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**A COMPARISON OF YOUTH LIVING ENVIRONMENT
IN SMALL AND LARGE COMMUNITIES
OF MICHIGAN**

by

Huilan Yang

**A Dissertation
Submitted to the
Faculty of The Graduate College
in partial fulfillment of the
requirements for the
Degree of Doctor of Philosophy
Department of Educational Leadership**

**Western Michigan University
Kalamazoo, Michigan
April 1996**

A COMPARISON OF YOUTH LIVING ENVIRONMENT IN SMALL AND LARGE COMMUNITIES OF MICHIGAN

Huilan Yang, Ph.D.

Western Michigan University, 1996

This study compares youth living environment in small and large communities in Michigan. The comparison includes three areas of youth living environment: community environment, financial environment, and educational environment.

***Community* in this study is defined as school district. Data are extracted from an existing database developed by the National Center for Educational Statistics titled School District Data Book (SDDB). Out of 560 Michigan school districts included in SDDB, 370 are used in the data analysis, excluding the Detroit City School District and 189 medium-sized districts. Fifteen variables are selected for comparison, categorized under the three areas of youth environment. The findings indicate that there is no difference between small and large communities in Michigan regarding dropout rate, at-risk children rate, student/teacher ratio, and enrollment rate. This study also finds that disadvantages existing in small communities include lower house unit value, lower percentage of people in the labor force, lower household and per capita income, lower total revenue and expenditure per student, lower percentage of people holding a bachelor's degree, higher unemployment rate, higher percentage of children under the poverty level, and higher percentage of households with public assistance, compared to those variables in large communities. The only advantage**

found in small communities is that they have achieved a greater high school graduation rate than large communities.

An important implication of this study is that when dealing with problems of dropout rate, at-risk children rate, and enrollment rate, small and large communities should be treated the same. Another implication is that youth programs should be created in small communities, where a major disadvantage for youth is lack of resources. As for large communities, available resources should be used to better serve the needs of youth. Based on the finding that small communities do have a greater high school graduation rate but a much lower advanced degree holder rate, the third but not the final implication from this study is that options should be provided for kids who do not aspire to higher education, in addition to helping maximize the number of youth in small communities who can benefit from higher education.

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ACKNOWLEDGMENTS

No language is powerful enough to express my gratefulness to my committee chair and my academic advisor, Dr. Charles C. Warfield. His unfailing confidence in me, his understanding, his patience, and his sensitivity to my Chinese culture have made the past five lonely, demanding years at Western more endurable. His guidance, support, leadership, and integrity have brought forth the best in me and have helped me successfully complete the program. I owe a tremendous debt of gratitude for his steering me along all this time, and I feel I am fortunate to have had the opportunity to know him and have him as my advisor. Thank you very much, Dr. Warfield!

[xie(4) xie(4)! 谢谢].

I would also like to thank Dr. James R. Sanders, my committee member, for the seeds of suggestion that gave birth to this dissertation. He has been very patient with me and has provided invaluable suggestions in the revision process. The second chapter, in particular, owes much to his insightful comments and his insistence on thoroughness. He has set an example of professionalism and excellence for me.

There is a deep need for me to acknowledge the assistance, support, and resourcefulness of my other committee member, Dr. Lewis Walker. He has sacrificed his precious time to serve on my committee and has given me continuous encouragement and insightful advice throughout the project.

Among all the people I am grateful to, I would be amiss not to mention my boss, Dr. Chris Ameen, and my colleagues in the Program Office at Starr Commonwealth. Each and every one of them in his/her own way provided me with

Acknowledgments—Continued

continuous support during the last stage of my program. Their deep understanding made it so much easier for me to adjust to a new job while at the same time finishing the work. None of this would have been possible without their being there for me.

Finally, I would like to thank Hope Smith for her painstaking editing and formatting of manuscript copy and careful reading of page proofs. She has been very flexible and extremely comforting, especially during the last agonizing weeks. You helped me see the light at the end of the tunnel, Hope. Thank you!

Huilan Yang

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CHAPTER I

INTRODUCTION

The purpose of this study is to compare youth living environment of small communities with that of large communities in Michigan. The environments to be examined are community environment, financial environment, and educational environment. Secondary data analysis will be used to conduct the comparison. The findings will portray a picture of what kind of environment these communities provide to their youth for their development and will reveal the similarities and differences of youth living environments that exist in small and large communities.

Statement of the Problem

Floyd Starr, founder and builder of Starr Commonwealth Schools in Albion, Michigan, believed that “there is no such thing as a bad child” (McAdam, 1968, p. 10) and that every child will be good if given a loving and caring environment, both at home and in the community. A tremendous amount of money is invested in schools, communities, and agencies by the public, private, and nonprofit sectors of the United States in efforts to improve youth living environment (Simons, Finlay, & Yang, 1991). However, increasingly large numbers of teenagers are reported to commit violent crimes, abuse drugs, and drop out of schools (Simons et al., 1991).

Consequently, we are more and more concerned with our safety and that of our children. Rogers (1992) argued that smaller communities, although having limited offerings, are better places for youth to grow up, because they are safer and are

family-oriented. Previously, problems such as violence, drug dealing, and youth gangs were perceived as existing only in urban cities (Rozelle, McGrady, & Creech, 1980). However, more and more research studies reveal increasing numbers of such problems are emerging in small, rural communities. On the other hand, smaller communities have inherent disadvantages that hinder the holistic growth of youth, such as lower parent education level, lack of cultural stimulation, and a lack of social services for youth (Aikman, 1965). Therefore, moving to small, rural communities for safety and community support may no longer be a solution.

The convenience of living in a large city attracts many who are, however, deeply concerned about their children's development. Many efforts have been made to investigate the advantages and disadvantages of bringing up youngsters in large and small communities (see Chapter II). However, no study has been done regarding Michigan community conditions.

Purpose of the Study

The purpose of the present study is to compare youth living environment of small and large communities in Michigan in order to reveal how living in small or large communities impacts youth development in relation to the selected variables.

The research questions this investigation seeks to answer include:

1. Is the community environment in small communities different from that of large communities in Michigan?
2. Is the financial environment in small communities different from that of large communities in Michigan?
3. Is the educational environment in small communities different from that of large communities in Michigan?

To answer these questions, 15 hypotheses are formulated and tested. They are as follows:

1. The mean value of housing units in small communities is less than that of large communities in Michigan.
2. The mean unemployment rate in small communities is greater than that of large communities in Michigan.
3. The mean rate of persons in the labor force in small communities is less than that of large communities in Michigan.
4. The mean rate of at-risk children in small communities is less than that of large communities in Michigan.
5. The mean dropout rate in small communities is less than that of large communities in Michigan.

These five hypotheses are tested to answer Research Question No. 1.

6. The mean household income in small communities is less than that of large communities in Michigan.
7. The mean per capita income in 1989 in small communities is less than that of large communities in Michigan.
8. The mean rate of children below poverty level in small communities is greater than that of large communities in Michigan.
9. The mean percentage of households with public assistance income in small communities is greater than that of large communities in Michigan.

These four hypotheses are tested to answer Research Question No. 2.

10. The mean student/teacher ratio of small communities is less than that of large communities in Michigan.

11. The mean total revenue per student in small communities is less than that of large communities in Michigan.

12. The mean total expenditure per student in small communities is less than that of large communities in Michigan.

13. The mean rate of enrolled children in small communities is higher than that of large communities in Michigan.

14. The mean rate of high school graduates in small communities is different from that of large communities in Michigan.

15. The mean rate of persons with a bachelor or higher degree is different from that of large communities in Michigan.

These six hypotheses are tested to answer Research Question No. 3.

