placement test developed by The College Board. Its three-component system is designed to gather, manipulate and sort out placementoriented student data swiftly and precisely. In-coming students are tested on the computer in reading comprehension, sentence skills, arithmetic, elementary algebra, and college-level mathematics. The report generated by the Accuplacer System provides a solid analytical foundation for advising, for course placement, and for establishing institutional placement policies (College Entrance Examination Board, 1990).

Adult Admission is a policy in effect in some states which waives certain admission requirements for individuals over the age of $21,23,25$, etc.

American Association of Community and Junior Colleges (AACJC) is a network of 1,200 community, technical, and
junior colleges that serve the broad public interest by providing access to quality higher education for millions of individuals. The primary mission of the Association is to exert national leadership in support of community, technical, and junior colleges. Success of the AACJC is measured through its ability to achieve public recognition, act as an advocate, develop linkages, and serve as a resource to help member institutions provide higher education opportunities with excellence (American Association of Community and Junior Colleges, 1990).

American College Testing Program is a nationally-normed college-ability predictor which provides a composite score, and subscores in English, mathematics, social sciences and sciences. In open admission institutions, taking the ACT is required but there is no minimum score requirement for acceptance (American College Testing Program, 1990).

Assessment refers to a multi-dimensional evaluative process that measures the overall educational impact of the college/university experience on students and provides information for making program improvements (Oklahoma State Regents for Higher Education, 1991).

ASSET is an ACT-developed advising, course placement, and retention tool designed specifically to serve students entering two-year institutions. Introduced nationally in 1983, the service is in use in many of the nation's two-year colleges. It is comprised of two levels. One level is designed to assess basic skills in writing, reading, and
mathematics, while the second level assesses more advanced skills in mathematics. All tests contain multiple-choice items and require 25 minutes of testing time (American College Testing Program, 1990).

Basic Skills, in this study, are competencies in English, reading and mathematics at a level above the need for remediation as indicated by entry placement tests.

CGP Basic Skill Tests are a series of standardized examinations developed by The College Board. The Comprehensive Guidance and Placement tests were discontinued in 1990 although some editions are still in use in colleges throughout the United States (College Entrance Examination Board, 1990).

CLEP, the College Level Entrance Placement test, is the most notable advanced placement test used by higher education institutions to determine academic levels of entering students into basic general education courses (College Entrance Examination Board, 1990).

Collegiate Assessment of Academic Proficiency (CAAP) is the final component in ACT's battery of standardized instruments designed for use from eighth grade through midcollege. CAAP's focus is academic, targeting the assessment of selected general education skills typically attained in the first two years of college in reading, writing, mathematics, science reasoning, and critical thinking (American College Testing Program, 1990).

Commission on Institutions of Higher Education (CIHE) refers to the division of the North Central Association of Colleges and Schools (NCA) responsible for the accreditation of higher education institutions. Its counterpart, the Commission on Schools, accredits K-12 institutions (North Central Association of Colleges and Schools, 1992).

Competencies refers typically to "outcomes," to the knowledge and abilities one has in a particular discipline, especially at the conclusion of a course or program of study. Competencies are qualitative and measurable (Oklahoma State Regents for Higher Education, 1991).

Council of North Central Community and Junior Colleges (CNCCJC) is a membership representing more than 90 percent of all public and private institutions within the 19 state NCA region offering two-year degree programs. For over 50 years the affiliate has provided leadership, renewal, fellowship, and strong support of educational excellence through the NCA. The membership represents private and church related Junior Colleges, public Junior Colleges, Community Colleges, Technical Colleges, Vocational Institutes, Tribal Colleges, and University/College branch campuses (Council of North Central Community and Junior Colleges, 1988).

CPT is the Computerized Placement Test developed jointly by Educational Testing Service and The College Board. This innovative, adaptive program is nationallynormed and measures both entry level and post course
abilities and gains. It is one of three components under the Accuplacer trademark (College Entrance Examination Board, 1990).

Curricular Deficiency refers to high school courses required for unconditional admission to college. Students who fail to take or satisfactorily complete the specified number of high school courses (or units) in English, mathematics, science or history are termed "curricularly deficient".

Developmental refers to those courses or programs designed to elevate, in a relatively short period of time, academic skills to a level that allows successful completion of college-level career courses (Fadale, 1985).

Entry Placement refers to college entry criteria. Instruments used by colleges range from locally developed instruments (which establish cut-off scores and placement decisions are based on faculty judgment) to standardized instruments (with specific grade levels or percentiles designated as indicators for placement at corresponding remediation or college work levels).

GATB is the General Aptitude Test Battery which measures cognitive, perceptual, and psycho-motor aptitudes. Five percentile scores reflect occupational potential for jobs in five job families. Percentile scores represent one's competitiveness when compared with other individuals applying for work in the same labor market (United States Department of Labor, 1970).

Graduate Tracking refers to the follow up data maintained on students of an institution after graduation, and is a requirement of the Assessment policy of the North Central Association.

Multiple Assessment Program and Services (MAPS) is a multi-component entry level assessment and placement test developed and marketed by The College Board. It is the paper/pencil version of the computerized Accuplacer test (College Entrance Examination Board, 1990).

North Central Association of Colleges and Schools (NCA) is the largest of the six regional educational accreditating agencies in the United States. Its Commission on Institutions of Higher Education (CIHE) oversees a membership consisting of some 940 institutions in 19 member states (North Central Association of Colleges and Schools, 1992) •

Oklahoma State Regents for Higher Education refers to a nine member super board which establishes policy and coordinates higher education services for Oklahoma. Colleges and universities typically have an institutional governing board to oversee their particular needs.

Open Admissions, also known as an Open Door Policy, refers to policies still in existence in many two-year colleges across the nation where students are allowed admittance without satisfying high school curricular mandates or other institutionally-prescribed academic requirements.

Remedial refers to those courses or programs which are instructional efforts designed to improve deficiencies in academic skills to a level of satisfying minimum entry requirements of college career programs (Fadale, 1985).

Tests of Adult Basic Education (TABE) are normreferenced tests designed to measure achievement in reading, mathematics, language and spelling. Information about the relative ranking of examinees is provided in terms of estimated high school grade levels (McGraw-Hill, 1991).

Underprepared Students are generally those students who have high school curricular deficiencies (in those states who have specific high school graduation course requirements) and/or who in entry placement testing are found to lack the academic requisites necessary to enroll in college level courses such as Freshman Composition I or College Algebra.

Zero level course is a credit course with zero value, usually remedial in nature, which prepares the student for the rigors of a college-level course (such as Freshman Composition I or College Algebra).

## CHAPTER II

## REVIEW OF THE LITERATURE

## Overview

The purpose of this research was to identify programs and services provided underprepared students at two-year institutions and the effectiveness of these programs and services as perceived by the Academic Dean.

Because two-year colleges contribute to the continual process of human development and have grown out of the needs of the masses, they have been called "democracy's college," "opportunity college," and like the land-grant colleges, "the people's college" (Roueche \& Baker, 1987). All but five percent of all public two-year institutions are characterized as "open admissions" (College Entrance Examination Board, 1984).

They have varied missions combining the first two years of college, occupational preparation, remedial studies for students leaving high school with inadequate academic preparation, community service, and continuing education (Cohen, 1987).

As early as 1936, Hollinshead asserted that the twoyear college should be a community institution. Therefore, the "open door" to higher education had been well
established by 1944, when the numbers of students rose sharply with the passage of the G.I. Bill of Rights, which provided substantial funding for education to veterans of war. In 1947, the philosophy of open access was further advanced by the Truman Commission on Higher Education (Roueche \& Baker, 1987).

The two-year college system grew large by opening its doors to all students who wished to enroll, and many students entered college with academic deficiencies. At the same time, the question began to emerge: was it possible to deliver a quality education and still offer open access to those programs?

With the release of the report A Nation At Risk (U.S. Department of Education, 1983), public education became a major social concern of the eighties. For more than a decade, educators across the nation have faced the common problem of what to do about the academic proficiency of students.

For a few states, educators and lawmakers have chosen to make only slight changes in their state policies. In North Dakota, for example, a beginning freshman applicant who is a graduate of a state-approved North Dakota high school may be admitted to any two-year campus. For advisement and research purposes, every applicant must submit ACT test scores, unless he or she is 25 years of age or older or transferring 24 or more semester credits
acceptable to the receiving campus (North Dakota State Board of Higher Education Policy Manual, Section 402.1).

The policy statement currently in effect in the Colorado state system community colleges reads "it is the Board's policy that there shall be no admission requirements imposed upon any student" (Colorado Community College and Occupational Education System Policy Manual, 1991, Section BP 4-10).

Essentially Ivy Tech, Indiana's 22 campus public twoyear college system, also subscribes to this same philosophy. "Offering post-secondary opportunities to anyone over the age of mandatory secondary education, Ivy Tech does not have specific requirements regarding the kind of high school coursework that students should complete" (Ehrich, 1991, np). Ivy Tech advises its applicants to participate in assessment testing to measure the student's achievement in basic skills areas of mathematics, reading, writing, reasoning, and communications. If the assessment reveals skill deficiencies, the applicant will be advised to complete appropriate remedial coursework (Ivy Tech Catalog, 1991).

Nebraska's Coordinating Commission for Postsecondary Education has established neither an admission policy for students entering higher education at the two-year college level nor any state policies on high school curricular requirements (Stahl, 1991).

## Rationale for Establishing High School Curricular Requirements

The establishment of graduation and high school curricular requirements during the 1980s and 1990s was not new. As early as 1908, graduation requirements from Kansas high schools required the student to correctly solve specific problems in math, biology, social studies and English (McTarnaghan, 1985).

Florida was the first state in recent years to push for increased rigor within its high schools. During the 1970s, parents, business leaders and state government leaders had expressed concern that students from Florida's schools, colleges and universities were not demonstrating sufficient quality in job performance, graduation rates, standardized test scores and other indicators (McTarnaghan).

As the state focused upon public school performance, pressure was exerted to develop high school exit competencies. This movement did not go unnoticed nationally. Because the competencies that students are expected to possess should be part of their high school experience, the high schools are logically the first to face specific outcome requirements for their graduation.

For some states, these graduation requirements are a sufficient requisite for students who wish to enter higher education institutions. In Ohio, effective October 1, 1953,
a graduate of the twelfth grade shall be entitled to admission without examination to any college or university which is supported wholly or in part by
the state, but for unconditional admission may be required to complete such units not included in his high school course as may be prescribed by the faculty of the institution (State of Ohio, 1991, p. 692).

Admission to the community colleges in Arizona may be granted to any person who meets one of the following criteria: (1) is a graduate of an accredited high school; (2) has a high school certificate of equivalency; or (3) is 18 years of age or older and demonstrates evidence of potential success (Arizona Community College Board, 1991). According to the Code of Iowa, the public two-year community colleges are also open-door institutions. There is no state admissions policy. Each college has its own pre-entrance testing program to help the student successfully complete his/her goal (Horton, 1992).

Wyoming does not have any type of policy regarding admission of underprepared students into their higher education system. Wyoming institutions must accept any Wyoming high school graduate into any community college or university.

According to Dr. Carol Smith, Dean of Educational Policy for the Wyoming Community College Commission, the 1991 Legislature did address the issue of developing new standards for admission at the University level, but no action was taken (Smith, 1992).

In a report on college-level remedial/developmental programs in the southern states, Abraham (1987) says that graduation from high school is not an indication that a
student is prepared to begin college-level work -- and only about one-third of today's high school students are enrolled in a college preparation program.

Missouri was another state during 1991 in which its Coordinating Board for Higher Education took a public stand toward defining a core high school curriculum that is linked with admission standards. In a letter to each of Missouri's public four-year institution presidents, Charles J. McClain, Commissioner of that state's Coordinating Board for Higher Education (CBHE) writes:

> There is growing evidence of the positive linkage between completion of a core high school curriculum and student performance. Data provided by the cBHE's Student Achievement Study indicate that students completing a core high school curriculum achieve higher scores on nationally normed achievement tests (over 3 points higher on the ACT), higher college grade point averages ( 0.3 on a 4-point scale), and have lower attrition rates (almost 9.0 percent). In addition, students who complete a core high school curriculum are given a solid foundation for performance in work settings as well as in collegiate level programs. By linking a core high school curriculum to admissions standards, public four-year colleges and universities will be assuming greater responsibility for shaping the expectations for performance required of college-bound high school students. a such a standard will send a strong message to high school students that they must prepare themselves for college, not just graduate from high school (Mcclain, 1991, np).
> Certainly this trend toward specific high school
graduation requirements has also been long-needed by the two-year colleges who traditionally were faced with accepting academically unprepared students.

