



The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search

<http://ageconsearch.umn.edu>

aesearch@umn.edu

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

No endorsement of AgEcon Search or its fundraising activities by the author(s) of the following work or their employer(s) is intended or implied.

Agricultural Economics Reports

Socio-economic Impacts of School Consolidation on Host and Vacated Communities

By

Randall S. Sell, F. Larry Leistritz, JoAnn M. Thompson

DEPARTMENT OF AGRICULTURAL ECONOMICS
AGRICULTURAL EXPERIMENT STATION
NORTH DAKOTA STATE UNIVERSITY
FARGO, NORTH DAKOTA 58105

Socio-economic Impacts of School Consolidation on Host and Vacated Communities

Randall S. Sell, F. Larry Leistritz, JoAnn M. Thompson

Department of Agricultural Economics
North Dakota State University
Fargo, ND 58105

The analyses and views reported in this paper are those of the author. They are not necessarily endorsed by the Department of Agriculture or by North Dakota State University.

North Dakota State University is committed to the policy that all persons shall have equal access to its programs, and employment without regard to race, color, creed, religion, national origin, sex, age, marital status, disability, public assistance status, veteran status, or sexual orientation.

Information on other titles in this series may be obtained from: Department of Agricultural Economics, North Dakota State University, P.O. Box 5636, Fargo, ND 58105. Telephone: 701-231-7441 or email: daemon@ndsuent.nodak.edu.

Copyright © 1996 by Randall S. Sell, F. Larry Leistritz, JoAnn M. Thompson. All rights reserved. Readers may make verbatim copies of this document for non-commercial purposes by any means, provided that this copyright notice appears on all such copies.

Socio-economic Impacts of School Consolidation on Host and Vacated Communities

Abstract

The number of public high school districts in North Dakota declined from 256 in 1970 to 186 in 1994. Thirty-one percent of the decline in number of districts occurred from 1990 to 1994. Eight communities (four pairs) that had gone through a school district consolidation and school closure during the last five years were studied. This paper presents the results of a mail survey of patrons who paid property taxes to the eight different school districts. Host communities were defined as those gaining the majority of the students from the consolidation while vacated communities' schools were closed. Community involvement, retail services, quality of life, and consolidation impacts for host and vacated communities were compared.

Keywords:

school consolidation, school closure, retail impacts, community involvement, academic impacts, quality of life, host community, vacated community

Acknowledgments

Several people were helpful in providing data and background information used in this study. Special acknowledgment is extended to

Adam Boschee (Superintendent, Kindred Public School District)
Earl Wilhelm (former President of Leonard school board)
Kerwin Borgen (Superintendent, MidKota Public School District)
John Rintala (Superintendent, Newburg United Public School District)
Elmer Monson (former Superintendent, Newburg United School District)
Dwane Getzlaff (County Superintendent, Bottineau County)
Del Svalem (County Superintendent, Emmons County and former Braddock Superintendent)

Special thanks are extended to Tom Decker, North Dakota Department of Public Instruction, for his advice throughout the study.

Thanks are extended to Carol Jensen for document preparation, Janet Wanzek for data entry and computer programming assistance, and Rita Hamm for editorial assistance. Our gratitude is also extended to our colleagues for their helpful review of this manuscript.

The Cooperative State Research Service (CSRS) of the U.S. Department of Agriculture provided financial support that helped make this study possible. We express our appreciation to the CSRS for their support.

The authors assume responsibility for any errors of omission, logic, or otherwise.

Table of Contents

	<u>Page</u>
List of Tables	ii
List of Figures	iii
List of Appendix Tables	iv
Highlights	v
Introduction	1
Consolidation Background	2
Data Collection	5
Phase 1	7
Phase 2	8
Characteristics of Study Communities	8
Enrollment	10
Reasons for School Consolidation	11
Community Services and Retail Impacts	12
Recommendations and Unexpected Impacts from Consolidation	12
Survey Results	14
Community Involvement	17
Retail Services	17
Quality of Life	23
Consolidation Impacts	26
Conclusions	32
References	35
Appendix A. Total Enrollment in North Dakota Public High Schools, Percentage Enrolled by Size of Total Enrollment, and Percentage of Districts by Total Enrollment, 1970-1990	37
Appendix B. School Consolidation Personal Interview Questions	41
Appendix C. School Consolidation Mail Survey	45
Appendix D. Employment and Per Capita Income Statistics for Selected North Dakota Counties, 1980-1994	51

List of Tables

<u>Table</u>	<u>Page</u>
1 North Dakota School Districts and Student Enrollments Considered for Inclusion in Paired Study Groups	6
2 Population, Economic, and Employment Characteristics for Selected Counties and Communities, 1980-1994	9
3 Selected Communities' School District K-12 Enrollments, 1980-1994	11
4 Total Surveyed, Usable Surveys, and Response Rate for the Kindred-Leonard, Binford-McHenry, Newburg-Kramer, and Hazelton-Braddock School Consolidations, 1995	15
5 Selected Characteristics of Survey Respondents for Host and Vacated Community Respondents, 1995	16
6 Impact of School Closure on Respondent Participation in Civic and Community Organizations by Host and Vacated Communities	18
7 Percentage Change in Population, Retail Sales, and Pull Factors for Communities After School Closure, 1980-1994	19
8 Respondent Impression of School Closure Impact on Community's Retail Sales, Personal Purchases, and Number of Businesses by Host and Vacated Communities . . .	21
9 Main Reasons Indicated for Changes in Retail Sales, Personal Purchases, and Number of Businesses by Host and Vacated Communities	22
10 Rating of Community as Place to Live Before and After Consolidation by Host and Vacated Communities	24
11 Rating of Community as Place to Live Before and After Consolidation by Population Change from 1980 to 1994	25
12 Ranking of Reasons for Consolidation and School Closing by Host and Vacated Communities	27
13 Academic and Social Impact of Consolidation on Students by Host and Vacated Community	28
14 Ranking of Benefits to Consolidation by Host and Vacated Communities	28

List of Tables (Continued)

<u>Table</u>	<u>Page</u>
15 Negative Consequences of the Consolidation	29
16 Ranking of Recommendations to Make Transition Towards Consolidated School District Easier by Host and Vacated Communities	30
17 Advice to Other Communities Faced with Transition to Consolidation	31

List of Figures

<u>Figure</u>	<u>Page</u>
1 Total Enrollment in North Dakota Public High School Districts in Grades K-12, 1970-1990	4
2 Percentage of Students Enrolled in Grades K-12 in North Dakota Public High Schools by Size of School Enrollment, 1970-1990	4
3 Percentage of North Dakota Public High School Districts by School Enrollment, 1970-1990	5
4 Selected Communities and Respective Counties Included in Study	7

List of Appendix Tables

<u>Table</u>	<u>Page</u>
A1 Total Enrollment in North Dakota Public High Schools, 1970-1990	39
A2 Percentage of Students Enrolled in Grades K-12 in North Dakota Public High School Districts by Size of Total Enrollment, 1970-1990	39
A3 Number of North Dakota Public High School Districts by Size of Total Enrollment, 1970-1990	40
A4 Percentage of North Dakota Public High School Districts by Size of Total Enrollment, 1970-1990	40
D1 Employment Statistics for Selected North Dakota Counties, 1980-1994	53
D2 Per Capita Income for Selected North Dakota Counties in 1994 Dollars, 1980-1994	54

Highlights

Most impacts of school consolidation on students are immediate, or nearly so; however, the impacts of consolidation on the respective communities -- socially and financially -- may occur over several years. Many of the state's smaller districts have been faced with declining enrollments, maintaining accreditation, complying with Americans with Disability Act (ADA), and declining federal support. This project was initiated to investigate selected socio-economic effects of school consolidations on North Dakota communities. Specifically, the focus areas were community cohesion, community participation, and consequences on retail trade. Characteristics of communities which lost their schools were compared to characteristics of communities which gained students from the consolidation. Comparisons were made on community involvement, retail services, and quality of life.

The number of public high school districts in North Dakota declined from 256 in 1970 to 186 in 1994. Twenty-two school districts were eliminated in the past five years. Eight communities (four pairs) that had gone through a school district consolidation and school closure during the last five years were selected for study. Estimated community populations in 1994 ranged from 45 to 696. Six of the eight communities had declining population from 1980 to 1994. For the schools which closed, total enrollment in the last year of operation ranged from 47 to 97 students. Host communities gained the students from the consolidation while vacated communities' schools were closed. Host and vacated communities were compared. Major findings were:

- *Host communities' community organization participation increased in the last 10 years while vacated communities' participation declined. Respondents from vacated communities are more likely than respondents from host communities to agree that consolidation led them to change their participation in community organizations. Both host and vacated community respondents believe that civic organization participation did not decrease because of a consolidation.*
- *Both community groups believe that retail sales and the number of businesses declined in the last 10 years. More vacated community respondents indicated that the change in retail sales and number of businesses was because of the consolidation. Their primary reason for this belief was there would be less retail activity without the school because parents tend to shop where their children are involved in school activities.*
- *Respondents' believe that changes in retail sales were caused by the consolidation, although only for those businesses still in operation which are able to capture school-related economic activity (e.g., grocery stores, gas stations, and restaurants). However, retail sales data are not available for small communities, making it difficult to reach conclusions regarding direct impacts of school closure.*

- *Quality of life scores for host and vacated communities were not statistically different before consolidation. After consolidation, the scores for both groups of communities declined, although the mean score for vacated communities was significantly lower than for host communities. Quality of life scores, before and after consolidation, were not statistically different, between communities with long term population declines versus those with increases.*
- *Vacated community respondents felt that enrollment was the main reason for consolidation and their school closing. Host communities felt the main reason for consolidation was student welfare and that school closing was caused by financial pressure.*
- *Both community groups felt students were better off academically and socially after consolidation. One of the main benefits perceived from consolidation was better educational opportunities for the students. The increased time spent bussing students was the most often mentioned negative consequence of consolidation.*
- *Both groups indicated that having more public meetings was the most important factor in easing the process of consolidation. Another important consideration put forth by all respondents was to put the welfare of the students first.*

School consolidation will continue to be an emotional and difficult dilemma facing many rural communities in North Dakota and across the Great Plains. This research provides insight into some of the social and economic impacts on communities which gain students (host community) from a consolidation and communities which lose the students due to their school closing (vacated community). School closure in vacated communities represents a continuation of trends experienced in rural areas for the past six decades of fewer, larger farms, and declining population. School closure in the study communities resulted in the loss of the largest remaining employer within the communities. As such, the vacated communities were resistant to the idea of closing the school even though much of the communities' retail sector had already closed. All respondents agreed that consolidation was best for the students.

Socio-economic Impacts of School Consolidation on Host and Vacated Communities

Randall S. Sell, F. Larry Leistritz, and JoAnn M. Thompson*

Introduction

School consolidation is a controversial issue which has affected communities across the nation for over 100 years and has been a nationwide trend for the last six decades. In 1930, there were more than 130,000 school districts in the United States. By 1990, that number had been reduced to 15,500 (Young, 1994). The conflicts are predominantly between those who advocate local control and those who believe that educational quality and efficiency are improved when schools become larger (DeYoung, 1987). The research literature prior to 1970 supported consolidation on the basis of improved educational opportunity for students and reduced financial costs. Since the 1970s, evidence indicates that advantages to consolidation are minimal (Streifel et al., 1991). Interestingly, some research indicates there are diseconomies of scale associated with student achievement in larger schools versus smaller schools (Walberg and Fowler, 1987).

The impact of school consolidation on students is immediate, or nearly so; however, the impacts of consolidation on the respective communities -- socially and economically -- may take place over several years. The literature is ambiguous about the impact of school closure on the rural community. Conventional wisdom suggests that the loss of a school has a detrimental effect upon the community (Voth and Danforth, 1981). In a detailed case study, Peshkin (1978) suggested that schools play a key role in the vitality of communities. It follows that the loss of schools should have detrimental effects upon the community's potential for growth.

Alternatively, the failure of many towns to decline, as expected, even though their functions may have changed dramatically, testifies to the resiliency of small communities and raises questions about the conventional wisdom (Fuguitt, 1971). Voth and Danforth (1981) found that loss of schools did not lead to community decline. Rather, they found that towns which lost their school were less likely to show declines in number of businesses than communities which gained a school or remained unchanged. Unfortunately, Voth and Danforth (1981) did not control other exogenous demographic and economic variables.

Dreier (1982) found that rural Iowa communities lost local services when the high school closed. Dreier (1982) compared 24 community services in 1955 and 1980 for communities that lost their high school to communities which retained their school. Both community groups had similar rural-urban scores and populations. In general, communities which lost their school may have added or substituted different community services; however, the total number of community services declined.

