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THE RURAL SCHOOL DISTRICT: TO SURVIVE AND THRIVE
A LOOK AT SCHOOLS IN THE UPPER PENINSULA OF MICHIGAN AND HOW
THEY SERVE THEIR COMMUNITIES TODAY AND IN THE FUTURE

By

Erich Ziegler

THESIS

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The Rural School District: To Survive and Thrive
A Look at Schools In The Upper Peninsula Of Michigan And How They Serve Their
Communities Today And In The Future

This thesis by Erich Ziegler is recommended for approval by the student's Thesis
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ABSTRACT

THE RURAL SCHOOL DISTRICT: TO SURVIVE AND THRIVE A LOOK AT SCHOOLS IN THE UPPER PENINSULA OF MICHIGAN AND HOW THEY SERVE THEIR COMMUNITIES TODAY AND IN THE FUTURE

By

Erich Ziegler

The purpose of this study was to examine small rural school districts in the Upper Peninsula of Michigan, in order to better understand how they serve their local communities, both today and in tomorrow's evolving world. Seven rural school districts in the Upper Peninsula of Michigan were part of the study. Characteristics of effective financial and resource management were analyzed from school district data, as well as interview data, to further understand what it takes to keep districts working. An exploration of how students' needs are being met by the district was also done through school district and interview data. My research resulted in themes ranging from the struggles of dealing with unpredictable funding and financial constraints to the proud sharing of strengths of small rural schools. Small rural schools are surviving, and with quality leadership, will continue to thrive. With that said, advocacy for rural education is increasingly important in today's dynamic educational environment. It is through those that are passionately serving these small rural districts, and the benefits of further research, that we may continue to learn more about how to sustain and advocate for the importance of rural schools and rural communities, and our part in the sustainability of both.

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ERICH ZIEGLER

2017

DEDICATION

This thesis is dedicated to those people who serve the rural schools and communities of
our state and our nation.

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The author of this study wishes to thank his committee chair, Dr. Bethney Bergh, for her continuous support throughout this journey; thesis committee members, Drs. Joseph Lubig and Catherine Johnson, for their passion and investment in our rural schools; and to the administrators involved in the study who gave their time and expertise in sharing their stories.

The thesis follows the format prescribed by the *Publication Manual of the American Psychological Association (Sixth Edition)* and the Department of Education, Leadership, and Public Service.

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CHAPTER 1: INTRODUCTION

The days of isolation in rural living seem historical in nature, as today's technology has in a sense made our world "smaller." Despite this global connection, geographically speaking, remoteness is still a part of everyday life for our country's rural population. There are important needs that must be met in order for these residents, their schools, and their communities to survive and thrive.

Michigan's Upper Peninsula is primarily rural. According to the 2010 U.S. Census, 311,361 people live in the region with an average of 19.0 people per square mile. That compares to an average of 174.8 people per square mile in the greater state of Michigan (Bureau, n.d.)

The residents of the Upper Peninsula of Michigan have survived through economic, and subsequent population ebbs and flows. The population of the Upper Peninsula is decreasing as a whole in recent times. Thirteen of the fifteen counties in the Upper Peninsula experienced a population decline from 2010 to 2013 (MI DTMB, 2014). With these declines, the status of education in the rural school districts is ever more important.

Close to one third of our country's public schools (Beeson & Strange, 2003), including more than 20 percent of all public school students (Johnson, Showalter, Klein, & Lester, 2014), are in rural communities. Rural schools make up the majority of districts in the Upper Peninsula of Michigan. Rural schools fill an important role in Michigan's, and the greater United States', education system. Continued success within these school

districts is vital to the growth and development of our country's most important resource, its youth.

Purpose

The purpose of this study was to examine small rural school districts in the Upper Peninsula of Michigan, in order to better understand how they serve their students and local communities, both today and in tomorrow's evolving world. This exploration may help districts, and those that contribute to their operation, both in the local region as well as other rural areas, continue to not only succeed, but to thrive.

Research Questions

I was interested in two main topics, which are summarized in the following research questions:

1. What actions do superintendents of small, rural schools in Michigan's Upper Peninsula take to maintain balanced budgets?
2. How do superintendents of small, rural schools in Michigan's Upper Peninsula meet the needs of all students?

I used these questions as a guide in my research of the school districts and how they survive and thrive, both today and in the future.

CHAPTER 2: LITERATURE REVIEW

Both current and past research has emphasized the unique factors that apply to rural education and its importance to the educational structure of individual states and our nation. This review of literature will look at research regarding rural education and the study area, issues facing rural education, school funding, consolidation, strengths of rural schools, effective leadership and staff, and the relevance of rural education.

Research regarding rural education and the Upper Peninsula of Michigan

There has been a lack of research on rural education as a whole (Arnold, 2004; Arnold, Newman, Gaddy, & Dean, 2005; Cullen & Loeb, 2004; Harmon, 2001; Mathis, 2003). In addition to the overarching gap of research regarding rural education, very little academic research has been specifically conducted on education in the Upper Peninsula of Michigan. The geographic remoteness and low population are likely the main causes. With the exception of a study of the efficiency of education in remote and homogenous areas, focusing on the Upper Peninsula as a study site (Jeon & Shields, 2005), little else has been written about the area.

With the recent federal mandates involving education (No Child Left Behind and Every Student Succeeds Act) and their emphasis on “using rigorous scientifically based research to guide education decision making” (Arnold, 2004, p. 1), the importance of research involving rural schools is key. With little research on rural education issues, rural schools are at a disadvantage (Arnold, 2000).

Issues facing rural education

While “improvements in communication and transportation have reduced rural isolation and removed many of the cultural differences between urban and rural” (Harmon, 2001, p. 3), important differences in rural, suburban, and urban schooling still exist. These differences must be explored so they may be better understood, and potentially addressed.

The socioeconomic status of a school is often a function of its location. While poverty is often associated with urban areas, evidence shows that rural schools serve a large percentage of low socioeconomic students as well. According to research completed in 2014, 25.2 percent of rural children in the United States live in poverty as compared to 21.1 percent of urban children (Farrigan, 2015). In Michigan, more than 40 percent of rural students live in poverty. Adding to this issue, Michigan has the highest rural adult unemployment rate in the United States (Johnson et al., 2014). Socioeconomic factors play one of the most important roles in students’, and the school as a whole, academic achievement. A well-known government report that looked at the equality of education after the passing of the Civil Rights Act presented a big picture view of educational quality, assessing it in terms of “curriculums offered, school facilities such as textbooks, laboratories, and libraries, such academic practices as testing for aptitude and achievement, and the personal, social, and academic characteristics of the teachers and the student bodies in the schools” (Coleman et al., 1966, p. 1). The research showed that “the most powerful predictors of students’ performance were their parents’ educational and social backgrounds, in comparison to whose effects school resources were trivial” (Cohen & Barnes, 1999, p. 23). This has been supported in modern literature as well,

with a report from the Rural School and Community Trust stating, “socioeconomic challenges represent the strongest and most consistent threat to high levels of student achievement” (Johnson et al., 2014, p. 14). The negative effects play a role in the “level of preparedness for children entering school” and the “community support for education” (Johnson et al., 2014, p. 14). Ultimately, poverty has many effects on education, and is one of the biggest issues facing rural educators.

School finances are not always equitable across districts, which results in a multitude of issues that can affect the effectiveness of the education that is provided. Differences in staff salaries, with urban teachers starting out at an average salary that is 21 percent higher than rural teachers (Gibbs, 2000) can affect a district. This can impact teacher recruitment and retention in rural schools (Harmon, 2001; Mathis, 2003, Miller, 2012). Miller (2012) elaborates, stating that, “retention rates, especially during the first five years of a teacher’s career are lower in rural schools than in suburban schools” (p. 23), likely due to the “lack of community amenities, geographic and professional isolation, lower salaries, and higher poverty rates” (Azano & Stewart, 2015). Issues with facilities and supplies are also directly impacted by a school’s finances.

The lack of access to technology is another issue faced in rural schools. The lack of reliable internet service puts rural students at a disadvantage in today’s changing classroom. While internet access in an individual’s home may not be a direct function of where they live, community sources are inherently isolated, and often limited, in a rural setting. Rural educators have had to work around this, providing students with opportunities to use school technology whenever possible. Lack of infrastructure limits the potential for technology to reduce the traditional issues of isolation in rural areas

(Hannum, Irvin, Banks, & Farmer, 2009; Harmon, 2001; Howley, Wood, & Hough, 2011). An interesting concept that has developed in rural settings to deal with technology issues includes access to Wi-Fi on school buses (Dobo, 2014). The evolution of technology is something that all schools, including rural, will have to continue to monitor and appropriately deal with.

