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AN ANALYSIS OF FACTORS AFFECTING STUDENT
DECISIONS UNDER THE MINNESOTA-NORTH
DAKOTA TUITION RECIPROCITY PROGRAM

presented by

George Henry Wallman

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of the requirements for

Ph.D. degree in Administration and
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1980

AN ANALYSIS OF FACTORS AFFECTING STUDENT DECISIONS
UNDER THE MINNESOTA-NORTH DAKOTA
TUITION RECIPROCITY PROGRAM

By

George Henry Wallman

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ABSTRACT

AN ANALYSIS OF FACTORS AFFECTING STUDENT DECISIONS UNDER THE MINNESOTA-NORTH DAKOTA TUITION RECIPROCITY PROGRAM

By

George Henry Wallman

The Purpose

The purpose of this study was to provide insights to why residents of Minnesota and North Dakota use the tuition reciprocity program between the two states.

The Procedure

A questionnaire called the Tuition Reciprocity Opinion Scale (TROS) was developed by the researcher and sent to a stratified random sample of 1,700 applicants to the Minnesota-North Dakota Tuition Reciprocity Program. An 83.4% response rate was attained.

The questionnaire measured respondents' ratings on six areas of influence derived from a factor analysis of 30 questionnaire items. These areas of influence included: (1) academic, (2) reciprocity, (3) environmental, (4) practical, (5) advice of others, and (6) large and diverse influences on the college choice process.

Five research questions, two of which contained hypotheses, were used as a guide for the data analysis. Descriptive analyses were performed without statistical inference for three of the five research questions while the questions containing hypotheses used t-test and ANOVA procedures to test for differences. Elaboration procedures were used where differences were suggested.

Research Questions and Findings

1. How do Minnesota residents rate the specified factors which influence college choice? Minnesota residents were found to rate the Academic and Reciprocity influences the highest. These were followed by the Environmental and Practical influences. A small percentage of respondents rated the Advice of Others and Large and Diverse influences as being of a little influence.

2. How do North Dakota residents rate the specified factors which influence college choice? North Dakota residents rated the Academic and Reciprocity influences the highest followed by the Environmental and Practical influences. A small percentage of respondents rated the Large and Diverse and Advice of Others areas as being of some influence.

3. Are there differences between the state ratings? It was found that North Dakota residents rated the Large and Diverse and Environmental influences

significantly higher than Minnesota residents. There were no differences between the other ratings.

4. What institutions would the sampled students have attended without tuition reciprocity? The findings suggest that Moorhead State University, North Dakota State University, and the University of North Dakota would probably end up with fewer students, overall, if tuition reciprocity did not exist, while the University of Minnesota-Twin Cities would probably gain in students. Ten percent more North Dakota (than Minnesota) respondents would have attended a school in their home state if tuition reciprocity had not existed when they selected their current school and about 3% more North Dakota respondents would not have gone to college than the Minnesota respondents.

5. Why does a disproportionate number of Minnesota residents, who live near the Minnesota-North Dakota border, select North Dakota educational institutions when the total populations along both sides of the border are similar? The research design failed to answer this question. A further investigation showed that possibly Minnesota's larger population and the location of several North Dakota institutions along the Minnesota-North Dakota border contribute to this condition.

To my parents, Henry and Isabel Wallman

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even when inner thoughts would slip out and reveal a loneliness for friends and home in Fargo.

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CHAPTER I

THE PROBLEM

Introduction

Public institutions of higher education commonly charge nonresident students a higher rate of tuition than state residents unless they have entered into special arrangements with neighboring states to waive nonresident tuition on a reciprocal basis. In 1975, Minnesota and North Dakota culminated several years of negotiations by signing an agreement to waive nonresident tuition on a reciprocal basis. Today, this represents one of four such interstate agreements Minnesota has with its neighboring states of Iowa, North Dakota, South Dakota, and Wisconsin. With the exception of Iowa, these tuition reciprocity programs are unique nationally because they include virtually all academic programs at state-supported higher education institutions. Each agreement is between the neighboring state and Minnesota and differs slightly from state to state (Appendix A).

During the 1977-78 academic year, approximately 2,700 Minnesota residents attended North Dakota institutions while approximately 1,500 North Dakota residents

attended Minnesota institutions, under the Minnesota-North Dakota tuition reciprocity agreement (hereinafter called The Program). Since 1975, over 10,000 students have been affected by The Program.

Even though tuition reciprocity between Minnesota and North Dakota has existed since 1975, there is very little descriptive data available. Most of the data are in the form of headcount statistics showing student migration by state and institution. Even this information is incomplete. A 1979 Minnesota Higher Education Coordinating Board (MHECB, formerly the Minnesota Higher Education Coordinating Commission, MHECC) study provided information about why Minnesota residents use tuition reciprocity to attend postsecondary educational institutions in North Dakota and Wisconsin (MHECB, February 1979). However, comparable data for North Dakota residents attending Minnesota postsecondary educational institutions do not exist. The result is that there is little insight into why North Dakota residents use The Program and how residents of Minnesota and North Dakota compare in their reasons for attending a school in the other state.

Need for the Study

During the 1979-80 Minnesota legislative session, the Minnesota tuition reciprocity programs became a significant topic of discussion and concern. According to Clyde Ingle, Executive Director of the Minnesota Higher

Education Coordinating Board, legislators were concerned about the imbalance in the number of Minnesota residents attending postsecondary institutions in states having tuition reciprocity with Minnesota (personal interview, St. Paul, Minnesota, March 19, 1979).

Kent Alm, Commissioner of the North Dakota Board of Higher Education (NDBHE), explained that several North Dakota legislators viewed the importing of Minnesota residents into North Dakota as a financial burden to North Dakota taxpayers since tuition charges do not cover true educational costs and the difference must be made up with state appropriations. He also pointed out that like Minnesota legislators, there were North Dakota lawmakers who were also curious as to why North Dakota residents would leave the state for an education in Minnesota (personal interview, Bismarck, N.D., March 18, 1979).

All of this has resulted in legislative inquiry that has been difficult to answer because of a paucity of information about The Program.

It is apparent from this discussion that Minnesota and North Dakota are concerned about the migration of students between the states, a condition which will be compounded by the impending projections of a decline in the number of high school graduates for both states (Ostenson, 1977, and MHECB, January 1979).

The North Dakota Postsecondary Education Commission and the Minnesota Higher Education Coordinating

Board are charged with the responsibility of planning for postsecondary education in each state. An understanding of the factors influencing students to seek an education outside their home state, under The Program, will greatly assist this planning function. In addition, descriptive information about student usage of The Program will assist in responding to questions from legislators in both Minnesota and North Dakota.

The importance of obtaining this information is reflected in the financial support given to this study by the Minnesota Higher Education Coordinating Board and the North Dakota Postsecondary Education Commission (Appendix B).

Lack of Research on Tuition Reciprocity

Research on student participants in reciprocity programs has been limited. The New England Board of Higher Education (NEBHE, 1972) conducted an evaluation of their New England Regional Student Program (NERSP) which included a questionnaire survey to student participants.

The Minnesota Higher Education Coordinating Board (February 1979) completed a study in 1979 which involved a mail survey of Minnesota residents using tuition reciprocity in North Dakota and Wisconsin.

Both the NEBHE and MEHCB research results referred to above will be reviewed in Chapter II.

Purpose of Study

The purpose of this study is to collect information that will assist the Minnesota Higher Education Coordinating Board (MHECB) and the North Dakota Post-secondary Education Commission (NDPSEC) to gain insights as to why residents of each state utilize the tuition reciprocity program.

The phenomenon of tuition reciprocity represents a relatively recent form of interstate cooperation and has been strongly supported by the Carnegie Commission (1965) which has called for states to enter into such agreements. Robert Carbone in Alternative Tuition Systems (1973) highlighted tuition reciprocity agreements as an alternative to the current practice of resident, nonresident tuition classifications. Yet, in spite of such support and the increased use of tuition reciprocity agreements nationally (see Chapter II), very little research has been conducted to better understand student usage of such programs.

Therefore, it is intended that this study will contribute to the professional literature by: (1) providing insights to why students use The Program, (2) the development of a survey instrument called the Tuition Reciprocity Opinion Scale, (3) the factor analyzing of common college choice items which would benefit future

studies, and (4) by showing how the states involved in The Program might be affected if The Program were abandoned.

Such information should prove useful to other states involved with or considering a tuition reciprocity agreement.

Research Questions

In order to provide a framework for working with the data collected from the Tuition Reciprocity Opinion Scale (TROS), the following research questions are being asked:

1. How do Minnesota residents who use The Program rate specified factors which influence college choice? (TROS)

2. How do North Dakota residents who use The Program rate specified factors which influence college choice? (TROS)

3. Are there significant differences between the findings of Question 1 and 2?

4. What institutions would the sampled students have attended without tuition reciprocity?

The study allows for specific comparisons among certain subsets of the Minnesota and North Dakota student population using The Program. Accordingly, a secondary research question that will be investigated is:

5. Why does a disproportionate number of Minnesota residents who live near the Minnesota-North Dakota border select North Dakota educational institutions when the total populations along both sides of the border are similar in number? (See Chapter III for special note.)

Limitations and Scope

The following limitations of the study are recognized:

1. The study is limited to those factors used to explain college choice and will be confined to those items on the Tuition Reciprocity Opinion Scale (TROS).

2. The problem of social desirability in answering personal questions can never be totally eliminated. There is a tendency for enrolled students to justify their decision by placing the college in a favorable perspective (Leister & MacLacklan, 1976).

3. A determination of the validity of the TROS instrument is difficult because opinions are abstract and cannot be directly measured (Mosher, Kalton, 1972).

4. This study is dependent upon the willingness and ability of respondents to provide honest and valid responses (Steward & Hannafin, 1974).

5. The study is limited to the extent that the inquirer and respondent fail to place similar meanings to the questions asked (Stewart & Hannafin, 1974).

6. Representativeness is limited to those students who were willing to participate and nonrespondents may be different from study respondents.

The scope of the study is defined as follows:

1. The study includes students from North Dakota and Minnesota only and findings cannot be scientifically generalized to other states.

2. Minnesota residents selected in the sample will be those who are attending an institution in North Dakota during the 1979-80 school year and findings will not be generalized to include Minnesota residents attending institutions in other states where tuition reciprocity exists.

3. North Dakota students selected in the sample will be those who are attending Minnesota institutions and findings will not be generalized to any other North Dakota residents.

Assumptions

It is assumed that:

1. The factors selected on the Tuition Reciprocity Opinion Scale (TROS) reflect the major reasons these students selected their particular college or university.

2. The factors selected on the Tuition Reciprocity Opinion Scale (TROS) instrument are sufficient for answering the questions of the study.

3. Respondents will accurately answer the Tuition Reciprocity Opinion Scale (hereinafter referred to as TROS).

4. A sufficient number of students will respond to the survey who are also representative of the target population so that statistically sound conclusions can be made.

Definition of Terms

Tuition reciprocity.--An agreement between states or institutions whereby resident tuition charges are made available to nonresidents from participating states on a reciprocal basis.

Resident tuition.--Tuition costs charged to residents of a particular state.

Nonresident tuition.--Tuition costs charged to nonresidents of a particular state. This charge is usually substantially higher than the resident tuition charge.

MHECC & MHECB.--Minnesota Higher Education Coordinating Commission (MHECC) name changed in 1975 to Minnesota Higher Education Coordinating Board (MHECB).

The Program.--This refers to the specific reciprocity agreement which exists between Minnesota and North Dakota allowing residents of each state to pay in-state tuition fees in the other state (see Appendix A).

Tuition Reciprocity Opinion Scale (TROS).--This is the survey instrument which was developed to collect data for the study.

Overview: The Minnesota Tuition Reciprocity Programs

The state of Minnesota has been a national leader in establishing tuition reciprocity programs with neighboring states. The majority of these agreements have been significantly comprehensive in their inclusion of academic programs as well as higher education institutions.

The origin of the Minnesota programs dates back to 1967 when the Minnesota legislature authorized the Minnesota Higher Education Coordinating Commission (MHECC) to enter into tuition reciprocity agreements with other states (Ingle, 1977).

Minnesota - Wisconsin

In 1969, a limited tuition reciprocity agreement was established with Wisconsin. Participation was originally limited geographically to those residents and institutions of each state within close proximity to the common Minnesota-Wisconsin border (Laird, 1974).

In 1973, Minnesota and Wisconsin decided to abandon the 1969 model and replace it with a tuition reciprocity agreement that would be tied to an income tax reciprocity program which provided that " . . . an accounting system be established whereby the state that

experiences a net loss from higher education or income tax reciprocity will be reimbursed by the state that experiences the net gain" (Smebakken, 1973).

Unlike the 1969 agreement where participation was limited to a specified geographic area, the 1973 agreement made " . . . it possible for any Minnesota or Wisconsin student to attend a public institution of post-secondary learning in either state at the prevailing resident tuition and under the same conditions as resident students . . ." (Smebakken, 1973).

David B. Laird Jr., (1974) assistant executive director of the MHECC in a paper delivered at the annual meeting of the Society for College and University Planning in Denver on July 14, 1974, said:

In viewing the Minnesota-Wisconsin model it is imperative to keep in mind that the current status is the result of six years of annual modifications and growth. Significantly, the original purposes remain:

1. To improve the post-secondary education advantages of residents of Minnesota and Wisconsin through greater availability and accessibility of post-secondary education opportunities.
2. To achieve improved effectiveness and economy in meeting the post-secondary education needs of Minnesota and Wisconsin residents through cooperative planning. (p. 3)

By 1974, the Minnesota-Wisconsin program included all academic programs at public institutions on a space-available basis for part-time or full-time undergraduate, graduate, professional, and technical students (Laird, 1974).

On a head count basis Fall term 1973, participation in this program included 1,697 Minnesota residents enrolled in Wisconsin institutions and 904 Wisconsin residents enrolled in Minnesota institutions (MHECC, January 1975).

During the 1977-78 school year and figured on a full-time equivalent basis (FTE), there were 5,536 Minnesota residents using tuition reciprocity at Wisconsin institutions while 2,224 (FTE) Wisconsin residents were enrolled at Minnesota institutions (MHECB, January 1979).

The 1973 Minnesota-Wisconsin comprehensive tuition reciprocity program went on to serve as a model for additional programs with other states and within two years Minnesota established its second program (Ingle, 1977).

Minnesota - North Dakota

In 1969, the North Dakota Legislative Assembly passed an Act authorizing the North Dakota Board of Higher Education (NDBHE) to enter into reciprocal tuition agreements with other states for the purpose of " . . . the mutual improvement of education advantages for residents of this state and such other states or institutions of other states with whom agreements are made."¹ Actually

¹A copy of the legislative ACT authorizing the Board of Higher Education to enter into tuition reciprocity agreements. Available in the ND Board of Higher Education Office, Bismarck, N.D., dated March 25, 1969.

this legislative action was an expansion and clarification of previous legislation under North Dakota Century Code 15/10/28.

In January 1970, the MHECC proposed a tuition reciprocity program with North Dakota based on the purpose of improving the availability and accessibility of higher education opportunities for Minnesota and North Dakota residents.¹ However, this and several other attempts failed and it was not until 1975 that agreement was reached (Ingle, 1977).

Based on head count figures the 1975-76 agreement with Minnesota involved 1,783 Minnesota residents enrolled in North Dakota institutions as compared to 847 North Dakota residents enrolled in Minnesota institutions (Ingle, 1977). In the 1977-78 school year, 2,700 Minnesota residents were in Minnesota institutions (MHECB, February 1979).

Unlike the Minnesota-Wisconsin agreement, the North Dakota program excludes vocational-technical schools but it does include all full-time, part-time, undergraduate, graduate, and professional students. Its intent is to include all academic programs on a space available basis excluding only those programs where interstate contracts exist, such as: human and veterinary medicine (Ingle,

¹A copy of the proposal approved by the MHECC January 23, 1970. Taken from the MHECB files on tuition reciprocity, St. Paul, MN.

1977). Both states have agreed to consider the inclusion of vocational-technical programs in future agreements.¹

Financial arrangements are relatively simple and unlike the agreement with Wisconsin, income tax reciprocity is not involved. Under the Minnesota-North Dakota program, "each state calculates the number of students participating and the total credit hours and makes a payment to the other state . . . of an annually negotiable dollar amount . . . per full-time student" (Ingle, 1977). This agreement is to be reviewed annually and can be modified upon mutual consent. An administrative memo of understanding is developed for each new agreement and contains information relating to the application form, a declaration of residency, determination of residency, the exact length of time for the certification year, the application deadline, reimbursement procedures and other items of concern to the parties involved (Appendix I, Section A).

Copies of the most recent agreements for Wisconsin and North Dakota tuition reciprocity programs are located in Appendix A.

Minnesota-North Dakota cooperation in higher education is not limited to the tuition reciprocity program. The two states share library resources and are involved in a three-college consortium in the Fargo-Moorhead area called the Tri-College University (TCU) (Ingle, 1977).

¹An administrative memo of understanding from the MHECB files on tuition reciprocity, dated April 3, 1978.

Established in 1970 the TCU includes Concordia College, Moorhead State University, and North Dakota State University. TCU sponsors several cooperative academic programs and a student exchange program (TCU, 1978). During the 1974-75 school year, TCU students enrolled for 5,300 courses through the student exchange program (Ingle, 1977).

Other Minnesota Programs

In the fall of 1978 two more Minnesota tuition reciprocity programs were established. A comprehensive program was established with South Dakota and is very similar to the North Dakota agreement (Appendix A). In addition, Minnesota established a tuition reciprocity program with Iowa in the fall of 1978 which includes only specified institutions along the Iowa-Minnesota border (Appendix A).

In order to fully appreciate the unique nature of the Minnesota tuition reciprocity programs, it is helpful to understand and examine examples of other programs that exist in the United States. This will be done in Chapter II along with a more thorough discussion of other studies on tuition reciprocity and a selected review of college choice research.

Organization of the Study

This study is organized into five chapters. Chapter II contains a description of tuition reciprocity

in the United States, a review of two studies involving student participants in tuition reciprocity programs, and a selected review of college choice literature. In Chapter III is the study design, the procedures used in the development of the TROS instrument, a description of the target population, the procedures used to collect data, and other methodology. Chapter IV contains the results of the data collection. The summary, conclusions, and implications of the study are contained in Chapter V.

CHAPTER II

REVIEW OF RELATED LITERATURE

Introduction

This chapter is divided into three parts: (1) an overview of tuition reciprocity in the United States and its development; (2) a review of two research studies involving student participants in tuition reciprocity programs; and (3) a selected review of college choice literature. This is being done to (1) highlight the uniqueness of the Minnesota tuition reciprocity programs, (2) provide an understanding of what researchers have found in similar studies, and (3) present a general overview of findings relating to the factors affecting student decisions in the choice of a postsecondary educational institution.

Tuition Reciprocity in the United States

An understanding of the types and development of tuition reciprocity in the United States assists in pointing out how unique the Minnesota tuition reciprocity programs are.

Nationally, tuition reciprocity programs are related to either interstate educational compacts or administrative agreements between states or institutions (Michel, 1974). The interstate educational compact resulted in the nation's first tuition reciprocity programs and will be discussed first.

Interstate Educational Compacts

The interstate educational compact is a form of cooperation between states that falls under the broader heading of interstate compacts in general. Such compacts between states are actually nothing more than legal contracts which provide for the settlement of disputes, mutual aid between states, or the designation of interstate services. The United States constitution, Article IV, Chapter 10, provides for such cooperative activities between the states. It is generally assumed that Congressional approval is required in order for states to enter into such agreements, but the exact nature of such approval is not clear (Ridgeway, 1969). The nation's first educational compact which resulted in one of the earliest tuition reciprocity programs is an example of the uncertainty regarding congressional approval.

A lack of educational facilities and academic personnel in the 1940s are attributed as reasons for the development of interstate educational compacts. Discussions in the South and West during the 1940s eventually led to the establishment of two educational compacts, the

first of which was ratified by 16 southern states in 1949 and was called the southern Regional Education Board (SREB). Prior to 1949, the SREB compact was submitted to Congress for approval. It passed the Senate, was killed by the House, and was then sent back to committee. No action was ever taken, but the compact was formed and still exists today without congressional approval (Ridgeway, 1969).

The SREB was formed to more effectively use regional educational facilities and to expand educational opportunities for residents of participating states (Martorana, Nespoli, 1978).

In 1951, the Western Interstate Commission (WICHE) was formed by 13 western states and in 1955, the New England Board of Higher Education was formed by six New England states (Michel, 1974). A fourth educational compact is currently in the process of being formed by several mid-western states (Martorana, Nespoli, 1978).

In 1976, at a meeting of the Midwestern Governors' Conference in Indianapolis, Governors Milliken of Michigan, Anderson of Minnesota, Lucey of Wisconsin, and Bond of Missouri submitted a policy statement for the development of a regional approach to higher education for the mid-western states.¹ The policy statement was unanimously

¹A copy of conference minutes obtained from Douglas Smith, special assistant to the Governor of Michigan, April 19, 1979.

adopted and has resulted in an attempt to establish the Midwest Educational Compact (Martorana, Nespoli, 1978). Douglas Smith, special assistant to Michigan Governor Milliken, has indicated that the issue of congressional approval is still unclear (personal interview, Lansing, Michigan, April 19, 1979).

There is another compact in existence in the United States that is quite different from the compacts just mentioned. It is considered to be only a recommending organization and was established in 1965 as the Compact on Education and goes by the name of the Education Commission of the States (Ridgeway, 1969).

SREB, WICHE, and NEBHE are significant to this discussion in that they have been responsible for the establishment of tuition reciprocity programs while ECS has played a role in encouraging the development of such programs.

Compact-Related Tuition Reciprocity Programs

The tuition reciprocity programs which have been established through interstate educational compacts are all characterized as being limited in scope. This means that each of the programs limits the kind of academic programs included in the reciprocal arrangement.

The first of these programs was NEBHE's New England Regional Student Program (NERSP) which was started during the 1958-59 school year and originally

involved the six New England state universities and 32 unique academic programs. In 1972, over 500 courses were offered and every New England publicly supported, degree-granting institution was included. Through the NERSP, residents of one state can attend an institution in one of the other participating states at resident tuition rates. Academic offerings which are included in the program are considered unique or distinctive. An effort is made to exclude programs that are commonly available in the participating states. There is no exchange of funds, however, an even distribution of students among the states is considered desirable (NEBHE, 1972).

A regional concern about educational opportunities in several profession programs is attributed as a major reason for the development of WICHE's Student Exchange Program (SEP) in 1953.

Included in this interstate tuition reciprocity program are academic offerings like medicine, law, and veterinary medicine. The agreement allows nonresidents from participating states to pay resident tuition at the institutions where the programs are offered (Martorana, Nespoli, 1978).

The Academic Common Market (ACM) sponsored by the SREB was started in 1974. In 1978, 12 states were involved with 190 graduate level programs open to residents of the participating states. The ACM was started to: help promote the interstate movement of students,

more effective utilization of programs within the states, and the promotion of sharing uncommon educational facilities (SREB, 1974). These interstate educational compact-related tuition reciprocity programs have been serving student and state needs since 1958 but do not represent all of the forms of tuition reciprocity in the United States.

Administrative-Agreement Tuition Reciprocity Programs

Several states have used administrative agreements between states or institutions to establish tuition reciprocity programs (Michel, 1974). The Minnesota programs described in Chapter I would fall under this category. These administrative agreements are usually authorized by some legislative action, and it is common for specific details to be left out of legislative language. They are contractual in nature usually involving a document between administrative officials and do not require approval or recognition from Congress (Michel, 1974). As with the compact-related programs, many are limited in scope.

The National Student Exchange Program (NSEP) involves an administrative agreement between public college and universities. A one-year exchange of students is provided in order to allow an opportunity to be involved with specialized courses not necessarily available at the home institution. It is estimated that 25 institutions

were involved with approximately 1,128 student exchanges for the 1974-75 school year. Sophomore and junior year students are allowed to participate. The receiving public institution then waives nonresident tuition (Michel, 1974).

Eleven large private and public midwestern universities participate in a tuition reciprocity program administered through the Committee on Institutional Cooperation (CIC). The institutions include all of the Big Ten universities, in addition to the University of Chicago. Programs that were highly specialized were originally included. The objective was to improve educational and public services at a minimal cost (Michel, 1974).

The state of Michigan has several limited tuition reciprocity programs established through administrative agreements authorized by Michigan Public Acts 251 and 252. The State Board of Education is designated as the agency authorized to enter into such agreements with public agencies in other states. Excluded because of their constitutional autonomy are: the University of Michigan, Michigan State University, and Wayne State University. Agreements are allowed with the states of Wisconsin, Illinois, Indiana, Ohio, and the province of Ontario.¹

This enabling legislation has resulted in a tuition reciprocity program in the Upper Peninsula (UP)

¹A brochure titled Interstate Cooperation on Higher Education, available from the Michigan Department of Education, Lansing, Michigan, undated.

where the two community colleges of Gogebic and Bay De Noc are involved with the University of Wisconsin Center-Marquette County. Under this agreement, the University of Wisconsin Center accepts Menominee County-Michigan residents at Wisconsin resident tuition rates and admission standards. Gogebic Community College, in turn, accepts Iron County, Wisconsin residents at resident tuition rates and Bay De Noc Community College has a similar arrangement for Wisconsin residents of Marquette County.¹

Another Michigan program involves Eastern Michigan University and the University of Toledo. This agreement provides for a reciprocal tuition benefit for any Michigan resident attending the University of Toledo and any Ohio resident attending Eastern Michigan University.²

These reciprocal tuition programs are administrative in nature and limited to specific institutions. While they are authorized under enabling legislation, they do not involve congressional consent or approval.

As described thus far, tuition reciprocity is not a new phenomenon and recently has been given considerable

¹A copy of a memo from Robert Huxol to Michigan Community and Junior colleges, dated April 2, 1979, and obtained from the Michigan State Board of Education, Lansing, Michigan.

²A copy of the agreement obtained from the Michigan State Board of Education, Lansing, Michigan, undated.

attention. The Carnegie Commission (1971) recommended that " . . . states enter into reciprocity agreements for the exchange of both undergraduate and graduate students in those situations where the educational system of each of the states will be enhanced by such an agreement" (p. 60).

A review of the 1974 issue of Higher Education in the States, published by the Education Commission of the States (ECS), revealed that eight states had referred to tuition reciprocity programs or reciprocal state scholarship or grant programs in their annual reports. In the 1978 issue of Higher Education in the States, that number had grown to 18 states (ECS, 1978).

In light of this information about tuition reciprocity programs in the United States, the Minnesota programs and in particular the Minnesota-North Dakota Tuition Reciprocity Program stands out in being so comprehensive in scope. While other states limit student enrollment to unique programs or only to institutions of close proximity, Minnesota and North Dakota provide access on a reciprocal tuition basis to virtually all public colleges and universities and virtually all academic programs. The motivation for this, as reported in Chapter I, appears to be a sincere desire to provide more choices of institutional size, climate, and programs to the citizens of each state.

Once tuition reciprocity programs were established, two agencies revealed an interest in what influenced students to take advantage of such opportunities. A review of these two studies follows.

Reciprocity Studies

The New England Board of Higher Education Evaluation

The New England Board of Higher Education (NEBHE, 1972) conducted an evaluation of the New England Regional Student Program (NERSP). A portion of the evaluation included a questionnaire survey of 1,200 student participants in the NERSP with 500 students responding. There were 336 student respondents who indicated they were attending a state university under the NERSP. Of these, 48.8% indicated that they had selected the school they were attending because the program of study they were in was not available elsewhere. (It is important to take into consideration that the NERSP limited participation in the program to academic offerings which were not available in the students' home state.)

Those respondents attending state universities also indicated that the reputation of the school in their area of interest was a major influence with 28.9% listing this factor in the college choice process. Only 9.8% of state university respondents indicated that the cost of the school was most important in their decision. Other

results indicated that 88.4% of the respondents felt their family was satisfied with their choice of schools. Almost a third or 31.9% of those attending state universities felt their family was involved in their decision to select the school they were currently attending.

NEBHE (1972) reported that the smallest portion of responses came from those students attending two-year institutions. Only 24 respondents reported attending such institutions. Among these students, the family was viewed as playing a lesser influence compared to state university respondents. The most frequently reported reason for attending the two-year school was because the specific academic program was not available elsewhere.

Graduate students accounted for 380 responses to the NEBHE questionnaire. Descriptive data showed that all were 22 years of age or older; 26.3% were over 30; 56.4% were living at home; and 33.8% were living off campus. The NERSP was considered to be a major factor in the selection of the current institution attended by 29.3% of the graduate student respondents.