Parents' attitudes and beliefs may also have a role in determining the impact of school closure on the local community. Archbold and Nisbet (1977) surveyed parents from 10 schools threatened with closure and 7 schools which recently closed. They found 50 percent of parents,

*Research associate, professor, and research assistant, respectively, in the Department of Agricultural Economics, North Dakota State University, Fargo.

from both groups, were opposed to school closure, primarily because of concern for the educational welfare of their children. The quality of education in the schools threatened with closure was important in determining parents' attitudes. Parents were more likely to support closure if their students were moved to a larger, more central school than if they were moved to another small, rural school. After their school was closed, parents preferred the larger school and fears about a longer school day were not borne out. However, they indicated that parent-teacher contact and parents' participation in school activities declined.

Research has suggested a good school is an important factor in the possible future economic development of a community (Barkley et al., 1995). Other necessary factors include access to markets, availability and quality of human resources, availability and quality of public infrastructure, availability of housing, and quality of life. Some communities, which have already lost many of the necessary factors for community development, are adamantly opposed to closing the local school. Even though their main street may be empty, residents feared school closure because it is often the community's largest employer and school closure could mean losing an important link to the future and to the past (Koepeke, 1991).

This project was initiated to investigate the socio-economic effects of school consolidations on North Dakota communities. Focus areas included community cohesion, community participation, and consequences for retail trade. Communities which lost their school are compared to communities which gained the students from the consolidation. Comparisons are made on community involvement, retail services, and quality of life. Issues related to school consolidation are particularly relevant in North Dakota today, because many of the state's smaller districts have been faced with declining enrollments, maintaining accreditation, compliance with Americans with Disability Act (ADA), and declining federal support. Statewide, public high school districts enrollment in grades K-12 decreased from 142,600 in 1970 to 115,462 in 1994 (North Dakota Department of Public Instruction)(Appendix A). As a result, many districts are examining alternatives such as consolidation or co-oping. In fact, the number of public high school districts decreased from 256 in 1970 to 186 in 1994 (North Dakota Department of Public Instruction)(Appendix A).

Consolidation Background

Prior to 1995, consolidation could be accomplished in three ways -- annexation, reorganization, and dissolution. Annexation has since been eliminated as a method of consolidation; therefore, consolidation can now be accomplished only through reorganization or dissolution. Complete annexation of a district meant that one, or more, districts completely absorb an adjoining district. Dissolution and reorganization do not necessarily imply that the school plant is closed in a particular community. The formal definitions of 'dissolution of a school district' and 'reorganization of school districts' follows (Decker, 1995):

Dissolution means

“the process through which an existing school district ceases its active functions in its present organizational form and the district’s territory is attached to one or more adjoining existing operational districts.”

Reorganization means

“the formation of a new school district by either the unification of two or more existing operating districts into one larger district or separation of territory from one or more operating districts to create one or more new operating districts.”

Another means by which districts attempt to adapt to declining enrollment is by “co-oping.” Co-oping can be accomplished in a number of ways, but the most visible form is when districts co-op in extra-curricular activities to allow students, who otherwise may not have the opportunity, to participate in football, volleyball, and basketball. Districts can also co-op by sharing resources between two or more districts. For example, a foreign language instructor may commute between districts to offer a language class to a greater number of students allowing each district participating in the co-op to save financial resources. Alternatively, districts may form a co-op to build an ‘interactive television’ (ITV) network, thereby allowing specialized instructors to offer courses without commuting. Finally, districts may co-op to purchase supplies at volume discounts.

Two districts may share enrollment. Typically, one district will educate all K-6 students in its facility and the other will educate all 7-12 students in its facility.

There were 256 public high school districts in North Dakota in 1970. By 1994 the number of public high school districts had declined 27 percent to 186. More than 10 percent of the decline in number of high school districts occurred in the last five years (208 districts in 1990 to 186 district in 1994). The number of students attending public high school districts in North Dakota also declined from 142,600 in 1970 to 113,855 in 1990 (Figure 1). The number of students by size of school has not changed appreciably since 1970. In both 1970 and 1990, nearly one-third of students attended schools that ranged in size from 100-499 students (Figure 2, Appendix Table A). Of the 208 high school districts in 1990, nearly 70 percent had between 100 to 499 students (Figure 3). The percentage of districts, with less than 100 students, increased from 1970 to 1985, but declined slightly in 1990.

Inability of individual school districts to maintain accreditation has been a factor in the decline of the number of school districts in North Dakota. In 1970, 78 percent of the 256 districts were accredited, while in 1990, 96 percent of the 208 districts in North Dakota were accredited. In 1994, all 186 public high school districts in North Dakota were accredited (North Dakota Department of Public Instruction, 1994). An accredited school district in North Dakota must maintain certain criterion administered by the North Dakota Department of Public Instruction (NDDPI). Accreditation standards are imposed to help insure that all students are allowed access to a quality educational environment. Accreditation standards include (1) school improvement, (2) administration, (3) instructional personnel, (4) instructional program, (5) student evaluation, (6) student personnel services, (7) library media services, and (8) school policies. School districts not meeting the accreditation criterion receive decreased financial compensation from the state.

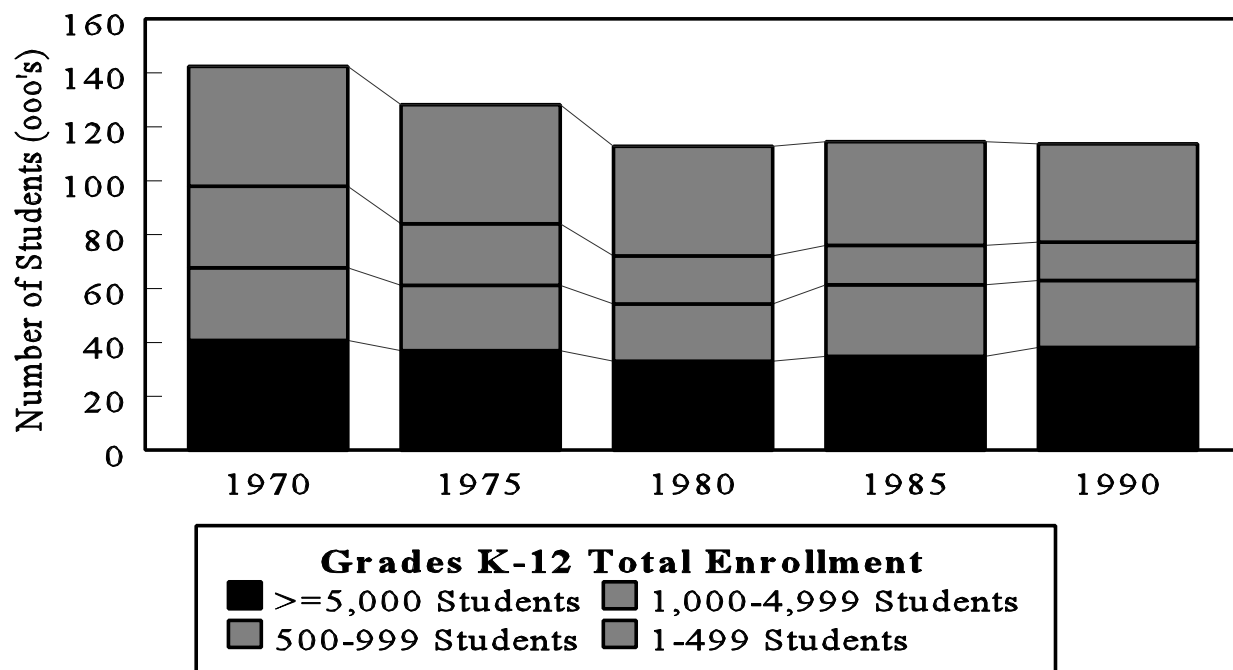


Figure 1. Total Enrollment in North Dakota Public High School Districts in Grades K-12, 1970-1990

Source: North Dakota Department of Public Instruction.

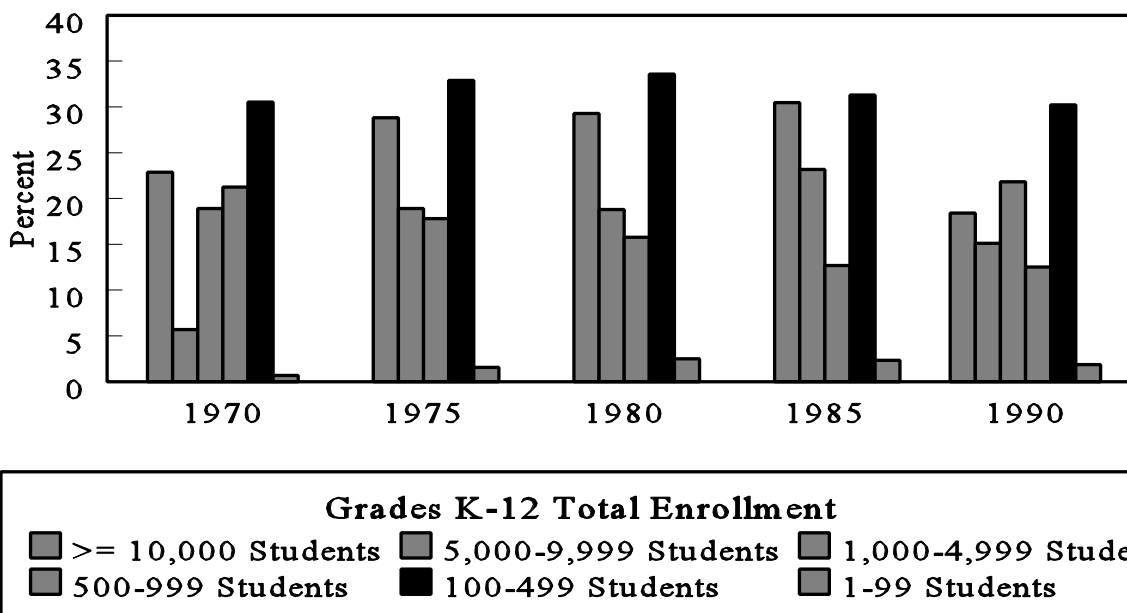


Figure 2. Percentage of Students Enrolled in Grades K-12 in North Dakota Public High Schools by Size of School Enrollment, 1970-1990

Source: North Dakota Department of Public Instruction.

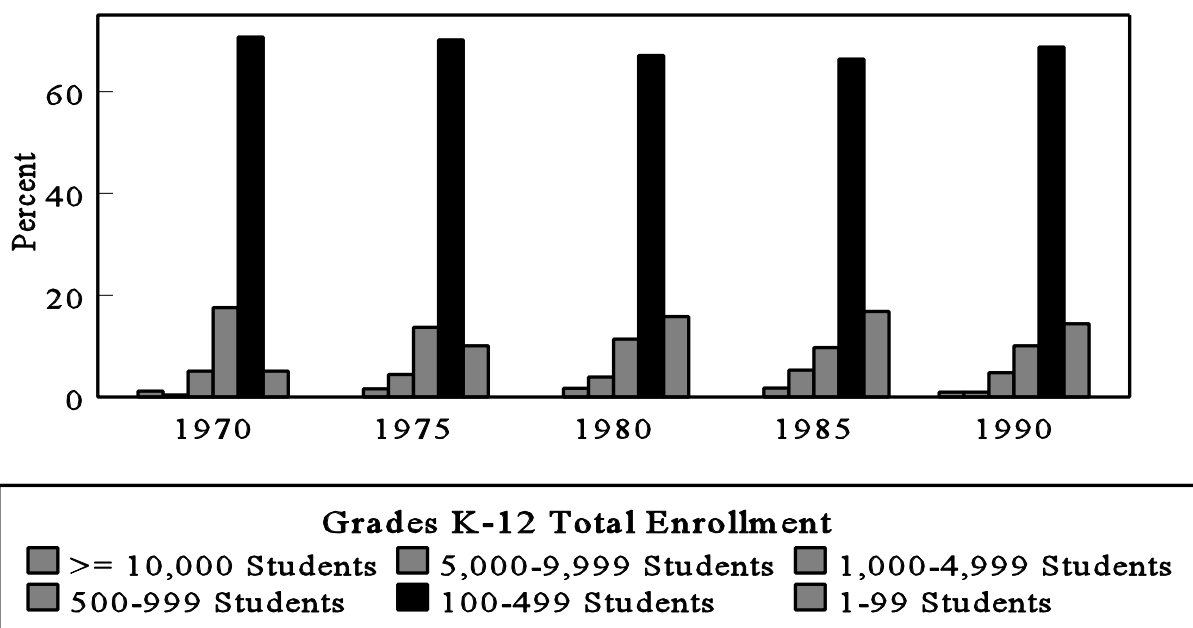


Figure 3. Percentage of North Dakota Public High School Districts by School Enrollment, 1970-1990

Source: North Dakota Department of Public Instruction.