In Illinois, Rankin (1989) reported that the casual attitude of many high school students toward the community
college -- "Oh, I can always get in there." -- may change, and students will come in better prepared, more serious about college, less apt to need remedial courses, and more likely to be able to stay in college.

The newest group attending college is one termed in a report by The William T. Grant Commission on Work, Family, and Citizenship (1988) as the "Forgotten Half." This group includes some 20 million 16-24 year olds who previously were unlikely to attend college. Typically this group did not follow the college preparatory curriculum in high school. Only when they entered college did they realize the limits for those with only the high school diploma (Lott, 1990).

But, as Dale Parnell, former President of the American Association of Community and Junior Colleges, asserted in his book, The Neglected Majority (1985), "The open door has never meant that high school students can prepare or not, as they please, and still succeed in a community college (p. 110).

> National Trends Toward Admission Criteria for Two-Year Colleges

Admissions criteria are used to identify those students who may enter a college or university. These criteria are important because, in some instances, institutions use admissions standards for automatic placement of students in courses creditable toward an undergraduate degree. However, in most institutions, admissions and placement criteria
differ. These admissions criteria may vary widely from state-to-state and institution-to-institution (Abraham, 1987).

The "right to fail" philosophy of the seventies has reversed in many states to a mandatory admissions testing and placement of students in courses and programs where they have a reasonable guarantee of succeeding (Cellucci \& Price, 1986). Institutions who must make the decision about which test to implement face an enormous problem. The Southern Regional Educational Board states, almost 100 combinations of about 70 different tests in the areas of reading, writing, and mathematics are used to place students in either college degree credit or remedial development courses. Tests in all three areas range from in-house institutionally developed exams to nationally normed and standardized tests, such as the American College Test (ACT) or the Scholastic Aptitude Test (SAT). Some institutions even use more than one test (Abraham, 1986).

For a number of states, the national trend is toward high school subject requirements for admission to public two-year colleges. Illinois published a list of 15 subjects from five categories which were the minimum preparation required for admittance to baccalaureate degree programs at the ten state universities (Rankin, 1985).

They also determined that students admitted to community college transfer programs "must have ability and competence similar to that possessed by students admitted to
state universities for similar programs" (Merrifield, 1991, $n p$ ). These transfer program admission standards replicated those specified for the public universities, and became a topic of tremendous controversy in Illinois even though they were designed to increase the academic preparedness of students pursuing baccalaureate degrees, to promote retention, and to increase graduation rates. Because of public pressure, the Illinois State Board finally backed down and agreed to postpone the mandate from 1990 to 1993 (Zelenski, 1988).

Even with clear-cut standards for admission, several
issues remained to be resolved. These included the definition of remedial education, determining whose responsibility within state government it was, the issue of funding, and finally, the impact on A.A.S. degree programs (Illinois Community College Board, 1985).

The Illinois policy currently specifies that commencing in the fall of 1993, no new student shall be admitted to instruction unless such student has satisfactorily completed:
(1) at least 15 units of high school coursework
from the following five categories:
(A) 4 years of English (emphasizing written and oral communications and literature);
(B) 3 years of social studies (emphasizing history and government);
(C) 3 years of mathematics
(introductory through advanced algebra, geometry, trigonometry, or fundamentals of computer programming);
(D) 3 years of science (laboratory sciences);
(E) 2 years of electives in foreign language, music, vocational education, or art;
(2) except that institutions may admit individual applicants if the institution determines through assessment or through evaluation based on learning outcomes of the coursework taken, including vocational education courses, that the applicant demonstrates knowledge and skills substantially equivalent to the knowledge and skills expected to be acquired in the high school courses required for admission (Illinois State Statutes, 1991, p. 658e).

In 1989, the Oklahoma State Regents for Higher Education made major changes in their "Policy Statement on Admission To, Retention In, and Transfer Among Colleges and Universities of the State System." Curricular requirements for admission to programs were established.

| Units | Course Areas |
| :---: | :--- |
| 4 | English (Grammar, Composition, <br> Literature) <br> Lab Science (Biology, Chemistry, Physics <br> or any lab science certified by the <br> school district; General Science with or <br> without a lab may not be used to meet <br> this requirement.) |
| Mathematics (from Algebra I, Algebra II, |  |
| 3 | Geometry, Trigonometry, Math Analysis, |
| 2 | Calculus) <br> History (including one unit of American <br> History) <br> (OSRHE, 1989, p. 2). |

The 11 high school units shown above were required for admission to degree programs within Oklahoma's State System of Higher Education. Additional subjects for college preparation (including computer science, foreign language, speech, economics, geography, government, psychology and sociology) were recommended to total the required 20 units.

When this policy was originally drafted the degree programs specified included the Associate of Arts (A.A.),
the Associate of Science (A.S.), and the Baccalaureate degrees. Students were required to meet all curricular requirements to be admitted to comprehensive, regional or special purpose institutions. Those who did not meet these curricular requirements were denied admission and referred to any of the state's 16 public two-year institutions. The policy read:

Students lacking curricular requirements are admissible into Associate of Science or Associate of Arts programs with the community colleges but must remove the deficiencies through zero-level courses at the earliest possible time but within the first 24 hours attempted. In addition, students must remove curricular deficiencies in a discipline area before taking collegiate level work in that discipline (OSRHE, 1989, p. 3).

The Associate in Applied Science (A.A.S.) degree was virtually ignored this first year and administrators of public two-year colleges were given the responsibility for deciding whether to adhere to these new policies to aid in the transfer process for these students or to ignore the issue of curricular deficiencies entirely.

As is their practice in determining policy, the Oklahoma State Regents for Higher Education hosted a number of public hearings around the state to discuss the merits and shortcomings of their proposed policy. In March 1990 the Associate in Applied Science (A.A.S.) degree programs offered by the majority of two-year colleges in Oklahoma were included.

Like the A.A. and A.S. degree programs, students who entered the A.A.S. degree programs were to remove high
school curricular deficiencies before taking courses in the same field. Additionally, students were not permitted to transfer to A.A., A.S., or baccalaureate degree programs without first removing their high school curricular deficiencies.

These deficiency, or developmental, courses were taken by some 40 percent of Oklahoma college freshmen, according to a study released at the Oklahoma State Regents' January, 1992 Board meeting. "On the average, 21 percent of Oklahoma's college freshmen take remedial classes in mathematics, 16 percent in writing, and 13 percent in reading" (Regents' report zaps high school education, Okmulgee Daily Times, 1992, pp. 1-2).

A similar, though less stringent, guideline for a statewide core high school curriculum requirement was officially mandated in Missouri in December, 1991. Although two-year institutions in the state are considered open enrollment institutions, and there are no state level policies governing the admission of students to these institutions, institutions are allowed to institute individual policies for entrance into specific programs of study (Stein, 1992).

Two-year college students in Missouri who transfer to a four-year institution are required to (1) remediate deficiencies in the high school core curriculum by taking noncollegiate course work prior to being given admission; or (2) demonstrate academic ability by scoring at the 60th
percentile on the ACT. The core minimally requires 16
units:
4 English: one of which may be speech or debate; 2 units emphasizing composition or writing skills are required.
3 Mathematics (high school level algebra and beyond, i.e., algebra II, geometry, trigonometry, calculus).
3 Social Studies
2 Science (not including General Science), one of which must be a laboratory science.
1 Visual/Performing Arts (fine arts courses in visual arts, music, dance and theater).
3 Electives -- selected from foreign language and combinations of the above courses (two units of foreign language are strongly recommended) (CBHE, 1991, p. 1).

West Virginia maintains an open admissions policy for its two-year associate degree programs. Regular admission is open to any person who has a high school diploma or GED. However, baccalaureate admission requirements include an overall grade point average of at least 2.00 or a composite of at least 17 on the ACT. In addition, students will be required to have the following high school units:

4 English (including courses in grammar, composition, literature)
3 Social Studies (including U. S. History)
2 Mathematics (Algebra I or higher)
2 Laboratory Science (from Biology, Chemistry, Physics and other courses with a strong laboratory orientation) (Community and Technical College of Marshall University, 1991, np).

In 1988, Georgia's Board of Regents developed a policy which required the completion of a list of secondary courses called the College Preparatory Curriculum. All regular freshmen entering any institution of the University System of Georgia are required to have successfully completed a
minimum of four units of English, three in mathematics, three in science, three in social science, and two in foreign language (Lott, 1990).

Changes in the academic subject entry requirements for admission of first-time freshmen to the California State University system took effect in Fall, 1988. The number of years needed in specific academic subject areas to qualify eligible graduating high school students for college admission are shown below.

Academic Subjects Years Required

English
Mathematics
Lab Science
Foreign Language
Social Studies
Visual/Performing Arts
(Carrasco, 1988, p. 10)

4 years
3 years
1 year
2 years
1 year
1 year

Studies and Reports Focusing on
Developmental Collegiate Courses

Developmental courses have become the mainstay of an open-door college. It is through these courses, in theory at least, that students whose skills are so poor that they can't get into restricted-admissions schools are able to remediate their academic deficiencies and then successfully complete college-level work.

Remedial/developmental courses at the college level have been some of the fastest growing programs in higher education over the past 15 years. In a 1971 study, Davis (1975) reported that less than 50 percent of the
institutions of higher education provided any type of a remedial/developmental course for students who were at risk academically.

Roueche \& Snow (1977) found that 93 percent of the twoyear colleges and 78 percent of the four-year colleges were engaged in remedial/developmental instruction. That number remained consistent with a 1986 survey of two-year public institutions by the American Association of Collegiate Registrars and Admissions Officers. Those respondents offering developmental programs for inadequately prepared students in the areas of reading, writing, and mathematics totalled nearly 95 percent of the 750 institutions.

According to the National Center for Education Statistics (1985), 25 percent of all college freshmen took one or more courses in remedial math, 21 percent took at least one course in remedial writing and 16 percent took at least one course in remedial reading. At least one remedial course was offered by 82 percent of all two-year schools.

These percentages increased slightly in the 1989 survey which reported that at least one remedial course was now offered in 90 percent of two-year colleges (National Center for Educational Statistics, 1991).

While these developmental courses are designed to prepare the student for the rigors of college-level work, the problem often arises when students find that they have been forced to take remedial classes on the assumption that they cannot pass college introductory courses (Cohen, 1987).

The question becomes "Do remedial or developmental programs make a difference?"

While persons conducting studies have shown positive results in raising the developmental student's reading levels, GPAs, retention rates, and overall skills in order that he or she may compete in the regular college-level classroom, numerous researchers also have shown negative results in the same areas (Krupp, 1989, p. 806).

Kavookjian (1989) conducted a study at Delaware Technical and Community College to determine if remedial programs for underprepared students were achieving their intended purpose. Students, entering the college who were deemed underprepared to compete academically at the college level, were provided remedial instruction in the basics of reading, writing and arithmetic.

The findings of this study rejected the notion that remedial programs for the underprepared students at the Delaware Technical and Community College were meeting the objectives of assisting the underprepared achieve the same degree of success and retention as the fully prepared students . . . An appreciable difference existed in the likelihood of success between the underprepared, even with remediation, and those students classified as fully prepared (Kavookjian, 1989, p. 864).

A study was conducted at Northeast Mississippi
Community College to examine the Developmental Studies Program and its effect upon (a) cumulative grade point average, (b) grades in subsequent courses, (c) persistence, (d) graduating or transferring, and (e) acquisition of semester hours. The results of the research suggested that the Developmental Studies Program did not have a statistically significant positive effect (Wilson, 1989).

Similar research was conducted in Tennessee at Volunteer State Community College in 1988. Because the Tennessee State Board of Regents had mandated assessment and placement for all first time degree-seeking students who entered state supported institutions, a study was conducted to determine if there was a significant difference in performance in college English between the students who had taken a developmental English course and those students who did not take a developmental English course but enrolled directly into a college English course.

An analysis of the data did show a significant difference of performance by these two groups. Unfortunately, when both groups of students took the regular English course, the group of students not taking the developmental course consistently performed better than the group who did take a developmental course (Alford, 1988).

Fadale (1985) had found similar negligible results when analyzing evaluation studies of developmental/remedial efforts in community college programs. "Resultant effects on student GPA or persistence rates were undistinguishable from those of comparable students who were enrolled in regular programs" (p. 6).