To test these hypotheses, a methodology was developed. Chapter III describes that methodology.

Significance of the Study

Drucker (1974) developed a decision-making model that includes the steps of defining a problem, analyzing the problem, developing alternative solutions, deciding on the best solution, and converting decisions into effective actions. That is to say, before we search for solutions, we need to know exactly what the problem is. We all realize that our communities have problems. A review of literature shows that in the past two decades, very few studies have been done to identify issues with regard to youth development in communities in Michigan. It is necessary for us to investigate what the pressing issues are if we want to provide a better environment for youth in our communities.

Definition of Terms

For the purpose of this study, the following definitions of terms will be used:

youth: individuals who are under 18 years of age and who are not high school graduates;

large community: a school district that has an enrollment of over 5,000 children, excluding the Detroit City School District;

small community: a school district that has an enrollment of under 2,000 children;

community environment: physical conditions of a community: house unit value, unemployment rate, rate of persons in the labor force, at-risk children rate, and dropout rate;

financial environment: economical conditions of a community: household income, per capita income, children at the poverty level, households with public assistance income;

educational environment: educational conditions of a community: teacher/student ratio, total revenue per student, total expenditure per student, enrollment rate, high school graduate rate, rate of persons with college and/or higher degrees.

Conceptual Framework for the Study

Sociopsychologists McCandless and Evans (1973) maintain that human behavior is dictated by its environment. A child's language and emotional and social development are molded by the structure and environment of the child's family, the school, and the community. The climate these different settings create for the child

is fundamental to the development of his/her value system. They further contend that, in the United States, large communities tend to have more sophisticated and bureaucratic structure than small communities. Such different structures of small and large communities influence how youth develop. Small communities tend to be homogeneous; everyone knows what is going on and personal relationships are easy to develop, which is beneficial to youth emotional development. But there is no vast body of professional educators and business leaders, which limits the opportunities for youth and confines the scope of their cognitive development. Large communities, on the other hand, tend to attract diversified populations, thus broadening the scope of youth development. However, the impersonal atmosphere impedes youth emotional development.

Thus, the problem is not what size a community has to be in order to improve youth development. Rather, the issue becomes how different small and large communities are in terms of youth living environment and how to take advantage of the similarities and differences in order to provide youth with an environment where they can grow socially, emotionally, and intellectually.

To investigate the characteristics of Michigan's small and large communities is the purpose of this study.

Outline of the Dissertation

The next chapter is a review of the literature on the role community size plays in the improvement of youth living environment. The literature review was undertaken to provide a historical perspective of the relationship between community sizes and life quality of youth. We also wanted to explore the research findings on the advantages and disadvantages youth experience in small and large communities.

Chapter III contains the proposed methodology for the current study. Included in the chapter on methodology is a description of the research method employed in data analysis, the database, population, variables extracted from the database and developed for the purpose of this study, and categorization of the variables. A description of the research findings and their analyses are set forth in Chapter IV. Conclusions and recommendations are found in Chapter V and the dissertation concluded with an Appendix.

CHAPTER II

LITERATURE REVIEW

The purpose of this investigation is to compare youth living environment in small and large communities in Michigan so that similar and/or different characteristics of youth living environment in these communities are described as they relate to the selected variables.

The term *community* has many definitions. It can be a school, a congregation, a town, a suburb, a workplace, or a neighborhood. As recognized by Nachtigal (1992), the concept of community has many different dimensions and meanings:

It is the place where we live, and it is a group of people who hold similar values. Community is where we work and where we play, where we educate our children, where we go to the doctor, and where we attend church. It is where we produce and purchase goods and services. The adequacy of a community tends to be defined by the extent to which the many functions and dimensions of community life are fulfilled. (pp. 55-56)

Community has been defined by so many different researchers in so many different ways that it is impossible to reach a consensus at this point in time. The same may be said of community size. Because any attempt to achieve consensus would be futile, the present researcher merely describes the definitions of individual authors in their discussions concerning the perspective of community size and youth living environment. In other words, no attempt will be made to ascertain the degree to which the various authors are in agreement on the two variables: size and environment of the respective community. The definitions used for this study were presented in Chapter I.

Earlier research studies that examined the influence of community size on youth development are inconclusive. In a comprehensive review, Fowler (1992) notes that Conant (1967) and Barker and Gump (1964) were in disagreement, but they wrote the seminal work on this subject.

Funded by the Carnegie Foundation and the National Association of Secondary School Principals, Conant examined questionnaires from 2,024 high schools whose enrollment ranged from 750 to 1,999 students. Despite the lack of small schools for comparison, Conant concluded that the large, comprehensive high schools offer a wide program of foreign languages and advanced placement courses (for college credit) at a lower cost.

Barker and Gump (1964), on the other hand, closely observed five Kansas schools ranging in size from 83 to 2,287 students. They concluded that students in small schools excel at all social and psychological attributes observed. The authors explained that when few students are available for school activities, students who would be marginal in a large school are noticed and encouraged to participate, for example, as cheerleaders and basketball players. They argue that research showed that with such participation, loneliness, deviance, and drug use declines, while engagement, achievement, and concern for others rises.

A close examination of more recent research on community size and youth development reveals two main lines of arguments regarding this issue. The first line of argument goes along with the availability of resources in a community; the second one reflects the social interactions that take place in a community. The first line of argument generally concluded that "bigger is better," whereas the second stream concluded that "small is beautiful."

Rogers (1992) is one of the researchers who concluded that “small is beautiful.” She argued that small community leads to quality education. She contended that in a small environment, kids are known. The kind of healthy relationships that engender respect and high expectations can grow comfortably in such an environment. Besides, a small community provides a stable and caring environment for youth. She further contended that in a small community, kids don’t have to go to unnecessary lengths to gain acceptance and attention, since everybody knows everybody else. Therefore, it is less likely that kids will join gangs, which are seen by the anonymous kids in big cities as a small and supportive “family.” This is especially true of urban, minority kids. Small community “engenders a feeling of shared enterprise and collegiality” (p. 107), nearly unthinkable in large communities. She concluded that “the poetry of small scale is in its limits” (p. 108). Although it is true that there is a limit to the number of services, because the bonding relationship is more easily established with fewer individuals, services are delivered in a better manner.

When Swift (1984) explored the strategies for finding and keeping teachers for small communities, he revealed some intrinsic advantages small communities have, such as low pupil/teacher ratio, long-term satisfaction of watching students’ progress, opportunity to know students and their families, teacher impact on curriculum and administration, community activities centered on the school, and community involvement in the school.

Walberg and Walberg (1994) conducted a study that examined the National Assessment of Educational Progress, in which 37 states and the District of Columbia participated. Their findings showed that small school districts and small schools tend to have a lower share of state funds and a higher academic achievement performance

level. Fowler's (1989) study of the District of Columbia's student performance and district size and Walberg's (1989) earlier summary study came to the same conclusion. Howley (1994) also found a negative relationship between school or district size and student achievement. He further argued that the small schools or districts benefit disadvantaged students more by weakening the negative influence of background characteristics. His research findings also indicated that the dropout rate in small units is lower than that of large units, be it a school or a school district.

Howley's (1989b) earlier study summarized findings of studies of small schools and concluded that disadvantaged children were provided substantial benefits through good student affect and cooperative interpersonal relationships.

Domanico (1994) reviewed the performance of large school districts of New York City and argued that the relatively poor student performance of a large district is caused by the nature of a large organizational system.