The NDDPI provides technical assistance to districts attempting to consolidate. The NDDPI provides information about various provisions (e.g., use of buildings, welfare of students, bussing, costs, etc.) which must be addressed before a consolidation can be approved by the State Board of Public School Education. NDDPI consolidation experts are also available to school and community representatives to explain consolidation procedures.

Data Collection

Four pairs of consolidated schools were selected from a pool of North Dakota schools, which closed from 1987 through 1993. The pairs were selected based upon several factors. An important factor was the number of students enrolled in the school at the time of closure. Another determining factor was the percentage of students from the closing district that went to an adjoining district. The higher the percentage of students transferring to a single adjoining district, the greater the impact; hence, the more likely they should be included. Final determination was based upon the recommendations from the NDDPI.

Thirty-one schools have recently closed and were considered for this study (Table 1). The school district pairs selected were Kindred-Leonard, Binford-McHenry, Newburg-Kramer, and Hazelton-Braddock (Figure 4). Each of these pairs may have gone through another consolidation at some time before the consolidation examined in this study. For example, McHenry represents a previous consolidation of Glenfield, Sutton, and McHenry, which took place in 1980 and was formally consolidated into one district in 1985.

Table 1. North Dakota School Districts and Student Enrollments Considered for Inclusion in Paired Study Groups

Town	District Name	Last Year in Operation	Last Year Enrollment
Antler	Antler	1986	21
Selz	Selz	1987	6
Grand Forks	Rye	1987	6
Churchs Ferry	Churchs Ferry	1987	24
Alamo	Cottonwood Lake	1987	53
Wilton	Grass Lake	1989	2
Palermo	Palermo	1989	8
Hague	Odessa	1989	12
Luverne	Willow Lake	1989	16
Eldridge	Eldridge	1989	18
Donnybrook	Donnybrook	1989	31
Maxbass	Maxbass	1989	44
Kramer	Kramer	1989	51
Nortonville	Kennison	1990	13
Balta	Balta	1990	14
Kathryn	Kathryn	1990	19
Monango	Monango	1990	31
Braddock	Braddock	1990	47
Woodworth	Woodworth	1990	52
Buchanan	Buchanan	1991	132
McHenry	G-S-M ^a	1991	68
Aneta	Aneta	1992	82
Galesburg	Cliff Galesburg	1992	113
Bismarck	Lincoln	1992	125
Petersburg	Unity	1992	129
Michigan	Michigan	1992	154
Tolna	Tolna	1992	157
McVile	McVile	1992	157
Mayville	Mayville Portland	1992	626
Hurdsfield	Pleasant Valley	1993	31
Leonard	Leonard	1993	97

^a G-S-M is abbreviation of Glenfield, Sutton, McHenry consolidated districts.

Source: North Dakota Department of Public Instruction (1986-1993).

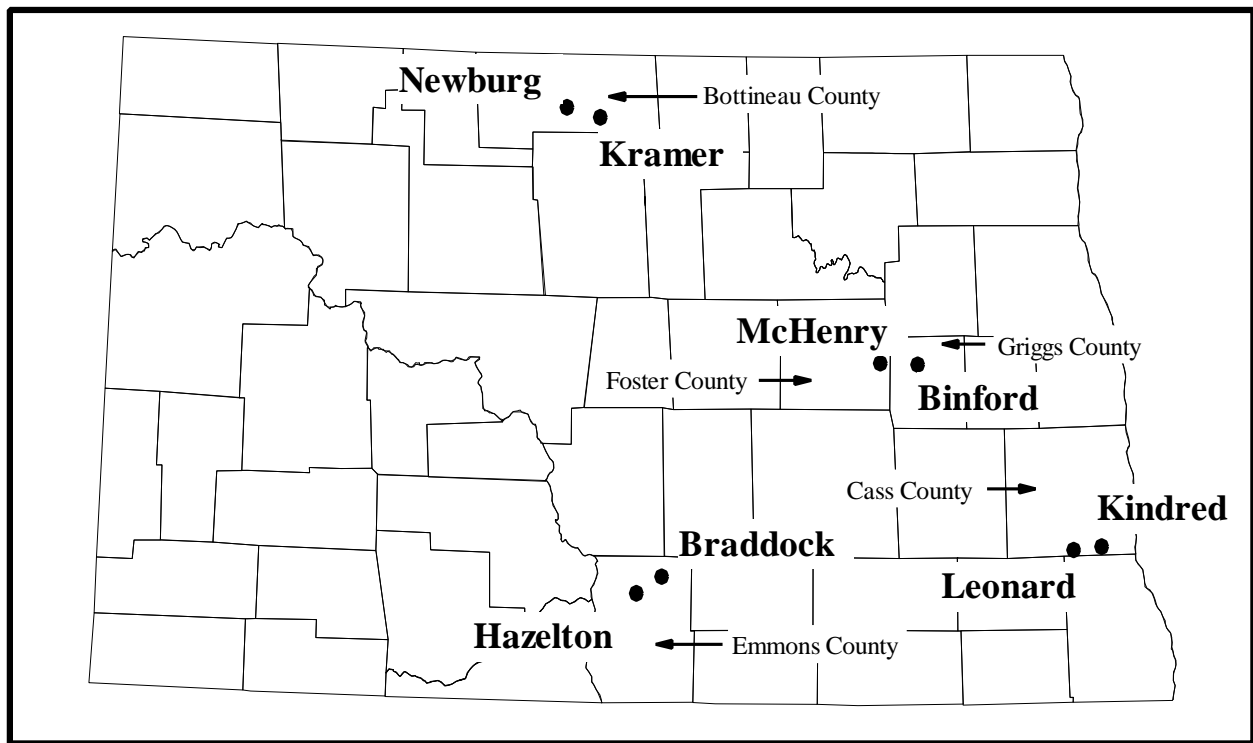


Figure 4. Selected Communities and Respective Counties Included in Study

The school districts from Binford-McHenry and Newburg-Kramer communities consolidated through reorganization. Braddock-Hazelton consolidated through dissolution, and Kindred-Leonard was a complete annexation. The four pairs of communities included in this study are referred to as having gone through the process of consolidation regardless of the method.

Data collection for this study was conducted in two phases. The first phase involved identifying and conducting in-depth personal interviews with community leaders, school administrators, and school board members. The second phase involved mailing questionnaires to all parents and property owners within the eight school districts.

Phase 1:

On average about 10 interviews were conducted per school consolidation pair (38 total interviews). The representative list of people contacted from each consolidation included the following:

1. school superintendent
2. school board president or board member
3. school business manager
4. parents
5. mayor, local banker, or retailer

6. community leaders

County Superintendents and County Extension Agents identified appropriate persons to interview. Networking techniques (whereby interviewees were asked to suggest other persons whom the interviewers should talk to) were also used to expand the list of interviewees. Each person was asked a specific list of questions (question list in Appendix B). Interviews typically lasted one hour.

Phase 2:

A list of potential survey respondents was obtained from local school administrators and/or County Superintendents from three of the four consolidations. The list represented parents of students currently enrolled in the schools and property owners in the consolidated district. Since a list could not be compiled in one district, a mailing list was developed from the phone book of each community (Braddock and Hazelton). This list did not include those people who pay property taxes to the district but live elsewhere or individuals not listed in the phone book.

The first questionnaire was mailed with a postage paid return envelope and a cover letter explaining the project to all respondents on the lists. The questionnaire was followed by a postcard reminder approximately two weeks later. A second survey was sent about two weeks after the postcard (survey instrument in Appendix C).

The remaining sections of the report are organized as follows. The characteristics of study communities section contains background information about the communities and information obtained from leadership interviews of the consolidating districts. Then the survey analysis section compares communities for which the school closed versus those which gained the students.

Characteristics of Study Communities

Changes in population for the communities and their respective counties are similar (Table 2). Only one county, Cass, and its respective communities, Kindred and Leonard, increased in population from 1980 to 1994. The number of people less than 18 years of age declined in all selected counties except Cass County, which increased by 2,698 people. Emmons County had the largest decline in the number of people less than 18 years of age. Cass County had the highest per capita income of the study counties. Per capita income in Cass County was about twice the per capita income in Emmons and Griggs Counties in 1980, although the gap had narrowed to 34 and 38 percent, respectively by 1993.

Sales for final demand provides a measure of economic activity from five different economic sectors. Comparison of sales for final demand in 1993 shows the relative strength of Cass County's local economy (Coon et al., 1995)(Table 2). Cass County's major share of sales for final demand comes from federal activities, followed by agriculture and manufacturing, while the agricultural sector contributes the greatest share to sales for final demand for the remaining four counties. Foster, Griggs, and Emmons Counties received more than 60 percent of sales for final demand from agriculture and were ranked in the bottom one-third of North Dakota counties in total sales for final demand.

Table 2. Population, Economic, and Employment Characteristics for Selected Counties and Communities, 1980-1994

County	Community	Population			Long-term Change	Change in no. of persons < 18 yrs. old	Per Capita Income		
		1980	1990	1994	1980-94	1980-90	1980	1990	1993
					-- % --		----- 1994 \$ -----		
Bottineau		9,239	8,011	7,716	-16.48	-534	11,094	18,836	17,577
	Newburg	151	104	98	-35.10				
	Kramer	84	51	45	-46.43				
Cass		88,247	102,874	109,769	24.39	2,698	17,054	19,677	20,098
	Kindred	568	569	696	22.54				
	Leonard	289	310	296	2.42				
Foster		4,611	3,983	3,893	-15.57	-320	13,520	18,840	17,427
	McHenry	113	85	62	-45.13				
Griggs		3,714	3,303	3,088	-16.86	-103	8,590	18,722	14,602
	Binford	293	233	203	-30.72				
Emmons		5,877	4,830	4,565	-22.32	-699	8,157	13,448	15,001
	Hazelton	266	240	226	-15.04				
	Braddock	86	56	51	-40.70				

Sales for final demand

County	1993	County rank	Share of Total				
			Ag.	Fed. activities	Tourism	Energy	Manufacturing
	- million \$ -		----- % -----				
Bottineau	209.2	15	49.7	29.2	2.1	15.6	3.4
Cass	767.0	1	21.7	51.2	11.1	0.0	16.0
Foster	67.2	42	61.9	30.4	6.7	0.0	1.0
Griggs	58.0	45	64.7	26.0	4.7	0.0	4.7
Emmons	94.5	34	74.3	22.9	2.0	0.0	0.8

Employment

County	Total Employment			Long-term Change	Short-term Change
	1980	1990	1994	1980-94	1990-94
				----- % -----	
Bottineau	3,738	3,354	3,191	-14.63	-4.86
Cass	42,369	57,729	61,826	45.92	7.10
Foster	2,075	1,876	1,926	-7.18	2.67
Griggs	1,642	1,468	1,698	3.41	15.67
Emmons	2,302	1,928	2,069	-10.12	7.31

Source: Bureau of the Census, 1980, 1990, 1991-1994. Coon et al., 1995. North Dakota Job Service. Bureau of Economic Analysis.

Note: Additional employment and income statistics by county are shown in Appendix D.

Cass and Griggs Counties increased in total employment from 1980 to 1994, while employment in the remaining three counties decreased (Table 2). Cass County's employment increased by nearly 50 percent since 1980. Bottineau County was the only county which had declining employment since 1990. Overall, the selected communities, with the exception of the Cass County communities, have suffered from declining population and decreasing employment typical of rural, agriculture based, communities in the past six decades.

Enrollment

The Leonard school district enrollment remained relatively steady at 120 to 150 students for more than 10 years prior to 1990 (Table 3). At that point, school enrollment and funding became a primary concern to the school board. The Leonard community was unique, among the selected communities, in that city population increased by more than 20 people (7 percent) from 1980 to 1990 (see Table 2) while school enrollment decreased by 45 students from 1986 to 1993. Alternatively, Kindred's enrollment increased nearly every year since 1986 and Kindred was the only district which had steadily increasing enrollment prior to consolidation. The Leonard school was closed in 1994.

Enrollment in grades K-6 at McHenry increased slightly from 1986 to 1990 (Table 3), although the community's population declined from 113 in 1980 to 85 in 1990 (see Table 2). McHenry began co-oping with Glenfield and Sutton school districts in 1980. McHenry offered grades K-12 before 1980. As part of the Glenfield-Sutton-McHenry school district, grades K-8 were held at McHenry in 1980 and 1981 and grades 9-12 were held in Glenfield. From 1982 until the McHenry school closed, grades K-6 were held at McHenry. The Glenfield-Sutton-McHenry school district consolidated with Binford and Grace City in 1991 and become known as the MidKota district. The school in McHenry was closed in 1992.