In summarizing the results of the NEBHE (1972) evaluation of the New England Regional Student Program, it was stated that it is:

Difficult to generalize--students entered for many reasons, heard about the program in a variety of ways, differed greatly in perceptions of (the) program's importance. (p. 112)

The Minnesota Higher Education
Coordinating Board Study

The Minnesota Higher Education Coordinating Board (MHECB, 1979) conducted a questionnaire survey of Minnesota residents participating in tuition reciprocity programs at schools in North Dakota and Wisconsin. A random sample of 2,140 students yielded 1,470 responses or a 69% overall response rate. The target population included 5,685 Minnesota residents enrolled in Wisconsin institutions and 3,033 Minnesota residents enrolled in North Dakota institutions (MHECB, February 1977).

The MHECB study was prompted by "an interest in why Minnesota students choose to obtain their postsecondary education out-of-state" (p. 1). The purpose of the study was to obtain information about the reasons Minnesota residents chose to attend a Wisconsin or North Dakota school instead of a public institution in Minnesota (MHECB, February 1979).

Table 2.1 shows how respondents would have acted in the absence of tuition reciprocity. The largest single percentage of respondents would have attended a Minnesota public institution if tuition reciprocity had not been available (MHECB, February 1979, p. 8).

Table 2.2 shows the number and percentage of respondents citing various reasons for attending an out-of-state rather than a Minnesota public institution.

Table 2.1
Hypothetical Plans of Respondents if Reciprocity
Benefits Had Not Been Available in Fall 1977

	Wisconsin		North Dakota	
	N	%	N	%
Attend same out-of-state school	140	19	260	39
Attend public Minnesota school ^a	477	64	323	48
Attend some other school	56	8	26	4
Not attend any school	68	9	60	9
Total ^b	741	100	669	100

Note. From MHECB, February 1979.

^aIncludes 35 respondents who indicated this option along with another option(s).

^bDoes not include 31 respondents who said they did not know what they would have done.

Table 2.2

Number of Respondents Citing Various Reasons for Choosing the
Out-of-State School Attended^a (Responses to Open-Ended
Question about College Choice)

Reason	Wisconsin (N=732)		North Dakota (N=651)	
	N	%	N	%
Program availability or quality	460	63	435	67
Location	310	42	301	46
Close to home	159	22	234	36
Far from home	27	4	7	1
Other ^b or unspecified	124	17	60	9
Size	165	23	80	12
Small	135	18	64	10
Large	10	1	3	0
Unspecified or "good"	20	3	13	2
Cost ^c	102	14	113	17
Nonacademic characteristics ^d	113	15	54	8
Overall academic quality	87	12	49	8
Job placement record	28	4	11	2
Financial aid	13	2	22	3
Friends went there	16	2	10	2
Family went there	4	1	17	3
Not accepted at other choices	5	1	12	2
Familiar with school	4	1	7	1
Recruited	4	1	2	0
Less Competitive	1	0	4	1
Other	64	9	63	10

Note. From MHECB, February 1979.

^aUp to three reasons per respondent were coded.

^bIncludes liking the location because it was "in a small town," "close to the Twin Cities" in a beautiful area, or the right distance from home ("not too close, not too far").

^cIncludes references to low tuition, low living costs, and reciprocity benefits.

^dIncludes sports, parking, social life, campus beauty, housing, friendliness, or diversity of students or staff, etc.

This table of responses was compiled from an open-ended question on the MHECB survey instrument (MHECB, February 1979, p. 13).

Table 2.3 is a tabulation of reasons indicated for attending an out-of-state school taken from a forced choice section of the MHECB survey instrument. Minnesota residents attending North Dakota institutions rated academic reasons and cost as the most frequently indicated reasons for selecting a North Dakota school (MHECB, February 1979, p. 15).

The overall findings of the MHECB (February 1979, p. ii) study showed that Minnesota residents attending North Dakota and Wisconsin institutions indicated the following factors as most influencing their decision to attend an out-of-state school:

	Percentage Indicating Factor	
	WI	ND
1. Had a program similar to the one the respondent wanted	71	65
2. Was of higher quality in the respondent's field of study	63	55
3. Would make finding a job after graduation easier	48	35
4. Was of higher quality overall	41	39
5. Had a smaller student body	59	45
6. Was better known to the respondent	47	51
7. Cost less overall	42	58
8. Had lower tuition	42	50
9. Greater proximity to home	NA	44

Table 2.3

Reasons for Choosing the Out-of-State Institution Attended
Over a Public Minnesota Institution (Ratings of Out-of-
State School vs. Minnesota Comparison)

Out-of-State School	Wisconsin (N=735)			North Dakota (N=666)		
	Rank	Any Influence ^a	Major Influence ^b	Rank	Any Influence	Major Influence
Had lower tuition	7	42%	16%	5	50%	24%
Offered better financial aid	15	13	7	14	20	10
Cost less overall	6	42	19	2	58	34
Was of higher academic quality in field of study	2	63	46	3	55	37
Was of higher academic quality overall	8	41	19	8	39	19
Had program more simi- lar to one wanted	1	71	53	1	65	46
Was less competitive academically	11	25	8	13	21	6
Was smaller	3	59	40	6	45	28
Was larger	17	7	1	17	8	2
Was closer to home	13	22	13	7	44	31
Was farther from home	10	27	12	16	13	3

Table 2.3 (Continued)

Out-of-State School	Wisconsin (N=735)			North Dakota (N=666)		
	Rank	Any Influence ^a	Major Influence ^b	Rank	Any Influence	Major Influence
Would make finding a job after graduation easier	4	48	28	9	35	18
Had better nonacademic facilities	9	32	11	10	32	10
Recruited more actively	12	24	10	11	28	11
Had been attended by more family members	16	8	3	15	16	6
Had been attended by more friends	14	21	5	12	21	6
Was better known	5	47	21	4	51	24

Note. From MHECB, February 1979.

^aPercentage of respondents indicating reason had any influence on their decision.

^bPercentage of respondents indicating reason had a major influence on their decision.

Academically oriented factors were the most important and among Minnesota residents attending North Dakota institution lower cost and greater familiarity were as important as academic factors (MHECB, February 1979).

Broken down by institution, North Dakota respondents attending the University of North Dakota (UND) and the North Dakota State School of Science (NDSSS) selected lower cost and greater familiarity slightly more than other factors. Students attending North Dakota State University (NDSU) indicated smaller size as a major attraction in selecting that school (MHECB, February 1979).

Respondents most likely to be influenced by academic factors were home economics majors attending the University of Wisconsin at Stout and NDSU (MHECB, February 1979).

Of the students selecting small size as an influence in their decision to attend an out-of-state school, 54% of those attending a Wisconsin institution and 40% attending a North Dakota school compared size to the University of Minnesota, by far the largest institution in Minnesota (MHECB, February 1979).

Lower cost was more frequently listed as a factor for Minnesota residents attending a North Dakota school. It was pointed out that all Minnesota institutions cost more than North Dakota schools (MHECB, February 1979).

In both Wisconsin and North Dakota nearly half of the respondents attended an out-of-state school within 100 miles of Minnesota. Students attending North Dakota institutions tended to consider Minnesota schools farther from home than did Wisconsin respondents (MHECB, February 1979).

The MHECB (February 1979) study speculates that a possible reason for an imbalance of Minnesota residents attending North Dakota institutions is the close proximity of North Dakota institutions to the Minnesota border. Likewise, it is speculated that an imbalance in population density in Minnesota along the Minnesota-Wisconsin border contributes to the imbalance of Minnesota residents selecting Wisconsin institutions.

Overall, it can be summarized that academic factors, lower cost, and greater familiarity were among the most influential reasons for Minnesota residents to select a North Dakota institution while academic factors were more likely to influence Minnesota residents to select a Wisconsin institution.

Comparisons between MHECB Study and Current Study

The 1979 MHECB study is similar to the current study on the Minnesota-North Dakota Tuition Reciprocity Program. They are similar in that both involved collection of data on Minnesota residents attending North Dakota postsecondary educational institutions. The

current study plans to do the same. The MHECB study sought to determine what schools, Minnesota residents attending North Dakota institutions, would have selected in the absence of tuition reciprocity. The current study plans to do this also.

There are several major differences between the two studies. The MHECB study used a simple random sample of Minnesota residents attending institutions in North Dakota and Wisconsin. The current study plans to use a stratified proportional random sample of Minnesota residents attending North Dakota institutions and North Dakota residents attending Minnesota institutions. This was designed into the current study in order to make comparisons between the two states and strata. The MHECB survey instrument was used as a resource in designing the TROS instrument but they do differ in their method of collecting data.

College Choice Literature

The design of this study includes the use of factors which influence reciprocity participants to select certain postsecondary educational institutions. Therefore, a selected review of college choice literature is included in order to provide an understanding of the college choice process.

Such a process can be viewed as a complex activity and according to Astin (1965):

For many students, the problem of selecting the "best" college is confounded by factors that probably have little to do with quality. These factors would include the cost of attending the college, proximity of the college to the student's home, likelihood of gaining admission to the college, and so on. Since the importance of each of these factors undoubtedly varies greatly from one student to another, it is difficult to prescribe any set procedures for taking them into consideration. The point to keep in mind is that considerations other than the quality of the actual educational experience offered by the institution may carry some, or even all, of the weight in determining the student's choice. (p. 87)

In a study of high-ability students who were finalists in the National Merit scholarship competition, Holland (1958) stated that "different institutions attract different kinds of students, or personalities; that is, the various explanations of choice imply divergent personal needs and values" (p. 319).

This suggests that there is a matching of perceived college characteristics with personal needs and that institutional image as perceived by the student plays a role in the decision-making process. Holland (1958) further states that:

. . . students appear to make choices in the same way that consumers often, if not usually, buy household goods; they select colleges by means of vague notions about reputation and values which they can seldom document meaning fully. (p. 319)

In his study of high-ability students, Holland (1958) concludes that college choice is related to institutional status, size, location, religious affiliation, liberal arts orientation, coeducational status, sex differences, and personal needs.

A Richards and Holland (1965) study took 27 college choice factors appearing on the ACT Profile Report and factor analyzed them into four categories. Kuh (1978) summarizes them as follows:

Choice of college seems to be affected by four categories of influence: (a) intellectual--consideration of scholastic standards and faculty reputation; (b) Practicality--desirable location, reasonable cost, distance from home; (c) Advice of Others--parents, alumni, counselor, peers; and (d) Social Emphasis--social atmosphere, athletics, coeducation, fraternity/sorority. (p. 32)

The high school counselor's role in the college choice process has been investigated by several researchers. Bentley and Salter (1967) studied freshman students who were admitted to a selective liberal arts college in the Northeast and concluded that the high school counselor plays an influential role in the college choice process and has replaced the parent as the best source of information about college.

An earlier study by Kerr (1963) showed that high school seniors did view the counselor as the most accurate source of information.

Thompson (1965) used a 55-item college choice questionnaire in surveying high school seniors from the Minneapolis-St. Paul area and concluded that the most important factors influencing college choice were: institutional quality and the appropriateness of the curriculum. The influence of parents, friends, and relatives was limited. Commuting students seemed to

value a continued dependence on home and family while those not commuting place a high value on independence.

In one of the earliest studies of college choice factors, Katz and Allport (1931) reported that:

In selecting Syracuse instead of another institution, practical reasons seemed predominate. Geographical proximity to Syracuse and opportunities for self support were the most popular. About a fifth stated they chose Syracuse as their alma-mater because of its educational advantages. (p. 32)

Several studies on college choice involved students who were already enrolled in public institutions. Stewart and Hannafin (1974) surveyed freshman enrolled at Fort Hays Kansas State College. They concluded that medium-size enrollment and low cost were major influences upon students who enrolled. It was also pointed out that pre-admissions contacts with the financial aid office were important in influence student decisions.

The American Council on Education annually conducts a nationwide survey of enrolled college and university students. Fall 1977 results of first-time enrollees showed "good academic reputation" and "offers special programs" were the two top ranked reasons that were very important to students in selecting the school they were currently attending.

Table 2.4 shows the percentage of responses and their rank order of the top 12 factors considered very important in the college choice process (Astin, 1978).

Table 2.4

Percentage of Students Who Noted Various Reasons as Very Important in Selecting Their Colleges

Reason	Rank in Importance	Percentage Responding
Good academic reputation	1	48.0
Offers special programs	2	29.1
Low tuition	3	19.4
Advice of former student	4	16.2
Offered financial assistance	5	15.4
Wanted to live at home	6	12.0
Advice of guidance counselor	7	8.2
Friend's suggestion	8	8.1
Relative's wishes	9	6.4
College recruited him	10	4.5
Teacher's advice	11	4.3
Not accepted elsewhere	12	3.2

Note. From Alexander W. Astin, "The Characteristics and Attitudes of 1977-78 Freshmen," The Chronicle of Higher Education, 23 January 1978, p. 12.

Another study involving enrolled students at a public institution was conducted by Bowers and Pugh (1973) and included 4,215 freshmen at Indiana University. This study compared student and parent perceptions of college choice factors. While academic factors were considered very important to parents and students, it was found that parents rated financial, geographic, and academic factors higher than students. Students on the other hand tended to rate social, cultural factors, and informal advice from other people higher than parents did. In concluding Bowers and Pugh (1974) state that: "The results suggest that there may be a rather complex interaction between students and parents faced with the decision of which college the student will attend" (p. 222).

In concluding a review of college choice research, Torrence (1979) states that: "Previous research on college choice indicates that admitted students choose or do not choose a college for many different reasons" (p. 44).

The process of selecting a college therefore seems to be complex involving a wide variety of factors interacting with each other and is perhaps best described by Feldman and Newcomb (1969) as follows:

The selection of a particular undergraduate institution is the outcome of a complex interaction of factors, which include the aspirations, abilities, and personality of the student; the values, goals, and socioeconomic status of his parents, the direction of the influence of his friends, teachers and other reference persons; the size, location, tuition

costs, curricular offerings, and other institutional characteristics of various colleges; and the image of these colleges held by the students and by those whose advice he needs. (p. 110)

Summary

Tuition reciprocity in the United States has existed since the 1950s. Most programs restrict participation to specified academic programs and/or institutions. However, the Minnesota-North Dakota tuition reciprocity program, like most of the Minnesota programs, is comprehensive in scope allowing students to select virtually any academic offering at any state-supported college or university.

Research on tuition reciprocity programs is limited. The MHECB (February 1979) study pointed out that Minnesota residents select out-of-state schools, under their tuition reciprocity programs, for academic and financial reasons.

College choice research has shown that the process of selecting a college is complex with the major factors being intellectual, practicality, social, and advice from others (Richards & Holland, 1965).

Chapter III will present the methodology used in this study on the Minnesota-North Dakota Tuition Reciprocity Program.

CHAPTER III

METHODOLOGY

Introduction

This chapter describes the target population, sample design, survey design, survey instrument, and data collection. It also contains the research questions, hypotheses, and data analysis. A special note about research question five completes the chapter.

The purpose of this study, as noted earlier, is to collect information that will assist in answering why students use the Minnesota-North Dakota Tuition reciprocity Program and thereby also contribute research results to the professional literature.

Interest in the Study

The idea for the study evolved from the author's work experience at North Dakota State University (NDSU).

In the early and mid-1970s, Minnesota and North Dakota officials discussed the feasibility of a reciprocal tuition program similar to the Minnesota-Wisconsin agreement. Since the researcher was the Director of Admissions at NDSU during that time, it was natural to be involved with discussions on how tuition reciprocity would affect

enrollment. This was the beginning of an interest which eventually led to the exploration of tuition reciprocity as a thesis topic. About the time the topic started to come into focus, the MHECB released their 1979 study of Minnesota tuition reciprocity participants. Modifications were then made to this study which resulted in a different scope and target population.

Target Population

The target population includes all Minnesota and North Dakota residents using the tuition reciprocity agreement between the two states for the fall term, 1979. However, the fact that a student was using the reciprocity program was not known at the time the study took place. The only available information was a data tape of all applicants for tuition reciprocity. Included on this data tape were individuals who had submitted applications for tuition reciprocity but did not actually follow through and use it. Therefore, it was decided to sample this all-inclusive group and then eliminate questionnaires from individuals who were not part of the target population. The first question on the survey instrument (TROS) was used to make this determination.

The Minnesota Higher Education Coordinating Board (MHECB) provided the data tape of applicants. This was used to generate a survey sample.

The data tape contained 7,354 applicants for the fall term of 1979 as this tape was generated to include entries up to October 8, 1979.

Minnesota residents accounted for 4,298 applicants while there were 3,056 North Dakota residents on the data tape. Appendix C contains several tables which describe the makeup of this source of names and addresses. Specifically, Table C.1 contains the distribution of Minnesota applicants by county, and Table C.2 contains the same information for North Dakota residents. Table 4.3 in Chapter IV contains the breakdown of applicants by institution.

Sample Design

A good sample design takes into consideration the goal of the study, the type of data needed for the necessary computations, economic factors, and practical considerations (Wiersema, 1975).

The study incorporates a stratified random sample with proportional allocation. This was done to guard against wild samples, overloading of certain subpopulations, and to ensure that no subpopulation was omitted from the sample (Wiersema, 1975). The sampling fraction n/N was held constant over all strata and resulted in a sample of 1,700. Another reason for using a stratified random sample with proportional allocation was that it

allowed for certain subpopulations of the target population to be isolated and subsequently compared with each other.

An attempt was made to determine an adequate sample size using a formula which allowed for adjustments in statistical precision. The nature of the Likert-type scale used in the survey instrument and its estimated variance was such that the formula yielded a sample size that although statistically correct might be perceived as too small. It was then decided to increase the sample size at 1,700. Such a procedure conforms with Wiersema's opinion (1975) that:

There are several factors that can influence the size of the sample used in an educational research project. Unfortunately, with the exception of cost, information about such factors is usually sufficiently vague that it is difficult to set an exact sample size. Nevertheless, in most educational research projects requiring a sample, the exact determination of the sample size is not that crucial, and usually enough information exists so that sample sizes are adequate. (p. 213)

Figure 3.1 contains a map of the study's six strata. Stratum 3 in North Dakota represents counties which border Minnesota. Stratum 2 contains counties which are two counties from Minnesota. All other counties in North Dakota are represented in Stratum 1. The corresponding order applies to Minnesota Strata. Stratum 4 contains counties adjacent to North Dakota. Stratum 5 is made up of counties two counties away from North Dakota and Stratum 6 contains all other Minnesota counties.

Figure 3.1. Map of Strata

The Survey Instrument

This section of Chapter III contains a discussion of the procedures used to develop the Tuition Reciprocity Opinion Scale (TROS) which was the instrument used to collect data for the study. In writing about the development of such survey instruments, Warwick and Lininger (1975) state that:

There are two basic goals in questionnaire design: (1) to obtain information relevant to the purposes of the survey and (2) to collect this information with maximal reliability and validity. (p. 127)

The survey instrument used in this study is called the Tuition Reciprocity Opinion Scale (TROS). Its development was assisted by the goals stated above and involved several steps.

First, a comprehensive review of literature pertaining to tuition reciprocity studies was conducted. This was followed by a selected review of literature relating to the college choice process. The third step involved an interview with Kate Jeffrey, researcher for the Minnesota Higher Education Coordinating Board (MHECB). Jeffrey was the researcher who conducted the MHECB study (February 1979) on Minnesota tuition reciprocity participants which was cited in Chapter II. Jeffrey pointed out that the MHECB was unable to pilot-test the survey instrument used in their study and as a result it was found that several items were confusing to survey respondents. These items were associated with the scaled section of their

survey instrument which attempted to determine why Minnesota residents selected out-of-state schools (personal interview, St. Paul, Minnesota, March 19, 1979). This information further affected the design of the Tuition Reciprocity Opinion Scale. After these steps had been completed, a questionnaire was developed which contained several items relating to demographic data and 30 items relating to the college choice process.

The questionnaire was then pilot tested with regard to clarity of instruction, item construction, content, wording, and length. Assisting in this process were students and faculty members from the Department of Administration and Higher Education at Michigan State University and staff members from the Minnesota Higher Education Coordinating Board (MHECB) and the North Dakota Board of Higher Education (NDBHE).

The questionnaire was then pilot-tested again, this time at North Dakota State University using 25 Minnesota residents who were participants in The Program. Comments from the pilot-test further affected the final design of the TROS survey instrument.

Validity of Instrument

Moser (1967) points out that: "Whatever approach to attitude scaling one cares to adopt, there always remains the question . . . to what extent the scale is reliable and valid" (p. 242). As a result of the pilot

test and the extensive evaluation discussed in the previous section, content validity was claimed for the questionnaire. According to Moser and Kalton (1972), validity is the ability of the survey instrument to measure what it sets out to measure. Content validity means that the questionnaire items contain the common thread of attitude which is under study and, in addition, the full range of attitude is present in a balanced form. Moser and Kalton further point out that:

The assessment of content validity is essentially a matter of judgment; the judgment may be made by the surveyor or, better, by a team of judges engaged for the purpose. (p. 356)

In this case it was the judgment of the researcher and team of experts cited in the previous section that the TROS would measure those factors necessary to answer the research questions.

The questionnaire which emerged from these efforts (see Appendix D for final version) was organized into five parts: items relating to the institution currently attended, general information, items relating to the institution most seriously considered before selecting current institution, alternate plans in the absence of The Program and college choice factors. Items were of various types: open-ended, multiple choice, and scaled. The scaled items relating to college choice factors were considered a major section of the study. A Likert-type scale was employed with a five-point-ordered-metric

scale (Coombs, 1953). Participants in The Program were asked to respond to statements according to the instructions set below:

Listed below are several statements which may reflect ways you were influenced to select the school you are currently attending. Please read each statement and then circle the appropriate response to the right, from the following choices:

- 0 = does not apply
- 1 = applies but no influence
- 2 = influenced me a little
- 3 = influenced me some
- 4 = influenced me strongly
- 5 = influenced me very strongly

There were 30 college choice items out of a total of 58 items in the questionnaire.

Factor Analysis

The reliability of the survey instrument was also of concern, especially because the TROS instrument was self-developed. However, before a determination of the reliability of the instrument could be made, it was decided to examine the college choice items (dependent variables of the TROS) to see whether these different items were, in fact, independent of each other or whether they formed relationships that could result in a reduction of the items into factors. Hence, a factor analysis was conducted to obtain the most parsimonious description of the phenomenon under study, which in turn might result in a reduction of the data to be analyzed. Nie et al. (1975, p. 469) attribute data reduction as the most

distinctive characteristic of factor analysis. Dawes (1972) describes this process of factor analysis as a form of index measurement which "provides a spatial representation of variables whose proximity is assessed by correlation coefficients" (p. 40).

The factor analysis involved 617 questionnaires which had been returned by sampled students. The SPSS subprogram, Factor, was used with a varimax rotation and Eigenvalues set at unity.

The original factor analysis showed 10 factors with a wide range of factor loadings and Eigenvalues. On the basis of these findings, subjective judgment was used to eliminate items with low loadings and factors with low Eigenvalues in order to reduce data for analysis. As a result five groupings of items were developed into what are called: Areas of Influence. These Areas are: (1) Environmental, (2) Academic, (3) Advice of others, (4) Practical, and (5) Large and diverse.

Table 3.1 contains a listing of the five areas of influence which were developed through the factor analysis. Included in this listing are the TROS college choice items which are associated with each area of influence. Collectively, these five areas of influence account for 75.9% of the variance of all college choice items on the TROS.

Table 3.1
Areas of Influence from Factor Analysis
with Factor Loadings

Area of Influence	TROS College Choice Items	Factor Loading
Environmental	47 Quick Response	.33930
	49 Friendly	.60285
	51 Good campus visit	.62711
	54 Moderate size community	.35837
	60 Good social climate	.66614
	61 Attractive campus	.78836
Academic	53 Academic program suited to interests	.74875
	65 Excellent academic program	.81037
Advice of Others	43 Recommended by High School Teacher	.62436
	57 Recommended by High School Counselor	.81689
	63 Parents Preferred	.24656
Practical	39 Chance to live at home	.66816
	55 Close to family	.76820
Large and Diverse	48 More than 10,000	.57082
	50 Large and Diverse	.60421
	56 Large community	.43222

Note. N = 617
Eigenvalues set at one.

Reliability

With the independence of these factors established the reliability of the TROS instrument could be approached by analyzing each influence from each other. Moser (1967) explains that:

A measuring instrument is reliable to the extent that repeat measurements made with it under constant conditions will give the same result (assuming no change in the basic characteristics--e.g. attitude--being measured). (p. 242)

Wiersema (1975) calls attention to the fact that the concept of reliability is strictly a statistical concept and that coefficients of reliability cannot be established through a subjective investigation of the items, but must be done through an administration of the survey instrument with the reliability coefficient being computed from the results.

There are several statistical approaches to determining the reliability of a survey instrument. Among them is Cronbach's Alpha which was used in this study. It was selected because it requires only one administration of the instrument. The computer program SSPSS Subprogram Reliability was used to calculate Cronbach's Alpha for each of the instrument's five-college choice factors. Table 3.2 shows the reliability coefficients for each of the five influences.

In considering what constitutes an acceptable level of reliability, Wiersema (1975) feels that:

The question of high and low reliability and, more appropriately, the minimum reliability that is acceptable does not have a specific answer which covers all tests and situations. The business of high and low is, of course, a relative thing. The question must be answered in the light of existing information and previous results. (p. 171)

Table 3.2

Reliability Coefficients of Five Areas of Influence
Determined from the Factor Analysis

Area of Influence	Items	Reliability Coefficient (Cronbach's Alpha)	n
Warm and Friendly	47,49,51,54,60,61	.80	644
Academic	53,65	.76	1,231
Advice of Others	43,57,63	.63	196
Practical	39,55	.68	364
Large and Diverse	48,50,56	.72	141

The reliability coefficients range from a high of .80 to a low of .63. It is called to the reader's attention that while all the factors (or influences) were judged to be adequate, those influences having a reliability coefficient below .72 must be viewed as moderately reliable.

After examining the factor analysis and reliability results, there was one TROS college choice item which stood out. Item 3 did not associate with any other items in the Factor analysis and had a high mean score. It asked respondents to rate the influence of not having to

pay out-of-state tuition on their college choice decision. Since this was closely identified with the major benefit of tuition reciprocity, it was added to the list of influences out of interest. Being added in this arbitrary way and only containing one TROS item precluded the use of the same test for reliability.

A Description of the Areas of Influence

The following areas of influence were determined by the factor analysis and subjective judgment. They are described by the nature of the college choice items (TROS) which make up the influence.

Academic.--This area included two TROS items which related to academic reasons for the college choice decision. Item 27 stated that the institution had an excellent academic program in the student's area of interest. Item 15 reflected that the chosen academic program was well suited to the individual's interests.

Environmental.--This influence contained six college choice items which described the college as friendly, moderate in size, attractive, quick to respond to requests for information, and having a good social climate.

Practical.--There were three TROS items in this influence. They stated that the currently attended institution provided a chance to live at home or allowed the individual to remain close to family.

Advice of Others.--The influence of a high school teacher, counselor, or parent is reflected in this influence.

Large and Diverse.--Students responding to this area as an influence were indicating that their college choice was affected by the perception that the school was large and diverse, had more than 10,000 students, and was located in a large community.

Reciprocity.--This influence was added after the factor analysis and simply reflects the fact that not having to pay out-of-state tuition was or was not an influence to enroll at a Minnesota or North Dakota institution. It represents a cost influence directly related to tuition reciprocity.

Data Collection

A mail survey was selected as the best method of data collection primarily because of its relatively low cost for a sample size of 1,700 which was geographically distant from the researcher. Such an approach

was also well suited for the use of a rating scale (Warwick & Lininger, 1975) which the college choice factors necessitated.

The basic data collection design was directed at assuring an adequate response rate given the various time constraints. It involved: an initial mailing, a postcard reminder, and a follow-up mailing to nonrespondents. This pattern was influenced by research conducted by Vigderhous (1977) which:

. . . suggested the longer the time elapsed between mailing the first questionnaire and the reminder, the less effective is the reminder itself (the individual might forget that he received a questionnaire or he might lose it. (p. 212)

The specific recommendation was that the follow-up should take place between the twelfth and fifteenth days after the initial return is received. This procedure was modified for this study to avoid heavy Christmas mail. Therefore, it was decided to send the follow-up eleven days after the initial return was received.

The Vidgerhous (1977) research did not include the use of a postcard reminder; however, Warwick and Lininager (1975) point out that research on the use of postcard reminders is extensive and conclusions are mixed. The decision to use a postcard reminder was influenced by the fact that the mailing addresses used in the survey were home addresses of reciprocity applicants. This would require the forwarding of all mailings for students

attending college away from home. It was reasoned that because of this need to forward some mail, a reminder mailed shortly after the initial mailing would serve a useful purpose. Therefore, it was decided that the post-card reminder would be mailed on the fifth day after the initial return to correspond roughly with research results obtained by Vidgerhous (1977) which showed response rates would start to decline on the fourth or fifth day after the initial return(s).

