University of North Dakota
UND Scholarly Commons

Theses and Dissertations | Theses, Dissertations, and Senior Projects

5-1992

Higher Education Instructional and Student Services Expenditures in Iowa, Minnesota, Wisconsin, North Dakota, South Dakota, and Wisconsin (1978-79 through 1987-88)

Randall R. Fixen

How does access to this work benefit you? Let us know!

Follow this and additional works at: https://commons.und.edu/theses

Recommended Citation

Fixen, Randall R., "Higher Education Instructional and Student Services Expenditures in Iowa, Minnesota, Wisconsin, North Dakota, South Dakota, and Wisconsin (1978-79 through 1987-88)" (1992). *Theses and Dissertations*. 6135.
https://commons.und.edu/theses/6135

This Dissertation is brought to you for free and open access by the Theses, Dissertations, and Senior Projects at UND Scholarly Commons. It has been accepted for inclusion in Theses and Dissertations by an authorized administrator of UND Scholarly Commons. For more information, please contact und.commons@library.und.edu.

CHESTER FRITZ LIBRARY
3 3100 02392 2304

HIGHER EDUCATION INSTRUCTIONAL AND STUDENT SERVICES EXPENDITURES IN IOWA, MINNESOTA, NORTH DAKOTA, SOUTH DAKOTA, AND WISCONSIN (1978-79 THROUGH 1987-88)

by

Randall R. Fixen
Bachelor of Arts, Southwest State University, 1983
Master of Arts, University of North Dakota, 1985

A Dissertation

Submitted to the Graduate Faculty

of the

University of North Dakota

in partial fulfillment of the requirements

for the degree of

Doctor of Philosophy

Grand Forks, North Dakota
May
1992

7992
F588

This dissertation, submitted by Randall R. Fixen in partial fulfillment of the requirements for the Degree of Doctor of Philosophy from the University of North Dakota, has been read by the Faculty Advisory Committee under whom the work has been done and is hereby approved.

Donald L. Piper (4-21-92)
(Chairperson)

Richard T Lee

Richard D Landry

Joseph M. Velhen

Bruce J. Eberhardt

This dissertation meets the standards for appearance, conforms to the style and format requirements of the Graduate School of the University of North Dakota, and is hereby approved.

Harvey Knull
Dean of the Graduate School

4-23-92

663607

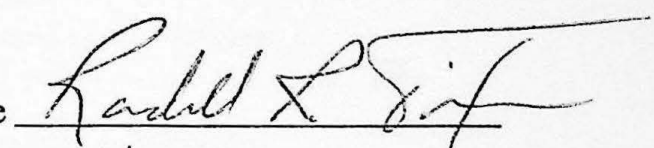
PERMISSION

Title — Higher Education Instructional and Student Services Expenditures in Iowa, Minnesota, North Dakota, South Dakota, and Wisconsin (1978-79 through 1987-88)

Department — Educational Administration (Center for Teaching and Learning)

Degree — Doctor of Philosophy

In presenting this dissertation in partial fulfillment of the requirements for a graduate degree from the University of North Dakota, I agree that the library of this University shall make it freely available for inspection. I further agree that permission for extensive copying for scholarly purposes may be granted by the professor who supervised my dissertation work or, in his absence, by the Chairperson of the department or the Dean of the Graduate School. It is understood that any copying or publication or other use of this dissertation or part thereof for financial gain shall not be allowed without my written permission. It is also understood that due recognition shall be given to me and to the University of North Dakota in any scholarly use which may be made of any material in my dissertation.

Signature 

Date 4-21-92

TABLE OF CONTENTS

LIST OF TABLES

ACKNOWLEDGMENTS

I would like to express my deepest appreciation to Dr. Donald L. Piper for the many hours he dedicated to guiding me through this process. Without his patience, expertise, and guidance this study would not have been possible.

I also would like to thank my committee members--Dr. Richard L. Hill, Dr. Richard G. Landry, Dr. Joseph M. Volker, and Dr. Bruce J. Eberhardt--for the guidance and support they provided to me in the development of this study.

A special note of thanks to Dr. Richard G. Landry of the Bureau of Educational Services and Applied Research for providing the funds that enabled me to purchase the financial data that made this study possible.

I would like to thank Sharon Fields for the patience, diligence, and many hours of work that went into typing this study. Her expertise, dedication to perfection, and caring attitude made my study at the University of North Dakota a very pleasant experience.

Finally, I would like to thank my wife, Ahna, for her many hours of help in calculating financial data that were necessary for my study. Her support, love, sacrifice, and understanding have been the foundation for my success in the doctoral program. Her dedication to our family goals has been deeply appreciated.

ABSTRACT

This study examined higher education instructional and student services expenditures at public institutions in Iowa, Minnesota, North Dakota, South Dakota, and Wisconsin from 1978-79 through 1987-88. Specific research questions were (1) Are there trends in expenditures for instructional services and student services that are based on types of institutions? (2) Are there relationships between expenditures for instructional services and student services that are based on types of institutions? (3) Are there trends in expenditures for instructional services and student services that vary among states? (4) Are there relationships between expenditures for instructional services and student services that vary among states?

The study included eleven public four-year doctoral granting institutions, twenty-seven public four-year non-doctoral institutions, and twenty-eight public two-year community/junior colleges. The data were reported as full-time equivalent (FTE) per student expenditures and analyzed statistically to discover trends and relationships between institutional levels and among states.

Doctoral granting institutions indicated a trend of constant growth in FTE expenditures throughout the ten-year period and non-doctoral four-year institutions indicated a similar trend until 1987-88. Community/junior colleges indicated a sporadic pattern of growth and decline in FTE expenditures throughout the ten-year period. The data indicated that expenditure trends did not vary among states. Relationships did exist on the basis of levels of institutions and between states. Usually, the higher the level of institution, the higher were the levels of FTE instructional services expenditures and the lower the level of institution, the greater were the levels of FTE student services

expenditures. Instructional services expenditures exhibited similar relationships among states, but student services expenditures indicated differences in relationships among states.

Recommendations included: (1) procedures for funding higher education should be explored further, (2) expenditures beyond 1987-88 should be examined to identify trends in decreasing expenditures, (3) further research should examine the impact of enrollment patterns, and (4) data on expenditures should be adjusted for inflation with FTE enrollments weighted more heavily for graduate students.

CHAPTER I

INTRODUCTION AND BACKGROUND FOR THE STUDY

In 1929-30 the total expenditures for higher education in the United States totaled $632 million; in 1975-76 they totaled $43,605 million. Looking at these aggregate higher education expenditures one could come to the conclusion that higher education experienced enormous growth. However, these figures are quite deceiving when one begins to take into account other factors such as enormous enrollment expansion and the decline in the value of the dollar.

Bowen (1980) divided the time period of 1929 to 1976 into three distinct periods: (1) 1929-30 to 1949-50, (2) 1949-50 to 1969-70, and (3) 1969-70 to 1975-76. For each of these time periods he used constant 1967 dollars to compute the average percentage of change in current and capital expenditures per full-time equivalent (FTE) student for public and private institutions of higher education across the United States. Bowen found that from 1929-30 to 1949-50 there was a .5 percent increase in expenditures, from 1949-50 to 1969-70 a 3.5 percent increase, and from 1969-70 to 1975-76 a 2.3 percent decrease in the average percentage of change in expenditures. Over the entire period from 1929-30 to 1975-76 there was a 1.4 percent increase in current and capital expenditures per FTE student. FTE enrollment for this period had soared from 890,000 in 1929-30 to 8,481,000 in 1975-76.

Bowen (1980) went further in his examination and separated out the costs directly involved with educating students. These included instructional services expenditures and student services expenditures, scholarships and fellowships paid from institutional funds,

academic support, institutional support, and operations and maintenance of plant as a prorated share of expenditures. He also adjusted the FTE by weighting graduate students more heavily due to the higher cost of their education. Bowen found that from 1929-30 to 1949-50 there was a decrease of .4 percent in FTE educational expenditures, from 1949-50 to 1969-70 there was a 3.21 percent increase in FTE educational expenditures, and from 1969-70 to 1977-78 there was a .36 percent decrease in FTE educational expenditures. According to Bowen a major reason for the trend in FTE educational expenditures from 1929-30 to 1977-78 was the shift of students away from private institutions to public institutions which have about a 30 percent lower cost per student. Other factors that contributed to the dramatic increases during the 1950s and 1960s included public interest and support of higher education as the arms race and the space race competition began world-wide and an increase in the number of students entering graduate study. Bowen also mentioned that it had been asserted that public two-year colleges had the effect of holding down the FTE per student cost. He found that this actually had very little impact since the average cost per student in 1978 was $2,020 in public research and doctoral granting institutions, $2,025 in public non-doctoral granting institutions, and $1,959 in public two-year colleges.

Bowen's (1980) study made it clear that total expenditures taken at face value were quite misleading when used to determine longitudinal expenditure trends in higher education. A more accurate picture could be obtained by breaking those expenditures into FTE per student costs. The examination of instructional services expenditures and student services expenditures as an FTE per student cost and the examination of each as a percentage of the total expenditures would provide a more accurate determination of the trends involved in instructional services expenditures and student services expenditures in a longitudinal study.

Research of expenditures on the basis of FTE students would be more useful and accurate for higher education administrators as they attempt to educate the public on the cost of higher education. Too often the public is provided with information only on total expenditures and what appears to be enormous growth in higher education costs. The public, unless educated, neglects to take into account such factors as inflation and dramatic enrollment increases and looks only at total expenditures which are very deceptive when taken at face value.

Instructional Services and Student Services Expenditures

Instructional services and student services in public higher education historically have been defined as two separate entities both philosophically and financially. Instructional services typically are viewed as the formal curriculum of the university and are related to the cognitive development of students (Monroe 1972). Student services frequently are perceived as "fringe areas" dealing with the social, personal, and intellectual lives of students away from academics. Both areas are important in their own respects as well as complementing one another in the development of the "whole" student (Delworth, Hanson, and Associates 1983).

Definitions

The following are definitions that will provide the reader with a basic understanding of some of the many terms that will be used throughout this study.

Community/junior colleges: These two terms are used interchangeably in the literature and will refer to two-year programs of college-level studies which culminate in an associate degree or are creditable toward a baccalaureate degree.

Four-year non-doctoral granting institutions: These include liberal arts and comprehensive colleges and universities that offer degrees up through the master's level.

Four-year doctoral granting institutions: These include those institutions that offer programs in a progression through the doctoral level of study.

Instructional services expenditures: These include expenditures of the colleges, schools, departments, and other instructional divisions of higher education institutions and expenditures for departmental research and public service which are not budgeted separately. These include credit and noncredit activities but exclude salaries of academic administrators whose only function is administration.

Public institutions: These are colleges or universities that are controlled and operated by public officials and derive their primary support from public funds.

Student services expenditures: This category refers to those non-instructional expenditures that are concerned with students outside of the academic setting. These can include but are not limited to housing, career counseling, health services, student activities, student government, minority programs, and special services.

Student affairs: This refers to the administrative structure of student services programs.

Student services: This term refers to those programs that are delivered to students under the umbrella of student affairs.

Student development: This refers to the theoretical base of knowledge about the intellectual, social, and personal development of the student.

Total general expenditures: This refers to the costs incurred for goods and services used in the conduct of the operation of the institution.

Instructional Services

Instructional services are common to all higher education institutions in the United States but usually differ in content (curriculum) among institutions and types of

institutions. Instructional services expenditures tend to be dominated by faculty salaries with a smaller percentage being devoted to materials, research, and public service.

Four-Year Doctoral Granting Institutions

Doctoral granting institutions generally include many of the same programs as the liberal arts institutions but there is more depth to those programs because of the research component that is present with doctoral programs (Carnegie Foundation 1978).

Four-Year Non-Doctoral Granting Institutions

These types of institutions generally fall into two categories: (1) the liberal arts colleges which offer a curriculum that samples major fields of learning and is dedicated to the teaching of skills required for lifelong learning, and (2) the comprehensive colleges and universities which offer the liberal arts curriculum and also professional and specialized programs such as business and engineering (Carnegie Foundation 1978).

Public Community Colleges

Instructional services in the two-year community college are very diverse and range from vocational/technical programs to associate degree programs for transfer to four-year institutions (Carnegie Foundation 1978). This study will deal specifically with those community colleges that offer associate degree preparation for transfer to four-year institutions.

Student Services

Student services programs also are common to higher education institutions in the United States. Early in their development student services functions were considered to be personnel services for students (Monroe 1972). Student development theory, based on psychology and counseling, became a basis for establishing the credibility of student affairs

on campuses. This movement to professionalize student services gained a popular following in the 1970s and early 1980s.

As higher education grew through the 1960s and 1970s so did the student services function on campuses. Many campuses now include career counseling, personal counseling, enrollment services, financial aid, minority student programs, student government, student activities, discipline, housing, and special services as major parts of their student services functions.

Throughout the 1970s and 1980s student affairs divisions experienced periodic decreases in funding that affected the number of staff who were available to deliver services to students. This experience led student affairs to look seriously at a partnership role with instructional services in the late 1980s. This attitude was a departure from the separatist philosophy they had nurtured in the earlier decade.

Instructional Services Versus Student Services

As student services grew so did their separation from instructional services. The larger financial obligations to student services caused some faculty to grow embittered toward what they felt was an unnecessary siphoning of funds away from instructional services. Part of this attitude can be attributed to student services personnel not clearly defining their roles in the education process (Delworth, Hanson, and Associates 1983; Klopf 1966; Kuh 1983b; Smith 1988).

The aforementioned attitudes seemed to be prevalent at both four-year institutions and community/junior colleges which tended to be smaller, commuter-type campuses with a more non-traditional type student. This attitude in community/junior colleges was somewhat surprising considering the emphasis on community service that was so prevalent in this type of institution. Shaw (1989), president of Central Piedmont Community College in North Carolina, suggested that this was due to student development

professionals historically considering themselves to be separate from the instructional component of higher education. This attitude seems to depart from the core mission of community colleges that include liberal arts transfer coursework, vocational/technical programs, and lifelong learning experiences (Etemad 1990).

Student services professionals in both four-year non-doctoral institutions and community/junior colleges have tried to bridge this gap by encouraging involvement of faculty in certain areas of student service. This approach was meant to provide insight to the faculty on the importance of educating the "whole" student. Whether or not this approach has been successful has yet to be determined (Brown 1988).

The literature on student services suggests that the past has not been stable financially or philosophically. Student services typically have been the first to experience decreased funding when institutions enter periods of financial stress (Delworth, Hanson, and Associates 1983). The deepening economic crisis coupled with the movement for efficiency and quality in higher education also has begun to decrease funding of instructional services expenditures.

This researcher is particularly interested in the relationships between expenditures for instructional services and student services. By examining the expenditures for instructional services and student services across institutional types and between selected states in the upper Midwest, the researcher may be able to draw some conclusions regarding financial trends that have developed with regard to expenditures in these two areas.

Purpose of the Study

The purpose of this study was to examine the trends in and the relationships between full-time equivalent (FTE) per pupil instructional services expenditures and student

services expenditures over a ten-year period from 1978-79 to 1987-88 at four-year doctoral granting public institutions, four-year non-doctoral granting public institutions, and two-year public community/junior colleges that offer associate degrees in Iowa, Minnesota, North Dakota, South Dakota, and Wisconsin.

The questions that were posed by this study included:

1. Are there trends in expenditures for instructional services and student services that are based on the types of institutions?

2. Are there relationships between expenditures for instructional services and student services that are based on the types of institutions?

3. Are there trends in expenditures for instructional services and student services that vary among states?

4. Are there relationships between expenditures for instructional services and student services that vary among states?

Significance of the Study

The continuous trend toward financial conservatism combined with a weak economy has led to decreasing dollars available to fund higher education. In light of this trend faculty and administrators must be aware of how these decreases have been directly affecting the students. By examining instructional services expenditures and student services expenditures as a percentage of total general expenditures, one is able to determine a majority of the expenditures that are devoted to front-line (instructional and student services that are directly related to students) educational services to students. By examining instructional services expenditures and student services expenditures, administrators and faculty can determine how those decreases have affected two areas that are critical to students as they attempt to achieve a post-secondary education.

By examining trends and relationships, administrators and faculty can make conscious and informed decisions during the process of planning and/or decreasing future budgets. There also is some benefit in analyzing financial data over a period of time to establish whether education has been progressing or regressing in its financial expenditures for students.

An examination of expenditure patterns can assist higher education institutions in reassessing their missions and deciding whether in reality those missions are supported by the expenditures. Bowen (1980) reported in his study that front-line educational expenditures from 1929-76 made up only a quarter of the total higher education expenditures nationwide and had been decreasing over recent decades. These findings deeply concerned Bowen because "the basic educational purposes of colleges and universities are achieved through the work of the people directly engaged in education" (p. 9). It became obvious that additions to non-front-line educational activities were accomplished at the expense of those directly involved in educational activities. The question then becomes whether or not this trend in educational expenditures reflects the mission of the university. By linking financial commitment to a mission statement--a vision--institutions can become more focused on front-line educational activities rather than randomly assigning importance to other needs as they arise.

Higher education administrators must become more conscious of where and why finances are being assigned in order to attain a more equitable division of expenditures in higher education. Front-line educational activities are the heart of an institution and should not be lost in the budget planning process.

Delimitations

The conclusions in this study are delimited to the data for the five states and the individual institutions involved in the study. The data collected from the National Center

for Education Statistics (NCES) do not report a nonsampling error rate. However, they suggest that a careful inspection be made of the data to check for consistency. The FTE amounts and percentages that are reported have been derived through calculations and are subject to human error. It should be noted that institutions may differ in their interpretation and reporting of what constitutes student services and instructional services. The data in this study are not adjusted for inflation.

The deletion of one public four-year non-doctoral granting institution was the result of the institution closing after the first year of the study. Eleven public two-year community/junior colleges were not included in the study because they either were combined into a single unit during the period of the study or were closed after reporting only a few years during the study. These institutions were not included in order to maintain a consistency of institutions that reported data for each year of the ten years studied.

This study is restricted to instructional services expenditures, student services expenditures, total general expenditures, and enrollment as reported to NCES by the institutions; it does not delineate between restricted and unrestricted funds.

The following chapter presents a review of the literature related to instructional services and student services. It focuses on the historical development of the two areas, discusses confrontational issues, and examines future perspectives on instructional services and student services.

CHAPTER II

REVIEW OF THE LITERATURE

This chapter includes a review of the literature that relates to the historical perspectives on instructional services and student services, issues that have confronted instructional services and student services, future perspectives on instructional services and student services, and an overview of the problems and solutions. This chapter will provide background information on the two separate administrative structures to assist the reader to more fully understand why financial expenditures in student services and instructional services are such an issue in higher education.

Historical Perspectives on Instructional and Student Services

In order to develop an understanding of instructional services and student services, it is necessary to define and to explore their historical development. The following sections will develop the historical progression of instructional services and student services to the present and into the future.

Instruction can be defined in part by the type of institution it resembles and whether it is teaching-oriented or research-oriented. Instruction is the process of cultivating enthusiasm for learning and re-energizing curiosity. It is a process of transferring what is known and asking questions about the unknown. Instruction involves materials, machines, minds, and finances working toward a common goal of increased knowledge. Instruction cannot be defined in a simple phrase because it includes the spirit of an institution, the attitudes of the faculty, and the needs of society. Instruction is dynamic and ever-changing and therefore cannot be given a static definition that never changes.

Instruction will continue to change as society and knowledge change. To answer the question "what is instruction?" requires one to look at individual institutions, departments, disciplines, and the society in which they exist to determine how instruction is defined by that particular institution (Boyer 1987; Carnegie Foundation 1978; Morrill and Spees 1982).

A History of Instruction

Since the time of the great philosophers and teachers--Socrates, Plato, Christ, Buddha, Mohammed, Confucius, and many others--instruction has been an integral part of educating people. Throughout the centuries instruction has been the educational medium even up to the present day. What has changed is how society has defined instruction (Morrill and Spees 1982).

During the era of the great philosophers instruction concentrated on teaching students to develop independent thinking and to ask the great questions of life. What is morality? What is man's purpose in life? What is right and wrong? What is evil and what is good? These questions were posed and debated in order to instruct students on the process of learning (Freeman and Appel 1962).

Throughout centuries of instruction fields of knowledge developed around questions and sometimes around answers. As these fields matured and amassed bodies of knowledge, they became a part of instruction in education. Psychology, sociology, natural and physical science, religion, philosophy, mathematics, economics, and business have become commonplace fields of instruction. These fields are prevalent in the curriculums of colleges and universities throughout the world (Morrill and Spees 1982; Rippa 1988; Carnegie Foundation 1978).

Instruction first began with the teacher and a few dedicated students or followers of that particular teacher. These students went on to teach what they had learned to other

Students who prefer not to seek a university education have other alternatives available through technical colleges that teach trades and skills or community/junior colleges that offer two-year associate degrees in specific fields that can be applied to a four-year degree. Community/junior colleges became prevalent in the 1960s and 1970s and have become a permanent part of the educational arena in today's society (Blocker, Plummer, and Richardson 1965; Cohen and Brawer 1982; Deegan, Tillery, and Associates 1985; Medsker 1960; Monroe 1972; Palinchak 1973; Stoops 1966; Thornton 1966). According to an article by Jacobson (1991) in The Chronicle of Higher Education, "about half of all entering freshmen are attending two year institutions" (p. A1). This influx of students has severely strained the ability of two-year institutions to meet higher financial obligations. As a result of financial pressures, two-year institutions may begin to experience an erosion in the quality of instruction during the 1990s.

The university as the instructional medium has become as varied as the disciplines. There are four-year undergraduate institutions, institutions with four-year and master's degree offerings, four-year doctoral granting research universities, two-year community/junior colleges, technical colleges, and professional colleges. Each institution is unique in what it offers students, how it is organized, how it is financed, and its mission in society (Carnegie Foundation 1978; Morrill and Spees 1982).

Millet (1952) in Morrill and Spees (1982) provided an excellent statement on the ideal purpose of the university.

> In the ideal sense of its purpose a university is a community of scholars. It is a community of cooperatively disposed and friendly individuals showing common ideals and aspirations which unite them in a great cause transcending the boundaries of their specialties and capacities. A university is made up of scholars with a devotion to truth as each understands it; ever concerned with broadening the boundaries of man's knowledge, ever willing to share that knowledge with others for their material and spiritual well-being, ever loyal in the service of scholarship, and ever free from any form of tyranny over mind and body (p. 16).