In addition to the abovementioned advantages of small communities, Hall and Arnold (1993) summarized Hughes and Zelka's (1990) study of 100 small school districts in Wisconsin from May 1987 through October 1988 and found the following assets of small districts: broader student participation, close personal relationship, student leadership opportunities, community support, better school climate and student attitudes, fewer discipline problems, and greater flexibility.

Dekutoski (1984) compared effectiveness of a career awareness program in schools from six districts of different sizes. His study showed that the career education program had a greater impact on the awareness of different careers in a smaller school district than in a larger district, and that the size of the district also plays a role in impacting the career choice of a young person, although the nature of the impact was to be investigated.

Cusick, Martin, and Palonsky (1978) explored the effects of school organization on student behavior and concluded that small size created opportunities for greater student involvement.

Oxley (1989) agreed with Cusick et al. Her research showed that across the country, dropout rates of high schools in large districts are twice as high as those of schools in small districts. Her reasoning is that schools in large communities create an unfavorable social climate for learning. Students are more remote from staff, and they rely on their own friendship circles for support. A strong, shared sense of community does not exist between staff and students or even among students. It is not difficult to understand why destructive student subcultures often emerge in large communities. At-risk students suffer the consequences in large, impersonal environments. Oxley further argued that it is relatively easier to implement educational reform in schools in small communities than in large communities because of the latter's bureaucratic organizational structures. Several other research studies also supported the idea that small communities have lower rates of at-risk kids (Gregory, 1992; Monk, 1992; Nachtigal, 1992; Ramirez, 1992; Rogers, 1992; Walberg, 1992).

By studying the effectiveness of optional or alternative programs in small school districts, Paskal and Miller (1973) indicated that small districts produce a variety of learning programs more spontaneously, more informally, and more easily than large school districts; therefore, these programs are more effective. The reason given for this difference is that although small systems are not immune to bureaucratic characteristics, large systems are typically formal bureaucracies.

However, small districts or communities are not without problems. Although Rogers (1992) concluded that the beauty of small communities lies in their limits, research (Hall & Arnold, 1993; Salmon, 1980; Sybouts & Bartling, 1988) repeatedly

shows that limited resources and opportunities for youth are considered major obstacles for youngsters' wholesome and healthy development.

The limited resources can be reflected in school facilities. In 1991, Pool (1993) surveyed Nebraska school superintendents and building administrators about the physical condition of school facilities, their adequacy for instruction, and each district's fiscal capacity to maintain and construct school facilities. The responses were analyzed by district size. Pool discovered that small districts reported higher rates of inadequate and old buildings, low sinking fund rates, little bond debt, and little confidence that bond issues would be successful.

Hall and Arnold (1993) argued that a recurring problem for small districts is attracting and retaining competent staff, which is due to limited resources. Other problems identified by Hughes and Zelka (1990) include limited administrative and supervisory personnel, lack of cultural diversity, limited offerings for students, restricted facilities, and higher per pupil cost.

According to Daniel (1964), the education level of small rural community parents is lower than that of large communities; so is family income. He further points out that the isolation of small communities leads to a lack of cultural stimulation and a lack of regulation and order. Moreover, the decline of population in small communities affects welfare services and social, economic, and educational opportunities. Aikman (1965) believed that the results of these factors are poor self-concept, inability to postpone self-gratification, lack of long-term goals, and low aspiration levels of youth in small communities.

Wilson and Petersen (1986, 1988) reported the findings of their research on life satisfaction among young adults from small communities. They indicated that

community size and frustrations about limited job opportunities were negative predictors of life satisfaction.

Cosby and Picou (1971) investigated the relationship between community size and vocational expectations of adolescents in four Deep South states. His study showed a positive linkage between the two variables and concluded that residence may play a significant role in discouraging the development of high-level vocational plans of capable adolescents from small communities.

Vance (1966) studied the equality of educational opportunity in 11 communities in the South under the auspices of the George Peabody College in Nashville, Tennessee. Community size, finances, personnel, professional qualifications, educational programs, and teacher load were investigated. The data were analyzed to discover the relationships among the variables listed above. Findings of the study indicated that small communities in the South were the biggest obstacle to a quality education, as evidenced through fewer course offerings, less qualified staff, and inefficient organizational patterns.

Mehaffie (1983) administered surveys to 401 teachers and administrators in 44 small communities in West Texas. Findings revealed positive regard for the small schools in terms of their educational programs and social environments. However, the limited availability of media resources was viewed as a negative aspect of the small communities.

Greenwood (1992) studied the transition to the work setting in small rural communities and concluded that young people who live in such communities have fewer quality employment opportunities and fewer educational services oriented toward employability development, and this is especially true for young people with disabilities.

Dreier and Goudy (1994) researched consolidation history of small rural school districts in Iowa and found a correlation between the decline in the number of schools and a decrease in the population of small communities. Therefore, they concluded that retaining the small community's rigor of life depends too heavily upon the existence of schools, especially high school, which could be a drawback for youth growing up in a small community.

To paint a picture of small districts, Schmuck and Schmuck (1992) launched a comprehensive research project involving lengthy interviews and site observations. They visited 25 school districts that serve isolated towns in 21 states. They concluded that the traditional belief of small districts as a vortex drawing everyone into them and serving as the foundation or heart of the community is no longer true. Among the biggest problems are severe economic decline; lack of interpersonal openness; absence of mutual understanding between teachers, students and administrators; lack of collaboration and cooperation; and lack of excitement and enthusiasm about learning and teaching. Although schools continue to be the most important places in small communities, they function more as entertainment centers than as academic institutions.

The limits of small communities or districts appear to become the main advantages of large communities.

For example, consider the consolidation of schools and school districts. Ramirez (1992) believed that the reasons for the state level initiatives of consolidating schools or school districts in the 1990s fall under the headings of economic efficiency, broader course offerings, quality of teaching staff, and better student performance, which are perceived as the advantages of a large community.

In a study of Kentucky school districts, Adams (1994) came to a different conclusion as to the efficiency of running a large school district. His analysis of the relationship between district size and state educational costs finds that the state could not save educational costs by merging small districts into a large one. He suggested that variation in state educational costs across Kentucky school districts is primarily related to district property wealth, not district size.

Oakerson (1992) further argued that the school district is not the only public sector where the reverse relationship between organization size and organizational efficiency and effectiveness exists. His study of police departments in Indiana found that department size was positively related to per capita spending but negatively related to residents' perceptions of police effectiveness and attitudes.

However, Ramirez's belief is shared and supported by Hall and Arnold's study (1993). By conducting on-site interviews with administrators, board members, teachers, and patrons, they examined in detail five Illinois school districts that have been consolidated since 1983. The results suggest that the advantages of consolidation greatly outweigh the disadvantages. Major aspects include that these consolidated districts provide students with a broader curriculum; teachers with increased salaries, benefits, and opportunities to focus on fields of interests; and taxpayers with a more efficient school system.

Monk and Haller (1986) examined 11 small rural school districts in New York State, conducted interviews, studied community histories, analyzed statewide data, and reviewed research literature. Their findings reveal strengths similar to Ramirez's, but they argued that although substantial problems existing in small school districts significantly disadvantage students, small districts provide important educational advantages to pupils and communities: in small communities, schools are

often focal points of community activity and pride; they are largely devoid of the corrosive disciplinary problems found in larger communities; their students are learning "the basics" at least as well as the average New York pupil, and in many instances substantially better than the average; and these schools provide far greater opportunities for students to develop their leadership potential and their nonacademic skills than do their larger counterparts. Therefore, they concluded that youth are not disadvantaged academically by living in a small community.