Two perspectives had been offered previous to Fadale's study: (1) Because community colleges tend to serve nontraditional students uniquely, traditional yardsticks may not apply; or (2) The developmental/remedial studies offered
do not adequately prepare students for subsequent courses (Kulik et al., 1983).

Students who are deficient in only one area are more likely to be successful than students who are deficient in two or more areas (Roueche \& Baker, 1987). "Students enrolling in two or three developmental courses in their first term were more likely to drop out and had a lower retention rate than students enrolling in a single developmental course" (Garcia \& Romanik, 1984, p. 50).

Recognizing that most students entering a community college lack the mathematics preparation necessary to achieve academically, a model developmental mathematics program was developed and compared to typical community college developmental mathematics programs.

The major weaknesses of the existing program were found to be the lack of: (a) a systematic assessment process which is essential to the evaluation and improvement of this program, and (b) sufficient staff who are training and provided with free time to perform many important services and duties (King-Maida, 1988, p. 435).

Improved record-keeping and longitudinal studies are drastically needed by many institutions if consistent numbers are to be determined. "Forty-seven percent of the nation's colleges were unable to provide retention rates to the second year for freshmen who enrolled in at least one remedial course in 1989" (National Center for Educational Statistics, 1991, p. 7).

Southerland (1986) recognized the problem but hoped that institutional records were accurate enough to show that
in similar cases the students' academic achievements have been helped through taking developmental coursework.

An interesting observation has been made by a Director of Learning Resources at a community college in Maryland. On the subject of testing and remediation he says:

The pressure of the sheer number of underprepared students . . . has mitigated against reading and writing assignments in community colleges, replacing them with those that require the recall of discrete data. An epidemic of so-called objective testing, often machine-scored, has swept through community college education across all curricula (Ray, 1989, p. 147).

## Typical Programs and Services

For Underprepared Students

The need to address remediation and developmental skills in postsecondary occupational programs continues to increase in the current context of changing student populations and demand for excellence (Roueche, 1983).

One of the most startling statistics comes from a Fall, 1991 survey of 1.6 million first-time, full-time college students: although 52.3 percent rated themselves as above average or in the highest ten percent in academic ability, 11.1 percent think they will need remedial work in foreign language, 11.7 percent in science, 12.5 percent in English, and 28.7 percent in mathematics (Astin, 1991).

Preferring the term "developmental" rather than remedial, this type of education has been in existence for approximately 100 years. Not only the name but even the nature of the program has changed.

What began as a mere refresher course in an informal setting has become a complete, multifaceted program in a formal setting. But regardless of its name, its formality or informality, the basic purpose of this effort has not changed. That purpose is to provide necessary skills for success or survival of more college students (Lott, 1990, p. 70).

Given that at least one remedial course was provided in 90 percent of two-year colleges in 1989 (National Center for Educational Statistics, 1991), actual semester-length developmental courses are likely to be the most obvious offering.

The vast majority of two-year institutions administer diagnostic or placement tests in various subject areas (Breland, 1986). Names, exact descriptions and/or competencies vary from course-to-course and institution-toinstitution. States such as West Virginia require the courses to parallel the high school units that comprise state admission requirements.

The "Transition Program", offered by the Community and Technical College of Marshall University and described in the institution's 1991 brochure, provides tutors and instructors in a computer-equipped Learning Center as well as the following zero-level courses:

COM 095 Developmental Writing (This course will prepare students for the level of writing competence necessary in ENG 101) 3 credit hours.

MAT 097 Developmental Algebra (Essentially a high school algebra course) 3 credit hours.

MAT 098 Developmental Geometry (Essentially a high school geometry course) 3 credit hours.

SCI 090 Developmental Physical Science (This course is designed to give students experience and skills in physical science, emphasizing lab experiences) 3 credit hours (np).

Other developmental studies programs, such as the one at Tulsa Junior College (Oklahoma), provide a more extensive listing for their students who have been out of school for a period of time or have a curricular deficiency in one or more areas. Specific courses include:
$\begin{array}{llll}\text { ENG } & 0903 & -- & \text { Reading I } \\ \text { ENG } & 0913 & \text {-- } & \text { Reading II }\end{array}$
The two-semester reading class in highly individualized. Primary emphasis is placed on developing interest in reading, improving comprehension of course-book materials, skills in grasping main ideas, and vocabulary building. The student begins at his own reading level and moves at his own rate of speed.

ENG 0923 -- Writing I
ENG 0933 -- Writing II
The two-semester writing class is designed to help students improve their writing skills so that they may proceed through a planned college program. Emphasis is placed on practical writing experiences for social, business, and academic life. This course includes specialized practice in sentence structure, grammar, punctuation, and spelling.

ENG 0963 -- Succeeding in College I
ENG 0973 -- Succeeding in College II This two-semester course is designed to aid the student in setting goals that will enable him to move more securely through the junior college program. The course includes making career goals, using the Learning Resources Center, taking notes, studying for tests, and budgeting of time.

MTH 0003 -- Basic Mathematics
MTH 0013 -- Beginning Algebra
MTH 0123 -- Intermediate Algebra
The math courses are designed for students who need further development in basic mathematical skills. One course covers the four fundamental operations...whole numbers, fractions, decimal fractions, percentage, interest, and simple equations. The elementary algebra course provides a basic review of algebra (Tulsa Junior College Catalog, 1991-1992, pp. 49-50).

Developmental courses offered by Oklahoma State University/Okmulgee also include a zero-level course in history:

HIST 0123 -- United States History
A survey of United States History focusing on major developments from the Colonial era to the present. This course will not count toward graduation or any degree program (OSU/Okmulgee Catalog, 1991-1992, p. 71).

Many other programs and services provided underprepared students in two-year colleges are designed to help insure success in the completion of their educational goals. Included among these may be found computerized instructional labs, English As A Second Language programs, international language centers, and math tutorial labs.

Recognizing that many students will not take advantage of the support service available to them, a study was conducted in the California Community Colleges. Students asked why they had not made use of a service responded:
(1) They did not have the time;
(2) They did not feel it was important;
(3) They did not know the service was available to them;
(4) No one suggested they do so; or
(5) College credit is not awarded for doing so (Friedlander, 1982, p. 2).

The age of computer technology has provided a means of identifying students who need pre-requisites or developmental courses. One system implemented in the San Jose/Evergreen Community College District (1985) features an informational mode, which provides information about whether a student meets a prerequisite, and a lock-out mode, which prevents a student from registering for classes if prerequisites are not met (Kangas, 1987).

Many colleges have also developed Assessment Centers within the last five years in response to federal guidelines focusing on educational effectiveness:

Section C: Determining that institutions or programs document the educational achievements of their students including students admitted on the basis of ability to benefit . . . through general educational assessments (e.g., standardized test results) . . . and other recognized measures (Federal Register, 1988, ss 602.17).

Institutions who must make the decision about which test to implement for its assessment program face an enormous problem. The Southern Regional Educational Board states, almost 100 combinations of about 70 different tests in the areas of reading, writing, and mathematics are used to place students in either college degree credit or remedial development courses. Tests in all three areas range from in-house institutionally developed exams to nationally normed and standardized tests, such as the American College Test (ACT) or the Scholastic Aptitude Test (SAT). Some institutions even use more than one test (Abraham, 1986).

Because colleges must address both admissions and assessment procedures, many two-year colleges have combined the process. The Ivy Tech (Indiana) technical institutes, for example, have developed a Basic Skills Advancement Program, a supplemental service for regularly enrolled students who are encountering academic difficulty or have been identified as having encountered academic difficulty in the past.

> Services provided through the Basic Skills Advancement Program include diagnostic testing and assessment, financial aid counseling, career counseling, placement services and instruction. The need for these services may be identified at the time of admission; however, a student may utilize any or all services upon encountering academic difficulty during a course of study. Professional basic skills advancement instructors and laboratory technicians provide supplemental instruction in the areas of math, communications, sciences, human relations, GED preparation and study skills. The delivery of instruction may be a basic skills advancement course in a classroom setting, it may be offered to students one-on-one as tutorial assistance, or as a self-paced study in the Basic Skills Center (Ivy Tech catalog, 1991, p. 1).

An AACJC study conducted in California complained that remedial instruction and therapeutic counseling are often inappropriate and ineffective means of "curing" curriculum deficiencies. As corrections he recommended:

An emphasis on Community College teacher preparation, institutional reexamination of selection and admissions processes, including faculty advising of high risk students, and including policy flexibility (Moore, 1976, abstract).

Two opposite perspectives must be considered:
(1) because community colleges tend to serve nontraditional
students uniquely, traditional yardsticks may not apply; or (2) the developmental/remedial studies offered do not adequately prepare students for subsequent courses (Kulik et al., 1983).

Whether developmental courses actually help in the long run or whether student success can be attributed to other factors in the college experience continues to be a debate topic.

Students and instructors think the developmental courses help! In a self-study survey of 1,324 developmental/ESL students, a whopping 93 percent of the students who were taking developmental courses indicated that the course in which they were presently enrolled increased their chances of future academic success. Over 70 percent believed they could not complete college without developmental instruction (Garcia \& Romanik, 1984). Faculty support of developmental programs was also strong. Eighty-seven percent of the staff felt the developmental courses were effective, and 97 percent felt the college should continue its commitment to such programs (Roueche \& Baker, p. 74).

The Matriculation Issue

Students are inclined to attend a community college because of its low cost, its open-door admission policy, and its proximity to home and job. Transfer to a four-year institution may not be automatic, but admission to a community college is easy, as the frequently heard expressions "open door" and "open admissions" indicate (Rankin, 1989).

When considering the question of curricular
requirements versus access, the two-year college finds
itself in the middle. The problem of high school preparation must be addressed, yet the two-year college's curriculum must meet the approval of the senior institutions who approve and accept the transfer credit.

Most community colleges want to maintain the same level of enrollment as now. However, the past few years would suggest that admissions standards cannot be raised much more unless there is a continued increase in the level of preparation of high school graduates. One aspect of this concern was the significant number of graduating high school students who failed to continue on to college (Carrasco, 1988) •

Not every student is expected to matriculate to college. "Since technical education and training in the future will require a mathematics foundation as well as communication skills, it is important to plan high school courses which include these subjects" (Gonzalez and Waintraub, 1985, p. 12).

States such as North Carolina have initiated "Tech Prep" (technical preparation) programs which serve as the technical parallel to the traditional College Prep curriculum. Tech Prep is designed to meet the need for high school graduates to have more technically oriented educational backgrounds. Through a blending of higher level academic and vocational courses, Tech Prep prepares students for the advanced courses required by two-year technical and community colleges (James, 1990).

Another issue is the problem of matriculation from the two-year college to the baccalaureate level, since "the transfer of students to four-year colleges and universities is one of the two-year college's many educational missions" (Cohen, 1991, p. vii). Although a great deal of research has been conducted nationally, usually only the Associate of Arts and Associate of Science degrees are addressed. However, comparable requirements for the Associate in Applied Science degree are beginning to be recognized. One component of the Criteria for Excellence in Associate of Applied Science Degree Programs is that "articulation with appropriate and receptive four-year colleges should be gained through cooperative planning and transfer agreements" (Council for Occupational Education, 1985, p. 8).

Although only half of the students who begin college ever earn a baccalaureate degree, even a little postsecondary education is better than none. "The 'open door' to college has all too often become a 'revolving door'" (Sjogren, 1982, p. 8).

At least 50 percent of the jobs of the 21 st Century will require workers to process information -- knowledge learned primarily through formal education. As a result, students in postsecondary occupational education who are deficient in basic academic skills such as reading, writing, and mathematics are severely limited in qualifying for many employment opportunities (Cross, 1983).

Two-year college coursework and degrees are often divided into three separate categories. Terms such as "transfer program," the "occupational program," and "continuing education" are used, but in error. According to Cohen (1986) in his discussion of some of the perennial issues facing community colleges:

There is no transfer program. There are courses that students may take and if and when they do transfer to a baccalaureate degree-granting institution, those courses will be accepted for credit. But it is a long way from that definition to a transfer program because many people take courses for which a senior institution would award credit but who have no intention of transferring . . . There are more students transferring to universities from so-called occupational programs than from so-called transfer programs (p. 4-5).