A History of Student Services

Historically student services have been in existence as long as instructional services. The early philosophers and teachers not only taught but also helped students in matters outside but not detached from education (Duke and Moxley 1988). These types of student services were common throughout the centuries as faculty acted *in loco parentis.*

The growth in student services can be attributed to an era in which the academic as well as the personal life of the student contributed to successfully achieving a college degree. During the 1960s and 1970s massive amounts of students entered higher education as a result of the "Baby Boom." These students demanded assistance outside of academics in order to cope with changing family demographics and financial need to attain a college education. As a result of the massive student influx, student services evolved in areas such as personal counseling, career counseling, academic tutoring, discipline, on-campus housing for single and married students, and financial assistance from federal and state sources. These student services areas were the beginning of the modern-day professional student services personnel (Brown 1988; Delworth, Hanson, and Associates 1983; Rippa 1988; Schroeder, DiTiberio, and Kalsbeek 1988).

During the late 1970s and early-to-mid 1980s student services flourished in colleges and universities around the United States. They offered an enhancement to the academic education of students and in some cases--according to faculty opinion--offered an alternative to academic education. This faculty attitude caused much anguish between student personnel administrators and academic faculty in the education arena. A major impetus in the rift between faculty and student personnel administrators was the dedication of more finances to student services expenditures in colleges and universities across the nation. Faculty no longer had the time or desire for personal contact with students due to increasing numbers and more demands on research production. Still, some refused to

believe that student services professionals were an answer to the problem (Delworth, Hanson, and Associates 1983; Schroeder, DiTiberio, and Kalsbeek 1988; Smith 1988).

Student services personnel and departments began to enjoy a period of enormous growth during the 1970s. This expansion led to the establishment of divisions of student services with a vice president or vice provost who answered directly to the president or provost of the university. This separation from the academic sector further added to tension with academic affairs (Delworth, Hanson, and Associates 1983; Kuh 1983b) and will be discussed in more depth later in this chapter .

With the advent of the 1980s and a new United States presidential administration that was perceived as anti-higher education, student services began a decade of facing retrenchment due to lower funding levels in the higher education sector. Because student services were newcomers to the higher education administrative structure, they were among the first areas to experience financial hardship (Delworth, Hanson, and Associates 1983).

During the retrenchment period of the 1980s it became clear that student services divisions needed to obtain the support of the academic sector. This concept of partnership between student services and academic affairs still is a major focus of higher education today (Brown 1988; Duke and Moxley 1988; Eickmann 1988; Nutter and Hurst 1988; Smith 1988).

The Impact of the Reagan Era

The federalism of President Ronald Reagan's era led to the combining of block grant programs into one package with lower financial commitment to the states. The difference between the previous dollar amounts and new lower allocations was to be made up by the states. This lowered financial commitment was tempered somewhat by giving the states more discretion on how the block grant funding could be spent in the higher education system (Rice 1991).

Broad perspective. At the beginning of President Reagan's administration there was a movement to abandon the Secretary of Education cabinet post to administratively decrease the federal emphasis on financial support to education. This movement was not successful, but the discussions did set the tone for how financial support of education was perceived at the federal level (Piper 1990).

The decentralizing of the role of the federal government in financing higher education in the United States forced the states to assume more of the costs involved in higher education. This decentralization was characterized by the reduced commitment to direct student financial aid from the federal government and more participation by the states in developing their own financial aid packages for students (Rice 1991).

Educational perspective. The political commitment to higher education activities in the 1970s was reduced dramatically by President Reagan's administration in the early 1980s. The Reagan administration de-emphasized the role of the federal government in the states, brought about tougher financial aid standards, reduced financial commitment to federal direct student loans, and eliminated social security education benefits. This period also saw a shift away from equity concerns to political and economic reforms. As a result of the economic decline in the late 1980s and the Reagan administration's reduced commitment to higher education, public institutions of higher education were forced to cope with budget reductions. These reductions--which brought about reorganization for public higher education--continued into the President George Bush administration of the late 1980s and early 1990s (Alfred 1985; Breneman and Nelson 1981; Clayton 1992; Dodge 1991; Hoy and Bernstein 1982; Jacobson 1991).

Impact on instruction and student services. During the late 1980s instructional services and student services were forced to streamline programs and reduce staff in order to maintain balanced budgets. Budget reductions led to lower increases in faculty salaries with little or no chance for cost of living increases during the late 1980s. The exodus of faculty to the private business sector was a result of better financial rewards and cost higher education some of its most talented scholars. Because student services were among the first to experience a reduction in financial resources, they also experienced a loss of talent to the business sector. To complicate matters there was major criticism of the quality of higher education during the 1980s. Reduction of financial resources and public pressure to improve quality added further impetus to reorganize the public higher education system (Clayton 1992; Dodge 1991).

Today public higher education officials are coping with the issue of quality education while attempting to convince a skeptical public that institutions are economically frugal. The issues of the 1990s include public higher education attempting growth with a static financial base and convincing the public it is maintaining a high standard of education. Other issues include increased retention of students, educational outcomes assessments, changing student demographics, and increased attention to scholarship (Clayton 1992; Jacobson 1991).

Contemporary Issues in Instructional Services and Student Services

Once a historical perspective is established it is essential to develop knowledge of the contemporary issues in higher education that face instructional services and student services.

A Difference of Philosophy

Instructional philosophy can differ from institution to institution and even among faculty. This section will deal with the broader interpretation of instructional philosophy.

Philosophy of instruction. Instruction may include many things such as presentation style, materials used, equipment usage for a variety of purposes to relay the content of a subject, and the setting in which the information is relayed to the student. Generally instructional philosophy is contained in the mission of an institution and has been worded to portray academics as the main purpose of the university or college (Morrill and Spees 1982).

Mission statements for universities and colleges often attempt to portray the priorities of that particular institution (Carnegie Foundation 1978). As one example, the first paragraph of the proposed revision of the mission statement for the University of North Dakota reads as follows.

> The University of North Dakota is a comprehensive teaching and research university serving the State of North Dakota, the United States, and the global community, through instructional, research, creative, and service roles. These efforts require support from both the public and private sectors (University of North Dakota 1990b, p. 4).

Instruction is mentioned as the main priority twice in the opening paragraph, first with "teaching" and then with "instructional." This emphasis on instruction indicates a clear commitment to intellectual development.

What about the philosophy of instruction? Later in the same proposed mission statement referred to above, two sentences form what this particular university has as an instructional philosophy (University of North Dakota 1990b).

> Further, the University provides an environment which enables students to increase their intellectual, personal, social, and ethical development. It also prepares students for productive participation, opens their minds to alternative ways of thinking and learning, and acquaints them with strategies for integrating their personal, social, and academic lives (p. 4).

This type of mission statement is not uncommon among public institutions of education across the United States. By carefully analyzing mission statements one can begin to grasp the importance of instruction and what the philosophy of that instruction might entail (Carnegie Foundation 1978).

Chickering and Gamson (1987) suggested seven principles for good practice in undergraduate education that relate very well to instructional philosophy. They suggest that student-faculty contact be encouraged, cooperative learning be a normal part of instruction, active learning be utilized in and outside the classroom, prompt feedback be given on student performance, time on task is essential to productivity, high expectations should be communicated, and a development of respect for diverse talent and ways of learning should be encouraged. These seven principles define what a good philosophy of instruction is in practice.

Philosophy of student services. Student services philosophy is not as readily discernible as instructional services philosophy. Usually student services are implicitly referred to in mission statements as the social and personal lives of students. The college catalog will list the student services available at that particular university and sometimes divulge the philosophy of the student services division in a brief paragraph (University of North Dakota 1990a).

Mission statements that refer to the philosophy of student services generally can be found in brochures, new employee packets, and college catalogs. Rarely is the mission and philosophy prominently displayed or easily found on a campus. There are exceptions but they are few in number.

Student services philosophy is more readily available in the literature of the field. Shaffer and Martinson (1966) offered one view of the philosophy of student services.

> The student personnel point of view considers each student an individual with a unique constellation of traits to be treated as an indivisible personality

> functioning and reacting to his environment as a whole. Furthermore, the individual's unique personal make-up is considered a significant factor in his own education and development (p. 2).

As student services matured into a profession the philosophy that Shaffer and Martinson espoused became more detailed and more theoretically based. This movement led to student development as the basis of philosophies of student services (Delworth, Hanson, and Associates 1983). Student development was viewed as having three major schools of thought that included cognitive, psychosocial, and person-environment interaction theories (Miller, Winston, and Mendenhall 1983). This developing theoretical underpinning of student services became popular with professionals in the field because it lent credibility to their work as student services professionals.

One of the more widely accepted student development theories was developed by Chickering (1969, pp. 8-19) in his book Education and Identity. Chickering proposed that intellectual and personal growth of students took place in seven interconnected development tasks.

1. Competence: This area included intellectual, physical and manual, and social and interpersonal competence. All three are supported by the confidence of students in their ability to cope with situations and successfully achieve goals that are set.

2. Emotions: Chickering wrote about managing emotions as a problem of self-control. Students experience strong impulses related to aggression and sex that are opposed by a strong sense of conservativeness. The major task is for the student to become aware of these emotions and recognize their legitimacy. Through experience the student would learn acceptable forms of expressing these emotions that would be effective and useful.

3. Autonomy: This phase of development dealt with the independence of the student. This phase had three major functions: emotional independence that freed the student from continually needing reassurance, affection, or approval; instrumental

independence that allowed the student to participate in activities and cope with problems without seeking help and mobility in relation to the needs and desires of the student; recognition and acceptance of interdependence that allowed the student to recognize the needed connections to family and that he or she needed to be active in society in order to gain any benefits.

4. Identity: Identity is what the student felt himself or herself to be as a person. With college students this frequently included personal appearance, sexual identity, roles, and behavior. Chickering suggested that clarification of sexual identity and appropriate and satisfying behavior development were integral to the development of identity. Identity, when achieved, directly affected interpersonal relationships, purpose, and integrity.

5. Interpersonal relationships: By developing a sense of identity in interpersonal relationships the student developed a quality of tolerance and the ability to relate to others as individuals rather than as stereotypes. Intimate relationships linked with a sense of autonomy developed trust, independence, and individuality.

6. Purpose: Chickering said that most young adults are full of energy but do not know where to go or where to direct that energy. Part of the growth process meant that students began to ask questions about their purpose and formulate plans that integrated academic, social, and personal areas of their lives. Once purpose was established life took on more meaning and direction for the student.

7. Integrity: Purpose and identity are closely related to the development of integrity. Integrity involved the reformulation of family values to fit the beliefs and value system of the student that was uniquely his or her own. Integrity also involved the consistency with which the behaviors matched the values that the student had chosen.

Student development theory became a major basis for student services philosophy. Professionals entering the field needed to have a broad understanding of the theory of student development in order to be successful in administering student services

programs on campuses. This broad understanding became even more important as university and college campuses began to experience an influx of many different cultures and the different attitudes and personalities that were a part of those cultures (Delworth, Hanson, and Associates 1983; Miller, Winston, and Mendenhall 1983; O'Banion and Thurston 1972; Shaffer and Martinson 1966; Smith 1988).

Comparisons and contrasts. An obvious similarity between instructional services and student services philosophy is the concern for the growth and development of the student. Instructional services are concerned with the academic and intellectual growth of the student. Although student services are concerned with academic and intellectual growth, they also are concerned with how the student relates that knowledge to his or her personal and social growth (Chickering 1969; Miller, Winston, and Mendenhall 1983).

Student services also have a common root with instructional services since they developed out of historic academic responsibilities. Historically, much of what caused the development of student services came from a shift in faculty focus from teaching-mentoring to research and publication. Faculty were unable to meet the demands outside of the classroom and still maintain scholarly pursuits (Duke and Moxley 1988). However, Morrill and Spees (1982) argued that faculty still do maintain a close relationship with students and are a primary influence on students attending universities.

One begins to see a major difference between instructional services and student services in the clarity of mission as stated by the institution. Instruction clearly is an explicit mission of higher education and is stated as such in the mission statements of most colleges and universities. Student services are referred to in a much more implicit nature and are alluded to with vague terminology in institutional mission statements (University of North Dakota 1989; University of North Dakota 1990b).

The implicit nature of institutional commitment to student services led to a sense of insecurity in the profession (Duke and Moxley 1988; Smith 1988). This insecurity caused student services professionals to overcompensate by developing a view that they were somehow separate from instructional services and the academic arena. This attitude of separation caused a sense of competition to develop between instructional services and student services. The competition between instructional services and student services was perpetuated by both sides. Student services professionals claimed that faculty could not survive without their services to students. Faculty asserted that student services were offering nothing they could not or did not offer themselves (Delworth, Hanson, and Associates 1983).

When financial hardship in higher education began in the 1970s and continued again in the late 1980s, it became clear that both instructional services and student services would need to begin re-evaluating their positions. This led to a time when instructional services and student services began attempts to work together in education rather than separately (Barr and Fried 1981; Brown 1988; Eickmann 1988; Katz 1973; Nutter and Hurst 1988; Robinson 1973; Schroeder, DiTiberio, and Kalsbeek 1988; Simpson 1981).

Attempts at Reconciliation

The need to work cooperatively toward the education of students became evident in the 1980s. Because of economics and outside perceptions of quality, instructional services and student services administrators realized that collaborative work would reap benefits for both structures.

Student services literature of the early-to-mid 1980s dwelled on faculty unwillingness to view student services as a legitimate part of higher education (Blake 1979; Delworth, Hanson, and Associates 1983). The view still was one of separatism. Even though financial difficulties plagued higher education and forced student services to begin

looking at partnerships with academics, student services still were insecure about how they were viewed by those same so-called partners.

Some of the theories for change of the 1970s and early 1980s took place at the program level of student services rather than at a division-wide level (Brown 1988). Areas such as career services created faculty liaisons to help with the career decision making of students. Learning services developed links with faculty to encourage referral of students who were experiencing academic problems. Faculty were encouraged to become involved as advisors of student activities organizations to give them a sense of what students were like outside the classroom.

This approach to working with faculty at the program level achieved at best a disjointed kind of partnership. Student services programs that worked with faculty experienced the benefits of a holistic approach to education (Brown 1988). But these same programs still were a part of the larger division that held onto the old attitude "separate but equal" (Delworth, Hanson, and Associates 1983).

Future Perspectives on Instructional Services and Student Services

In order to instigate change in the perceptions that existed between instructional services and student services, the leaders of one or both of the administrative structures had to make a commitment to change. This leadership role was accepted and acted upon by the national leadership of student personnel administrators (Brown 1988; National Association of Student Personnel Administrators 1987).

A Change of Perspective

In 1987 the National Association for Student Personnel Administrators (NASPA) published a bold new approach outlined in A Perspective on Student Affairs. This paper outlined several assumptions and beliefs about the work of student affairs professionals.

The first and major assumption that began a change in attitude was that the institution must define the academic mission as preeminent.

> Colleges and universities organize their primary activities around the academic experience: the curriculum, the library, the classroom, and the laboratory. The work of student affairs should not compete with and cannot substitute for that academic experience. As a partner in the educational enterprise, student affairs enhances and supports the academic mission (p. 9).

This statement led to a departure from earlier beliefs of student services as a separate function of the university. Brown (1988) suggested that the preeminence of the academic mission "is practically a prerequisite for effective collaboration between academic and student affairs" (p. 3). She further suggested that "a remarkable amount of collaboration is, in fact, occurring on college campuses across the country" (p. 3). This collaboration was reported earlier in this chapter by statements about individual student services programs and faculty working toward common goals of holistic student development.

With a new philosophy that stresses the importance of the academic mission, student affairs professionals are in a unique position to lead the development of collaborative approaches to education. By enhancing and supporting the academic mission of the institution, student services can begin to bridge the philosophical gap that has developed between it and the instructional area of the university (Blake 1979; Schroeder, DiTiberio, and Kalsbeek 1988).

The Road to Unity

Smith (1988) outlined five trends occurring in higher education that represent an opportunity to develop partnerships between student services and instructional services.

1. The quality of higher education: During the 1980s much literature was dedicated to the lack of quality in higher education and the need to analyze the undergraduate experience (Boyer 1987; Study Group 1984). Student services and

instructional services can begin working together to identify new approaches to undergraduate and general education in the United States.

2. Retention issues: The consistent decline in the numbers of college-age students has added to the importance of social and academic integration in order to keep students in college. Admissions also is crucial to this area in order to find ways to identify at-risk students prior to entry in the university. By increasing retention universities can offset the decline in student numbers (Smith 1988). Collison (1991) and Jacobson (1991) reported that the number of high school graduates is expected to increase by the mid 1990s. This could affect the importance of retention issues in the future.

3. Student demographics: The ethnic makeup of the student body is, and will continue to be, changing. Greater diversity of the student body demands attention to sensitivity and awareness of cultural issues on campuses (Evangelauf 1992; Smith 1988).

4. Student outcomes assessment: The increasing demand from state legislatures and accreditation agencies to measure outcomes of the undergraduate experience (both academic achievement and student satisfaction) will offer an opportunity for student services and instructional services to work together on improving the undergraduate experience of students (Smith 1988). Jacobson (1991) argues that outcomes assessment is a negative reaction to financial stress and public criticism in higher education.

5. Scholarship: This area deals with the "increased visibility given to scholarship that deals with the important connection between intellectual growth and the affective and values components of learning" (p. 10). This trend recognizes the importance of student services to the overall development of the student (Smith 1988).

These five trends offer student services and instructional services the opportunity to work together toward the improvement of higher education. During the next decade it will be important that student services take advantage of this opportunity before priorities in higher education shift away from student-centered themes (Smith 1988).

The Years Ahead

The 1990s will be a critical time for instructional services and student services to collaborate on key issues that affect higher education. This will take careful planning and will demand cooperation at all levels of higher education (Smith 1988).

Planning for progress. In order to mirror the cooperation and collaborative efforts between instructional services and student services, both instructional services and student services must give careful attention to making structural changes and/or the institutionalization of shared mission statements that will unite the two separate administrative functions (Nutter and Hurst 1988). Through careful planning and implementation instructional services and student services can begin to break down old barriers and begin a new era of cooperation. Cooperation will enhance the educational process and benefit the students who are experiencing that process. This cooperative approach will provide assurance that student services will be active in future collaborative efforts; these efforts may not include student issues but may directly affect students on campuses. In order to achieve progress change must take place (Brown 1988; Eickmann 1988; Roper and Sedlacek 1988; Schroeder, DiTiberio, and Kalsbeek 1988; Smith 1988).

Implementation strategies. A good example of structural change can be found at the University of Wyoming. The University of Wyoming combined the Vice President for Student Affairs and the Vice President for Academic Affairs into one position with the title of Provost and Vice President for Academic and Student Affairs. The chief student affairs officer was given the position of Associate Vice President for Academic Affairs. The Associate Vice President organized a council that consisted of representatives of the deans of each college and the directors of the student affairs units and titled it the Academic

Deans/Student Affairs Advisory Council. This council is responsible for exchanging information, problem solving on common issues, and advising the university on student-related issues (Nutter and Hurst 1988). This structure models the partnership approach that was suggested by the NASPA perspective on student affairs.

The University of Texas and Syracuse University developed a different approach called "Academic Interface" that developed a shared mission to achieve cooperation between instructional services and student services (Duke and Moxley 1988; Eickmann 1988). Student services officials assumed the responsibility in efforts toward cooperative problem solving of campus issues. This approach has aided in developing a collaborative atmosphere toward improving student education on both campuses.

Utilizing structural change and/or adopting an academic interface approach to change will result in a united approach to education. This united front will provide many benefits to instructional services and student services as well as to the students involved in the educational process (Barr and Fried 1981; Duke and Moxley 1988; Eickmann 1988; Nutter and Hurst 1988).

Benefits of unity. Establishing a collaborative atmosphere between instructional services and student services will provide many benefits to higher education. First, faculty will begin to understand how a cooperative relationship will complement their teaching and provide a better relationship with students. This understanding will allow faculty to continue to improve teaching with support from student services and will dispel the antagonism of the faculty toward providing greater service to students (Duke and Moxley 1988). Second, student services will become a part of the decision making structure; that will allow them to have an impact on issues that are not just student-related but also are academically related. This will be essential in the future when trends in higher education begin to shift from student issues to academic issues (Roper and Sedlacek 1988; Smith

1988). Third, better coordination will enhance the quality of education and student satisfaction with the educational process. This will be vital to meet the requirements to measure student outcomes for legislatures and accreditation agencies (Smith 1988). Fourth, cooperation will enhance the efforts of universities and colleges to improve the retention of students on campus. Coordinating efforts of both faculty and student services will make possible a more comprehensive program to improve the success of students. A more subtle benefit will be the added financial resources from tuition as a result of more students staying enrolled in college (Brown 1988; Stodt and Klepper 1987). Finally, with increased cooperation, problem solving on issues of meeting the needs of a more diverse student body will gain support and awareness in both instructional services and student services. Sensitivity to the cultural issues on campuses will gain broader support and will provide a more comprehensive solution to problems that can exist with diverse student groups on campuses (Barr and Strong 1988; Evangelauf 1992; Roper and Sedlacek 1988; Terrell 1988).

Benefits that are more subtle in nature also will become evident as instructional services and student services staff work cooperatively toward quality education. These benefits will become evident as perceptions begin to change from that of separatism to unity and from that of competition to cooperation. Financial benefits might include a more streamlined and efficient offering of programs that are currently duplicated by separate functions in instructional services and student services. Viewing the budget as united and not separate may result in less competition for allocating funds and more cooperation about where the funds can best be utilized.

It will be necessary for instructional services and student services leaders to examine where expenditures currently are taking place and identify any trends that may exist. Once these leaders have identified existing trends in financial expenditures, it will be easier to identify where these expenditures can be reallocated in order to better match the

mission of the institution. Reallocation of finances will be a major challenge for instructional services and student services because of the sensitivity and political investments associated with financial issues on campuses (Palmer and Zwemer 1985).