All mailings used first-class postage. This was done for several reasons: (1) the only address available was the applicants' home address which required the forwarding of the envelope for those living away from home and (2) higher response rates are associated with first-class rather than third-class postage (Warwick & Lininager, 1975), possibly because more importance is placed on the mailing using first-class postage.

All printed materials in the survey were typeset professionally using the same type style to give a professional appearance. The cover letter and questionnaire were printed on 24-pound Hammermill Bond--Ivory paper and carried the same masthead. Two envelopes were used: a number 10 regular mailing envelope, which would contain the initial and follow-up mailing, plus a number 9 business reply envelope providing free postage for respondents. Each questionnaire was stamped with an identifying number matched to a printed list of the sampled students in

order to conduct a follow-up mailing to nonrespondents. These procedures follow suggestions made by Engelhart (1972) where he states:

An attractive-looking questionnaire is much more likely to receive a good response than one that is unappealing. If possible, the questionnaire should be printed; respondents can more easily write legibly on a printed page. When it is more than two or three typewritten pages in length and several hundred copies are required, offset printing is no more expensive than mimeographing. (p. 101)

The questionnaire, accompanied by the initial cover letter and business reply envelope, was mailed to the 1,700 sampled applicants to The Program on November 15, 1979. The cover letter was kept as brief as possible and opened with attention being called to the sponsoring agencies: (1) the MHECB and North Dakota Post-Secondary Education Commission. The first return was received on November 19, 1979.

Five days later, on November 23, 1979, a postcard reminder was mailed with the following message:

You should have received a packet of materials asking you to participate in a study on tuition reciprocity which is being sponsored by the Minnesota Higher Education Coordinating Commission and North Dakota Postsecondary Education Commission.

This postcard is intended to serve as a reminder that your participation in the study is very important.

We look forward to receiving your completed questionnaire if you have not returned it already.

During the next two weeks, 900 questionnaires were returned. Respondents' code numbers were recorded and on November 30, 1979, another copy of the questionnaire

and letter was mailed to nonrespondents. This mailing differed slightly in appearance from the initial mailing in that the mailing envelope contained a stamped message stating: "Important--Second Request." Time constraints did not allow for any further follow-up. The survey was stopped on December 18, 1979, at which time 1,418 questionnaires had been received, representing a response rate of 83.4%. Table C.3 in Appendix C shows the number of questionnaires received each day of the survey.

Coding and Keypunching

The questionnaire had been designed so most item responses were self-coding except for items 12, 17, 19, and 27. As the questionnaires were received, they were checked for accuracy and the uncoded items were coded. The coding format which was used for items 12, 17, 19, and 27 can be found in Appendix D.

If a respondent failed to circle any of the response alternatives, that response was treated as a missing value. Double digit responses were coded with a 99 if a response was missing while single digit responses received a 9 if a response was omitted. Such missing data, therefore, were not included in any of the statistical calculations, although the number of times data were not provided for a given item was recorded.

The coded questionnaires were then taken to the keypunching division of the Michigan State University Computer Center for processing.

Research Questions and Hypotheses

As stated in Chapter I several research questions were formulated to provide a framework for analyzing the data. These questions restated are:

1. How do Minnesota residents who use The Program rate specified factors which influence college choice? (TROS)
2. How do North Dakota residents who use The Program rate specified factors which influence their college choice?
3. Are there significant differences between the findings of Question 1 and 2?
4. What institutions would the sampled students have attended without tuition reciprocity?
5. Why does a disproportionate number of Minnesota residents who live near the Minnesota-North Dakota border select North Dakota postsecondary institutions? (See: Special note at the end of chapter.)

In answering Questions 3 and 5, several null hypotheses were formulated to further assist the data analysis.

The null hypotheses for Question 3 are:

Ho₁:

There is no significant difference between Minnesota and North Dakota residents' ratings on the Academic area of influence.

Ho₂:

There is no significant difference between Minnesota and North Dakota residents' ratings on the Reciprocity area of influence.

Ho₃:

There is no significant difference between Minnesota and North Dakota residents' ratings on the Environmental area of influence.

Ho₄:

There is no significant difference between Minnesota and North Dakota residents' ratings on the Practical area of influence.

Ho₅:

There is no significant difference between Minnesota and North Dakota residents' ratings on the Advice of Others area of influence.

Ho₆:

There is no significant difference between Minnesota and North Dakota residents' ratings on the Large and Diverse area of influence.

Question 5 relates to the six strata used in the sample and are answered by using the following hypotheses stated in the null form:

Ho₇:

There is no significant difference among strata of the study in relation to the ratings on the Academic area of influence.

Ho₈:

There is no significant difference among strata of the study in relation to the ratings on the Reciprocity area of influence.

Ho₉:

There is no significant difference among strata of the study in relation to the ratings on the Environmental area of influence.

Ho₁₀:

There is no significant difference among the six strata of the study in relation to the ratings on the: Practical--area of influence.

Ho₁₁:

There is no significant difference among the six strata of the study in relation to the ratings on the: Advice of Others--area of influence.

Ho₁₂:

There is no significant difference among the six strata of the study in relation to the ratings on the: Large and Diverse--area of influence.

Data Analysis

The nature of the research questions provides for a variety of ways in which to analyze the data. Some of these approaches are straightforward and descriptive while others are slightly more complex, using tests for significant differences.

This section of Chapter III will describe the analysis of data. It is organized so that the description of the data analysis follows the order in which the research questions are presented.

Questions 1 and 2, briefly stated, ask how residents of Minnesota and North Dakota rate the six areas of influence derived from the TROS college choice items. These questions will be looked at first. The data will be organized so that mean scores and standard deviations of the six areas of influence can be contrasted to each other as well as within selected independent variables (Academic interest, current institution, distance from home, age, cost of alternate college, class standing, and commuter status). This organization will enable the researcher to investigate the mean scores of the six influences broken down by the different levels of each independent variable. It will also allow for the formulation of tentative conclusions about the degree of variability (or consistency) among the students according to the six areas of influence. These comparisons will be displayed in tabular form.

Research Question 3 asks if there are differences between Minnesota and North Dakota residents' mean scores on the six areas of influence. The data analysis for Question 3 will be guided by the six null hypotheses stated earlier. These null hypotheses were formulated to allow for tests of significant differences.

Six t-tests will be conducted to see if the states differ on their ratings of the six areas of influence. Since the use of multiple t-tests compounds

the overall significance level, the reader is referred to the Significance Level section of this chapter for an explanation of how this will be treated.

When the results of the t-tests suggest that differences exist, a process of elaboration will be used in an attempt to see if selected independent variables can explain these differences. A two-way Analysis of Variance (ANOVA) will be used in these elaboration procedures. Where interaction is present, the cells will be examined for ordinality of effect.

The initial analysis design using the t-tests can be viewed by the following figure.

States	
MN	ND
\bar{X}_i	\bar{X}_i

Figure 3.2. Tableau for Analyzing Questions 1 and 2

Where:

\bar{X}_i = Mean score on various areas of influence.

The fourth question asks the respondents to indicate the institution they would have attended in the absence of tuition reciprocity. This will be analyzed by the use of tables of frequencies and percentages showing these institutions.

The fifth question of the study asks why a disproportionate number of Minnesota residents select North Dakota postsecondary educational institutions (see special note this chapter). The sample strata will be used to see if there are any significant differences between stratum 3 and 4 as to how students rate the six areas of influence. As in Question 3, six t-tests will be used to see if differences exist. The analysis design can be described by Figure 3.3:

	Independent Variable Strata	
	MN	ND
Dependent Variable (College Choice Factors)	\bar{X}_i	\bar{X}_i

Figure 3.3. Tableau for Analyzing Question 3

Where:

\bar{X}_i = Mean score on various areas of influence

Rationale for Parametric Techniques

The use of a t-test and ANOVA are considered parametric statistical techniques. Wiersema (1975) states:

. . . underlying the use of these techniques are what are called the parametric assumptions, basically conditions put on the data and the population distributions from which the sample of data is selected. (p. 225)

There are four of these assumptions as explained by Wiersema (1975).

The first calls for the data to be independent so a score for one of the TROS college choice items should in no way influence the score on another item.

In addition a normal population distribution is assumed as one of the parametric assumptions.

A third assumption calls for a homogeneous variance of the populations (where two or more are involved).

The fourth assumption calls for the use of an interval level of measurement for the scaling of the data being measured.

In relation to these four assumptions the researcher draws the following conclusions:

1. The TROS dependent variables were formed by a varimax factor analysis and thus can be treated as independent of each other.

2. The population distribution is presumed to be normally distributed as no other information exists to the contrary.

3. The population variances while not tested are presumed to be equal.

This leaves the fourth assumption relating to the need for an interval level of measurement.

To some social scientists the Likert-type scale used in the TROS would be viewed as having a less than interval level of measurement (Coombs, 1953), probably falling into the ordinal category, necessitating the use of nonparametric statistics. Such a conclusion is viewed by Abelson and Tukey (1970, pp. 407-417) as unnecessarily limiting. It is their feeling that many times what appears to be ordinal data is, in fact, more than ordinal data, falling into what Coombs (1953) describes as an ordered-metric level of measurement. Under this circumstance, Abelson and Tukey (1970) feel it is justified to use parametric techniques.

Another way of stating this is to say that the assumptions associated with the use of parametric techniques remain robust when used with ordered-metric data; and, thus, the assumptions are reasonably met, justifying the use of analysis of variance procedures.

Significance Levels

According to Wiersema (1975), the significance level for determining the rejection or nonrejection of null hypotheses is an arbitrary decision which is directly dependent on the amount of risk the researcher is willing to take in making an error. That is to say, the consequences of being wrong in accepting or rejecting a research hypothesis must be taken into account in determining the error. Traditionally, educational

research has been done at the .05 level of significance, meaning that the chances are 5 in 100 that an extreme test statistic (suggesting a rejection) would occur by chance alone if the hypothesis of no difference is true. Occasionally, the .01 level is set. It was the researcher's decision to set the significance level at the .10 level. This suggests that an incorrect decision about the groups differing from each other could be made about 10% of the time. In other words, it was recognized that a .10 level compared to a .05 level would increase the chances of accepting a hypothesis when in fact it should be rejected. This decision was made for the following reasons: (1) the Minnesota-North Dakota Tuition Reciprocity Program, while involving hundreds of thousands of dollars, was not judged to be in jeopardy as a result of the findings of this study; and (2) survey research, particularly descriptive research, is not viewed as a precise social science investigative technique. Given this imprecision, it was deemed more important to detect significant differences than to be absolutely sure a type II error was not being committed.

However, because a series of multiple t-tests are being used the alpha level for the overall experimentwise effect is being compounded. To control for this, a variation of the Bonferroni procedure will be used, and each comparison will be tested at the $.10/6 = .02$

level. This will insure that the overall alpha will be no greater than the .10 level. This adjustment thus allows the error rate associated with the overall alpha level to be a result of the function of the number of comparisons which are made, which in this situation are six. Therefore, a .02 level of significance will be used to make decisions on individual t-tests (Kirk, 1968).

When differences are suggested, a process of elaboration will be used to search for explanations. This will be done, in most cases, using a two-way analysis of variance with a .10 level of significance.

Data Processing

The data analysis was aided by the use of the Michigan State University CDC 750 computer and the Statistical Package of the Social Sciences (SPSS, Nie et al., 1975). Data for Questions 1, 2, and 4 were analyzed using the SPSS subprograms: Frequencies, Crosstabs, and Break-down. Questions 3 and 5 were analyzed with the use of SPSS subprograms: t-test and ANOVA. Also a factor analysis and reliability test were done using the SPSS subprograms: Factor and Reliability. The factor analysis involved a principle factoring with iteration, a varimax rotation, and the allowance of .25 missing values. The factor analysis was done on the 30 dependent variables which made up the College Choice section of the survey instrument.

Special Note: Research
Question 5

The fifth research question of this study refers to a disproportionate number of Minnesota residents using The Program. This section of Chapter III is intended to clarify and define what is meant by the use of the term "disproportionate number."

The MHECB study (February 1979) called attention to the fact that more Minnesota residents were using tuition reciprocity benefits than were residents of North Dakota or Wisconsin. In discussing this situation as it relates to North Dakota, the MHECB study stated:

Minnesota sends roughly twice as many students each year to schools in Wisconsin and North Dakota as it receives from these states. (p. 45)

Along the North Dakota state line differences in population density are small and thus unlikely to be a factor in student migration patterns. According to 1976 estimates, 293,100 Minnesotans lived in the 16 counties in the two state planning regions bordering on North Dakota.¹ On a roughly comparable area covering the 14 North Dakota counties closest to the Minnesota-North Dakota border were 266,300 North Dakotans.² (p. 46)

This speculates that the larger number of Minnesota residents attending North Dakota institutions is not a matter of Minnesota having a larger population than North Dakota. Therefore, the difference is considered disproportionate to the populations of the cited geographic regions.

Subsequently, in an attempt to answer why a disproportionately higher number of Minnesota residents (who live near the North Dakota border) attend North

Dakota institutions, two of the sample study's six strata will be used. Strata 3 and 4 closely resemble the geographic regions cited in the MHECB (February 1979) study. Hence, they will be investigated to see if there are differences between the two using mean scores on the six areas of influence which affect college choice decisions. Possibly, these comparisons will assist in answering the research question.

CHAPTER IV

ANALYSIS OF THE DATA

Introduction

This chapter contains a presentation and analysis of the data gathered when fall 1979 applicants to the Minnesota-North Dakota tuition reciprocity program (The Program) were surveyed regarding specified factors which influenced them to enroll at an educational institution in the other state. The major findings are presented in statistical, descriptive, and tabular form.

Review of Procedures

Questionnaires were sent to 1,700 residents of Minnesota and North Dakota who had submitted applications to The Program for the fall term of 1979.

The initial mailing took place on November 15, 1979, and was followed by a postcard reminder and a follow-up mailing to nonrespondents. The survey was completed on December 18, 1979, and resulted in 1,418 responses. Thus, 83.4% of the total number of students surveyed returned questionnaires. A total of 1,291

questionnaires were determined to represent the target population and were considered usable for data analysis.

The questionnaire contained 30 items that were representative of influences affecting college choice decisions.

A Likert-type scale was used and the instructions asked each respondent to circle the appropriate response from the following choices:

- 0 = does not apply
- 1 = applies but no influence
- 2 = influenced me a little
- 3 = influenced me some
- 4 = influenced me strongly
- 5 = influenced me very strongly

The zero was treated as a missing value and subsequently omitted from calculations.

These 30 items were subsequently factor analyzed in order to reduce data for analysis. The factor analysis aided in the development of five areas that were judged to be important in the college choice decisions of the survey respondents. After careful examination of the factors and college choice items on the Tuition Reciprocity Opinion Scale (TROS), a sixth item (reciprocity influence) was added. The six areas of influence and the TROS items which related to each of these categories are as follows (see Appendix D for a sample of the questionnaire):

1. Academic
Items included: 53, 65

2. Reciprocity
Items included: 41
3. Environmental
Items included: 47, 49, 51, 54, 60, 61
4. Practical
Items included: 39, 55
5. Advice of Others
Items included: 43, 57, 63
6. Large and Diverse
Items included: 48, 50, 56

The Environmental, Advice of Others, and Large and Diverse areas were adjusted to allow for calculations of statistics if one-third of the items making up that influence were missing. In other words, if two items were missing from the Environmental influence, calculations were carried out for the remaining four items. If more than two items were missing, the entire area of influence (Environmental, in this example) was declared missing.

The college choice items of the TROS and subsequent areas of influence represent the instrument's dependent variables. In addition, there were numerous independent variables which were judged to have a potential effect on the way dependent variables would be rated.

The five areas of influence which were developed with the help of the factor analysis were tested for reliability using the SPSS subprogram: Reliability. It was decided that the reliability of these areas ranged from moderate to high.

The sixth area (Reciprocity) was added outside the factor analysis and was not tested for reliability because it contained only one college choice item. An awareness of these procedures is helpful when interpreting the results of this study.

The data were analyzed using several SPSS subprograms producing a variety of descriptive statistics. In addition, the research questions containing hypotheses and subsequent tests for statistical differences between means were analyzed using SPSS subprograms: t-test and ANOVA. When overall statistical differences were suggested, they were investigated in an attempt to determine where these differences occurred.

Survey Results

The target population of this study was all Minnesota and North Dakota residents using The Program. These individuals were included in the data tape of Program applicants obtained from the MHECB. In addition this tape also contained some applicants who applied for tuition reciprocity but did not use it. These non-users were not included in the data analysis. There were 127 respondents who indicated that they had applied for tuition reciprocity but decided not to use it. This left 1,291 usable questionnaires for data analysis. The remaining respondents were compared to the individuals on the MHECB data tape to see if, in fact, the survey

respondents were representative of the total group from which the sample was drawn.

Table 4.1 presents a comparison of the distribution of survey respondents and applicants to The Program by state. As can be seen, there is a close fit between these two groups.

Table 4.1

Composition of State Residency for Total Group of Applicants to the Program and Survey Respondents

State	Applicants to The Program		Survey Respondents	
	f	%	f	%
Minnesota	4,298	58.4	784	60.7
North Dakota	3,056	41.6	507	39.3

Approximations of the six strata were developed and compared between survey respondents and the actual mailing sample. Table 4.2 contains a comparison of survey respondents to survey sample by strata. Some variation is present as strata one was over-represented. It is difficult to speculate as to the reasons for this since the comparisons are based on approximations of county affiliation. The differences were judged to not be of major concern as adequate cell size seemed to be present. The other strata appeared to closely follow

Table 4.2

Approximation of Frequencies for Survey Respondents
and Survey Sample by Sample Strata

Stratum	Respondents		Sample	
	Frequency	Percentage	Frequency	Percentage
Stratum 1 ^a	211	16.3	181	10.6
Stratum 2	54	4.2	57	3.3
Stratum 3	222	17.2	435	25.6
Stratum 4 ^b	275	21.3	357	21.0
Stratum 5	147	11.4	212	12.5
Stratum 6	371	28.7	458	27.9
Missing	11	.9	—	—
Total	1,291	100	1,700	100

Note. See Figure 3.1 for Map of Strata. The reason for the discrepancy between respondents and sample frequencies for stratum 1 is that the sample data used an actually reported county residence while the TROS questionnaire used location of high school by country.

^aStrata 1, 2, and 3 are in North Dakota.

^bStrata 4, 5, and 6 are in Minnesota.

the proportions found in the mailing sample which in turn was proportional to the entire group of applicant of The Program.

A further investigation was done to see if institutional affiliation of the survey respondents was similar to that of the entire group of applicants to The Program. Table 4.3 presents this information and shows that once again the survey respondents closely resemble the total group of students from which the sample was drawn.

On the basis of these observations, it was decided that the survey respondents were, in fact, representative of the applicants on the MHECB data tape and that the response rate of 83.4% was excellent in minimizing bias from nonrespondents.

The reader's attention is called, once again, to Table 4.3 where it is noted that there are only a few postsecondary educational institutions in each state which are predominant recipients of tuition reciprocity students. In Minnesota, Moorhead State University (MSU) is the principle institution receiving North Dakota students while North Dakota State University (NDSU) and the University of North Dakota (UND) are in a similar position in North Dakota. MSU accounts for 80% of North Dakota's participants in The Program. NDSU and UND, in turn, account for 87.3% of Minnesota's participants.

Table 4.4 shows that along with the popularity of a few educational institutions, there is a propensity

Table 4.3

Composition of the MHECB Data Tape and
Survey Respondents by Institution

MN Institutions	Data Tape		ND Respondents	
	f	%	f	%
Bemidji	46	1.5	8	1.6
Mankato	25	.8	6	1.2
Moorhead	2,477	81.1	398	80.0
St. Cloud	41	1.3	9	1.8
Southwest	3	.1	1	.2
Winona	9	.3	1	.2
UM-Crookston	123	4.0	24	4.8
UM-Duluth	12	.4	3	.6
UM-Morris	12	.4	1	.2
UM-Twin Cities	274	9.0	42	8.4
UM-Waseca	2	.1	2	.4
MN Community College	32	1.0	3	.6
Total	3,056	100	498	100
<hr/>				
ND Institutions			MN Respondents	
Dickinson	13	.3	1	.1
Mayville	90	2.1	13	1.7
Minot	11	.3	2	.3
NDSSS	434	10.1	75	9.7
NDSU-B	9	.2	1	.1
NDSU	1,953	45.4	358	46.1
UND	1,763	41.0	320	41.2
Valley City	25	.6	6	.8
Total	4,298	100	776	100

Table 4.4

Frequencies of Survey Respondents' Academic Interest
at Current School by State

Academic Interest	MN Residents ^a		ND Residents ^b	
	f ^c	% ^d	f	%
Agriculture	45	5.7	6	1.2
Architecture	30	3.8	1	.2
Business	103	13.1	157	31.0
Computer Science & Mathematics	15	1.9	13	2.6
Education	52	6.6	96	19.0
Engineering	128	16.4	7	1.4
Health Related	99	12.6	31	6.1
Humanities and Social Science	25	3.2	22	4.3
Home Economics	55	7.0	2	.4
Journalism	7	.9	13	2.6
Pharmacy	37	4.7	1	.2
Science Related	29	3.7	14	2.8
Social Work	6	.8	26	5.1
Trade or Technical	35	4.5	5	1.0
Undecided	31	4.0	23	4.5
Other	87	11.1	89	17.6

^aN = 784

^bN = 506

c = Frequency

d = Percentage

toward a relatively small number of academic programs. Business and Education attract North Dakota residents to Minnesota while Agriculture, Business, Engineering, Home Economics, and Health-related fields draw Minnesota students to North Dakota.

Several academic programs at the predominant postsecondary educational institutions in each state appear to be the major attraction for students from the other state. Table 4.5 contains a comparison of academic interests by selected institutions. It can be seen that several academic programs are associated with the institutions which draw the most tuition reciprocity participants.

These insights about the distribution of students at institutions and in academic programs provide a background to better understand the data analysis associated with the research questions. Additional demographic data about the survey respondents can be found in Appendix C.

Summary of Findings: Survey Results

This section contained introductory information about several overall characteristics of the survey results. It showed that Moorhead State University was the major recipient of North Dakota students under The Program. North Dakota State University and the University of North Dakota were shown to be the major North Dakota institutions attracting Minnesota residents. Associated

Table 4.5

Frequencies and Percentages of Predominant Academic
Interests by Selected Current Institutions

Academic Interest	Institution	
	f	%
Moorhead State University		
Business	130	33.0
Education	92	23.1
Social Work	24	6.0
Health Related	20	5.0
Total Enrolled	398	
University of Minnesota-Twin Cities		
Business	7	16.7
Health	7	16.7
Total Enrolled	42	
North Dakota State University		
Agriculture	43	12.0
Architecture	24	6.7
Engineering	82	23.0
Home Economics	51	14.2
Pharmacy	36	10.0
Health Related	24	6.7
Total Enrolled	358	
University of North Dakota		
Business	68	21.2
Education	32	10.0
Engineering	42	13.1
Health	61	19.1
Other ^a	65	20.3
Total Enrolled	320	20.3

^aAn inspection of this category showed a preponderance of students who listed aviation which was not included in the list of academic interests.

with the institutions in each state were several academic programs which appeared to be closely identified with the institution's appeal to students from the other state.

The survey respondents were also shown to resemble the total group of applicants to the Minnesota-North Dakota Tuition Reciprocity Program from which the sample was drawn.

The Research Questions

The research questions were previously presented in Chapters I and III. Each question will be restated along with its hypothesis, when appropriate. A summary of findings will appear at the end of this chapter.

The nature of this study allows for a wide range of investigation into the independent variables of the survey instrument. Therefore, the analysis is restricted to the reporting of major findings. As a guideline for Questions 1 and 2, observations will be made of selected independent variables, highlighting differences between means which are approximately equal to or greater than .5 (five-tenths). In addition, discernible trends within the various levels of the independent variables will be reported. Tables showing means, standard deviations, and cell frequencies will be used.

Research Question 4 will be answered by the presentation of tables showing frequencies and percentages.

Research Questions 3 and 5 contain the null hypotheses and will be answered in a straightforward manner which follows the order of the hypotheses.

Research Question 1

How do Minnesota Residents who use The Program rate the specified factors which influence their college choice?

Overall mean scores. Table 4.6 contains the overall mean scores for Minnesota residents on the six areas of influence. It can be observed that the Academic and Reciprocity influences not only have the highest mean scores but also are rated as a valid influence by the largest number of respondents. The Academic influence with a mean score of 4.29 and the Reciprocity influence with a 3.91 indicate that a large number of Minnesota residents place a considerable amount of importance on these two influences.

The Practical influence had a mean score of 3.50 with 25% of the Minnesota respondents rating it as a valid influence. A larger percentage of respondents indicated that the Environmental influence applied to them in selecting a North Dakota institution. However, this influence while applying to more students was rated lower than the Practical area of influence. The Environment influence received an overall 3.00 mean score.

The lowest ratings and fewest number of responses are associated with the Advice of Others and Large and

Table 4.6
Overall Mean Scores for Minnesota Resident
on the Six Areas of Influence

Influence	Mean	SD ^a	n ^b	% ^c
Academic	4.29	.87	728	93.0
Reciprocity	3.91	1.19	687	88.0
Practical	3.50	1.29	193	25.0
Environmental	3.00	.83	396	51.0
Advice of Others	2.60	.90	139	17.7
Large and Diverse	2.01	.85	68	8.7

Note. N^d = 784

a = Standard Deviation

b = Number of cases in each cell

c = Percentage is figured using N

d = Total cases usable for Minnesota

Diverse areas. The Advice of Others influence received a mean score of 2.60 with 17.7% of the respondents viewing it as a valid influence. The Large and Diverse influence had a 2.01 mean score with only 8.7% of the Minnesota respondents seeing it as a valid influence.

Analysis of independent variable: Current institution. The mean scores on the dependent variables (areas of influence) for Minnesota residents by current educational institution are presented in Table 4.7 and show that students at the two predominant institutions (NDSU, UND) rate the areas of influence in a similar manner. The only inconsistency is that students at NDSU scored .58 lower on the Large and Diverse influence than did respondents at UND.

Analysis of independent variable: Academic interest. Table 4.8 presents the mean scores on the areas of influence for Minnesota residents by academic interest at their current institution. Among individuals in the various academic interests where there were frequencies above 20, those in the Humanities and Social Sciences rated the Academic influence the lowest (3.86) while those in Agriculture (4.60) and Pharmacy (4.76) were among the highest. Students who were undecided about their academic interest rated academic influence the lowest of all (3.04).

Table 4.7

Mean Scores on the Six Areas of Influence for Minnesota
Residents at North Dakota Institutions

Institution	Area of Influence					
	1 ^a	2 ^b	3 ^c	4 ^d	5 ^e	6 ^f
	Mean	Mean	Mean	Mean	Mean	Mean
	SD n	SD n	SD n	SD n	SD n	SD n
Dickinson	2.50 0 1	4.00 0 1	0	0	0	0
Mayville	3.83 .99 12	3.67 1.72 12	0	3.50 .75 8	2.75 .63 4	0
Minot	3.50 0 1	4.50 .71 2	0	2.58 .35 2	0	0
NDSSS	4.32 .87 67	3.71 1.24 56	3.67 1.14 33	3.01 .75 40	2.67 1.00 13	1.16 .24 2
NDSU-B	5.00 0 1	4.00 0 1	0	0	0	
NDSU	4.35 .85 339	4.00 1.11 318	3.52 1.24 83	2.92 .87 182	2.54 .87 65	1.69 .60 27
UND	4.26 .89 293	3.88 1.25 285	3.32 1.40 72	3.10 .80 159	2.62 .94 56	2.27 .93 39
Valley City	3.50 1.27 6	3.17 1.47 6	4.00 0 1	3.00 .81 4	0	0
Overall	4.30 .90 460	3.92 1.20 687	3.50 1.29 197	3.00 .83 396	2.60 .90 139	2.01 .85 68

Note. See Appendix E for list of acronyms.

a = Academic; b = Reciprocity; c = Practical; d = Environmental; e = Advice of Others; f = Large and Diverse.