Curriculum options effect rural students as well. Research has shown that rural schools have less curriculum options for their students as compared to larger suburban and urban schools (Bouck, 2004; Monk & Haller, 1993), which can have an effect on their ability to succeed in college, the work force, and in life (Gibbs, 2000). While core academic classes are often required by state curriculum mandates (MDE, 2016) electives are most effected in small schools. This includes courses in fine arts, technology, vocational education, and advanced placement. Courses offered through virtual platforms including the internet and teleconference have provided additional curriculum opportunities for students, but they bring additional factors that can be negative for student learning. It is a balance and something that must continue to be monitored in rural districts.

Traditions may hinder rural communities, and their schools, as well. If there is a mindset that rural economic development depends on low-skill and low-wage jobs (Sherman & Sage, 2011), and that students are encouraged to “go to college, and move to the city to find higher paying jobs” (Arnold, 2004, p. 9), an “economic emigration” (Mathis, 2003, p. 127) will likely occur in many rural communities. This can in turn negatively influence the future growth and development of the school.

These challenges must be recognized and faced by governments. Unfortunately, many rural challenges are overlooked by policy makers because “they live in states where education policy is dominated by high visible urban problems” (Johnson et al., 2014, p. 28). According to Mathis (2003), rural constituents hold the political majority in only five of the nation’s fifty states, therefore resulting in little attention to educational financial equality or adequacy issues. This could certainly be applied to the state of Michigan, where “over 305,000 students attend rural schools in Michigan, one of the largest absolute rural enrollments in the nation but just one in five of all its public school students” (Johnson et al., 2014, p. 63).

School funding

Despite confounding factors that affect student performance, school funding plays an important role in the effectiveness of a school district. While financial issues affect all school districts, there are unique factors that impact rural school districts.

Rural schools are often affected by declining enrollment issues. With student count playing a key factor in many state funding formulae, declining enrollment has a direct impact on a school district’s funding. When enrollment declines, costs do not necessarily decrease at the same rate as the average per pupil cost. The most typical way to deal with this issue is through the use of multi-year student counts, which allow districts to step down or up in funding in “an incremental and managed way” (Mathis, 2003, p. 126). This is still not a universal solution.

Concerns of an aging population, especially in rural areas, presents a potentially troubling situation of declining populations, which then impacts the economic picture of

the area. Concerns include an increased shift towards health care spending which can take up a majority of a limited tax revenue (Deller & Walzer, 1993). Some research has shown that the elderly in rural communities are less supportive of education (Reeder & Glasgow, 1990; Deller & Walzer, 1993). Deller and Walzer (1993) found that approximately one third of non-retirees described current school funding as adequate, whereas one-half of retirees thought current funding was adequate. They found that both retirees and non-retirees agree that increased revenues should be federally or state driven, and not purely a responsibility of the local communities. While desired, this is not always probable or feasible. An interesting reason that was presented to explain retirees' lack of support for education, or at least the growth in funding for it, was the modern increase in courses that were not offered when the retirees were in school. In summary, while retirees may not favor the cutting of school funding, "their level of conviction is much lower than non-retirees" (Deller & Walzer, 1993, p. 109). Other research has found retiree migrants to be more supportive of education than long-time residents, with motivators including self-interest, altruism, and a pre-existing expectation of higher taxes (Clark, Lambert, Park & Wilcox, 2009). Regardless, it is ever so important that rural educators continue to build community involvement and support of the school district (MI SBE, 2013).

School funding can be influenced by the socioeconomic status of the school, which is often measured by the rate of students that qualify for subsidized meal rates. There is an inherent inaccuracy with this as a measure of poverty, which must be considered. "Participation rates are subject to conditions that are unrelated to poverty levels, including the willingness of families to apply for assistance and the aggressiveness with which school officials secure applications" (Johnson et al., 2014, p. 16).

States have tried to help rural districts by instituting unique categorical multipliers in state funding including small size/sparsity, consolidation incentives, transportation costs, regional costs, and training/experience. Michigan does not include any of these factors in its funding formula (Sielke, 2004).

The State of Michigan has tried to promote equity among districts by replacing school funding that was based on local property taxes with a centralized state system known as Proposal A. Prior to Proposal A, school districts in Michigan were funded by a District Power Equalization system, which combined local property taxes with the potential for additional state aid. With Proposal A, local control over funding shifted to the state. The system of funding fundamentally changed, with local property taxes essentially being replaced by state taxes. The idea was that Proposal A would reduce the “variance across districts in revenues and expenditures” (Chaudhary, 2009, p. 90). A foundation system was set up where school funding was tied to student count and per-pupil payments. As a result, “spending per pupil was sharply increased in previously low spending districts and was essentially frozen for higher spending districts” (Cullen & Loeb, 2004, p. 1).

A School Aid Fund was set up in Michigan, with the bulk of revenues coming from state taxes. In the 2015 fiscal year, the fund amounted to 13.6 billion dollars. Funding sources and the percentage of the total fund included the sales and use tax (43.6%), income tax (18.2%), property tax (13.6%), federal revenue (11.8%), miscellaneous taxes (6.5%), state lottery funds (5.8%), general fund (0.2%), and other (0.1%) (“SFA - School Aid (K-12),” n.d.). Some of these sources have been inconsistent, with the state’s revenue surpluses used up only two years after the implementation of

Proposal A (Cullen & Loeb, 2004). Concerns over fluctuations in sales tax due to a struggling state economy have been raised, with the argument gathering strength in the last decade. Concerns related to timing of state funding have also been raised. The fiscal years of the state and school districts do not align, resulting in issues with cash flow and borrowing costs. Student counts are not determined until October, after which state funding for the year begins. The school districts fiscal year begins earlier in July, which leads to issues with planning and implementation of district budgets (“SFA - School Aid (K-12),” n.d.).

Michigan includes categorical grants for early education, bilingual education, gifted education, vocational education, special education, and at-risk students. There are issues with some of these categorical grants, as discussed with the subsidized meal-rate multiplier being used with the “at-risk” category.

Consolidation

Consolidation of small schools is often presented as a universal solution. School consolidation has been a controversial issue in the United States historically, with the idea of combining small schools to create large ones dating back to the mid 1800’s (Bard, Gardener, & Wieland, 2006). Conant’s (1959) historical work involving ideal school settings, written in a time where the country was enveloped in competition on a global scale, furthered the national drive to favor larger school districts.

With consolidation of rural schools, additional concerns come into play. A major issue is the involvement of, or lack thereof, the local community and stakeholders. Including the community in the process should be a core ingredient (MI SBE, 2013).

Without this, “educational absenteeism and community disintegration increases” (Bard et al., 2006, p. 41). If the combining of schools indeed must happen, holding public meetings proves to be the most important factor in maintaining as smooth of a process as possible (MI SBE, 2013; Sell & Lesitritz, 1997). Social supports for students and staff involved in the change is also key (Nitta, Holley, & Wrobel, 2010). Discussions still often boil down to a negative perception where “someone wins and someone loses” (Bard et al., 2006, p. 42). Regardless, consolidation should not be mandated by the state or federal government; rather, it must be decided by the local community (Bard et al., 2006).

Cost savings tend to be the most common reason for school consolidation.

Economies of scale are often brought up, with the idea that larger school districts are most cost effective than small school districts. Many studies have been done on the topic, generally resulting in no evidence of substantial cost savings with consolidation (Bard et al., 2006). Several reasons have been raised, including the idea that consolidating does not always result in the elimination of costs. Mathis’ (2003) opinion is clear, stating “Consolidating central functions does not eliminate them. Many tasks are simply moved to a distant location and performed by a person with a different title” (p. 122). Short-term versus long-term costs must be examined. While some costs may be reduced in the short run, any savings are often nulled in the long run due to increased transportation costs involved with larger school districts and the negative effects on the local community (Rural School and Community Trust, 2003). Raywid (1999) adds to this argument, stating that the risk of decreased graduation rates that are sometimes associated with larger districts, and their long-term costs to society, outweigh any short-term savings of consolidation. Sher and Tompkins (1976) summarizes the argument with a poignant

point, stating that “spending less to attain the same level of performance is efficient. However, spending less to attain less is a corruption of this concept leading only to false efficiencies” (p. 18). In summary, “there is not a strong research base [about the benefits of consolidation] for continuing to encourage school and district consolidation” (Odden & Picus, 2000, p. 231).

With all of the issues surrounding the combining of schools, additional constraints limit further consolidation of schools in the Upper Peninsula. Counties in the Upper Peninsula are large geographically (Table 1), with school districts mirroring this geographic size (MI DTMB, 2012). With relative remoteness, further consolidation of school districts as a whole is not an effective solution. Other strategies must be employed to keep these schools open. The problem being addressed in this study is to further explore these strategies.