School district enrollment at Kramer had been declining since 1987 (Table 3). Kramer's population declined over a third from 1980 to 1994 (Table 2). Kramer offered grades K-8 in 1970, but from 1979 to 1990 Kramer only offered grades K-6. Newburg had grades K-12 in 1970, but since 1979 dropped to grades 7-12. In 1990, Kramer operated as part of a new district called Newburg United which included Newburg and Maxbass. Kramer and Maxbass offered grades K-6 and Newburg held grades 7-12.

When the Kramer school closed in 1991, 24 students from the original Kramer district were attending Newburg United. After the Kramer school closed, 20 students transferred to the Bottineau district and only 4 went to Newburg United. Transferring to Bottineau was more a matter of convenience because of their location next to the Bottineau district versus a longer drive to Newburg or Maxbass.

Braddock's population has steadily declined since 1980 (see Table 2). Braddock's school enrollment declined about 50 percent from 1980 to 1990 (Table 3). Hazelton's school enrollment had declined 18 percent from 1980 to 1990. Braddock and Hazelton offered grades K-12 until they consolidated.

Table 3. Selected Communities' School District K-12 Enrollments, 1980-1994

Communities	1980	1986	1987	1988	1989	1990	1991	1992	1993	1994
----- number of students -----										
Kindred	506	463	483	514	532	553	541	561	569	677
Leonard	124	142	138	142	132	114	103	95	97	closed
Binford	150	134	131	134	121	110	102	118	156	273
McHenry	70	71	74	79	79	83	58	closed		
Newburg	77	115	116	115	111	96	75	68	70	75
Kramer	77	59	61	58	51	48	closed			
Hazleton	173	165	164	168	151	141	174	165	169	174
Braddock	101	74	69	63	57	47	closed			

Source: North Dakota Department of Public Instruction (various issues).

Reasons for School Consolidation

Interviewees from all communities indicated that consolidation was not caused by a single event; rather it was a slow evolution over the past 30 years. Some items that directly contributed to schools closing were (1) declining enrollment, (2) increasing mill levies, (3) inflation, (4) complying with ADA requirements, (5) state accreditation requirements, and (6) mandated policies (e.g., to receive accreditation, teachers must teach within their major or minor) without supplemental funding to enable compliance with mandates.

The condition of the closed schools was not perceived to be a factor in the school's closure, except with regard to remodeling, necessary to comply with ADA requirements. Location of students within the consolidated districts was also important in the decisions of which school would be closed. For example, important factors in the decision to close the McHenry school was (1) expensive remodeling necessary to comply with ADA requirements and (2) most students were located closer to Binford.

Distance between communities, shared borders with adjoining districts, and traffic flow patterns were mentioned as important considerations in determining which districts consolidate. School officials indicated that schools which were already co-opting in some extracurricular activities (e.g., band, football, boys basketball) were more likely to consolidate than schools which were not co-opting. Alternatively, maintaining the community's identity may be a more important factor in deciding which schools consolidate. For instance, Binford consolidated with Glenfield-Sutton-McHenry rather than Griggs County Central (in Cooperstown) because Binford residents felt the community would lose its identity by consolidating with the much larger district.

McHenry and Kramer schools were operated as part of a consolidated district prior to their schools closing. Superintendents from both schools indicated the decision to close one of the schools in the consolidated district was necessary because operating separate schools was too costly. This caused some residents to feel misled because they believed the consolidation would keep their school open.

Community Services and Retail Impacts

School consolidation was not identified by the interviewees as the cause of changes in community services. Most felt that the changes in community services happened before consolidation. Communities, in which the schools closed, often only had very basic community services available (e.g., postal service, water and sewer). These communities no longer had local law enforcement, street repair and maintenance, local medical services, and city emergency and garbage services.

A decline in participation in civic and community organizations was mentioned by some interviewees because of the consolidation. A decline in participation was attributed to disagreements between some individuals as a direct result of the consolidation. Leonard and Kramer interviewees perceived their communities' residents as becoming more transient and less involved in community affairs since the consolidation. Alternatively, Braddock which had active civic and community organizations (e.g., Lions, booster clubs) prior to the school closing, combined its strong leadership and sense of community with Hazelton residents, to strengthen the community participation in Hazelton.

Most interviewees did not believe consolidation caused dramatic changes in number of businesses or amount of retail sales. However, the grocery stores closing in Braddock and Kramer were directly attributed to the school closing because these businesses were heavily patronized by the school. Most businesses had already closed, prior to the consolidation, in communities which lost their school.

The schools which were closed are vacant in all communities except Kramer. The Kramer school has been sold to a private party who has remodeled it into a hunting lodge. The lodge creates some seasonal economic activity; however, there are no services within Kramer to capture that activity.

Recommendations and Unexpected Impacts from Consolidation

Of the four pairs of school consolidations presented, the Kindred-Leonard consolidation probably went the smoothest. People in Leonard seemed to find solace in a statement made by a school consolidation consultant, "the school closing does not kill the community; the community exists first and dies first." Many individuals, from all communities, indicated several key factors necessary to calm emotions and keep conflict to a minimum; these were: (1) making an extreme effort to communicate facts to all patrons, (2) sharing resources within consolidated schools before school closing (teachers, books, co-opting in extracurricular activities), (3) establishing a

fact-finding committee, with student representation, appointed by the school board to make a recommendation to the school board, (4) conducting weekly public meetings with third party professional moderators to control discussion, and (5) allowing students to visit adjoining districts.

Some Binford residents were pleasantly surprised. They believed the consolidation has allowed the individual communities to become a larger integrated community, increasing their circle of friends. Overall, the interviewees felt the consolidation process went fairly smooth for the McHenry district, but was difficult for the Binford district largely because McHenry had previously been through a consolidation.

All people interviewed felt that students were getting a better education because of the consolidation. Some students are now riding a bus; however, that is not negatively impacting their education. One respondent, who had one child graduate from Binford before the consolidation and one after the consolidation, wished that both children could have gone to school in the consolidated district because of the greater educational opportunities available. Students have benefitted from greater financial backing, which translates to better equipment, books, and quality of education. Many interviewees mentioned that students are, or at least seem to be, quicker to adapt to consolidation than adults.

School officials from two consolidations (Binford-McHenry and Newburg-Kramer) felt their districts had received adequate and timely assistance from the NDDPI. Officials from the other districts were dissatisfied with the assistance received from the NDDPI. Binford and McHenry interviewees indicated the NDDPI provided adequate and timely assistance in most instances; however, sometimes impressions were that the districts got poor advice. Also, some thought the state should have been more supportive when dealing with individual patrons annexing out of the district. The out-going annexations, which were surprisingly allowed by the State Board of Public School Education, made the financial situation for the MidKota district tenuous.

Both Kindred and Leonard school officials felt that the NDDPI was not much help throughout the consolidation process. As the districts went through the process, they felt that they had a better understanding of the process than people within the state agencies. Some Leonard residents felt that the NDDPI was not concerned about small districts. Other interviewees thought the NDDPI created too much unnecessary paperwork that takes resources away from students.

Although the Braddock district did get some advice from the NDDPI regarding which process would best fit their needs (i.e., dissolve, reorganize, or annexation), they did not feel they received adequate, quality assistance from the NDDPI. Several of the interviewees said that the districts got most of their help from other districts who had gone through the process. Also, some assistance was provided by the county superintendent.

Even in the Kindred-Leonard consolidation, where the consolidation was less problematic, there were unforeseeable obstacles. A special problem for Kindred and Leonard was the timing of the open enrollment legislation. There was concern about what the impact of the consolidation

would be if the students opted to attend another district. The Leonard school district was also surprised to find that they would need a relatively large unemployment insurance fund (\$80,000). The amount was based upon a "worst case" projection that all employees of the former Leonard district would earn the maximum amount of unemployment benefits. Another concern was distributions of transportation costs, which are made based upon costs incurred in the previous year. In the case of one district annexing into another district, the receiving district cannot be reimbursed for extra transportation costs it incurs during the first year. In this case, the Kindred district could not receive the transportation money that would have been paid to Leonard. The Leonard district could not receive the funds either. Instead, the money was retained by the state. If the consolidation is a reorganization, the money is normally paid to the new district. State consolidation policies appear to penalize those who use annexation and dissolution.

The potential liability of the abandoned school was an issue with which Newburg United was concerned about. District officials were concerned about the changing of the sovereign immunity law and the implications that may have on the district owning the abandoned school. Consequently, they sold the school to a private party. Other difficult issues included decisions regarding which staff would be released from their contracts were difficult. At times such decisions can be biased based upon state foundation aid payments (i.e., which teachers had school age children) and not just on job performance. Another concern was the development of a new master contract for the staff that was reasonable to all three districts. Busing schedules, transportation collections, and scheduling of activities and events also needed to be considered. Newburg and Kramer interviewees thought it may be necessary to conduct surveys of patrons to get a consensus of what is important to them. Unexpected impacts from the Kramer school closing were (1) that so many students would go to Bottineau, (2) what to do with the abandoned school, (3) the changing of the sovereign immunity law and possible liabilities faced by owners of abandoned schools, and (4) the nuisance of maintaining three school board election sites and getting people from the each district to serve on the board.

Survey Results

Surveys were mailed to 2,190 patrons in the 8 communities (Table 4). Patrons represented parents of students currently enrolled in school and patrons who paid property taxes to the consolidated district, except Hazelton-Braddock. A mailing list was developed from the phone book of Hazelton and Braddock. Response rates ranged from a high of 35.4 percent from the Newburg-Kramer district to 11.2 percent from Hazelton-Braddock for an overall response rate of 27.4 percent. The relatively low response rate from the Hazelton-Braddock consolidation is not surprising because a list of school patrons and taxpayers was not available from this district.

Table 4. Total Surveyed, Usable Surveys, and Response Rate for the Kindred-Leonard, Binford-McHenry, Newburg-Kramer, and Hazelton-Braddock School Consolidations, 1995

Consolidations	Total Surveyed	Usable Surveys	Response Rate
----------------	-------------------	-------------------	------------------

			-%-
Kindred-Leonard	1,038	346	33.3
Binford-McHenry ^a	573	171	29.8
Newburg-Kramer	79	28	35.4
Hazelton-Braddock	<u>500</u>	<u>56</u>	<u>11.2</u>
Total	2,190	601	27.4

^a Includes former school districts of Glenfield, Grace City, and Sutton.

The surveys received were grouped into two groups according to the response to the question “where they paid the majority of their property taxes prior to the consolidation.” Respondents were placed in the category of ‘vacated community,’ if they indicated they paid their property taxes to a different district after the school consolidation. Alternatively, respondents indicating they paid property taxes to the same district after consolidation were categorized as ‘host community.’

Some trends were evident when comparing selected characteristics between the two groups (Table 5). A significant portion of the respondents from the vacated communities were older, retired, less educated, and earned lower incomes than the respondents from the host communities. The host community respondents were more likely to have school age children after the consolidation than the vacated community respondents. Both groups were in favor of the consolidation; however, vacated community respondents were more than 20 percent less likely to be in favor of consolidation (84% versus 63%). Less than 50 percent of the vacated community respondents were against their school closing -- 11 percent were undecided. Vacated community respondents likely concluded that consolidation may allow their school to remain operating as an elementary school. About 27 percent of the vacated community respondents had a college degree compared to 38 percent of the host community respondents. About 1 in 4 respondents from the vacated communities were retired versus 1 in 6 retired for the host communities. The percentage of respondents from host communities earning more than 50,000 dollars per year exceeded the vacated communities by nearly 12 percent. Average age of respondents was nearly 6 years older for the vacated communities.

Table 5. Selected Characteristics of Survey Respondents for Host and Vacated Community Respondents, 1995

Item	Host community	Vacated community	Chi ²
	-- % --	-- % --	
Gender			
Male	52.23	56.54	1.113
Female	47.77	43.46	
n	(291)	(306)	
Children attending school after Consolidation			
Yes	60.0	36.1	31.858 *
No	40.0	63.9	
n	(280)	(277)	
In favor of consolidation			
Yes	83.51	62.84	42.531 *
No	5.61	24.32	
Undecided	10.88	12.84	
n	(285)	(296)	
In favor of school closing			
Yes	61.42	41.91	47.336 *
No	18.90	47.06	
Undecided	19.69	11.03	
n	(254)	(272)	
Education			
Did not complete high school	6.92	10.56	10.246 **
High school graduate	20.76	27.06	
Attended college	34.26	35.31	
College graduate	38.06	27.06	
n	(289)	(303)	
Employment			
Unemployed	2.82	4.26	32.521 *
Retired	16.90	27.54	
Employed by 3rd party	51.76	30.49	
Self-employed	25.00	36.07	
Both ^a	3.52	1.64	
n	(284)	(305)	
Personal Income			
\$0 - 14,999	6.34	16.08	35.317 *
\$15,000 - 24,999	12.31	24.83	
\$25,000 - 49,999	52.61	42.66	
\$50,000 or more	28.73	16.43	
n	(268)	(286)	
	----- average values -----		<u>t-test</u>
Age in years	49.2	55.0	4.72 *
n	(288)	(303)	
Number of years at current address	22.4	31.2	5.51 *
n	(289)	(304)	
Number of people residing at home	3.2	2.8	3.52 *
n	(291)	(307)	
Number of children less than 18 years old	1.1	0.8	3.45 *
n	(291)	(301)	

*statistically significant P=.01, **statistically significant P=.05.