Table 4.8

Mean Scores on the Six Areas of Influence for Minnesota
Residents by Academic Interest

Interest	Area of Influence					
	1 ^a	2 ^b	3 ^c	4 ^d	5 ^e	6 ^f
	Mean	Mean	Mean	Mean	Mean	Mean
	SD	SD	SD	SD	SD	SD
	n	n	n	n	n	n
Agriculture	4.60 .57 44	4.20 1.01 40	2.80 1.15 12	3.05 .76 29	2.41 1.04 9	1.44 .19 3
Architecture	4.30 .74 30	3.74 1.46 27	3.50 1.73 4	2.84 .82 16	2.06 .25 6	1.67 .47 4
Business	3.92 1.00 91	3.76 1.34 83	3.21 1.35 29	3.21 .84 48	2.44 .89 24	2.20 .85 10
Computer Science/ Mathematics	4.12 .71 13	4.64 .63 14	3.63 1.89 4	2.95 .98 10	2.44 .69 3	1.00 0 1
Education	4.20 .74 47	3.86 1.31 42	4.18 1.25 17	2.99 .69 27	3.13 1.04 5	1.80 .79 7
Engineering	4.31 .74 123	4.12 .94 122	2.93 1.23 27	2.88 .80 62	2.61 .83 22	1.56 .55 9
Health Related	4.55 .76 97	3.79 1.28 82	3.67 1.26 27	3.06 .71 52	2.91 .96 18	1.72 .76 12
Humanities/ Social Science	3.86 .91 21	3.95 1.02 21	3.75 .96 8	3.06 .77 14	2.62 .59 7	3.11 .77 3
Home Economics	4.56 .64 54	4.03 1.24 51	3.50 1.37 13	3.14 1.00 29	2.38 1.04 7	1.83 .43 4
Journalism	3.64 .75 7	3.29 1.60 7	2.00 .70 2	2.83 1.36 3		
Pharmacy	4.76 .46 36	4.03 .97 36	4.25 .52 6	3.01 .78 20	2.67 .93 12	1.67 0 1

Table 4.8 (Continued)

Interest	Area of Influence					
	1 ^a	2 ^b	3 ^c	4 ^d	5 ^e	6 ^f
	Mean	Mean	Mean	Mean	Mean	Mean
	SD	SD	SD	SD	SD	SD
	n	n	n	n	n	n
Science Related	4.06 1.00 26	3.74 1.23 27	4.20 .76 5	3.00 .83 9	0	3.11 1.34 3
Social Work	3.70 1.10 5	3.17 1.47 6	0	2.33 .60 3	2.00 0 1	2.33 0 1
Trade or Technical	4.51 .69 33	3.84 1.14 25	3.93 1.08 15	2.92 .69 16	2.67 .86 4	1.33 0 1
Undecided	3.04 1.24 23	3.59 1.28 27	3.50 1.00 6	3.20 .82 18	2.17 1.00 4	3.33 0 2
Other	4.46 .97 78	3.88 1.25 77	3.64 1.39 18	2.80 1.03 40	2.77 1.04 17	2.48 .86 7
Overall	4.30 .88 728	3.91 1.19 687	3.50 1.29 193	3.00 .83 396	2.60 .90 139	2.01 .85 68

a = Academic; b = Reciprocity; c = Practical; d = Environmental; f = Advice of Others; g = Large and Diverse.

The Practical area of influence presents several anomalies. Using 20 or more cell frequencies as a guideline, Engineering students rated this influence the lowest (2.93) of any academic interest. Those in Health-related programs scored a mean of 3.67 which was the highest for those interests having 20 or more frequencies in the cell. However, relatively few respondents in the academic interests viewed the Practical influence as applicable in affecting their choice of a North Dakota institution.

Analysis of independent variable: Distance current school is from home. When survey respondent's ratings on the six areas of influence are examined by the distance their current institution is from home, several findings are evident. Table 4.9 contains these findings and it can be seen that distance affects the ratings on the Academic and Practical influences. As distance increases the mean scores on the Academic influence increase while an increase of distance decreases the Practical influence. Of course, the opposite could be said: That as distance from home decreases, academic influences decrease while Practical considerations rise.

Analysis of independent variable: Commuter status. This variable is similar to distance from home as distance plays a role in the feasibility of commuting. Table 4.10 shows the mean scores for Minnesota commuters

Table 4.9

Mean Scores on the Six Areas of Influence for MN Residents by
Distance Current School is From Home

Influence	Less Than 30 Miles	30-50 Miles	50-100 Miles	Over 100 Miles
Academic				
Mean (4.29) ^a	4.13	4.06	4.31	4.40
SD (.87)	.98	.80	.81	.85
n	158	60	146	364
Reciprocity				
Mean (3.91)	3.90	3.87	3.87	3.95
SD (1.19)	1.25	1.17	1.23	1.16
n	139	60	130	358
Environmental				
Mean (3.00)	2.78	3.06	3.02	3.09
SD (.83)	.85	.85	.87	.77
n	86	36	90	184
Practical				
Mean (3.50)	3.83	3.20	3.02	1.94
SD (1.29)	1.09	1.29	1.34	1.16
n	133	22	20	18
Advice of Others				
Mean (2.59)	2.34	2.55	2.89	2.65
SD (.90)	.85	.70	.97	.91
n	42	14	28	55
Large and Diverse				
Mean (2.00)	1.84	1.93	2.03	2.10
SD (.85)	.76	1.01	.95	.81
n	15	5	22	26

a = Numbers in parentheses represent the overall grand mean and its Standard Deviation.

Table 4.10

MN Residents' Mean Score on Areas of Influence
by Commuter Status

Influence	Status	
	Commuting	Not Commuting
Academic		
Mean (4.29) ^a	4.12	4.33
SD (.88)	.90	.87
n	117	610
Reciprocity		
Mean (3.92)	4.01	3.89
SD (1.20)	1.22	1.19
n	102	583
Environmental		
Mean (3.46)	2.76	3.04
SD (.83)	.94	.80
n	55	340
Practical		
Mean (3.50)	4.18	2.60
SD (1.28)	.95	1.12
n	110	83
Advice of Others		
Mean (2.59)	2.42	2.64
SD (.90)	.93	.89
n	27	112
Large and Diverse		
Mean (2.01)	1.63	2.07
SD (.85)	.65	.87
n	10	58
Number of Cases		

a = Numbers within parentheses represent the overall grand mean and its Standard Deviation.

and those not commuting on the six areas of influence. Commuters rate Practical considerations higher than non-commuters while there is a small increase in noncommuters' ratings of Academic considerations. Also, Practical considerations stand out for commuters and noncommuters when compared to the Grand Mean. Commuters scored .68 higher than the Grand Mean on Practical considerations while noncommuters rated this influence .9 lower than the Grand Mean.

Analysis of independent variable: Class standing.

Table 4.11 presents mean scores by class standing. Graduate students stand out on the Practical Influence with a mean score of 4.47 which is almost an entire scale interval above the Grand Mean. They also rate Environmental Influences the lowest of all the class levels. However, attention is called to the fact that a small number of graduate students saw these influences as applicable to their college choice decisions.

Analysis of independent variable: Consideration of an alternate institution. The mean scores in Table 4.12 reflect respondent ratings to the fact that they did or did not consider an alternate institution before selecting their current school. There is very little variation between cells or in comparison to the Grand Means which indicates that this variable has little effect on how individuals rate the six areas of influence.

Table 4.11

Ratings on the Six Areas of Influence for Minnesota Residents
by Class Standing

Influence	Class Standing					
	1 ^a	2 ^b	3 ^c	4 ^d	5 ^e	6 ^f
Academic						
Mean (4.29) ^g	4.29	4.26	4.36	4.33	4.21	4.00
SD (.87)	.88	.94	.84	.79	.88	1.01
n	288	174	146	131	28	20
Reciprocity						
Mean (3.91)	3.77	3.86	3.85	4.32	4.15	3.56
SD (1.19)	1.24	1.25	1.15	.93	1.23	1.46
n	215	167	138	121	27	18
Environmental						
Mean (3.00)	3.00	3.07	3.00	3.02	2.44	3.06
SD (.83)	.82	.79	.78	.92	.93	.55
n	122	106	81	69	12	6
Practical						
Mean (3.50)	3.31	3.63	3.31	3.02	4.47	5.00
SD (1.29)	1.24	1.10	1.33	1.38	1.03	0
n	58	44	33	34	19	6
Advice of Others						
Mean (2.60)	2.80	2.42	2.67	2.50	2.00	1.00
SD (.90)	.93	.79	.93	.94	0	0
n	45	41	30	21	1	1
Large and Diverse						
Mean (2.01)	1.98	2.09	1.96	2.00	1.92	
SD (.85)	.83	.99	.83	.69	1.13	
n	24	19	11	10	4	0

a = freshmen; b = sophomore; c = junior; d = senior;
e = graduate student; f = other; g = numbers within parentheses
represent the Grand Mean and its standard deviation.

Table 4.12

Mean Scores on the Six Areas of Influence for MN Residents by
Consideration of an Alternate Institution

Influence	Status	
	Considered an Alternate Institution	Did Not Consider an Alternate Institution
Academic		
Mean (4.29) ^a	4.29	4.39
SD (.87)	.87	.80
n	472	251
Reciprocity		
Mean (3.91)	4.00	3.75
SD (1.19)	1.16	1.25
n	454	228
Environmental		
Mean (3.00)	3.06	2.86
SD (.83)	.82	.81
n	268	126
Practical		
Mean (3.50)	3.29	3.80
SD (1.29)	1.29	1.24
n	114	79
Advice of Others		
Mean (2.60)	2.55	2.64
SD (.90)	.88	.94
n	90	45
Large and Diverse		
Mean (2.01)	2.03	1.93
SD (.85)	.81	.98
n	52	16

a = Numbers within parentheses represent the overall grand mean and its Standard Deviation.

Independent variable: Cost of alternate institution. The survey instrument asked those respondents who had considered an alternate institution to indicate how the cost of that school compared to the cost of their current institution. Table 4.13 contains the results of this comparison. Respondents who had considered an alternate institution which cost about the same as their current school rated the Practical influence the lowest of all cost categories with a mean score of 3.00 compared to a mean of 3.50 for individuals considering an alternate school which cost less. With the exception of what was pointed out, cost of alternate school did not seem to cause a major impact on the influence ratings.

Summary of findings: Research Question 1. Overall, Minnesota residents appear to be influenced the most by Academic and Reciprocity influences. The Environmental and Practical influences seem to have a moderate effect on their decision to select a North Dakota institution. The Advice of Others and Large and Diverse areas of influence seem to have the smallest influence on only a small percentage of respondents.

Students at NDSU and UND seem to place similar importance on the six areas of influence. Specific academic programs affect how the Academic area of influence is rated. Engineering students rated Practical considerations lower than most other academic programs.

Table 4.13

Mean Scores on the Six Areas of Influence for MN Residents by
Cost^a of Alternate Institution

Influence	Cost of Alternate Institution ^a			
	1 ^b	2 ^c	3 ^d	4 ^e
Academic				
Mean (4.29)	4.24	4.39	4.18	4.28
SD (.87)	.95	.76	.92	.87
n	228	61	139	63
Reciprocity				
Mean (3.91)	4.12	3.98	3.92	3.70
SD (1.19)	1.04	1.22	1.24	1.24
n	233	63	130	57
Environmental				
Mean (3.00)	3.15	2.89	3.06	2.84
SD (.83)	.81	.74	.85	.90
n	121	39	81	35
Practical				
Mean (3.50)	3.40	3.50	3.00	3.63
SD (1.29)	1.18	1.40	1.34	1.30
n	54	19	32	15
Advice of Others				
Mean (2.60)	2.58	2.97	2.36	2.90
SD (.90)	1.04	.75	.78	.78
n	47	12	28	10
Large and Diverse				
Mean (2.01)	1.77	2.17	2.21	1.67
SD (.85)	.77	.83	.85	.69
n	16	8	23	6

a = Cost compared to current institution; b = Cost is more;
c = Cost is less; d = Cost is about the same; e = Not sure; f =
Numbers within parentheses represent the overall grand mean and
its Standard Deviation.

The distance an individual's current school is from home affects ratings on both Academic and Practical considerations. An increase in distance increases the rating on the Academic influence while it decreases Practical considerations. The commuting status of respondents affects the scale ratings in a similar manner.

The consideration of an alternate institution before selecting the current school appears to have little influence in how the areas of influence are perceived.

Research Question 2

How do North Dakota Residents who use The Program rate specified factors which influence their college choice?

Table 4.14 presents the overall mean scores for North Dakota residents. The highest mean scores and largest number of respondents are associated with the Academic and Reciprocity areas of influence. The Academic influence received a mean score of 4.26 with 91.3% of all North Dakota respondents indicating that it applied to them as an influence in selecting their current Minnesota institution. The Reciprocity area received a 4.04 mean score and 85% of the respondents rated it as a valid influence. These results indicate that, like their Minnesota counterparts, North Dakota respondents place

a considerable amount of importance on academic and financial considerations in selecting a Minnesota institution.

Table 4.14
Overall Mean Scores for ND Residents
on the Six Areas of Influence

Influence	Mean	SD	n	% ^a
Academic	4.26	.91	463	91.3
Reciprocity	4.04	1.14	431	85.0
Practical	3.78	1.29	159	31.4
Environmental	3.30	.81	228	45.0
Large and Diverse	2.79	1.13	70	14.0
Advice of Others	2.48	.95	48	9.5

Note. N = 507

^a% = percentage of cell frequencies based on N.

The Practical and Environmental influences were seen by a considerably smaller number of individuals as being a valid influence. Among North Dakota respondents 31.4% rated the Practical influence at an overall mean score of 3.78. The Environmental influence was rated by 45% of the respondents but received a lower rating with a 3.30 overall mean score.

Like Minnesota respondents the lowest mean scores and fewest number of ratings are associated with the Advice of Others and Large and Diverse areas of influence. Fourteen percent of North Dakota's respondents indicated that the Large and Diverse area was a valid influence,

and its overall rating was a 2.79 mean score. The Advice of Others influence received a 2.48 mean score with 9.5% of the respondents feeling that it applied to them as an influence.

While there was a similar order in how the two states viewed the six areas of influence, the degree to which the areas were seen to influence individuals varied; and Research Question 3 will address the question of whether these differences are statistically significant.

Analysis of independent variable: Current institution. Moorhead State University (MSU) is the principle recipient of North Dakota students. Therefore, it is difficult to make comparisons between MSU and other Minnesota institutions because the cell frequencies are so small. The University of Minnesota--Twin Cities and its Crookston branch do contain at least 20 cell frequencies in the Academic and Reciprocity influences as can be seen in Table 4.15 which contains ratings on the six influences by institution.

A comparison of these institutions on the influences just mentioned reveals that there is little variation between the means. In other words, students attending MSU, UM-Twin Cities, and UM-Crookston place similar importance on academic considerations and reciprocity benefits in selecting these institutions.

Table 4.15

Mean Scores on the Six Areas of Influence for North Dakota
Residents at Minnesota Institutions

Institution	Area of Influence					
	1 ^a	2 ^b	3 ^c	4 ^d	5 ^e	6 ^f
	Mean	Mean	Mean	Mean	Mean	Mean
	SD	SD	SD	SD	SD	SD
	n	n	n	n	n	n
	Acad	Rec	Pract	Envir	Advic	L & D
Bemidji	4.21 .86 7	3.86 1.34 7	0	3.67 .82 6	0	0
Mankato	4.00 .89 6	3.17 1.33 6	1.00 0 1	3.50 .23 2	0	0
Moorhead	4.29 .90 364	4.03 1.18 332	3.87 1.22 143	3.26 .82 181	2.31 .96 35	2.35 1.04 23
St. Cloud	4.00 1.00 8	4.50 .53 8	0	3.27 .19 5	0	2.00 4
Southwest	3.50 0 1	4.00 0 1	1.00 0 1	3.00 0 1	0	0
Winona	4.50 0 1	4.00 0 1	0	0	0	0
UM-Crookston	4.30 .88 23	4.00 1.26 20	3.30 .97 5	3.57 .72 18	3.00 1.12 4	0
UM-Duluth	4.33 .58 3	4.33 .58 3	0	2.83 .94 2	0	0
UM-Morris	5.00 0 1	5.00 0 1	0	4.67 0 1	0	0
UM-Twin Cities	4.22 .88 38	4.28 1.13 40	3.60 1.63 5	2.94 .67 3	2.93 .92 5	3.12 1.14 38

Table 4.15 (Continued)

Institution	Area of Influence					
	1 ^a	2 ^b	3 ^c	4 ^d	5 ^e	6 ^f
	Mean	Mean	Mean	Mean	Mean	Mean
	SD	SD	SD	SD	SD	SD
	n	n	n	n	n	n
	Acad	Rec	Pract	Envir	Advic	L & D
UM-Waseca	3.50	4.00		1.00		
	0	0		0		
	1	1	0	1	0	0
MN Community	4.00	4.00		3.75		
College	1.41	1.00		.35		
	2	3	0	2	0	0
Overall						

a = Academic; b = Reciprocity; c = Practical; d = Environmental; e = Advice of Others; f = Large and Diverse.

Analysis of independent variable: Academic interest. Table 4.16 shows how the six areas of influence are rated according to the student's academic interest at their current institution. Those academic areas containing at least 20 cell frequencies were examined. On this basis, it is difficult to identify any anomalies of the ratings with the exception of students in Education rating practical considerations .51 higher than students with an interest in Business.

Analysis of independent variable: Distance from home. The survey instrument recorded the distance the respondent's current institution was from home. Table 4.17 contains mean scores on the six areas of influence according to distance from home. It is noted that students attending a Minnesota institution which is more than 51 miles from home rate practical considerations lower than students whose home is closer than 50 miles to the school they are currently attending. North Dakota residents are also affected by distance when rating the Advice of Others influence. As distance increases the rating on this influence also increases; however, caution is advised on this interpretation as a result of small cell frequencies.

Independent variable: Commuter status. Table 4.18 contains the results of comparing commuter status on the ratings of perceived importance of the specified areas of influence. This independent variable is similar to

Table 4.16

Mean Scores on the Six Areas of Influence for North Dakota
Residents by Academic Interests

Interest	Area of Influence					
	1 ^a	2 ^b	3 ^c	4 ^d	5 ^e	6 ^f
	Mean	Mean	Mean	Mean	Mean	Mean
	SD	SD	SD	SD	SD	SD
	n	n	n	n	n	n
	Ac	Rec	Prac	En	Ad	L & D
Agriculture	3.90 1.39 5	3.67 1.50 6	3.50 .70 2	3.71 1.06 4	0	2.67 0 1
Architecture	5.00 0 1	3.0 0 1	0	0	0	0
Business	4.26 .87 150	3.97 1.17 133	3.66 1.21 59	3.20 .78 70	2.47 .88 22	2.82 1.19 17
Computer Science	3.95	4.17	2.17	4.00	3.00	2.83
Mathematics	1.23 10	1.19 12	2.02 3	.78 4	0 1	.70 2
Education	4.39 .85 95	3.95 1.18 85	4.17 1.20 26	3.35 .85 48	2.83 1.42 6	2.83 1.47 4
Engineering	3.60 .89 5	2.83 1.67 6	1.00 0 1	3.41 .85 4	2.67 1.42 3	3.00 1.47 2
Health Related	4.40 .77 24	4.15 1.18 20	4.36 1.12 11	3.07 .83 11	0	2.91 1.30 7
Humanities/Social Science	4.00 1.03 21	4.00 1.29 19	3.78 1.34 9	3.00 .65 7	2.00 0 1	2.52 1.03 7
Home Economics	4.25 .35 2	5.00 0 1	0	0	4.00 0 1	4.83 .23 2
Journalism	4.15 1.04 13	4.10 1.29 10	3.50 .70 2	2.88 .69 6	2.88 .47 2	4.16 1.17 2

Table 4.16 (Continued)

Interest	Area of Influence					
	1 ^a	2 ^b	3 ^c	4 ^d	5 ^e	6 ^f
	Mean	Mean	Mean	Mean	Mean	Mean
	SD	SD	SD	SD	SD	SD
	n	n	n	n	n	n
	Ac	Rec	Prac	En	Ad	L & D
Pharmacy	4.00 0 1	5.00 0 1	0	3.33 0 1	3.67 0 1	3.67 0 1
Science Related	3.96 .58 12	4.30 .94 10	3.62 1.10 4	3.52 .51 10	2.16 1.17 2	2.00 .33 3
Social Work	4.50 .73 25	4.18 1.18 22	4.35 .81 10	3.56 .81 16	1.58 .57 4	2.58 .73 4
Trade or Technical	3.75 1.04 4	4.25 .95 4	5.00 0 1	2.61 .53 3	0	0
Undecided	3.26 1.32 17	4.20 1.09 21	3.35 1.51 7	3.10 .88 10	2.00 0 1	2.50 1.29 4
Other	4.45 .75 77	4.20 1.12 78	3.70 1.39 23	3.38 .93 33	2.83 1.65 2	2.56 1.06 13
Overall	4.26 .91 463	4.04 1.17 431	3.78 1.29 159	3.30 .81 228	2.79 1.13 70	2.48 .95 48

a = Academic; b = Reciprocity; c = Practical; d = Environmental; e = Advice of Others; f = Large and Diverse.

Table 4.17

Mean Scores on the Six Areas of Influence for ND Residents by
Distance Current School is From Home

Influence	Distance			
	Less Than 30 Miles	30-50 Miles	51-100 Miles	Over 100 Miles
Academic				
Mean (4.26)	4.32	4.29	4.19	4.21
SD (4.04)	.88	1.02	.98	.88
n (463)	177	29	56	200
Reciprocity				
Mean (4.04)	4.02	4.13	3.94	4.08
SD (1.17)	1.23	1.35	1.31	1.04
n (431)	164	23	50	193
Environmental				
Mean (3.30)	3.16	3.30	3.18	3.43
SD (.81)	.85	.72	.82	.78
n (228)	78	11	35	103
Practical				
Mean (3.78)	3.99	3.50	2.25	2.71
SD (1.29)	1.15	1.49	1.44	1.35
n (159)	130	10	6	12
Advice of Others				
Mean (2.48)	2.05	2.44	2.79	2.85
SD (.95)	.77	.96	.96	1.03
n (48)	20	3	8	16
Large and Diverse				
Mean (2.79)	2.73	2.83	1.80	2.92
SD (1.13)	.96	1.65	.61	1.18
n (70)	16	2	5	46

Table 4.18

Ratings on the Six Areas of Influence for North Dakota
Residents at Minnesota Schools by Commuter Status

Influence	Status	
	Commuting	Not Commuting
Academic		
Mean (4.1) ^a	4.34	4.22
SD (1.3)	.83	.94
n	148	312
Reciprocity		
Mean (3.4)	3.94	4.08
SD (1.7)	1.24	1.13
n	131	297
Environmental		
Mean (2.5)	2.98	3.41
SD (1.4)	.79	.79
n	58	168
Practical		
Mean (1.8)	4.12	2.90
SD (1.9)	1.11	1.25
n	115	43
Advice of Others		
Mean (.81)	1.94	2.65
SD (1.3)	.69	.98
n	12	35
Large and Diverse		
Mean (1.3)	2.41	2.88
SD (1.4)	1.07	1.13
n	13	56

a = Numbers within parentheses represent the overall grand mean and its Standard Deviation; b = Standard Deviation.

distance from home as the feasibility of commuting is, no doubt, a function of proximity to the individual's current institution. As was the case with distance from home, noncommuters place less importance on practical consideration than do commuters.

Analysis of independent variable: Class standing.

Mean scores for the specified influences on college choice are presented according to respondents' class standing in Table 4.19 and two anomalies exist. There is a slight difference in the amount of influence practical considerations caused between freshmen and sophomore respondents. Sophomore students rated this influence slightly higher than freshmen. It is also noted that North Dakota graduate students placed a very high rating on practical considerations with a mean score of 4.93 and a standard deviation of .17 which is very close to the top of the rating scale. However, it should also be noted that only 16 North Dakota graduate students saw practical considerations as influential at all.

Analysis of independent variable: Consideration of alternate school. It was thought that perhaps the consideration of an alternate college would have an influence on how students rated the six areas of influence. Table 4.20 presents the mean scores on the areas of influence by the consideration of an alternate school.

Table 4.19
Ratings on the Six Areas of Influence for North Dakota Residents
by Class Standing

Influence	Class Standing					
	1 ^a	2 ^b	3 ^c	4 ^d	5 ^e	6 ^f
Academic						
Mean (4.26) ^g	4.09	4.31	4.27	4.38	4.28	4.01
SD ^h (.91)	.99	.83	.89	.88	.72	1.09
n	94	92	107	90	42	35
Reciprocity						
Mean (4.04)	3.98	3.92	3.99	4.15	4.23	4.18
SD (1.17)	1.23	1.21	1.17	1.08	1.23	1.03
n	93	84	103	87	34	27
Environmental						
Mean (3.30)	3.22	3.45	3.52	3.29	2.76	2.62
SD (.81)	.78	.68	.62	.96	.83	1.56
n	66	55	46	46	7	7
Practical						
Mean (3.78)	3.39	3.83	3.53	3.56	4.93	4.42
SD (1.29)	1.19	1.17	1.43	1.37	.17	1.07
n	40	24	30	34	16	14
Advice of Others						
Mean (2.48)	2.50	2.60	2.67	2.11	0	
SD (.95)	.92	.95	1.11	1.01		
n	18	14	6	9	0	0
Large and Diverse						
Mean (2.79)	2.82	2.43	3.09	2.92	2.83	2.50
SD (1.13)	1.20	1.11	1.12	1.15	1.05	1.23
n	9	14	14	17	8	8

a = freshmen; b = sophomore; c = junior; d = senior;
e = graduate student; f = other; g = numbers within parentheses
represent the Grand Mean and its standard deviation plus the total
maximum number of cases for that influence; h = Standard Deviation.

Table 4.20

Ratings on the Six Areas of Influence for ND Residents at
MN Institutions by Consideration of Alternate School

Influence	Status	
	Considered an Alternate Institution	Did Not Consider an Alternate Institution
Academic		
Mean (4.26) ^a	4.23	4.30
SD ^b (.91) ^a	.90	.90
n	259	202
Reciprocity		
Mean (4.04)	4.12	3.96
SD (1.17)	1.09	1.25
n	240	189
Environmental		
Mean (3.30)	3.36	3.19
SD (.81)	.74	.92
n	138	88
Practical		
Mean (3.78)	3.45	4.14
SD (1.29)	1.35	1.09
n	80	78
Advice of Others		
Mean (2.48)	2.40	2.64
SD (.95)	1.01	.85
n	32	15
Large and Diverse		
Mean (2.79)	2.92	2.65
SD (1.13)	1.16	1.09
n	36	33

a = Numbers within parentheses represent the overall grand mean and its Standard Deviation; b = Standard Deviation.

North Dakota residents who did not consider an alternate institution rated the Practical area of influence .69 higher than those students who did consider an alternate college or university. No other anomalies were detected.

Analysis of independent variable: Cost of alternate school. Table 4.21 shows how the specified influences were rated according to the cost of the respondents' alternate institution which was compared to the cost of her/his current school. Once again, cells with 20 or more frequencies were examined. Respondents who were not sure of the cost comparison between their alternate and current school rated the reciprocity influence .61 lower than those students who indicated their alternate school cost about the same. With this exception, the cost difference between these students' current and alternate institutions had very little effect on how the six areas of influence were perceived as affecting their college choice.

Summary of findings: Research Question 2. North Dakota respondents like the Minnesota respondents of this study indicated that the Academic and Reciprocity influences were important considerations in selecting a Minnesota institution. The Environmental and Practical influences were viewed by fewer respondents to being of importance in selecting a postsecondary institution. When these areas were considered valid influences,

Table 4.21

Ratings on the Six Areas of Influence for ND Residents at
MN Institutions by Cost of Alternate Institution

Influence	Cost of Alternate School ^a			
	1 ^b	2 ^c	3 ^d	4 ^e
Academic				
Mean (4.26) ^f	4.16	4.30	4.29	4.09
SD ^g (.91)	.91	.91	.83	1.05
n (463)	71	42	129	31
Reciprocity				
Mean (4.04)	4.12	3.88	4.28	3.67
SD (1.17)	1.11	1.32	.95	.91
n (431)	71	40	120	21
Environmental				
Mean (3.30)	3.42	3.53	3.25	3.29
SD (.81)	.83	.66	.75	.59
n (228)	42	22	68	15
Practical				
Mean (3.78)	3.64	2.50	3.66	3.36
SD (1.29)	1.28	.94	1.45	1.30
n (159)	27	10	38	11
Advice of Others				
Mean (2.48)	2.23	2.22	2.53	2.33
SD (.95)	1.15	.83	.94	.60
n (48)	14	3	12	4
Large and Diverse				
Mean (2.79)	2.87	2.79	2.83	2.33
SD (1.13)	.99	1.35	1.29	.0
n (70)	13	8	12	1

a = Compared to cost of current institution; b = Cost is more;
c = Cost is less; d = Cost is about the same; e = Not sure; f = Same
as others; g = Same as others.

respondents' overall ratings were moderately strong. The Advice of Others and Large and Diverse areas were seen by the smallest number of students to be valid influences and their overall mean scores were considerably lower than the Academic and Reciprocity influences. It was noted that residents of both states saw the six influences in a similar order but that there were variations between state ratings. These variations will be tested under Question 3 to see if they are statistically different.