Table 1: Counties in the Upper Peninsula of Michigan and their land area

County (Upper Peninsula of Michigan)	Land Area (Square Miles)
Alger	915
Baraga	898
Chippewa	1558
Delta	1171
Dickinson	761
Gogebic	1101
Houghton	1009
Iron	1166
Keweenaw	540
Luce	899
Mackinaw	1021
Marquette	1808
Menominee	1044
Ontonagon	1311
Schoolcraft	1171

Strengths of rural schools

Small schools are a necessary part of the Upper Peninsula of Michigan, and of the country as a whole. Many strengths have surfaced, including more involvement of students in extracurricular activities and academic courses, more teacher attention due to lower student-teacher ratios, and closer connections to the school and community (Nachtigal, 1982, Wilcox, Angelis, Baker, & Lawson, 2014). It is key that rural school districts preserve “these competitive advantages” (Gibbs, 2000, para. 6) in order to best serve their stakeholders both today, and in the future.

Many innovations in education have originated from rural schools as well (Stern, 1994). These improvements have often been a necessity for small schools to effectively and efficiently operate. Examples include: “cooperative learning, multi-grade classrooms, intimate links between school and community, interdisciplinary studies, peer tutoring, block scheduling, the community as a focus of study, older students teaching younger ones, site-based management, and close relationships between teachers and students” (Harmon, 2001, pp. 3-4). The effectiveness of these concepts have been taken up by the rest of the education world, and have been applied in larger districts. It is key to the success of rural schools, and the greater world of education, that rural schools continue to innovate in the future.

The differences in school size can have an impact on the students themselves. Rural students are shown to be more satisfied with their education when compared to students in urban settings. Reasons included teachers being more supportive and the fact that the students felt safer (Young, 1998; Zhang, Musu-Gillette, & Oudekerk, 2015). Safety in small schools, where teachers and students know each other well and students have more opportunity for a sense of ownership in their community is an important strength that has been noticed by society (Harmon, 2001).

Strong school-community relations are another important part of the success of a rural school district (MI SBE, 2013). A traditional African proverb states that it takes a village to raise a child. Modern literature reflects the importance of this ideal (Arnold et al., 2005; Fiore, 2011; Gestwicki, 2015; Gibbs, 2000). Bauch (2001) argued that an “advantage for rural school communities is their close connections with the surrounding community” (p. 211), and this “school-community partnership” will help these school

districts succeed (p. 205). The need to get the community involved in the local school, and the subsequent “community capital” that is built that can help a school thrive, has been important throughout history (Gibbs, 2000; Hanifan, 1916; Harmon, 2001)

Schools are vital to their rural communities as well. This has been well documented throughout history (Hanifan, 1916). They tend to be the community centers, often serving as a key source of social activity. They are also important financially, with the school often being the largest employer in the area (Bard et al., 2006). The importance of the school to a rural area can possibly be summed up by the statement “to lose the school is to lose the community” (Mathis, 2003).

With innovations in technology, and the strengths that rural schools have, students have the potential to succeed in life both today and in the future, “regardless of geographic location” (Harmon, 2001, p. 14).

Effective leadership and staff

Effective leadership is key to the success of a school district. Administrators often have more responsibilities or “hats” in a small district, as compared to a large district, due to the fact that there are typically less administrators in the smaller district. Critical issues for “managing and running small rural school districts are finances, regional economic conditions, state regulations, salaries, and providing an adequate variety of classes” (Harmon, 2001, p. 11).

Leading in a rural district can be one of the most difficult jobs in education. Compensation tends to be less and there is greater visibility in the community (Arnold, 2004). According to research, the “greatest turnover among superintendents occurs

among the smallest districts, those with fewer than 300 students” (Harmon, 2001, p. 11), due to issues such as political conflict, insufficient employment contract provisions, internal and external pressures from stakeholders, and fiscal stressors (Tekniepe, 2015). Navigating these challenges, based on an attitude and work ethic where “obligations and commitments [must] be met, regardless of obstacles” (Sergiovanni, 2013, p. 373), is key to effective rural leadership (Forner, Bierlein-Palmer, & Reeves, 2012; Tekniepe, 2015).

Successful leaders in these rural districts must find ways to build connections with the community (MI SBE, 2013). This is key to the future of rural areas. Harmon (2001) states, “Leading rural schools and school systems in ways that contribute to community and economic development appear essential for sustaining a prosperous school and community in much of rural America” (p. 11).

Effective leaders in rural districts must develop and implement a culture that is based on a shared vision of learning for all. The *MI Standards for the Preparation of Central Office Administrators* (MI SBE, 2013) refer to a “distributed leadership”, where there is a “shared responsibility and mutual accountability toward a common goal or goals for the good of an organization” (Arnold, 2004, p. 5). Leaders often serve as constructivists, which is defined by Lambert et al. (2002) as “the reciprocal processes that enable participants in an educational community to construct meanings that lead toward a common purpose of schooling” (p. viii). Constructivist leadership is based on “adults in a community (working) together to construct meaning and knowledge” (p. 32). Tschannen-Moran (2013) discusses the importance of trust and leadership, stating that “trustworthy leadership gets everyone on the same team, pulling in the same direction” (p. 49), and that communities that are supportive and trustworthy are necessary to help solve the

complex issues regarding schooling in today's world (p. 40). Leaders that trust their staff helps increase professionalism in the staff (Tschannen-Moran, 2009), which is a key component of distributed leadership. Kouzes and Posner (2007) bring the discussion of relationships forward as well, stating "success in leading will be wholly dependent upon the capacity to build and sustain those human relationships that enable people to get extraordinary things done on a regular basis" (p. 71). These humanistic values are key to the success of a rural school district.

The staff of a school district is vital to its success as well. On average, rural teachers tend to have better morale in their careers. This may be due to several reasons, including the autonomy and influence over school policy in a team approach that is often part of a smaller school. As a result, these teachers tend to be "more satisfied with their work environments and are more active in their local communities" (Gibbs, 2000, para. 15). Strong cultures based on learning build effective schools.

Relevance

Rural school districts are vital to the education of a population of our youth, and the tools that are needed for their success need to be brought to the forefront. Much has been written about schooling in the cities of our state and nation, but there is less literature concerning rural education. This does not mean that it is any less important. Education Week (2011) writes "The plight of inner-city schools has long garnered attention among education reformers. But rural schools, and the large chunk of the nation's students who attend them, face challenges every bit as daunting as their urban counterparts" (para. 1). According to Beeson and Strange (2003), "Rural America has

gone unnoticed for too long. Its people are real, their problems significant, and their prospects worthy” (p. 3). This study will investigate these rural school districts and how they continue to serve their students.

CHAPTER 3: METHODS

The methodological design for this research project is outlined in detail including the study sites and why they were chosen, as well as a description of the collection and analysis of quantitative and qualitative data for the research questions involving school finance and meeting the needs of students.

Seven rural school districts in the Upper Peninsula of Michigan were part of the study. School districts were chosen based on their total number of students in grades kindergarten through twelfth grade and their rural location. School district data, in addition to interviews of administrators, provided information for the case study. Characteristics of effective financial and resource management were analyzed to further understand what it takes to keep rural districts working. Information regarding student stakeholders and how their needs are being met was also analyzed.

The research site consisted of a small rural K-12 school district in each of the Intermediate School Districts (ISDs) in the Upper Peninsula of Michigan (Table 2). This included the school and the greater community that they serve. Including a school district from each of the respective ISDs helped provide a big picture view of the education in the Upper Peninsula of Michigan. Confidentiality of the superintendents and their school districts was maintained in the research study. Access to these sites was gained by contacting the district superintendents and inviting them to participate in the study, upon which consent was secured through a prepared consent document (Appendix B).

Table 2: Research sites: K-12 Districts (numbered for confidentiality) and their Intermediate School District

School District	Intermediate School District
School District #1	Copper Country ISD
School District #2	Delta-Schoolcraft ISD
School District #3	Menominee ISD
School District #4	Dickinson-Iron ISD
School District #5	Marquette-Alger RESA
School District #6	Gogebic-Ontonagon ISD
School District #7	Eastern Upper Peninsula ISD

A mixed methods design, including quantitative and qualitative data, was used to better understand the research questions (Creswell, 2012). School district data was collected for each of the study sites. All public school districts and intermediate school districts must report certain financial information through Michigan law (MDE, 2017). The most recent annual operating budget available on the school’s website was reviewed for each study site. The most recent personnel expenditures including salaries/wages, employee benefit costs, retirement benefit costs, and all other personnel costs were also reviewed. The most recent district expenditures including instruction, support services, business and administration, and operations/maintenance were also reviewed. Additional information regarding the study sites and the students they serve was reviewed using the Michigan School Data site (MI CEPI, 2017). District financial transparency reports including general fund summaries, pupil full-time equivalencies, and financial indicators were reviewed. Student count trends, student outcomes, culture of learning, and value for money were also reviewed.