In 1990, the American Association of Community and Junior Colleges and the National Center for Academic Achievement and Transfer undertook a national survey to identify practices which encouraged students to transfer from two-year colleges to senior institutions. These institutions were asked to describe how often they used various transfer strategies, their method of identifying transfer students, as well as their method of calculating transfer rates.

Of the choices offered by the Survey, the 538 responding institutions identified as most important the following transfer practices:

* written articulation agreements (85\%);
* course equivalency guides (81\%);
* transfer counselors (81\%).
(National Center for Academic Achievement and and Transfer, 1990, p. 3).

For the two-year colleges granting the Associate in Applied Science degree, the previously stated practices are essential, since transfer is not automatic. Much academic collaboration must take place. Hopefully this would lead to curriculum re-evaluation, changes in existing practices associated with transfer, and specific advisement for students whose goal is transfer.

According to the National Center (1990), three additional procedures need to be implemented on a national basis. Firstly, that a generally accepted definition of transfer is needed to establish institutional transfer rates as a foundation for a national transfer profile. Secondly, procedures to identify the number of transfer students need to be established, because institutions need guidance in developing and managing their transfer data bases. Finally, more attention should be given to recognizing institutional transfer rates as a basis for assessing transfer effectiveness.

The Chronicle of Higher Education has joined with academic leaders across the United States to predict major changes for higher education before the end of this century. Among the changes they foresee:
(1) More and more students will be squeezed out of four-year institutions and into community colleges. Currently about half of all entering freshmen are attending two-year institutions.
(2) As the enrollment pattern shifts, the quality and scope of instruction at community colleges, which are already reeling from demands to provide basic education to "underprepared" students, will assume growing importance. Although two-year
colleges have won praise for helping many students prepare for transfer to four-year institutions, some analysts fear that a growing proportion of undergraduates may receive a limited and largely vocational education, with little of the broad preparation that employment experts say will be needed for long-term success (Jacobson, 1991, p. 1).

## The Role of the Academic Dean

The Academic Dean (or chief academic officer) is being increasingly recognized as a significant partner in the community college administrative team.

The dedication and talent of those individuals serving as academic officers is vital to the continued growth and development of the educational program, and key to institutional scope and quality in the community colleges (Parker and Parker, 1985, p. 2).

In a study of curricular decision-making in two year colleges, 181 administrators and faculty within the Georgia higher education system were surveyed about various aspects. Research by King (1989) showed that administrators are the dominant force in curriculum decision-making. Although faculty are actively involved, the responsibility for curricular decision-making was usually given to either the chief academic officer or the president.
"Presidents cannot know all that they must appear to understand; they depend on deans to keep them connected to and credible within their institutions" (Brooks, 1984, p. 3).

It is usually the Academic Dean (Chief Academic Officer or Vice-President for Instruction) who is charged with the
institutional responsibility for maintaining academic standards.

Regarding the issue of underprepared students in the two-year college, The Chronicle of Higher Education conducted a survey from 1982-1984 on the Views of Chief Academic Officers on Changes Among Students. At the public, two-year institution level, asked if they perceived their students' academic preparation had increased, results indicated 4.4 percent thought reading, writing and mathematical skills had increased; only 2.2 percent had observed an improvement in humanities and social studies preparation; but 6.7 percent perceived an increase in science preparation. Regarding their students' attitudes toward general academic achievement, 24.4 percent indicated the affirmative (Staff, 1984, p. 17).

Summary

This review of literature focused on programs and services provided underprepared students at two-year institutions as well as the role the Academic Dean plays in determining the institution's academic climate. Consideration was given to the rationale for establishing high school curricular requirements, national trends toward admission criteria for two-year colleges, studies and reports focusing on developmental collegiate courses, typical programs and services for underprepared students, the matriculation issue, and the role of the academic dean.

The establishment of high school curricular requirements is not new, although Florida was the first state in recent years to push for increased rigor within their high schools.

Admissions criteria are used to identify those students who may enter a college or university. However, these criteria may vary widely from state-to-state and institution-to-institution.

Overall, public, two-year, and open admission colleges were more likely to offer remedial courses than other colleges. Nationwide 28 percent of all college freshmen were enrolled in a remedial course (National Center for Education Statistics, 1991). That number is 40 percent in Oklahoma (Regents' report zaps high school education, Okmulgee Daily Times).

Most schools offering remedial programs required students not meeting institutional standards to take remedial courses. Typical programs include one and two semester developmental/remedial courses in core high school academic subjects. These are usually zero-level courses offered for no credit toward graduation requirements. Short, intensive seminars and workshops also focus to better prepare the student for college.

Many of the new services offered to the underprepared college student are in the form of admissions assessment, diagnostic testing, and entrance placement. Rather than just academic libraries, the norm at the two-year college
level is learning resource centers and tutorial labs complete with individualized computer software and interactive video lessons.

Another consideration must be the issue of matriculation. More secondary/college partnerships must be formed if potential students are to be adequately prepared for admission to college. Finally, the role of the Academic Dean at the two-year college-level was examined with respect to the role that individual plays in determining institutional academic climate.

## CHAPTER III

## METHODOLOGY

## Introduction

The purpose of this research was to identify programs and services provided underprepared students at two-year institutions and the effectiveness of these programs and services as perceived by the Academic Dean.

Perception studies are frequently used by researchers seeking to gain information about educational issues. Aghabekian (1988) used a survey design with a Likert-type scale to collect data on effectiveness indicators of institutional evaluation, accreditation, and organizational effectiveness in higher education. A study which examined teacher's perceptions of support given by their administrators also used a survey instrument with a Likerttype scale (Bond, 1987). Another study surveyed the perceptions of students, faculty, and administrators of junior colleges to assess stated goals (Marzoky, 1987). Using the descriptive method of research and a Likert-type instrument developed by the researcher, Hamilton (1985) investigated community college administrators' perceptions regarding the value of selected elements.

Descriptive research was conducted to provide a more complete picture of the various programs and services provided underprepared students at two-year institutions. Roueche and Baker (1987) support the view that this type of study:

Is probably more valid and presents a more accurate picture of the interrelated components that result in the effective delivery of educational systems . . . than any other kind (iv, preface).

The majority of states have policies which require the colleges to provide an entry assessment of the academic preparation of first-time students. Institutions who must make the decision about which test to implement face an enormous problem. The Southern Regional Educational Board reports that almost 100 combinations of about 70 different tests in the areas of reading, writing, and mathematics are used to place students in either college degree credit or remedial development courses. Tests in all three areas range from in-house institutionally developed exams to nationally normed and standardized tests, such as the American College Test (ACT) or the Scholastic Aptitude Test (SAT). Some institutions even use more than one test (Abraham, 1986).

Where the institutions distinguish between the need for remediation and the ability to successfully do college-level work varies dramatically from state-to-state and even college-to-college within a particular state.

Presented in this chapter are the methods and procedures used in completing the study. Specifications of the setting, population, instrument used, as well as means of data analysis, are also described.

Population of the Study

Within the United States there are six regional educational accreditating agencies, the largest of which is the North Central Association (NCA). Its Commission on Institutions of Higher Education (CIHE) oversees the activities related to higher education. But, because the Commission is so large and its membership so diverse, the NCA recognizes several affiliates including the Council of North Central Community and Junior Colleges (CNCCJC), to which two-year institutions typically belong.

The CNCCJC reported a membership base of 357 two-year colleges (not including OSU/Okmulgee) in its 1990 membership directory. (State educational boards and agencies, and four-year institutions holding membership were purposely excluded from this count since they were not two-year associate degree-granting institutions.)

Recognizing that the issue of underprepared students at the two-year college level is a major concern of the membership of the CNCCJC, this research study was fully endorsed by the organization.

The population of the study was the 357 two-year institutions within the North Central Association region of
the United States. The total population was surveyed. Two hundred ninety (290) usable surveys were returned for an 81 percent response rate which represented a 95 percent confidence interval (Zemke \& Kramlinger, 1988; Huck, et al, 1988; Bartz, 1988).

## Conduct of the Study

A survey is an effort to acquire information from sources. It is prepared for specific reasons, distributed to sources, returned to sender, and analyzed. They "are a popular tool, a method frequently used to find out what large numbers of people think and feel about the problem" (Rossett, 1987, p. 202).

There are several benefits the researcher may derive from using a survey. More people can be reached at less cost than by telephoning or meeting them, anonymity can be promised and delivered, and respondents may take time to think about their responses (Rossett, 1987).

The survey was designed using WordPerfect 5.1 software. Various typestyles and point sizes were used. The cover letter was written on institutional letterhead. Copy quality was controlled through use of a laser printer. The cover letter included the purpose of the study, the reason the respondents were selected, and the endorsement of the study by the CNCCJC. Short, explicit directions in italicized form were provided at the top of each of the two pages.

Survey construction was developed along guidelines suggested by Spitzer (1979). The first page of the researcher-developed survey (see Appendix B) requested demographic information regarding the institution, the degrees offered, and the number of years the respondent had been (a) working in higher education, (b) employed at that particular institution, and (c) the academic dean at that institution.

Also on the first page were questions dealing with programs and services that institution provided underprepared students. The majority of all questions were two lines or less in length. Two separate sections provided space for respondents to write names of programs and services their institution provided in addition to those listed.

The second page contained instructions on rating the Academic Dean's perceptions of the support provided underprepared students through various programs and services, as marked on a seven-point Likert-type scale.

Respondents were asked to circle the number from one to seven which rated their degree of support. A rating of "one" indicated they strongly disagreed with the statement, while a rating of "seven" indicated they strongly agreed with the statement. Those respondents who were neutral could indicate such by circling "four".

As a field test the survey and cover letter were mailed to a dozen individuals within Oklahoma for critique. These
individuals were typically at the assistant academic dean level--knowledgeable about the information requested but not the same individuals who would receive the surveys for research purposes. Results indicated only minor rewording changes were necessary.

A cover letter, survey, and postage-paid return envelope were mailed to the Academic Dean at each of the 357 institutions in November, 1991.

The cover letter requested that completed surveys be returned in the enclosed self-addressed, stamped envelope; additionally, the complete mailing address was printed at the conclusion of the survey in case it became separated from the other materials.

Surveys were coded to indicate which schools had returned their survey. Those institutions not responding by January 6, 1992, were mailed a second survey. (Both letters are included in Appendix A.)

A $3^{\prime \prime}$ by $5^{\prime \prime}$ index card was also included in the mailing. Those respondents who were interested in receiving a copy of the results of the study were requested to return the card with their survey.

To provide additional verification on various state policies and mandates, a written request was made to the higher education coordinating board in each of the 19 states for a copy of their current policy on admission to the twoyear institutions within their state.

To further validate the study and to verify that data gained from states within the North Central Association region were representative of opinions in the other 31 states, two institutions per state were selected through a purposive, systematic sampling of institutions holding membership in the American Association of Community and Junior Colleges and listed in their 1990-91 directory.

Analysis of the Data

Survey data were entered in a Lotus 1-2-3 database, then downloaded into SPSS/PC+ for statistical analysis. Because large groups of numbers existed, descriptive statistical tests were applied. Measures of Central Tendency were necessary in both Part I -- Demographics and Part II -- Perceptions.

Measures of Variability were used to indicate the degree of dispersion among sets of scores. Correlations also tested for a direct relationship between certain variables.

To test Research Question I, a one-way ANOVA was developed and a . 05 level of significance established. In Research Question II, an ANOVA was again used with the level of significance set at . 05 .

Because only two groups of data were involved in Research Question III, a "t" test was used to compare the means of the two groups to test for a significant difference.

In Research Question IV, all 11 statements were correlated with each other to determine if significant relationships existed. A highly positive correlation was noted, with probability computed at the 95 percent confidence level.

## CHAPTER IV

## RESULTS OF THE STUDY

## Overview

The purpose of this research was to identify programs and services provided underprepared students at two-year institutions and the effectiveness of these programs and services as perceived by the Academic Dean.

Certain demographic data was elicited from the Academic Dean of each institution within the Council of North Central Community and Junior Colleges region. The Academic Deans were asked: What type of college best identified their institution? Which Associate Degrees were conferred at their institution? Had their state mandated high school curricular requirements for admission to their college's degree programs? Which entry assessment tests were in use at their institution? Did their institution provide an Adult Admission category which waived curricular deficiencies for students 21 and older? What special programs and services were provided for underprepared students at their institutions?

Specifically, the questions this study was to answer were the four research questions:

Research Question I. Is there a significant difference of perception by type of college (comprehensive community college, technical institute, junior college, or two-year branch campus of a college or university) as to the services provided underprepared students?