Ward (1988) agreed with Monk and Hall's conclusion. He conducted a study that involved analysis of data from 52 unit (K-12) school districts in a 9-county region of East Central Illinois. Data were collected from the 1986 school district report cards and from Illinois State Board of Education reports. Eighteen variables were selected relating to the school districts' output measures, curricula, staffing, demographic characteristics, and finances, including such data as ACT scores, pupil/teacher ratio, and student mobility. His study indicated that small, rural school districts may present some unique problems as well as opportunities, but as a class of districts, they neither exceed nor lag behind in their ability to offer quality educational services.

Alspaugh (1995) emphasized the resourceful side of large districts and contended that small communities would not be able to solve the problem of increasing teacher pay and reducing the need for teacher salary supplement money that they face. His study was conducted among small rural school districts in Missouri.

With ample resources and opportunities, do youngsters participate more actively in the activities provided in their communities? Not necessarily so. Schoggen (1988) studied student voluntary participation and community size. This was a unique

study with a not surprising conclusion: students in small communities are more active in extracurricular programs. The research was conducted by surveying yearbooks from 24 communities with a combined enrollment of 9,000 students. The large communities offered more opportunities for involvement, but had greater numbers of nonparticipating students. Small communities, conversely, had fewer options for students, but greater student participation.

Manning (1995) reported in a newspaper article that many problems facing big cities are compounded by a growing number of people. He cited Pickett, who indicated that “the more people you have, the harder it is to ensure . . . a basic standard of living” (Manning, 1995, A1).

Petersen, Offer and Kaplan (1978) pointed out that the nature of the community in which one grows has an important influence on psychological development of youth. In their study of the self-image of adolescent girls in a small community, they argued that adolescent girls in larger communities would think more highly of themselves than would those in smaller communities, although there was a recent trend valuing the less hectic pace and stronger bonds among people that are more typical of smaller communities. Possible reasons for this call for further investigation.

From the above description of what has been discovered about small and large communities, we can see that both small and large communities have assets and liabilities. The major community problems presented in a South Carolina University report (South Carolina University, 1970) are different in small and large communities. In small communities, problems are prioritized as youth opportunity, recreation, housing, education, employment, poverty, health, government, transportation, and land use, which correspond to some of the abovementioned studies conducted in later

years. The problems in large communities are listed in priority order as: housing, government, youth opportunity and education, recreation, poverty, transportation, health, land use, and employment.

At the beginning of the 1980s, Salmon (1980) specifically discussed concerns small districts were to face. Among them were the lack of resources and financial strengths, lack of “educational equity,” and school on-staff expertise to deal with the myriad of problems facing schools. He believed that these are very unique problems that small communities have. There are also special characteristics of these small communities that make them attractive. Examples include greater and more enthusiastic community involvement in activities and in solving problems, and individual intellectual, social, and emotional needs of students being recognized and diagnosed more easily.

A study of alcohol and other drug use by Wisconsin students was conducted in 1991 as reported in the Search Institute report. This study found that overall, student alcohol and cigarette use rates are low in large communities and high in small communities. Student marijuana use rates are low in small communities and high in large communities. Nearly one third of students in large communities have used an illicit drug once or more.

Steinitz (1978) attempted to trace the processes through which young people’s understandings of the influence of community contexts on their development were linked to their interpretations of the meaning of ambition in their lives. They studied two small communities and a large one. Beginning high school presented fewest discontinuities to small community youngsters, for they had attended the town-wide elementary and junior high schools and thus already knew the students in their grade. The new teachers they met at the high school were often familiar with

incoming students, having already taught other members of their families. Everyone knew everyone else in a small community; it was often perceived as “one big happy family.” In contrast, large community youth faced great changes when they entered high school. The transition from a small neighborhood-based elementary school to the large town-wide high school introduced many of them, for the first time, to students from other parts of the community. It also moved them into an impersonal, bureaucratic setting where students felt anonymous, identified primarily by their ID numbers. They soon became convinced that they could not rely on school personnel for encouragement or competent guidance. Thus, having ambitions was a personal matter, not much discussed outside the family in large communities. This separation between school and the rest of one’s life was reflected in the social world of these large community youths. There were few organized activities for young people in town and little continuity between life in school and life after school. Students, especially boys, reported some conflicts between their desire to spend time with friends and the demands of homework.

In the small community, while entry into high school presented few challenges or discontinuities, it did mark a significant step in the progression toward an adulthood in which responsibilities and steady work were valued. Encouraged to work toward college, small community youth were also expected to participate actively in team sports, service organizations, and other organized youth activities. Their lives were highly organized and closely watched by their parents and teachers. They reported some feelings of time pressure and performance anxiety. They gave little thought to the world beyond their community. They looked forward to leading lives similar to their parents’. Leaving their small, homogeneous community for college brought these youth up against more serious adjustment problems than they

had anticipated. Living on campus in large universities, they felt at first ill-equipped to cope with anonymity and were confused by the diversity of lifestyles and viewpoints around them.

Many studies reveal no difference between large and small communities regarding youth environment, especially educational environment.

Howerton and Enger (1994) investigated school district characteristics in relation to the level of principals' expressed needs for school-violence prevention programs. Characteristics studied include size, finance, racial demography, attendance, and academic indicators. They concluded that there is no relationship between the need for violence-prevention programs and district size. The need for such programs is more related to other factors, such as lower attendance, lower academic performance, and higher percentages of African-American students.

Calvery, Bell, and Sheets (1994) compared the characteristics of 10 Arkansas school districts and came to a conclusion similar to Howerton and Enger's, with a slightly different focus. They examined the districts' size, socioeconomic characteristics, test scores, students taking remedial courses, and per pupil expenditure. Their findings showed that medium-sized schools did the most effective job in promoting learning with the least risk of dropouts or nonattendance than either large or small schools.

Dlugosh (1995) examined superintendent turnover rates in Nebraska's school districts during a 10-year period. His study revealed that the average tenure for a school superintendent in Nebraska was almost a year less than the national average, but he found no difference between small and large districts.

To sum up the findings of literature reviewed in this chapter on the subject of community size and youth living environment, Tables 1 and 2 list advantages and

Table 1
Advantages and Disadvantages of Small Communities

Advantages	Disadvantages
Quality education (Rogers)	Limited resources (Vance, Mehaffie)
High expectations (Rogers)	Limited jobs (Greenwood)
Close relationships (Rogers, Hughes)	Low parent education level (Daniel)
Better service delivery (Dekutoski)	Lack of cultural stimulation (Daniel, Hughes)
More student involvement (Cusick)	Low self-esteem (Petersen, Aikman)
Sense of community (Rogers)	Limited services (Daniel, Hughes)
Easier to implement change (Paskal & Miller)	Low life satisfaction (Wilson & Petersen)
Slower pace (Rogers)	Low aspiration (Aikman)
Community support (Hughes, Salmon)	Limited administrative & supervisory personnel (Hughes)
Student leadership opportunities (Hughes)	Difficulty in recruiting & keeping school staff (Hall & Arnold)
Better school climate & student attitudes (Hughes)	Economic decline (Schmuck & Schmuck)
Fewer discipline problems (Hughes)	Lack of interpersonal openness (Schmuck & Schmuck)

disadvantages of small and large communities discussed in this chapter. This summary shows that the main advantages of small communities are closer interpersonal relationships and youth participation and engagement; the main advantages of large communities are opportunities, availability of resources, and

Table 2
Advantages and Disadvantages of Large Communities

Advantages	Disadvantages
Opportunities for youth (Ramirez)	Less youth involvement (Schoggen)
Available resources (Ramirez)	Unfavorable school and social climate (Oxley)
Available services (Ramirez)	Gangs (Oxley)
Available jobs for youth (Ramirez)	High dropout rate (Oxley)
Quality school staff (Ramirez)	Lack of sense of community (Oxley)
Better youth psychological development (Petersen)	Growing population (Manning)
Breadth of curriculum (Conant, Sybouts & Bartling)	
Economical to run school district (Hall & Arnold)	

economical efficiency. The main disadvantages of small communities appear to be limitation on resources and lack of diversity. The main disadvantages of large communities are unfavorable school and community climate, which results in unfavorable and sometimes destructive behaviors of youth.