^a Both self-employed and employed by third party.

Community Involvement

Respondents were asked about their participation in community and civic organizations to ascertain the potential impacts of the consolidation on the community's social infrastructure. They were also asked about the amount of time spent attending or taking part in organized group activities involving other members of their community not associated with their employment.

Community participation in civic organizations was based on scores of 1 for 'greater participation,' 3 for 'no change,' and 5 for 'less participation.' Vacated community respondents believe there has been less participation in the last 10 years, mean score 3.35 (Table 6). Host community respondents believe the change has been on the positive side of 'no change,' mean score 2.89.

Participation in civic and community organizations was assigned a 1 for 'strongly agree' through 5 for 'strongly disagree.' Both community groups agreed that school consolidation resulted in decreased participation in community organizations (Table 6). However, both community groups disagreed that consolidation reduced participation in civic organizations. Host community respondents more strongly disagreed than those in vacated communities that consolidation had decreased participation of both civic and community organizations.

When respondents were asked if the consolidation had specifically caused a decrease in their community organization participation, the difference between the groups was not statistically significant. Furthermore, no difference existed between the groups in the number of hours they spent participating in nonwork-related community organizations.

Retail Services

Community leaders are concerned about school closings and the corresponding impacts on the community's retail sector. Will the school closing cause the community to decay and eventually fade away? Alternatively, will keeping the school open save "main street?" What will the financial impacts of the school closing be on the retail sectors of the community?

Absolute values and changes in retail sales by communities are important indicators of a community's economic 'well-being.' Another factor which serves as a barometer of a community's economic performance is the pull factor. Pull factors measure a community's success in capturing the potential purchasing power of residents in its trade area. Pull factors greater than 1.0 indicate that a community's retail sales are greater than the purchasing power of its trade area residents. This means that it may be 'pulling' customers from outside its normal trade area. Alternatively, a pull factor of less than 1.0 suggests that a community is not capturing all of the potential purchasing power of its trade area residents.

Table 6. Impact of School Closure on Respondent Participation in Civic and Community Organizations by Host and Vacated Communities

Item	Host community	Vacated community	t - test
----- mean score -----			
Community participation in civic org. during last 10 years^a	2.89	3.35	4.63 *
n	(281)	(288)	
Consolidation caused me to decrease my participation in comm. org.^b	2.86	2.55	2.31 **
n	(157)	(172)	
Consolidation caused me to decrease my participation in civic org.^b	3.62	3.10	5.38 *
n	(286)	(292)	
Hours/month of participation	-- % --	-- % --	<u>Chi²</u>
More than 10 hours/month	18.82	18.12	2.758
5 - 10 hours/month	28.92	23.49	
1 - 4 hours/month	32.06	34.90	
Less than 1 hour/month	20.21	23.49	
n	(287)	(298)	
Consolidation caused a change in my participation in community organizations			
Yes	55.09	60.14	1.492
No	44.91	39.86	
n	(285)	(286)	

*statistically significant P=.01, **statistically significant P=.05.

^a Based on scores of 1 for “greater participation” through 5 for “less participation.”

^b Based on scores of 1 for “strongly agree” through 5 for “strongly disagree.”

Retail sales statistics are only reported for one of the study communities (Leonard) in which the school closed (Table 7). The North Dakota Tax Commissioner reports taxable sales for the 200 largest communities in North Dakota. Three of the host communities reported retail sales during the times of school consolidation. Retail sales are not reported in 3 of 4 vacated communities, suggesting these communities did not have a large retail sector at the time of the school closing. In Leonard, retail sales declined 6 percent the year after the school closed. Whereas, retail sales increased by 23 percent in Kindred and 4 percent in Hazelton after their adjoining community closed its school. Alternatively, retail sales in Binford declined 6 percent after the school in McHenry was closed.

Table 7. Percentage Change in Population, Retail Sales, and Pull Factors for Communities After School Closure, 1980-1994

Item	Community	Last Year School Open	1980	1985	1990	1991	1992	1993	1994	Change after school closed to next yr.
Retail Sales (1994 \$)										
Kindred ^a			\$12,709,516	\$4,778,314	\$5,134,317	\$5,268,087	\$5,998,384	\$6,526,891	\$8,054,727	-- % --
Leonard ^b	1993		\$1,425,171	\$936,454	\$1,047,457	\$1,184,125	\$1,224,763	\$1,198,483	\$1,132,494	23.41
Binford ^b			\$3,980,465	\$1,977,558	\$920,483	\$937,605	\$879,142	\$924,316	\$883,880	-5.51
McHenry	1991		n/a	n/a	n/a	n/a	n/a	n/a	n/a	-6.24
Newburg			n/a	n/a	n/a	n/a	n/a	n/a	n/a	
Kramer	1990		n/a	n/a	n/a	n/a	n/a	n/a	n/a	
Hazelton ^b			\$1,401,385	\$1,400,755	\$1,026,686	\$1,065,080	\$1,246,343	\$1,627,853	\$1,636,035	3.74
Braddock	1990		n/a	n/a	n/a	n/a	n/a	n/a	n/a	
Hamlet (avg)	\$1,802,598		\$1,237,937	\$872,028	\$879,013	\$876,450	\$981,403	\$980,604		
change from previous year (%)				-31.32	-29.56	0.80	-0.29	11.97	-0.08	
Minimum convenience Center (avg)	\$6,919,731		\$4,743,927	\$3,965,077	\$3,877,523	\$3,948,633	\$4,169,710	\$4,920,554		
change from previous year (%)				-31.44	-16.42	-2.21	1.83	5.60	18.01	
Pull Factor ^c										
Kindred ^a			0.89	n/a	0.38	0.38	0.42	0.44	0.55	-- % --
Hazelton ^b			0.27	0.45	0.26	0.26	0.3	0.37	0.38	25.00
Hamlet (avg)	0.53		0.44	0.32	0.31	0.3	0.3	0.31	0.00	
% change from previous year				-16.98	-27.27	-3.12	-3.23	0.00	3.33	
Minimum Convenience Center (avg)	0.73		0.96	0.96	0.56	0.52	0.52	0.53	0.57	
% change from previous year				31.51	-41.67	-7.14	0.00	1.92	7.55	
Population										
Kindred			568	n/a	569	589	617	676	696	-- % --
Leonard	1993		289	n/a	310	294	273	287	296	2.96
Binford			293	n/a	233	233	215	201	203	3.14
McHenry	1991		113	n/a	85	77	75	65	62	-7.73
Newburg			151	n/a	104	101	100	99	98	-2.60
Kramer	1990		84	n/a	51	49	47	46	45	-2.88
Hazelton			266	n/a	240	226	233	225	226	-3.92
Braddock	1990		86	n/a	56	54	52	51	51	-5.83

Sources: Bureau of the Census, 1980, 1990, 1991-1994.

Office of the State Tax Commissioner, 1980, 1985, 1990-1994.

Coon et al., 1995.

^a Trade area classification of 'minimum convenience center.'

^b Trade area classification of 'hamlet.'

^c Pull factors were not available for Leonard, Binford, McHenry, Newburg, Kramer, and Braddock. Retail sales were not available for McHenry, Newburg, Kramer, and Braddock.

All of the communities included in this study have a trade area classification of 'Hamlet' except Kindred, which is classified as a 'minimum convenience center' (Bangsund et al., 1991). It may provide insight to compare the changes in retail sales to average changes which occurred in like sized community trade areas. Initially, the gain in retail sales in Kindred (23%) looks significant; however, the average change for retail sales for minimum convenience centers in the year which Kindred school gained the students from Leonard (in 1994) was a positive 18 percent. Further, the average change for hamlets in 1994 was a decline of less than 1 percent. Interestingly, Binford's retail sales declined 6 percent after the McHenry school closed (in 1992), while average retail sales for hamlets declined by 0.2 percent in 1992.

Pull factors are only available for two host communities, Kindred and Hazelton (Table 7). Kindred's pull factor increased substantially after the Leonard school closed (25%). There was no change in Hazelton's pull factor after the Braddock school closed. The average pull factors for hamlets declined 3 percent from the year that Braddock closed its school. Average pull factors for minimum convenience centers increased 8 percent in the year Leonard closed its school.

Another factor which further clouds the picture is that population increased in both Kindred and Leonard following the school closing in Leonard (Table 7). In all other communities, host and vacated, population declined following the closing of the school in the vacated communities. It seems plausible that changes in a community's retail sales may be due to factors other than the school closing.

Survey respondents were asked to score changes in retail sales and number of businesses based on 1 for "more," 3 for "no change," and 5 for "less." Host and vacated community respondents believed that retail sales and number of businesses had declined in the last ten years (Table 8). Vacated community respondents scored amount of retail sales and number of businesses significantly lower than host community respondents.

Respondents were asked to score their agreement with several statements relating to the changes in the retail sector caused by consolidation. The scores ranged from a 1 for "strongly agree," 3 for "indifferent," and 5 for "strongly disagree." Respondents were asked, "I feel changes in retail sales within the community happened as a result of the consolidation." Vacated community respondents were neutral (i.e., neither strongly agree or disagree), while host community respondents disagreed with the statement (Table 8). Next, respondents were asked whether they personally made less purchases in their community because of the consolidation. Both groups strongly disagreed with this statement, although the host community respondents were stronger in their opinion (Table 8). Vacated community respondents agreed with the statement that the number of businesses had changed because of the consolidation, although the score of 2.88 does not indicate strong agreement. Host community respondents disagreed with this statement.

Table 8. Respondent Impression of School Closure Impact on Community's Retail Sales, Personal Purchases, and Number of Businesses by Host and Vacated Communities

Change In:	Host community	Vacated community	t - test
	----- mean score -----		
Community retail sales in last 10 years ^a	3.46	4.06	6.09 *
n	(273)	(288)	
Retail sales because of consolidation ^b	3.38	3.00	2.30 **
n	(144)	(169)	
I make less personal purchases ^b	4.23	3.43	5.45 *
n	(156)	(173)	
Number of businesses last 10 years ^a	3.41	3.97	5.35 *
n	(287)	(298)	
Number of businesses because of consolidation ^b	3.43	2.88	3.63 *
n	(157)	(162)	
Retail sales because of consolidation	-- % --	-- % --	<u>Chi ²</u>
Yes	51.25	59.51	3.902 **
No	48.75	40.49	
n	(281)	(284)	
I make less personal purchases in my community			
Yes	54.36	58.84	1.191
No	45.64	41.16	
n	(287)	(294)	
Number of businesses because of consolidation			
Yes	54.90	56.25	0.107
No	45.10	43.75	
n	(286)	(288)	

*statistically significant P=.01, **statistically significant P=.05.

^a Based on scores of 1 for "more" through 5 for "less."

^b Based on scores of 1 for "strongly agree" through 5 for "strongly disagree."

Differences between the groups were not substantial when comparisons were made on a yes-no basis with respect to changes in retail sales, less personal purchases, and number of businesses (Table 8). Change in retail sales was the only category which had significant differences between host and vacated communities. Fifty-one percent of the host community respondents believed that retail sales had changed because of the consolidation, whereas 60 percent of the vacated community respondents believed that retail sales changed as a direct result of the consolidation.

In many cases, respondents indicated reasons for their answers to changes in retail sales, personal purchases, and number of businesses in their communities. The most common reason indicated for changes in retail sales and number of businesses was 'there is less retail activity without the school' (Table 9). Other reasons listed 'declining and old population-young people leaving,' 'businesses already declining,' and 'has made no difference' indicate that consolidation itself may not be the primary cause of changes in retail sales or number of businesses.