Higher education is on the threshold of exciting changes. By realizing the benefits of a cooperative approach, instructional services and student services personnel may enhance the quality of education dramatically. The key is for change to take place and for instructional services and student services leaders to encourage and stimulate an environment in which that change can take place (Brown 1988; Smith 1988).

Overview of Problems and Solutions

In order to synthesize the information in chapter two, the researcher will review the main points discussed about the problems between instructional services and student services. This will be followed by an overview of solutions to these problems and concluding remarks on the review of literature on instructional services and student services.

Historical Overview

Instructional services and student services traditionally were handled by the faculty until the post-World War II era. After World War II the numbers of students entering higher education grew rapidly and forced institutions to begin hiring additional personnel to handle matters of student life outside the academic arena. This led to the beginning of a separate administrative structure that is known today as student services (Brown 1988; Delworth, Hanson, and Associates 1983; Rippa 1988; Schroeder, DiTiberio, and Kalsbeek 1988).

The separation of instructional services and student services caused a rift between the two professions that still is evident in higher education today. The faculty, even though larger numbers of students made personal contact outside the classroom difficult, harbored

bitter feelings toward the new administrative structure. This feeling was due in large part to perceptions of reduced time with students and the reallocation of financial resources to fund student services areas (Blake 1979; Delworth, Hanson, and Associates 1983; Kuh 1983a).

The Reagan era of decentralization with more emphasis on state responsibility for higher education brought more financial hardship to state institutions. This led to lower faculty salaries, combining of programs, releasing of staff, and public pressure to produce a quality education with less financial support. Both instructional services and student services lost talented professionals to the business sector during this period in the 1980s (Alfred 1985; Breneman and Nelson 1981; Delworth, Hanson, and Associates 1983; Hoy and Bernstein 1982; Piper 1990; Rice 1991).

Overview of Philosophical Differences

Instructional philosophy differs from institution to institution. It usually can be found as an explicit statement in the mission statement of the institution that outlines the main purpose of the university or college. Instructional philosophy is clearly stated as providing "an environment which enables students to increase their intellectual . . . development" (University of North Dakota 1990b, p. 4). Student services philosophy is not as readily discernible as instructional services philosophy. It usually is referred to implicitly in mission statements of institutions. Student services usually are referred to in mission statements as the "personal, social, and ethical development" of the student (University of North Dakota 1990b, p. 4). Most of the philosophies of student services are found in the literature of the field (Chickering 1969; Miller, Winston, and Mendenhall 1983; Shaffer and Martinson 1966). It is based on student development theory that deals with the physical and psychological maturation of the student. Other philosophy statements deal with the administrative structure of student services (Kuh 1983a, 1983b; Rickard 1988).

Overview of the Problem

Instructional services and student services have common historical roots that took a divergent path when higher education began to experience enormous growth. This divergence set up an inherently adversarial relationship between the two professions. Competition for financial support further strained relationships throughout the 1970s and 1980s. Student services struggled for recognition as a serious profession within higher education against a faculty who sometimes viewed it as a second-class function. This led to student services personnel developing an attitude of insecurity as a profession and fostered a further chasm perpetuated by their insistence on being viewed as separate from instruction (Knock 1988; Kuk 1988; Remley 1988; Rickard 1988; Smith 1988). The problem then is one of how to reunite two administrative functions that are necessary for the successful education of students in higher education. How can instructional services and student services begin working together toward common goals when philosophically and administratively they have grown so far apart?

Philosophical Change

A major change in student services philosophy was prompted by the 1987 NASPA publication A Perspective on Student Affairs. This new philosophy stated that "student affairs should not compete with and cannot substitute for" (p. 9) the academic experience. This statement started a change in attitude toward instructional services that departed from the previous student services platform. This new perspective has given student services the unique opportunity to begin a unified approach to the holistic education of students (Brown 1988; Smith 1988).

By supporting the academic mission of the university the student services profession would no longer be perceived as a threat by instructional services. This new perception would reduce the competitive atmosphere that developed around financial

support issues. As the two structures begin viewing themselves as partners in education, rather than competitors, the possibilities for a better quality of education will be magnified (Brown 1988; Duke and Moxley 1988; Smith 1988; Stodt and Klepper 1987).

Unification

The unification of instructional services and student services has been evidenced by two different approaches. One of these strategies included combining the administrative functions of instructional services and student services (Nutter and Hurst 1988). This strategy combined the Vice President for Student Affairs and the Vice President for Academic Affairs into one position with the chief student affairs officer as the Associate Vice President for Academic Affairs. This structural change perpetuated the partnership approach and united the two administrative functions. Administrative unity acts as a symbolic effort to begin changing the attitudes of the separate functions.

A second approach to unification involved "Academic Interface" (Duke and Moxley 1988; Eickmann 1988). This interface approach involved the two separate administrative functions developing a shared mission statement to achieve cooperation between instructional services and student services. This structure involved cooperative problem solving efforts on campus-wide issues and modeled a collaborative atmosphere between the two administrative structures.

Both of these structural change approaches are an effort to change the attitude of separate functions that have been perpetuated by higher education in the last half century. The change in attitude will not happen immediately; however, with upper-level administration modeling cooperation and partnership, divergent attitudes will begin to change and begin to work toward collaboration (Duke and Moxley 1988; Eickmann 1988).

Concluding Remarks

The changes taking place in the structure and philosophy of instructional services and student services are promising signs for a decade of change in the 1990s. These changes will be of particular urgency for student services.

According to various projections (Bowen and Schuster 1986; Collison 1991; Hodgkinson 1985; Jacobson 1991; O'Keefe 1985; Smith 1988; U.S. Census Bureau 1987) student enrollment in United States higher education will again begin to experience an increase by the mid 1990s. This means that inevitably issues such as retention will be less important than admissions for keeping enrollments stable. Bowen and Schuster (1986) have projected that at the same time enrollments are increasing faculty attrition will increase. This pattern suggests that the focus on student issues will shift dramatically to a focus on academic issues (Smith 1988).

Should these projections hold true, it is of paramount importance to student services that they begin to look at ways to work with faculty toward a partnership approach to education. This partnership approach will give student services a chance to be a part of the campus decision making process before issues begin to take on more of an academic quality. The partnership approach also will assure that students will be represented in the decision making process even though the issues may not directly affect them. Smith (1988) best stated the student services position when he wrote:

> Student affairs professionals bring significant skills to an organization that are relevant to intra-institutional partnerships: skills for developing effective decision-making processes, skills for seeing a variety of perspectives on a problem, skills for understanding students and their experiences in college, and skills for understanding the complex interaction between individuals and their environments. All these, combined with current developments affecting the higher education agenda, create a powerful potential for developing a climate of change that can integrate the student affairs and institutional agendas (pp. 12-13).

In order to realize this potential, student services have only a short time in order to act on building partnerships with instructional services. This opportunity will fade with the

decade of the 1990s and may never again present itself for the student services profession (Smith 1988).

Student services professionals are facing a decade of change that can be positive if they are willing to take the lead in developing instructional services and student services partnerships. By accepting the NASPA perspective of student services as enhancing the academic mission of the institution and changing the structure and/or attitude of the student services profession toward faculty and instruction, student services personnel can guarantee its part in the development of institutional policy for the future in higher education (Duke and Moxley 1988; Eickmann 1988; National Association of Student Personnel Administrators 1987; Smith 1988).

The next chapter will present the research methodology of this study. It will explain the research questions, sample, data collection procedures, and the tables and statistics used to examine the data.

CHAPTER III

METHODOLOGY

The purpose of this study was to examine the trends in and the relationships between full-time equivalent (FTE) per pupil instructional services expenditures and FTE student services expenditures over a ten-year period from 1978-79 to 1987-88.

The institutions examined were four-year doctoral granting public institutions, four-year non-doctoral granting public institutions, and two-year public community/junior colleges. The institutions studied were located in the states of Iowa, Minnesota, North Dakota, South Dakota, and Wisconsin.

Research Questions

The questions that were posed by this study included:

1. Are there trends in expenditures for instructional services and student services that are based on the types of institutions?

2. Are there relationships between expenditures for instructional services and student services that are based on the types of institutions?

3. Are there trends in expenditures for instructional services and student services that vary among states?

4. Are there relationships between expenditures for instructional services and student services that vary among states?

States and Institutions in the Study

The sample for this study consisted of sixty-six public institutions of higher education located in the five states of Iowa, Minnesota, North Dakota, South Dakota, and

Wisconsin. The institutions were categorized by type of institution and state. Institutional types examined included eleven public four-year doctoral granting institutions, twenty-seven public four-year non-doctoral granting institutions, and twenty-eight public two-year community/junior colleges that offered associate degrees. Iowa did not have any public four-year non-doctoral granting institutions and South Dakota did not have any public two-year community/junior colleges. For the purposes of this study public institutions were not included if data were not consistently reported over the ten years; this resulted in the deletion of one public four-year non-doctoral granting institution and eleven public two-year community/junior colleges. Tribal colleges also were not included because of the federal nature of their funding. Vocational/technical schools were not included as a part of this study.

Data Collection

The per pupil expenditures for instructional services and student services and the total expenditures for each institution per year were taken from the Higher Education General Information Survey (HEGIS) and the Integrated Postsecondary Education Data System (IPEDS) financial reports collected by the National Center for Education Statistics (NCES) from each individual school in the study from 1978-79 to 1987-88. These statistics were obtained from the United States Department of Education on a 3480 BPI tape cartridge and then transferred to the North Dakota Higher Education Computer Network (HECN) in Fargo. The information on the tape cartridge contained financial and enrollment data for all public institutions in the United States from 1978-79 to 1987-88. The financial and enrollment data for each school in the five states were reported as raw totals. For FTE enrollment figures the total number of students attending each institution minus the total part-time students equalled full-time enrollment. The FTE of part-time enrollment was obtained from the HEGIS enrollment reports from 1978-79 through 1985-86. FTE

part-time enrollment was added to full-time enrollment to obtain the total derived FTE enrollment for each institution from 1978-79 through 1985-86. For 1986-87 and 1987-88 no FTE part-time enrollment was provided by the IPEDS. Part-time enrollment is defined as the number of students enrolled in higher education courses with a total credit load less than 75 percent of the normal full-time credit load. In order to calculate FTE part-time enrollment the total part-time enrollment was divided by a weight of three (3) (according to NCES, part-time enrollment is considered one-third of full-time enrollment) and added to the FTE full-time enrollment to obtain the FTE total enrollment for each institution for 1986-87 and 1987-88.

HEGIS and IPEDS financial data were reported as total dollar expenditures for instructional services, student services, and total general expenditures. The expenditure for each institution in each of these categories was divided by the FTE enrollment to arrive at an expenditure per FTE student. FTE total general expenditures were calculated by dividing total general expenditures by FTE enrollment. Total expenditures for instructional services and student services were divided by total general expenditures to determine the percentage of total expenditures.

FTE enrollment, FTE instructional services expenditures, FTE student services expenditures, and FTE total general expenditures were calculated for each institution for each year. These data were used to form a separate file to generate statistical information about the relationships between and trends in instructional services expenditures and student services expenditures.

Data Analysis

Eight tables were developed to display the data. This information included FTE enrollments, FTE instructional services expenditures, FTE instructional services expenditures as a percentage of FTE total general expenditures, FTE student services

expenditures, FTE student services expenditures as a percentage of FTE total general expenditures, and FTE total general expenditures.

Table 1 was developed to organize the means of FTE instructional services expenditures, FTE student services expenditures, and FTE total general expenditures for all institutions by year and by level of institution by year. Table 2 was developed to indicate the significance of differences in pairs of years for mean FTE instructional services expenditures, mean FTE student services expenditures, and mean FTE total general expenditures by year.

Tables 3 through 7 were developed for each state with data for each institution by level and year from 1978-79 through 1987-88. Data included FTE enrollments, FTE instructional services expenditures, FTE instructional services expenditures as a percentage of FTE total general expenditures, FTE student services expenditures, FTE student services expenditures as a percentage of FTE total general expenditures, and FTE total general expenditures. Means of FTE instructional services expenditures, FTE student services expenditures, and FTE total general expenditures were calculated for all institutions by level and by year. A grand mean was calculated by combining the FTE expenditure means of all institutional levels by state and by year.

Table 8 was developed to organize mean FTE instructional services expenditures, mean FTE student services expenditures, and mean FTE total general expenditures by state and level of institution for 1987-88.

All data were analyzed statistically using one-way and two-way analysis of variance, test of the means, a multiple classification analysis, and a test of correlation coefficients to determine if there were any relationships between FTE instructional services expenditures and FTE student services expenditures.

The following chapter presents an analysis of the data obtained from the National Center for Education Statistics. The results are presented in eight tables and examined in narrative form.

CHAPTER IV

ANALYSIS OF EXPENDITURES

This chapter analyzes the data calculated for FTE instructional services expenditures, FTE student services expenditures, FTE total general expenditures, and FTE enrollments for institutions located in Iowa, Minnesota, North Dakota, South Dakota, and Wisconsin. The first section of the chapter describes the sample of the study and the types of data that were examined by the study. Section two of the chapter examines the data as a whole and reports the statistical findings with regard to institutions in all five states at each of the three levels throughout the ten-year period. Section three of the chapter examines the data by state and levels of institutions within each state throughout the ten-year period. Section four of the chapter discusses the findings of sections two and three.

Description of the Data

The data included in this study were FTE enrollments, FTE instructional services expenditures, FTE student services expenditures, and FTE total general expenditures. The data were presented by institution for each state at each of the three levels: doctoral granting institutions, non-doctoral granting four-year institutions, and community/junior colleges. The data reported covered the ten-year period from 1978-79 through 1987-88.

The mean FTE enrollments and mean FTE expenditures for each level of institution by state and by each level for the combined five states were calculated and reported in the tables. A grand mean also was calculated by state and for the entire sample for FTE instructional services expenditures, FTE student services expenditures, and FTE total general expenditures.

Overall Analysis of FTE Expenditures

The overall analysis of the data included a test of the means for instructional services expenditures, student services expenditures, and total general expenditures by level and by year. A one-way analysis of variance was used to test the significance of the differences in the means by level of institution and by year. A two-way analysis of variance was used to test the significance of the differences in the means by level of institution and year. A second two-way analysis of variance test used enrollment as the covariate. A multiple classification analysis was used to find the deviation of expenditures from the grand mean in each category by level and by year. Finally, a test of correlation coefficients was used to find variables that exhibited a high correlation with one another.

Test of the Means

Table 1 reports that FTE instructional services expenditures for all levels of institutions in the five states indicated a yearly increase from 1978-79 through 1986-87 with a decrease reported during 1987-88. This pattern also was indicated for non-doctoral granting four-year institutions. Doctoral granting institutions indicated no decrease in mean FTE instructional services expenditures throughout the ten-year period. Community/junior colleges indicated decreases during 1980-81 and 1987-88.

Table 1 reports that FTE student services expenditures for all levels of institutions in the five states indicated a steady increase from 1978-79 through 1986-87 with a decrease indicated during 1987-88. The doctoral granting institutions indicated a decrease in mean FTE student services expenditures for 1980-81 followed by yearly increases through 1987-88. Non-doctoral granting four-year institutions indicated decreases in mean FTE student services expenditures during 1984-85 and 1987-88. Community/junior colleges

TABLE 1

MEANS OF FTE INSTRUCTIONAL SERVICES EXPENDITURES, FTE STUDENT SERVICES EXPENDITURES, AND FTE TOTAL GENERAL EXPENDITURES FOR ALL INSTITUTIONS BY YEAR AND BY LEVEL OF INSTITUTION BY YEAR: 1978-79 THROUGH 1987-88

	All Institutions	Doctoral Granting	Non-doctoral Four-year	Community/Junior Colleges
		Instructional Services Expenditures		
1978-79	$1,655	$2,248	$1,658	$1,421
1979-80	1,815	2,483	1,778	1,589
1980-81	1,853	2,645	1,855	1,541 *
1981-82	2,011	2,787	1,992	1,724
1982-83	2,092	2,978	2,055	1,779
1983-84	2,224	3,118	2,217	1,878
1984-85	2,391	3,341	2,372	2,035
1985-86	2,575	3,561	2,518	2,243
1986-87	2,741	3,833	2,691	2,361
1987-88	2,703 *	3,901	2,665 *	2,269 *
		Student Services Expenditures		
1978-79	$ 298	$ 257	$ 290	$ 321
1979-80	321	287	315	340
1980-81	325	285 *	317	348
1981-82	367	300	344	417
1982-83	401	317	366	468
1983-84	412	328	413	443 *
1984-85	414	364	409 *	438 *
1985-86	468	381	437	533
1986-87	479	399	447	541
1987-88	467 *	428	441 *	507 *
		Total General Expenditures		
1978-79	$4,537	$ 7,854	$4,445	$3,323
1979-80	4,967	8,807	4,778	3,640
1980-81	5,106	9,116	4,933	3,699
1981-82	5,483	9,580	5,253	4,096
1982-83	5,953	10,340	5,675	4,497
1983-84	6,306	10,762	6,093	4,761
1984-85	6,872	11,607	6,645	5,231
1985-86	7,386	12,682	7,112	5,569
1986-87	7,820	13,837	7,375	5,885
1987-88	6,804 *	11,990 *	6,680 *	4,886 *

*Indicates a decrease in the mean

reported decreases in mean FTE student services expenditures during 1983-84, 1984-85, and 1987-88.

Table 1 reports that FTE total general expenditures for all institutions in the five states indicated yearly increases from 1978-79 through 1986-87 and a decrease during 1987-88. All three levels of institutions indicated a pattern of FTE total general expenditures that was similar to all institutions combined.

One-way Analysis of Variance
by Level of Institution

A one-way analysis of variance was used to test the means of FTE instructional services expenditures, FTE student services expenditures, and FTE total general expenditures by level of institution. The one-way analysis of variance (ANOVA) for instructional services expenditures by level of institution produced an F-ratio of 118.61 with 2 and 657 degrees of freedom ($p<.001$). The one-way ANOVA for student services expenditures by level of institution produced an F-ratio of 13.35 with 2 and 656 degrees of freedom ($p<.001$). The one-way ANOVA for total general expenditures by level of institution produced an F-ratio of 276.09 with 2 and 657 degrees of freedom ($p<.001$). The analysis indicated that mean FTE instructional services expenditures ($3089) of doctoral granting institutions were significantly different at the $p<.05$ level from mean FTE instructional services expenditures at both non-doctoral granting four-year institutions ($2180) and community/junior colleges ($1884). The analysis also indicated that mean FTE instructional services expenditures for non-doctoral granting four-year institutions were significantly different at the $p<.05$ level from mean FTE instructional services expenditures at community/junior colleges. The analysis of the mean FTE student services expenditures for doctoral granting institutions ($335) indicated a significant difference at the $p<.05$ level from mean FTE student services expenditures at both non-doctoral granting four-year institutions ($377) and community/junior colleges ($436). No significant

difference in means was indicated between non-doctoral granting four-year institutions and community/junior colleges. The analysis of the mean FTE total general expenditures for doctoral granting institutions ($10657) indicated a significant difference at the p<.05 level from mean FTE total general expenditures for both non-doctoral granting four-year institutions ($5885) and community/junior colleges ($4559). The analysis of the mean FTE total general expenditures at non-doctoral granting four-year institutions indicated a significant difference at the p<.05 level from mean FTE total general expenditures at community/junior colleges.

One-way Analysis of Variance by Year

A one-way analysis of variance was used to test the means of FTE instructional services expenditures, FTE student services expenditures, and FTE total general expenditures by each year of the study. Table 2 indicates that a significant difference at the p<.05 level between mean FTE instructional services expenditures per year did not begin to occur until 1982-83 ($2093) when a significant difference at the p<.05 level was reported with 1978-79 ($1656). Table 2 reports that the analysis of the mean FTE student services expenditures per year did not indicate a significant difference until 1982-83 ($401) at the p<.05 level with 1978-79 ($295). Table 2 reports that the analysis of the mean FTE total general expenditures per year indicated a significant difference during 1983-84 ($6306) at the p<.05 level with 1978-79 ($4518). The one-way ANOVA for instructional services expenditures by year produced an F-ratio of 18.45 with 9 and 650 degrees of freedom (p<.001). The one-way ANOVA for student services expenditures by year produced an F-ratio of 8.57 with 9 and 649 degrees of freedom (p<.001). The one-way ANOVA for total general expenditures by year produced an F-ratio of 8.97 with 9 and 650 degrees of freedom (p<.001). This analysis indicated that the mean FTE expenditures did not increase

at a dramatic rate each year; instead, they increased at a slow rate and did not exhibit a significant difference between years in the study until the fifth year.

Two-way Analysis of Variance

A two-way analysis of variance was used to test FTE instructional services expenditures, FTE student services expenditures, and FTE total general expenditures by the main effects: level of institution and year. The analysis indicated--for all three comparisons--a significant difference at the $p<.001$ level. The two-way ANOVA for instructional services expenditures by level of institution with repeated measures across years produced an F-ratio of 51.37 with 11 and 629 degrees of freedom ($p<.001$). The two-way ANOVA for student services expenditures by level of institution with repeated measures across years produced an F-ratio of 9.82 with 11 and 629 degrees of freedom ($p<.001$). The two-way ANOVA for total general expenditures by level of institution with repeated measures across years produced an F-ratio of 77.07 with 11 and 629 degrees of freedom ($p<.001$). This analysis reported that level of institution and year were directly related to the variation in mean FTE instructional services expenditures, mean FTE student services expenditures, and mean FTE total general expenditures.

Two-way Analysis of Variance
with the Covariate Enrollment

A second analysis tested the main effects with a covariate enrollment held constant. The two-way ANOVA for instructional services expenditures by level of institution with repeated measures across years and with enrollment as a covariate produced an F-ratio for level of institution of 27.93 with 2 and 628 degrees of freedom ($p<.001$). The repeated measures across years produced an F-ratio of 30.87 with 9 and 628 degrees of freedom ($p<.001$).