Interviews with administrators of the participating school districts were conducted, in a one-to-one style. Interviews were open-ended, consisting of a series of questions that focused on the two main research questions, along with probing questions based on the interviewee responses (Appendix C; Creswell, 2012). The interviews were recorded using audio-recordings and written notes and averaged 1.25 hours.

To analyze the first research question addressing the school district's budget, quantitative data including school district data and financial information was collected. Qualitative data including interviews with administrators were also used. To analyze the second research question regarding districts meeting the needs of all students, quantitative data including student outcome data was collected. The data was collected through the superintendent and/or through public resources. Qualitative data including interviews with administrators was also used. A balance of quantitative and qualitative data provided a deeper understanding of the research questions.

To analyze the quantitative research, the data was organized and scored, with appropriate statistical tests applied. To analyze the qualitative data, the interviews were organized and transcribed by the researcher. The data was coded using a first and second cycle process to determine themes (Creswell, 2012; Saldana, 2009). This was done simultaneously in a convergent design analysis (Creswell, 2012).

The analysis of the quantitative and qualitative data was used to better understand how the small rural school districts continue to survive and thrive. The hope is that this knowledge will help other small rural school districts as well.

CHAPTER 4: RESULTS

To help address the research questions regarding school finances and meeting the needs of students, both quantitative and qualitative data were gathered and analyzed. This section describes the data sets regarding each research question.

Finances

The seven Upper Peninsula of Michigan school districts faced similar issues when it came to finances. While each of the school districts currently hold a positive fund balance, the financial health of a school district is dependent on several factors. A combination of quantitative and qualitative data was used to better understand how small rural districts balance their budgets in today's world of education.

Quantitative financial data included each of the respective school district's revenue, expenditures, fund balance, years in deficit, pupil full-time equivalent (FTE) count, resident pupils leaving, non-resident pupils coming, and fund balance change from the previous year (MI CEPI, 2017). Revenue and expenditures, along with the fund balance, looked at the general fund for each of the districts. Whether or not a district was in deficit, and the number of years that it was, was recorded. An FTE is the proportion of a student's instruction supported by the school district. A student that attends a district full-time would be considered to have a FTE of 1.0. Resident pupils leaving is defined as the number of students (by FTE) that reside within the school district that attend a different school. Likewise, non-resident pupils coming is defined as the number of

students from outside the school district (by FTE) that attend the school district. The changes in fund balance from year to year was reported as a percentage (MI CEPI, 2017).

The Michigan Center for Educational Performance and Information (CEPI) (2017) looks at several additional financial indicators including current ratio, operating margin, debt service coverage ratio, days with cash on hand, fund balance as a percentage of revenue and expenditure, revenue/expenditure ratio, enrollment trend, and compensation costs for staff FTE. The current ratio indicator divides a school district's current assets by their liabilities, with a higher ratio indicating that a school district has a higher likelihood of being able to pay off debt. The operating margin looks at how much of a district's outcome is leftover after expenses, and is calculated by subtracting the district's expenditures from its revenues and dividing the result by the revenue. Positive numbers indicate that a district's income exceeded their costs for the year, with negative numbers indicating that costs exceeded income. The debt service ratio indicator looks at the susceptibility of a district not being able to pay off their debt. It is calculated by dividing the debt service (amount of principal and interest a district pays) by the district's revenue. High ratios indicate that a district may have taken on too much debt, or that they are paying off their debt quickly. Low ratios indicate that a district can pay for much of its capital projects through the operating budget and does not have to incur much debt, or that the district has deferred capital projects. Days of cash on hand is calculated by dividing cash and investments by cash expenses per day, with a higher number showing a district's greater ability to withstand unplanned costs. The fund balance as a percent of revenue is calculated by dividing the fund balance by the general fund revenues, with a higher number indicating a higher reserve to cover expenses. The fund balance as percent

of expenditures is calculated by dividing the fund balance by the general fund expenditures, with a higher number also indicating a higher reserve to cover expenses. The revenue/expenditure ratio is a three-year average, and is calculated by dividing the school district's total revenue by total expenditures, with higher values indicating income exceeding spending. The enrollment trend indicates whether student enrollment (by FTE) has increased or decreased and is indicative of a school district's revenue base. Compensation costs per staff FTE is calculated by adding salaries and benefits (compensation) and dividing by the number of staff (MI CEPI, 2017).

The financial data and indicators for each of the seven school districts were reviewed (Table 3). The seven school districts had an average fund balance of \$463,313 (St Dev = \$336,088) in the 2015-2016 school year. School District #2 had the lowest fund balance with \$98,600 and School District #7 had the highest with \$975,106. The Michigan School Business Officials (2017) recommend that a school district maintain a 15-20% fund balance. Three of the seven school districts met this recommendation (School Districts #5, 6, and 7). In the 2015-2016 school year, four of the districts experienced a loss in their fund balance (School Districts #2, 3, 5, and 6). Only one of the schools has faced a year of deficit in the last five years (School District #4). The average current ratio was 3.88 (St Dev = 4.78), with four of the school districts equal to or less than 2.0 (School Districts #1, 2, 3, and 4). Debt service ratios averaged at 13.41 (St Dev = 6.73), with the two lowest districts at 6.1 (School Districts #3 and 7). The average number of days that the seven school districts had cash on hand was 103.06 (St Dev = 104.03), with five districts under 82 days and the lowest district (#1) with 14.48 days. The ratio of revenue to expenditure was positive for all seven districts, with an average of

1.01 (St Dev = 0.13). The enrollment trend was negative for all but two of the school districts (#3 and 5) with the lowest being -36.21% (District #7). Compensation costs per staff FTE ranged from a high of 10.85% (School District #1) to a low of -11.98% (District #7).

Table 3: Financial data and indicators for K-12 Districts

<i>School District</i>	#1	#2	#3	#4	#5	#6	#7
<i>School Year</i>	2015-2016	2015-2016	2015-2016	2015-2016	2015-2016	2015-2016	2015-2016
<i>Revenue</i>	\$2,334,425	\$2,059,120	\$3,626,025	\$2,587,230	\$2,460,889	\$3,202,919	\$1,333,984
<i>Expenditures</i>	\$2,310,615	\$2,060,847	\$3,689,238	\$2,574,985	\$2,738,234	\$3,535,005	\$1,042,057
<i>Fund Balance</i>	\$244,103	\$98,600	\$396,042	\$135,481	\$779,322	\$614,540	\$975,106
<i>Years in Deficit</i>	0	0	0	0	0	0	0
<i>Pupil FTE Count</i>	257.3	187.7	366.3	275.7	139.6	147.9	15.3
<i>Resident Pupils Leaving</i>	131.5	68.2	98.1	32.7	42.4	2.3	9
<i>Non-Resident Pupils Coming</i>	57.1	45	52	29	15	14	4
<i>Current Ratio</i>	2	1.13	1.42	1.4	3.88	2.82	14.5
<i>Fund Balance Change</i>	10.81%	-1.72%	-13.76%	9.94%	-26.25%	-35.08%	42.73%
<i>Operating Margin</i>	2.59%	4.31%	0.07%	0.60%	-9.76%	-4.83%	25.63%
<i>Debt Service Coverage Ratio</i>	12.19	22.69	6.1	NA	18.98	14.4	6.1
<i>Days Cash on Hand</i>	14.48	77.57	69.25	31.9	121.05	81.76	325.43
<i>Fund Balance as % of Revenue</i>	10.46%	4.79%	10.92%	5.24%	31.67%	19.19%	73.10%
<i>Fund Balance as % of Expenditure</i>	11.21%	5.17%	11.06%	5.29%	32.29%	18.87%	113.25%
<i>Revenue/Expenditure Ratio</i>	1.01	1	0.98	1	0.9	0.91	1.28
<i>Enrollment Trend</i>	-1.00%	-11.22%	0.23%	-2.99%	1.48%	-6.91%	-36.21%
<i>Compensation costs per Staff FTE</i>	10.85%	2.36%	-4.29%	3.92%	4.22%	0.15%	-11.98%

The qualitative financial data was based on the interviews of administrators at each of the seven school districts. Themes that developed out of the interviews included (1) financial struggles, (2) unpredictable funding, (3) autonomy and local control, (4) uniqueness of the Upper Peninsula, (5) strategies, (6) strengths of small rural schools, (7) collaboration, and (8) community.

A majority of the school districts studied discussed struggling with finances (School Districts #1, 2, 3, and 4). School district #6 stated that they were in good shape financially while school district #7 stated that they were in moderate financial shape. As expected, there was a connection between the school's financial indicators and the feelings that they expressed in the interview. The majority of the school districts did seem to keep coming back to this theme of financial struggles throughout the interview, which sheds light on the importance of school finance to the success of small rural schools.