Webb (1979) states:

Studies relating to effective and desirable sizes of school districts indicate that school district size is not an absolute, that the "optimum size" will vary from state to state and that size is but one of many factors related to educational quality and operational efficiency. (p. 365)

Therefore, it is not the intent of this study to draw conclusions as to whether large communities rather than small communities are better places for youth to live.

Rather, the purpose of this study is to compare the youth living environment of small communities with that of large communities in Michigan, so that a descriptive picture is painted of the selected variables. This study focuses on three dimensions of youth living environment: community environment, financial environment, and educational environment. It is not intended to make any sweeping generalization. The intention of the current research study is to describe what the environments these communities provide for youth development are like, with a focus on the similarities and differences of large and small communities in Michigan.

CHAPTER III

METHODS AND PROCEDURES

Chapter I of the dissertation presented the problem statement and the rationale for the study. The literature review in Chapter II provided a historical perspective of the relationship between community size and youth living environment. The literature review also led to a recognition of the need to conduct investigations that describe individual settings, i.e., the state of Michigan in this case. This chapter will set forth the methodology developed to test the hypotheses formulated to study the relationship between community size and the various aspects of youth living environment. A rationale for using secondary data analysis is given at the beginning of the chapter. Profiles of the small and large communities in Michigan follow a description of the database used in this study. Then variables selected to test the hypotheses are listed. The chapter concludes with an explanation of and the rationale for the research procedures employed in the data analysis process.

Secondary Data Analysis

In order to compare the living environment of youth in small and large communities in Michigan, this study used previously collected data for this purpose. This type of procedure is called secondary analysis. According to Best and Kahn (1993), secondary analysis is defined as “reanalyzing the data gathered by a previous investigator and may involve different hypotheses, different experimental designs, or different methods of statistical analysis” (p. 124). That is to say, the subjects are the

same and the data are the same. The difference is that of alternative methods of analysis.

Kiecolt and Nathan (1985) and Best and Kahn (1993) argued that secondary analysis has the following advantages:

1. The new investigator bring a fresh point of view to the investigation and may think of different questions to be raised or hypotheses to be tested.
2. Secondary analysis may bring greater expertise to the area of investigation and greater skill in experimental design and statistical analysis.
3. The reanalysis would involve less expense in both time and money. Because the data are already available, a more moderate appropriation of funds would be possible. It would not be necessary to intrude upon the time of subjects whose primary activities had been diverted in the original investigation.
4. Secondary analysis may provide useful experience for students of research methodology by enabling them to use real data, rather than simulated or inferior data, for the purpose of the exercise.

The School District Data Book (SDDB)

The data to be used in the present study come from the School District Data Book (SDDB). The School District Data Book is an electronic library which contains a comprehensive demographic database along with educational, economic, and administrative data for each of the 15,274 public school districts in the United States. This database provides 200,000 data items for each school district or county and has been developed under the sponsorship of the U.S. Department of Education, National Center for Education Statistics (NCES). The principal interest of NCES in developing the School District Data Book is to provide an effective way for the

Department and Congress to access, analyze, and interpret data from the 1990 Census School District Special Tabulation.

A public school district is defined by NCES as “an area whose public schools are administratively affiliated with a local education agency recognized by the state education agency as responsible for implementing the state’s elementary and secondary public education program” (The MESA Group, 1994, p. 1).

For the purpose of this study, data extracted from the 1990 Census School District Special Tabulation will be used. Selected variables will be listed in a later section in this chapter.

The Population and Its Profile

Michigan public school districts, covered in the School District Data Book, make up the population that is identified for this research. Altogether, there are 560 districts, which will be divided into three groups: Group 1 includes all the school districts which have an enrollment of under 2,000 children; Group 2 consists of all the school districts which have an enrollment of over 5,000 students, excluding the Detroit City School District; and the remaining school districts belong to Group 3, which will not be used in the analysis. Group 1 will be considered small communities and Group, 2 large communities. Among the 560 districts identified in SDDB, 272 belong to the first group and 98 belong to the second group; 190 school districts are not to be analyzed. The goal of this research is to compare youth living environment of small and large communities in Michigan on the 15 variables selected from SDDB.

Table 3 shows the demographic information for small communities using the mean (arithmetic average), the median (the middle number in a list of numbers), the mode (the most frequently occurring number), and the range (the highest number

minus the lowest number). When a variable has more than one mode, the smallest value is shown. The demographic information includes number of households, families, housing units, persons, children, enrolled children, at-risk children, and dropouts in the community. Table 4 shows the information on large communities in Michigan.

Table 3
Demographic Information of Michigan Small Communities

Variables	Mean	Median	Mode	Range
Households	1494	1521	2170	28–4235
Families	1130	1133	1865	19–2686
House units	2078	1987	44	37–10420
Persons	4092	4168	102	59–10118
Children	990	1000	34	8–1992
Enrolled child	837	855	47	8–1742
At-risk child	33	20	0	0–283
Dropouts	21	15	0	0–135

Variables Used in the Comparison

This section describes the 15 variables selected for this study. These 15 variables are categorized according to the three research questions proposed in this investigation. The variables are as follows:

Table 4
Demographic Information of Michigan Large Communities

Variables	Mean	Median	Mode	Range
Households	17876	3168	5998	5998–67973
Families	12617	9023	8912	5039–45106
House units	18593	13181	2861	2861–72126
Persons	48048	35001	18370	18370–185277
Children	10640	7639	5020	5020–42787
Enrolled child	8855	6329	1512	1512–34705
At-risk child	487	154	0	0–6701
Dropouts	248	164	60	24–1603

Community Environment

1. Value of house units: median value in each community.
2. Rate of unemployed persons: number of unemployed persons over total number of persons in the community.
3. Rate of persons in labor force: number of persons with a job over total number of persons in the community.
4. Rate of at-risk children: number of at-risk children over total number of children.
5. Rate of dropouts: number of dropouts over total number of children.

Financial Environment

6. Household income: median value in each community.
7. Per capita income in 1989: median value in each community.
8. Children at poverty level: number of children below poverty level over total number of children.
9. Households with public assistance income: number of households with public assistance income over total number of households in each community.

Educational Environment

10. Ratio of students to teachers: number of students per teacher.
11. Total expenditure per student.
12. Total revenue per student.
13. Enrolled children: number of enrolled children over total number of children.
14. Rate of high school graduates: number of high school graduates over total number of persons in the community.
15. Rate of persons with a bachelor's degree: number of person with a bachelor's degree over total number of persons in the community.

Data Analysis

The variables are categorized into three groups according to the three research questions: community environment (variables 1–5), financial environment (variables 6–9), and educational environment (variables 10–15). The communities are compared in terms of the three dimensions of the youth living environment. To

conduct the comparison, the means of each variable for large and small communities are compared using an independent samples t test.

Rationale for the Data Analysis Technique

Borg and Gall (1983) believed that the independent samples t test is “the most commonly used statistical tool in causal-comparative studies” (p. 544). It is frequently used in experimental or quasi-experimental research. In this study, the question of interest is whether the size of the community plays an important role in the kind of living environment that youth are provided in their communities. That is, is there a difference between the various aspects of youth living environment in small and large communities? If there is, are the differences sufficiently large enough to justify the conclusion that the community size is a crucial factor?