Students attending MSU, UM-Twin Cities, and UM-Crookston seem to be influenced in a similar way by the specified influences. Students living more than 51 miles from home and those who are not commuting rate the Practical area of influence lower than those attending college closer than 50 miles from home and those who are commuting. North Dakota graduate students perceive practical considerations as very strong influences on their college choice.

Individuals who did not consider an alternate college or university rated the Practical area of influence higher than those students who did consider an alternate school. The difference in cost between alternate and current institution had little affect on five of the six areas of influence. Students who were not sure of the cost difference between current and alternate institutions rated practical considerations higher than those who had

considered an alternate institution which cost about the same as their current school.

These investigations of how residents of Minnesota and North Dakota rate the six areas of influence provide the framework for the third research question.

Research Question 3

Table 4.22 contains a presentation of how each state rated the six areas of influence. While the order of the ratings is similar, there is a variation in how they were rated. Research Question 3 is intended to determine if the differences between means is statistically significant. To assist the data analysis, six hypotheses were presented in the null form (see Chapters I and III). These hypotheses are REFORMULATED here to assist in an orderly and convenient presentation.

Hypothesis 1:

There will be a significant difference between Minnesota and North Dakota ratings on the Academic area of influence.

Hypothesis 2:

There will be a significant difference between Minnesota and North Dakota ratings on the Reciprocity area of influence.

Hypothesis 3:

There will be a significant difference between Minnesota and North Dakota ratings on the Environmental area of influence.

Table 4.22

Comparison of Overall Mean Scores for Minnesota and
North Dakota on the Six Areas of Influence

Influence	State	
	Minnesota	North Dakota
	Mean SD n	Mean SD n
Academic	4.29 .87 728	4.26 .91 463
Reciprocity	3.91 1.19 687	4.04 1.14 431
Practical	3.50 1.29 193	3.78 1.29 159
Environmental	3.00 .83 396	3.30 .81 228
Advice of Others	2.60 .90 139	2.79 1.13 70
Large and Diverse	2.01 .85 68	2.48 .95 48

Hypothesis 4:

There will be a significant difference between Minnesota and North Dakota ratings on the Practical area of influence.

Hypothesis 5:

There will be a significant difference between Minnesota and North Dakota ratings on the Advice of Others area of influence.

Hypothesis 6:

There will be a significant difference between Minnesota and North Dakota ratings on the Large and Diverse area of influence.

Presentation of tests of hypotheses. The tests for significant differences between the states involved the use of t-tests and ANOVA procedures. An overall significance level of .10 was used; however, this had to be adjusted when using multiple t-tests. Therefore, a .02 level of significance was used to make decisions about individual t-tests in order to preserve an overall .10 level. (See Chapter III for explanation.) When the t-test suggested a significant difference, elaboration procedures were used in an attempt to see if the difference could be explained by an independent variable. In these cases, a two-way ANOVA was used.

Tests of Hypotheses 1, 2, 4, and 5. Hypothesis 1 was formulated to test whether there were statistically significant differences between Minnesota and North Dakota on the Academic area of influence. The data suggested

that there is no evidence to support this hypothesis. That is to say, no significant difference was found between the two mean scores ($t_{1189} = .60$, $p = .551$) (see Table 4.23).

Similarly, no difference was found for Hypothesis 2 which compared mean scores on the Reciprocity area of influence ($t_{1116} = 1.75$, $p = .081$) (see Table 4.23).

Hypothesis 4 was formulated to test for differences between the states on the Practical area of influence. Once again, no evidence was present to suggest a difference ($t_{350} = -2.00$, $p = .046$) (see Table 4.23). Therefore, its null hypothesis is tenable.

Similarly, no difference was found for Hypothesis 5 which was formulated to see if the mean scores for the two states differed on the Advice of Others influence ($t_{185} = .76$, $p = .451$) (see Table 4.23). Therefore, its null hypothesis is also tenable.

Test of Hypothesis 3. Hypothesis 3 was formulated to test whether there was a difference between Minnesota and North Dakota on the Environmental area of influence. Here, the data suggested a difference was present ($t_{622} = -4.30$, $p = .000$) (see Table 4.23). North Dakota respondents rated this influence .30 higher than their Minnesota counterparts.

Since a difference was found, elaboration procedures were used to provide a better understanding of this phenomenon. This involved the investigation of

Table 4.23

t-Tests for Comparisons between States on the Six Areas of Influence

Comparison	n	Mean	SD	t	df	Sig.
<u>Academic Influence</u>						
Minnesota	728	4.29	.88	.60	1189	.551
North Dakota	463	4.26	.91			
<u>Reciprocity Influence</u>						
Minnesota	687	3.92	1.20	1.75	1116	.081
North Dakota	431	4.04	1.17			
<u>Practical Influence</u>						
Minnesota	193	3.50	1.29	-2.00	350	.046
North Dakota	159	3.78	1.29			
<u>Environmental Influence</u>						
Minnesota	396	3.00	.83	-4.30	622	.000
North Dakota	228	3.30	.82			
<u>Advice of Others</u>						
Minnesota	139	2.60	.90	.76	185	.451
North Dakota	48	2.48	.95			
<u>Large and Diverse</u>						
Minnesota	68	2.01	.85	-4.55	136	.000
North Dakota	70	2.79	1.13			

several independent variables to see if they affected the ratings on the Environment area of influence. Table 4.24 contains the results of ANOVA tests for the independent variables: distance from home, commuter status, class standing, degree and cost of alternate school. The results were all the same. Basing decisions on the .10 level of significance, no evidence was found to suggest interaction was present.

Therefore, this suggests that these independent variables did not affect the ratings on the Environmental area of influence and that the higher North Dakota mean score could possibly be the result of state residency, alone.

Test of Hypothesis 6. Hypothesis 6 was formulated to see if there were differences between the states on the Large and Diverse area of influence. The data suggested that a difference was present ($t_{136} = -4.55$, $p = .000$) (see Table 4.23). North Dakota respondents rated this influence .78 higher than their Minnesota counterparts.

Since a difference was present, elaboration procedures were used. It was reasoned that the University of Minnesota was the most likely institution in Minnesota which would be viewed as large and diverse by North Dakota residents. Hence, it was decided to use a one-way analysis of variance on selected institutions to see if a better understanding of the phenomenon could be attained.

Table 4.24

Elaboration Procedures: ANOVA by State and Other Variables for
Environmental Influence

State by Distance					
Source	SS	df	MS	F	Sig.
State	3.89	1	3.89	5.66	.019
Distance	3.86	3	1.29	1.87	.137
Interaction	.56	3	.19	.27	.845
Within	114.90	167	.69		

Note. N = 175

State by Commuter Status					
State	4.22	1	4.22	6.21	.014
Commuter Status	2.58	1	2.58	3.80	.053
Interaction	.49	1	.49	.72	.399
Within	116.26	171	.68		

Note. N = 175

State by Class Standing					
State	4.02	1	4.02	6.03	.015
Class Standing	6.53	5	1.31	1.96	.087
Interaction	4.61	5	.92	1.38	.234
Within	109.29	164	.67	2.06	

Note. N = 116

State by Degree					
State	4.32	1	4.32	6.22	.014
Degree	4.25	5	.85	1.22	.299
Interaction	1.52	4	.38	.55	.702
Within	113.14	163	.69		

Note. N = 174

State by Cost of Alternate School					
State	2.93	1	2.93	4.12	.045
Cost	.46	3	.15	.21	.887
Interaction	1.18	3	.39	.55	.648
Within	69.81	98	.62		

Note. N = 106

Table 4.25 contains data which suggest that differences do exist between the UM-Twin Cities, MSU, NDSU, and UND as to how the Large and Diverse influence is rated ($F_{3,125} = 11.30, p = .000$). Post hoc procedures using Scheffé contrasts shows that the UM-Twin Cities differs from NDSU and UND. This suggests that North Dakota residents attending the UM-Twin Cities rate the Large and Diverse influence significantly higher than do Minnesota respondents attending NDSU or UND.

Summary of findings: Research Question 3. There were no significant differences found between Minnesota and North Dakota respondents in the way they rated the Academic, Reciprocity, Practical, and Advice of Others influences.

A difference was found to be statistically significant between the states for the Environmental influence. Elaboration procedures suggested this difference is due to the main effects of state residency and, therefore, it is felt that North Dakota respondents do, in fact, place more importance on a warm, friendly institutional environment when selecting a Minnesota postsecondary educational institution.

The Large and Diverse influence was also found to be rated statistically different between the states with North Dakota residents having a higher mean score. Post hoc procedures seem to suggest that the choice of

Table 4.25

Procedures: ANOVA between Selected Institutions for
Large and Diverse Influence

ANOVA Summary					
	df	SS	MS	F	Sig.
Between	3	31.85	10.62	11.30	.000
Within	125	117.47	.94		
Total	128	147.32			

Cell Summary			
Institution	n	Mean	Standard Deviation
Moorhead	23	2.35	1.04
UM-Twin Cities	38	3.12	1.14
UND	40	2.28	.91
NDSU	28	1.76	.69

Table of Differences between Institutions of Interest for Selected Scheffé Contrasts			
Strata	UM-Twin Cities	NDSU	UND
Moorhead	NS	NS	NS
UM-Twin Cities		1.36**	.85**

** = Significant at .10 level on Scheffé Test

NS = Not significant at .10 level

the University of Minnesota-Twin Cities affects this higher rating. However, it should be noted that the degree of influence is slight and affects very few individuals.

Research Question 4

What institutions would the sampled students have attended without tuition reciprocity?

TROS item 28 was the major data collection device for this research question. It simply asked respondents what they would have done in the absence of the program. There were four response items to use in answering this question. They were:

1. Would have attended the school listed in Question 20.
2. Would have attended the school I am currently attending.
3. Would not have gone to college.
4. Other

Table 4.26 presents the frequencies and percentages obtained for the various responses to this item. In addition, the other category is broken down to reflect more specified answers. The results indicate that a larger percentage of Minnesota residents (38.5) would remain at their current institution than would North Dakota residents (28.9) while a slightly higher percentage of North Dakota residents would attend the alternate institution they listed on the survey questionnaire.

Table 4.26
Comparison between States of Plans in the Absence
of Tuition Reciprocity

Plans	State			
	Minnesota		North Dakota	
	f	%	f	%
Attend alternate institution listed on TROS	233	31.7	165	34.7
Remain at current institution	283	38.5	137	28.9
Would not have attended college	67	9.0	57	11.9
Other	153	20.8	117	24.5
Total	736	100	476	100

Breakdown of "Other" Category

Would have looked for an unspecified school in my home state	40	5.4	24	5.0
Would have attended a specified school in home state not listed as alternate choice	31	4.2	30	6.3
Other (not sure, not specified)	82	11.1	63	13.2

Note. Percentages of the breakdown of "other" are against total cases for each state.

Apparently, The Program was a major reason 9% of Minnesota and nearly 12% of North Dakota residents went on for postsecondary education. These are the percentages associated with individuals who indicated they would not have gone to college in the absence of The Program.

The category "other" broken down reveals that approximately 10% of each state's total respondents would have attended an unspecified institution in their home state or an institution they had not listed on the TROS instrument.

The various categories of item 28 were used to derive data which would directly answer research Question 4. Crosstabulations were made between the respondent's current and alternate institution listed in other parts of the TROS, with the way in which item 28 was answered. The results are shown in Table 4.27 which displays the frequencies and percentages of respondents' answers to item 28 by institution. It can be seen that Moorhead State (MSU) would retain (they would either stay at MSU or transfer to MSU in the absence of The Program), 165 students. This represents a total decrease of 289 students from the 398 who are currently enrolled (see Table 4.3 for current enrollments). Likewise, NDSU would retain 186 students compared to the 358 currently enrolled. UND would retain 178 students compared to the 320 respondents currently enrolled.

Table 4.27
Effects of Student Decisions in the Absence of Tuition Reciprocity on Selected Minnesota and North Dakota Institutions

Minnesota Institutions	Sources of Students					
	1 Alternate School Listed by MN Residents	2 ND Residents Remaining at Current School	3 Listed in "Other" Category by MN Residents	4 Total Gained From Columns 1, 2, and 3 ^a	5 Total Currently Enrolled ^a	6 Difference Between Columns 4 and 5
	f	f	f	f	f	f
Moorhead	49	107	9	165	398	-233
UM-Crookston	6	7	0	13	24	-11
UM-Twin Cities	77	13	19	109	42	+67

North Dakota Institutions	Sources of Students					
	1 Alternate School Listed by MN Residents	2 ND Residents Remaining at Current School	3 Listed in "Other" Category by MN Residents	4 Total Gained From Columns 1, 2, and 3	5 Total Currently Enrolled	6 Difference Between Columns 4 and 5
	f	f	f	f	f	f
NDSSS	8	35	2	45	75	-30
NDSU	49	116	21	86	358	-172
UND	46	125	7	178	320	-142

^a Column 4 represents the sum total of what respondents' decisions would have been without reciprocity. In other words, it reflects various ways schools would have been affected without tuition reciprocity.

^a Column 5 represents the total number of respondents who listed the specified institution as their current school.

An anomaly exists and is associated with the UM-Twin Cities which would retain (or receive) 109 students compared to its current enrollment of 42 respondents.

However, it should be noted that a large group of respondents were not sure what they would have done without tuition reciprocity and, therefore, selected the "other" category. This is yet another source of students for those institutions which were listed and it is not possible to assess what their ultimate decisions would be. Table 4.27, therefore, represents an approximation of how selected institutions might be affected had it been necessary to charge out-of-state tuition.

Clearly, MSU, NDSU, and UND benefit from The Program and would possibly lose a considerable number of students in its absence while the UM-Twin Cities would probably increase in students if The Program did not exist.

Research Question 5

Why does a disproportionate number of Minnesota residents who live near the Minnesota-North Dakota border select North Dakota postsecondary educational institutions?

It should be noted that Chapter III contained an explanation that this disproportion was defined by the MHECB (February 1979) study using U.S. census and Minnesota demographic data. The regions where this disproportion occurs closely resemble strata 3 and 4 (see

Figure 3.1). These strata will be investigated in an attempt to answer this question.

To assist in the analysis of data, six hypotheses were presented in Chapters I and III. They are restated and reformulated here to provide a convenient and orderly process of data analysis.

Hypothesis 7:

There will be a significant difference among the strata on the ratings of the Academic influence.

Hypothesis 8:

There will be a significant difference among the strata on the ratings of the Reciprocity influence.

Hypothesis 9:

There will be a difference among the strata on the ratings of the Environmental influence.

Hypothesis 10:

There will be a difference among the strata on the ratings of the Practical influence.

Hypothesis 11:

There will be a difference among the strata in the ratings of the Advice of Others influence.

Hypothesis 12:

There will be a difference among the strata on the ratings of the Large and Diverse influence.

Presentation of tests of hypotheses. The tests for differences between strata 3 and 4 involved the use of six t-tests. Since the overall significance level was set at .10, adjustments were made on the individual t-tests to avoid a compounding of the alpha level beyond that which was designated. Therefore, a .02 level of significance was used to make decisions about individual tests (see Chapter III for explanation). When differences were suggested, elaboration procedures were used in an attempt to gain a better understanding of the phenomenon.

Tests of Hypotheses 7, 8, 10, and 11. Hypothesis 7 was formulated to test whether there was a difference between strata 3 and 4 on the Academic area of influence. Data results indicate that no evidence was present to suggest a difference. That is to say that no difference was found between these two strata ($t_{447} = 1.62$, $p = .106$) (see Table 4.28).

Similarly, no difference was found between strata 3 and 4 in testing Hypothesis 8 which was formulated to test for differences on the Reciprocity influence ($t_{411} = .69$, $p = .490$) (see Table 4.28). Hence, the null hypothesis is tenable.

Hypothesis 10 was formulated to see if a difference existed between strata 3 and 4 on the Practical area of influence. Once again, no evidence was present to suggest such a difference ($t_{252} = 1.53$, $p = .128$) (see Table 4.28).

Table 4.28

t-Tests for Comparisons between Strata 3 and 4 on the Six Areas of Influence

Comparison	n	Mean	SD	t	df	Sig.
<u>Academic Influence</u>						
Strata 3 (ND)	200	4.32	.87	1.62	447	.106
Strata 4 (MN)	249	4.18	.94			
<u>Reciprocity Influence</u>						
Strata 3 (ND)	184	4.01	1.22	.62	411	.490
Strata 4 (MN)	229	3.92	1.23			
<u>Practical Influence</u>						
Strata 3 (ND)	119	3.78	1.17	1.53	252	.128
Strata 4 (MN)	135	3.56	1.18			
<u>Environmental Influence</u>						
Strata 3 (ND)	99	3.29	.79	3.18	246	.002
Strata 4 (MN)	149	2.95	.85			
<u>Advice of Others</u>						
Strata 3 (ND)	31	2.54	1.08	.32	97	.751
Strata 4 (MN)	68	2.47	.92			
<u>Large and Diverse</u>						
Strata 3 (ND)	28	2.87	1.07	3.27	48	.002
Strata 4 (MN)	22	1.94	.90			

Similarly, no difference was found in testing Hypothesis 11 which was formulated to see if there was a difference between the strata on the Advice of Others influence ($t^{97} = .32$, $p = .751$) (see Table 4.28). Hence, the null hypothesis is tenable.

Test of Hypothesis 9. Hypothesis 9 was formulated to see if there were differences between the strata on the Environmental influence. Data results indicated there was evidence to conclude that a difference exists and stratum 3 in North Dakota rates this influence .34 higher than stratum 4 in Minnesota ($t_{246} = 3.18$, $p = .002$) (see Table 4.28).

Since a difference was suggested by the t-test, elaboration procedures were used in an attempt to provide a better understanding of the difference. A two-way analysis of variance was used to test for interactions of the main effect (strata) with the following independent variable: distance from home, commuter status, class standing, degree, and cost of alternate institution. The results of these tests were the same. No interactions were present suggesting that the higher mean score for stratum 3 was due to something other than those independent variables tested or that it was the result of the main effect of this stratum (see Table 4.29).

Table 4.29

Elaboration Procedures: ANOVA by Strata and Other Variables for
Environmental Influence

Strata by Distance					
Source	SS	df	MS	F	Sig.
Strata	7.65	1	7.65	11.32	.001
Distance	1.92	3	.64	.95	.418
Interaction	3.50	3	1.17	1.73	.162
Within	162.18	240	.68		
<u>Note.</u> N = 248					
Strata by Commuter Status					
Strata	8.86	1	8.86	13.43	.001
Status	6.81	1	6.81	10.32	.001
Interaction	.33	1	.33	.49	.483
Within	160.39	243	.66		
<u>Note.</u> N = 249					
Strata by Class Standing					
Strata	7.03	1	7.03	10.41	.001
Class Standing	5.33	5	1.07	1.58	.166
Interaction	2.94	5	.59	.87	.501
Within	159.33	236	.68		
<u>Note.</u> N = 248					
Strata by Degree					
Strata	6.47	1	6.47	9.46	.002
Degree	5.30	5	1.06	1.55	.175
Interaction	1.80	5	.36	.53	.756
Within	159.33	233	.68		
<u>Note.</u> N = 245					
Strata	5.68	1	5.68	8.46	.004
Cost	3.37	3	1.12	1.68	.175
Interaction	.95	3	.32	.47	.702
Within	100.68	150	.67		
<u>Note.</u> N = 158					

Test of Hypothesis 12. This hypothesis was formulated to see if a difference existed between strata 3 and 4 on the Large and Diverse area of influence. Data results indicated that a difference was present and that respondents in stratum 3 (ND) rated this influence higher than their Minnesota counterparts ($t_{48} = 3.27, p = .002$) (see Table 4.28).

It should be noted that North Dakota stratum 3 contained only 28 cases and that elaboration procedures would result in a further reduction of cases. Because of this small cell size, it was decided to not proceed with an investigation of independent variables. It is suspected (without statistical inference) that the difference between the strata could be related to respondents in stratum 3 who are attending the UM-Twin Cities. This speculation is based on evidence from Hypothesis 6 (Research Question 3) which showed that a higher North Dakota rating on this area of influence was possibly associated with respondents who were attending the UM-Twin Cities.

Summary of findings: Research Question 5. It was found that respondents in strata 3 and 4 did not differ in rating the Academic, Reciprocity, Practical, and Advice of Others influences. However, a difference was found between these two strata on their rating of the Environmental area of influence. Stratum 3 in North

Dakota rated this influence significantly higher than its Minnesota counterpart, and it was felt that this was due to the main effect of stratum and was not affected by several independent variables which were tested.

In addition, it was found that stratum 3 in North Dakota rated the Large and Diverse influence significantly higher than stratum 4 in Minnesota.

On the basis of these findings, it is difficult to answer Research Question 5 as no evidence exists to indicate that four of the six areas of influence are affecting more Minnesota residents from stratum 4 to select North Dakota institutions. In fact, the evidence suggests that as far as four of the six areas of influence are concerned, respondents in strata 3 and 4 see things quite similarly. The Large and Diverse and Environmental influences were rated higher by North Dakota residents in stratum 3; however, the disproportion exists in the opposite direction with more Minnesota residents in stratum 4 going into North Dakota. Thus, no firm conclusions can be made regarding the findings of Question 5 and it must be concluded that the research design of this question failed to provide adequate data to answer this question, suggesting that an answer lies outside the six areas of influence used in this question. In an attempt to provide some understanding about this question, an additional investigation was made.

An additional investigation of Research

Question 5. Since the design of this question failed to provide data which suggested answers, it was decided to re-examine the premise used in formulating the question.

Chapter III contained a special note which attempted to explain how "a disproportionate number of Minnesota residents . . ." was being defined. A quote was used from the MHECB study (February 1979) which defined the disproportion or imbalance of Minnesota students migrating to North Dakota. This quote was subsequently used to formulate Research Question 5.

It stated:

Minnesota sends roughly twice as many students each year to schools in Wisconsin and North Dakota as it receives from these states. (p. 45)

Along the North Dakota state line differences in population density are small and thus unlikely to be a factor in student migration patterns. According to 1976 estimates, 293,100 Minnesotans lived in the 16 counties in the two state planning regions bordering on North Dakota.¹ On a roughly comparable area covering the 14 North Dakota counties closest to the Minnesota-North Dakota border were 266,300 North Dakotans.² (p. 46)

A closer examination of this statement reveals that an assumption is made that the majority of the Minnesota residents attending North Dakota institutions live near the North Dakota border and other geographic regions in Minnesota do not contribute much to the total. A review of Table 4.2 from Chapter IV shows this assumption to be incorrect. This table indicates that stratum 5

and 6 in Minnesota are, in fact, significant contributors to the total number of Minnesota participants in The Program and that the corresponding strata in North Dakota (1 and 2) produce a much smaller number of North Dakota participants. It is noted that in comparing the states by strata, geographically similar strata are used. That is to say that stratum 1 in North Dakota corresponds approximately to stratum 6 in Minnesota, as far as distance from the common Minnesota-North Dakota border is concerned. Likewise, strata 2 and 5 can be paired, as well as strata 3 and 4 which touch the common state border (see Figure 3.1 for map).

Table 4.30 contains the frequencies of spring 1979 high school graduates and the frequencies of fall 1979 applicants to the Minnesota-North Dakota Tuition Reciprocity Program (The Program) arranged by these geographically similar strata. The results show that Minnesota stratum 6 has many more high school graduates than does stratum 1 in North Dakota. Although not as dramatic, a similar situation exists for stratum 5 in Minnesota compared to stratum 2 in North Dakota. An examination of applicants to The Program further supports the idea that, in fact, Minnesota's larger population does have a significant impact on student migration patterns.

It should also be observed that while strata 3 and 4 have a similar number of high school graduates

Table 4.30

Comparison of High School Graduates and Applicants
to The Program, by Strata

Strata	High School Graduates Spring 1979	Freshmen Applicants to The Program Fall 1979
	f ^a	f
Stratum 1 (North Dakota)	7,020	209
Stratum 6 (Minnesota)	65,676	550
Stratum 2 (North Dakota)	1,111	69
Stratum 5 (Minnesota)	3,191	255
Stratum 3 (North Dakota)	3,141	401
Stratum 4 (Minnesota)	2,472	481

Note. See Figure 3.1 for Map of Strata. Taken from the following sources: Minnesota High School Graduates, Special report prepared by Carole Hokanson, Minnesota State Department of Education, St. Paul, Minnesota, September 1979; North Dakota High School Graduates, Special report prepared by Office of Superintendent of Public Instruction, Bismarck, North Dakota, October 1979; Applicants to The Program, MHECB Data tape as of October 10, 1979, St. Paul, Minnesota.

a = Frequency

(Stratum 3 in North Dakota actually has more), there is a larger number of Minnesota applicants from stratum 4 than from stratum 3 in North Dakota.

A possible explanation to this corresponds to a suggestion in the 1979 MHECB study (February) that the presence of several North Dakota institutions along the common state border draws more Minnesota students into North Dakota than would be expected based on population ratios along the border. Therefore, it is speculated that Minnesota's denser population and the close proximity of several North Dakota institutions (NDSU and UND) to the common state border contribute to Minnesota having the largest number of participants in The Program.

Summary of findings: Chapter IV. Research

Question 1 asked how Minnesota respondents rated the six areas of influence. A descriptive analysis of the data revealed that the Academic and Reciprocity influences were seen by almost all respondents to be a valid influence on their college choice and, overall, these influences received the highest mean scores. The Environmental and Practical influences were rated by considerably fewer respondents and were viewed overall to exert some influence on the selection of an institution. The Large and Diverse and Advice of Others areas received the lowest ratings with the fewest number of respondents indicating that these were valid influences on their college choice.

The independent variables, distance from home and commuter status, were found to affect the ratings on the Academic and Practical influences. As distance increased, Academic ratings increased while Practical influences were seen to decrease in importance.

The second research question asked how North Dakota residents rated the six areas of influence. The findings are similar to the Minnesota findings. Academic and Reciprocity influences were the strongest, affecting the most respondents. Environmental and Practical influences were seen by fewer individuals to be valid influences; however, the strength of the ratings indicated the influences were strong. The Large and Diverse and Advice of Others influences were seen as exerting a little influence on a few students.

The third research question compared the states on their overall rating of the six areas of influence. No statistically significant differences were found for the Academic, Reciprocity, Practical, and Advice of Others influences.

Differences were found between the states on the Environmental and Large and Diverse influences with North Dakota residents rating both of these higher than their Minnesota counterparts. The higher North Dakota rating on the Large and Diverse influence appeared to be influenced by North Dakota residents who were attending

the UM-Twin Cities. The higher North Dakota rating on the Environmental influence could not be explained from an investigation of several independent variables leaving the researcher to conclude that it was probably a state-wide main effect.

Research Question 4 found that in the absence of The Program a higher percentage of North Dakota respondents would return to their home state than would Minnesota residents and a slightly higher percentage of North Dakota respondents would not have gone to college without tuition reciprocity. It was also shown that if The Program had not existed, respondents college choices would have affected MSU, NDSU, and UND in a negative way, while the UM-Twin Cities would have been affected positively.

The fifth research question attempted to answer why a disproportionate number of Minnesota residents who live near the North Dakota border select North Dakota postsecondary educational institutions. The research design and subsequent data analysis failed to provide an answer to this question. However, the question was investigated further and additional data seem to suggest that Minnesota's denser population and North Dakota institution's proximity to the Minnesota border play a role in Minnesota having the largest number of participants in The Program.

CHAPTER V

SUMMARY, FINDINGS, CONCLUSIONS, AND IMPLICATIONS

This chapter contains the study's findings, conclusions, and implications. In addition, a summary of the study's background, purpose, and methodology is included along with suggestions for further research.

Summary

Background and Purpose of the Study

The purpose of this study was to provide insights as to why students in Minnesota and North Dakota use the tuition reciprocity program established between the two states. Such understandings could prove useful to the state agencies and legislators who must make decisions and recommendations regarding future courses of action. Declining enrollments of high school seniors will create pressures for a close examination of state expenditures in postsecondary education. Since the Minnesota-North Dakota tuition reciprocity program is unique nationally

and because it is so comprehensive in scope, other states may be interested in understanding the dynamics of student usage of The Program.