Directly related to finances, the theme of unpredictable school funding developed in each of the interviews. School funding is significantly impacted by the Federal and State governments. With ever-shifting political and financial environments, school funding has the opportunity to change often. This has direct impacts on the roles of administrators and the school districts that they help serve.

A desire for autonomy and local control was a strong theme in several of the interviews. Several of the administrators kept coming back to this, as they discussed state politics and the financial environment that schools face. The desire to have more control over their own situation when it came to finance, including being able to count on their own communities for financial support, came through in the discussions with the administrators.

Stemming off the theme of local control was a discussion of the uniqueness of the Upper Peninsula. This uniqueness was related to the state of Michigan as a whole, and the dichotomy that we have in the state with regards to population density. This was brought up throughout the financial discussions including points about inequity and a difference in political influence between the different parts of the state.

The administrators all discussed strategies that they have used when it comes to school finance. Discussions about being proactive, being efficient, continually looking for cost savings, balancing wants and needs, and maintaining sustainability were addressed in the interviews. These strategies have helped the administrators and the school districts they serve to navigate the changing financial environments that we have experienced in Michigan.

The strengths of small rural schools also developed as a theme in the interviews. Strengths included discussions around school culture, importance in today's society, quality learning environments, and involvement of staff and community. The administrators proudly discussed these strengths, which served as an important contrast to some of the other themes that developed.

Collaboration was another theme that developed in the interviews. The people of the Upper Peninsula have traditionally had to work together to survive in changing financial environments. Counting on help from the Intermediate School District that helps govern the local district, as well as support from local government and community groups, were examples of this collaboration.

Finally, the importance of the local community developed as a theme and was apparent in each of the interviews. The importance of the school to the community and the community to the

school rings true with rural school districts. Discussions related to school pride and community support contributed to this theme.

Meeting the needs of students

The seven school districts also faced similar issues with regards to meeting the needs of their students. Strong relationships and knowing individual students helps small school rural districts meet the needs of their student stakeholders. This is in balance with some of the challenges that small rural districts face. A combination of quantitative and qualitative data was used to help understand how small rural districts meet the needs of their students.

Quantitative student needs data included student count trend, student outcomes, culture of learning, value for money, and salary data (MI CEPI, 2017). In regards to student outcomes, the data focused on the percentage of students proficient in English Language Arts at the end of the third grade, the percentage of students proficient in Math and English Language Arts in grades three through eighth, and the percentage of students proficient on the M-STEP (all subjects). Average SAT composite scores and percentages of SAT college readiness benchmarks were also included. Finally, the four year graduation rate and dropout rate was included. Data regarding the culture of learning included the percentage of free and reduced lunch participation by eligible students and the percentage of economically disadvantaged students. In respect to value for money, data included the number of districts with ongoing deficits for three consecutive years, general fund balance, average class size in grades kindergarten through third, and the total number of days of instruction provided. Finally, salary data was included for superintendents, principals, and teachers.

Declining enrollment is a reality in the Upper Peninsula of Michigan (Table 4). The average student count trend dropped by an average of 18% over the last 5 years in the seven school districts, with the highest drop at 63% (School District #7). Six of the seven school districts experienced a decline in student enrollment over the last 5 years, with the seventh (School District #5) maintaining the same number of students (MI CEPI, 2017).

Data related to student outcomes for the 2015-2016 school year was reviewed to better understand how each of the school districts were meeting the needs of their students (Table 5). The average percentage of students that were proficient in English Language Arts at the end of the third grade was 33.86%, with the highest school district at 85.70% (School District #3) and the two lowest districts at 0.00% (School District #5 and 7). The average percentage of students that were proficient in Math and Language Arts in grades three through eighth was 22.73%, with the highest district at 37.40% (School District #4) and the lowest district at 4.80% (School District #5). The average percentage of students that were proficient on the M-STEP in all subjects was 26.83%, with the highest school district at 42.10% (School District #1) and lowest school district at 12.50% (School District #6). The average SAT composite score for the seven school districts was a 959.20 (St. Dev = 90.58). An average of 30.43% of the students were ready for college according to the SAT College Readiness Benchmarks for the seven school districts, with the highest district showing 57.10% (School District #3) and the lowest district at 10.00% (School District #6). The average four year graduation rate was 84.04% for the seven school districts. The average dropout rate was 13.95% (MI CEPI, 2017).

Table 4: Student count trend for K-12 Districts

School Year	School District #1	School District #2	School District #3	School District #4	School District #5	School District #6	School District #7
<i>2015-16</i>	258	188	366	276	141	148	17
<i>2014-15</i>	264	212	373	283	138	159	24
<i>2013-14</i>	257	225	437	296	136	170	34
<i>2012-13</i>	270	231	466	301	136	176	46
<i>2011-12</i>	262	231	458	305	141	166	46

Table 5: Student outcomes, culture of learning, value for money, and salary data for K-12 Districts

School District	#1	#2	#3	#4	#5	#6	#7
<i>Students Proficient in English Language Arts at the End of Third Grade</i>	55.00%	12.50%	85.70%	58.80%	0.00%	25.00%	0.00%
<i>Students Proficient in Math and English Language Arts 3-8</i>	31.90%	12.50%	36.00%	37.40%	4.80%	15.10%	21.40%
<i>Students Proficient on M-STEP (in all subjects)</i>	42.10%	15.00%	21.40%	40.00%	30.00%	12.50%	N/A
<i>SAT Composite Score</i>	1065	919	1073.2	951.2	888	858.8	N/A
<i>SAT College Readiness Benchmarks</i>	45.00%	30.00%	57.10%	28.00%	10.00%	12.50%	N/A
<i>4 year Graduation Rate</i>	84.62%	78.95%	76.47%	>95%	85.71%	94.44%	<5%
<i>Dropout Rate</i>	<5%	15.79%	11.76%	<5%	14.29%	<5%	<5%
<i>Free and Reduced Lunch Participation by Eligible Students</i>	80.60%	76.80%	75.70%	75.10%	85.40%	84.20%	96.60%
<i>Economically Disadvantaged Students</i>	47.70%	55.30%	51.90%	42.80%	57.50%	69.60%	82.40%
<i>Districts with ongoing deficits for three consecutive years</i>	0	0	0	0	0	0	0
<i>General Fund Balance</i>	\$244,103.42	\$98,600.47	\$396,042.25	\$135,481.11	\$779,322.16	\$614,540.20	\$975,105.58
<i>Average Class Size K-3</i>	16.3	14.9	18.6	16.8	9.9	13.4	3.7
<i>Total number of days of instruction</i>	173	170	172	180	145	174	176
<i>Superintendent</i>	\$79,000.00	\$101,079.00	N/A	\$34,194.52	\$84,000.00	\$89,916.00	\$106,605.50
<i>Principals</i>	N/A	N/A	\$60,000.00	\$33,894.30	N/A	N/A	N/A
<i>Teachers Maximum</i>	\$59,120.65	\$63,196.70	\$49,843.62	\$57,914.00	\$66,539.11	\$75,704.14	\$59,768.24
<i>Teachers Average</i>	\$45,904.72	\$41,785.50	\$39,866.82	\$44,041.58	\$48,930.08	\$54,008.95	\$40,252.59
<i>Teachers Minimum</i>	\$32,038.26	\$31,124.24	\$25,213.68	\$28,850.08	\$34,291.39	\$25,747.06	\$32,250.03

Upper Peninsula residents have traditionally dealt with economic challenges, which literature shows can have an effect on the culture of learning. The average number of economically disadvantaged students in the seven school districts studied was 58.17%, with School District #7 facing the highest number at 82.40%. Schools can collect additional funding with populations of low socioeconomic status, but enrolling in the program is voluntary. In the seven school districts, a majority of the eligible students do sign up for the free and reduced lunch subsidy programs, with an average of 82.06% participating (MI CEPI, 2017).

The Michigan Center for Education Performance and Information (2017) looks at several characteristics of schools when determining value for money including the number of districts with ongoing deficits for three consecutive years, general fund balance, average class size in grades kindergarten through third, and the total number of days of instruction provided. None of the districts studied had faced a deficit in the last three years. One district (School District #4) was under a deficit five years ago. As discussed earlier, the average fund balance amongst the seven school districts was \$463,313.60 (St Dev = \$336,088) for the 2015-2016 school year. School District #2 had the lowest fund balance with \$98,600 and School District #7 had the highest with \$975,105.58. The average class size in grades kindergarten through third was 13.37 students, with the highest number being 18.6 (School District #3). The average number of days of instruction provided by the seven school districts was 170. The highest number of days of instruction was 180 (School District #4). The lowest number was 145, although this school district (#5) is under an alternative school calendar (MI CEPI, 2017).