Table 9. Main Reasons Indicated for Changes in Retail Sales, Personal Purchases, and Number of Businesses by Host and Vacated Communities

<u>Reasons</u>	<u>Changes in Retail Sales</u>		
	<u>Host</u>	<u>Vacated</u>	<u>Total</u>
Less retail activity without school	9	55	64
Better access to big towns - people more mobile	36	8	44
Kept K-6 in our town	24	6	30
Has made no difference	18	11	29
Declining and old population-young people leaving	2	25	27
Consolidation too recent to know impacts	14	11	25
Businesses already declining	4	10	14
Better prices and variety in bigger towns	3	7	10
Economy	5	4	9
Less sales, especially gas because of consolidation	3	3	6
Support community-buy what is available locally	0	4	4
Big farms	1	3	4
Other businesses are growing	2	1	3
Other	3	0	3
No opportunity for young people	1	1	2
Less community support-bad feelings	<u>1</u>	<u>0</u>	<u>1</u>
Total	126	149	275

	<u>Changes in Personal Purchases</u>		
	<u>Host</u>	<u>Vacated</u>	<u>Total</u>
Support community-buy what is available locally	46	51	97
Has made no difference	34	25	59
Less activity without school	6	31	37
Better access to big towns - people more mobile	18	3	21
Better prices and variety in bigger towns	3	8	11
Other	5	2	7
Less sales, especially gas because of consolidation	0	6	6
Declining and old population-young people leaving	0	5	5
Consolidation too recent to know impacts	5	0	5
Kept K-6 in our town	5	0	5
Businesses already declining	1	2	3
No opportunity for young people	0	2	2
Less community support-bad feelings	1	1	2
Economy	0	1	1
Other businesses are growing	<u>0</u>	<u>1</u>	<u>1</u>
Total	124	138	262

----- Continued -----

Table 9. Continued

<u>Reasons</u>	<u>Changes in No. of Businesses</u>		
	<u>Host</u>	<u>Vacated</u>	<u>Total</u>
Less retail activity without school	11	51	62
Better access to big towns - people more mobile	38	8	46
Declining and old population-young people leaving	11	33	44
Has made no difference	27	14	41
Businesses already declining	12	21	33
Consolidation too recent to know impacts	19	11	30
Kept K-6 in our town	17	4	21
Better prices and variety in bigger towns	5	4	9
Economy	4	3	7
Big farms	2	4	6
Other	4	2	6
Other businesses are growing	4	2	6
Less sales, especially gas because of consolidation	3	2	5
No opportunity for young people	1	3	4
Support community-buy what is available locally	0	2	2
Less community support-bad feelings	<u>0</u>	<u>1</u>	<u>1</u>
Total	158	165	323

Quality of Life

The school is just one of several types of services and businesses (e.g., garbage, water, sewer, hospital, law enforcement, post office, grocery store, and elevator) which may be considered important to a community's infrastructure. As rural communities have evolved, some of these services may not be necessary for community survival. For example, assume that a community's hospital closes. The inconvenience may not be great enough to cause a decrease in the community's ability to prosper, providing health services can be provided from another community within a reasonable distance. Availability of these services has an impact on the resident's perception of the quality of life in their community.

Respondents were asked to rank their satisfaction with the quality of life before and after the consolidation. There was no difference between the groups in their rating of quality of life before the consolidation (Table 10). Average scores for both groups' responses to quality of life after consolidation declined, although most respondents were still satisfied. Fifty-eight percent of host community respondents were "very" satisfied before the consolidation, and this declined to 52 percent following consolidation. Sixty percent of vacated community respondents were "very" satisfied before consolidation, dropping to 39 percent after the consolidation.

Table 10. Rating of Community as Place to Live Before and After Consolidation by Host and Vacated Communities

Item	Host community	Vacated community	t-test
	----- % -----		
<u>Before consolidation</u>			
Very satisfied	58.04	60.00	
Satisfied	26.92	28.47	
Indifferent	9.44	8.14	
Unsatisfied	2.45	1.36	
Very unsatisfied	3.15	2.03	
Mean Score ^a	1.66	1.57	1.15
n	(286)	(295)	
<u>After consolidation</u>			
Very satisfied	52.14	38.63	
Satisfied	28.21	23.10	
Indifferent	11.79	20.22	
Unsatisfied	3.21	9.39	
Very unsatisfied	4.64	8.66	
Mean Score ^a	1.80	2.26	4.60 *
n	(280)	(277)	
<u>Plans to move away from community in the next five years</u>			<u>Chi ²</u>
Definitely will not move	46.88	46.58	1.509
Probably will not move	39.93	39.04	
Probably will move	10.76	13.01	
Definitely will move	2.43	1.37	
n	(288)	(292)	

*statistically significant P=.01.

^a Based on scores of 1 for “very satisfied” through 5 for “very unsatisfied.”

An attempt was made to understand the level of dissatisfaction with their community after the consolidation. Respondents were asked if they planned on moving away from their community within the next five years. There was no difference between the groups (Table 10). More host community respondents (2%) indicated they would definitely move within the next five years. This may be related to the differences in age and employment status rather than dissatisfaction with the school district (i.e., older and retired respondents in vacated communities are probably less likely to move) (see Table 5).

Changes in retail sales, the local business environment, and perceived quality of life within a rural community may be related to changes in population. Respondents were grouped according to changes in community population from 1980 to 1994 into two groups: those communities which increased in population and those which decreased in population. More than 63 percent of respondents from communities which lost population were very satisfied with the quality of life in their community versus 56 percent from communities which increased population (Table 11). Mean score for communities in which population declined was higher, indicating higher satisfaction, than for those in which population increased. Mean scores for both groups decreased after consolidation, although the mean score for those respondents from communities which population increased were higher than those which population decreased. There were no statistical differences between the two groups before or after consolidation.

Table 11. Rating of Community as Place to Live Before and After Consolidation by Population Change from 1980 to 1994

Item	Gained population	Lost population	t-test ^a
	----- % -----		
<u>Before consolidation</u>			
Very satisfied	55.59	63.32	
Satisfied	30.43	24.32	
Indifferent	9.01	8.49	
Unsatisfied	1.55	2.32	
Very unsatisfied	3.42	1.54	
Mean Score ^b	1.67	1.54	1.63
n	(322)	(259)	
<u>After consolidation</u>	----- % -----		
Very satisfied	46.93	43.55	
Satisfied	27.83	22.98	
Indifferent	14.89	17.34	
Unsatisfied	3.24	10.08	
Very unsatisfied	7.12	6.05	
Mean Score ^b	1.96	2.12	1.58
n	(309)	(248)	

^a not statistically significant.

^b Based on scores of 1 for “very satisfied” through 5 for “very unsatisfied.”

Consolidation Impacts

The final portion of the survey analysis section presents perceived reasons for the consolidation, consequences of consolidation, impact on the students, and recommendations to other communities which may be facing consolidation. Vacated community respondents felt that enrollment was the most important factor, while host community respondents felt that student welfare was the most important factor in school consolidation (Table 12). The most important reasons for school closing were also different between the groups. Host school respondents felt the most important reason was financial pressure, and vacated community respondents thought enrollment was the most important reason (Table 12).

The impacts of consolidation are ultimately experienced by the students. Respondents from both groups felt that students were better off academically and socially because of the consolidation, although vacated community respondents agreed to a lesser degree (Table 13). When asked to rank the benefits to consolidation, the differences between the groups were marginal (Table 14). Both groups ranked the benefits from highest to lowest were (1) better educational opportunities for students, (2) better utilization of resources, (3) broadened network of friends, and (4) other.

Concern with school districts bussing students too far was the most common negative consequence mentioned by both groups regarding school consolidation (Table 15). Too many students in classes was the second most often listed concern. This concern was listed 4 to 1 by more host community respondents than by vacated community respondents.

As population and enrollments continue to decline in some communities across North Dakota, these communities will be confronted with the prospect of school consolidation. Respondents were asked to rank a series of six factors with regard to helping ease the process of consolidation. The average ranking between the groups was similar (Table 16). The ranking, from most recommended to least, was (1) more public meetings, (2) co-opting on extracurricular school activities, (3) more timely assistance from NDDPI, (4) better community leaders, (5) longer time frame for decision, and (6) other. Forty-four respondents listed other reasons. The most often listed other reasons included having many public meetings to get all opinions (20%), having knowledgeable administration and good leaders on committees (18%), and having good communication--honest about future plans (14%). When asked what advice they would give to other communities faced with consolidation, the top three answers were (1) put student welfare first (17%), (2) communication--tell the truth about future plans (15%), and (3) cooperate-compromise, invite students and parents to participate (14%) (Table 17).

Table 12. Ranking of Reasons for Consolidation and School Closing by Host and Vacated Communities

Item	Host community	Vacated community	t - test
----- mean ranking ^a -----			
Reasons for Consolidation			
Enrollment	2.06	1.85	2.65 *
n	(245)	(243)	
Financial pressure	2.10	2.21	1.30
n	(247)	(238)	
Parental pressure	3.93	3.85	2.50 **
n	(227)	221	
Student welfare	1.99	2.23	1.24
n	(251)	(231)	
Other ^b	4.65	4.12	2.77 *
n	(75)	(76)	
Reasons for School Closing			
Enrollment	1.93	1.74	2.36 **
n	(224)	(218)	
Financial pressure	1.92	2.08	1.83 ***
n	(228)	(212)	
Parental pressure	3.83	3.76	1.61
n	(212)	(194)	
Student welfare	2.40	2.57	0.97
n	(226)	(197)	
Other ^c	4.61	3.89	3.30 *
n	(62)	(63)	

*statistically significant P=.01, **statistically significant P=.05, ***statistically significant P=.10.

^a Rank based on 1 for most important” through 5 for “least important.”

^b Eighteen respondents listed other reasons. More than 66% of 18 listed the following three reasons: (1) sports [22%], (2) kids better off academically [22%], and (3) school board pressure [22%].

^c Seventeen respondents listed other reasons. More than 50% of 17 listed the following reasons: (1) school board pressure [23%], (2) no need for two elementary schools [18%], and (3) politics [12%].

Table 13. Academic and Social Impact of Consolidation on Students by Host and Vacated Community

Item	Host community	Vacated community	t - test
----- mean score ^a -----			
Students better off academically because of consolidation			
n	1.79 (289)	2.18 (298)	3.74 *
Students better off socially because of consolidation			
n	2.22 (289)	2.41 (296)	1.84 ***

*statistically significant P=.01, ***statistically significant P=.10.

^a Based on scores of 1 for “strongly agree” through 5 for “strongly disagree.”

Table 14. Ranking of Benefits to Consolidation by Host and Vacated Communities

Item	Host community	Vacated community	t - test
----- mean ranking ^a -----			
<u>Benefits to Consolidation</u>			
Better educational opportunities for students	1.34	1.42	1.36
n	(255)	(234)	
Better utilization of resources	1.87	1.96	1.65 ***
n	(246)	(216)	
Broadened network of friends	2.86	2.73	2.19 **
n	(240)	(219)	
Other ^b	3.75	3.51	1.73 ***
n	(67)	(84)	

statistically significant P=.05, *statistically significant P=.10.

^a Based on ranking of 1 for “most beneficial” through 4 “least beneficial.”

^b Twenty-two respondents listed other reasons. Nearly 60% of 22 listed the following three reasons: (1) more classes and choices [27%], (2) sports [18%], and (3) better use of existing teachers [14%].

Table 15. Negative Consequences of the Consolidation

Item	Host community	Vacated community	Total
	----- number -----		
<u>Consequences</u>			
District bussing students too far	51	82	133
Classes too large	31	7	38
Lost identity	13	14	27
Harder on students, more stressful, longer days with extra distance	10	16	26
Hurt retail trade because parents follow children	8	14	22
Bitter feelings, polarized community	2	16	18
Expensive didn't save money as expected	4	10	14
Hurts education	8	5	13
School building is empty	6	6	12
Students lost to other schools and/or open enroll	6	3	9
Less jobs available	3	2	5
Too large territory	1	3	4
Other	2	2	4
Tax dollars leave community	3	1	4
Parents don't know children's friends and families	0	3	3
Federal and ND regulations expensive for small schools	2	1	3
Raised taxes	3	0	3
Annexation of land out of district	0	2	2
Do not know teachers as well	0	2	2
Lack money to build new school	1	1	2
No K-12 in one school	1	1	2
Too much emphasis on sports	1	1	2
Adjust to consolidation	0	1	1
Lost equip. etc. to schools outside of our county	0	1	1
Not a permanent solution to community problems	<u>0</u>	<u>1</u>	<u>1</u>
Total	156	195	351

Table 16. Ranking of Recommendations to Make Transition Towards Consolidated School District Easier by Host and Vacated Communities

Item	Host community	Vacated community	t - test
----- mean ranking ^a -----			
<u>Ease Transition Toward Consolidated District</u>			
More public meetings n	2.33 (223)	2.42 (205)	1.25 ***
Cooperate on extracurricular school activities n	2.41 (232)	2.73 (214)	2.28 **
More timely assistance from NDDPI n	3.24 (213)	3.49 (202)	1.72 ***
Better community leaders n	3.33 (214)	3.13 (200)	1.45
Longer time frame for decision n	3.50 (211)	3.23 (202)	1.95 ***
Other ^b n	4.92 (51)	4.28 (75)	1.78 ***

statistically significant $P=.05$, *statistically significant $P=.10$.