Research Question II. Is there a significant difference of perception between those colleges who confer the Associate of Arts (A.A.), Associate of Science (A.S.), and/or the Associate of Applied Science (A.A.S.) Degrees as to the services provided underprepared students?

Research Question III. Is there a significant difference of perception between those colleges with stateor institutionally-mandated high school curricular requirements and those who do not have mandated high school curricular requirements as to the services provided underprepared students?

Research Question IV. Is there a significant relationship between the support of the Academic Dean for students with curricular deficiencies to take developmental courses, and his/her perception of the support of students, faculty, and the governing board requiring students with curricular deficiencies to take developmental courses?

Evaluation is the process of describing and determining the worth of the subject being studied. The criteria in evaluation are the elements looked at in judging the effectiveness, success, or value of a particular thing (American College Testing, 1990).

The data gathered in the study were presented in their context and were as comprehensive as was possible given the parameters of the study.

## Analysis of the Data

The population of the study was the 357 two-year institutions within the North Central Association region of the United States. Nineteen states comprise this membership. The total population was surveyed.

Two hundred ninety (290) usable surveys were returned for an 81 percent response rate which represented a 95 percent confidence interval.

A 3" x 5" index card was also included in the mailing. Those respondents who were interested in receiving a copy of the results of the study were requested to return the card. Evidently a worthwhile incentive, 192 cards (66 percent) were returned to the researcher.

Table I provides an alphabetic list of states within the NCA region, the number of two-year institutions within each state, the frequency and percent of returns by state, and the percent of return for that state based on the total return.

In Part I -- Demographics, respondents were asked in question one to categorize their type of college. Overwhelmingly, 65 percent indicated comprehensive community college, although 16 percent indicated technical institute,
ten percent marked branch campus and nine percent chose junior college.

Respondents were asked in question two to indicate which associate degree(s) their two-year college offered. Because of the transfer issue, those colleges conferring just the Associate in Applied Science degree were compared to those offering the Associate in Arts and/or Associate in Science degree(s).

TABLE I
NUMBER AND PERCENTAGE OF COUNCIL OF NORTH CENTRAL COMMUNITY AND JUNIOR COLLEGE INSTITUTION RESPONSES

| State | Number of <br> Institutions | Frequency <br> of Responses | Percentage <br> within State | Percent <br> of <br> Total |
| :---: | :---: | :---: | :---: | ---: |
|  |  |  |  |  |
| AR | 10 | 10 | 100 | 3.8 |
| AZ | 21 | 15 | 71 | 4.8 |
| CO | 15 | 9 | 60 | 3.1 |
| IA | 17 | 15 | 88 | 5.2 |
| IL | 55 | 40 | 73 | 13.8 |
| IN | 14 | 12 | 86 | 4.1 |
| KS | 22 | 17 | 77 | 5.9 |
| MI | 34 | 31 | 91 | 10.7 |
| MN | 19 | 18 | 95 | 6.2 |
| MO | 18 | 16 | 89 | 5.5 |
| ND | 8 | 6 | 75 | 2.1 |
| NE | 16 | 15 | 94 | 5.2 |
| NM | 17 | 13 | 76 | 4.5 |
| OH | 34 | 12 | 85 | 10.0 |
| OK | 14 | 2 | 86 | 4.1 |
| SD | 3 | 4 | 67 | .7 |
| WI | 28 | 5 | 75 | 7.2 |
| WV | 5 |  | 80 | 1.4 |
| WY | 7 |  | 71 | 1.7 |
| Total | 357 |  |  |  |
|  |  |  |  | 100.0 |

Although only Oklahoma and Illinois (effective 1993) have actually mandated high school curricular requirements for admission to degree programs, many colleges have independently established similar requirements for admission to their degree programs. Therefore, the 21.9 percent who responded in the affirmative in question three may be slightly misleading.

To gain a better idea of the primary tests in use, question four of the research survey asked if students at that respondent's institution were allowed to "test out" of their curricular deficiencies, and if so, to identify which test was used. Six choices were offered, as well as opportunity to add any institutional choice not listed. Table II better shows which entry assessment tests are more often used in two-year institutions.

TABLE II
ENTRY ASSESSMENT TESTS USED IN COUNCIL OF NORTH CENTRAL COMMUNITY AND JUNIOR COLLEGE INSTITUTIONS

| Test | Frequency | Rank |
| :--- | ---: | ---: |
|  |  |  |
| ACT Composite or Subscores | 78 | 4 |
| SAT Composite or Subscores | 32 | 6 |
| ACT ASSET | 104 | 3 |
| College Board's Accuplacer | 7 | 7 |
| CLEP test | 110 | 2 |
| Institutionally-developed test | 118 | 1 |
| Other | 37 | 5 |

A text file of responses was compiled from comments provided under "Other." Two schools indicated that students are simply allowed to take a course or several courses, provisionally, and these are used as the entry assessment of the student's abilities.

Five respondents indicated that some type of teachermade or state-developed proficiency test was available. Several institutions are permitted to choose their own options and allow their students to sign a waiver while others require an institutionally-designed writing sample or twenty minute essay. Individual evaluation and experiential learning credit are two additional alternatives as are September Challenge Exams.

Two colleges indicated military-influenced assessment tests and services in use at their institution including Dantes. Other commercially-developed standardized tests listed by fifteen institutions included MAPS, CPT, CAAP, GATB, TABE, CGP Basic Skills Tests, and Nelson-Denny. (Descriptions are provided in Chapter One, Definitions.)

The maximum number of credits a student may earn prior to removing all curricular deficiencies varies drastically among states. Fifty-eight respondents (20 percent) indicated that the question was not applicable to their situation. Only Oklahoma appears to have a clear-cut maximum of 24 credit hours.

Whether or not the respondent's college provided an Adult Admission category which waives curricular
deficiencies for students 21 and older likewise appeared to be a local decision rather than a state mandate. Only 44 respondents ( 15.2 percent) indicated their institution provided such an alternative.

Survey question seven listed eight special programs and services that are often offered for underprepared students in the two-year institutions. Respondents were asked to check all that applied to their particular college. Table III shows programs and services most often provided.

There appeared to be a great deal of interest in this particular category, as 165 respondents indicated additional programs and services available to underprepared students at their institutions.

TABLE III
SPECIALLY PROVIDED PROGRAMS AND SERVICES
FOR UNDERPREPARED STUDENTS AT COUNCIL
OF NORTH CENTRAL COMMUNITY
AND JUNIOR COLLEGE
INSTITUTIONS

| Name of Program/Service | Frequency | Rank |
| :--- | :---: | :---: |
| Counselors |  |  |
| Faculty Advisers | 267 | 1 |
| Faculty Tutors | 217 | 3 |
| Peer Tutors | 120 | 8 |
| Support Groups/Networks | 245 | 2 |
| Small Classes | 113 | 9 |
| Audio-visual Tapes/Programs | 149 | 6 |
| Interactive Computer Programs | 175 | 4 |
| Others | 135 | 7 |

Table IV provides a listing of "other" special programs and services which received write-in acknowledgment and the frequency of response.

The majority of institutions indicating other special programs and services listed specific discipline courses (English, reading, writing, mathematics), departments or complete divisions. Eight colleges regularly offer specific seminars, workshops and/or classes; nearly as many offer college success skills courses and goal setting programs. Remedial courses (both for credit and no credit toward graduation) are also offered.

Learning Centers/Labs were the predominant special service for underprepared students, followed closely by a cluster of Academic Achievement Centers, Academic Skills Centers, Academic Support Centers and Academic Success Centers. Although two categories covered tutors (peer and faculty), eight respondents indicated different types including federally funded targeted audiences, minority and professional tutors.

In addition to the major categories of Audio-visual Tapes/Programs and Interactive Computer Programs, several respondents indicated sophisticated electronic instructional technology in place to assist their underprepared students.

A number of institutions also indicated federal grants targeted to special populations. These included AFDC recipients, Perkins qualifiers, specific minorities, and low income first generation college students who are high risks.

TABLE IV

## A LISTING OF "OTHER" SPECIAL PROGRAMS AND SERVICES WHICH RECEIVED WRITE-IN ACKNOWLEDGMENT

Description Frequency
Learning Centers/Labs (general \& specific subjects) ..... 29
Developmental Courses/Departments ..... 21
(English, Reading, Writing, Mathematics)
Academic Achievement/Skills/Support/Success Centers ..... 11
Learning/Tutorial Assistance Centers ..... 10
Remedial Courses/Support ..... 8
Seminars/Workshops/Classes ..... 8
Special Tutors (math, writing, science) ..... 8
College Success Skills Courses ..... 6
Goal Oriented Adult Learning (GOAL) Program ..... 6
Learning Disabled Support System/Assistance ..... 5
Student Support Services Program ..... 5
Mentoring Programs (By students or faculty) ..... 4
Academic/Dropout Alert Systems ..... 3
Assessment/Entry Placement ..... 3
Computerized Programs/Labs ..... 3
Supplemental Instruction ..... 3
College Special Needs Programs/Classes ..... 2
Curriculum/Program of Study Adaptations ..... 2
Development Center/Volunteers ..... 2
Foundations/Comprehension Curricula ..... 2
Learning Characteristic Testing/Development Services ..... 2
Minority Resource/Transfer Centers ..... 2
Taped Texts/Telecourses ..... 2
Transitions Program ..... 2
Academic/Career Enhancement Resources ..... 1
Adult Re-entry Services ..... 1
At Risk Committee ..... 1
Disability Transition ..... 1
English As A Second Language ..... 1
Electronic Mail Coursework ..... 1
Financial Assistance ..... 1
GED Preparation ..... 1
Interpreters ..... 1
LEARN Program ..... 1
Longer Classes ..... 1
Peer Counselors ..... 1
Personal Achievement Department ..... 1
Pre-collegiate (K-12) Courses ..... 1
Resource Center ..... 1
Supplemental Instruction Center ..... 1

Questions eight, nine and ten asked for the number of years the respondent had been employed by that institution, employed as the Academic Dean or Chief Academic Officer of that institution, and the total number of years in higher education. Table V displays the mean, standard deviation, and range of years for each of these three categories.

TABLE V
YEARS OF EXPERIENCE BY ACADEMIC DEANS WITHIN THE COUNCIL OF NORTH CENTRAL COMMUNITY AND

JUNIOR COLLEGE INSTITUTIONS

| Value | Mean | Std Dev | Minimum | Maximum |
| :--- | ---: | ---: | :---: | :---: |
| Institution | 12.25 | 8.28 | .3 | 35.0 |
| Academic Dean | 5.37 | 4.60 | .1 | 25.0 |
| Higher Education | 19.56 | 6.67 | 2.0 | 41.0 |
|  |  |  |  |  |

Part II -- Perceptions provided 11 statements. Table VI displays Academic Dean perceptions overall, identifies each statement as a separate variable, and provides both the mean and standard deviation for each.

TABLE VI

## OVERALL ACADEMIC DEAN PERCEPTIONS

| Statement | Mean | Std Dev |
| :--- | :--- | :--- |
|  |  |  |
| 1. Academic Dean support | 6.6254 | 1.0926 |
| 2. Student support | 5.0928 | 1.3032 |
| 3. Governing board support | 5.8935 | 1.2480 |
| 4. Faculty support | 6.1100 | 1.0867 |
| 5. Student confidence | 5.8660 | 1.0468 |
| 6. Student retention rates | 5.8935 | 1.2808 |
| 7. Student graduation rates | 5.7113 | 1.3284 |
| 8. Problem solving ability | 5.3127 | 1.3242 |
| 9. Academic increase | 5.2405 | 1.5145 |
| 10. Assessment changes | 5.2715 | 1.6437 |
| 11. Graduate tracking | 5.6735 | 1.3442 |

Each perception question was also analyzed separately. Table VII shows the frequency and percentage of responses to the first perception statement: "I support the need for students with curricular deficiencies to take developmental courses." Of all statements regarding perception, Academic Deans voiced the strongest feelings on this issue with 78.4 percent strongly agreeing with the statement.

Table VIII shows the frequency and percentage of responses to the second perception statement: "Students realize that taking a developmental course will better prepare them for success in advanced courses". One third of the respondents each selected "agree" and "slightly agree."