TABLE 2

SIGNIFICANCE OF DIFFERENCES IN PAIRS OF YEARS FOR MEAN FTE INSTRUCTIONAL SERVICES EXPENDITURES, MEAN FTE STUDENT SERVICES EXPENDITURES, AND MEAN FTE TOTAL GENERAL EXPENDITURES BY YEAR: 1978-79 THROUGH 1987-88

Mean	Year	78-79	79-80	80-81	81-82	82-83	83-84	84-85	85-86	86-87	87-88
					Instructional Services Expenditures						
$1,655	78-79										
1,815	79-80										
1,853	80-81										
2,011	81-82										
2,092	82-83	*									
2,224	83-84	*	*								
2,391	84-85	*	*	*							
2,575	85-86	*	*	*	*	*					
2,703	87-88	*	*	*	*	*	*				
2,741	86-87	*	*	*	*	*	*				
					Student Services Expenditures						
$ 298	78-79										
321	79-80										
325	80-81										
367	81-82										
401	82-83	*									
412	83-84	*									
414	84-85	*									
467	87-88	*	*	*							
468	85-86	*	*	*	*						
479	86-87	*	*	*	*						
					Total General Expenditures						
$4,537	78-79										
4,967	79-80										
5,106	80-81										
5,483	81-82										
5,953	82-83										
6,306	83-84	*									
6,804	87-88	*	*	*							
6,872	84-85	*	*	*							
7,836	85-86	*	*	*	*						
7,820	86-87	*	*	*	*	*					

*Indicates pairs of years significantly different at the .05 level

The two-way ANOVA for student services expenditures by level of institution with repeated measures across years and with enrollment as a covariate produced an F-ratio for level of institution of 4.27 with 2 and 628 degrees of freedom ($p<.001$). The repeated measures across years produced an F-ratio of 9.21 with 9 and 628 degrees of freedom ($p<.001$).

The two-way ANOVA for total general expenditures by level of institution with repeated measures across years and with enrollment as a covariate produced an F-ratio for level of institution of 80.62 with 2 and 628 degrees of freedom ($p<.001$). The repeated measures across years produced an F-ratio of 23.30 with 9 and 628 degrees of freedom ($p<.001$).

This analysis indicated that enrollments had a significant difference with the main effects--level of institution and year--at the $p<.05$ level. This analysis indicated that enrollment was directly related to the variation in mean FTE instructional services expenditures, mean FTE student services expenditures, and mean FTE total general expenditures.

Multiple Classification Analysis

A multiple classification analysis, adjusting for the covariate enrollment, indicated that FTE instructional services expenditures for all doctoral granting institutions were $435 above the grand mean of $2207 for all institutional levels. All non-doctoral granting four-year institutions were $8 above the grand mean for all institutions, and community/junior colleges were $179 below the grand mean for all institutions. Mean FTE student services expenditures for all doctoral granting institutions were reported at $10 below the grand mean of $395 for all institutional levels. All non-doctoral granting four-year institutions were $21 below the grand mean for all institutions, and community/junior colleges were $24 above the grand mean for all institutions. Mean FTE

total general expenditures for all doctoral granting institutions were $2485 above the grand mean of $6127 for all institutional levels. All non-doctoral granting four-year institutions were $66 below the grand mean for all institutions, and community/junior colleges were $912 below the grand mean for all institutions.

Correlation Coefficients

A test of correlation coefficients indicated that enrollment exhibited a high correlation at the $p<.001$ level with mean FTE instructional services expenditures, mean FTE student services expenditures, mean FTE total general expenditures, and level of institution. Analysis by level of institution indicated a high correlation significant at the $p<.001$ level with mean FTE instructional services expenditures (eta = .163), mean FTE student services expenditures (eta = .197), and mean FTE total general expenditures (eta = .071).

Analysis of Expenditures by State

This section contains an examination of FTE instructional services expenditures, FTE student services expenditures, and FTE total general expenditures by level, by institution, and by year for each state in the study. A final section contains comparisons between states.

Analysis of Expenditures for Iowa Institutions

Institutions examined in Iowa included three public doctoral granting institutions, no public non-doctoral granting four-year public institutions, and nine public community/junior colleges. There were six public community/junior colleges not included in this examination due to inconsistent reporting of data over the ten-year period.

Instructional services expenditures. The mean FTE instructional services expenditures for doctoral granting institutions in Iowa was $3201 for the ten-year period. The only year that mean FTE instructional services expenditures decreased over the ten-year period was 1983-84. Table 3 indicates a decrease in FTE instructional services expenditures for Iowa State University during 1983-84 and again during 1985-86. FTE instructional services expenditures as a percentage of FTE total general expenditures at Iowa State University remained stable throughout the ten-year period with the exception of 1987-88 when they increased 7.9 percent. This increase was accompanied by a reduction in FTE total general expenditures combined with an increase in FTE instructional services expenditures. The University of Northern Iowa indicated decreases in FTE instructional services expenditures during 1980-81 and 1985-86. These decreases were accompanied by an increase in FTE total general expenditures for both years. The University of Northern Iowa indicated a steady decrease in FTE instructional services expenditures as a percentage of FTE total general expenditures from 1981-82 through 1985-86. The University of Iowa indicated an increase in FTE instructional services expenditures for each of the ten years. This increase was accompanied by a steady decrease in FTE instructional services expenditures as a percentage of FTE total general expenditures from 1984-85 through 1986-87.

The mean FTE instructional services expenditures for the community/junior colleges in Iowa was $2433 for the ten-year period. The only two years that mean FTE instructional services expenditures decreased for the ten-year period were 1980-81 and 1987-88. Table 3 reports that Ellsworth and Iowa Central indicated notable increases in FTE instructional services expenditures in 1986-87 accompanied by increases in FTE total general expenditures. Ellsworth was the only institution that notably decreased FTE instructional services expenditures the following year accompanied by a notable

TABLE 3

INSTRUCTIONAL SERVICES AND STUDENT SERVICES EXPENDITURES IN DOLLARS PER FTE STUDENT AND AS A PERCENTAGE OF TOTAL EXPENDITURES BY LEVEL OF INSTITUTION FOR THE STATE OF IOWA: 1978-79 THROUGH 1987-88

	Total Expenditures(a)	FTE Enrollment(b)	Instructional Services Expenditures(c) $	%	Student Services Expenditures(d) $	%
Four-year Doctoral Granting:						
Iowa State University of Science & Technology						
1978-79	9,603	21,691	2,151	22.4	310	3.2
1979-80	10,847	21,881	2,403	22.1	331	3.1
1980-81	11,013	22,439	2,515	22.8	320	2.9
1981-82	11,460	22,776	2,737	22.9	352	2.9
1982-83	12,024	23,535	3,116	25.9	390	3.2
1983-84	11,680	24,404	2,986	25.6	382	3.3
1984-85	12,807	24,763	3,362	26.0	444	3.5
1985-86	13,481	24,935	3,353	24.9	466	3.5
1986-87	14,965	24,578	3,538	23.6	409	2.7
1987-88	11,540	23,817	3,625	31.4	499	4.3
Mean	11,992	23,482	2,979		390	
University of Iowa						
1978-79	13,343	20,173	3,473	26.0	362	2.7
1979-80	15,092	20,384	3,853	25.5	409	2.7
1980-81	15,167	22,064	3,862	25.5	394	2.6
1981-82	15,952	23,347	4,037	25.3	394	2.5
1982-83	17,315	24,717	4,413	25.5	441	2.5
1983-84	17,325	26,036	4,416	25.5	441	2.5
1984-85	18,734	26,078	4,666	24.9	470	2.5
1985-86	20,144	25,929	4,864	24.1	505	2.5
1986-87	21,845	27,008	4,874	22.3	475	2.2
1987-88	20,611	25,071	5,414	26.3	540	2.6
Mean	17,553	24,071	4,387		443	
University of Northern Iowa						
1978-79	4,793	9,039	1,730	36.1	229	4.8
1979-80	5,249	8,956	1,877	35.8	258	4.9
1980-81	5,306	9,543	1,861	35.1	265	5.0
1981-82	5,785	9,423	2,043	35.3	284	4.9
1982-83	6,800	9,616	2,261	33.2	292	4.3
1983-84	6,957	9,475	2,279	32.8	293	4.2
1984-85	7,625	9,568	2,494	32.7	319	4.2
1985-86	7,685	10,003	2,420	31.6	227	3.0
1986-87	8,048	9,895	2,661	33.1	235	2.9
1987-88	7,738	10,200	2,746	35.5	266	3.4
Mean	6,599	9,552	2,238		267	

TABLE 3--Continued

	Total Expenditures(a)	FTE Enrollment(b)	Instructional Services Expenditures(c) $	%	Student Services Expenditures(d) $	%
Two-year Community/Junior College:						
Southwestern Community College						
1978-79	5,043	477	2,255	44.7	415	8.2
1979-80	5,519	472	2,517	45.6	458	8.3
1980-81	5,060	547	2,520	49.8	427	8.4
1981-82	6,113	552	3,007	49.2	482	7.9
1982-83	6,332	607	2,907	45.9	466	7.4
1983-84	6,587	615	3,024	45.9	485	7.4
1984-85	6,179	617	3,169	51.3	418	6.8
1985-86	6,049	658	3,103	51.3	409	6.8
1986-87	9,474	644	3,580	37.8	418	4.4
1987-88	5,883	661	3,260	55.4	418	7.1
Mean	6,224	585	2,934		440	
Ellsworth Community College						
1978-79	4,006	781	1,533	38.3	195	4.9
1979-80	4,400	798	1,662	37.8	198	4.5
1980-81	4,616	893	1,840	37.6	197	4.3
1981-82	4,987	825	2,137	42.9	225	4.5
1982-83	5,683	821	2,194	38.6	270	4.8
1983-84	6,196	784	2,303	37.2	240	3.9
1984-85	6,175	823	2,394	38.8	189	3.1
1985-86	6,214	870	2,023	36.3	253	4.1
1986-87	9,530	597	3,510	36.8	410	4.3
1987-88	6,936	795	2,230	40.8	425	6.1
Mean	5,872	799	2,183		260	
Iowa Central Community College						
1978-79	4,038	1,958	1,983	49.1	332	8.2
1979-80	3,893	2,166	1,920	49.3	299	7.7
1980-81	3,972	2,337	1,932	48.6	282	7.1
1981-82	3,893	2,395	1,911	49.1	256	6.6
1982-83	4,842	2,334	2,118	43.7	280	5.8
1983-84	4,990	2,320	2,224	44.6	286	5.7
1984-85	6,376	2,128	2,675	41.9	327	5.1
1985-86	5,185	2,674	2,186	42.2	298	5.8
1986-87	8,068	1,732	3,466	43.0	448	5.6
1987-88	5,684	1,738	3,390	59.6	431	7.6
Mean	5,094	2,178	2,381		324	

TABLE 3--Continued

	Total Expenditures(a)	FTE Enrollment(b)	Instructional Services Expenditures(c) $	%	Student Services Expenditures(d) $	%
Marshalltown Community College						
1978-79	3,366	840	1,681	49.9	174	5.2
1979-80	4,099	777	1,954	47.7	288	7.0
1980-81	4,589	813	2,110	46.0	273	6.0
1981-82	3,732	923	1,830	49.0	255	6.8
1982-83	4,069	1,022	1,917	47.1	224	5.5
1983-84	4,293	1,056	2,068	48.2	218	5.1
1984-85	4,510	1,047	2,135	47.3	247	5.5
1985-86	5,059	967	2,239	44.2	238	4.7
1986-87	5,591	938	2,400	42.9	325	5.8
1987-88	6,186	807	2,778	44.9	407	6.6
Mean	4,549	955	2,111		265	
Northern Iowa Area Community College						
1978-79	4,545	1,561	1,898	41.8	251	5.5
1979-80	5,191	1,556	2,190	42.2	288	5.5
1980-81	4,700	1,818	1,876	39.9	304	6.5
1981-82	3,690	1,800	2,136	57.9	318	8.6
1982-83	4,008	1,894	2,139	53.4	300	7.5
1983-84	4,059	1,912	2,067	50.9	302	7.4
1984-85	4,929	1,772	2,612	53.0	325	6.6
1985-86	5,546	1,892	2,953	53.2	284	5.1
1986-87	5,942	1,981	3,396	57.1	366	6.2
1987-88	4,809	2,061	3,125	65.0	382	7.9
Mean	4,742	1,825	2,439		312	
Des Moines Area Community College						
1978-79	3,396	4,124	1,855	54.6	286	8.4
1979-80	3,610	4,377	1,911	52.9	321	8.9
1980-81	3,576	4,889	1,866	52.2	322	9.0
1981-82	3,955	4,799	1,894	47.9	308	7.8
1982-83	4,479	4,936	2,070	46.2	289	6.5
1983-84	4,659	5,205	2,123	45.6	280	6.0
1984-85	4,759	5,137	2,225	46.7	264	5.6
1985-86	5,942	5,065	2,888	48.6	315	5.3
1986-87	4,854	5,470	2,887	49.3	349	6.0
1987-88	4,562	5,883	2,125	46.6	288	6.3
Mean	4,479	4,989	2,184		302	

TABLE 3--Continued

	Total Expenditures(a)	FTE Enrollment(b)	Instructional Services Expenditures(c) $	%	Student Services Expenditures(d) $	%
Kirkwood Community College						
1978-79	5,452	3,464	1,844	33.8	249	4.6
1979-80	5,726	3,520	2,315	40.4	349	6.1
1980-81	5,533	3,863	2,175	39.3	312	5.6
1981-82	5,633	4,046	2,232	39.6	286	5.1
1982-83	4,718	4,433	2,132	45.2	324	6.9
1983-84	4,690	4,781	2,134	45.5	273	5.8
1984-85	5,116	4,781	2,460	48.1	243	4.7
1985-86	5,801	4,590	2,820	48.6	333	5.7
1986-87	5,566	4,713	2,570	46.2	318	5.7
1987-88	4,994	4,931	2,483	49.7	279	5.6
Mean	5,323	4,312	2,317		297	
Iowa Western Community College						
1978-79	5,494	1,607	2,377	43.3	248	4.5
1979-80	5,129	1,856	2,264	44.1	231	4.5
1980-81	4,947	2,050	2,114	42.7	245	5.0
1981-82	4,517	2,061	2,297	50.8	253	5.6
1982-83	5,036	2,180	2,437	48.4	260	5.2
1983-84	5,498	2,174	2,634	47.9	244	4.4
1984-85	5,690	2,159	2,632	46.3	281	4.9
1985-86	7,158	1,928	2,848	39.8	355	5.0
1986-87	7,576	2,060	3,343	44.0	342	4.5
1987-88	6,133	2,004	3,309	54.0	303	4.9
Mean	5,718	2,008	2,626		276	
Southeastern Community College						
1978-79	3,486	1,327	2,095	60.1	311	8.9
1979-80	3,806	1,416	2,233	58.7	288	7.6
1980-81	3,902	1,524	2,264	58.0	287	7.4
1981-82	4,032	1,550	2,327	57.7	280	6.9
1982-83	4,229	1,560	2,455	55.4	300	6.8
1983-84	5,315	1,466	2,734	51.4	318	6.0
1984-85	6,275	1,499	3,262	52.0	297	4.7
1985-86	7,047	1,422	3,418	48.5	381	5.4
1986-87	6,774	1,615	3,210	47.4	363	5.4
1987-88	5,157	1,655	3,241	62.8	384	7.4
Mean	5,002	1,501	2,724		321	
Grand Mean	6,929	6,355	2,625		325	

(a) Total expenditures in dollars per FTE student

(b) Calculated by adding FTE full-time and FTE part-time enrollment: full-time enrollment was considered a minimum of 12 credit hours registered; part-time enrollment was considered as 1/3 of full-time enrollment

(c) Instructional services expenditures in dollars per FTE student and as a percentage of total expenditures

(d) Student services expenditures in dollars per FTE student and as a percentage of total expenditures

decrease in FTE total general expenditures. Iowa Central, Kirkwood, and Iowa Western reported the most decreases in FTE instructional services expenditures over the ten-year period. These decreases were accompanied by decreases in FTE total general expenditures and increases in FTE enrollment.

Student services expenditures. The mean FTE student services expenditures for doctoral granting institutions was $367 for the ten-year period. Decreases in mean FTE student services expenditures were reported during 1980-81, 1983-84, 1985-86, and 1986-87 during the ten-year period. Table 3 reports that FTE student services expenditures as a percentage of FTE total general expenditures decreased from 1981-82 through 1986-87 at the University of Northern Iowa. This was accompanied by steady increases in FTE total general expenditures and stable FTE student services expenditures. The most notable increase of FTE student services expenditures was indicated at Iowa State University in 1987-88. This increase also increased the FTE student services expenditures as a percentage of FTE total general expenditures by 1.6 percent. This change was accompanied by a dramatic decrease in FTE total general expenditures. The University of Iowa maintained a stable growth of FTE student services expenditures as a percentage of FTE total general expenditures throughout the ten-year period. Iowa State University indicated the most decreases of the three doctoral granting intitutions in FTE student services expenditures with reported decreases during 1980-81, 1983-84, and 1986-87.

The mean FTE student services expenditures for community/junior colleges in Iowa was $311 for the ten-year period. Decreases in mean FTE student services expenditures were reported during 1980-81, 1983-84, 1984-85, and 1987-88. Table 3 reports that Kirkwood indicated decreases in FTE student services expenditures and FTE student services expenditures as a percentage of FTE total general expenditures during six years of the ten-year period. Iowa Central, Marshalltown, and Southeastern indicated five

years of decreases in FTE student services expenditures. These decreases in FTE student services expenditures, with the exception of Marshalltown during 1985-86, were accompanied by increasing FTE enrollments. The most notable increases in FTE student services expenditures were indicated by Ellsworth and Iowa Central during 1986-87 and maintained through 1987-88. These increases were accompanied by notable increases in FTE total general expenditures in 1986-87 and a notable decrease during 1987-88. FTE student services expenditures as a percentage of FTE total general expenditures maintained a pattern of stable growth. Southwestern indicated a notable increase in FTE total general expenditures during 1986-87 but did not increase FTE student services expenditures to the same extent as Ellsworth and Iowa Central. After a notable decrease in FTE total general expenditures, the FTE student services expenditures as a percentage of FTE total general expenditures at Southwestern decreased 2.4 percent during 1986-87 followed by an increase of 2.7 percent during 1987-88. All of the community/junior colleges in Iowa indicated decreases in FTE student services expenditures at some point during the ten-year period.

Discussion of comparisons between institutional levels. Table 3 reports that community/junior colleges in Iowa typically indicated FTE instructional services expenditures as a percentage of FTE total general expenditures at a higher level than the doctoral granting institutions. The same assessment can be made for FTE student services expenditures as a percentage of FTE total general expenditures. FTE total general expenditures for doctoral granting institutions typically were at a higher level than the community/junior colleges over the ten-year period. Doctoral granting institutions tended to indicate more stable levels of growth in FTE expenditures over the ten-year period than the community/junior colleges. Kirkwood Community College indicated the most

decreases in FTE total general expenditures throughout the ten-year period in comparison to all other institutions in Iowa.

Analysis of Expenditures for Minnesota Institutions

Institutions examined in Minnesota included one public doctoral granting institution, nine public non-doctoral granting four-year institutions, and thirteen public community/junior colleges. Five of the community/junior colleges that reported data were excluded from the study due to inconsistency of reported data throughout the ten-year period.

Instructional services expenditures. The University of Minnesota was the only public doctoral granting institution in Minnesota. The mean FTE instructional services expenditures was $4357 for the ten-year period. Table 4 reports that FTE instructional services expenditures increased each year of the ten years studied. FTE instructional services expenditures as a percentage of FTE total general expenditures decreased from 1979-80 through 1982-83 and from 1984-85 through 1986-87. These decreases were accompanied by steady increases in FTE total general expenditures and decreases in FTE enrollment during 1980-81, 1982-83, 1984-85, and 1986-87. The University of Minnesota indicated the only decrease in FTE total general expenditures in 1987-88 accompanied by a notable decrease in FTE enrollment and a slight increase in FTE instructional services expenditures.