Salary information is another way to look at the value for money in a school district. The average superintendent pay in the seven school districts was \$82,465.84. The average principal pay was \$46,947.15. There seemed to be some discrepancies in the administrative salary data with shared positions between superintendent and principal, which did occur in the seven school districts studied. The average teaching salary in the school districts studied was \$44,970.03. On average, the lowest paid teachers were in School District #3. The highest paid teachers were in School District #6.

The qualitative data regarding student needs were based on the interviews of administrators at each of the seven school districts. Themes that developed out of the interviews included (1) teacher shortage, (2) less options, (3) high populations of students that are economically disadvantaged, (4) strategies, (5) strengths of small rural schools, (6) collaboration, and (7) community.

Almost all of the administrators interviewed discussed concern over the teacher shortage that we are experiencing in today's world of education. Some expressed that the shortage had been a national issue in the past, but that it was starting to have a greater impact on the Upper Peninsula. In small rural districts, where it is often necessary that staff serve in multiple roles, this can have far-reaching impacts. Filling vacancies when teachers leave a school district has become a struggle. As a result, it is becoming increasingly difficult to ensure that quality teachers are in every classroom. The teacher shortage has affected how administrators, and the school districts that they serve, meet the needs of their students.

Administrators discussed struggling with having fewer options for students, specifically when it came to elective classes not required under Michigan's Merit

Curriculum. Limited staff and scheduling options in small rural schools had an effect on the number of electives that could be offered. As a result, students often experience fewer curriculum options. This can also apply to extracurricular opportunities, where limited numbers can subsequently reduce the number of options available.

Another theme that developed out of the interviews related to families and their socioeconomic status. Through history, the Upper Peninsula of Michigan has experienced a high percentage of citizens that are economically disadvantaged. Students can qualify for Free and Reduced lunch through the federal government, due to their economic status. Each of the school districts studied had at least 43% of their overall population qualifying for Free and Reduced lunch, with the highest percentage at 82.40% (School District #7). This data supports the idea that there is a high percentage of Upper Peninsula families that are economically disadvantaged. The impacts of this on schools include funding and resource allocations and effects on school culture. Each of the administrators discussed the importance of meeting the needs of these students in their school districts.

All of the administrators discussed strategies that they have used to meet the needs of their students. This theme included discussions of alternative scheduling and calendars, use of technology, being creative, and knowing what is best for each student. The administrators addressed the importance of using these strategies in order to best meet the needs of students in the potentially challenging environments that small rural schools face.

The strengths of small rural schools was a theme that developed in each of the interviews. Some of the strengths included knowing the students and what it is best for them, having the opportunity to build and sustain positive relationships, and maintaining

a caring learning environment for all. The administrators proudly discussed these strengths when sharing how they continue to try to meet the needs of their students.

Collaboration was another theme that developed in the interviews. As was the case in the discussions around finances, working together helped the school districts meet the needs of their students. All of the school districts studied used their respective Intermediate School Districts to maintain services that were necessary to meet the needs of all students. Small rural schools often do not have the numbers or funding to warrant full-time services, especially when related to Special Education and therapy services. Intermediate School Districts, along with collaboration from the local school districts, help to provide these services.

Finally, the local community and its importance to the school district developed as a theme when discussing how to meet the needs of students. As discussed with the data regarding finances, the importance of the school to the community and the community to the school rings true with rural school districts.

CHAPTER 5: DISCUSSION AND SUMMARY

Rural education is a challenging yet vital part of the educational structure of individual states and our nation. My research questions focused on two of the most important issues in education today: meeting the needs of students and balancing budgets in the process. The collection of quantitative and qualitative data brought forth in the results section allowed me to make connections that will be discussed further in this section. In the segment titled “To Survive”, I will start with the challenges of rural education and how the challenges affect the school districts that face them. I will then look at strategies for dealing with the challenges. Finally, in a segment titled “To Thrive”, I will look at the strengths of rural education and how school districts may continue to thrive both today, and in the future.

To Survive

Small rural school districts have faced challenges throughout their history. The school districts that I studied continue to face some of these same difficulties. Financial struggles and unpredictable funding were the main challenges surfacing in this research in regards to school finance and the actions that school leaders take to maintain balanced budgets. Teacher shortages, fewer options for students, and high populations of students that are economically disadvantaged posed as the main challenges in relation to how school leaders meet the needs of their students. These issues affect rural school districts and are important to address.

Five out of the seven school districts (School Districts #1, 2, 3, 4, and 6) studied are under the current Michigan funding formula, which is based on the number of students in the district. Each of the administrators charged with leading these school districts under the current per-pupil formula discussed challenges with balancing their school district's budget. Four of the school districts (School Districts #1, 2, 3, and 4) complained of struggling with finances. The fifth (School District #6) stated that they were doing OK with their finances. With that said, School District #6 is somewhat unique, receiving additional local and federal dollars due to the fact that it is located on an American Indian Reservation and surrounded by a large tract of National Forest.

Of the five school districts, the average fund balance was \$297,753, which is an average of 10% of the school districts' annual revenue. Removing School District #6, which receives additional funding due to several unique circumstances, the average fund balance drops to \$218,557, which averages to 8% of the school districts' annual revenue. With the recommendations from the Michigan School Business Officials (2017) that a school district maintain a 15-20% fund balance, all of the school districts under Michigan's per-pupil funding rate, other than School District #6 with its unique funding opportunities, did not meet this recommendation.

Per-pupil funding is a challenge for rural school districts. All but one of the school districts studied has experienced a loss in the number of students over the last five years (School District #5 maintained the same number of students). Declining enrollment is an ongoing concern in the Upper Peninsula of Michigan and is part of a bigger issue of a declining Upper Peninsula population. Less students ultimately means less funding. One school leader summed it up, stating, "you lose revenue because the number of

students decline, but that doesn't allow you to stop offering a core class that's required for graduation. It costs the same to turn on the lights whether you have 10 kids or 20 kids" (School District #6).

Concerns about school finance are only exasperated by a feeling that the school funding rates in Michigan are unpredictable. Each of the administrators of the rural school districts expressed consternation with statements like "we're a cat chasing our tail with funding, because you never know" (School District #1) and "the way it's set up with what the state has done, what the federal government has done...you just never know" (School District #6), and "That's scary because every four years it's going to change. It depends on elections...it depends on who gets a bug up their rear at times...that think privatization or charter schools are the way to go...small public schools like we have are going to struggle" (School District #7).

The importance of being proactive when running a school district was voiced by each of the school leaders. With that said, administrators in small rural schools often have to serve in multiple roles, which can create a challenge when it comes to balancing the day-to-day actions of different positions. Of the seven school leaders involved in the study, only one served solely as the Superintendent of their respective school district (School District #6). The leader of School District #2 served as the Superintendent of two school districts. The other five leaders (School Districts #1, 3, 4, 5, and 7) served as both Superintendent and Principal of their respective school districts. The school leaders that served in dual roles discussed the importance of balance, including the sometimes reactive roles of a Principal with issues such as discipline and the necessary proactive roles of serving as a Superintendent. Each of the school leaders in the study demonstrated

the importance of a strong work ethic and determination that is necessary to run a quality school district.

To illustrate some of the inequities of funding across Michigan schools, two of the school districts studied (School District #5 and 7) are considered “out of formula” where local property taxes are higher than the state’s foundation. These out of formula districts do not adhere to Michigan’s per pupil funding. The two school districts’ average fund balance was \$877,214, which averaged to 52% of the school districts’ revenue. This is well above the recommended 15-20% fund balance from the Michigan School Business Officials (2017). The administrators of these two school districts discussed having more flexibility than most schools due to additional finances.

With respect to the financial challenges that many school districts face, meeting the needs of each student is still vital. This can also be a challenge in small rural school districts. Each of the administrators discussed the teacher shortage that we are currently facing in this country. Sentiments included “now you can’t get a person in some of these areas. Forget a good person, you can’t get a qualified person” (School District #5) and “that teacher shortage has been brutal” (School District #3). The teacher shortage has spanned across grade levels and subject areas and has the potential to have long lasting effects on students and the world of education.

Small rural districts often cannot offer as many academic and extracurricular options as a larger district, or a small district located in a suburban or urban area. This can have impacts on how the needs of students are being met and is a concern of the administrators that were interviewed. One school leader stated, “The gray matter is not any less, it’s what we’re not able to expose them to as rural communities, and it’s that

loss, it's that great loss of the classes and offerings that simply don't exist in rural districts" (School District #4). The leader went on to qualify the statement with "Yet, we're still turning out students who are getting phenomenal scholarships and their education is not any less" (School District #4). With the potential for fewer options, it is important to maintain high expectations and a caring environment based on learning and growth for all of our rural students.