TABLE VII
ACADEMIC DEANS' SUPPORT FOR STUDENTS WITH CURRICULAR DEFICIENCIES TO TAKE DEVELOPMENTAL COURSES

| Value | Frequency | Percent | Cum Percent |
| :--- | :---: | :---: | :---: |
| (1) Strongly Disagree | 6 |  |  |
| (2) Disagree |  | 2.1 | 2.1 |
| (3) Slightly Disagree | 0 | .0 | 2.1 |
| (4) Neutral | 2 | .7 | 2.8 |
| (5) Slightly Agree | 2 | .7 | 3.5 |
| (6) Agree | 7 | 2.4 | 5.9 |
| (7) Strongly Agree | 45 | 15.7 | 21.6 |
| () Missing | 225 | 78.4 | 100.0 |
|  |  | 3 | 1.0 |

TABLE VIII
ACADEMIC DEANS' PERCEPTIONS OF STUDENT SUPPORT FOR TAKING A DEVELOPMENTAL COURSE TO BETTER PREPARE THEM FOR ADVANCED COURSES

| Value | Frequency | Percent | Cum Percent |
| :--- | ---: | ---: | ---: |
| (1) Strongly Disagree |  |  |  |
| (2) Disagree | 5 | 1.7 | 1.7 |
| (3) Slightly Disagree | 28 | 1.7 | 3.5 |
| (4) Neutral | 28 | 9.8 | 13.2 |
| (5) Slightly Agree | 102 | 9.8 | 23.0 |
| (6) Agree | 101 | 35.5 | 58.5 |
| (7) Strongly Agree | 18 | 35.2 | 93.7 |
| () Missing | 3 | 6.3 | 100.0 |
|  |  | 1.0 |  |

Table IX shows the frequency and percentage of responses to the third perception statement: "The governing board (Trustees, Regents, etc.) supports the need for students with curricular deficiencies to take developmental courses." The majority of respondents selected "agree."

Table $X$ shows the frequency and percentage of responses to the fourth perception statement: "The faculty supports the need for students with curricular deficiencies to take developmental courses." Again, the top responses were "agree" and "strongly agree."

TABLE IX
ACADEMIC DEANS' PERCEPTIONS OF GOVERNING BOARD SUPPORT FOR STUDENTS WITH CURRICULAR DEFICIENCIES TO TAKE DEVELOPMENTAL COURSES

| Value | Frequency | Percent | Cum Percent |
| :--- | :---: | :---: | ---: |
| (1) Strongly Disagree |  |  |  |
| (2) Disagree | 3 | 1.0 | 1.0 |
| (3) Slightly Disagree | 6 | 2.1 | 3.1 |
| (4) Neutral | 73 | 2.4 | 5.6 |
| (5) Slightly Agree | 42 | 4.5 | 10.1 |
| (6) Agree | 125 | 14.6 | 24.7 |
| (7) Strongly Agree | 91 | 43.6 | 68.3 |
| () Missing | 3 | 31.7 | 100.0 |
|  |  | 1.0 |  |

TABLE X
ACADEMIC DEANS' PERCEPTIONS OF FACULTY SUPPORT FOR STUDENTS WITH CURRICULAR DEFICIENCIES TO TAKE DEVELOPMENTAL COURSES

| Value | Frequency | Percent | Cum Percent |
| :--- | :---: | :---: | ---: |
| (1) Strongly Disagree |  |  |  |
| (2) Disagree | 3 | 1.0 | 1.0 |
| (3) Slightly Disagree | 2 | .7 | 1.7 |
| (4) Neutral | 3 | 1.0 | 2.8 |
| (5) Slightly Agree | 8 | 2.8 | 5.6 |
| (6) Agree | 38 | 13.2 | 18.8 |
| (7) Strongly Agree | 122 | 42.5 | 61.3 |
| () Missing | 111 | 38.7 | 100.0 |
|  |  | 3 | 1.0 |

TABLE XI
ACADEMIC DEANS' PERCEPTIONS THAT STUDENTS WHO SUCCESSFULLY COMPLETE A DEVELOPMENTAL

COURSE HAVE AN INCREASED
CONFIDENCE TO DO
COLLEGE WORK

| Value | Frequency | Percent | Cum Percent |
| :--- | :---: | :---: | ---: |
| (1) Strongly Disagree |  |  |  |
| (2) Disagree | 3 | 1.0 | 1.0 |
| (3) Slightly Disagree | 1 | .3 | 1.4 |
| (4) Neutral | 4 | 1.4 | 2.8 |
| (5) Slightly Agree | 12 | 4.2 | 6.9 |
| (6) Agree | 59 | 20.5 | 27.4 |
| (7) Strongly Agree | 139 | 48.3 | 75.7 |
| ( Missing | 70 | 24.3 | 100.0 |
|  |  | 2 | .7 |

Table XI shows the frequency and percentage of responses to the fifth perception statement: "Students who successfully complete a developmental course have an increased confidence in their ability to do college work." While the majority indicated they agreed, nearly an equal number of respondents slightly or strongly agreed.

Table XII shows the frequency and percentage of responses to the sixth perception statement: "Students who have taken developmental courses have better retention rates than if they had not been required to take developmental coursework." Once again, the majority of respondents (44.4 percent) selected "agree", although 26.5 percent indicated they strongly agreed with the statement.

TABLE XII
ACADEMIC DEANS' PERCEPTIONS THAT STUDENTS
WHO HAVE TAKEN DEVELOPMENTAL COURSES HAVE BETTER

RETENTION RATES

| Value | Frequency | Percent | Cum Percent |
| :--- | :---: | :---: | ---: |
| (1) Strongly Disagree |  |  |  |
| (2) Disagree | 3 | 1.1 | 1.1 |
| (3) Slightly Disagree | 2 | .7 | 1.8 |
| (4) Neutral | 3 | 1.1 | 2.9 |
| (5) Slightly Agree | 33 | 11.8 | 14.7 |
| (6) Agree | 40 | 14.3 | 29.0 |
| (7) Strongly Agree | 124 | 44.4 | 73.5 |
| () Missing | 74 | 26.5 | 100.0 |
|  |  | 11 | 3.8 |

TABLE XIII
ACADEMIC DEANS' PERCEPTIONS THAT STUDENTS
WHO HAVE TAKEN DEVELOPMENTAL COURSES HAVE BETTER GRADUATION RATES

| Value | Frequency | Percent | Cum Percent |
| :--- | :---: | :---: | ---: |
| (1) Strongly Disagree |  |  |  |
| (2) Disagree | 3 | 1.1 | 1.1 |
| (3) Slightly Disagree | 3 | 1.1 | 2.2 |
| (4) Neutral | 3 | 1.1 | 3.2 |
| (5) Slightly Agree | 43 | 15.4 | 18.6 |
| (6) Agree | 55 | 19.7 | 38.4 |
| (7) Strongly Agree | 113 | 40.5 | 78.9 |
| () Missing | 59 | 21.1 | 100.0 |
|  |  | 11 | 3.8 |

Table XIII shows the frequency and percentage of responses to the seventh perception statement: "Students who have taken developmental courses have better graduation rates than if they had not been required to take developmental coursework." Once again, the majority of respondents agreed with this statement, although 15 percent chose to remain neutral.

Table XIV shows the frequency and percentage of responses to the eighth perception statement: "Students who take developmental courses expand their problem-solving/ critical thinking abilities." Some one-fourth disagreed or were neutral. Only 11 percent indicated they strongly agreed.

TABLE XIV
ACADEMIC DEANS' PERCEPTIONS THAT STUDENTS
WHO TAKE DEVELOPMENTAL COURSES EXPAND
THEIR PROBLEM-SOLVING/
CRITICAL THINKING
ABILITIES

| Value | Frequency | Percent | Cum Percent |
| :--- | :---: | :---: | ---: |
| (1) Strongly Disagree |  |  |  |
| (2) Disagree | 3 | 1.1 | 1.1 |
| (3) Slightly Disagree | 3 | 13 | 4.1 |
| (4) Neutral | 13 | 2.1 |  |
| (5) Slightly Agree | 53 | 18.8 | 6.7 |
| (6) Agree | 86 | 30.5 | 25.5 |
| (7) Strongly Agree | 92 | 32.6 | 56.0 |
| () Missing | 32 | 11.3 | 88.7 |
|  |  | 8 | 2.8 |

TABLE XV
ACADEMIC DEANS' PERCEPTIONS THAT GENERAL ACADEMIC ACHIEVEMENT AT THEIR INSTITUTION HAS INCREASED IN RECENT YEARS

| Value | Frequency | Percent | Cum Percent |
| :--- | :---: | :---: | :---: |
| (1) Strongly Disagree |  |  |  |
| (2) Disagree | 9 | .7 | .7 |
| (3) Slightly Disagree | 15 | 3.3 | 4.0 |
| (4) Neutral | 62 | 22.5 | 9.5 |
| (5) Slightly Agree | 77 | 28.2 | 32.2 |
| (6) Agree | 91 | 33.3 | 60.4 |
| (7) Strongly Agree | 17 | 6.2 | 100.8 |
| ( Missing | 17 | 5.9 |  |

Table XV shows the frequency and percentage of responses to the ninth perception statement: "General academic achievement at my institution has increased in recent years." Although one half of survey participants agreed, if only slightly, some one-fifth chose to remain neutral.

Table XVI shows the frequency and percentage of responses to the tenth perception statement: "New assessment mandates will require additional changes in our developmental curricula." Probably most significant of all statements, nearly two-thirds agreed changes were forthcoming.

TABLE XVI
ACADEMIC DEANS' PERCEPTIONS THAT NEW ASSESSMENT MANDATES WILL REQUIRE ADDITIONAL CHANGES IN COLLEGE'S DEVELOPMENTAL CURRICULA

| Value | Frequency | Percent | Cum Percent |
| :--- | :---: | :---: | :---: |
| (1) Strongly Disagree | 10 |  |  |
| (2) Disagree | 16 | 3.5 | 3.5 |
| (3) Slightly Disagree | 14 | 4.6 | 9.1 |
| (4) Neutral | 37 | 12.9 | 14.0 |
| (5) Slightly Agree | 52 | 18.2 | 26.9 |
| (6) Agree | 103 | 36.0 | 45.1 |
| (7) Strongly Agree | 54 | 18.9 | 81.1 |
| () Missing | 4 | 1.4 | 100.0 |
|  |  |  |  |

Finally, Table XVII shows the frequency and percentage of responses to the eleventh perception statement: "Graduate tracking will indicate that developmental coursework was a positive factor in preparing students for employment." Although nearly one-fifth disagreed or were neutral, clearly the majority of respondents agreed that developmental coursework was a positive factor.

TABLE XVII
ACADEMIC DEANS' PERCEPTIONS THAT GRADUATE TRACKING WILL INDICATE DEVELOPMENTAL COURSEWORK WAS A POSITIVE FACTOR

IN PREPARING STUDENTS
FOR EMPLOYMENT

| Value | Frequency | Percent | Cum Percent |
| :--- | :---: | :---: | :---: |
| (1) Strongly Disagree | 2 |  |  |
| (2) Disagree | 4 | .7 | .7 |
| (3) Slightly Disagree | 4 | 1.4 | 2.2 |
| (4) Neutral | 39 | 14.4 | 3.6 |
| (5) Slightly Agree | 68 | 24.5 | 17.6 |
| (6) Agree | 113 | 40.6 | 42.1 |
| (7) Strongly Agree | 48 | 17.3 | 82.7 |
| ( Missing | 12 | 4.1 | 100.0 |
|  |  |  |  |

## Research Questions

The purpose of the research was to identify programs and services provided underprepared students at two-year institutions and the effectiveness of these programs and services as perceived by the Academic Dean. The following research questions were asked:

Research Question I. Is there a significant difference of perception by type of college (comprehensive community college, technical institute, junior college, or two-year branch campus of a college or university) as to the services provided underprepared students?

To answer this question a four by eleven Analysis of Variance (ANOVA) table was developed. No significant differences were found. For display purposes, data for the eleven perception statements were aggregated and averaged. Table XVIII shows the results of the one-way ANOVA. No significant differences were found between groups or within groups.

TABLE XVIII
ACADEMIC DEANS' PERCEPTIONS BY TYPE OF COLLEGE

| Source | D.F. | Sum of <br> Squares | Mean <br> Squares | F <br> Ratio | F <br> Prob. |
| :--- | ---: | :--- | :--- | :--- | :--- |
| Between Groups | 3 |  | 69.6134 | 23.2045 | .3683 |
| Within Groups <br> Total | 260 | 16382.8714 | 63.0110 |  | .7760 |
|  | 263 | 16452.4848 |  |  |  |

Table XIX visually depicts the various tests for variability as well as the degree of dispersion among sets of scores. Because the one-way ANOVA did not find a significant "F" ratio between the three or more groups, no post-hoc analysis was performed.