The Minnesota Higher Education Coordinating Board (MHECB) released results of a study in 1979 (February) which is very similar to this study on the Minnesota-North Dakota tuition reciprocity program. The MHECB study found that Minnesota residents using reciprocity benefits in North Dakota and Minnesota were inclined to do so for academic and financial reasons.

In preparation for the study, a selected review of research on the college choice process was conducted. It was concluded that on the basis of this review the college choice process is a complex interaction of influences affecting certain people in certain ways. Among the most commonly cited influences affecting the selection of a particular college or university were intellectual, practical, and social factors. Also the advice received from other people has been seen to influence some individuals.

On the basis of this information, 30 college choice items were developed for use as dependent variables in the Tuition Reciprocity Opinion Scale (TROS) survey instrument.

Methodology

The target population investigated in this study included all fall 1979 participants in the Minnesota-North Dakota Tuition Reciprocity Program (The Program). This population was identified from a list of applicants to The Program provided by the Minnesota-Higher Education Coordinating Board (MHECB).

A questionnaire developed by the researcher was mailed to a stratified random sample (with proportional allocation) of applicants to The Program. The initial mailing took place on November 15, 1979, followed by a postcard reminder which was mailed on November 23, 1979. On November 30, 1979, a follow-up mailing was sent to approximately 700 nonrespondents. The survey was completed on December 18, 1979, at which time 1,418 questionnaires had been received representing an 83.4% response rate. One hundred and twenty-seven (127) questionnaires were determined to be from students who had submitted applications for The Program but subsequently decided not to use it. This left 1,291 usable questionnaires for data analysis purposes.

Since there were 30 dependent variables (college choice items on TROS), it was decided that an attempt would be made to reduce these items into parsimonious groups, if possible. Hence, a factor analysis was conducted and resulted in the establishment of five factors

which were subsequently referred to as areas of influence. These areas were: Academic, Environmental, Practical, Advice of Others, and Large and Diverse. A sixth area of influence was added outside of the information obtained from the factor analysis. This was called the Reciprocity influence and was made up of one college choice item which asked respondents to rate the influence of not having to pay out-of-state tuition on the selection of their current school.

The research design was varied and included the use of the independent variables: State (Minnesota and North Dakota) as well as the sample design's six strata (see Figure 3.1 for map). These variables provided the framework to examine the six areas of influence.

Five research questions, some with hypotheses, had been formulated to assist the data analysis procedures.

Research Questions 3 and 5 contained the null hypotheses. The data analysis of these questions involved the use of t-tests to see if statistically significant differences were present. Since the researcher was concerned with maintaining an overall .10 level of significance, it was decided to use a .02 level for decisions made on individual t-tests (see Chapter III for explanation).

When the t-tests suggested differences, a process of elaboration was used whereby several independent

variables were investigated to see if they would provide a better understanding of the difference.

Findings

It should be noted that respondents had the option to indicate that a given college choice item did not apply to them at all. Therefore, only individuals who felt the item had a little to a very strong influence rated the individual college choice items. Some of these items then became part of a more general area of influence.

1. How do Minnesota residents rate the specified factors which influence college choice? The Academic and Reciprocity areas of influence were found to affect the largest number of respondents and also received the highest ratings. These ratings were at the strong to very strong levels of influence.

The Environmental and Practical influences applied to fewer respondents and were also rated more moderately by Minnesota respondents.

The areas of influence which affected the fewest respondents were: Advice of Others and Large and Diverse. These two areas were rated as having a little to some influence.

It was also found that as distance from home increased, respondents rated the Academic influence higher and the Practical influence lower. Noncommuters also

tended to rate the Academic influence higher than commuters, while commuters rated the Practical influence higher than noncommuters.

2. How do North Dakota residents rate the specified factors which influence college choice? The Academic and Reciprocity influences were found to affect the largest number of respondents and also received the highest ratings. These ratings were at the strong to very strong levels of influence.

The Environmental and Practical influences applied to fewer respondents and were also rated more moderately by Minnesota respondents.

The Large and Diverse and Advice of Others influences were viewed by the smallest number of respondents as influencing them to select a Minnesota institution. These areas were rated as having a little to some influence.

As was the case with Minnesota respondents, distance from home was found to influence the ratings of the Practical and Academic influences. The academic rating increased as distance increased while the Practical rating decreased. Noncommuters also rated the Academic influence higher than commuters while commuters rated the Practical influence higher than noncommuters.

3. Are there differences between the state ratings? It was found that Minnesota and North Dakota

respondents rated the Academic, Reciprocity, Practical, and Advice of Others influences in a similar way. However, North Dakota ratings on the Environmental and Large and Diverse influences were significantly higher than Minnesota's.

4. What institutions would the sampled students have attended without tuition reciprocity? It was found that MSU, NDSU, and UND would probably end up with fewer students overall if tuition reciprocity did not exist, while the UM-Twin Cities would probably gain in students. Ten percent more North Dakota (than Minnesota) respondents would have attended a school in their home state if The Program had not existed when they selected their current school, and about 3% more North Dakota respondents would not have gone to college than the Minnesota respondents.

5. Why does a disproportionate number of Minnesota residents who live near the Minnesota-North Dakota border select North Dakota educational institutions when the total populations along both sides of the border are similar? The research design failed to provide data to answer this question. However, a further investigation revealed that possibly the greater number of Minnesota participants in The Program is a result of: (1) Minnesota's denser population and (2) the close proximity of NDSU and UND to the Minnesota border.

Conclusions

This section of Chapter V will contain a discussion about the findings of the study and relate them to other research which was presented in Chapter II. This will be done in three parts. First, the findings of Research Questions 1, 2, and 3 will be discussed followed by a discussion of Research Question 4. The final part will focus attention on Research Question 5.

Research Questions 1, 2, and 3

Question 1 asked how Minnesota residents rated the study's six areas of influence. This is also one of the sections of the present study which overlaps with the 1979 MHECB study (February), therefore, comparisons will be made when appropriate.

Minnesota residents rated the Academic and Reciprocity influences the highest of all six areas. In addition, the highest number of responses was obtained on these two influences reflecting that, overall, a high number of Minnesota respondents were strongly influenced by academic and tuition reciprocity considerations in selecting their current North Dakota institution.

This closely corresponds with findings in the 1979 MHECB study (February) which concluded that academic and financial considerations were the most important factors affecting Minnesota residents to enroll at North Dakota institutions.

The next highest mean scores for Minnesota residents are associated with the Environmental and Practical areas of influence. Of these two, the largest number of responses was received on the Environmental influence; however, it was not rated as high as the Practical influence which was seen as a valid influence by only 25% of the Minnesota respondents. This is a strikingly different response rate compared to the 1979 MHECB study where 44% of their respondents indicated close proximity to home was a factor in selecting a North Dakota school. It is possible that the geographic distribution of students was different for the two studies with fewer local students being represented in the present study. However, it is not possible to verify this; therefore, it remains as a speculative explanation.

The lowest mean scores on the present study are associated with the Advice of Others and Large and Diverse influences. These two areas are viewed as affecting the fewest number of Minnesota respondents and at a level to indicate that for those few people they were considered to be a minor influence.

Question 2 asked how North Dakota residents rated the six areas of influence. Question 3 asked if there were differences in how Minnesota and North Dakota residents rated these six areas. The conclusions regarding these two questions will be combined in the following discussion.

North Dakota respondents, like their Minnesota counterparts gave the highest ratings and highest response rates to the Academic and Reciprocity influences with no significant differences between the two states. This seems to indicate that a very large number of the Reciprocity respondents in both states place a high degree of importance on selecting an institution in the other state which has a strong academic reputation in the program that best fits their interest and at the lower cost associated with not having to pay out-of-state tuition.

A more moderate number of respondents rated the Environmental and Practical influences, overall, as being of some to a strong influence in selecting a school in the other state. It should be noted that as far as the Environmental influence is concerned, North Dakota respondents placed more importance on this area of influence than did their Minnesota counterparts. Here, North Dakotans rated this influence a little toward the strong level of influence while the Minnesota overall rating corresponded exactly to it being of some influence.

The following six items reflect the components which made up the Environmental area of influence. Therefore, it can be concluded that North Dakota respondents were influenced more by: (1) a friendly environment, (2) a moderate-size campus, (3) a good social climate, (4) quick responses to requests for information,

(5) a good pre-enrollment visit, and (6) an attractive campus setting, than are their Minnesota counterparts. Since MSU receives the largest number of North Dakota students, it seems reasonable to assume that MSU reflects, in a positive way, the six items which were just listed.

A small number of respondents from each state were influenced by the Advice of Others and Large and Diverse influences. The UM-Twin Cities is the largest school in this study. It is also located in the largest community of the two states. Therefore, it is not surprising to find that a small group of students from North Dakota who are attending the UM-Twin Cities play a role in influencing a statistically higher rating on the Large and Diverse influence for North Dakota respondents.

Research Question 4

This research question asked what institutions survey respondents would have attended in the absence of tuition reciprocity. Extensive comparisons will be made to the 1979 MHECB study on Minnesota tuition reciprocity participants. It was found that 31% of the Minnesota respondents would have attended the alternate Minnesota institution they listed on the survey questionnaire, while 38.5% indicated they would remain at their current North Dakota institution. Nine percent also indicated they would not have attended college without The Program,

and an additional 20.8% selected the category "other" which upon investigation was shown to include such things as: not sure, or would have attended an unspecified Minnesota institution. The 1979 MHECB study had similar findings. In that study, 39% of their Minnesota respondents indicated they would have remained at their current North Dakota institution.

The two studies also concur in the percentage of Minnesota residents who would not have gone to college without the benefit of tuition reciprocity. Each study found 9.0% of the Minnesota respondent indicating this situation.

The 1979 MHECB study and the present study seem to present very similar findings regarding the plans of Minnesota residents in the absence of The Program. At this point comparisons between the two studies will stop as the scope of the present study was broader and included findings about North Dakota respondents.

When comparing the states in how respondents answered this question, two interesting findings stand out. A larger percentage of North Dakota resident (10%) would have attended a North Dakota institution if tuition reciprocity did not exist when they selected their current Minnesota school. Three percent more North Dakota respondents would not have gone to college without The Program.

It should be noted that a finding from Research Question 3 was that the rating on the Reciprocity influence was not statistically different between the states, yet it appears that tuition reciprocity is a strong enough influence to cause larger percentages of North Dakota residents to: (1) attend a North Dakota school or (2) not go to college, if The Program did not exist. Since the differences in percentages between the states were not determined to be statistically different, it can only be a matter of speculation, free from statistical inference, that these percentages do in fact represent a trend or direction.

Overall, it was found that the plans of the survey respondents in the absence of The Program would have a big impact on the institutions of each state with MSU, NDSU, and UND becoming net losers of students while the UM-Twin Cities might actually gain in enrollment without tuition reciprocity. It is possible that Minnesota's denser population contributes to this since a large number of Minnesota students in The Program come from the stratum where the UM-Twin Cities is located.

Research Question 5

This question attempted to explain why more Minnesota residents living near the North Dakota border migrated to North Dakota than would be expected from each state's populations along the border. The question

was not answered within the original research design. A further investigation suggested that it was wrong to assume that the movement of students across the state line was only related to those areas near the common Minnesota-North Dakota border. The presentation of additional information provided evidence to speculate that more Minnesota students use The Program than do North Dakota residents because of: (1) Minnesota's larger population and (2) the proximity of NDSU and UND to the Minnesota border.

Table 1.5 contains information which shows that NDSU and UND collectively attract Minnesota respondents into a wider range of academic programs than MSU does with North Dakota respondents. Since academic considerations appear to have a strong influence on reciprocity participants, it seems reasonable to conclude that the combined offerings of the two predominant North Dakota institutions does indeed play some role in attracting more Minnesota residents to North Dakota.

Relationship of This Study to Other Research on the College Choice Process

Chapter II contained a selected review of college choice research. The findings of this study will be related to information about the college choice process which was presented in the second chapter.

Astin (1965) speculated that the college choice process for many students probably had little to do with the consideration of quality. This study appears to provide evidence that, as far as the tuition reciprocity participants of this study are concerned, academic considerations do in fact play a very important role in their selection of a postsecondary educational institution in Minnesota or North Dakota. Perhaps this is a characteristic of the geographic region associated with this study.

To support this, Thompson (1965) in a survey of high school seniors from the Minneapolis-St. Paul, Minnesota area concluded that the most important factors influencing college choice were institutional quality and the appropriateness of the curriculum. This presents a strikingly similar result to the present study where the Academic area of influence, which was the highest rated and most frequently rated influence, was made up of two items relating to the quality of the academic program and its appropriateness for the individual.

Astin (1977), in a more recent study, seems to contradict his 1965 statement when he reports that a 1977 American Council on Education study showed that a good academic reputation and the offering of special programs were the most frequently cited reasons students gave in selecting the school they were enrolled in.

Earlier it was pointed out that the present study started out with 30 college choice items which were subsequently factor analyzed. The results of this factor analysis were quite similar to the findings of Richards and Holland (1965) when they found that 27 college choice items on the American College Test (ACT), Profile Report could be reduced to four factors: (1) intellectual, (2) practicality, (3) advice of others, and (4) social emphasis. These bear striking similarity to four of the present study's six areas of influence, namely: Academic, Practical, Advice of Others, and Environmental. While their item content may have varied from the Richards and Holland study (1965), their overall tone and direction were similar.

The interaction of several factors in the college choice process is discussed by Feldman and Newcomb (1969, p. 110). They believe that the selection of a particular college is the result of a complex interaction of factors involving the values, goals, personalities, aspirations, and family socioeconomic status of students, to mention only a few. There seems to be some evidence for this in the present study.

The standard deviations associated with the mean scores of the present study seem to indicate a moderate range of fluctuation in the ratings of the six areas of influence. This seems to suggest that different people

with different needs perceive the importance of each influence in a different way, hence, a complex interaction of factors appears to be present. An example is the commuter or individual who lives close to a particular school and tends to emphasize the importance of the Practical influence, while the student living further away places more emphasis on academic considerations. These were findings that appear to be characteristics of both Minnesota and North Dakota students in the study and tend to support the notion of an interaction of factors affecting the college choice process.

Another example of the complexity of this process is found in Holland's (1958, p. 315) study of National Merit Scholarship students when he concludes that the type of institution considered attracts different types of individuals and that an explanation of the college choice process implies divergent personal needs and values.

An example of individual needs being matched to institutional characteristics can be found in the present study. It was pointed out that North Dakota respondents' ratings on the Large and Diverse influence were associated with individuals who were attending the University of Minnesota-Twin Cities. This institution has the largest enrollment and is located in the most populated region of all schools in the study, reflecting that those

individuals rating the Large and Diverse influence high represent some divergent needs compared to other respondents in the study who sought out a more moderately sized school with a warm, friendly atmosphere.

Overall, the present study provided several confirmations of previous research and from this can be developed some implications of the findings to various constituent groups in Minnesota and North Dakota.

Implications

There are several implications of this study to various groups of people in Minnesota and North Dakota. The findings appear to have the most to say to administrators of postsecondary educational institutions and those people who affect state policy decisions, namely members of the state agencies involved with higher education (MHECB, NDBHE), as well as state legislators.

College and university administrators. The 1980s have been predicted to be a period of declining enrollments. Institutional administrators have already strated to show concern for ways to stabilize enrollments when the trends seem to predict declines. Admissions officers are searching for "techniques" that will have a positive effect on enrollments. Overall, institutional concerns relate to ways that the institution can adapt to change and in the long run continue to attract an adequate

number of students. There appear to be several findings of this study that touch on areas that can be controlled by the institution and thereby be used to affect the enrollment of students from both states.

First, this survey of reciprocity participants can be viewed as a market survey of those individuals who were positively influenced by institutional characteristics. In other words, the results reflect things about the institutions that students like. Moorhead State University obviously has a lot at stake in fostering its Business and Education programs which attract large numbers of North Dakota respondents. Likewise, North Dakota State University's ability to attract Minnesota residents appears to be associated with its perceived quality in Engineering, Architecture, Agriculture, Home Economics, and Pharmacy.

Another implication relates to academic quality. The mere existence of a program in the curriculum is not enough to attract large numbers of students. Quality must be perceived by prospective students as evidenced by the strong emphasis placed on the Academic area of influence.

The apparent importance placed on academic considerations by prospective students has yet another implication to the institutions. How is image perceived? What affects the image of an institution to those outside

the school? It is this researcher's opinion that alumni, current students, and the institution's own public relations efforts can play a major role in affecting institutional image. Perhaps the most controllable of these is the institution's public relations efforts. If academic considerations play a major role in affecting student decisions to enroll, it would seem imperative that: (1) information about the institution's academic programs be readily available to prospective students, (2) news bureau releases should emphasize things which reflect academic quality, and (3) media presentations used in admissions and alumni areas should emphasize those institutional characteristics which reflect academic quality.

People Involved with State Policy Decisions

The North Dakota Board of Higher Education is a governing board of all state institutions in North Dakota. It differs from the Minnesota Higher Education Coordinating Board (MHECB) in that it has definite power vested in it over state institutions while the MHECB is more of a recommending organization. In either situation, both agencies have the power to influence legislators who in turn can determine state policy.

Planning and coordination of the higher education community is a function, to some degree, of both agencies.

Research assists the planning function and planning can in the long run affect the design of higher education. Because of this, both agencies are concerned about the future and in particular the impending decline in enrollments which will raise some important questions about the feasibility of continuing the tuition reciprocity agreement between the states.

Since the tuition reciprocity agreement between the states has already attracted political interest, there is a strong possibility that the agencies involved with higher education (MHECB and NDBHE) will be sought out to provide leadership in resolving the overall concerns about the patterns of student migration. Their financial support of this study is evidence of their interest in understanding the dynamics of student migration. Therefore, the findings have implications to these agencies as well as the state legislators who have raised questions about the tuition reciprocity agreements.

The disparity in the number of Minnesota residents attending North Dakota institutions has already surfaced as a political issue in Minnesota possibly because a similar situation exists between Minnesota and Wisconsin, and it may be that it is the overall effect which concerns Minnesota lawmakers.

The findings of this study, which are associated with an assessment of alternate plans in the absence of

tuition reciprocity, appear to point out that the existence of The Program does not seem to have an adverse affect on a large number of institutions in the two states. Only the UM-Twin Cities seems to be affected in an adverse way. The degree to which this institution seems to be affected appears to be minimal given the size of its overall enrollment compared to the number of students lost to North Dakota schools.

Also, the presence of tuition reciprocity has no doubt helped Moorhead State better utilize its facilities which had been subject to several years of enrollment decline prior to The Program.

Minnesota Higher Education Coordinating Board members and Minnesota lawmakers should be relieved to know that the larger number of Minnesota students attending North Dakota institutions is most likely a function of Minnesota's larger overall population, and it is not related to a perceived weakness in the Minnesota higher education system.

While future enrollment declines will compound the issue of disparities, it seems logical to conclude that perhaps the current imbalance of students is equitable when considering the populations of each state and any efforts to balance the exchange could be perceived as detrimental to North Dakota.

Concluding Statement

This study has shown that the participants in the Minnesota-North Dakota tuition reciprocity program are influenced by academic and financial considerations. It appears that the elimination of out-of-state tuition provides an opportunity to consider schools in the other state and that the selection of a particular institution is strongly influenced by the reputation of the academic program and its appropriateness to the individual. While not as many individuals are influenced by Environmental and Practical considerations, a moderate number are. North Dakota students appear to place more importance on the Environmental area of influence. A small number of tuition reciprocity participants in each state are influenced, a little, by Advice of Others and the Large and Diverse areas of influence. A small group of North Dakota residents are particularly interested in the size and diversity offered by the University of Minnesota-Twin Cities.

It appears that Minnesota's larger population, as well as the location of two North Dakota institutions along the Minnesota border, contribute to Minnesota having more participants in The Program than North Dakota.

If tuition reciprocity had not existed when the survey respondents were selecting a college, it appears that the University of Minnesota-Twin Cities would have

enrolled more students than they did with tuition reciprocity in effect. On the other side, MSU, NDSU, and UND would possibly have enrolled fewer students than they do with tuition reciprocity.

What appears to be happening is that residents of both states seek out academic programs and institutional settings which are perceived to meet their needs the best. As this takes place, MSU, NDSU, and UND appear to benefit from an enrollment standpoint, while the UM-Twin Cities loses some students. It is interesting to note that most of the academic programs which attract Minnesota residents into North Dakota (Engineering, Pharmacy, Home Economics, Agriculture, and Aviation) are available in Minnesota only at the UM-Twin Cities.

Suggestions for Future Research

This investigation into why students in Minnesota and North Dakota use the tuition reciprocity agreement between the states only provides information about one aspect of the total impact The Program has on the states. It seems prudent to also consider the economic implications of student migration associated with tuition reciprocity, as local communities are also affected by this exchange of students. Therefore, it is suggested that a future area of investigation concern itself with the cost benefits associated with the Minnesota-North Dakota tuition reciprocity agreement.

Also, one of the intended purposes of The Program was to provide a catalyst for interstate cooperation and coordination of higher education on a regional basis. Associated with this is the concept that a full utilization of facilities and instructional programs will preclude the need for the further duplication of programs in each state. A study assessing the impact of The Program on such duplication would provide insights on a perceived benefit of having tuition reciprocity.

The development of the TROS instrument, the research methodology, and data processing techniques provide a relatively convenient and economical way to continue a yearly collection of data about reciprocity participants. Minor modifications to the TROS could also make it applicable for use with South Dakota, Wisconsin, and Iowa participants in tuition reciprocity with Minnesota. Such research could provide a monitoring of students' reasons for using tuition reciprocity, which in turn might help to detect trends or changes that could affect the states.

Since this study revealed a propensity toward the consideration of academic factors in selecting a college or university, it would be useful to have a better understanding of what affects institutional image. Therefore, it is suggested that future research be directed at determining how an institution's image is developed.

Another area for investigation would be the comparison of participants in reciprocity programs with those who are not taking advantage of these benefits.

Finally, since the Wisconsin tuition reciprocity program represents a larger number of participants than this study, a comparative study between Minnesota and Wisconsin users of tuition reciprocity would provide additional insights to understanding Minnesota student migration patterns.

APPENDICES

APPENDIX A

MINNESOTA RECIPROCITY AGREEMENTS

APPENDIX A
MINNESOTA RECIPROCITY AGREEMENTS
MINNESOTA-WISCONSIN PUBLIC HIGHER EDUCATION
RECIPROCITY AGREEMENT 1978-79

GENERAL PROVISIONS

(1) Purpose and Nature of the Agreement. The purposes of this agreement are mutually to continue to improve the post-secondary education advantages of residents of Minnesota and Wisconsin through greater availability and accessibility of post-secondary education opportunities and to achieve improved effectiveness and economy in meeting the post-secondary education needs of Minnesota and Wisconsin residents through cooperative planning and effort by two neighboring states. These purposes will be accomplished through granting students entrance to public post-secondary institutions in the neighboring state according to the same terms, conditions, and fees which govern entrance to those institutions by residents of the state in which the institutions are located. Under this agreement, Minnesota residents are afforded the opportunity to attend public institutions in Wisconsin on the same basis that Wisconsin residents attend these institutions; and Wisconsin residents are offered the opportunity to attend public institutions in Minnesota on the same basis that Minnesota residents attend these institutions.

With the exception of those programs identified within this agreement for which specific quotas are established, the opportunity to enter a public institution in the neighboring state will be dependent upon the availability of space in the particular program which the student seeks to enter. A student whose reciprocity application is approved by the appropriate agency in his state of residence will be accommodated in a public institution in the neighboring state if he meets those admission requirements which are applied to resident of the neighboring state and if space is available in the program which the student seeks to enter.

(2) Duration of the Agreement. This agreement is to be effective at the beginning of the 1978-79 academic year. The agreement will be reviewed annually and may be modified at any time upon mutual agreement of both parties to the agreement representing their respective states. This agreement is subject to modification by the executive branch and/or the legislature of either state.

(3) Scope of the Agreement - Students. All persons who qualify as residents of Minnesota and Wisconsin for purposes of higher education under laws and regulations of the state of residency may be eligible to attend a public vocational school or a public collegiate institution as a student in the neighboring state under this agreement.

Wisconsin students enrolled in extension courses offered by Minnesota institutions in Wisconsin are not eligible for tuition reciprocity under this agreement. Minnesota students enrolled in extension courses offered by Wisconsin institutions in Minnesota are also not eligible for tuition reciprocity under this agreement.

(4) Scope of the Agreement - Institutions. All public vocational schools and collegiate institutions of higher education in Minnesota and Wisconsin are included under this agreement and are available to residents of the neighboring state in accordance with terms of this agreement.

COLLEGIATE EDUCATION

(1) Plan for Collegiate Students Under the Agreement. Under this agreement, any and all Minnesota residents are eligible to attend public collegiate institutions in Wisconsin as undergraduate, graduate, and professional students on the same basis for admission and tuition purposes that Wisconsin residents attend the same institutions. Similarly, any

and all Wisconsin residents are eligible to attend public collegiate institutions in Minnesota as undergraduate, graduate, and professional students on the same basis for admission and tuition purposes that Minnesota residents attend these institutions. The Minnesota resident attending a Wisconsin institution is required to meet those admission and performance requirements which are applicable to Wisconsin residents. Wisconsin residents attending Minnesota institutions are required to meet those admission and performance requirements which are applicable to Minnesota residents.

Those charges for tuition and fees which apply to Minnesota residents attending Minnesota institutions will be applied to Wisconsin residents attending Minnesota institutions under the agreement. Those charges for tuition and fees which apply to Wisconsin residents who attend Wisconsin institutions will be applied to Minnesota residents who attend Wisconsin institutions under this agreement. The intent of this agreement is that there shall be no restrictions on the number of students from either state who may participate in this agreement.

(2) Administrative Agencies. The following state agencies shall be responsible for administering this agreement in their respective states:

State of Minnesota Higher Education Coordinating Board

State of Wisconsin Higher Educational Aids Board

(3) Application Deadline and Certification of Student Eligibility.

(a) To be eligible under this agreement a student must file a 1978-79 application prior to or during the term or semester in which he/she expects to first receive the waiver of the non-resident portion of tuition. A student is deemed to meet this application date requirement if his/her completed application is postmarked no later than the last day of scheduled classes.

(b) A term or semester is deemed to run through the last day of scheduled classes as published in the academic calendar of the institution.

(c) Neither state agency will be financially liable for students enrolled under the reciprocity agreement who have not received prior approval and certification by the responsible agency.

(4) University of Minnesota School of Veterinary Medicine. Notwithstanding the provisions above, the University of Minnesota School of Veterinary Medicine shall accept, each year, not less than 17 students or 20% of the entering class of Veterinary Medicine, whichever is the greater, but shall not be required to accept more than 24 qualified residents of the State of Wisconsin as entering first year students into the professional veterinary medicine program.

(5) Computation of Interstate Reimbursement for Tuition Loss.

(a) After June 30, each state shall determine the number of undergraduate, graduate, and professional students for whom non-resident tuition has been remitted under this agreement during the academic year including summer session. Each state shall certify to the other state, in addition to the number of students so determined, the aggregate amount of tuition that would have been paid in that year had this agreement not been in effect, the aggregate amount of tuition actually paid in that year and its "net tuition loss".

(b) "Net tuition loss" means the difference between the aggregate amount of tuition that would have been paid to a state in any school year by residents of the other state had this agreement not been in effect and the aggregate amount of tuition paid to that state in that school year by residents of the other state.

- (c) Enrollment determinations used in this computation shall begin with the fall session and include the next following spring and summer sessions.
- (d) The state with the greater net tuition loss shall receive from the other state an amount determined by subtracting the net tuition loss of the state making the payment from the net tuition loss of the state receiving the payment.
- (e) Any payment made under this agreement shall be a payment by one state to the other state and any allocation of funds to institutions to meet institutional costs associated with the agreement or for any other purpose shall be the responsibility of each respective state.

VOCATIONAL-TECHNICAL AND ADULT EDUCATION

- (1) Plan for Vocational Students Under the Agreement. A Wisconsin resident enrolled in a full-time program in a Minnesota Area Vocational Technical Institute shall be considered a Minnesota resident for tuition purposes. Likewise, a Minnesota resident enrolled in a full-time program in a Wisconsin School of Vocational, Technical and Adult Education shall be considered a Wisconsin resident for tuition purposes.
- (2) Student Applications. A student applying under this agreement must complete the Wisconsin Vocational, Technical and Adult Education non-resident tuition form which must also be approved by the student's respective home district administrator.