The mean FTE instructional services expenditures for non-doctoral granting four-year institutions in Minnesota was $2035 for the ten-year period. Decreases in mean FTE instructional services expenditures were reported during 1980-81 and 1987-88. Table 4 reports that all the institutions at this level indicated decreases in every category at some point throughout the ten-year period. Metropolitan State indicated decreases in FTE

TABLE 4--Continued

	Total Expenditures(a)	FTE Enrollment(b)	Instructional Services Expenditures(c) $	%	Student Services Expenditures(d) $	%
Moorhead State University						
1978-79	3,709	5,445	1,487	40.1	226	6.1
1979-80	3,837	5,602	1,565	40.8	300	7.8
1980-81	3,635	6,324	1,487	40.9	290	8.0
1981-82	4,387	5,986	1,934	44.1	349	8.0
1982-83	4,806	6,169	1,994	41.5	250	5.2
1983-84	6,053	5,324	2,548	42.1	291	4.8
1984-85	5,976	5,972	2,405	40.2	314	5.3
1985-86	6,000	6,314	2,383	39.7	343	5.7
1986-87	6,291	6,528	2,527	40.2	317	5.0
1987-88	5,521	7,008	2,426	44.6	316	5.7
Mean	5,022	6,067	2,076		300	
Southwest State University						
1978-79	5,544	1,671	1,479	26.7	662	11.9
1979-80	5,455	1,757	1,562	28.6	493	9.0
1980-81	5,557	1,850	1,617	29.1	528	9.5
1981-82	6,640	1,781	2,139	32.2	639	9.6
1982-83	6,684	1,925	2,117	31.7	530	7.9
1983-84	8,085	1,674	2,772	34.3	783	9.7
1984-85	8,557	1,745	2,809	32.8	763	8.9
1985-86	8,676	1,875	2,805	32.3	771	8.9
1986-87	8,820	1,958	2,851	32.3	784	8.9
1987-88	7,577	2,046	2,666	35.2	672	8.9
Mean	7,160	1,828	2,282		663	
St. Cloud State University						
1978-79	3,103	9,873	1,408	45.4	87	2.8
1979-80	3,360	9,457	1,585	47.2	187	5.6
1980-81	3,329	9,971	1,551	46.6	175	5.3
1981-82	3,862	10,038	1,820	47.1	191	5.0
1982-83	4,242	10,168	1,876	44.2	190	4.5
1983-84	4,649	10,385	2,058	44.3	207	4.5
1984-85	5,327	10,654	2,424	45.5	209	3.9
1985-86	5,325	11,058	2,367	44.4	202	3.8
1986-87	5,447	12,086	2,378	43.7	237	4.4
1987-88	4,488	13,067	2,236	49.8	327	7.3
Mean	4,313	10,676	1,970		201	

TABLE 4--Continued

	Total Expenditures(a)	FTE Enrollment(b)	Instructional Services Expenditures(c) $	%	Student Services Expenditures(d) $	%
University of Minnesota-Duluth						
1978-79	4,406	6,942	1,584	36.0	158	3.6
1979-80	4,738	7,170	1,679	35.4	209	4.4
1980-81	4,615	8,182	1,601	34.7	217	4.7
1981-82	5,080	8,427	1,607	31.6	235	4.6
1982-83	5,558	8,213	1,860	34.4	255	4.6
1983-84	5,810	8,222	1,964	33.8	281	4.8
1984-85	6,547	8,234	2,260	34.5	324	4.9
1985-86	7,037	8,589	2,261	32.1	340	4.8
1986-87	8,284	7,781	2,778	33.5	379	4.6
1987-88	7,412	7,414	2,964	40.0	363	4.9
Mean	5,949	7,917	2,051		276	
University of Minnesota-Morris						
1978-79	6,275	1,435	1,765	28.1	495	7.9
1979-80	6,521	1,455	1,903	29.2	598	9.2
1980-81	6,276	1,649	1,756	28.0	545	8.7
1981-82	6,647	1,700	2,035	30.6	605	9.1
1982-83	7,500	1,600	2,039	27.2	680	9.1
1983-84	7,807	1,584	2,222	28.5	801	10.3
1984-85	8,559	1,662	2,376	27.8	805	9.4
1985-86	8,782	1,662	2,388	27.2	917	10.4
1986-87	8,945	1,741	2,418	27.0	856	9.6
1987-88	7,424	1,921	2,422	32.6	824	11.1
Mean	7,474	1,641	2,132		713	
Winona State University						
1978-79	3,467	3,995	1,463	42.2	138	4.0
1979-80	3,515	4,269	1,418	40.3	312	8.9
1980-81	3,722	4,430	1,569	42.2	246	6.6
1981-82	4,015	4,554	1,742	43.4	257	6.4
1982-83	4,363	4,586	1,731	39.7	255	5.8
1983-84	4,989	4,709	2,163	43.4	348	7.0
1984-85	5,574	4,466	2,360	42.3	415	7.5
1985-86	6,080	4,551	2,610	42.9	341	5.6
1986-87	6,113	4,853	2,470	40.4	385	6.3
1987-88	5,699	5,218	2,546	44.7	476	8.3
Mean	4,755	4,563	2,008		317	

TABLE 4--Continued

	Total Expenditures(a)	FTE Enrollment(b)	Instructional Services Expenditures(c) $	%	Student Services Expenditures(d) $	%
Metropolitan State University						
1978-79	2,826	764	1,634	57.8	355	12.6
1979-80	3,574	708	2,007	56.1	456	12.8
1980-81	3,570	822	1,964	55.0	432	12.1
1981-82	3,028	1,109	1,575	52.0	395	13.0
1982-83	2,556	1,567	1,406	55.0	369	14.4
1983-84	3,228	1,465	1,714	53.1	488	15.0
1984-85	3,307	1,566	1,521	46.0	377	11.4
1985-86	3,778	1,641	1,603	42.4	510	13.5
1986-87	4,469	1,711	1,716	38.4	449	10.0
1987-88	4,160	1,994	1,999	48.0	401	9.6
Mean	3,468	1,335	1,714		423	
Two-year Community/Junior College:						
Anoka/Ramsey Community College						
1978-79	2,174	1,806	885	40.7	295	13.6
1979-80	2,055	2,097	910	44.3	281	13.7
1980-81	2,283	2,358	847	37.1	286	12.5
1981-82	2,897	2,237	1,194	41.2	413	14.3
1982-83	2,939	2,716	968	32.9	327	11.1
1983-84	3,256	2,650	1,127	34.6	383	11.8
1984-85	3,273	2,530	1,072	32.8	375	11.4
1985-86	3,549	2,622	1,382	38.9	433	12.2
1986-87	3,846	2,808	1,438	37.1	477	12.4
1987-88	3,407	2,997	1,370	40.2	455	13.4
Mean	2,969	2,482	1,119		373	
Austin Community College						
1978-79	3,697	677	1,243	33.6	459	12.4
1979-80	3,341	729	1,240	37.1	432	12.9
1980-81	4,121	738	1,178	28.6	433	10.5
1981-82	5,224	693	1,568	30.0	569	10.9
1982-83	4,660	701	1,350	29.0	501	10.7
1983-84	4,876	756	1,487	30.5	571	11.7
1984-85	5,243	698	1,687	32.2	680	13.0
1985-86	5,799	651	2,054	35.4	835	14.4
1986-87	5,934	625	2,002	33.7	851	14.3
1987-88	5,038	696	2,168	43.0	817	16.2
Mean	4,793	696	1,598		615	

TABLE 4--Continued

	Total Expenditures(a)	FTE Enrollment(b)	Instructional Services Expenditures(c) $	%	Student Services Expenditures(d) $	%
Brainerd Community College						
1978-79	3,201	509	1,176	36.7	619	19.4
1979-80	3,151	556	1,192	37.8	606	19.2
1980-81	3,508	508	1,139	32.5	670	19.1
1981-82	4,222	523	1,464	34.7	767	18.2
1982-83	5,484	427	1,626	29.6	961	17.5
1983-84	5,784	444	1,698	29.4	890	15.4
1984-85	5,777	499	1,750	30.3	612	10.6
1985-86	5,357	595	1,780	33.2	901	16.8
1986-87	5,351	691	1,809	33.8	995	18.6
1987-88	3,840	858	1,714	44.6	660	17.2
Mean	4,568	561	1,535		768	
Fergus Falls Community College						
1978-79	3,431	478	1,220	35.6	544	15.9
1979-80	3,472	499	1,287	37.0	528	15.2
1980-81	3,609	498	1,247	34.6	564	15.6
1981-82	4,777	494	1,656	34.7	808	16.9
1982-83	4,729	504	1,476	31.2	751	15.9
1983-84	5,067	516	1,667	32.9	754	14.9
1984-85	6,370	436	2,052	32.2	718	11.3
1985-86	6,248	542	1,818	29.1	920	14.7
1986-87	5,026	660	1,562	31.1	800	15.9
1987-88	3,945	773	1,479	37.5	868	22.0
Mean	4,667	536	1,546		726	
Minneapolis Community College						
1978-79	2,526	1,473	942	36.6	391	15.2
1979-80	3,210	1,555	1,249	38.9	396	12.3
1980-81	2,829	2,135	955	33.8	377	13.3
1981-82	3,364	2,187	1,225	36.4	492	14.6
1982-83	4,085	1,897	1,226	30.0	587	14.4
1983-84	4,127	2,000	1,287	31.2	660	16.0
1984-85	5,174	1,844	1,421	27.5	827	16.0
1985-86	5,182	2,007	1,479	28.5	994	19.2
1986-87	5,558	1,954	1,598	28.7	1,054	19.0
1987-88	4,640	1,924	1,807	38.9	607	13.1
Mean	4,073	1,898	1,319		639	

TABLE 4--Continued

	Total Expenditures(a)	FTE Enrollment(b)	Instructional Services Expenditures(c) $	%	Student Services Expenditures(d) $	%
North Hennepin Community College						
1978-79	1,999	2,748	858	42.9	244	12.2
1979-80	2,445	2,665	968	39.6	324	13.3
1980-81	2,291	2,811	929	40.5	289	12.6
1981-82	2,859	3,172	1,132	39.6	445	15.6
1982-83	2,716	3,177	1,033	38.0	317	11.7
1983-84	3,079	3,156	1,224	39.8	371	12.0
1984-85	3,316	2,819	1,112	33.5	390	11.8
1985-86	3,448	2,891	1,376	39.9	440	12.8
1986-87	3,609	2,909	1,503	41.7	473	13.1
1987-88	3,484	3,057	1,507	43.2	496	14.2
Mean	2,925	2,936	1,164		379	
Rochester Community College						
1978-79	2,198	2,448	894	40.7	332	15.1
1979-80	2,635	2,175	1,081	41.0	379	14.4
1980-81	2,727	2,267	1,065	39.1	408	15.0
1981-82	3,326	2,446	1,296	39.0	496	14.9
1982-83	3,495	2,511	1,201	34.4	462	13.2
1983-84	3,686	2,533	1,404	38.1	545	14.8
1984-85	4,218	2,301	1,341	31.8	515	12.2
1985-86	4,510	2,209	1,701	37.7	707	15.7
1986-87	4,732	2,115	1,729	36.5	761	16.1
1987-88	4,905	1,835	2,195	44.8	935	19.1
Mean	3,643	2,284	1,391		554	
Northland Community College						
1978-79	3,203	377	972	30.3	655	20.4
1979-80	3,236	400	1,032	31.9	605	18.7
1980-81	3,586	399	984	27.4	686	19.1
1981-82	6,009	416	1,314	21.9	889	14.8
1982-83	4,555	418	1,173	25.8	817	17.9
1983-84	5,062	428	1,276	25.2	991	19.6
1984-85	5,805	426	1,775	30.6	621	10.7
1985-86	5,586	505	1,620	29.0	739	13.2
1986-87	5,512	501	1,728	31.3	807	14.6
1987-88	4,155	594	1,739	42.0	878	21.1
Mean	4,671	446	1,361		769	

TABLE 4--Continued

	Total Expenditures(a)	FTE Enrollment(b)	Instructional Services Expenditures(c) $	%	Student Services Expenditures(d) $	%
Willmar Community College						
1978-79	2,649	685	994	37.5	440	16.6
1979-80	2,695	743	1,084	40.2	425	15.8
1980-81	2,953	741	1,071	36.3	469	15.9
1981-82	4,018	719	1,521	37.9	672	16.7
1982-83	4,459	681	1,428	32.0	640	14.4
1983-84	5,167	724	1,602	31.0	727	14.1
1984-85	5,063	766	1,511	29.8	557	11.0
1985-86	5,146	799	1,652	32.1	811	15.8
1986-87	5,393	823	1,702	31.5	974	18.1
1987-88	4,203	918	1,724	41.0	853	20.3
Mean	4,175	760	1,429		657	
Worthington Community College						
1978-79	3,641	384	1,444	39.6	543	14.9
1979-80	3,181	455	1,278	40.2	438	13.8
1980-81	3,683	438	1,344	36.5	562	15.3
1981-82	3,701	576	1,430	38.6	568	15.3
1982-83	5,472	403	1,768	32.3	662	12.1
1983-84	5,744	491	1,751	30.5	679	11.8
1984-85	5,800	451	1,916	33.0	632	10.9
1985-86	5,699	517	2,012	35.3	766	13.4
1986-87	6,128	493	2,141	34.9	807	13.2
1987-88	5,285	518	2,139	40.5	714	13.5
Mean	4,833	473	1,722		637	
Normandale Community College						
1978-79	1,754	3,722	711	40.5	220	12.5
1979-80	1,727	3,643	799	46.3	221	12.8
1980-81	2,045	3,675	817	40.0	245	12.0
1981-82	2,386	4,135	971	40.7	304	12.8
1982-83	2,405	4,524	874	36.3	280	11.7
1983-84	2,612	4,723	1,021	39.1	321	12.3
1984-85	3,051	4,395	994	32.6	343	11.2
1985-86	3,147	4,303	1,254	39.9	325	10.3
1986-87	3,296	4,355	1,302	39.5	357	10.8
1987-88	3,233	4,998	1,389	42.9	339	10.5
Mean	2,566	4,247	1,014		296	

TABLE 4--Continued

	Total Expenditures(a)	FTE Enrollment(b)	Instructional Services Expenditures(c) $	%	Student Services Expenditures(d) $	%
Inver Hills Community College						
1978-79	2,295	1,795	981	42.8	407	17.7
1979-80	2,813	1,859	1,112	39.5	449	16.0
1980-81	2,599	1,876	941	36.2	398	15.3
1981-82	3,209	2,013	1,209	37.7	636	19.8
1982-83	3,150	2,041	1,099	34.9	585	18.6
1983-84	3,506	2,119	1,301	37.1	640	18.3
1984-85	3,761	2,055	1,230	32.7	438	11.7
1985-86	3,708	2,192	1,405	37.9	579	15.6
1986-87	3,788	2,288	1,417	37.4	591	15.6
1987-88	3,449	2,414	1,472	42.7	547	15.6
Mean	3,228	2,065	1,217		527	
Lakewood Community College						
1978-79	1,757	2,495	729	41.5	229	13.0
1979-80	2,031	2,300	905	44.6	255	12.6
1980-81	1,976	2,533	813	41.1	257	13.0
1981-82	2,418	2,794	1,033	42.7	328	13.6
1982-83	2,581	2,897	945	36.6	332	12.9
1983-84	2,764	2,850	1,110	40.2	347	12.5
1984-85	3,300	2,492	1,136	34.4	397	12.0
1985-86	3,489	2,457	1,418	40.6	442	12.7
1986-87	3,690	2,572	1,455	39.4	490	13.3
1987-88	3,541	2,716	1,531	43.2	476	13.4
Mean	2,755	2,611	1,108		355	
Grand Mean	4,968	5,096	1,747		492	

(a) Total expenditures in dollars per FTE student

(b) Calculated by adding FTE full-time and FTE part-time enrollment: full-time enrollment was considered a minimum of 12 credit hours registered; part-time enrollment was considered as 1/3 of full-time enrollment

(c) Instructional services expenditures in dollars per FTE student and as a percentage of total expenditures

(d) Student services expenditures in dollars per FTE student and as a percentage of total expenditures

instructional services expenditures as a percentage of FTE total general expenditures during seven of the ten years of the study. Mankato State, University of Minnesota-Duluth, and University of Minnesota-Morris indicated decreases in the same category during five of the ten years. The University of Minnesota-Morris consistently indicated the lowest FTE instructional services expenditures as a percentage of FTE total general expenditures from 1980-81 through 1987-88. The University of Minnesota-Morris ranked twelfth out of thirteen institutions for FTE enrollment through 1986-87 and ranked last for FTE enrollment during 1987-88. All non-doctoral granting four-year institutions indicated increases in FTE instructional services expenditures as a percentage of FTE total general expenditures accompanied by a decrease in FTE total general expenditures in 1987-88. Bemidji, Mankato, Moorhead, Southwest, and St. Cloud indicated decreases in FTE instructional services expenditures during the same year. Except for isolated instances all nine institutions were close to the same level of FTE instructional services expenditures throughout the ten-year period.

The mean FTE instructional services expenditures for the community/junior colleges in Minnesota was $1348 for the ten-year period. Decreases in mean FTE instructional services expenditures were indicated during 1980-81 and 1982-83 for the ten-year period. With the exception of Rochester Community College, table 4 reports decreases in FTE total general expenditures at all community/junior colleges in Minnesota during 1987-88. These decreases were accompanied by FTE instructional services expenditures as a percentage of FTE total general expenditures increases for every institution during that same year. FTE instructional services expenditures as a percentage of FTE total general expenditures ranged from 37.5 percent to 44.8 percent during 1987-88. Rochester, Willmar, and Inver Hills indicated decreases in FTE instructional services expenditures as a percentage of FTE total general expenditures during five years of the ten years studied. Anoka-Ramsey, Fergus Falls, North Hennepin, Northland,

Worthington, Normandale, and Lakewood indicated four years of decreases during the ten years studied in this same category. Normandale was the only institution that indicated increases in FTE instructional services expenditures for each of the ten years in the study.

Student services expenditures. The mean FTE student services expenditures for the University of Minnesota was $450 for the ten-year period. Table 4 reports that FTE student services expenditures decreased during 1982-83. FTE student services expenditures as a percentage of FTE total general expenditures decreased slightly during 1982-83 and again during 1985-86.

The mean FTE student services expenditures for non-doctoral granting four-year institutions in Minnesota was $398 for the ten-year period. Decreases in the mean of FTE student services expenditures were indicated during 1980-81, 1982-83, 1984-85, and 1987-88. According to table 4, Metropolitan State indicated decreases in FTE student services expenditures for six of the ten years in the study. During four of these years Metropolitan State also indicated decreases in FTE student services expenditures as a percentage of FTE total general expenditures and FTE total general expenditures. Bemidji indicated the most notable increase in FTE student services expenditures ($490) during 1983-84. The following year Bemidji indicated the most notable decrease in FTE student services expenditures ($443). Southwest State and the University of Minnesota-Morris indicated the highest level of FTE student services expenditures over the ten-year period. Metropolitan State indicated the highest FTE student services expenditures as a percentage of FTE total general expenditures through 1986-87, and the University of Minnesota-Morris indicated the highest during 1987-88. All nine institutions varied notably on the amount of FTE student services expenditures throughout the ten-year period.

The mean FTE student services expenditures for community/junior colleges in Minnesota was $561 for the ten-year period. Decreases in mean FTE student services expenditures were indicated during 1979-80, 1982-83, 1984-85, and 1987-88. Table 4 reports that FTE student services expenditures as a percentage of FTE total general expenditures ranged from 10.5 percent to 22.0 percent for all community/junior colleges during 1987-88. Brainerd indicated decreases in FTE student services expenditures as a percentage of FTE total general expenditures for seven of the ten years in the study. Worthinton, Normandale, and Inver Hills indicated decreases during five of the ten years in this same category. The most notable increase in FTE student services expenditures as a percentage of FTE total general expenditures was indicated by Northland at 6.5 percent, followed closely by Fergus Falls at 6.1 percent during 1987-88. This increase was accompanied by notable decreases in FTE total general expenditures, increases in FTE student services expenditures, and increases in FTE enrollment from the previous year. The most notable decrease in FTE student services expenditures as a percentage of FTE total general expenditures was indicated (8.9%) by Northland during 1984-85.

Discussion of comparisons among institutional levels. Generally the higher level of the institution related to higher mean expenditures in FTE instructional services expenditures. Decreases in FTE instructional services expenditures were indicated only once for the doctoral granting institutions and twice for non-doctoral granting four-year institutions and community/junior colleges over the ten-year period. The same pattern of higher expenditures at the higher level institutions was evident for FTE student services expenditures. More decreases of FTE student services expenditures were indicated by the non-doctoral granting four-year institutions and community/junior colleges (four each during the ten-year period). FTE expenditures as a percentage of FTE total general expenditures did not follow this same pattern. Non-doctoral granting four-year institutions

generally indicated the highest level of FTE instructional services expenditures as a percentage of FTE total general expenditures. The doctoral granting institution was generally lower with the exception of the University of Minnesota-Morris and Northland. Community/junior colleges generally indicated the highest level of FTE student services expenditures as a percentage of FTE total general expenditures. The doctoral granting institution indicated the lowest percentage in this category.

Analysis of Expenditures for North Dakota Institutions

The institutions examined in North Dakota included two public doctoral granting institutions, four public non-doctoral granting four-year institutions, and five public community/junior colleges. All public institutions in North Dakota were included in the study.

Instructional services expenditures. The mean FTE instructional services expenditures for doctoral granting institutions was $3080 for the ten-year period. A decrease in mean FTE instructional services expenditures was indicated during 1987-88 of the ten-year period. Table 5 reports that both doctoral granting institutions indicated decreases in FTE instructional services expenditures during 1987-88. Both North Dakota State University and the University of North Dakota indicated decreases in FTE instructional services expenditures as a percentage of FTE total general expenditures during five years of the ten years studied.