TABLE XIX

## MEASURES OF VARIABILITY OF ACADEMIC DEANS' PERCEPTIONS BY TYPE OF COLLEGE

| Group | Count | Mean | StdDev | StdError | 95 Pct Conf In | for Mean |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Junior Colleges | 24 | 61.2917 | 9.7244 | 1.9850 | 57.1854 to | 65.3979 |
| Comp Comm Coll | 173 | 62.2890 | 6.1519 | . 4677 | 61.3658 to | 63.2122 |
| Branch Campus | 26 | 61.4615 | 11.7311 | 2.3007 | 56.7232 to | 66.1998 |
| Technical Coll | 41 | 61.0488 | 10.3173 | 1.6113 | 57.7922 to | 64.3053 |
| Total | 264 | 61.9242 | 7.9093 | . 4868 | 60.9658 to | 62.8827 |
| Fixed Effects Model |  |  | 7.9379 | . 4885 | 60.9658 to | 62.8863 |
| Random Effects Model |  |  |  | . 4885 | 60.3695 to | 63.4790 |

Missing Cases: 26

| Random Effects Model | -.8559 |
| :--- | :---: |
| (Estimate of Between Component Variance) |  |
| Tests for Homogeneity of Variances |  |
| Cochrans C | .3655 |
| (Maximum Variance/Sum Variances) | $\mathrm{P}=.009$ |
| Bartlett - Box F | 12.474 |
| (Maximum Variance/Minimum Variance) | $\mathrm{P}=.000$ |

Research Question II. Is there a significant difference of perception between those colleges who confer the Associate of Arts (A.A.), Associate of Science (A.S.), and/or the Associate of Applied Science (A.A.S.) Degrees as to the services provided underprepared students?

TABLE XX

## ACADEMIC DEANS' PERCEPTIONS BY TYPE OF DEGREES CONFERRED

| Degree | Frequency | Percent |
| :--- | ---: | ---: |
| A.A., A.S., A.A.S. | 175 |  |
| A.A., A.S. | 8 | 60.8 |
| A.A., A.A.S. | 26 | 2.8 |
| A.A. Only | 6 | 9.0 |
| A.S., A.A.S. | 11 | 2.1 |
| A.S. Only | 4 | 3.8 |
| A.A.S. Only | 34 | 1.3 |
| Missing Cases | $\underline{26}$ | 11.7 |
| TOTAL | 290 | 9.0 |
|  |  | 100.0 |

Seven different combinations of degrees were possible for this category. Table $X X$ shows the division of responses by frequency and percent. Next, an Analysis of Variance was performed to measure the degree of variance between the seven possible degree combinations. Table XXI shows the results of the procedure which concluded there was not a significant difference of perception between those colleges

TABLE XXI
DIFFERENCES OF ACADEMIC DEANS' PERCEPTIONS BETWEEN TYPES OF DEGREES CONFERRED

| Source of Variation | Sum of Squares |  | DF | Mean Square | F | $\begin{aligned} & \text { Signif } \\ & \text { of } F \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Main Effects | 452.523 | 6 |  | 75.421 | 1.211 | . 301 |
| Explained | 452.523 | 6 |  | 75.421 | 1.211 | . 301 |
| Residual | 15999.962 | 257 |  | 62.257 |  |  |
| Total | 16452.485 | 263 |  | 62.557 |  |  |

which confer the Associate of Arts, Associate of Science, and/or the Associate of Applied Science Degrees.

Because no significant differences were found, it was not necessary to perform any type of multiple correlation analysis.

Research Question III. Is there a significant difference of perception between those colleges with stateor institutionally-mandated high school curricular requirements and those who do not have mandated high school curricular requirements as to the services provided underprepared students?

Only Oklahoma and Illinois (effective 1993) have statemandated high school curricular requirements for admission to their two-year colleges. Six additional respondents indicated their institutions had comparable mandates.

Because only two groups of data were involved, a "t" test was used to compare the means of the two groups to test for a significant difference. As seen in Table XXII, the calculated "t" value was less than the critical value; therefore, it was concluded that the two means were not significantly different from one another.

TABLE XXII
ACADEMIC DEANS' DIFFERENCES OF PERCEPTION
BETWEEN COLLEGES WITH STATE- OR
INSTITUTIONALLY-MANDATED
HIGH SCHOOL CURRICULAR
REQUIREMENTS

| Category | N | Mean | Deviation | Error |
| :--- | ---: | :--- | :--- | :--- |
| Mandates |  |  |  |  |
| No Mandates | 204 | 62.0517 | 6.030 | .792 |
| $\mathrm{p}=<.05$ |  |  |  | .588 |

Research Question IV. Is there a significant relationship between the support of the Academic Dean for students with curricular deficiencies to take developmental courses, and his/her perception of the support of students, faculty, and the governing board requiring students with curricular deficiencies to take developmental courses?

TABLE XXIII

## CORRELATION OF THE ELEVEN PERCEPTION STATEMENTS

| Correlations: | Acad Dean | Students | Board | Faculty | Confidence | Retention |
| :--- | ---: | ---: | ---: | ---: | ---: | :---: |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| Acad Dean | 1.0000 | .2931 | .5125 | .4685 | .4320 | .3860 |
| Students | .2931 | 1.0000 | .3729 | .3502 | .4332 | .3229 |
| Board | .5125 | .3728 | 1.0000 | .5317 | .3540 | .3108 |
| Faculty | .4685 | .3502 | .5317 | 1.0000 | .4279 | .4429 |
| Confidence | .4320 | .4332 | .3540 | .4279 | 1.0000 | .5710 |
| Retention | .3860 | .3229 | .3108 | .4429 | .5710 | 1.0000 |
| Graduation | .3558 | .3540 | .3042 | .4300 | .5760 | .8218 |
| Prob Solve | .2668 | .2732 | .2801 | .2513 | .5059 | .4911 |
| Academics | .2965 | .2419 | .2378 | .1969 | .3520 | .2660 |
| Assessment | .1407 | .0738 | .1221 | .0426 | .0622 | .1861 |
| Tracking | .4214 | .3007 | .3213 | .3646 | .4357 | .5918 |


| Correlations: | Graduation | Prob Solve | Academics | Assessment | Tracking |
| :--- | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |
| Acad Dean | .3558 | .2668 | .2965 | .1407 | .4214 |
| Students | .3540 | .2732 | .2419 | .0738 | .3007 |
| Board | .3042 | .2801 | .2378 | .1221 | .3213 |
| Faculty | .4300 | .2513 | .1969 | .0426 | .3646 |
| Confidence | .5760 | .5059 | .3520 | .0622 | .4357 |
| Retention | .8218 | .4911 | .2660 | .1861 | .5918 |
| Graduation | 1.0000 | .4974 | .3345 | .1330 | .5915 |
| Prob Solve | .4974 | 1.0000 | .3543 | .0585 | .5346 |
| Academics | .3345 | .3543 | 1.0000 | .1133 | .3370 |
| Assessment | .1330 | .0585 | .1133 | 1.0000 | .1684 |
| Tracking | .5915 | .5346 | .3370 | .1684 | 1.0000 |

$$
p=<.05
$$

Table XXIII shows the 11 perception statements correlated with each other to determine their relationship.

Using the Pearson product-moment correlation coefficient, probability was computed at the 95 percent confidence level. Finally, Table XXIV responds to Research Question IV and shows a significant positive linear correlation between the Academic Dean, the Students, the Governing Board, and the Faculty.

TABLE XXIV
CORRELATION OF THE ACADEMIC DEANS' PERCEPTIONS WITH HIS/HER PERCEPTIONS OF STUDENTS, BOARD AND FACULTY

| Category | Acad Dean | Students | Board | Faculty |
| :---: | :---: | :---: | :---: | :---: |
| Acad Dean | 1.0000 | . $3213 *$ | . $5552 *$ | . $5457 *$ |
| Students | . $3213 *$ | 1.0000 | .4309* | . $3880 *$ |
| Board | .5552* | .4309* | 1.0000 | .5812* |
| Faculty | .5457* | . 3880 * | . 5812* | 1.0000 |

$* p=<.05$

## Summary

The purpose of the research was to study the Academic Deans' perceptions of the programs and services provided underprepared students at their institutions, located within the Council of North Central Community and Junior Colleges (CNCCJC), and to determine if significant differences existed among certain variables.

A large number of programs and services were provided to assist underprepared students who enroll in two-year institutions of higher education within the 19 state region of the North Central Association.

Counselors, Faculty Advisers and Peer Tutors were the most prevalent support services. Developmental courses, offering assistance in English, reading, writing, and/or mathematics were the most prevalent special program.

Respondents to this research had spent an average of nearly 20 years in higher education, and more than 12 years at their current institution, but had served as Academic Dean or the Chief Academic Officer for only five years.

Research Question I asked if there was a significant difference of perception by type of college (comprehensive community college, technical institute, junior college or two-year branch campus of a college or university) as to the services provided underprepared students. No significant differences were noted, either with aggregate data, between groups or within groups.

Research Question II asked if there was a significant difference of perception between those colleges who confer the Associate of Arts (A.A.), Associate of Science (A.S.), and/or the Associate of Applied Science (A.A.S.) Degrees.

An Analysis of Variance (ANOVA) was performed to measure the degree of variance between the seven possible degree combinations. The results concluded there was not a
significant difference of perception between colleges and the combination of Associate Degrees conferred.

Research Question III asked if there was a significant difference of perception between those colleges with stateor institutionally-mandated high school curricular requirements and those who do not have mandated high school Curricular requirements.

Only Oklahoma and Illinois (effective 1993) have statemandated high school curricular requirements for admission to their two-year colleges, although six additional institutions had comparable mandates.

Because only two groups of data were involved, a "t" test was used to compare the means of the two groups to test for a significant difference. As the calculated " $t$ " value was less than the critical value, it was concluded that the two means were not significantly different from one another.

Research Question IV asked if there was a significant relationship between the support of the Academic Dean for students with curricular deficiencies to take developmental courses, and his/her perception of the support of students, faculty and the governing board requiring students with curricular deficiencies to take developmental courses. Significant relationships in perception at the 95 percent confidence interval were observed between the Academic Dean, the Students, the Governing Board, and the Faculty.

# CHAPTER V 

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

## Introduction

The purpose of this research was to identify programs and services provided underprepared students at two-year institutions and the effectiveness of these programs and services as perceived by the Academic Dean.

Certain demographic data was elicited from the Academic Dean of each institution within the Council of North Central Community and Junior Colleges region. The Academic Dean was asked: What type of college best identified their institution? Which Associate Degrees were conferred at their institution? Had their state mandated high school curricular requirements for admission to their college's degree programs? Which entry assessment tests were in use at their institution? Did their institution provide an Adult Admission category which waived curricular deficiencies for students 21 and older? What special programs and services were provided for underprepared students at their institutions?

Specifically, the questions this study was to answer were the four research questions:

Research Question I. Is there a significant difference of perception by type of college (comprehensive community college, technical institute, junior college, or two-year branch campus of a college or university) as to the services provided underprepared students?

Research Question II. Is there a significant difference of perception between those colleges who confer the Associate of Arts (A.A.), Associate of Science (A.S.), and/or the Associate of Applied Science (A.A.S.) Degrees as to the services provided underprepared students?

Research Question III. Is there a significant difference of perception between those colleges with stateor institutionally-mandated high school curricular requirements and those who do not have mandated high school curricular requirements as to the services provided underprepared students?

Research Question IV. Is there a significant relationship between the support of the Academic Dean for students with curricular deficiencies to take developmental courses, and his/her perception of the support of students, faculty, and the governing board requiring students with curricular deficiencies to take developmental courses?

## Summary of Findings

The population of the study was the 357 two-year institutions within the North Central Association region of the United States. The total population was surveyed.

Two hundred ninety (290) usable surveys were returned for an 81 percent response rate. That represents a statistically valid return at the .05 reliability level.

A $3^{\prime \prime}$ x $5^{\prime \prime}$ index card was also included in the mailing. Those respondents who were interested in receiving a copy of the results of the study were requested to return the card. Evidently a worthwhile incentive, 192 cards (66 percent) were returned to the researcher.