TREATMENT OF OTHER FORMS OF DIRECT AND INDIRECT STUDENT AID

(1) A student who attends a public institution in the other state and who for any reason is not initially liable for payment of a non-resident tuition charge shall not be eligible for, nor shall he/she be counted under, this agreement. This includes any students whose tuition has been waived or paid through indirect forms of aid or support such as governmental (federal/state/local) or private grants, contracts, or stipends awarded to the institution.

(2) In the case of direct forms of financial aid, such as federal, state and institutional grants, scholarships, loans and workstudy, the student shall be considered eligible under this agreement. The student's budget used to determine his/her financial need for direct forms of aid, however, should reflect the fact that he/she is paying resident rather than non-resident tuition.

AUDITING, DATA VERIFICATION, AND INSTITUTIONAL REPORTING

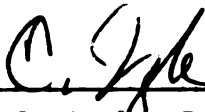
(1) Both states agree to adopt, and continually seek to refine, a comprehensive internal accounting system for the calculation of tuition loss. The purpose of such systems will be to assure each state that appropriate audit and verification procedures are followed by the institutions in determining the amount of net tuition loss under this agreement.

(2) Both states agree to work closely with their appropriate audit agencies (legislative, state, educational system, or institution) to establish those monitoring and audit procedures necessary to verify the accuracy of the data provided by the institutions.

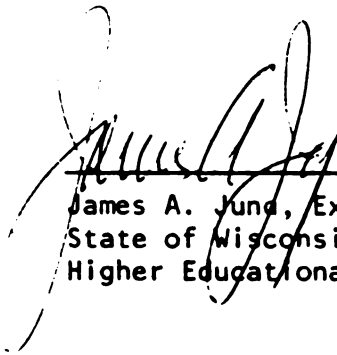
(3) Both states further agree that each state may develop those confirmation procedures it deems appropriate to be used in monitoring the accuracy of the other state's net tuition loss calculation.

ADMISSIONS PROMOTION AND RECRUITMENT

The Minnesota Higher Education Coordinating Board and the State of Wisconsin Higher Educational Aids Board jointly urge that all Minnesota and Wisconsin institutions follow the Statement of Principles of Good Practices, which has been adopted by the National Association of Secondary Schools and College Admissions Officers, and the recommended guidelines for institutions adopted by the Minnesota Higher Education Coordinating Board, which are attached to this agreement as appropriate codes of conduct for representatives of public institutions involved in admissions promotion and student recruitment in the neighboring state.



Clyde R. Ingle, Executive Director
Minnesota Higher Education
Coordinating Board



James A. Jund, Executive Secretary
State of Wisconsin
Higher Educational Aids Board



NATIONAL ASSOCIATION OF COLLEGE ADMISSIONS COUNSELORS

9933 Lawler Avenue, Suite 500

Skokie, Illinois 60076

Tel. 312/676-0500



Statement of Principles of Good Practice

The high school and college admissions counselor believes in the dignity, the worth, and the potentialities of each student with whom he comes in contact. He is committed to assisting students to plan for post-secondary education. Believing that institutions of learning are ultimately only as strong as their human resources, the welfare of the individual student is the most important consideration in this counseling relationship.

Following is a statement of Principles of Good Practice for the National Association of College Admissions Counselors:

I. Admissions Promotion and Recruitment

A. College and University Members Agree:

1. Admissions counselors are professional members of their institution's staff. As professionals, they receive remuneration on a fixed salary, rather than commission or bonus based on the number of students recruited.
2. Admissions officers are responsible for the development of publications used for promotional and recruitment activities. These publications should:
 - a. State clearly and precisely requirements as to secondary-school preparation, admission tests, and transfer-student admission requirements.
 - b. Include statements concerning admissions calendar that are current and accurate.
 - c. Include precise information about opportunities and requirements for financial aid.
 - d. Describe in detail any special programs such as overseas study, early decision, early admission, credit by examination, or advanced placement.
 - e. Contain pictures and statements of the campus and community that are current and represent reality.
3. Colleges and universities are responsible for all persons who may become involved in the admissions, promotional and recruitment activities (i.e., alumni, coaches, students, faculty) and for educating them about the principles outlined in this statement.
4. The admissions counselor is forthright, accurate, and comprehensive in presenting his institution to high school personnel and prospective students. The admissions counselor adheres to the following:
 - a. State clearly the requirements, and other criteria.

b. Make clear all dates concerning application, notification, and candidate reply, for both admissions and financial aid.

c. Furnish data descriptive of currently enrolled classes.

d. Avoid invidious comparisons of institutions.

5. The Admissions Counselor avoids unprofessional promotional tactics, such as:

a. Contracting with high-school personnel for remuneration for referred students.

b. Contracting with placement services that require a fee from the institution for each student enrolled.

c. Encouraging a student's transfer if the student, himself, has not indicated transfer interest.

B. Secondary School Personnel Agree to:

1. Provide a program of counseling which does justice to the college opportunities sought and available.
2. Encourage the student and his parents to take the initiative in learning about colleges and universities.
3. Invite college and university representatives to assist in counseling candidates about college opportunities.
4. Avoid invidious comparisons of institutions.
5. Refuse unethical or unprofessional requests (e.g., for lists of top students, lists of athletes, etc.) from college or university representatives (e.g., alumni, coaches, etc.).
6. Refuse any reward or remuneration from a college, university, or private counseling service for placement of its students.

C. College clearinghouses and matching services which provide liaison between colleges and universities and students shall be considered a positive part of the admissions process if they effectively supplement other high-school guidance.

ance activities and adhere to the Principles of Good Practice contained herein.

II. Application Procedures

A. Colleges and Universities Agree to:

1. Accept full responsibility for admissions decisions and for proper notification of those decisions to candidates and, where possible, to secondary schools.
2. Receive information about a candidate in confidence and to respect completely the confidential nature of such data.
3. Notify high-school personnel when using students on admission selection committee.
4. Not apply newly-revised requirements to the disadvantage of a candidate whose secondary-school course has been established in accordance with earlier requirements.
5. Notify the candidate as soon as possible if the candidate is clearly inadmissible.
6. Not deny admission to a candidate on the grounds that it does not have aid funds to meet the candidate's apparent financial need, foreign students excepted.
7. Not require a candidate or his school to indicate the order of the candidate's college or university preference, early decision plans excepted.
8. Permit the candidate to choose without penalty among offers of admission until he has heard from all colleges to which the candidate has applied or until the candidate's reply date.
9. Not maintain a waiting list of unreasonable length or for an unreasonable period of time.

B. Secondary School Personnel Agree to:

1. Provide an accurate, legible, and complete transcript for its candidates.
2. Describe its marking system and its method of determining rank in class.
3. Describe clearly its special curricular opportunities (e.g., honors, advanced placement courses, seminars, etc.).
4. Provide an accurate description of the candidate's personal qualities that are relevant to the admission process.
5. Report any significant change in the candidate's status or qualifications between the time of recommendation and graduation.
6. Urge the candidate to recognize and discharge his responsibilities in the admissions process.
 - a. *Complying with requests for additional information in a timely manner.*
 - b. *Responding to institutional deadlines on admissions and refraining from stock-piling acceptances.*

c. *Responding to institutional deadlines on room reservations, financial aid, health records, and prescheduling where all or any of these are applicable.*

7. Not, without permission of the candidate, reveal the candidate's college preference.

III. Financial Assistance: (Where Such Assistance is Based upon Need)

A. Colleges and Universities Agree That:

1. Financial assistance consists of scholarships, grants, loans, and employment which may be offered to students singly or in various forms.
2. They should strive, through their publications and communications, to provide schools, parents, and students with factual information about its aid opportunities, programs, and practices.
3. Financial assistance from colleges and other sources should be viewed only as supplementary to the efforts of the family.
4. In determining the financial contribution of the candidate's family, they use methods which assess ability to pay in a consistent and equitable manner such as those developed by the College Scholarship Service and the American College Testing Program.
5. They should clearly state the total yearly cost of attendance and should outline for each student seeking assistance an estimate of his need.
6. They should permit the candidate to choose, without penalty, among offers of financial assistance until he has heard from all colleges to which the candidate has applied or until the candidate's reply date.
7. They should clearly state policies on renewals.
8. They should not announce publicly the amount of financial award on an individual candidate because it is a reflection of the family's financial situation.

B. Secondary School Personnel Agree to:

1. Refrain, in public announcements, from giving the amounts of financial aid received by students.
2. Advise the student who has been awarded aid by non-college sources that it is his responsibility to notify the colleges to which he applied of the type and amount of such outside assistance.
3. Provide adequate opportunity within the school for all able students to receive a special recognition for their accomplishments, thus making it unnecessary for colleges to provide such honorary recognition through their financial-assistance programs.

Recommended Guidelines for Institutions

Concerned that ethical practices be followed and that the welfare of the prospective student receive primary consideration, members of the Commission and the Higher Education Advisory Council studied the issue of acceptable recruiting standards at Minnesota institutions.

As a result of these deliberations, the Commission recommends that all post-secondary institutions follow these guidelines:

- 1. It is an appropriate function of institutions of post-secondary education to encourage citizens of the state to become students in order to enhance their own development and to increase their potential service.**
- 2. In the exercise of that function, it is proper for institutions to disseminate broadly information about educational programs in general and institutional programs in particular and to consult with potential students personally about their needs and interests and the institution's relevant offerings.**
- 3. It is appropriate to use the mass media to acquaint potential enrollees and their parents with programs available at institutions. It may be necessary to do so when other audiences than current high school students are addressed. Such dissemination should be positive and should not make unfair or unfavorable references to other systems or institutions.**
- 4. It is imperative that institutions and their representatives be completely honest and accurate in assessing the adequacy of their offerings to meet the needs and interests of the student. This should include disclosure of any deficiencies that may be experienced by the student in the event of transfer or for the purposes of certification for employment.**
- 5. In counseling prospective students, the welfare of the student must be the paramount consideration. Institutional representatives should be sufficiently informed about available educational options to know when programs at other institutions are better suited to the student's needs and interests, and should advise the student when this is the case.**
- 6. A student who is regularly enrolled at any institution should not be considered a potential enrollee at another institution unless:**
 - a) he is completing his course of study at his present institution,**
 - b) he has formally requested information or counsel from that institution, or**
 - c) has formally notified that institution of his intention to transfer to it.**

In addition, the Commission urges all institutions to follow the Statement of Principles of Good Practice adopted by the National Association of Secondary Schools and College Admissions Officers and Minnesota Association of Secondary School Counselors and College Admissions Officers as an appropriate code of conduct for representatives of state institutions:

**MINNESOTA-NORTH DAKOTA PUBLIC HIGHER EDUCATION
RECIPROCITY AGREEMENT**

PURPOSE AND NATURE OF THE AGREEMENT

The purposes of this agreement are mutually to continue to improve the post-secondary education advantages of residents of Minnesota and North Dakota through greater availability and accessibility of post-secondary education opportunities and to achieve improved effectiveness and economy in meeting the post-secondary education needs of Minnesota and North Dakota residents through cooperative planning and effort by two neighboring states. These purposes will be accomplished through granting students entrance to public post-secondary institutions in the neighboring state according to the same terms, conditions, and fees which govern entrance to those institutions by residents of the state in which the institutions are located. Under this agreement, Minnesota residents are afforded the opportunity to attend public institutions in North Dakota on the same basis that North Dakota residents attend these institutions; and North Dakota residents are offered the opportunity to attend public institutions in Minnesota on the same basis that Minnesota residents attend these institutions.

The opportunity to enter a public institution in the neighboring state will be dependent upon the availability of space in the particular program which the student seeks to enter. A student whose reciprocity application is approved by the appropriate agency in his state of residence will be accommodated in a public institution in the neighboring state if he meets those admission requirements which are applied to residents of the neighboring state and if space is available in the program which the student seeks to enter.

DURATION OF THE AGREEMENT

This agreement is to be effective beginning with the 1978-79 academic year. The agreement will be reviewed annually and may be modified at any time upon mutual agreement of both parties to the agreement representing their respective states.

SCOPE OF THE AGREEMENT - STUDENTS

(a) All persons who qualify as residents of Minnesota and North Dakota for purposes of higher education under laws and regulations of the state of residency may be eligible to attend an institution governed and operated by the State Board of Higher Education in North Dakota and the Board of Regents, the State University Board, and the State Board for Community Colleges in Minnesota, except for those persons enrolled in special programs for which either state has contracted for a specific number of spaces in the other state.

(b) Any and all Minnesota residents are eligible to attend the above institutions in North Dakota as undergraduate, graduate, and professional students on the same basis for admission and tuition purposes that North Dakota residents attend the same institutions. Similarly, any and all North Dakota residents are eligible to attend the above institutions in Minnesota as undergraduate, graduate, and professional students on the same basis

for admission and tuition purposes that Minnesota residents attend these institutions.

(c) The Minnesota resident attending a North Dakota institution is required to meet those admission and performance requirements which are applicable to North Dakota residents. North Dakota residents attending Minnesota institutions are required to meet those admission and performance requirements which are applicable to Minnesota residents. Those charges for tuition and fees which apply to Minnesota residents attending Minnesota institutions will be applied to North Dakota residents attending Minnesota institutions under the agreement. Those charges for tuition and fees which apply to North Dakota residents attending North Dakota institutions will be applied to Minnesota residents who attend North Dakota institutions under this agreement. The intent of this agreement is that there shall be no restrictions on the number of students from either state who may participate in this agreement.

(d) All forms of financial aid provided by any eligible institution shall be available to a participant under the program established by this agreement, except those aid programs supported by state funds or private funds, for which eligibility is legally restricted, and provided the participant otherwise qualifies for the aid.

(e) Any resident of a state who otherwise attends an eligible institution in the other state, under conditions which obviate the necessity of paying non-resident charges, shall not be an eligible participant under this program.

SCOPE OF THE AGREEMENT - INSTITUTIONS AND PROGRAMS

All public collegiate institutions and programs of higher education in Minnesota and North Dakota governed by the State Board of Higher Education in North Dakota and the Board of Regents, the State University Board, and the State Board for Community Colleges in Minnesota, except for those programs for which either state has contracted for a specified number of spaces in the other state, are included under this agreement and are available to residents of the neighboring state in accordance with terms of this agreement. Institutions may not offer programs in the neighboring state to be covered by this agreement without prior approval of the administrative agencies.

ADMINISTRATIVE AGENCIES

(a) The following state agencies shall be responsible for administering this agreement in their respective states:

State of Minnesota Higher Education Coordinating Board
State of North Dakota Board of Higher Education

(b) The designated representatives of each of the two states responsible for implementation, certification of the students participating under the agreement, determination of cost factors and calculating reimbursement shall be the chief executive officers of the two administering agencies.

(c) The administering agencies may adopt rules and procedures and may enter into cooperative agreements.

APPLICATION DEADLINE AND CERTIFICATION OF STUDENT ELIGIBILITY

(a) To be eligible under this agreement a student must file a current application for the academic year the student wishes to attend the institution prior to or during the term or semester in which he/she expects to first receive the waiver of the non-resident portion of tuition. A student is deemed to meet this application date requirement if his/her completed application is received no later than the last day of scheduled classes.

(b) A term or semester is deemed to run through the last day of scheduled classes as published in the academic calendar of the institution.

(c) Neither state agency will be financially liable for students enrolled under the reciprocity agreement who have not received prior approval and certification by the responsible agency.

COMPUTATION OF INTERSTATE REIMBURSEMENT

(a) Annually, each state shall determine the number of students for whom non-resident tuition has been remitted under this agreement during the academic year including the summer sessions. The designated officer of each state shall certify to the other state the number of students so determined and the total number of credit hours covered by the reciprocity agreement.

(b) Enrollment determinations used in this computation shall begin with the fall session and include the next following winter, spring, and summer sessions.

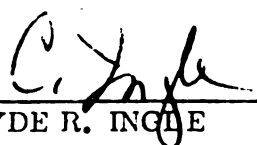
(c) Each state shall calculate the payment due based upon the total number of undergraduate, graduate, and professional level credits earned during the enrollment period multiplied by a weighted tuition differential factor for each level of instruction which is the result of averaging the difference between resident and non-resident tuition for each instructional level at the participating institutions.

(d) Any payment made under this agreement shall be a payment by one state to the other state and any allocation of funds to institutions to meet institutional costs associated with the agreement or for any other purpose shall be the responsibility of each respective state.

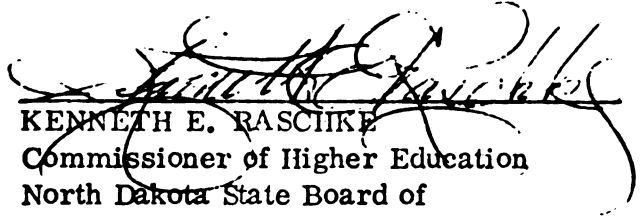
ADMISSIONS PROMOTION AND RECRUITMENT

The Minnesota Higher Education Coordinating Board and the North Dakota Board of Higher Education jointly urge that all Minnesota and North Dakota institutions follow the Statement of Principles of Good Practice, which has been adopted by the National

Association of Secondary Schools and College Admissions Officers, and the recommended guidelines for institutions adopted by the Minnesota Higher Education Coordinating Board, which are attached to this agreement, as appropriate codes of conduct for representatives of public institutions involved in admissions promotion and student recruitment in the neighboring state.



CLYDE R. INGLE
Executive Director
Minnesota Higher Education
Coordinating Board



KENNETH E. RASCHKE
Commissioner of Higher Education
North Dakota State Board of
Higher Education

MINNESOTA-SOUTH DAKOTA PUBLIC HIGHER EDUCATION
RECIPROCITY AGREEMENT

ARTICLE I. PURPOSE

The purpose of the Minnesota-South Dakota Public Higher Education Reciprocity Agreement shall be to provide greater higher educational opportunities and services to the citizens of the states of Minnesota and South Dakota through the provision of access to the public higher education institutions of each state to students of the neighboring state on an equivalent basis as students from the state in which the institution is located and with the specific aims of enhancing accessibility to programs, expanding the range of programs available, and promoting the greater economy of state finances.

ARTICLE II. DEFINITIONS

As used in this Agreement:

"Academic year" means that period of time commencing with the institution's fall quarter or semester and terminating with the subsequent summer sessions.

"Participant" means a person who has been accepted and enrolled at an eligible institution under the provisions set forth in this Agreement.

"Participating states" means those states which are party to this Agreement, i.e., Minnesota and South Dakota.

"Tuition Differential Factor" means that number calculated annually which is the result of averaging the average weighted difference between the resident and non-resident tuition for all programs at the undergraduate, graduate and professional levels at all eligible institutions in the participating states.

ARTICLE III. ENTRY INTO FORCE, MODIFICATION, TERMINATION

A. This Agreement shall become effective at the commencement of the academic year next succeeding its approval by the appropriate authorities in the participating states and shall continue from year to year unless terminated as hereafter provided.

B. Modification of this Agreement may be proposed at any time and shall become effective upon mutual agreement of both parties and approval by the appropriate state authorities.

C. Either party hereto may terminate this Agreement at any time; provided, however, that such termination shall only work to preclude any further admissions under the terms hereof but shall not prejudice the rights of participants to complete the degree program in which they are enrolled at the date of termination.

ARTICLE IV. ELIGIBLE INSTITUTIONS AND PROGRAMS

The terms and conditions of this Agreement shall, to the extent provided, govern matriculation at all institutions under the jurisdiction of the South Dakota board of regents, the University of Minnesota board of regents, the Minnesota state university board and the Minnesota state board for community colleges, and shall extend to all programs, whether on an undergraduate, graduate or professional level, except for those programs for which either state has contracted for a guaranteed number of spaces in the other state. It is the intent of this Agreement that there shall be no limitation on the number of students who may participate from either state, except to the extent of program restrictions and the availability of space in the particular program which the student seeks to enter. Participation in the eligible law and medicine programs under the terms of this Agreement shall be restricted to 5% of the spaces available

in the first year of each such program; provided, however, that the foregoing limitation shall not preclude participation by students enrolled in such programs beyond the freshman year as of the effective date of this Agreement.

ARTICLE V. ELIGIBLE PERSONS AND CONDITIONS OF PARTICIPATION

A. All persons who qualify as residents of Minnesota or South Dakota for the purposes of public higher education under the laws or rules of the state in which they claim to reside, shall be eligible to apply for admission and attend any of the eligible institutions or programs on the same basis as any resident of the state in which the institution or program is located. It is specifically understood and agreed that all participants under this program shall be treated on an equal basis with state residents, such equality of treatment particularly including, but in no case limited to, admissions, tuition and fees.

B. Any resident of a state who otherwise attends an eligible institution in the other state, under conditions which obviate the necessity of paying non-resident charges, shall not be an eligible participant under this program.

C. Participants under the program established by this Agreement shall be required to satisfy those admission and performance requirements and comply with all policies, rules and regulations of the institution in which they are matriculated unless herein otherwise provided.

D. All forms of financial aid provided by any eligible institution shall be available to a participant under the program established by this Agreement, except those aid programs totally supported by state funds or private funds, for which eligibility is legally restricted, and provided the participant otherwise qualifies for the aid.

ARTICLE VI. ADMINISTRATION

A. The South Dakota board of regents and the Minnesota higher

education coordinating board (MHECB) shall be responsible for the administration of this Agreement and pursuant thereto may adopt rules and procedures and may enter into cooperative agreements.

B. Each board shall determine the eligibility of applicants to become participants based on their state's residency policies. Where a participant's residency status originates in one state and is later terminated but may prospectively be established in the other state, then the participant shall, for the purposes of this Agreement, be treated as a resident of the originating state for one year or until residency is subsequently established in a participating state, whichever shall occur first.

C. Each state shall cooperatively audit the eligible institutions at least annually with the objective of verifying the enrollment and continued attendance of participants.

ARTICLE VII. REIMBURSEMENT


A. Annually, each state shall determine the number of participants and the total credit hours for which non-resident tuition has been remitted under this Agreement and shall certify to the other state the results. Certification shall be submitted by the first day of December and shall encompass the previous academic year.

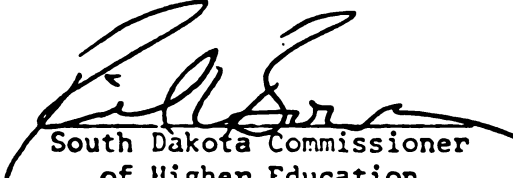
B. The state with the greater total credit hours of participation shall reimburse the other in an amount which shall be determined by multiplying the difference between the states' total credit hours of participation by the Tuition Differential Factor for the year in question.

C. Any payment required under this Agreement shall be to the state of South Dakota tuition and fees fund or the state of Minnesota.

ARTICLE VIII. CONSTRUCTION AND SEVERABILITY

This agreement is entered into by the South Dakota board of regents pursuant to the authority granted in SDCL 13-53-6.2 and by the Minnesota higher education coordinating board pursuant to the authority granted in Minn. Stat. Ch. 136A.08 and shall therefore be liberally construed in accordance with the intent and to accomplish the purposes of those provisions. If any phrase, clause, sentence or provision of this Agreement or any modification hereof or supplement hereto be determined to be contrary to or inconsistent with the authority above cited or the constitution of either state, or the applicability thereof to any agency, person or circumstance is held invalid, the validity of the remainder of this Agreement or of any modification or supplement or its applicability to any agency, person or circumstance shall not thereby be rendered ineffective.


 Executive Director
 Minnesota Higher Education
 Coordinating Board
 Date June 23, 1978


 South Dakota Commissioner
 of Higher Education
 Date July 3, 1978

MINNESOTA-IOWA MERGED AREA III PUBLIC HIGHER EDUCATION
RECIPROCTY AGREEMENT

PURPOSE AND NATURE OF THE AGREEMENT

The purposes of this agreement are to mutually continue to improve the post-secondary education advantages of residents of Minnesota and Iowa through greater availability and accessibility of post-secondary education opportunities and to achieve improved effectiveness and economy in meeting the post-secondary education needs of Minnesota and Iowa residents through cooperative planning and effort by two neighboring states. These purposes will be accomplished through granting students entrance to public post-secondary institutions in the neighboring state according to the same terms, conditions, and fees which govern entrance to those institutions by residents of the state in which the institutions are located. Under this agreement, Minnesota residents are afforded the opportunity to attend specified public institutions in Iowa on the same basis that Iowa residents attend these institutions; and specified Iowa residents are offered the opportunity to attend specified public institutions in Minnesota on the same basis that Minnesota residents attended these institutions.

The opportunity to enter a specified public institution in the neighboring state will be dependent upon the availability of space in the particular program which the student seeks to enter. A student whose reciprocity application is approved by the specified institution's admissions officer will be accommodated in that public institution if he meets those admission requirements which are applied to residents of that state and if space is available in the program which the student seeks to enter.

DURATION OF THE AGREEMENT

This agreement is to be effective at the beginning of the fall term of the 1975-79 academic year. The agreement will be reviewed annually and may be modified at any time upon mutual agreement of the parties representing their institutions.

SCOPE OF THE AGREEMENT - STUDENTS

(a) All persons who qualify as residents of Minnesota for purposes of higher education under laws and regulations of the state of Minnesota may be eligible to attend Iowa Lakes Community College in Iowa. All persons who qualify as residents of Merged Area III in Iowa for purposes of higher education under laws and regulations of the state of Iowa may be eligible to attend Worthington Community College, Jackson Area Vocational-Technical Institute and Pipestone Area Vocational-Technical Institute in Minnesota.

(b) Any and all Minnesota residents are eligible to attend the above institution in Iowa as undergraduate students on the same basis for admission and tuition purposes that Iowa residents attend that institution. Similarly, any and all Iowa residents living in Merged Area III are eligible to attend the above institutions in Minnesota as undergraduate students on the same basis for admission and tuition purposes that Minnesota residents attend those institutions.

(c) The Minnesota resident attending an Iowa institution is required to meet those admission and performance requirements which are applicable to Iowa residents. Eligible Iowa residents attending Minnesota institutions are required to meet those admission and performance requirements which are applicable to

Minnesota residents. Those charges for tuition and fees which apply to Minnesota residents attending Minnesota institutions will be applied to eligible Iowa residents attending Minnesota institutions under the terms of this agreement. Those charges for tuition and fees which apply to Iowa residents attending Iowa institutions will be applied to Minnesota residents who attend Iowa institutions under the terms of this agreement. The intent of this agreement is that there shall be no restrictions on the number of students from either state who may participate in this agreement.

(d) All forms of financial aid provided by any eligible institution except those aid programs totally supported by state funds or private funds, for which eligibility is legally restricted, shall be available to a participant under the program established by this agreement provided the participant otherwise qualifies for the aid.

(e) Any resident of Minnesota or Iowa who otherwise attends an eligible institution in the other state, under conditions which obviate the necessity of paying nonresident charges, shall not be an eligible participant under this program.

SCOPE OF THE AGREEMENT - INSTITUTIONS AND PROGRAMS

All programs of post-secondary education administered by Iowa Lakes Community College, Worthington Community College, Jackson Area Vocational-Technical Institute and Pipestone Area Vocational-Technical Institute, except correspondence courses, are available to residents of the neighboring state in accordance with the terms of this agreement.

ADMINISTRATIVE AGENCIES

(a) The following agencies shall be responsible for administering this agreement in their respective states:

State of Minnesota Higher Education Coordinating Board

State of Iowa Board of Directors of Merged Area III

(b) The designated representatives responsible for implementation on behalf of each of the two states shall be the chief executive officers of the two administering agencies.

(c) The administering agencies will agree upon cooperative procedures to implement this compact.

APPLICATION DEADLINE AND CERTIFICATION OF STUDENT ELIGIBILITY

(a) To be eligible under this agreement a student must file an application for admission to the institution he/she wishes to attend by the application deadline specified for that institution or program. A student is deemed to be eligible for reciprocity benefits if he/she meets the appropriate residency requirements and is accepted for admission.

(b) The admissions officers of the eligible institutions will certify to the student and the agency the eligibility of students according to residency guidelines published by the administrative agencies.

(c) Denied students may appeal to the administrative agency in the student's home state. Such appeal must be within fourteen calendar days of the date the reciprocity application was rejected.

REPORTING

(a) Annually, each agency shall determine the number of students for whom nonresident tuition has been remitted under this agreement during the academic year, including the summer sessions. The designated officer of each state shall certify to the other state the number of students so determined and the total

number of credit hours covered by the reciprocity agreement.

(b) Enrollment determinations used in this report shall begin with the fall session and include the next following winter, spring and summer sessions.

ADMISSIONS PROMOTION AND RECRUITMENT

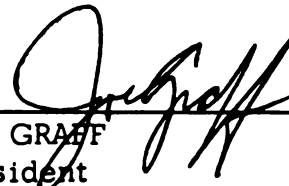
The Minnesota Higher Education Coordinating Board and the Board of Directors of Merged Area III urge that all eligible Minnesota and Iowa institutions follow the Statement of Principles of Good Practice, which has been adopted by the National Association of Secondary Schools and College Admissions Officers, and the recommended guidelines for institutions adopted by the Minnesota Higher Education Coordinating Board, which are attached to this agreement, as appropriate codes of conduct for representatives of public institutions involved in admissions promotion and student recruitment in the neighboring state.