^a Ranking based on 1 for “most recommended” to 6 for “least recommended.”

^b Forty-four respondents listed other factors. Of these factors more than 50% of 44 listed the following three reasons: (1) having many public meetings to get all opinions [20%], (2) having knowledgeable administration and good leaders on committees [18%], and (3) good communication-honest about future plans [14%].

Table 17. Advice to Other Communities Faced with Transition to Consolidation

Item	Host community	Vacated community	Total
	-----	number -----	
<u>Recommendations</u>			
Put student welfare first	34	20	54
Communicate-tell the truth about future plans	21	27	48
Cooperate-compromise invite students and parents	21	24	45
Realize change is necessary	18	12	30
Go slow and ask lots of questions	9	17	26
Hold many public meetings to get all opinions	5	16	21
Other	5	11	16
Wait until consolidation is inevitable	4	9	13
Keep open-mind and be objective	5	7	12
Start with sports- choose good colors and mascot	6	4	10
Use facts not emotional attachments	3	6	9
Must have knowledgeable administrators and good leaders on committees	4	3	7
Meet with other districts to get advice	5	1	6
More concentration on classes than sports	1	5	6
Make decisions- don't drag it out	3	2	5
Use ITV to put classes together	1	3	4
Don't listen to NDDPI	0	3	3
Let individual patrons decide which school is best for them	1	2	3
Keep all students in one school for many years into future	0	2	2
Don't raise taxes	0	1	1
Improve roads because of bussing concerns	0	1	1
Share teachers and equipment	<u>1</u>	<u>0</u>	<u>1</u>
Total	147	176	323

Conclusions

The number of public high school districts in North Dakota declined from 256 in 1970 to 186 in 1994. Twenty-two school districts were eliminated in the past five years. Eight communities (four pairs) that had gone through school district consolidation and school closure during the past five years were selected for study. Estimated community populations in 1994 ranged from 45 to 696. Six of the eight communities had population declines from 1980 to 1994. For the schools which closed, enrollments in the last year of operation ranged from 47 to 97 students. School enrollment in the other communities ranged from a low of 75 to a high of 677. Survey results were compared on the basis of host and vacated communities. Host communities gained the students from the consolidation while vacated communities' schools were closed.

Survey results indicate that host communities' community organization participation increased in the last 10 years while vacated communities' participation declined. Respondents from vacated communities are more likely than host communities to agree that consolidation led them to change their participation in community organizations. Host and vacated community respondents did not believe civic organization participation was decreased because of school consolidation.

Changes in retail sales are probably related to changes in the local economy, rather than changes in the school district. Comparing change in retail sales to communities with similar sized trade areas indicated there are probably reasons for the changes other than the fact that one community lost its school and another gained some of the students from the neighboring community. For example, retail sales in Binford (host community) declined 6 percent following the school closing in McHenry (vacated community), and average retail sales for similar sized trade areas (hamlets) also declined that year (1992). Retail sales in Hazelton (host community) increased after the school closed in Braddock (vacated community) in 1991, and average retail sales for hamlets increased as well.

Both community groups believed retail sales and number of businesses declined in the last 10 years. More vacated community than host community respondents indicated that the change in retail sales and number of businesses was because of the consolidation. Vacated community respondents' primary belief was that retail activity would follow with the children and associated activities involving parents to the community with the school.

Survey respondents' perceptions of changes in retail sales are likely accurate for those businesses still in operation which are able to capture school-related economic activity (e.g., grocery stores, gas stations, restaurants, and taverns). However, in small communities, a lack of retail sales data makes it difficult to develop conclusions regarding direct impacts of school closure. Retail sales statistics are unavailable, indicating that vacated communities included in the study probably do not have a well-developed retail trade sector, which would not capture school-related economic activity even if the school remained open. Furthermore, assuming individual communities parallel their respective county's sales for final demand, retail activity in three of the four community pairs, should continue to support the agriculture (i.e., changes in school operating status would not be expected to have any impacts on a particular community's

agricultural sector). Finally, changes in the local school's operating status may not immediately impact the retail sector, but may over an extended period.

Respondents ranked the quality of life before and after consolidation. There was no statistical difference between the scores of the two groups before consolidation. After consolidation, the scores for both groups of communities declined, although the mean score for vacated communities was significantly lower than for host communities. Quality of life scores were not statistically different, before or after consolidation, between communities which had long term population declines versus those with increases.

Perceived reasons for consolidation and subsequent school closure varied between the types of communities. Vacated community respondents felt that enrollment was the main reason for consolidation, and finally, their school closing. Host communities felt that the main reason for the initial consolidation was student welfare and that school closing was caused by financial pressure.

Both community groups felt that students impacted by the consolidation were better off academically and socially. In fact, both community groups indicated the main perceived benefit resulting from consolidation was better educational opportunities for the students. The increased amount of time students must spend on the bus was the most often mentioned negative consequence of the consolidation.

To ease the process of consolidating, both groups indicated having more public meetings as the most important factor. The consolidation which was thought by one patron, "to go as smoothly as could ever be expected," had weekly meetings with professional moderators to control discussion. The meetings were open to the public and led by a 12-person fact finding committee appointed by the school board. The fact finding committee had representatives from parents with school age children, retired patrons, local business owners, and the school. The fact finding committee's responsibility was to make a recommendation regarding the school's future operating status to the school board. Both community groups' recommendation to other communities going through the process of consolidation was to put student welfare first.

This research provides insight into some of the social and economic impacts on communities which gain students (host community) from a consolidation and those residents which lose the students due to their school closing (vacated community). Vacated community respondents believed participation in community organizations has declined in the last ten years and the quality of life in their community declined after consolidation. Respondents from both communities did not perceive a change in participation in civic organizations because of the consolidation. Host and vacated community respondents thought the students were better off academically and socially after the consolidation.

A lack of retail sales data makes conclusions about the impact of school closure on retail sales indeterminant. Survey results indicate that respondents believe retail sales and number of businesses declined because of school closure. Personal interviews also indicate, in at least two

instances, the local grocery store closed when the local school was closed. Finally, changes in the school operating status are not expected to impact a particular community's agriculture sector.

Community residents are concerned that closure of their school signifies the end of their community's viability. However, previous research suggests that these communities may be able to refocus their development efforts and remain viable. Alternatively, educational infrastructure is only one, of several factors, necessary for a community to continue to grow. In the case of North Dakota communities, which in addition to closing their school, have limited access to markets, population base, public infrastructure, and housing, economic recovery seems unlikely.

References

- Archbold, Alice, and John Nisbet. 1977. Parents' Attitudes to the Closure of Small Rural Primary Schools. Scottish Educational Studies, University of Aberdeen. Aberdeen, Scotland. Vol. 9, No. 2, Pp. 122-127.
- Bangsund, Dean A., F. Larry Leistritz, Janet K. Wanzek, Dale Zetocha, and Holly E. Bastow-Shoop. 1991. North Dakota Trade Areas: An Overview. Department of Agricultural Economics, North Dakota State University, Fargo. Agricultural Economics Report No. 265.
- Barkley, David L., Mark S. Henry, and Shuming Bao. 1995. Good Schools Aid Rural Development in South Carolina. Department of Agricultural Economics and Rural Sociology, Cooperative Extension Service, Clemson University. Clemson, SC. Vol. 5, No. 1
- Bureau of Economic Analysis. Personal Income by Major Sources, Regional Economic Information. Selected years 1980, 1985, 1990-1994. U.S. Department of Commerce, Washington, DC.
- Bureau of the Census. Census of Population 1980 and 1990, and North Dakota Subcounty Intercensal Estimates, 1990-1994. U.S. Government Printing Office, Washington, DC.
- Coon, Randal C., JoAnn M. Thompson, and F. Larry Leistritz. 1995. The State of North Dakota: Economic, Demographic, Public Service, and Fiscal Conditions - A Presentation of Selected Indicators. Department of Agricultural Economics. North Dakota State University, Fargo, ND.
- Decker, Tom. 1995. Personal communication. School Consolidation Expert. Department of Public Instruction. Bismarck.
- DeYoung, A.J. 1987. The status of American rural education research: An integrated review and commentary. Review of Educational Research. Vol. 57, Pp. 123-148.
- Dreier, William H. 1982. What Happens When the High School Leaves the Community? Paper presented at the Annual National Conference of People United for Rural Education. February 5-6, 1982. Des Moines, IA.
- Fuguitt, Glenn V. 1971. The places left behind: population trends and policy for rural America. Rural Sociology. Vol. 36, Pp. 449-470.
- Koepke, Mary. 1991. Going, going, gone. Teacher Magazine. Editorial Projects in Education, Washington, DC. Vol. 2, No. 8, May/June. Pp. 40-46.

North Dakota Department of Public Instruction. North Dakota Educational Directory 1970-71 through 1994-95. Bismarck.

North Dakota Job Service. Annual Average North Dakota Labor Force. Selected years 1980, 1985, 1990-1994. Bismarck.

Office of the State Tax Commissioner. North Dakota Sales and Use Tax Statistical Report. Selected years 1980, 1985, 1990-1994. Bismarck.

Peshkin, Alan. 1978. Growing Up American: Schooling and the Survival of Community. Chicago: The University of Chicago Press.

Streifel, James S., George Foldes, and David M. Holman. 1991. The financial effects of consolidation. Journal of Research in Rural Education. Vol. 7, No. 2, Pp. 13-20.

Voth, Donald E., and Diana M. Danforth. 1981. Effect of schools upon small community growth and decline. The Rural Sociologist. Vol. 1, No. 6, Pp. 364-369.

Walberg, Herbert J. and William J. Fowler, Jr. 1987. Expenditure and size efficiencies of public school districts. Educational Researcher. American Educational Research Association. Washington DC. Vol. 16, No. 7, Pp. 5-13.

Young, E. 1994. Questioning consolidation. Tennessee School Boards Journal. Vol. 11, No. 2, Pp. 33-37.

APPENDIX A

**Total Enrollment in North Dakota Public High Schools,
Percentage Enrolled by Size of Total Enrollment,
and Percentage of Districts by Total Enrollment, 1970-1990**

Appendix Table A1. Total Enrollment in North Dakota Public High Schools, 1970-1990

<u>Total Enrollment</u>	<u>1970</u>	<u>1975</u>	<u>1980</u>	<u>1985</u>	<u>1990</u>
	----- number of students -----				
>= 10,000	32,622	0	0	0	20,964
5,000-9,999	8,160	37,033	33,103	34,942	17,212
1,000-4,999	26,947	24,278	21,262	26,568	24,864
500-999	30,322	22,866	17,817	14,549	14,252
100-499	43,551	42,253	37,935	35,895	34,419
1-99	<u>998</u>	<u>2,015</u>	<u>2,829</u>	<u>2,666</u>	<u>2,144</u>
Total	142,600	128,445	112,946	114,620	113,855

Note: Total enrollment does not include private, Bureau of Indian Affairs, nonpublic, special ed, elementary only, or nongraded high schools.

Source: North Dakota Department of Public Instruction, 1970-71, 1975-76, 1980-81, 1985-86, 1990-91.

Appendix Table A2. Percentage of Students Enrolled in Grades K-12 in North Dakota Public High School Districts by Size of Total Enrollment, 1970-1990

<u>Total Enrollment</u>	<u>1970</u>	<u>1975</u>	<u>1980</u>	<u>1985</u>	<u>1990</u>
	----- % -----				
>= 10,000	22.88	0.00	0.00	0.00	18.41
5,000-9,999	5.72	28.83	29.31	30.49	15.12
1,000-4,999	18.90	18.90	18.82	23.18	21.84
500-999	21.26	17.80	15.77	12.69	12.52
100-499	30.54	32.90	33.59	31.32	30.23
1-99	<u>0.70</u>	<u>1.57</u>	<u>2.50</u>	<u>2.33</u>	<u>1.88</u>
Total	100.00	100.00	100.00	100.00	100.00

Note: Total enrollment does not include private, Bureau of Indian Affairs, nonpublic, special ed, elementary only, or nongraded high schools.

Source: North Dakota Department of Public Instruction, 1970-71, 1975-76, 1980-81, 1985-86, 1990-91.

Appendix Table A3. Number of North Dakota Public High School Districts by Size of Total Enrollment, 1970-1990

<u>Total Enrollment</u>	<u>1970</u>	<u>1975</u>	<u>1980</u>	<u>1985</u>	<u>1990</u>
	----- number -----				
>= 10,000	3	0	0	0	2
5,000-9,999	1	4	4	4	2
1,000-4,999	13	11	9	12	10
500-999	45	34	26	22	21
100-499	181	174	153	150	143
1-99	<u>13</u>	<u>25</u>	<u>36</u>	<u>38</u>	<u>30</u>
Total	256	248	228	226	208

Note: Number of districts does not include private, Bureau of Indian Affairs, nonpublic, special ed, elementary only, or nongraded high schools.