In Part I of the survey, Demographics, respondents were asked to categorize their type of college. Sixty-five percent indicated comprehensive community college, 16 percent indicated technical institute, ten percent marked branch campus and nine percent chose junior college.

Although only Oklahoma and Illinois (effective 1993) have actually mandated high school curricular requirements for admission to degree programs, many colleges have independently established similar requirements for admission to their degree programs.

To gain a better idea of the primary tests in use, the survey asked the respondents to identify which test(s) their institution used. Institutionally-developed tests were indicated slightly more often than either the CLEP test or ACT ASSET.

The maximum number of credits a student may earn prior to removing all curricular deficiencies varies drastically among states. Fifty-eight respondents ( 20 percent) indicated that the question was not applicable to their situation. Only Oklahoma appears to have a clear-cut maximum of 24 credit hours.

Whether or not the respondent's college provided an Adult Admission category which waived curricular deficiencies for students 21 and older appeared to be a local decision rather than a state mandate. Only 44 respondents ( 15.2 percent) indicated their institution provided such an alternative.

Respondents were asked to identify special programs and services offered to underprepared students at their institutions. In addition to the eight categories listed, another 165 respondents marked "other."

Finally, the survey requested the number of years the respondent had been employed by that institution, employed as the Academic Dean or Chief Academic Officer of that institution, and the total number of years spent in higher education.

Research Question I asked if there was a significant difference of perception by type of college (comprehensive community college, technical institute, junior college or two-year branch campus of a college or university). No significant differences were noted, either with aggregate data, between groups or within groups.

Research Question II asked if there was a significant difference of perception between those colleges who confer the Associate of Arts (A.A.), Associate of Science (A.S.), and/or the Associate of Applied Science (A.A.S.) Degrees as to the services provided underprepared students. There was not a significant difference of perception between colleges and the combination of Associate Degrees conferred.

Research Question III asked if there was a significant difference of perception between those colleges with stateor institutionally-mandated high school curricular requirements and those who do not have mandated high school curricular requirements as to the services provided underprepared students. The means were not significantly different from one another.

Research Question IV asked if there was a significant relationship between the support of the Academic Dean for students with curricular deficiencies to take developmental courses, and his/her perception of the support of students, faculty and the governing board requiring students with curricular deficiencies to take developmental courses. Significant relationships in perception were observed between the Academic Dean, the Students, the Governing Board, and the Faculty.

Conclusions

This study requested information concerning the programs and services for underprepared students at two-year
institutions within the 19 state North Central Association region. The purpose of the study was to identify programs and services provided for these underprepared students and to evaluate the effectiveness of these programs and services as perceived by the Academic Dean, the individual given responsibility for determining the academic climate in that institution.

The review of the literature revealed that educators across the nation have faced the common problem of what to do about the academic proficiency of students.

For most states within the NCA, educators and lawmakers have chosen to make only slight, if any, changes in their state policies. Other states, like Oklahoma and Illinois (effective 1993) have mandated high school curricular requirements for admission to even two-year public institutions within their state.

Regardless of policy, nearly all of the 290 institutions responding to the research already have several programs and services established to assist the underprepared student who enters their institution.

The study posed four research questions. Based on an analysis of the data, several conclusions were drawn. Whether one's institution is classified as a comprehensive community college, a junior college, a technical institute, or even a branch campus of a college or university makes no difference in the Academic Dean's perception of programs and services for underprepared students.

Because of the transfer issue, two-year institutions conferring the Associate of Arts (A.A.) and Associate of Science (A.S.) degrees have traditionally been perceived as academically-better institutions than those institutions who confer only the Associate of Applied Science (A.A.S.) degree. Many states and colleges have begun to provide the same developmental support services and require the same academic rigor of all students without regard to their degree program. Based on this study, perceptions of Academic Deans are very similar regardless of the degree programs their institution confers.

A third conclusion drawn from the study is that whether or not one's state has mandated high school curricular requirements is not the issue: Academic Deans strongly support services for underprepared students at their institutions.

One of the underlying questions of this study was "Do remedial or developmental programs make a difference?" Five research studies were cited in the review of literature which rejected the notion that remedial (or developmental) programs for the underprepared students truly make a significant difference. A fourth conclusion is that the underprepared, even with remediation, will not likely be as successful as the student who entered college fully prepared.

Academic Deans perceive that students, their faculty, and their governing board likewise see the importance of
providing programs and services to under-prepared students at their institution. Thus, one final conclusion is that Academic Deans within the Council of North Central Community and Junior Colleges region think alike with regard to programs and services provided to underprepared students.

An inconsistency exists between the review of literature, which cited research rejecting the notion that remedial programs for the underprepared students truly make a difference (Krupp, 1989; Kavookjian, 1989; Wilson, 1989; Alford, 1988; Fadale, 1985), and the perceptions of the Academic Deans on the value of programs and services for underprepared students. Based on this research study, Academic Deans strongly support the need for programs and services for underprepared students.

## Recommendations

In as much as the review of literature cited five research studies which rejected the notion that remedial (or developmental) programs for the underprepared students make a difference, and this study revealed strong support by the Academic Dean for programs and services for underprepared students, one recommendation is to encourage other institutions to longitudinally follow their students from entrance assessment through graduation. Common variables need to be identified, and populations larger than one isolated campus should be included in the study.

Further study should also be conducted, preferably on a state-wide basis, in Oklahoma and Illinois because those states have mandated specific high school curricular requirements for admission to even their two-year colleges. Do these requirements truly make a difference or would similar gains be noted through increased programs and services targeted at underprepared students? Do early childhood education programs make a difference? What about national curriculum reform issues such as Tech-Prep which emphasizes the importance of math and science leading to Associate Degrees and technical careers?

Additionally, is it the course a student did or did not take in high school that is important, or is it the competencies covered in the course (and gained elsewhere -in a GED course, for example) that are important? Perhaps a study comparing curricularly deficient students to competency deficient students would yield valuable insight into this issue.

Although this study revealed a significant relationship in perception between the Academic Dean and his/her perception of the opinions of the students, governing board and faculty, a final recommendation is to survey these three groups and analyze their perceptions.

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## APPENDIXES

## APPENDIX A

## COVER LETTERS



ACADEMIC AFTAIRS

November 15, 1991

## Dear Academic Dean:

"More and more young people emerge from high school ready neither for college nor for work" reported the National Commission on Excellence in Education in A Nation At Risk: The Imperative for Educational Reform in 1983. Since this report, there has been an increased commitment to make higher education more accessible as well as improve quality and raise standards. However, many states are finding that approximately one-half of their entering students are not prepared to do college-level work, and a large number of these academically underprepared students enroll in a two-year college.

I am conducting research to identify programs and services provided underprepared students at two-year institutions and the effectiveness of these programs and services as perceived by the Academic Dean. Would you be willing to assist by completing and returning the enclosed survey? This study is being conducted in cooperation with the Council of North Central Community and Junior Colleges (CNCCJC).

As with any research, the validity and usefulness of the findings rest upon your candor when responding. Although each form has been coded for the purposes of data management (and to tell me that you have returned the survey and need not be re-contacted), strict confidentiality will be maintained and only aggregated data will be reported. Please return the completed survey in the enclosed selfaddressed, stamped envelope as soon as possible, but no later than December 15, 1991.

Thank you for your assistance. If you would like a copy of the results, please provide your name and address on the enclosed card and return it with this survey. Should you have any questions, please call me at (918) 756-6211, x418.

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Sincerely,
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## Oklahoma State University <br> TECHNICAL BRANCH, OKMULGEE

ACADEMIC AFFAIRS

January 2, 1992

Dear Academic Dean:
I hope you enjoyed a merry holiday season and are eager to return to work for an exciting 1992!

Your input is still very much needed. Enclosed is a copy of the cover letter and survey you received in November. My records indicate that as of December 20 we still had not received your response.

As I am trying to complete my research and dissertation this spring, it is critical that $I$ receive a statistically valid number of returns. It should take only a few minutes and a postage-paid envelope is provided for your convenience. If you would like results of the study, please complete and return the enclosed card.

Thank you so much for your help!
Sincerely,

Linda Avant
Academic Affairs Officer
Enclosures

## APPENDIX B

SURVEY

## SURVEY OF ACADEMIC DEANS PROGRAMS AND SERVICES FOR UNDERPREPARED STUDENTS

Directions: Provide the best information available to you. It is not necessary to type; simply mark legibly your response(s) to each question.

## PART I -- DEMOGRAPHIC8:

1. Type of college: (Check all that apply.)

- Comprehensive community college _ Suburban
- Technical institute - Urban
- Junior college - Rural
- Two-year branch campus - Public
of a college or university - Private

2. Degrees offered: (Check all that apply.)

- Associate in Arts (A.A.)
- Associate in Science (A.S.)
- Associate in Applied Science (A.A.S.)

3. Has your state mandated High School curricular requirements for admission to your degree programs?

- No
_ Yes

4. Are students allowed to "test out" of their curricular deficiencies?

- Yo -- Identify all criteria which apply:
_ ACT Composite or Subscores
- SAT Composite or Subscores
- ACT ASSET
- College Board's Accuplacer
- Clep test
- Institutionally-developed test — Other

5. What is the maximum number of credits a student may earn prior to removing all curricular deficiencies?
6. Does your institution provide an Adult Admission category which waives curricular deficiencies for students 21 and older?
_ No
— Yes
7. What special programs and services are provided for underprepared students? (Check all that apply.)

8. How many years have you been employed by your institution? $\qquad$
9. How many years have you been the Academic Dean or Chief Academic Officer of your institution? $\qquad$
10. How many total years have you been in higher education? $\qquad$

## PART II -- PERCEPTIONS:

As the Academic Dean of your institution, please use the following scale as you circle your response to each of the statements:

1 - Strongly Disagree; 2 - Disagree; 3 - Slightly Disagree; 4 - Natral

1. I support the need for students

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

3. The governing board (Trustees, Regent etc.) supports the need for students with curricular deficiencies to take developmental courses.
4. The faculty supports the need for
1 students with curricular deficiencies to take developmental courses.
5. Students who successfully complete a developmental course have an increased confidence in their ability to do college work.
6. Students who have taken developmental $1 \begin{array}{lllllllll} & 2 & 3 & 4 & 5 & 6 & 7\end{array}$ courses have better retention rates than if they had not been required to take developmental coursework.
7. Students who have taken developmental courses have better graduation rates than if they had not been required to take developmental coursework.
8. Students who take developmental courses

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

9. General academic achievement at my institution has increased in recent years.
10. New assessment mandates will require

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

11. | Graduate tracking will indicate that |
| :--- |
| developmental coursework was a |
| positive factor in preparing |
| students for employment. |

THANK YOU! Please return the survey in the postage paid envelope to the Academic Affairs Office, OSU/Okmulgee, 1801 E . 4th St., Okmulgee, OR 74447-3901.

APPENDIX C

MAP OF NCA

$112$

VITA<br>LINDA L. AVANT<br>Candidate for the Degree of<br>Doctor of Education

Thesis: PERCEPTIONS OF ACADEMIC DEANS ON PROGRAMS AND SERVICES FOR UNDERPREPARED STUDENTS AT TWO-YEAR INSTITUTIONS

Major Field: Occupational and Adult Education
Biographical:
Personal Data: Born July 11, 1950 - Hobart, Oklahoma; Mother - Eleanor Brannon of Snyder, Oklahoma; Husband - Mike Avant; Reside southeast of Okmulgee, Oklahoma; Children - Christi, Barry, and Chelle.

Education: Graduated from Snyder High School, Snyder, Oklahoma, in May, 1968; received Bachelor of Science Degree in English from Cameron University in Lawton, Oklahoma in May, 1972; received Master of Education Degree in Guidance and Counseling from Southwestern Oklahoma State University in Weatherford, Oklahoma in May, 1976; completed requirements for the Doctor of Eduction Degree at Oklahoma State University in Stillwater in May, 1992.

Professional Experience: Teacher of High School
English at Fort Cobb, Oklahoma from August, 1972 July, 1977; Coordinator of Learning Resource Center at Caddo-Kiowa Area Vo-Tech School at Fort Cobb, Oklahoma from July, 1977 - July, 1985; Testing Specialist at the Oklahoma Department of Vocational Technical Education at Stillwater, Oklahoma from July, 1985 - January, 1988; Employed by Oklahoma State University/Okmulgee in January, 1988 first as Coordinator of Planning and Evaluation, and currently as Assistant to the Provost, Academic Affairs.