The mean FTE instructional services expenditures at non-doctoral granting four-year institutions in North Dakota was $2268 for the ten-year period. Decreases in mean FTE instructional services expenditures were indicated during 1984-85 and 1987-88. Table 5 reports a decrease in FTE instructional services expenditures for all non-doctoral granting four-year institutions during 1987-88. This decrease was accompanied by a

TABLE 5

INSTRUCTIONAL SERVICES AND STUDENT SERVICES EXPENDITURES IN DOLLARS PER FTE STUDENT AND AS A PERCENTAGE OF TOTAL EXPENDITURES BY LEVEL OF INSTITUTION FOR THE STATE OF NORTH DAKOTA: 1978-79 THROUGH 1987-88

	Total Expenditures(a)	FTE Enrollment(b)	Instructional Services Expenditures(c) $	%	Student Services Expenditures(d) $	%
Four-year Doctoral Granting:						
University of North Dakota						
1978-79	7,122	8,648	2,876	40.4	205	2.9
1979-80	8,687	8,332	3,417	39.3	257	3.0
1980-81	9,776	8,490	3,891	39.8	262	2.7
1981-82	10,334	9,069	3,958	38.3	309	3.0
1982-83	10,980	9,463	3,897	35.5	314	2.9
1983-84	12,209	9,679	4,049	33.2	312	2.6
1984-85	12,489	9,695	4,218	33.8	341	2.7
1985-86	14,040	9,724	4,543	32.4	388	2.8
1986-87	14,541	9,510	4,863	33.4	410	2.8
1987-88	12,035	9,669	4,618	38.4	363	3.0
Mean	11,221	9,228	4,033		316	
North Dakota State University						
1978-79	6,340	7,342	1,585	25.0	214	3.4
1979-80	7,052	7,324	1,804	25.6	230	3.3
1980-81	7,386	8,174	1,818	24.6	242	3.3
1981-82	8,144	8,454	1,978	24.3	248	3.0
1982-83	8,981	8,267	2,117	23.6	268	3.0
1983-84	9,320	8,735	2,059	22.1	266	2.9
1984-85	9,916	8,719	2,211	22.3	274	2.8
1985-86	10,728	8,727	2,406	22.4	295	2.7
1986-87	13,318	8,329	2,658	20.0	356	2.7
1987-88	9,820	8,378	2,635	26.8	303	3.1
Mean	9,101	8,245	2,127		270	
Four-year Non-doctoral:						
Dickinson State University						
1978-79	4,475	1,029	1,560	34.9	174	3.9
1979-80	5,132	986	1,790	34.9	199	3.9
1980-81	5,047	1,101	1,760	34.9	196	3.9
1981-82	5,895	1,004	2,233	37.9	349	5.9
1982-83	6,766	1,099	2,462	36.4	575	8.5
1983-84	7,278	1,077	2,647	36.4	618	8.5
1984-85	6,592	1,154	2,249	34.1	306	4.6
1985-86	6,939	1,176	2,283	32.9	320	4.6
1986-87	7,486	1,229	3,230	43.1	327	4.4
1987-88	6,071	1,174	2,614	43.1	314	5.2
Mean	6,168	1,103	2,283		338	

TABLE 5--Continued

	Total Expenditures(a)	FTE Enrollment(b)	Instructional Services Expenditures(c) $	%	Student Services Expenditures(d) $	%
Mayville State University						
1978-79	5,904	592	1,993	33.7	388	6.6
1979-80	4,977	687	1,923	38.6	365	7.3
1980-81	6,585	597	2,451	37.2	492	7.5
1981-82	6,602	634	2,631	39.9	526	8.0
1982-83	7,787	652	2,634	33.8	820	10.5
1983-84	7,554	712	2,403	31.8	766	10.1
1984-85	8,230	641	2,650	32.2	813	9.9
1985-86	8,444	652	2,784	33.0	868	10.3
1986-87	9,025	637	3,095	34.3	930	10.3
1987-88	7,679	643	2,831	36.9	865	11.3
Mean	7,279	645	2,540		683	
Minot State University						
1978-79	3,513	2,195	1,696	48.3	180	5.1
1979-80	3,963	2,069	1,871	47.2	230	5.8
1980-81	4,389	2,251	2,041	46.5	197	4.5
1981-82	4,778	2,264	2,169	45.4	219	4.6
1982-83	4,913	2,398	2,120	43.2	208	4.2
1983-84	4,565	2,682	2,012	44.1	199	4.4
1984-85	4,921	2,728	2,113	42.9	220	4.5
1985-86	5,570	2,728	2,325	41.7	250	4.5
1986-87	6,051	2,753	2,521	41.7	226	3.7
1987-88	4,974	2,801	2,187	44.0	232	4.7
Mean	4,764	2,487	2,106		216	
Valley City State University						
1978-79	3,770	964	1,620	43.0	No Report	
1979-80	4,004	983	1,584	39.6	201	5.0
1980-81	4,220	1,047	1,703	40.4	201	4.8
1981-82	4,808	1,021	1,973	45.3	296	6.2
1982-83	6,039	924	2,243	37.1	354	5.9
1983-84	5,984	958	2,131	35.6	280	4.7
1984-85	6,607	932	2,497	37.8	310	4.7
1985-86	6,987	959	2,470	35.3	301	4.3
1986-87	8,482	959	2,700	31.8	378	4.5
1987-88	6,676	968	2,509	37.6	418	6.3
Mean	5,758	971	2,143		304	

TABLE 5--Continued

	Total Expenditures(a)	FTE Enrollment(b)	Instructional Services Expenditures(c) $	%	Student Services Expenditures(d) $	%
Two-year Community/Junior College:						
Bismarck Junior College						
1978-79	2,424	1,690	1,354	55.9	148	6.1
1979-80	2,774	1,589	1,512	54.5	183	6.6
1980-81	2,905	1,729	1,556	53.6	194	6.7
1981-82	3,208	1,707	1,777	55.4	209	6.5
1982-83	3,772	1,725	1,900	50.4	226	6.0
1983-84	4,018	1,763	2,038	50.7	246	6.1
1984-85	4,294	1,767	2,246	52.3	138	3.2
1985-86	4,902	1,785	2,449	50.0	151	3.1
1986-87	5,439	1,713	2,842	52.3	220	4.0
1987-88	4,907	1,646	2,840	58.0	215	4.4
Mean	3,864	1,711	2,051		193	
Lake Region Junior College						
1978-79	3,417	543	1,134	41.6	139	4.0
1979-80	4,675	469	2,125	45.5	194	4.1
1980-81	3,959	513	1,783	45.0	115	2.9
1981-82	4,556	477	1,759	38.6	187	4.1
1982-83	6,089	486	2,033	33.4	436	7.2
1983-84	5,929	526	1,979	33.4	424	7.2
1984-85	6,680	521	1,958	29.3	463	6.9
1985-86	7,385	478	3,105	42.0	545	7.4
1986-87	6,343	522	2,197	34.6	482	7.6
1987-88	5,141	493	1,834	35.7	386	7.5
Mean	5,417	503	1,991		337	
North Dakota State University-Bottineau						
1978-79	3,968	521	1,538	38.8	351	8.8
1979-80	6,380	303	2,119	33.2	548	8.6
1980-81	6,336	317	2,211	34.9	531	8.4
1981-82	6,775	320	2,376	35.1	659	9.7
1982-83	7,397	335	2,525	34.1	594	8.0
1983-84	7,460	352	2,383	31.9	588	7.9
1984-85	8,327	348	2,584	31.0	1,200	14.4
1985-86	9,228	323	2,888	31.3	1,492	16.2
1986-87	7,633	380	2,514	32.9	661	8.7
1987-88	6,521	371	2,252	34.5	693	10.6
Mean	7,003	357	2,339		732	

decrease in FTE total general expenditures and an increase in FTE instructional services expenditures as a percentage of FTE total general expenditures. Minot indicated a decrease in FTE instructional services expenditures as a percentage of FTE total general expenditures during six years of the ten years studied. Valley City indicated decreases during five years of the ten years studied in the same category. Dickinson indicated a notable increase of $947 in FTE total general expenditures during 1986-87.

The mean FTE instructional services expenditures at community/junior colleges in North Dakota was $2250 for the ten-year period. Decreases in mean FTE instructional services expenditures were indicated during 1980-81, 1983-84, 1986-87, and 1987-88 for the ten-year period. Table 5 reports that all community/junior colleges in North Dakota indicated decreases in FTE instructional services expenditures during 1987-88. These decreases were combined with decreases in FTE total general expenditures and increases in FTE instructional services expenditures as a percentage of FTE total general expenditures. Lake Region ($1147) and the North Dakota State School of Science ($758) indicated notable increases in FTE instructional services expenditures during 1985-86 followed by a decrease during 1986-87. Lake Region indicated decreases in FTE instructional services expenditures during six years of the ten years studied.

Student services expenditures. The mean FTE student services expenditures for doctoral granting institutions in North Dakota was $293 for the ten-year period. Decreases in mean FTE student services expenditures were indicated during 1983-84 and 1987-88 for the ten-year period. Table 5 reports that both North Dakota State University and the University of North Dakota indicated decreases in FTE student services expenditures during 1987-88. These decreases were accompanied by increases in FTE student services expenditures as a percentage of FTE total general expenditures and decreases in FTE total general expenditures.

The mean FTE student services expenditures for non-doctoral granting four-year institutions in North Dakota was $387 for the ten-year period. Decreases in mean FTE student services expenditures were indicated during 1984-85, 1985-86, and 1987-88 for the ten-year period. Table 5 reports that Valley City indicated decreases in FTE student services expenditures as a percentage of FTE total general expenditures during four years of the ten years studied. All non-doctoral granting four-year institutions indicated increases in FTE student services expenditures as a percentage of FTE total general expenditures during 1987-88. Only Minot and Valley City indicated increases in FTE student services expenditures during 1987-88.

The mean FTE student services expenditures for community/junior colleges in North Dakota was $371 for the ten-year period. Decreases in the mean FTE student services expenditures were indicated during 1983-84, 1986-87, and 1987-88 for the ten-year period. Table 5 reports that Williston indicated a notable increase of $1335 in FTE student services expenditures during 1982-83 followed by a decrease of $206 during 1983-84 and a notable decrease of $1015 during 1984-85. Bottineau indicated a similar pattern in FTE student services expenditures during 1984-85 with an increase of $612 followed by an increase of $292 during 1985-86 and a notable decrease of $831 during 1986-87. Both Bottineau and Williston indicated decreases in FTE student services expenditures as a percentage of FTE total general expenditures during five years of the ten years studied. Lake Region indicated an increase in FTE student services expenditures of $249 during 1982-83 but was able to maintain this increase during succeeding years.

Discussion of comparisons among institutional levels. Mean FTE instructional services expenditures were higher ($3080) at doctoral granting institutions in North Dakota. Non-doctoral granting four-year institutions ($2268) and community/junior colleges ($2250) indicated very similar means of FTE instructional services expenditures.

North Dakota State University indicated the lowest FTE instructional services expenditures as a percentage of FTE total general expenditures of all public institutions in North Dakota. Bismarck indicated the highest FTE instructional services expenditures as a percentage of FTE total general expenditures. All public institutions in North Dakota indicated a decrease in FTE instructional services expenditures during 1987-88.

Mean FTE student services expenditures were generally higher ($387) at non-doctoral granting four-year institutions; community/junior colleges were slightly lower ($371). The doctoral granting institutions ($293) indicated the lowest mean FTE student services expenditures. Mayville indicated the highest FTE student services expenditures as a percentage of total general expenditures. Bottineau and Williston indicated the highest percentages in the isolated instances of their two-year increases in FTE student services expenditures. All public institutions, with the exception of Minot, Valley City, and Bottineau, indicated decreases in FTE student services expenditures during 1987-88. Generally, FTE student services expenditures as a percentage of FTE total general expenditures were comparable between non-doctoral granting four-year institutions and community/junior colleges. The two doctoral granting institutions indicated the lowest FTE student services expenditures as a percentage of FTE total general expenditures for all institutions.

Analysis of Expenditures for
South Dakota Institutions

The institutions examined by this study in South Dakota included three public doctoral granting institutions, three public non-doctoral granting four-year institutions, and no public community/junior colleges. One non-doctoral granting four-year institution was excluded from this study due to an absence of data for nine of the years examined.

Instructional services expenditures. The mean FTE instructional services expenditures for doctoral granting institutions in South Dakota was $2355 for the ten-year period. The only decrease in mean FTE instructional services expenditures for doctoral granting institutions was indicated during 1987-88. Table 6 reports that all doctoral granting institutions indicated decreases in FTE instructional services expenditures during 1987-88. These decreases were accompanied by decreases in FTE total general expenditures; however, at the same time, FTE instructional services expenditures increased as a percentage of FTE total general expenditures. FTE instructional services expenditures at doctoral granting institutions maintained stable growth throughout the ten-year period.

The mean FTE instructional services expenditures for non-doctoral granting four-year institutions in South Dakota was $1748 for the ten-year period. Decreases in FTE instructional services expenditures were indicated during 1983-84, 1986-87, and 1987-88 for the ten-year period. Table 6 reports decreases in FTE instructional services expenditures for all non-doctoral granting four-year institutions during 1987-88. These decreases were accompanied by decreases in FTE total general expenditures; as a result, FTE instructional services expenditures increased as a percentage of FTE total general expenditures. Dakota State indicated decreases in FTE instructional services expenditures during five years of the ten years studied. During four of the five years the increases were accompanied by decreases in FTE total general expenditures.

Student services expenditures. The mean FTE student services expenditures for doctoral granting institutions in South Dakota was $351 for the ten-year period. Decreases in FTE student services expenditures for doctoral granting institutions were indicated during 1980-81 and 1981-82 for the ten-year period. FTE student services expenditures for doctoral granting institutions maintained a pattern of stable growth over the ten years studied. FTE student services expenditures and FTE student services expenditures as a

TABLE 6

INSTRUCTIONAL SERVICES AND STUDENT SERVICES EXPENDITURES IN DOLLARS PER FTE STUDENT AND AS A PERCENTAGE OF TOTAL EXPENDITURES BY LEVEL OF INSTITUTION FOR THE STATE OF SOUTH DAKOTA: 1978-79 THROUGH 1987-88

	Total Expenditures(a)	FTE Enrollment(b)	Instructional Services Expenditures(c)		Student Services Expenditures(d)	
			$	%	$	%
Four-year Doctoral Granting:						
South Dakota School of Mines and Technology						
1978-79	5,830	1,586	1,654	28.4	303	5.2
1979-80	5,681	1,841	1,635	28.8	235	4.1
1980-81	5,776	2,064	1,756	30.4	235	4.1
1981-82	5,540	2,349	1,790	32.3	217	3.9
1982-83	6,205	2,411	1,990	32.1	243	3.9
1983-84	6,220	2,462	2,223	35.7	240	3.9
1984-85	6,948	2,137	2,473	35.6	281	4.0
1985-86	8,245	1,888	2,914	35.3	389	4.7
1986-87	8,956	1,720	3,169	35.4	446	5.0
1987-88	7,689	1,643	2,924	38.0	539	7.0
Mean	6,709	2,010	2,253		313	
South Dakota State University-Main Campus						
1978-79	6,367	6,321	1,303	20.5	285	4.5
1979-80	7,609	6,071	1,589	20.9	406	5.3
1980-81	7,441	6,301	1,868	25.1	377	5.1
1981-82	7,209	6,788	1,917	26.6	364	5.1
1982-83	7,716	6,819	2,059	26.7	358	4.6
1983-84	8,246	6,613	2,233	27.1	376	4.6
1984-85	9,023	6,591	2,397	26.6	442	4.9
1985-86	9,472	6,443	2,582	27.3	385	4.1
1986-87	10,192	6,374	2,842	27.9	408	4.0
1987-88	8,182	6,374	2,783	34.0	415	5.1
Mean	8,146	6,470	2,157		382	
University of South Dakota						
1978-79	5,611	5,503	1,692	30.1	262	4.7
1979-80	6,931	5,391	1,776	25.6	337	4.9
1980-81	6,240	5,715	1,974	31.6	289	4.6
1981-82	6,262	6,020	2,173	34.7	297	4.7
1982-83	6,721	6,102	2,395	35.1	327	4.9
1983-84	7,263	5,882	2,787	38.4	374	5.1
1984-85	7,580	5,557	3,016	39.8	401	5.3
1985-86	8,894	5,273	3,395	38.2	433	4.9
1986-87	8,766	5,291	3,719	42.4	427	4.9
1987-88	7,352	5,395	3,657	49.4	445	6.1
Mean	7,162	5,613	2,655		359	

TABLE 6--Continued

	Total Expenditures(a)	FTE Enrollment(b)	Instructional Services Expenditures(c) $	%	Student Services Expenditures(d) $	%
Four-year Non-doctoral:						
Black Hills State College						
1978-79	2,829	2,698*	694	24.5	476	16.8
1979-80	3,475	2,470	855	24.6	384	11.1
1980-81	4,070	2,167	1,123	27.6	463	11.4
1981-82	4,495	2,194	1,188	26.4	548	12.2
1982-83	6,225	1,718	1,493	24.0	643	10.3
1983-84	5,741	2,007	1,629	28.4	548	9.5
1984-85	6,935	1,678	1,966	28.3	660	9.5
1985-86	6,550	1,867	1,884	28.8	626	9.6
1986-87	5,732	2,258	1,729	30.2	537	9.4
1987-88	4,544	2,325	1,648	36.3	414	9.1
Mean	5,060	2,138	1,421		530	
Dakota State College						
1978-79	4,536	767	1,455	32.1	464	10.2
1979-80	6,303	817	1,395	22.1	661	10.5
1980-81	5,013	900	1,263	25.2	441	8.8
1981-82	5,246	1,011	1,437	27.4	450	8.6
1982-83	3,070	1,060	956	31.2	249	8.1
1983-84	5,871	1,141	1,607	27.4	446	7.6
1984-85	7,901	935	2,258	28.6	579	7.3
1985-86	11,343	727	3,741	33.0	731	6.4
1986-87	9,933	707	3,733	37.6	690	6.9
1987-88	8,725	751	3,450	39.5	674	7.7
Mean	6,794	882	2,130		539	
Northern State College						
1978-79	4,064	2,075	1,248	30.7	377	9.3
1979-80	4,073	2,129	1,562	38.3	382	9.4
1980-81	4,129	2,263	1,532	37.1	387	9.4
1981-82	4,352	2,325	1,654	38.0	421	9.7
1982-83	4,570	2,356	1,728	37.8	445	9.7
1983-84	5,192	2,341	1,756	33.8	403	7.8
1984-85	5,223	2,322	1,794	34.3	379	7.3
1985-86	6,018	2,302	1,839	30.6	400	6.6
1986-87	6,146	2,343	1,986	32.3	427	6.9
1987-88	4,834	2,486	1,840	38.1	433	9.0
Mean	4,860	2,294	1,694		405	
Grand Mean	6,455	3,234	2,052		421	

(a) Total expenditures in dollars per FTE student

(b) Calculated by adding FTE full-time and FTE part-time enrollment: full-time enrollment was considered a minimum of 12 credit hours registered; part-time enrollment was considered as 1/3 of full-time enrollment

(c) Instructional services expenditures in dollars per FTE student and as a percentage of total expenditures

(d) Student services expenditures in dollars per FTE student and as a percentage of total expenditures

* Information unavailable to calculate FTE enrollment for 1978-79

percentage of FTE total general expenditures increased at all three doctoral granting institutions during 1987-88.

The mean FTE student services expenditures for non-doctoral granting four-year institutions in South Dakota was $491 for the ten-year period. Decreases in FTE student services expenditures for non-doctoral granting four-year institutions were indicated during 1980-81, 1982-83, 1986-87, and 1987-88 for the ten-year period. Table 6 reports that Black Hills State indicated decreases in FTE student services expenditures and FTE student services expenditures as a percentage of FTE total general expenditures during five years of the ten years studied. Dakota State indicated a steady decrease in FTE student services expenditures as a percentage of FTE total general expenditures from 1980-81 through 1985-86. Northern State indicated an increase in FTE student services expenditures and FTE student services expenditures as a percentage of FTE total general expenditures during 1987-88.

Discussion of comparisons among institutional levels. Mean FTE instructional services expenditures were higher at the doctoral granting institutions ($2355) than the mean of the non-doctoral granting four-year institutions ($1748) for the ten years studied. With the exception of the University of South Dakota, the FTE instructional services expenditures as a percentage of FTE total general expenditures were comparable at both levels of institutions. FTE instructional services expenditures and FTE total general expenditures decreased at all institutions during 1987-88.

Mean FTE student services expenditures were higher at the non-doctoral granting four-year institutions ($491) than at the doctoral granting institutions ($351) for the ten years studied. FTE student services expenditures as a percentage of FTE total general expenditures were notably higher at the non-doctoral granting four-year institutions. Black

Hills State and Dakota State were the only institutions that indicated a decrease in FTE student services expenditures during 1987-88.

Analysis of Expenditures for Wisconsin Institutions

The institutions examined by this study in Wisconsin included two public doctoral granting institutions, eleven public non-doctoral granting four-year institutions, and thirteen public community/junior colleges that reported as one system. All public institutions in Wisconsin were included in this study.

Instructional services expenditures. The mean FTE instructional services expenditures for public doctoral granting institutions in Wisconsin was $3399 for the ten-year period. There were no decreases in mean FTE instructional services expenditures for doctoral granting institutions during the ten-year period. Table 7 reports that Madison indicated decreases in FTE instructional services expenditures as a percentage of FTE total general expenditures during six years of the ten years studied. Milwaukee indicated decreases during five years of the ten years studied in the same category. Madison indicated an increase in FTE instructional services expenditures accompanied by a decrease in FTE total general expenditures during 1987-88.

The mean FTE instructional services expenditures for non-doctoral granting four-year institutions in Wisconsin was $2371 for the ten-year period. There were no decreases in mean FTE instructional services expenditures for the non-doctoral granting four-year institutions during the ten-year period. Table 7 reports that Green Bay, Stout, Superior, and Parkside were the only institutions that indicated decreases in FTE instructional services expenditures during the ten-year period. Stout, Superior, and Whitewater indicated decreases in FTE instructional services expenditures as a percentage

TABLE 7

INSTRUCTIONAL SERVICES AND STUDENT SERVICES EXPENDITURES IN DOLLARS PER FTE STUDENT AND AS A PERCENTAGE OF TOTAL EXPENDITURES BY LEVEL OF INSTITUTION FOR THE STATE OF WISCONSIN: 1978-79 THROUGH 1987-88

	Total Expenditures(a)	FTE Enrollment(b)	Instructional Services Expenditures(c)		Student Services Expenditures(d)	
			$	%	$	%
Four-year Doctoral Granting:						
University of Wisconsin-Madison						
1978-79	11,757	35,109	2,971	25.3	133	1.1
1979-80	12,772	35,809	3,239	25.4	138	1.1
1980-81	13,230	36,926	3,271	24.7	142	1.1
1981-82	14,307	37,447	3,498	24.4	150	1.1
1982-83	15,576	37,994	3,697	23.7	163	1.0
1983-84	16,553	38,322	3,932	23.8	167	1.0
1984-85	17,536	39,645	4,053	23.0	171	1.0
1985-86	19,157	40,506	4,329	22.6	183	1.0
1986-87	21,298	39,714	4,750	22.3	209	1.0
1987-88	17,938	38,747	4,999	27.9	254	1.4
Mean	16,012	38,022	3,874		172	
University of Wisconsin-Milwaukee						
1978-79	5,298	17,746	2,280	43.0	261	4.9
1979-80	5,517	17,687	2,427	44.0	266	4.8
1980-81	5,695	18,290	2,501	43.9	264	4.6
1981-82	5,985	18,904	2,610	43.6	277	4.6
1982-83	6,470	18,912	2,755	42.6	308	4.8
1983-84	6,573	19,403	2,817	42.8	312	4.8
1984-85	6,987	19,364	2,955	42.3	325	4.7
1985-86	7,958	19,209	3,268	41.1	344	4.3
1986-87	8,728	18,658	3,622	41.5	386	4.4
1987-88	9,202	17,369	4,006	43.5	437	4.8
Mean	6,841	18,554	2,924		318	