Source: North Dakota Department of Public Instruction, 1970-71, 1975-76, 1980-81, 1985-86, 1990-91.

Appendix Table A4. Percentage of North Dakota Public High School Districts by Size of Total Enrollment, 1970-1990

<u>Total Enrollment</u>	<u>1970</u>	<u>1975</u>	<u>1980</u>	<u>1985</u>	<u>1990</u>
	----- % -----				
>= 10,000	1.17	0.00	0.00	0.00	0.96
5,000-9,999	0.39	1.61	1.75	1.77	0.96
1,000-4,999	5.08	4.44	3.95	5.31	4.81
500-999	17.58	13.71	11.40	9.73	10.10
100-499	70.70	70.16	67.11	66.37	68.75
1-99	<u>5.08</u>	<u>10.08</u>	<u>15.79</u>	<u>16.81</u>	<u>14.42</u>
Total	100.00	100.00	100.00	100.00	100.00

Note: Number of districts does not include private, Bureau of Indian Affairs, nonpublic, special ed, elementary only, or nongraded high schools.

Source: North Dakota Department of Public Instruction, 1970-71, 1975-76, 1980-81, 1985-86, 1990-91.

APPENDIX B

School Consolidation Personal Interview Questions

Name _____
Title _____
Address _____
Phone # _____
Years in community ____

1. How has community changed in past __ years?
2. What effect did the school consolidation have on this community?
3. What do you see as the future for _____ (community)?
4. Have there been any other changes in community public services (medical, police, etc.), other than the school consolidation?
5. What about other changes in the community infrastructure (parks, public library, swimming pool, etc.)?
6. How do you think most people in this community feel about the consolidation? How has this feeling changed over time?
7. How has the consolidation affected community cohesion (i.e., purchasing patterns, trade patterns, community loyalty) and participation in community organizations (i.e., lions, Jaycees, chamber of commerce, etc)?
8. How has the consolidation affected businesses in the community?
 - Do you have any perception of a cause and effect relationship between consolidation and business closing? Did the school closing lead to business closing or vice versa? Was the school closing a continuation of trends which were in place before any decisions regarding consolidation?
 - Any specific types of business more affected than others?
 - How have retail sales changed in the community businesses?
 - Were these changes immediate or over time?
9. Did the consolidation have any financial effect on the business you are in?
10. What effect has the consolidation had on the school kids? Do you think they are better off?
If so, why; if not, why not?
 - Class sizes increased? Number of teachers changed?
11. Thinking back, what led to the school closing?
12. Could you explain the background of how _____ and _____ schools consolidated?
13. What would have made the consolidation process go smoother?

- Specifically, what went well with the consolidation process?
14. Did the school districts get adequate and timely assistance with the process of consolidation from the state agencies &/or others?
 15. What were the biggest stumbling blocks? Controversies? Conflicts? of the consolidation effort?
 - What are your recommendations to other districts faced with consolidations?
 16. What effect has the consolidation had on taxes? How has the tax burden shifted?
 17. What are the plans for the abandoned school plant?
 18. How big a factor was school upkeep, maintenance, and repairs in the decision to close the school?
 19. What were the most important factors leading to the decision to consolidate?
 20. Was the community aware of what was happening to school enrollments in the 10 years previous to consolidation? was it dropping precipitately?
 - How long had enrollment and other factors been identified as concerns?
 - Had there been any planning process? What, if any, other options were considered?
 21. What were the unexpected impacts from the consolidation?
 22. In your opinion, what innovations, collaborations or special problems have resulted from the consolidation?
 23. Who were the main people involved in the consolidation effort (pro and con?) and in any collaborations or special problems or innovations?
 24. What state regulations or policies led to positive or negative impacts on the decision to close the school or the decision to consolidate?

APPENDIX C

School Consolidation Mail Survey

Impacts of School Consolidation in Upper Midwest

1. To which school district did you pay the greatest amount of property taxes?

A. Before the consolidation _____ District

(1) Did you live in that district? **Yes** **No**

(2) Did you have children attending school at that time? **Yes** **No**

If **yes**, what school district did they attend? _____ District

B. After the consolidation _____ District

(1) Did you/do you live in that district? **Yes** **No**

(2) Did you/do you have children attending school after the consolidation? **Yes** **No**

If **yes**, what school district did/do they attend? _____ District

2. Were you in favor of the consolidation? **Yes** **No** **Undecided**

If **no** or **undecided**, what would you have recommended instead of consolidation? _____

3. Were you in favor of the school closing? **Yes** **No** **Undecided**

If **no** or **undecided**, what would you have recommended instead of closing the school? _____

4. Please rank reasons for consolidation.
(1 = most important to 5 = least important)

___ Enrollment
___ Financial pressure
___ Parental pressure
___ Student welfare
___ Other _____

5. Please rank reasons for school closing.
(1 = most important to 5 = least important)

___ Enrollment
___ Financial pressure
___ Parental pressure
___ Student welfare
___ Other _____

6. Students are better off academically
because of the consolidation.

Strongly
Agree

①

②

Indifferent

③

④

Strongly
Disagree

⑤

7. Students are better off socially because of
the consolidation.

①

②

③

④

⑤

8. A. What have been the benefits of the consolidation of the school districts?
(Please rank the four selections from 1 = most beneficial to 4 = least beneficial)

___ Better educational opportunities for students ___ Better utilization of resources
___ Broadened network of friends ___ Other _____

B. What have been the negative consequences of the consolidation? _____

NEXT WE ARE ASKING ABOUT PARTICIPATION IN COMMUNITY ORGANIZATIONS.

9. How has community participation in civic organizations changed in the last 10 years?

Greater No Less
Participation Change Participation
① ② ③ ④ ⑤

10. Is the change in participation in community organizations a result of the consolidation?

Strongly Indifferent Strongly
Agree Disagree
① ② ③ ④ ⑤

If there has not been a change *because* of consolidation, mark this box ☐

11. Consolidation has caused me to decrease my participation in civic organizations?

Strongly No Strongly
Agree Change Disagree
① ② ③ ④ ⑤

12. On average, about how many hours do you spend per month attending or taking part in any kind of organized or planned group activity or event (not associated with your work or job) that involves other members of this community?

☐ More than 10 hours per month

☐ 1-4 hours per month

☐ 5-10 hours per month

☐ Less than one hour per month

NEXT WE ARE ASKING ABOUT RETAIL SALES AND THE NUMBER OF BUSINESSES IN YOUR COMMUNITY.

13. What has happened to the number of businesses in the community in the last 10 years?

More No Less
Change
 ① ② ③ ④ ⑤

14. Would you say the change in number of businesses is because of the consolidation?

A. Strongly Indifferent Strongly If there has not been a change *because of*
 Agree Disagree consolidation, mark this box ☐
 ① ② ③ ④ ⑤

B. Please give us the main reason for your answer? _____

15. What has happened to retail sales in your community in the last 10 years?

Greater No Less
Sales Change Sales
 ① ② ③ ④ ⑤

16. I feel the changes in retail sales within the community happened as a result of the consolidation?

A. Strongly Indifferent Strongly If there has not been a change *because of*
 Agree Disagree consolidation, mark this box ☐
 ① ② ③ ④ ⑤

B. Please give us the main reason for your answer? _____

17. I make fewer purchases in my community as a result of the consolidation?

A. Strongly Indifferent Strongly If there has not been a change *because of*
 Agree Disagree consolidation, mark this box ☐
 ① ② ③ ④ ⑤

B. Please give us the main reason for your answer? _____

18. Please rank the following in terms of recommendations to make the transition to a consolidated school district easier? (1 = most recommended to 6 = least recommended)

___ Cooperate on extracurricular school activities ___ Longer time frame for decision
 ___ More public meetings ___ Better community leaders
 ___ More timely assistance from North Dakota Department of Public Instruction
 ___ Other _____

19. What advice would you give to a community like yours to make the transition towards a consolidated district easier?

20. How long have you lived at this address? _____ Years (if less than 1 year, then put <1)

21. Using the scale below, please mark the response that best indicates how satisfied you were with this community as a place to live ...

<u>Before</u> the consolidation					<u>After</u> the consolidation				
Very Satisfied		Indifferent		Very Unsatisfied	Very Satisfied		Indifferent		Very Unsatisfied
①	②	③	④	⑤	①	②	③	④	⑤

22. Do you have any plans to move away from this community within the next five years?

- | | |
|----------------------------|------------------------|
| ① Definitely will not move | ③ Probably will move |
| ② Probably will not move | ④ Definitely will move |

23. How old were you on your last birthday? _____ Years

24. Including yourself, how many people live in this household? _____

25. How many people in your household are less than 18 years of age? _____

26. What is your sex? ① Male ② Female

27. Please indicate the highest level of school that you completed?

- | | |
|------------------------|------------------------------|
| ① Less than 12th grade | ③ Some post secondary school |
| ② High school graduate | ④ College graduate |

28. Please mark your employment status?

- | | |
|--------------|----------------------------|
| ① Unemployed | ③ Employed by someone else |
| ② Retired | ④ Self-employed |

<div>→</div>	Occupation: _____ (Please write your occupation such as secretary, waiter, teacher, laborer, equipment operator, farmer/rancher, salesperson, in the space provided)

29. Please mark the number that is closest to your household's 1994 personal income.

- | | |
|------------------------|-------------------------|
| ① Under \$15,000 | ③ \$25,000 to \$49,999 |
| ② \$15,000 to \$24,999 | ④ Greater than \$50,000 |

THANK YOU FOR YOUR COOPERATION.

APPENDIX D

Employment and Per Capita Income Statistics for Selected North Dakota Counties, 1980-1994

Table D1. Employment Statistics for Selected North Dakota Counties, 1980-1994

	<u>Bottineau</u>	<u>Cass</u>	<u>Emmons</u>	<u>Foster</u>	<u>Griggs</u>
	----- 1980 -----				
Labor force	3,967	44,192	2,468	2,162	1,687
Employment	3,738	42,369	2,302	2,075	1,642
Unemployment	179	1,823	166	87	45
Unemployment rate (%)	4.50	4.10	6.70	4.00	2.70
	----- 1985 -----				
Labor force	3,954	55,268	2,436	2,289	1,599
Employment	3,674	53,293	2,270	2,175	1,514
Unemployment	280	1,975	166	114	85
Unemployment rate (%)	7.10	3.60	6.80	5.00	5.30
	----- 1990 -----				
Labor force	3,154	59,479	2,006	1,951	1,509
Employment	3,354	57,729	1,928	1,876	1,468
Unemployment	160	1,750	78	75	41
Unemployment rate (%)	4.60	2.90	3.90	3.80	2.70
	----- 1991 -----				
Labor force	2,973	61,574	2,047	2,067	1,446
Employment	2,841	60,047	1,966	1,985	1,402
Unemployment	132	1,527	81	82	44
Unemployment rate (%)	4.40	2.50	4.00	4.00	3.00
	----- 1992 -----				
Labor force	2,934	63,098	2,003	2,006	1,362
Employment	2,783	61,114	1,891	1,920	1,306
Unemployment	151	1,984	112	86	56
Unemployment rate (%)	5.10	3.10	5.60	4.30	4.10
	----- 1993 -----				
Labor force	3,335	60,265	2,035	1,826	1,402
Employment	3,178	58,539	1,943	1,753	1,358
Unemployment	157	1,726	92	73	44
Unemployment rate (%)	4.70	2.90	4.50	4.00	3.10
	----- 1994 -----				
Labor force	3,317	63,317	2,161	1,986	1,736
Employment	3,191	61,826	2,069	1,926	1,698
Unemployment	126	1,491	92	60	38
Unemployment rate (%)	3.80	2.40	4.30	3.00	2.20

Source: North Dakota Job Service.

Table D2. Per Capita Income for Selected North Dakota Counties in 1994 Dollars, 1980-1994

<u>Year</u>	<u>Bottineau</u>	<u>Cass</u>	<u>Emmons</u>	<u>Foster</u>	<u>Griggs</u>
	----- \$ -----				
1980	11,094	17,054	8,157	13,520	8,590
1985	18,436	18,413	11,627	17,295	17,011
1990	18,836	19,677	13,448	18,840	18,722
1991	15,874	19,507	13,317	17,477	17,009
1992	18,953	20,204	16,310	18,936	18,067
1993	17,577	20,098	15,001	17,427	14,602
1994	n/a	n/a	n/a	n/a	n/a

Source: Bureau of Economic Analysis.