There are three assumptions for the independent samples t test: assumption of independent samples, assumption of homogeneity of variance, and assumption of normality of distributions. The study of community size and youth living environment described here meet the first assumption: there are 599 individual communities, which are divided into three groups. One community belongs to one of the three groups. Only two groups (the medium-sized communities are excluded) are included in the analysis. As for the second assumption, SPSS* for Windows conducts Levene’s test of variance equality (test of homogeneity) by default when running t tests, and two t test results are given, one with the equality of variance and the other without. The researcher chooses the appropriate test result according to Levene’s test. The third assumption is also met. The researcher used SPSS* for Windows and graphed the distributions of relevant variables, all of which are normally or almost normally distributed. Many researchers and research theorists believe that independent samples

***t* test is very robust as far as the normality of distribution is concerned (Borg & Gall, 1983; Hinkle, Wiersma, & Jurs, 1988; Howell, 1992). The research questions this dissertation is seeking to answer are:**

- 1. Is the community environment in small communities different from that of large communities in Michigan?**
- 2. Is the financial environment in small communities different from that of large communities in Michigan?**
- 3. Is the educational environment in small communities different from that of large communities in Michigan?**

Summary

This chapter describes the methodology developed to test the hypotheses formulated to study the relationship between community size and youth living environment. The databases were also described. Profiles of the communities in Michigan were provided. Following that, the variables used in the hypotheses testing were listed. The next chapter sets forth the findings of the research and the analysis of the data derived from the databases.

CHAPTER IV

RESEARCH FINDINGS AND DATA ANALYSIS

The results of the current study of the relationship between community size and youth living environment in Michigan are presented in this chapter. The findings are presented in the sequence of community environment (household with one or more children, unemployment rate, rate of persons in labor force, at-risk children rate, dropout rate), financial environment (household income and per capita income, children below poverty level, households with public assistance income), and educational environment (student/teacher ratio, total revenue per student, total expenditure per student, enrolled female children, enrolled children rate, high school graduates rate, and bachelor or higher degree holders rate). All the statistical tests use a .05 level of significance.

Community Environment

Research Question 1 asks: Is the community environment for youth in small communities different from that of large communities in Michigan? To answer this question, five hypotheses were formulated and tested.

Hypothesis 1

The first hypothesis proposed that the mean house unit value in small communities is less than that of large communities in Michigan. The null hypothesis

states that there is no difference between the mean value of housing units in small communities and that of large communities.

Levene's test for equality of variance is: $F = 71.4$, $p = .000$. Thus, unequal variances are used in the test of equality of mean values of small and large community house units. Table 5 indicates that the probability of obtaining a mean difference between large and small community house unit values by chance is less than .05 ($p = .000$). The null hypothesis is rejected. Therefore, there is a significant difference between the house unit values in small and large communities. The mean difference is \$29,536, with the large communities having a higher mean. We can conclude that house units have greater values in large communities than in small communities.

Table 5
Independent Samples *t*-Test for House Values

Community	<i>n</i>	Mean	<i>SD</i>	<i>t</i> value	<i>p</i> value
small community	272	\$45,633	\$14,025	8.23	.000*
large community	98	\$75,169	\$34,498		

*Significant at the .05 level

Hypothesis 2

The second hypothesis proposed that the mean unemployment rate in small communities is greater than that of large communities in Michigan. The null hypothesis states that there is no difference between the mean unemployment rates in small and large communities.

Levene's test for equality of variance is: $F = 4.05$, $p = .045$. Thus, unequal variances are used in the test of equality of mean unemployment rate of small and large communities. Table 6 shows that the probability of obtaining a difference between large and small community unemployment rate by chance is less than .05 ($p = .000$). The null hypothesis is rejected. Therefore, there is a significant difference between the unemployment rate in small and large communities. The mean difference is 1.0%, with the large communities having a lower percentage. We can conclude that unemployment rate in small communities in Michigan is higher than that of large communities.

Table 6
Independent Samples *t*-Test for Unemployment Rate

Community	<i>n</i>	Mean	<i>SD</i>	<i>t</i> value	<i>p</i> value
small community	272	4.3%	.019	6.16	.000*
large community	98	3.3%	.012		

*Significant at the .05 level

Hypothesis 3

The third hypothesis proposed that the mean rate of persons in the labor force in small communities is less than that of large communities in Michigan. The null hypothesis states that there is no difference between the mean rates of persons in the labor force in small and large communities.

Levene's test for equality of variance is: $F = 10.4$, $p = .001$. Thus, unequal variances are used in the test of equality of mean rates of the number of persons in

the labor force of small and large communities. The data in Table 7 show that the probability of obtaining a difference between large and small community labor force rate by chance is less than .05 ($p = .000$). The null hypothesis is rejected. Therefore, there is a significant difference between the labor force rate in small and large communities. The mean difference is 6.73%, with the large communities having a higher percentage. The conclusion is large communities in Michigan have a greater percentage of people in the labor force than small communities.

Table 7
Independent Samples *t*-Test for Labor Force Rate

Community	<i>n</i>	Mean	<i>SD</i>	<i>t</i> value	<i>p</i> value
small community	272	44.9%	.057	12.54	.000*
large community	98	51.6%	.041		

*Significant at the .05 level

Levene's test for equality of variance is: $F = 4.34$, $p = .038$. Thus, unequal variances are used in the test of equality of mean percentage of at-risk children in small and large communities. Table 8 shows that the probability of obtaining a difference between large and small community at-risk children percentages by chance is greater than .05 ($p = .550$). Therefore, we retain the null hypothesis because there is not enough evidence to support the fourth hypothesis: the mean rate of at-risk children in small communities is less than that of large communities in Michigan.

Table 8
Independent Samples t-Test for At-Risk Child Rate

Community	<i>n</i>	Mean	<i>SD</i>	<i>t</i> value	<i>p</i> value
small community	272	3.2%	.040	.60	.550
large community	98	3.5%	.048		

Hypothesis 5

The fifth hypothesis proposed that the mean dropout rate in small communities is less than that of large communities in Michigan. The null hypothesis states that there is no difference between the mean dropout rates in small and large communities.

Levene's test for equality of variance is: $F = 2.83$, $p = .093$. Thus, equal variances are used in the test of equality of mean dropout rate of small and large communities. Table 9 shows that the probability of obtaining a difference between large and small community dropout rate by chance is greater than .05 ($p = .855$). Therefore, we retain the null hypothesis that there is no difference between the mean dropout rates in small and large communities.

Financial Environment

Research Question 2 asks: Is the financial environment for youth in small communities different from that in large communities in Michigan? To answer this question, four hypotheses were formulated and tested.

Table 9
Independent Samples *t*-Test for Dropout Rate

Community	<i>n</i>	Mean	<i>SD</i>	<i>t</i> value	<i>p</i> value
small community	272	2.12%	.025	.18	.855
large community	98	2.16%	.012		

Hypothesis 1

The first hypothesis proposed that the mean household income in small communities is less than that of large communities in Michigan. The null hypothesis states that there is no difference between the mean household income in small communities and the mean household income in large communities.

Levene's test for equality of variance is: $F = 20.3$, $p = .000$. Thus, unequal variances are used in the test of equality of mean household income of small and large communities. Table 10 demonstrates that the probability of obtaining a mean difference between large and small community household income by chance is less than .05 ($p = .000$). The null hypothesis is rejected. Therefore, there is a significant difference between the mean household income in small and large communities. The mean difference is \$11,420, with large communities having a higher mean (mean = \$25,233 for small communities; mean = \$36,654 for large communities). We can conclude that large communities in Michigan have a higher mean household income than small communities.