TABLE 7--Continued

	Total Expenditures(a)	FTE Enrollment(b)	Instructional Services Expenditures(c) $	%	Student Services Expenditures(d) $	%
Four-year Non-doctoral:						
University of Wisconsin-Green Bay						
1978-79	6,914	2,642	2,508	36.3	394	5.7
1979-80	7,064	2,730	2,645	37.4	392	5.5
1980-81	6,676	3,089	2,442	36.6	384	5.7
1981-82	6,628	3,332	2,506	37.8	352	5.3
1982-83	6,857	3,518	2,488	36.3	366	5.3
1983-84	6,936	3,601	2,532	36.5	378	5.4
1984-85	7,360	3,586	2,662	36.2	394	5.3
1985-86	7,820	3,750	2,714	34.7	429	5.5
1986-87	8,029	3,761	2,934	36.5	447	5.6
1987-88	7,681	3,933	2,935	38.2	459	6.0
Mean	7,197	3,394	2,636		400	
University of Wisconsin-Stout						
1978-79	4,904	6,429	1,772	36.1	217	4.4
1979-80	5,270	6,561	1,901	36.0	247	4.7
1980-81	5,472	6,984	1,909	34.9	247	4.5
1981-82	5,801	7,117	2,076	35.8	264	4.6
1982-83	6,465	7,165	2,209	34.2	274	4.2
1983-84	7,056	7,090	2,381	33.7	289	4.1
1984-85	7,824	6,969	2,473	31.6	312	4.0
1985-86	7,797	7,261	2,460	31.6	317	4.1
1986-87	8,441	7,165	2,753	32.6	352	4.2
1987-88	7,894	7,124	2,833	35.9	346	4.4
Mean	6,692	6,986	2,277		287	
University of Wisconsin-Eau Claire						
1978-79	3,907	9,504	1,589	40.7	211	5.4
1979-80	4,234	9,658	1,673	39.5	244	5.8
1980-81	4,368	10,156	1,745	39.9	233	5.3
1981-82	4,814	10,006	1,938	40.1	289	6.0
1982-83	5,435	10,005	2,061	37.9	265	4.9
1983-84	5,550	10,169	2,169	39.1	258	4.7
1984-85	6,016	9,890	2,308	38.4	306	5.1
1985-86	6,546	9,964	2,512	38.4	289	4.4
1986-87	6,730	10,087	2,651	39.4	288	4.3
1987-88	6,824	9,960	2,773	40.6	320	4.7
Mean	5,652	9,334	2,172		269	

TABLE 7–Continued

	Total Expenditures(a)	FTE Enrollment(b)	Instructional Services Expenditures(c) $	%	Student Services Expenditures(d) $	%
University of Wisconsin-La Crosse						
1978-79	3,908	7,710	1,513	38.7	177	4.5
1979-80	4,049	8,040	1,570	38.8	195	4.8
1980-81	4,390	8,090	1,672	38.1	234	5.3
1981-82	4,605	8,222	1,873	40.7	250	5.4
1982-83	5,312	7,958	2,117	39.7	307	5.8
1983-84	5,452	8,220	2,178	39.9	282	5.2
1984-85	6,049	8,405	2,199	36.3	290	4.8
1985-86	6,028	8,616	2,402	39.9	305	5.1
1986-87	6,078	8,880	2,524	41.5	303	5.0
1987-88	6,259	8,492	2,761	44.1	316	5.1
Mean	5,296	8,263	2,081		266	
University of Wisconsin-Platteville						
1978-79	4,725	4,202	1,832	38.8	249	5.3
1979-80	4,960	4,347	1,901	38.3	254	5.1
1980-81	5,146	4,515	2,033	39.5	253	4.9
1981-82	5,251	4,780	2,129	40.5	247	4.7
1982-83	6,032	4,907	2,258	37.4	283	4.7
1983-84	6,256	5,044	2,384	38.1	269	4.3
1984-85	6,809	4,910	2,643	38.8	301	4.4
1985-86	7,154	5,023	2,794	39.0	297	4.2
1986-87	7,663	4,980	2,964	38.7	297	3.9
1987-88	7,700	4,876	3,131	40.7	296	3.8
Mean	6,170	4,758	2,407		275	
University of Wisconsin-River Falls						
1978-79	5,060	4,544	1,694	33.5	229	4.5
1979-80	5,405	4,701	1,803	33.3	198	3.7
1980-81	5,573	4,946	1,909	34.2	215	3.9
1981-82	5,794	5,080	2,068	35.7	219	3.8
1982-83	6,614	4,927	2,311	34.9	258	3.9
1983-84	6,985	4,939	2,414	34.6	258	3.7
1984-85	7,411	4,855	2,573	34.7	280	3.8
1985-86	7,923	4,755	2,762	34.9	289	3.7
1986-87	8,333	4,982	2,947	35.4	315	3.8
1987-88	8,624	4,831	3,162	36.7	368	4.3
Mean	6,725	4,856	2,364		263	

TABLE 7--Continued

	Total Expenditures(a)	FTE Enrollment(b)	Instructional Services Expenditures(c) $	%	Student Services Expenditures(d) $	%
University of Wisconsin-Stevens Point						
1978-79	4,310	8,038	1,685	39.1	179	4.1
1979-80	4,615	8,051	1,822	39.5	202	4.4
1980-81	4,852	8,210	1,948	40.1	234	4.8
1981-82	5,318	8,245	2,131	40.0	244	4.6
1982-83	6,111	8,041	2,306	37.7	268	4.4
1983-84	6,347	7,985	2,460	38.8	275	4.3
1984-85	6,654	8,134	2,552	38.3	267	4.0
1985-86	7,252	8,394	2,683	37.0	285	3.9
1986-87	7,244	8,489	2,854	39.4	293	4.0
1987-88	6,991	8,388	2,899	41.5	344	4.9
Mean	5,969	8,198	2,334		259	
University of Wisconsin-Superior						
1978-79	6,954	1,844	2,452	35.3	406	5.8
1979-80	8,233	1,748	2,856	34.7	453	5.5
1980-81	8,067	1,870	2,729	33.8	486	6.0
1981-82	8,483	1,838	2,684	31.6	501	5.9
1982-83	9,193	1,785	2,729	29.7	508	5.5
1983-84	9,217	1,796	2,735	29.7	552	6.0
1984-85	10,517	1,705	3,116	29.6	635	6.0
1985-86	11,013	1,763	3,226	29.3	636	5.8
1986-87	11,007	1,856	3,380	30.7	636	5.8
1987-88	10,284	1,891	3,417	33.2	598	5.8
Mean	9,197	1,810	2,932		541	
University of Wisconsin-Whitewater						
1978-79	4,008	7,705	1,707	42.6	261	6.5
1979-80	4,371	7,931	1,834	42.0	283	6.5
1980-81	4,500	8,351	1,864	41.4	296	5.8
1981-82	4,649	8,691	1,915	41.2	304	6.5
1982-83	4,993	8,972	1,986	39.8	319	6.4
1983-84	5,210	9,126	2,042	39.2	355	6.8
1984-85	5,366	9,467	2,101	39.2	356	6.6
1985-86	5,537	9,715	2,220	40.0	387	7.0
1986-87	5,907	9,549	2,447	41.4	427	7.2
1987-88	6,171	9,715	2,526	40.9	399	6.5
Mean	5,071	8,922	2,064		338	

TABLE 7–Continued

	Total Expenditures(a)	FTE Enrollment(b)	Instructional Services Expenditures(c) $	%	Student Services Expenditures(d) $	%
University of Wisconsin-Parkside						
1978-79	4,781	3,398	1,930	40.4	307	6.4
1979-80	5,030	3,501	2,035	40.5	319	6.3
1980-81	5,062	3,678	2,075	41.0	296	5.8
1981-82	5,185	3,867	2,035	39.2	319	6.1
1982-83	5,471	4,010	2,108	38.5	354	6.5
1983-84	5,523	4,245	2,133	38.6	358	6.5
1984-85	6,224	3,875	2,406	38.7	397	6.4
1985-86	7,127	3,628	2,736	38.4	496	7.0
1986-87	7,609	3,628	2,965	39.0	535	7.0
1987-88	7,604	3,529	3,215	42.3	575	7.6
Mean	5,962	3,736	2,364		396	
University of Wisconsin-Oshkosh						
1978-79	4,740	7,867	2,106	44.4	290	6.1
1979-80	5,033	8,025	2,254	44.8	284	5.6
1980-81	7,094	6,172	3,154	44.5	389	5.5
1981-82	5,307	8,701	2,353	44.3	291	5.5
1982-83	5,975	8,686	2,459	41.2	311	5.2
1983-84	5,972	8,838	2,515	42.1	311	5.2
1984-85	6,376	9,041	2,551	40.0	312	4.9
1985-86	6,866	9,233	2,751	40.1	324	4.7
1986-87	7,080	9,375	2,889	40.8	325	4.6
1987-88	6,922	9,339	2,980	43.0	329	4.8
Mean	6,144	8,528	2,601		317	
Two-year Community/Junior College:						
University of Wisconsin-Centers System*						
1978-79	3,264	5,978	1,801	55.2	220	6.7
1979-80	3,424	6,057	1,867	54.5	242	7.1
1980-81	3,328	6,630	1,825	54.8	236	7.1
1981-82	3,369	7,053	1,887	56.0	233	6.9
1982-83	3,564	7,375	1,898	53.2	236	6.6
1983-84	3,663	7,749	1,923	52.5	231	6.3
1984-85	4,156	7,271	2,143	51.6	265	6.4
1985-86	4,583	7,218	2,366	51.6	281	6.1
1986-87	4,837	7,220	2,586	53.5	306	6.3
1987-88	4,509	7,688	2,497	55.4	287	6.4
Mean	3,871	7,024	2,079		254	
Grand Mean	6,914	8,867	2,508		311	

(a) Total expenditures in dollars per FTE student

(b) Calculated by adding FTE full-time and FTE part-time enrollment: full-time enrollment was considered a minimum of 12 credit hours registered; part-time enrollment was considered as 1/3 of full-time enrollment

(c) Instructional services expenditures in dollars per FTE student and as a percentage of total expenditures

(d) Student services expenditures in dollars per FTE student and as a percentage of total expenditures

* There are thirteen two-year institutions that report as one system

of FTE total general expenditures during six years of the ten years studied. All eleven institutions indicated increases in FTE instructional services expenditures during 1987-88. Green Bay, Stout, Stevens Point, Superior, Parkside, and Oshkosh indicated decreases in FTE total general expenditures during 1987-88.

The mean FTE instructional services expenditures for the University of Wisconsin-Centers System was $2079 for the ten-year period. Decreases in FTE instructional services expenditures at Centers System were indicated during 1980-81 and 1987-88. Centers System indicated a decrease in FTE instructional services expenditures as a percentage of FTE total general expenditures during four years of the ten years studied. Both years that Centers System indicated decreases in FTE instructional services expenditures it indicated decreases in FTE total general expenditures.

Student services expenditures. The mean FTE student services expenditures for doctoral granting institutions in Wisconsin was $245 for the ten-year period. There were no decreases in mean FTE student services expenditures at doctoral granting institutions during the ten-year period. Table 7 reports that Milwaukee indicated a decrease in FTE student services expenditures as a percentage of FTE total general expenditures during four years of the ten years studied. Madison and Milwaukee indicated increases in FTE student services expenditures and FTE student services expenditures as a percentage of FTE total general expenditures during 1987-88.

The mean FTE student services expenditures for non-doctoral granting four-year institutions in Wisconsin was $325 for the ten-year period. A decrease in the mean FTE student services expenditures for non-doctoral granting four-year institutions was indicated during 1980-81 for the ten-year period. Platteville reported decreases in FTE student services expenditures as a percentage of FTE total general expenditures during seven years of the ten years studied. Oshkosh reported decreases in FTE student services

expenditures during six years of the ten years studied, and Eau Claire and Stevens Point indicated decreases during five years of the ten years studied. All non-doctoral granting four-year institutions, with the exception of Whitewater and Platteville, reported increases in FTE instructional services expenditures as a percentage of FTE total general expenditures during 1987-88. All eleven institutions reported comparable FTE student services expenditures as a percentage of FTE total general expenditures throughout the ten-year period.

The mean FTE student services expenditures for the University of Wisconsin-Centers System was $254 for the ten-year period. Decreases in mean FTE student services expenditures at Centers System were reported during 1980-81, 1981-82, 1983-84, and 1987-88. Centers System reported decreases in FTE student services expenditures as a percentage of FTE total general expenditures during four years of the ten years studied. Centers System reported a decrease in FTE student services expenditures during 1987-88 accompanied by a decrease in FTE total general expenditures.

Discussion of comparisons among institutional levels. The mean FTE instructional services expenditures was notably higher at doctoral granting institutions ($3399) than at the non-doctoral granting four-year institutions ($2371) and the community/junior colleges ($2079). Madison indicated the lowest FTE instructional services expenditures as a percentage of FTE total general expenditures during the ten-year period. Wisconsin Centers System indicated the highest level of FTE instructional services expenditures as a percentage of FTE total general expenditures. The non-doctoral four-year institutions indicated FTE instructional services expenditures as a percentage of FTE total general expenditures that ranged from 33.2 percent to 44.1 percent during 1987-88. The highest levels of FTE instructional services expenditures as a percentage of FTE total general expenditures were indicated at the community/junior colleges followed by the

increased from 36 percent in 1978-79 to 40 percent in 1987-88. Mean FTE student services expenditures as a percentage of mean FTE total general expenditures for all institutions increased from 6.5 percent in 1978-79 to 6.9 percent in 1987-88. The increase in mean FTE expenditures were notable for all three categories. However, these increases were misleading because they did not take into account any adjustment for the inflation of the dollar over the ten-year period. (The derived average inflation rate per year for the ten years studied was 5.658%) (Levine 1991, p. 284). The data indicate that mean FTE instructional services expenditures increased at a higher rate than mean FTE student services expenditures or mean FTE total general expenditures. Examination of mean FTE expenditures as a percentage of mean FTE total general expenditures indicated that increases were not substantial. The data indicate that mean FTE instructional services expenditures and mean FTE student services expenditures as a percentage of mean FTE total general expenditures maintained a relatively stable growth for the ten-year period.

Doctoral granting institutions indicated a 42 percent increase in mean FTE instructional services expenditures for the ten-year period. This increase compared with an increase of 40 percent in mean FTE student services expenditures and an increase of 35 percent in mean FTE total general expenditures. Mean FTE instructional services expenditures as a percentage of mean FTE total general expenditures for doctoral granting institutions increased from 29 percent in 1978-79 to 33 percent in 1987-88. Mean FTE student services expenditures as a percentage of mean FTE total general expenditures increased from 3.3 percent in 1978-79 to 3.6 percent in 1987-88. This indicates that FTE instructional services expenditures increased at a moderately greater rate than FTE student services expenditures. This also could mean that student services were not able to maintain expenditure levels during decreases in total general expenditures.

Non-doctoral granting four-year institutions indicated an increase of 39 percent in mean FTE instructional services expenditures for the ten-year period. This increase

compared with an increase of 36 percent for the mean FTE student services expenditures and an increase of 34 percent for the mean FTE total general expenditures. Mean FTE instructional services expenditures as a percentage of mean FTE total general expenditures for non-doctoral granting four-year institutions increased from 36 percent in 1978-79 to 39 percent in 1987-88. Mean FTE student services expenditures as a percentage of mean FTE total general expenditures increased from 6.3 percent in 1978-79 to 6.5 percent in 1987-88. This indicates that FTE instructional services expenditures increased at a moderately greater rate than FTE student services expenditures.

Community/junior colleges indicated an increase of 37 percent in mean FTE instructional services expenditures for the ten-year period. This compared with an increase of 37 percent for the mean FTE student services expenditures and an increase of 32 percent for the mean FTE total general expenditures. Mean FTE instructional services expenditures as a percentage of mean FTE total general expenditures for community/junior colleges increased from 43 percent in 1978-79 to 46 percent in 1987-88. Mean FTE student services expenditures as a percentage of mean FTE total general expenditures increased from 9.7 percent in 1978-79 to 10.4 percent in 1987-88. It appears that student services expenditures at community/junior colleges were able to increase at a higher rate than the doctoral granting institutions and non-doctoral granting four-year institutions in the study.

Discussion of Comparisons of Institutional Levels among States

This section will discuss FTE instructional services expenditures, FTE student services expenditures, and FTE total general expenditures by the level of institution for the five states in the study. The discussion focuses on the last year of the study: 1987-88.

Doctoral granting institutions. Table 8 indicates that Minnesota reported the highest level of mean FTE instructional services expenditures for doctoral level institutions.

TABLE 8

MEAN FTE INSTRUCTIONAL SERVICES EXPENDITURES, MEAN FTE STUDENT SERVICES EXPENDITURES, AND MEAN FTE TOTAL GENERAL EXPENDITURES BY STATE AND LEVEL OF INSTITUTION: 1987-88

	Mean FTE Instructional Expenditures	Mean FTE Instructional Expenditures(a)	Mean FTE Student Services Expenditures	Mean FTE Student Services Expenditures(b)	Mean FTE Total General Expenditures
Iowa	$3,144	41.8	$385	5.1	$ 7,519
Doctoral Granting	$3,928	29.5	$435	3.3	$13,296
Two-year Community/Junior College	$2,882	51.5	$369	6.6	$ 5,594
Minnesota	$2,174	39.5	$587	10.7	$ 5,510
Doctoral Granting	$5,501	27.8	$648	3.3	$19,780
Four-year Non-doctoral	$2,472	41.3	$469	7.8	$ 5,982
Two-year Community/Junior College	$1,711	41.9	$665	16.3	$ 4,087
North Dakota	$2,750	39.8	$404	5.8	$ 6,916
Doctoral Granting	$3,627	33.2	$333	3.1	$10,928
Four-year Non-doctoral	$2,535	39.9	$457	7.2	$ 6,350
Two-year Community/Junior College	$2,572	44.6	$390	6.8	$ 5,765
South Dakota	$2,717	39.4	$487	7.1	$ 6,888
Doctoral Granting	$3,121	40.3	$466	6.0	$ 7,741
Four-year Non-doctoral	$2,313	38.3	$507	8.4	$ 6,034
Wisconsin	$3,152	38.5	$381	4.7	$ 8,191
Doctoral Granting	$4,503	33.2	$346	2.6	$13,570
Four-year Non-doctoral	$2,967	39.3	$395	5.2	$ 7,548
Two-year Community/Junior College	$2,497	55.4	$287	6.4	$ 4,509

(a) Percentage of FTE total general expenditures

(b) Percentage of FTE total general expenditures

Minnesota also reported the lowest percentage for mean FTE instructional services expenditures as a percentage of mean FTE total general expenditures. South Dakota reported the highest mean FTE instructional services expenditures as a percentage of mean FTE total general expenditures, but it reported the lowest mean FTE instructional services expenditures.

Minnesota reported the highest mean FTE student services expenditures at the doctoral level for the five states. South Dakota reported the highest mean FTE student services expenditures as a percentage of mean FTE total general expenditures. The lowest mean FTE student services expenditures for doctoral granting institutions was reported by North Dakota. The lowest mean FTE student services expenditures as a percentage of mean FTE total general expenditures was reported by Wisconsin. The data on FTE instructional services expenditures and FTE student services expenditures as a percentage of FTE total general expenditures suggest that South Dakota puts more emphasis on expenditures directly related to students than does Minnesota.

Minnesota reported the highest level of mean FTE total general expenditures for doctoral institutions. South Dakota reported the lowest level of mean FTE total general expenditures by a large margin. This basically means that Minnesota has more tax capacity to raise dollars for higher education than does South Dakota.

Non-doctoral granting four-year institutions. Iowa did not have any public non-doctoral granting four-year institutions and was not included in this discussion. Wisconsin reported the highest level of mean FTE instructional services expenditures at the non-doctoral granting four-year level for the four states. South Dakota reported the lowest level of mean FTE instructional services expenditures. Minnesota reported the highest percentage for mean FTE instructional services expenditures as a percentage of mean FTE total general expenditures. South Dakota reported the lowest percentage in this same

category. This probably means that Minnesota non-doctoral granting four-year institutions put more emphasis on instructional services than the same level of institutions in the other three states.

South Dakota reported the highest mean FTE student services expenditures and mean FTE student services expenditures as a percentage of mean FTE total general expenditures at the non-doctoral granting four-year level for the five states. Wisconsin reported the lowest for both of these categories among the four states.

Wisconsin reported the highest level of mean FTE total general expenditures at the non-doctoral granting four-year institutional level. Minnesota reported the lowest level of mean FTE total general expenditures at this level. These data suggest that Wisconsin puts more emphasis on non-doctoral granting four-year institutions than the other three states.

Two-year community/junior colleges. South Dakota did not have any public community/junior colleges and was not included in this discussion. Iowa reported the highest level of mean FTE instructional services expenditures at the community/junior college level for the four states. Minnesota reported the lowest level in this category. The highest percentage of mean FTE instructional services expenditures as a percentage of mean FTE total general expenditures was reported by Wisconsin. Minnesota reported the lowest percentage in this category.

Minnesota reported a considerably higher level of mean FTE student services expenditures and mean FTE student services expenditures as a percentage of mean FTE total general expenditures at the community/junior college level. Wisconsin reported the lowest levels in both categories among the four states. Minnesota probably ranked the highest in this category because of the competition for students among the many community/junior colleges. These colleges may need to spend more dollars in order to maintain student satisfaction.

North Dakota reported the highest level of mean FTE total general expenditures at the community/junior college level for the four states. Minnesota reported the lowest level of mean FTE total general expenditures. North Dakota probably rated higher in this category because of fewer institutions and smaller numbers of students. An institution should have a minimum amount of funding even with smaller enrollments in order to provide an adequate education. This would mean that when there are fewer students the cost of education per student is more expensive.

Discussion of All Levels among States

Table 8 indicates that Wisconsin ranked first among the five states with the highest level of mean FTE instructional services expenditures. Iowa ranked first for mean FTE instructional services expenditures as a percentage of mean FTE total general expenditures. Minnesota ranked last among the states in mean FTE instructional services expenditures, and Wisconsin ranked last in mean FTE instructional services expenditures as a percentage of mean FTE total general expenditures. All five states were within a 3.3 percent range for mean FTE instructional services expenditures as a percentage of mean FTE total general expenditures. State-wide expenditures for mean FTE instructional services as a percentage of mean FTE total general expenditures seemed to be relatively the same across states.

Minnesota reported the highest level of mean FTE student services expenditures and mean FTE student services expenditures as a percentage of mean FTE total general expenditures for all institutions among the five states. The lowest level for both categories was reported by Wisconsin. It appeared that Minnesota, with all institutions combined, expended more dollars for FTE student services as a percentage of FTE total general expenditures. This probably means that Minnesota emphasizes student services more than the other states. However, the community/junior colleges in Minnesota could have affected

this rank because of their high expenditures in FTE student services and FTE student services as a percentage of FTE total general expenditures.

Wisconsin reported the highest level of mean FTE total expenditures for the five states. Minnesota reported the lowest level in this category among the five states. This information could be interpreted to mean that Wisconsin spends more dollars per student on higher education than any of the other states. It also could mean that Wisconsin has a higher tax capacity that enables it to commit more funds to higher education.