The average percentage of students that are economically disadvantaged in the school districts was 58.17%. Two of the school districts (School District #6 and 7) had percentages of 69.60% and 82.40%, respectively. This is higher than the state average of 46.30% (MI CEPI, 2017). High numbers of students that are economically disadvantaged can be a challenge to a school district's resources. There are some programs available from the state and federal governments, but financial investments often carry over to the local school district. As one school leader pointed out, "it still costs. It's not a money maker. This whole Free and Reduced thing is not what the people think it is" (School District #3). Another leader went on to discuss the challenges of meeting the needs of students where education is not always a priority. "It's really difficult, not only for them to have stability, but then to have their needs met" (School District #2). Despite the challenges, it is vital to continue to educate these students. As one school leader pointed out, "the only way to break that cycle of low socioeconomic status is to educate the kids" (School District #4).

Many of the school district administrators expressed a desire for more autonomy when leading their school districts. These sentiments applied to both of the research questions involving finances and meeting the needs of students. More flexibility on

curriculum and local control of money, including the generation of funds, was desired. Currently, bonds and sinking funds are available for school districts to levy, but they are limited in how much money can be generated and what the money can be spent on. One school leader was direct in their thoughts, stating “Let us do our jobs educating our kids, we know what’s best for our kids, we’re a small school. I know every single one of my students by name.” They went on to state, “I feel personally that if we had more local control, our districts would be thriving” (School District #4).

Some of the desire for more local control was due to a general feeling that the Upper Peninsula of Michigan was unique from the rest of the state. An administrator who had worked in schools in the Upper and Lower Peninsulas of Michigan shared “things that affect us here do not affect schools downstate very often” (School District #1). Declining enrollment is an issue statewide, but rings especially true in the Upper Peninsula. With pupil counts dictating school funding in most schools, this is a concern. One school leader stated, “why don’t you unplug the UP from the formulas they use down there” (School District #3). Curriculum regulations also pose a challenge to small rural schools. Finding teachers that are highly qualified in the current teacher shortage only seems to exasperate the issue.

Despite the challenges, small rural schools continue to survive in the Upper Peninsula of Michigan. With effective leadership and staff, and the support of local agencies and communities, these schools can go beyond survival mode, and truly thrive.

To Thrive

All of the school leaders shared strategies that they use to balance budgets and meet the needs of their students. Regarding finances, every one of the administrators were adamant about the importance of being proactive. Balancing wants and needs with an eye for efficiency and sustainability is key. The three school districts (School Districts #5, 6, and 7) that were stronger financially still expressed the significance of maintaining an “austere program” (School District #6) where one lives within their means. The school districts that admitted to struggling with finances (School Districts #1, 2, 3, and 4) discussed multiple strategies. Bonds and sinking funds were discussed and in place by most of the school districts. While limited in what they can be spent on, reallocation of funds due to the passage of bonds and sinking funds can provide relief for the school district’s general fund. Another strategy involved personnel. Every time a person left the district, the leaders would reorganize the staff to see if roles could be transferred and absorbed. If someone did have to be hired, qualified staff that could be brought in at a lower rate, most likely due to less experience, were often sought after. Certifications were reviewed to see if new hires could work under multiple roles, which could help with curriculum issues and meeting the needs of students. One of the schools (School District #5) is on an alternative school calendar, offering school four days a week. This move was made to save costs and has shown to have helped the district maintain a balanced budget since its inception. Purchases were made with an eye towards efficiency, including resource and energy use. Any cost savings, no matter how small, were sought out. It required effective leaders that were intentional about maintaining balanced budgets.

Meeting the needs of students in small rural schools required strategic leadership as well. The need for creativity was discussed by each of the school leaders. Michigan requires a certain curriculum for graduation under the Michigan Merit Curriculum. While it can be argued that the standardized Michigan Merit Curriculum maintains high expectations for Michigan students, it can pose challenges to small rural districts. Offering the required classes, with an ample number of elective classes, requires strategic scheduling and use of staff. Two of the school districts in the study (School Districts #1 and 3) are on a trimester schedule at the middle and high school level, which the school leaders say allows them to offer more elective classes. Technology is discussed as a strategy by each of the school leaders as well. Online and interactive TV (ITV) programs are being used to create additional opportunities for students, including electives and dual-enrollment options. These strategies help school leaders serving small rural school districts meet the needs of their students.

Each of the school leaders in the study proudly expressed the strengths of small rural schools. This theme was embedded throughout the interviews, especially ringing true in the discussions involving meeting the needs of students. The biggest advantage involved the connections that develop between students and staff. Statements included “the advantage is students know their teachers, teachers know their students” (School District #1) and “every single kid in our building has a special bond with an adult in this building” (School District #4). These positive connections help small rural schools meet the needs of all of their students. As one school leader stated, “the individual attention that comes with a school district this size and knowing the strengths and deficiencies of all of your kids is a big plus” (School District #5). Another went on to say, “you can meet

the needs of students that are in need quicker, and probably recognize them quicker in a smaller district” (School District #6). These connections are a strength of small rural school districts. One school leader adamantly stated, “bigger is not better, that’s why I choose to be where I am” (School District #2).

Collaboration is an important part of a small rural school district that operates efficiently and effectively. The respective Intermediate School District (ISD) served a vital role in a majority of the school districts studied. This was brought up in the budget discussions in regards to advocating for school funding, “we have a strong ISD here, and we have strong Superintendent leaders, and Principal leaders here. So we’ve all grouped together, because there’s more strength in numbers” (School District #6). It was also brought up when discussing shared services, such as financial and technology support. The ISDs also served as a major support for the school districts trying to meet the needs of their students. Small rural schools often do not have the numbers or funding to warrant some necessary supports such as therapy services. The ISDs help to fill these roles. As one school leader stated, “The ISD, they serve a good purpose...and there’s always talk just in the last year, that seeing them gone, and that would be a mistake, especially up here, because they provide all the districts up here with a really good service” (School District #6). Another example of collaboration is with local government and community groups, which help support the school. A school leader summed it up stating, “it takes a village” (School District #1).

The importance of the school to the community and the community to the school is especially true in rural areas. This is an important aspect that school districts must foster. When facing potential cuts, one school leader shared that it was a “huge change

for community members, but they'll do anything to keep their schools" (School District #2). Pride in the local school district was a strength of rural communities. The importance of the school to the local community rang true throughout the interviews as well. This was mentioned in conversations related to potential consolidation, and the drive to maintain a school in the community. One school leader stated, "in small areas the school needs to act not only as the school, but as the community center" (School District #7). Another leader summed it up with "if you lose the school in a community, you lose the community" (School District #3).

School districts must be intentional in their actions to thrive both today, and in the future. With the challenges that small rural districts often face, collaboration and a focus on the local community, along with the proud display of the strengths of these districts, is key.

Future Research and Dissemination

Through this research, I have been able to evaluate the struggles that small rural schools are facing. I have also been able to review the strategies that school leaders, and the districts they serve, are using to help their schools survive and thrive. Even with the intentional use of strategies, as well as counting on the strengths of rural education, seeking additional solutions through research to address the struggles that were discussed in the study should still be pursued. Future research on rural education could continue to look at connections between small rural school districts in other areas of Michigan and the country, as well as continue the process of identifying and subsequent disseminating of solutions to the issues that these districts face.

One possible solution is to continue to take action in the world of education and the communities that school districts serve. The dissemination of this research is an important part of instituting positive change. I plan on sharing this research with representative stakeholders including those in the education, business, and government sectors, in an effort to help stimulate and sustain collaboration and advocacy for rural school districts. It is through intentional action that rural school districts, and the communities they serve, will continue to thrive.

Conclusion

Small rural schools face challenges and embrace strengths with a commonality that was supported by the themes that I discovered in my research. When analyzing how school leaders balance their school district budgets, my results show that school leaders often have to grapple with financial struggles and unpredictable funding. They express a desire for more autonomy and local control, in part due to the uniqueness of the Upper Peninsula of Michigan. The school leaders use multiple strategies to maintain balanced budgets, often counting on the strengths of small rural schools, collaboration, and the local community to help.

When analyzing how school leaders meet the needs of their students, my results show that a shortage of teachers, less options in small rural schools, and high populations of students that are economically disadvantaged propose challenges to school leaders and the small rural districts that they serve. Multiple strategies are used to meet the needs of students, again with school leaders counting on the strengths of small rural schools, collaboration, and the local community as supports.

My study did have certain limitations that must be kept in mind when applying conclusions to other districts, especially those in other states. Like most research situations, my results could have been unique to the seven school districts that I studied. Funding formulas and curriculum guidelines do vary between states. With that said, many of the conclusions could likely be applied to small rural school districts across the nation.

In conclusion, small rural schools are surviving, and with quality leadership, will continue to thrive. With that said, advocacy for rural education is increasingly important in today's dynamic educational environment. It is through those that are passionately serving these small rural districts, and the benefits of further research, that we may continue to learn more about how to sustain and advocate for the importance of rural schools and rural communities, and our part in the sustainability of both.