Table 10
Independent Samples *t*-Test for Household Income

Community	<i>n</i>	Mean	<i>SD</i>	<i>t</i> value	<i>p</i> value
small community	272	\$25,233	6,782	9.35	.000*
large community	98	\$36,654	11,380		

*Significant at the .05 level

Hypothesis 2

The second hypothesis proposed that the mean per capita income in 1989 in small communities is less than that of large communities in Michigan. The null hypothesis states that there is no difference between the mean per capita income in small communities and that of large communities.

Levene's test for equality of variance is: $F = 45.8, p = .000$. Thus, unequal variances are used in the test of equality of mean per capita income of small and large communities. Table 11 shows that the probability of obtaining a mean difference between large and small community per capita income by chance is less than .05 ($p = .000$). The null hypothesis is rejected. Therefore, there is a significant difference between the mean per capita income in small and large communities. The mean difference is \$5,296, with the large communities having a higher mean (mean = \$10,828 for small communities; mean = \$16,123 for large communities). We can conclude that large communities in Michigan have a higher mean per capita income than small communities.

Table 11
Independent Samples *t*-Test for Per Capita Income

Community	<i>n</i>	Mean	<i>SD</i>	<i>t</i> value	<i>p</i> value
small community	272	\$10,828	2,242	8.83	.000*
large community	98	\$16,123	5,785		

*Significant at the .05 level

Hypothesis 3

The third hypothesis proposed that the mean rate of children below poverty level in small communities is greater than that of large communities in Michigan. The null hypothesis states that there is no difference between the mean rates of children below poverty level in small and large communities.

Levene's test for equality of variance is: $F = .072$, $p = .789$. Thus, equal variances are used in the test of equality of mean percentage of children under poverty level of small and large communities. Data in Table 12 show that the probability of obtaining a difference between large and small community percentages of children under poverty level by chance is less than .05 ($p = .000$). The null hypothesis is rejected. Therefore, there is a significant difference between the percentages of children under poverty level in small and large communities. The mean difference is 5.6%, with the smaller communities having a higher mean percentage (17.2% for small communities; 11.6% for large communities). We can conclude that small communities in Michigan have a higher mean percentage of children under the poverty level than in large communities.

Table 12
Independent Samples *t*-Test for Poverty Level

Community	<i>n</i>	Mean	<i>SD</i>	<i>t</i> value	<i>p</i> value
small community	272	17.2%	.093	.051	.000*
large community	98	11.6%	.097		

*Significant at the .05 level

Hypothesis 4

The fourth hypothesis proposed that the mean percentage of households with public assistance income in small communities is greater than that of large communities in Michigan. The null hypothesis states that there is no difference between the mean percentages of households with public assistance income in small and large communities.

Levene's test for equality of variance is: $F = 5.02$, $p = .026$. Thus, unequal variances are used in the test of equality of mean percentage of households with public assistance income of small and large communities. Table 13 displays the results of this test: the probability of obtaining a difference between small and large community percentages of households with public assistance income by chance is less than .05 ($p = .001$). The null hypothesis is rejected. Therefore, there is a significant difference between the percentages of households with public assistance income in small and large communities. The mean difference is 1.9%, with the smaller communities having a higher mean percentage (8.6% for small communities; 6.7% for

large communities). We can conclude that small communities in Michigan have a higher mean percentage of households with public assistance income than large communities.

Table 13

Independent Samples *t*-Test for Rate of Households With Public Assistance Income

Community	<i>n</i>	Mean	<i>SD</i>	<i>t</i> value	<i>p</i> value
small community	272	8.6%	.038	3.56	.001*
large community	98	6.7%	.049		

*Significant at the .05 level

Educational Environment

Research Question 3 asks: Is the educational environment for youth in small communities different from that in large communities in Michigan? To answer this question, six hypotheses were formulated and tested.

Hypothesis 1

The first hypothesis stated that the student/teacher ratio of small communities is greater than that of large communities in Michigan. The null hypothesis states that there is no difference between the student/teacher ratios of small and large communities.

Levene's test for equality of variance is: $F = 1.98$, $p = .160$. Thus, equal variances are used in the test of equality of mean student/teacher ratio of small and

large communities. Table 14 displays the result of this test: small communities in Michigan have a student/teacher ratio of 15.1; large communities have a student/teacher ratio of 14.3. The probability of obtaining a difference between small and large community student/teacher ratio by chance is greater than .05 ($p = .075$). Therefore, there is not enough evidence to support the hypothesis that student/teacher ratio in small communities is greater than that in large communities. The null hypothesis is retained, and it is concluded that there is no difference between large and small community student/teacher ratios.

Table 14
Independent Samples *t*-Test for Student/Teacher Ratio

Community	<i>n</i>	Mean	<i>SD</i>	<i>t</i> value	<i>p</i> value
small community	272	15.1	4.00	1.78	.075
large community	98	14.3	2.93		

Hypothesis 2

The second hypothesis proposed that the mean total revenue per student in small communities is less than that of large communities in Michigan. The null hypothesis states that there is no difference between the mean total revenue per student of small communities and that of large communities.

Levene's test for equality of variance is: $F = .058$, $p = .809$. Thus, equal variances are used in the test of equality of mean total revenue per student of small and large communities. Table 15 shows that the probability of obtaining a mean

difference between large and small community total revenue per student by chance is less than .05 ($p = .031$). The null hypothesis is rejected. Therefore, there is a significant difference between the mean revenue per student in small and large communities. The mean difference is \$774, with the large communities having a higher mean (\$4,333 for small communities; \$5,107 for large communities). We can conclude that large communities in Michigan have higher mean total revenue per student than small communities.

Table 15
Independent Samples *t*-Test for Total Revenue per Student

Community	<i>n</i>	Mean	<i>SD</i>	<i>t</i> value	<i>p</i> value
small community	272	\$4,334	2,445	2.17	.031*
large community	98	\$5,108	1,279		

*Significant at the .05 level

Hypothesis 3

The third hypothesis proposed that the mean total expenditure per student in small communities is less than that of large communities in Michigan. The null hypothesis states that there is no difference between the mean total expenditure per student in small communities and that of large communities.

Levene's test for equality of variance is: $F = .274$, $p = .601$. Thus, equal variances are used in the test of equality of mean total expenditure per student of small and large communities. The data in Table 16 show that the probability of

obtaining a mean difference between large and small community mean total expenditure per student by chance is less than .05 ($p = .003$). The null hypothesis is rejected. Therefore, there is a significant difference between the mean total expenditure per student in small and large communities. The mean difference is \$916, with the large communities having a higher mean (\$4,365 for small communities; \$5,280 for large communities). It is concluded that large communities in Michigan have higher mean total expenditure per student than small communities.

Table 16
Independent Samples *t*-Test for Total Expenditure per Student

Community	<i>n</i>	Mean	<i>SD</i>	<i>t</i> value	<i>p</i> value
small community	272	\$4,365	2,865	3.04	.003*
large community	98	\$5,280	1,385		

*Significant at the .05 level

Hypothesis 4

The fourth hypothesis proposed that the mean rate of enrolled children in small communities is higher than that of large communities in Michigan. The null hypothesis states that there is no difference between the mean enrollment rates of small and large communities.

Levene's test for equality of variance is: $F = 1.34$, $p = .247$. Thus, equal variances are used in the test of equality of mean enrollment rate of small and large communities. Table 17 shows that the probability of obtaining a mean difference

between large and small community enrollment rate by chance is greater than .05 ($p = .142$). Therefore, the null hypothesis that there is no difference between the mean enrollment rates in small and large communities is retained.