Summary of Discussion

This study cannot be compared directly with Bowen's (1980) study because of the basic differences in the way the data were examined. If any comparisons could be drawn between the two studies, one in particular would be evident; expenditures in higher education have remained relatively static over the ten years since Bowen's study.

It is difficult to compare FTE total expenditures between states because of the major differences in the tax base between states in the study. A safe assumption would be that the FTE expenditures as a percentage of FTE total general expenditures are a much better indicator of the level of commitment for funding institutions.

Each state ranked first in at least one category of analysis reported in the study. An assumption could be made from this observation that the states are very diverse in what they choose to emphasize for funding in higher education. This discussion could raise the question "why are certain areas more important to fund for one state than another state?" It is possible that the answer to this question may be found in the mission statement for higher education in each state.

A particular point of interest was that almost all institutions in all states began experiencing decreases in expenditures during 1987-88. It is possible that 1987-88 was the

beginning of a period of decline in expenditures for higher education that will last into the mid 1990s or later.

The following chapter presents conclusions and recommendations based on the findings of this study. The chapter also includes uses of the study for professionals in higher education and recommendations for further study.

Conclusions

The conclusions in this section were based upon the analysis of data presented in this study. The conclusions provide a synthesis of all the information presented in the narrative and tables of chapter four.

1. The data in this study indicated that there are trends in expenditures for instructional services and student services that are based on the types of institutions. Doctoral granting institutions indicated a steady increase in FTE instructional services expenditures and FTE student services expenditures during the ten-year period. Non-doctoral four-year institutions indicated a steady increase in FTE instructional services expenditures and FTE student services expenditures until 1987-88. Community/junior colleges indicated a steady increase in FTE instructional services expenditures until 1987-88 and a steady increase in FTE student services expenditures until 1983-84. The community/junior colleges indicated decreases in FTE student services expenditures in 1983-84, 1985-86, and 1987-88. In summary, doctoral granting institutions followed a trend of constant growth in FTE expenditures over the ten-year period and non-doctoral four-year institutions indicated a trend of growth of FTE expenditures until the final year of the study. Although community/junior colleges indicated a trend of growth in FTE instructional services expenditures until the final year of the study, they indicated a sporadic pattern of growth and decline for FTE student services expenditures throughout the ten-year period. The growth of FTE instructional services expenditures at the community/junior college level does not indicate signs of the financial pressure that Jacobson (1991) predicted for the 1990s until the final year of the study.

2. The data in this study indicated that there are relationships between expenditures for instructional services and student services that are based on the types of institutions. Doctoral granting institutions indicated the greatest level of mean FTE

instructional services expenditures over the ten-year period and community/junior colleges indicated the lowest level of mean FTE instructional services expenditures. Community/junior colleges indicated the greatest level of mean FTE student services expenditures over the ten-year period and doctoral granting institutions indicated the lowest level of mean FTE student services expenditures. The relationship indicated by the data is that the higher the level of institution the greater the level of FTE instructional services expenditures; conversely, the lower the level of institution the greater the level of FTE student services expenditures. The differences between the combined FTE instructional services expenditures and FTE student services expenditures by level of institution in 1987-88 contradicted the findings of Bowen's (1980) study. He found that there were insignificant differences in FTE per student expenditures between doctoral granting, non-doctoral four-year, and community/junior college institutions. This study found that significant differences existed between doctoral granting institutions and each of the lower levels of institutions. However, the non-doctoral four-year institutions and community/junior colleges were compatible with Bowen's findings and did not indicate a significant difference between one another. This finding suggests that doctoral granting institutions have increased their level of expenditures at a greater rate than the other two levels of institutions over the past fourteen years.

3. The data in this study did not indicate that there are trends in expenditures for instructional services and student services that vary among states. FTE instructional services expenditures and FTE student services expenditures increased over the ten-year period in every state. The conclusion drawn from the data is that there are trends in expenditures for instructional services and student services but these trends do not vary among the states studied.

4. The data in this study indicated that there are relationships between expenditures for instructional services and student services that vary among states.

Although mean FTE instructional services expenditures exhibit the same relationship by state as they do when the data for the states are combined, mean FTE student services expenditures indicate a very different relationship by state than by the combined data for all states. Mean FTE student services expenditures in Iowa are greater at doctoral granting institutions than at the community/junior colleges. Mean FTE student services expenditures in Minnesota are highest at community/junior colleges and lowest at non-doctoral four-year institutions. North Dakota, South Dakota, and Wisconsin indicate that mean FTE student services expenditures are highest at non-doctoral four-year institutions and lowest at doctoral granting institutions. The conclusion from this analysis is that the relationship between instructional services expenditures and student services expenditures varies among some states but is similar among other states.

5. The most useful information in this study was provided by the FTE expenditures as a percentage of FTE total general expenditures. This category enabled the researcher to compare institutions at the same level to one another over a period of ten years. This category also allowed comparisons between levels within a state and between states. FTE expenditures as a percentage of FTE total general expenditures provides information regarding the emphasis on instructional services and student services in relation to the total budget of the institution. The analysis of FTE expenditures as a percentage of FTE total general expenditures in this study indicated that FTE instructional services expenditures have increased only a few percentage points over ten years. This trend indicates that FTE instructional services as a percentage of FTE total general expenditures tend to remain relatively stable over a number of years. This finding compares with Bowen's (1980) study.

6. FTE student services expenditures as a percentage of FTE total general expenditures generally have increased less than one percentage point over ten years. This trend indicates that FTE student services expenditures as a percentage of FTE total general

Although mean FTE instructional services expenditures exhibit the same relationship by state as they do when the data for the states are combined, mean FTE student services expenditures indicate a very different relationship by state than by the combined data for all states. Mean FTE student services expenditures in Iowa are greater at doctoral granting institutions than at the community/junior colleges. Mean FTE student services expenditures in Minnesota are highest at community/junior colleges and lowest at non-doctoral four-year institutions. North Dakota, South Dakota, and Wisconsin indicate that mean FTE student services expenditures are highest at non-doctoral four-year institutions and lowest at doctoral granting institutions. The conclusion from this analysis is that the relationship between instructional services expenditures and student services expenditures varies among some states but is similar among other states.

5. The most useful information in this study was provided by the FTE expenditures as a percentage of FTE total general expenditures. This category enabled the researcher to compare institutions at the same level to one another over a period of ten years. This category also allowed comparisons between levels within a state and between states. FTE expenditures as a percentage of FTE total general expenditures provides information regarding the emphasis on instructional services and student services in relation to the total budget of the institution. The analysis of FTE expenditures as a percentage of FTE total general expenditures in this study indicated that FTE instructional services expenditures have increased only a few percentage points over ten years. This trend indicates that FTE instructional services as a percentage of FTE total general expenditures tend to remain relatively stable over a number of years. This finding compares with Bowen's (1980) study.

6. FTE student services expenditures as a percentage of FTE total general expenditures generally have increased less than one percentage point over ten years. This trend indicates that FTE student services expenditures as a percentage of FTE total general

expenditures remained at a very constant level over several years. A conclusion from this observation is that FTE student services expenditures will fluctuate only when FTE total general expenditures increase or decrease.

Recommendations

The recommendations for higher education are divided into four areas. The first area presents recommendations for the use of the data in this study. The second area recommends an approach to funding instructional services and student services to provide a base funding level at all institutions. The third area provides recommendations for future directions of instructional services and student services. The final area provides recommendations for further study.

Recommendations for the Use of the Data in the Study

1. Professionals in higher education should utilize the data in this study to examine trends in expenditures at specific institutions or for entire states. Administrators in higher education at the state system level should use this type of study to track stability of funding for different levels of institutions across a period of time. These types of data should be used to assist administrators in strategic planning for future budgeting of instructional services and student services. Examination of the data in this study also should develop knowledge about the relationships that exist between categories of expenditures.

2. State systems should utilize the data in this study to develop an approach to funding higher education that would guarantee a certain level of legislative funding that should not be diminished by budget reductions.

Recommendations for Funding Instructional Services and Student Services

1. Higher education policymakers should adopt a base formula funding approach for both instructional services and student services. The approach should require that the doctoral granting institutions, non-doctoral four-year institutions, and community/junior colleges (use of Carnegie classifications could be utilized for further delineation of institutional types) each determine the minimum funding per student that is required to provide an adequate level of service for instructional services and student services at each level per year. The adequate level of funding per student then would be multiplied by the FTE enrollment of the institution for each year and that amount should serve as the base funding for instructional services and student services. The state would be required to fund the institution up to the base level with any supplemental funds remaining the responsibility of the individual institution. A built-in adjustment for inflation is recommended in order that the minimum funding per student stays current with the dollar. The base funding formula must be worked out for each individual state in order to compensate for the cost-of-living differences across the country. Without this individualization, some institutions, by virtue of location, would have more buying power than other institutions with the same amount of funding.

A major benefit that the base funding formula would offer includes a yearly increase for inflation that translates to yearly cost-of-living increases for faculty and staff. This would ensure that all states would be providing adequate inflationary adjustments to salary levels in higher education. Providing adequate salary levels to faculty and staff will benefit those states where institutions have not been able to attract, or keep, quality people. A base funding formula contingent upon FTE enrollment should increase the visibility of retention issues that usually are apparent only during low enrollment periods. Another

major benefit of the base funding formula is that the states would be unable to cut higher education below what is considered the base funding level for instructional services and student services.

A major hurdle for a funding formula of this type would be the politics involved in order to convince the state governments of the merits of such a program. In order to convince the state governments, it must be proven that higher education is the cornerstone for developing the ability of the next generation to compete in the world market. Presenting to the states the economic impact of institutions locally and state-wide also can be a very persuasive argument.

Recommendations for Future Directions of Instructional Services and Student Services

1. Student services professionals should commit themselves to enhancing and supporting the academic mission of the institution in agreement with the NASPA statement of 1987. Both Smith (1988) and Brown (1988) concur that this will be necessary for the advancement of student services issues in the future.

2. Student services must begin developing relationships with instructional services in order to begin a dialogue that can lead to a unified approach to educating students. By developing these relationships, student services professionals can be in a position to provide expertise on decisions that can have campus-wide implications. This will ensure that student interests are being considered in decisions that do not directly impact their daily life but may impact their college experience. This is particularly important since Smith (1988) and Jacobson (1991) predict rising enrollments by the mid 1990s and a shift away from student-centered themes.

3. Instructional services and student services should combine efforts to further the sensitivity of students toward the cultural diversity of the campus. A united effort will be more successful than two separate entities pursuing the same goal. Likewise, the

confrontation of cultural issues on the campus also must exhibit a unified approach that will model a coordinated effort between administrative structures to attain resolution of the issues.

4. Higher education in the United States must continue to ask the question "what is a quality education?" New approaches should be developed to enhance general education requirements. This will require an extensive effort on the part of instructional services to carry on a dialogue with student services that will combine academic approaches with personal and social issues. This combination will lead to a general education curriculum that is developed around intellectual, emotional, and physical growth.

Recommendations for Further Study

1. Researchers should continue the examination of different procedures used to fund higher education that will be helpful to develop an understanding of the differences between states. This type of study should give more depth to studies that examine expenditure patterns.

2. Researchers should continue this study beyond 1987-88 to determine whether the decreases that were reported for the final year are an indication of a trend that will show decreased expenditures in higher education.

3. Further research should include using the data in this study to examine enrollment patterns at institutions of higher education.

4. The data on expenditures in this study should be adjusted for inflation with the FTE enrollments weighted more heavily for graduate students. These adjustments should be combined with added information on scholarships and fellowships from institutional funds, operations, and maintenance of plant as a prorated share of expenditures. These adjustments will provide data that should be more comparable to the study by Bowen (1980) that analyzed expenditures from 1929-30 through 1977-78.

It is imperative that further research on the financing of higher education be pursued diligently by scholars across the United States. The economic problems experienced by the states are continuing to increase pressure on higher education institutions to do more with less financial support. This demands that higher education define what the priorities of the future will be and how they will funded. Examining expenditure patterns of the past will enable higher education to identify where priorities need to be shifted within institutions and across state systems. This examination will provide a starting point for restructuring the financing of higher education across the country.

REFERENCES

REFERENCES

Alfred, Richard L. 1985. Emerging issues in public policy and financial administration. New directions for community colleges: Strengthening financial management 50 (June): 97-109. San Francisco: Jossey-Bass Inc., Publishers.

Barr, Donald J., and LeNorman J. Strong. 1988. Embracing multiculturalism: The existing contradictions. NASPA Journal 26, no. 2: 85-90.

Barr, Margaret, and Jane Fried. 1981. Facts, feelings, and academic credit. New directions for student affairs: Education for student development 15 (September): 87-102. San Francisco: Jossey-Bass Inc., Publishers.

Blake, Elizabeth S. 1979. Classroom and context: An educational dialectic. AAUP Academe 65 (May): 280-93.

Blocker, Clyde E., Robert H. Plummer, and Richard C. Richardson, Jr. 1965. The two-year college: A social synthesis. Englewood Cliffs, NJ: Prentice-Hall Inc.

Bowen, Howard R. 1980. The costs of higher education: How much do colleges and universities spend per student and how much should they spend? San Francisco: Jossey-Bass Inc., Publishers.

Bowen, Howard, and Jack Schuster. 1986. American professors: A national resource imperiled. New York: Oxford University Press.

Boyer, Ernest L. 1987. College: The undergraduate experience in America. New York: Harper & Row.

Breneman, David W., and Susan C. Nelson. 1981. Financing community colleges: An economic perspective. Washington, DC: The Brookings Institute.

Brown, Suzanne S. 1988. Approaches to collaboration between academic and student affairs: An overview. NASPA Journal 26, no. 1: 2-7.

Carnegie Foundation for the Advancement of Teaching, The. 1978. Missions of the college curriculum: A contemporary review with suggestions. San Francisco: Jossey-Bass Inc., Publishers.

Chickering, Arthur W. 1969. Education and identity. San Francisco: Jossey-Bass Inc., Publishers.

Chickering, Arthur W., and Zelda F. Gamson. 1987. Seven good principles for good practice in undergraduate education. The Wingspread Journal 9, no. 2: Special Section.

Clayton, John J. 1992. America is destroying public higher education. The Chronicle of Higher Education, 27 November, A1.

Cohen, Arthur M., and Florence B. Brawer. 1982. The American community college. San Francisco: Jossey-Bass Inc., Publishers.

Collison, Michele N-K. 1991. Acceptance rate up for this semester at many colleges. The Chronicle of Higher Education 27, November, A1.

Deegan, William L., Dale Tillery, and Associates. 1985. Renewing the American community college: Priorities and strategies for effective leadership. San Francisco: Jossey-Bass Inc., Publishers.

Delworth, Ursula, Gary R. Hanson, and Associates. 1983. Student services: A handbook for the profession. San Francisco: Jossey-Bass Inc., Publishers.

Dodge, Susan. 1991. Slashed budgets force students to delay graduation plans and change majors. The Chronicle of Higher Education, 4 December, A1.

Duke, Wayne, and Linda S. Moxley. 1988. Academic interface: A suggested approach. NASPA Journal 26, no. 2: 123-28.

Eickmann, Paul E. 1988. A systematic approach to fostering an academic and student affairs interface. NASPA Journal 26, no. 1: 40-44.

Etemad, Sharon L. 1990. What is a community college? Paper presented in the class on higher education law and finance at the University of North Dakota, Grand Forks. Photocopied.

Evangelauf, Jean. 1992. Minority-group enrollment at colleges rose 10% from 1988 to 1990, reaching record levels. The Chronicle of Higher Education, 22 January, A33.

Freeman, Eugene, and David Appel. 1962. The wisdom and ideas of Plato. Greenwich, CT: Fawcett Publications, Inc.

Hodgkinson, Harold L. 1985. All one system. Washington, DC: Institute for Educational Leadership.

Hoy, John C., and Melvin H. Bernstein. 1982. Financing higher education: The public investment. Boston: Auburn House Publishing Company.

Jacobson, Robert L. 1991. Academic leaders predict major changes for higher education in recession's wake. The Chronicle of Higher Education, 20 November, A1.

Katz, Joseph, ed. 1973. A new conception of service: Principles and strategies. New directions for higher education: Services for students 3 (Autumn): 127-39. San Francisco: Jossey-Bass Inc., Publishers.

Klopf, Gordon J., ed. 1966. College student personnel work in the years ahead. Student Personnel Series. Washington, DC: The American College Personnel Association.

Knock, Gary H. 1988. More things considered: A response to Scott Rickard. Journal of College Student Development 29, no. 5: 395-97.

Kuh, George D. 1983a. Guiding assumptions about student affairs organizations. New directions for student services: Understanding student affairs 23 (September): 15-26. San Francisco: Jossey-Bass Inc., Publishers.

_____. 1983b. Tactics for understanding and improving student affairs organizations. New directions for student services: Understanding student affairs 23 (September): 67-78. San Francisco: Jossey-Bass Inc., Publishers.

Kuk, Linda. 1988. Professional existence--a path to knowing. Journal of College Student Development 29, no. 5: 397-99.

Levine, Sumner N., ed. 1991. The 1991 business one Irwin business and investment almanac. Kingsport, TN: Arcata Graphics.

Medsker, Leland L. 1960. The junior college: Progress and prospect. New York: McGraw-Hill Book Company, Inc.

Miller, Theodore K., Roger B. Winston, Jr., and William R. Mendenhall. 1983. Administration and leadership in student affairs. Muncie, IN: Accelerated Development Inc.

Monroe, Charles R. 1972. Profile of the community college. San Francisco: Jossey-Bass Inc., Publishers.

Mooney, Carolyn J. 1992. As wave of curricular reform continues, its scope and effectiveness are questioned. The Chronicle of Higher Education, 18 November, A15.

Morrill, Paul H., and Emil R. Spees. 1982. The academic profession: Teaching in higher education. New York: Human Sciences Press, Inc.

National Association of Student Personnel Administrators (NASPA). 1987. A perspective on student affairs: A statement issued on the 50th anniversary of the student personnel point of view. Washington, DC: NASPA.

Nutter, John F., and James C. Hurst. 1988. A structural partnership: The academic deans/student affairs advisory council. NASPA Journal 26, no. 1: 33-39.

O'Banion, Terry, and Alice Thurston. 1972. Student development programs in the community junior college. Englewood Cliffs, NJ: Prentice-Hall, Inc.

O'Keefe, Michael. 1985. What ever happened to the crash of '80 '81 '82 '83 '84 '85? Change 17, no. 3: 37-41.

Palinchak, Robert. 1973. The evolution of the community college. Metuchen, NJ: The Scarecrow Press, Inc.

Palmer, Jim, and Diane Zwemer. 1985. Sources and information: Financial management at the community college. New directions for community colleges: Strengthening financial management 50 (June): 117-30. San Francisco: Jossey-Bass Inc., Publishers.

Piper, Donald. 1990. The role of the federal government. Lecture presented in the class on introduction to educational administration at the University of North Dakota, Grand Forks. Personal notes.

Remley, Audrey W. 1988. A profession or not a profession? That question again? Journal of College Student Development 29, no. 5: 402-03.

Rice, Daniel. 1990. Financing higher education. Lecture presented in the class on higher education law and finance at the University of North Dakota, Grand Forks. Personal notes.

_____. 1991. History of higher education. Lecture presented in the class on introduction to higher education academic administration at the University of North Dakota, Grand Forks. Personal notes.

Rickard, Scott T. 1988. Toward a professional paradigm. Journal of College Student Development 29, no. 5: 388-94.

Rippa, S. Alexander. 1988. Education in a free society. New York: Longman Inc.

Robinson, Kent E. 1973. The attack on student services. New directions for higher education: Services for student affairs 3 (Autumn): 1-4. San Francisco: Jossey-Bass Inc., Publishers.

Roper, Larry D., and William E. Sedlacek. 1988. Student affairs professionals in academic roles: A course on racism. NASPA Journal 26, no. 1: 27-32.

Schroeder, Charles C., John K. DiTiberio, and David H. Kalsbeek. 1988. Bridging the gap between faculty and students: Opportunities and obligations for student affairs. NASPA Journal 26, no. 1: 14-20.

Shaffer, Robert H., and William D. Martinson. 1966. Student personnel services in higher education. New York: Center for Applied Research in Education, Inc.

Shaw, Ruth G. 1989. The future of student development in the community college. American Association of Community and Junior Colleges Journal 59 (February/March): 45-49.

Simpson, Deborah. 1981. Instructional consultation. New directions for student services: Education for student development 15 (September): 27-38. San Francisco: Jossey-Bass Inc., Publishers.

Smith, Daryl G. 1988. A window of opportunity for intra-institutional collaboration. NASPA Journal 26, no. 1: 8-13.

Stodt, Martha S., and William M. Klepper, eds. 1987. Increasing retention: Academic and student affairs administrators in partnership. New directions for higher education: Services for students 60 (Winter): Whole Issue. San Francisco: Jossey-Bass Inc., Publishers.

Stoops, John A., ed. 1966. The community college in higher education. Bethlehem, PA: Lehigh University.

Study Group on the Conditions of Excellence in American Higher Education. 1984. Involvement in learning: Realizing the potential of American higher education. Washington, DC: National Institute of Education.

Terrell, Melvin C. 1988. Racism: Undermining higher education. NASPA Journal 26, no. 2: 82-84.

Thornton, James W., Jr. 1966. The community junior college. 2d ed. New York: John Wiley & Sons, Inc.

University of North Dakota. Graduate School. 1989. 1989-1991 graduate studies at UND. Grand Forks, ND: University of North Dakota.

University of North Dakota. Office of Admissions and Records, Monty Nielsen, Director. 1990a. 1990-1992 UND undergraduate catalog: University of North Dakota, Grand Forks. Fort Worth, TX: Evans Press, Inc.

University of North Dakota: A strategic plan for the '90s. 1990b. Final report of the Strategic Planning Council, Duncan Perry, Chair. Grand Forks: University of North Dakota Press.

U.S. Census Bureau. 1987. Current population reports. Washington, DC: Government Printing Office.

U.S. Department of Education. Center for Education Statistics. 1979-89. State higher education profiles. Washington, DC: U.S. Department of Education, Center for Education Statistics.