CLYDE R. INGLE
Executive Director
Minnesota Higher Education Coordinating
Board



RICHARD H. BLACKER
Superintendent
Iowa Lakes Community College



JOE GRAFF
President
Board of Directors
Iowa Lakes Community College

MINNESOTA-IOWA MERGED AREA IV PUBLIC HIGHER EDUCATION

RECIPROCITY AGREEMENT

PURPOSE AND NATURE OF THE AGREEMENT

The purposes of this agreement are to mutually continue to improve the post-secondary education advantages of residents of Minnesota and Iowa through greater availability and accessibility of post-secondary education opportunities and to achieve improved effectiveness and economy in meeting the post-secondary education needs of Minnesota and Iowa residents through cooperative planning and effort by two neighboring states. These purposes will be accomplished through granting students entrance to public post-secondary institutions in the neighboring state according to the same terms, conditions, and fees which govern entrance to those institutions by residents of the state in which the institutions are located. Under this agreement, Minnesota residents are afforded the opportunity to attend specified public institutions in Iowa on the same basis that Iowa residents attend these institutions; and specified Iowa residents are offered the opportunity to attend specified public institutions in Minnesota on the same basis that Minnesota residents attended these institutions.

The opportunity to enter a specified public institution in the neighboring state will be dependent upon the availability of space in the particular program which the student seeks to enter. A student whose reciprocity application is approved by the specified institution's admissions officer will be accommodated in that public institution if he meets those admission requirements which are applied to residents of that state and if space is available in the program which the student seeks to enter.

DURATION OF THE AGREEMENT

This agreement is to be effective at the beginning of the fall term of the 1978-79 academic year. The agreement will be reviewed annually and may be modified at any time upon mutual agreement of the parties representing their institutions.

SCOPE OF THE AGREEMENT - STUDENTS

(a) All persons who qualify as residents of Minnesota for purposes of higher education under laws and regulations of the state of Minnesota may be eligible to attend Northwest Iowa Technical College in Iowa. All persons who qualify as residents of Merged Area IV in Iowa for purposes of higher education under laws and regulations of the state of Iowa may be eligible to attend Worthington Community College, Jackson Area Vocational-Technical Institute and Pipestone Area Vocational-Technical Institute in Minnesota.

(b) Any and all Minnesota residents are eligible to attend the above institution in Iowa as undergraduate students on the same basis for admission and tuition purposes that Iowa residents attend that institution. Similarly, any and all Iowa residents living in Merged Area IV are eligible to attend the above institutions in Minnesota as undergraduate students on the same basis for admission and tuition purposes that Minnesota residents attend those institutions.

(c) The Minnesota resident attending an Iowa institution is required to meet those admission and performance requirements which are applicable to Iowa residents. Eligible Iowa residents attending Minnesota institutions are required to meet those admission and performance requirements which are applicable to

Minnesota residents. Those charges for tuition and fees which apply to Minnesota residents attending Minnesota institutions will be applied to eligible Iowa residents attending Minnesota institutions under the terms of this agreement. Those charges for tuition and fees which apply to Iowa residents attending Iowa institutions will be applied to Minnesota residents who attend Iowa institutions under the terms of this agreement. The intent of this agreement is that there shall be no restrictions on the number of students from either state who may participate in this agreement.

(d) All forms of financial aid provided by any eligible institution except those aid programs totally supported by state funds or private funds, for which eligibility is legally restricted, shall be available to a participant under the program established by this agreement provided the participant otherwise qualifies for the aid.

(e) Any resident of Minnesota or Iowa who otherwise attends an eligible institution in the other state, under conditions which obviate the necessity of paying nonresident charges, shall not be an eligible participant under this program.

SCOPE OF THE AGREEMENT - INSTITUTIONS AND PROGRAMS

All programs of post-secondary education administered by Northwest Iowa Technical College, Worthington Community College, Jackson Area Vocational-Technical Institute and Pipestone Area Vocational-Technical Institute, except correspondence courses, are available to residents of the neighboring state in accordance with the terms of this agreement.

ADMINISTRATIVE AGENCIES

(a) The following state agencies shall be responsible for administering this agreement in their respective states:

State of Minnesota Higher Education Coordinating Board

State of Iowa Board of Directors of Merged Area IV

(b) The designated representatives responsible for implementation on behalf of each of the two states shall be the chief executive officers of the two administering agencies.

(c) The administering agencies will agree upon cooperative procedures to implement this compact.

APPLICATION DEADLINE AND CERTIFICATION OF STUDENT ELIGIBILITY

(a) To be eligible under this agreement a student must file an application for admission to the institution he/she wishes to attend by the application deadline specified for that institution or program. A student is deemed to be eligible for reciprocity benefits if he/she meets the appropriate residency requirements and is accepted for admission.

(b) The admissions officers of the eligible institutions will certify to the student and the agency the eligibility of students according to residency guidelines published by the administrative agencies.

(c) Denied students may appeal to the administrative agency in the student's home state. Such appeal must be within fourteen calendar days of the date the reciprocity application of rejected.

REPORTING

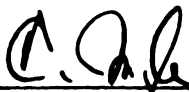
(a) Annually, each agency shall determine the number of students for whom nonresident tuition has been remitted under this agreement during the academic year, including the summer sessions. The designated officer of each state shall certify to the other state the number of students so determined and the total

number of credit hours covered by the reciprocity agreement.

(b) Enrollment determinations used in this report shall begin with the fall session and include the next following winter, spring and summer sessions.

ADMISSIONS PROMOTION AND RECRUITMENT

The Minnesota Higher Education Coordinating Board and the Board of Directors of Merged Area IV urge that all eligible Minnesota and Iowa institutions follow the Statement of Principles of Good Practice, which has been adopted by the National Association of Secondary Schools and College Admissions Officers, and the recommended guidelines for institutions adopted by the Minnesota Higher Education Coordinating Board, which are attached to this agreement, as appropriate codes of conduct for representatives of public institutions involved in admissions promotion and student recruitment in the neighboring state.



CLYDE R. ENGLE
Executive Director
Minnesota Higher Education Coordinating
Board



C. E. MARTIN
Superintendent
Northwest Iowa Technical College

APPENDIX B

LETTERS OF SPONSORSHIP AND FUNDING

APPENDIX B

LETTERS OF SPONSORSHIP AND FUNDING

NORTH DAKOTA
State Board of Higher Education
STATE CAPITOL
BISMARCK

701-224-2960

OFFICE OF THE COMMISSIONER

September 6, 1979

Mr. George H. Wallman
1445 F
Spartan Village
East Lansing, Michigan 48823

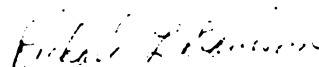
Dear Mr. Wallman:

The North Dakota Post Secondary Education Commission agrees to fund one-half of the costs of your reciprocity study. The study as proposed is excellent and will be of benefit to the Commission's long-range planning activities.

Upon completion of the study you will present the Commission with a permanent copy.

Thank you for your interest in North Dakota Higher Education.

Sincerely yours,



Richard L. Davison
Executive Director
Post Secondary Education Commission

RLD:aj

MINNESOTA
HIGHER EDUCATION
COORDINATING BOARD

SUITE 400
CAPITOL SQUARE
550 CEDAR STREET
SAINT PAUL 55101

(612) 296-9665

OFFICE OF THE EXECUTIVE DIRECTOR

October 26, 1979

Mr. George H. Wallman
429 Erickson Hall
Michigan State University
East Lansing, Michigan 48823

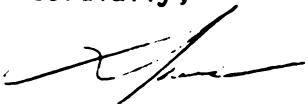
Dear George:

Please find enclosed the contract materials for our involvement in the study of Minnesota-North Dakota reciprocity. We have just received the computer tape and are ready to forward it to you as soon as you have completed the contract.

In reviewing the contract I suggest that you look very carefully at the duties and conditions as well as the Data Privacy Act (copy enclosed). We will also need you to fill in your social security number. If you wish to consult legal counsel on any of the implications of the contract, you should feel free to do so and we will be happy to answer any questions that you may have.

We will look forward to our part in the project and are anticipating a first-rate study.

Cordially,



DAVID B. LAIRD, JR.
Deputy Executive Director

DBL:lw
Encl.

cc: Leskee

APPENDIX C

TABLES

APPENDIX C

TABLES

Table C.1

Minnesota Residents Applying for The Program by County

County	f ^a	County	f
Aitkin	3	Kandiyohi	21
Anoka	45	Kittson	83
Becker	139	Koochiching	39
Beltrami	74	Lac Qui Prarie	22
Benton	10	Lake	14
Big Stone	26	Lake-of-the-Woods	23
Blue Earth	8	LeSeur	5
Brown	9	Lincoln	6
Carleton	20	Lyon	9
Carver	18	McLeod	15
Cass	36	Mahnomen	31
Chippewa	24	Marshall	153
Chisago	13	Martin	3
Clay	439	Meeker	9
Clearwater	32	Mille Lacs	9
Cook	2	Morrison	11
Cottonwood	5	Mower	9
Crow Wing	27	Murray	0
Dakota	78	Nicollet	8
Dodge	2	Nobles	12
Douglas	65	Norman	77
Fairbault	0	Olmsted	56
Fillmore	6	Otter Tail	291
Freeborn	13	Pennington	117
Goodhue	24	Pine	4
Grant	50	Pipestone	4
Hennepin	288	Polk	555
Houston	0	Pope	28
Hubbard	45	Ramsey	94
Isanti	4	Red Lake	47
Itasca	67	Redwood	3
Jackson	4	Renville	17
Kanabec	2	Rice	10

Table C.1 (Continued)

County	f ^a	County	f
Rock	4	Traverse	58
Roseau	61	Wabasha	2
St. Louis	154	Wadena	62
Scott	20	Waseca	5
Sherburne	10	Washington	37
Sibley	3	Watonwan	4
Stearns	81	Wilkin	182
Steele	12	Winnona	13
Stevens	42	Wright	14
Swift	34	Yellow-Medicine	16
Todd	47	Out-of-State	59

Note. Applications were for the fall term 1979;
source of data was the MHECB Data Tape as of 10-3-79.

a = Frequency

Table C.2

North Dakota Residents Applying for The Program,
by County

County	f ^a	County	f
Adams	15	McLean	21
Barnes	65	Mercer	12
Benson	15	Morton	57
Billings	0	Montrail	4
Bottineau	17	Nelson	29
Bowman	6	Oliver	5
Burke	6	Pembina	36
Burleigh	203	Pierce	12
Cass	1,479	Ramsey	47
Cavalier	17	Ransom	37
Dickey	26	Renville	5
Divide	4	Richland	147
Dunn	7	Rolette	22
Eddy	16	Sargent	32
Emmons	9	Sheridan	2
Foster	17	Sioux	7
Golden Valley	2	Slope	1
Grand Forks	143	Stark	45
Grant	4	Steele	12
Griggs	10	Stutsman	133
Hettinger	5	Towner	12
Kidder	8	Traill	39
LaMoore	36	Walsh	64
Logan	10	Ward	68
McHenry	13	Wells	16
McIntosh	20	Williams	23
McKenzie	7		

Note. Applications were for the fall term 1979;
source of data was the MHECB Data Tape as of 10-3-79.

a = Frequency

Table C.3
Questionnaires Received Each Day of Survey

Date	Frequency	Date	Frequency
November		December	
19	7	3	110
20	27	4	24
21	89	5	36
23	192	6	61
26	211	7	71
27	51	10	104
28	48	11	26
29	164	12	10
30	85	13	29
		14	33
		17	28
		18	12
		Total	1,418

Note. On November 15, 1979, a total of 1,700 questionnaires were mailed.

Table C.4

Frequencies of Survey Respondents by State and Distance
Home is from Current School

Distance	MN Residents at ND Institutions ^a		ND Residents at MN Institutions ^b	
	f ^c	% ^d	f	%
Less than 30 miles	176	22.4	202	40.0
30-50 miles	67	8.6	29	5.8
51-100 miles	152	19.4	60	11.8
More than 100 miles	<u>389</u>	<u>49.6</u>	<u>215</u>	<u>42.4</u>
	784	100	507	100

$$^a_N = 784$$

$$^b_N = 507$$

c = Frequency; d = Percentage

Table C.5

Frequencies of Survey Respondents by Commuter
Status and State

Status	Frequency	Percentage
<u>MN Residents at ND Institutions^a</u>		
Commuting	132	16.9
Not Commuting	650	83.1
<u>ND Residents at MN Institutions^b</u>		
Commuting	169	33.5
Not Commuting	335	66.5

$$^a_N = 782$$

$$^b_N = 504$$

Table C.6
Frequencies of Survey Respondents by Class
Standing and State

Class Standing	Minnesota ^a Residents		North Dakota ^b Residents	
	f ^c	% ^b	f	%
Freshmen	247	31.5	110	21.8
Sophomore	188	24.0	94	18.8
Junior	152	19.4	111	22.0
Senior	139	17.8	100	19.8
Graduate	35	4.5	43	8.5
Other	22	2.8	46	9.1

^aN = 783

^bN = 504

c = Frequency; d = Percentage

Table C.7

Frequencies of Survey Respondents by State and Degree

Degree	MN Residents ^a		ND Residents ^b	
	f ^c	% ^d	f	%
Associate Degree	77	10.0	47	9.4
Bachelor's Degree	550	71.2	340	67.1
Master's Degree	58	7.4	58	11.4
Specialist	31	4.0	10	2.0
Doctorate	12	1.6	6	1.2
Other	45	5.8	41	8.2
Missing	10	1.2	2	.3

^aN = 773^bN = 502

c = Frequency; d = Percentage

Table C.8

Frequencies of Survey Respondents by State and Age

Age	State			
	Minnesota ^a		North Dakota ^b	
	f ^c	% ^d	f	%
17-21 years of age	538	68.6	265	52.4
21-30 years of age	222	28.3	167	33.0
Over 30 years of age	24	3.1	74	1.6

^aN = 784^bN = 506

c = Frequency; d = Percentage

Table C.9

Frequencies of Survey Respondents by State and Sex

Sex	MN Residents ^a		ND Residents ^b	
	f ^c	% ^d	f	%
Female	344	43.9	326	64.7
Male	440	56.1	178	35.3

^aN = 784^bN = 504

c = Frequency; d = Percentage

Table C.10

Frequencies of Survey Respondents by Consideration
of an Alternate School and State

Status	Minnesota Residents ^a		North Dakota Residents ^b	
	f ^c	% ^d	f	%
Considered an alternate school	503	64.2	278	54.8
Did not consider an alternate school	276	35.2	225	44.3
Missing	5	.6	4	.8

^aN = 779^bN = 503

c = Frequency; d = Percentage

APPENDIX D

COVER LETTER, QUESTIONNAIRE, AND CODING FORMAT

APPENDIX D

COVER LETTER, QUESTIONNAIRE, AND CODING FORMAT

Minnesota - North Dakota
Tuition Reciprocity Study

George H. Wallman
Researcher
(517) 355-1197

329 Erickson Hall
Michigan State University
East Lansing, MI 48824

October 1979

Dear Student:

The Minnesota Higher Education Coordinating Board and the North Dakota Postsecondary Education Commission are sponsoring a study on tuition reciprocity and we are asking that you complete the enclosed questionnaire, returning it to us in the postage-free envelope provided.

The results of the study will be used by members of the two higher education board offices to better understand what influences students to take advantage of tuition reciprocity. Individuals will not be identified in any way as overall statistics will be used in reporting the results.

Your participation is VERY IMPORTANT because this letter is not being sent to everyone but to a random sample of students who submitted applications for tuition reciprocity. Therefore, a high rate of participation is even more important.

During the past two years the Minnesota Higher Education Coordinating Board has conducted two other studies on tuition reciprocity and it is possible that some of you participated in them. If so, we would still like you to complete the enclosed questionnaire as this study differs from previous ones.

Your help is greatly appreciated and we look forward to your participation in this important study.

Thank You,



George H. Wallman
Researcher

P.S. The study is being done in conjunction with a doctoral dissertation while I am on a sabbatical leave from North Dakota State University which is why the materials were mailed from and are being returned to Michigan.

Minnesota - North Dakota Tuition Reciprocity Study

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PART 1 – INFORMATION ABOUT THE SCHOOL YOU ARE CURRENTLY ATTENDING. Please respond to the following questions by placing the correct code number of the appropriate response on the line to the right. If a line does not appear to the right you are not being asked to transfer a code number.

This column
is for
keypunching
please ignore
|

1. Please select the response that applies to your situation and place the appropriate code number on line 1 to the right. (1) I applied for tuition reciprocity but did not use it. (2) I am a resident of Minnesota attending a North Dakota postsecondary institution under the tuition reciprocity program. (3) I am a resident of North Dakota attending a Minnesota postsecondary institution under the tuition reciprocity program. (4) other

1. _____ [1]

IF YOU INDICATED ITEM NUMBER 1 FOR QUESTION ONE, YOU DO NOT HAVE TO COMPLETE THIS QUESTIONNAIRE. HOWEVER, IT IS IMPORTANT THAT YOU RETURN IT TO US. THANK YOU.

2. Using the list below please circle the code number (number to left) of the postsecondary institution you are currently attending and also place the code number on line 2 to the right.

- | | |
|-----------------------|----------------------------|
| 01 Bemidji State U. | 12 UM-Wesaca |
| 02 Mankato State U. | 13 Minn. Community College |
| 03 Minn. Metro. State | 14 UND-Grand Forks |
| 04 Moorhead State U. | 15 NDSU-Bottineau |
| 05 St. Cloud State U. | 16 NDSU-Fargo |
| 06 Southwest State U. | 17 NDSSS-Whapeton |
| 07 Winona State U. | 18 Dickinson State Coll. |
| 08 UM-Crookston | 19 Mayville State Coll. |
| 09 UM-Duluth | 20 Minot State Coll. |
| 10 UM-Morris | 21 Valley City State Coll. |
| 11 UM-Twin Cities | 22 other _____ |

2. _____ [2,3]

3. How far from your home is the educational institution you are currently attending? (1) less than 30 miles (2) 30-50 miles (3) 51-100 miles (4) more than 100 miles

3. _____ [4]

4. Are you living at home with your family and commuting to the school you are currently attending? (1) Yes (2) No

4. _____ [5]

5. What is your current class standing? (1) Freshman (2) Sophomore (3) Junior (4) Senior (5) Graduate student (6) other _____

5. _____ [6]

6. Using the list below please circle the code number (number to left) of your academic interest AT THE TIME YOU SELECTED the school you are now attending and also place the code number on line 6 to the right.

- | | |
|-------------------------------|-----------------------|
| 01 Agriculture | 09 Home Economics |
| 02 Architecture | 10 Journalism |
| 03 Business related | 11 Pharmacy |
| 04 Computer Science/Math. | 12 Science related |
| 05 Education | 13 Social Work |
| 06 Engineering | 14 Trade or Technical |
| 07 Health related | 15 Undecided |
| 08 Humanities/Social Sciences | 16 other _____ |

6. _____ [7,8]

7. Has your academic interest changed since you selected the school you are currently attending? (1) Yes (2) No 7 _____ [9]

If you answered "No" you may go on to Question 9. If "Yes" please answer Question 8.

8. If your academic interest has changed since you selected the school you are now attending please circle the code number of your current academic interest and also place the code number on line 8 to the right.

01 Agriculture
02 Architecture
03 Business related
04 Computer Science/Math.
05 Education
06 Engineering
07 Health related
08 Humanities/Social Science

09 Home Economics
10 Journalism
11 Pharmacy
12 Science related
13 Social work
14 Trade or Technical
15 Undecided
16 other _____

8. _____ [10,11]

9. AT THE TIME YOU WERE DECIDING WHAT postsecondary institution to attend did you visit the campus of the school you are now attending? (1) Yes (2) No

9. _____ [12]

10. Did you apply for financial aid at the school you are currently attending? (1) Yes (2) No

10. _____ [13]

11. Did you receive financial aid from this school? (1) Yes (2) No

11. _____ [14]

12. In the space provided below please describe, in your own words, what influenced you to select the school you are now attending?

12. _____ [15]

13. Did you transfer to this institution from a state school in your home state? (1) Yes (2) No

13. _____ [19]

14. When did you transfer to the school you are now attending? (1) within the past year (2) 1-2 years ago (3) over 2 years ago

14. _____ [20]

PART II – GENERAL INFORMATION. Please place the code number of the correct response on the line to the right when appropriate.

15. What is your age? (1) under 17 (2) 17-21 (3) 21-30 (4) over 30

15. _____ [21]

16. What is your sex? (1) Female (2) Male

16. _____ [22]

17. Please write the name, city and state of the high school from which you graduated in the space that follows

_____ (school)

17. _____ [23]

_____ (city) (state)

18. Please select the response that best describes your situation. I am pursuing a: (1) Associate degree (2) Bachelors degree (3) Master's degree (4) Specialist degree (5) doctorate (6) other _____ 18. _____ [24]

19. Did you seriously consider any other educational institution(s) BEFORE selecting the school you are currently attending? (1) Yes (2) No 19. _____ [25]

IF YOU ANSWERED "YES" TO QUESTION 19, PLEASE GO ON TO PART III. IF YOU ANSWERED "NO" TO QUESTION 19, PLEASE EXPLAIN WHY AND THEN GO ON TO PART IV – ALTERNATE PLANS.

PART III – INFORMATION ABOUT THE SCHOOL YOU MOST SERIOUSLY CONSIDERED BEFORE SELECTING THE SCHOOL YOU ARE CURRENTLY ATTENDING. Please place the code number of the correct response on the line to the right when appropriate.

20. What institution did you Most SERIOUSLY consider before selecting the school you are currently attending? Circle the code number of that school and also place it on line 20 to the right.

- | | | |
|-----------------------|----------------------------|-------------------|
| 01 Bemidji State U. | 12 UM-Waseca | |
| 02 Mankato State U. | 13 Minn. Community College | |
| 03 Minn. Metro. State | 14 UND-Grand Forks | |
| 04 Moorhead State U. | 15 NDSU-Bottineau | |
| 05 St. Cloud State U. | 16 NDSU-Fargo | |
| 06 Southwest State U. | 17 NDSSS-Whapeton | |
| 07 Winona State U. | 18 Dickinson State Coll. | |
| 08 UM-Crookston | 19 Mayville State Coll. | |
| 09 UM-Duluth | 20 Minot State Coll. | |
| 10 UM-Morris | 21 Valley City State Coll. | |
| 11 UM-Twin Cities | 22 other _____ | 20. _____ [30,31] |

21. How far is the institution listed in Question 20 from your home? (1) less than 30 miles (2) 30-50 miles (3) 50-100 miles (4) 101-150 miles (5) more than 150 miles 21. _____ [32]

22. How does the cost of the school you most seriously considered before selecting the school you are now attending compare to the cost of the school you are currently attending? (1) cost is more (2) cost is less (3) cost is about the same (4) not sure 22. _____ [33]

23. Did you apply for admission to the school listed in Question 20? (1) Yes (2) No 23. _____ [34]

24. Were you accepted for admission to this school? (1) Yes (2) No 24. _____ [35]

25. Did you apply for financial aid to this school? (1) Yes (2) No 25. _____ [36]

26. Did you receive a financial aid offer? (1) Yes (2) No 26. _____ [37]

27. What factors discouraged you from attending this school? Please describe below, in your own words. 27. _____ [38]

PART IV – ALTERNATE PLANS IN THE ABSENCE OF TUITION RECIPROCITY.

28. If tuition reciprocity was not available at the time you selected the school you are currently attending what do you feel you would have done? (1) would have attended the school listed in Question 20 (2) would have attended the school I am currently attending (3) would not have gone to college (4) other _____ 28. _____ [42]

PART V – COLLEGE CHOICE FACTORS. Listed below are several statements which may reflect ways you were influenced to select the school you are currently attending. Please read each statement and then circle the appropriate response to the right, from the following choices.

- 0 = does not apply
 1 = applies but no influence
 2 = influenced me a little
 3 = influenced me some
 4 = influenced me strongly
 5 = influenced me very strongly

THE FACT THAT THE SCHOOL I AM NOW ATTENDING:	INFLUENCED ME:					
1. Provided an opportunity to live at home.	0	1	2	3	4	5 [43]
2. Offered an opportunity to leave my home state.	0	1	2	3	4	5 [44]
3. Would not have to charge me out-of-state tuition.	0	1	2	3	4	5 [45]
4. Offered me a scholarship, grant or assistantship.	0	1	2	3	4	5 [46]
5. Was recommended by a high school teacher(s).	0	1	2	3	4	5 [47]
6. Offered me a campus job.	0	1	2	3	4	5 [48]
7. Has less than 10,000 students.	0	1	2	3	4	5 [49]
8. Has fraternities and sororities.	0	1	2	3	4	5 [50]
9. Was quick to respond to my requests for information.	0	1	2	3	4	5 [51]
10. Has more than 10,000 students.	0	1	2	3	4	5 [52]
11. Was perceived as a friendly school.	0	1	2	3	4	5 [53]
12. Was large and diverse.	0	1	2	3	4	5 [54]
13. Impressed me on my campus visit.	0	1	2	3	4	5 [55]
14. Encouraged me to attend by sending letters and literature.	0	1	2	3	4	5 [56]
15. Offered an academic program well suited to my interests.	0	1	2	3	4	5 [57]
16. Was located in a moderate size community.	0	1	2	3	4	5 [58]
17. Was closer to my family.	0	1	2	3	4	5 [59]
18. Was located in a large community.	0	1	2	3	4	5 [60]
19. Was recommended by my high school counselor.	0	1	2	3	4	5 [61]
20. Was not too competitive academically.	0	1	2	3	4	5 [62]
21. Was recommended by a faculty member at another school.	0	1	2	3	4	5 [63]
22. Has a good social climate.	0	1	2	3	4	5 [64]
23. Has an attractive campus.	0	1	2	3	4	5 [65]
24. Had been attended by a friend(s).	0	1	2	3	4	5 [66]
25. Was the school my parents preferred.	0	1	2	3	4	5 [67]
26. Had been attended by a member(s) of my family.	0	1	2	3	4	5 [68]
27. Has an excellent academic program in my area of interest.	0	1	2	3	4	5 [69]
28. Would cost less to attend than any other school I considered	0	1	2	3	4	5 [70]
29. Recruited me to participate in athletics.	0	1	2	3	4	5 [71]
30. Was considered a challenge academically.	0	1	2	3	4	5 [72]

QUESTIONNAIRE NUMBER

[73 76]

The number above is being used to avoid sending participants a follow up letter

Coding Format
For Items 12, 17, 19,
and 27

<u>Column</u>	<u>Description</u>
15-19 (Multiple reasons)	Item 12: open-ended list of influences in selecting current institution: 1. academic/intellectual 2. social 3. practical 4. advice from others
23	Item 17: location of high school 1. stratum I 2. stratum II 3. stratum III 4. stratum IV 5. stratum V 6. stratum VI
26-29 (Multiple reasons)	Item 19b: reasons for not considering an alternative institution: 1. academic/intellectual 2. social 3. practical 4. advice from others
38-41 (Multiple reasons)	Item 27: reasons for not selecting alternate institution: 1. academic/intellectual 2. social 3. practical 4. advice from others

APPENDIX E

ACRONYMS AND ABBREVIATIONS

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ACRONYMS AND ABBREVIATIONS

ANOVA: Analysis of Variance

ECS: Education Commission of the States

f: frequency

MN: Minnesota

MHECB: Minnesota Higher Education Coordinating Board;
formerly the Minnesota Higher Education Coordinating Commission (MHECC)

MHECC: Minnesota Higher Education Coordinating Commission,
changed to Minnesota Higher Education Coordinating Board (MHECB) in 1975

MSU: Moorhead State University

SD: Standard Deviation

SPSS: Statistical Package of the Social Sciences (see
References)

SREB: Southern Regional Education Board

t: t-test value

TROS: Tuition Reciprocity Opinion Scale, the survey
instrument

UM: University of Minnesota

UND: University of North Dakota

n: number of cases

NEBHE: New England Board of Higher Education

NERSP: New England Regional Student Program

ND: North Dakota

NDSU: North Dakota State University

NDBHE: North Dakota Board of Higher Education

NDPSEC: North Dakota Postsecondary Education Commission

NDSU-B: North Dakota State University-Bottineau Branch

NDSSS: North Dakota State School of Science

WICHE: Western Interstate Commission on Higher Education

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REFERENCES

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