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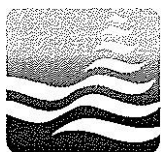
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APPENDIX A

IRB Approval



Northern
Michigan University

Memorandum

Office of Graduate Education and Research
1401 Presque Isle Avenue
Marquette, MI 49855-5301
906-227-2300 FAX: 906-227-2315

Web site:
www.nmu.edu

TO:

Erich Ziegler
Education, Leadership, and Public Service

CC:

Bethney Bergh
Education, Leadership, and Public Service

DATE:

July 13, 2016

FROM:

Rob Winn, Ph.D.
Interim Assistant Provost/IRB Administrator

A handwritten signature in black ink, appearing to read "RW".

SUBJECT:

IRB Proposal HS 16-776
IRB Approval Dates: 7/13/2016-7/13/2017**
Proposed Project Dates: 7/13/2016-7/13/2017
"The Rural School District: To Survive and Thrive. A look at schools in the Upper Peninsula of MI and how they serve their communities today and in the future".

The Institutional Review Board (IRB) has reviewed your proposal and has given it final approval. To maintain permission from the Federal government to use human subjects in research, certain reporting processes are required.

- A. You must include the statement "Approved by IRB: Project # HS 16-776" on all research materials you distribute, as well as on any correspondence concerning this project.
- B. If a subject suffers an injury during research, or if there is an incident of non-compliance with IRB policies and procedures, you must take immediate action to assist the subject and notify the IRB chair (dereande@nmu.edu) and NMU's IRB administrator (rwinn@nmu.edu) within 48 hours.
Additionally, you must complete an Unanticipated Problem or Adverse Event Form for Research Involving Human Subjects
- C. Please remember that informed consent is a process beginning with a description of the project and insurance of participant understanding. Informed consent must continue throughout the project via a dialogue between the researcher and research participant.

- D. If you find that modifications of methods or procedures are necessary, you must submit a Project Modification Form for Research Involving Human Subjects before collecting data.
- E. If you complete your project within 12 months from the date of your approval notification, you must submit a Project Completion Form for Research Involving Human Subjects. If you do not complete your project within 12 months from the date of your approval notification, you must submit a Project Renewal Form for Research Involving Human Subjects. You may apply for a one-year project renewal up to four times.

NOTE: Failure to submit a Project Completion Form or Project Renewal Form within 12 months from the date of your approval notification will result in a suspension of Human Subjects Research privileges for all investigators listed on the application until the form is submitted and approved.

All forms can be found at the NMU Grants and Research website:
<http://www.nmu.edu/grantsandresearch/node/102>

APPENDIX B

Informed Consent Letter

Date:

Inside Address

Dear :

I am writing to invite you to participate in a research study. The purpose of the study is to examine small rural school districts in the Upper Peninsula of Michigan, in order to better understand how they serve their local communities, both today and in tomorrow's evolving world. This exploration may help districts, and those that contribute to their operation, both in the local region as well as other rural areas, continue to not only succeed, but to thrive.

Seven rural school districts in the Upper Peninsula of Michigan will be part of the study. School district data, in addition to interviews of administrators will provide information for the study. Characteristics of effective financial and resource management will be analyzed to further understand what it takes to keep districts working. An exploration of how student's needs are being met by the district will also be done.

I am inviting you to be in this study because you are a Superintendent at one of the rural districts that meets the criteria of being in the study. Approximately seven people will take part in this study at Northern Michigan University.

If you agree to participate, I would like you to participate in an interview. Interviews will be recorded for research purposes. I will plan on asking questions that help me answer the following two research questions:

1. What actions do superintendents of small, rural schools in Michigan's Upper Peninsula take to maintain balanced budgets?
2. How do superintendents of small, rural schools in Michigan's Upper Peninsula meet the needs of all students?

Interviews will take up to one hour of your time.

We will keep the information you provide confidential; however, federal regulatory agencies and the Northern Michigan University Institutional Review Board (a committee that reviews and approves research studies) may inspect and copy records pertaining to this research. I will not reveal your name in any documentation, but it is possible that your identity could be ascertained.

You will be asked to share your experiences in leading small, rural districts in the Upper Peninsula. Some of your experiences may include challenges, which could cause some apprehension. Also, because the participants represent small schools in the Upper Peninsula, your identity may be discerned. Numbers will be assigned to participant names and districts to help protect your identity.

You will not benefit personally from the study. However we hope that others may benefit in the future from what we learn as a result of this study.

There will be no costs for participating in the study, other than your time.

You will not be paid for being in this research study.

Taking part in this research study is completely voluntary. If you decide not to be in this study, or if you stop participating at any time, you won't be penalized or lose any benefits for which you otherwise qualify.

If you have any further questions regarding your rights as a participant in a research project you may contact Dr. Robert Winn, IRB Administrator, at rwinn@nmu.edu. Any questions you have regarding the nature of this research project will be answered by the principal researcher who can be contacted as follows: Erich Ziegler, at (906-284-0625) or eziegler@nmu.edu.

I have read the above "Informed Consent Statement." The nature, risks, demands, and benefits of the project have been explained to me. I understand that I may ask questions and that I am free to withdraw from the project at any time without incurring ill will or negative consequences. I also understand that this informed consent document will be kept separate from the data collected in this project to maintain anonymity (confidentiality). Access to this document is restricted to the principle investigators.

Subject's Signature

Date

Thank you very much for your consideration.

Sincerely,

Erich Ziegler

Education Specialist Student, Northern Michigan University

Approved by IRB: Project # HS16-776

APPENDIX C

Interview Protocol

The Rural School District: To Survive and Thrive

Erich Ziegler, NMU Ed.S.

Qualitative Data Instrument

Demographic Information:

1. Name
2. School District
3. How long have you been a Superintendent?
4. What path did you take to get to where you are today?
 - a. Education
 - b. Places of Employment

Overall Research Questions:

1. What actions do superintendents of small, rural schools in Michigan's Upper Peninsula take to maintain balanced budgets?
2. How do superintendents of small, rural schools in Michigan's Upper Peninsula meet the needs of all students?

Interview Script:

The first research question that I am looking at involves balancing a budget in a small, rural school. I have several questions that I would like to ask you regarding this research question.

1. Research has shown that being an administrator in a small, rural district can be one of the most challenging jobs in education. What are some examples of how you led the district through a difficult financial challenge?
2. How do you balance your school budget with the current state of school funding in Michigan?
 - a. How has Proposal A, and the School Aid Fund, affected your district?

- b. Where do you see state funding in the future?
 - i. What do you think about the consistency of the funding rates/amounts?
 - ii. What do you think about the consistency of the funding sources?
 - c. As a school leader in the UP, what influences do you feel that you have on state funding?
3. In regards to declining enrollment and per-pupil funding, what types of decisions have you had to make regarding balancing your budget in regards to the following categories?
 - a. Forced cuts?
 - b. Reorganization?
 - c. Creative solutions?
 - d. Others?
 4. How has your community, and your relationship to your community, helped your district when faced with some of the decisions that you discussed in the previous question, such as facing the cutting of teachers or declining state funding?
 - a. Has there been ways that funds could be reallocated due to support from the community?
 5. How has the option of, or lack thereof, consolidation and/or building/classroom closures affected your district?
 6. Do you find yourself in a “reactive” or “proactive” (or both) stance when it comes to balancing your budget?
 - a. What options have you tried to potentially increase your school budget?

As mentioned previously, research has shown that being an administrator in a small, rural district can be one of the most challenging jobs in education. I would like to look at the leadership strategies that you have used to lead a district in regards to meeting the needs of all of your students. I have several more questions that I would like to ask you regarding this research question.

1. Michigan has mandated a state-wide curriculum in the Michigan Merit Curriculum. What are some ways that you have met this mandated curriculum?
 - a. How has this affected electives, including visual and performing arts, technology, vocational education, and advanced placement courses at your school?
 - b. How has the issue of certifications and Highly Qualified Status affected your district? What are some ways that you have dealt with it?
2. Rural schools often deal with issues of poverty and low socioeconomic status. Does your district have a significant number of students on free/reduced lunch?
 - a. What issues have you seen regarding this?

- b. What are some ways that your school has tried to meet the needs of these students?
 - i. How do you utilize services, such as a school social worker or other Intermediate School District services?
 - ii. How have you used community resources, such as county health departments or the court system?
 - iii. How has your district approached the process of getting families to apply for assistance?
- 3. Rural districts have dealt with lack of access to technology in today's changing world. What avenues has your school taken to help students be ready for today's, and tomorrow's, changing world?
- 4. Many strengths and innovations in education have come out of rural schools. What are some advantages that you see for students in a small, rural school district such as yours?