Table 17
Independent Samples *t*-Test for Enrollment Rate

Community	<i>n</i>	Mean	<i>SD</i>	<i>t</i> value	<i>p</i> value
small community	272	84.6%	.054	1.47	.142
large community	98	83.4%	.105		

Hypothesis 5

The fifth hypothesis proposed that the mean rate of high school graduates in small communities is different from that of large communities in Michigan. The null hypothesis states that there is no difference between the mean rates of high school graduates in small and large communities.

Levene's test for equality of variance is: $F = 8.65$, $p = .003$. Thus, unequal variances are used in the test of equality of mean percentages of persons with a high school diploma in small and large communities. From the test results displayed in Table 18, it is clear that the probability of obtaining a mean difference between large and small community percentages of persons with a high school diploma by chance is less than .05 ($p = .000$). The null hypothesis is rejected and it is concluded that there is a significant difference between the mean percentages of persons with a high school diploma in small and large communities. The mean difference is 6.7%, with

the small communities having a higher mean percentage (28.3% for small communities; 21.6% for large communities). We can conclude that small communities in Michigan have higher mean percentage of persons with high school diploma than large communities.

Table 18

Independent Samples *t*-Test for Rate of Persons With High School Diploma

Community	<i>n</i>	Mean	<i>SD</i>	<i>t</i> value	<i>p</i> value
small community	272	28.3%	.039	11.90	.000*
large community	98	21.6%	.050		

*Significant at the .05 level

Hypothesis 6

The sixth hypothesis proposed that the mean rate of persons with a bachelor or higher degree in small communities is different from that of the large communities in Michigan. The null hypothesis states that there is no difference between the mean rates of persons with a bachelor or higher degree in small and large communities.

Levene's test for equality of variance is: $F = 65.4$, $p = .000$. Thus, unequal variances are used in the test of equality of mean percentages of persons with a bachelor or higher degree in small and large communities. Table 19 illustrates that the probability of obtaining a mean difference between large and small community percentages of persons with a bachelor or higher degree by chance is less than .05 ($p = .000$). The null hypothesis is rejected. Therefore, there is a significant difference

between the mean percentages of persons with a bachelor or higher degree in small and large communities. The mean difference is 7.0%, with the large communities having a higher mean percentage (6.8% for small communities; 13.8% for large communities). We can conclude that large communities in Michigan have a higher mean percentage of persons with a bachelor or higher degree than small communities.

Table 19

Independent Samples *t*-Test for Rate of Persons With Bachelor's Degree

Community	<i>n</i>	Mean	<i>SD</i>	<i>t</i> value	<i>p</i> value
small community	272	6.8%	.041	7.52	.000*
large community	98	13.8%	.089		

*Significant at the .05 level

Summary

This chapter described the characteristics of small and large communities in Michigan regarding youth living environment using the data extracted from the School District Data Book. The null hypotheses were rejected in both Research Questions 2 and 3, but there were mixed results in terms of Research Question 1. Tables 20 and 21 summarize the results of these three research questions in terms of differences and similarities of youth living environment between small and large communities in Michigan. The conclusions and recommendations derived from the findings of the statistical analysis will be set forth in the chapter that follows.

Table 20

Similarities of Youth Living Environment in Small and Large Communities

	Variables	Results
Community Environment	Dropout Rate	small community = large community
	At-risk Child Rate	small community = large community
Educational Environment	Student/Teacher Ratio	small community = large community
	Enrollment Rate	small community = large community

Table 21

Differences of Youth Living Environment in Small and Large Communities

	Variables	Results
Community Environment	House Value	small community < large community
	Unemployment Rate	small community > large community
	Labor Force Rate	small community < large community
Financial Environment	Household Income	small community < large community
	Per Capita Income	small community < large community
	Poverty Level	small community > large community
	Poor Households	small community > large community
Educational Environment	Total Revenue	small community < large community
	Total Expenditure	small community < large community
	HS Graduates*	small community > large community
	Advanced Degrees	small community < large community

* HS Graduates = High School Graduates

CHAPTER V

CONCLUSIONS AND RECOMMENDATIONS

This study was undertaken in order to develop a picture of the living environment small and large communities in Michigan provide for youth related to selected variables. The literature reviewed in Chapter II showed that there are certain advantages and disadvantages of small and large communities. Specifically, large communities have more resources and provide better and broader programs than small communities (Petersen et al., 1978; Ramirez, 1992; Sybouts & Bartling, 1988.). This is confirmed by the results of testing those hypotheses concerning financial and educational environment. This study revealed that, in Michigan, youth financial and educational environments are better in large communities than in small communities. For example, in large communities, per capita income, household income, total revenue per student, and advanced degree holder rate (beyond high school) are greater than in small communities. There were also fewer children (percentage) under the poverty level in large communities.

Conclusions

This current research investigated similarities and differences between small and large community youth living environments. This section describes the conclusion and is organized by the three areas of youth living environment: community environment, financial environment, and educational environment.

Community Environment

The current study shows that the value of housing units in small communities was less than that in large communities. This agrees with the literature review. As described in Chapter II, Schmuck and Schmuck (1992) concluded that small communities suffer from economic decline. This study also reveals that small communities have a higher unemployment rate and a lower rate of persons in the labor force than large communities. This is, again, in agreement with the literature review findings that small communities have limited jobs for youngsters (Greenwood, 1992; Ramirez, 1992).

It is found in this study that the at-risk children rate and dropout rate in small communities in Michigan are not different from those of large communities. This is inconsistent with the literature findings described in Chapter II. Hughes and Zelka (1990) argued that small communities created a more favorable learning climate, so the at-risk children rate is lower, compared with large communities. Oxley (1989) conducted a study and concluded that the dropout rate in large communities is higher than that of small communities. Rogers (1992) believed that the close interpersonal relationship helps improve students' attitude toward school, and Salmon (1980) argued that youngsters received got more community support in small communities. All of these factors are expected to help reduce at-risk children rate and dropout rates. Such inconsistency may be explained by the fact that different definitions of at-risk children and dropout rates are used in the current study and in previously reviewed studies. Another possible reason is that the characteristics of Michigan communities are different from those communities described in other studies.

Financial Environment

There was enough evidence that small communities are economically disadvantaged. Specifically, the household income and per capita income of small communities were significantly lower than those of large communities. The percentage of children under the poverty level and households with public assistance income are greater in small communities than in large communities. These results are consistent with findings in the literature review, such as limited resources (Vance, 1966), limited jobs (Greenwood, 1992), limited services (Daniel, 1964; Hughes & Zelka, 1990), and economic decline (Schmuck & Schmuck, 1992) in small communities; and available resources (Ramirez, 1992), available services (Ramirez, 1992), and available jobs for youth (Ramirez, 1992) in large communities.

Educational Environment

The literature shows that large communities have a higher student/teacher ratio than small communities. The current study found no difference between student/teacher ratios in small and large communities in Michigan. This may be part of the reason why small communities do not have a favorable learning environment as some other studies suggested (see Chapter II). That is to say, youngsters do not receive more individual attention at school from teachers in small communities than in large communities. This phenomenon may also be explained by problems small communities face, such as lack of resources and difficulty in retaining teachers, as indicated in the literature. Of course, a favorable learning environment, such as a higher enrollment rate and lower dropout and at-risk children rates are also affected by factors other than resources. But at least, in part, this research demonstrated a

lack of relationship between availability of resources and improvement of youth educational environment.

Another finding of this study is that small communities in Michigan have lower total revenue per student and lower total expenditure per student. Such a finding is consistent with the results of previous studies, as described in Chapter II. With economic disadvantages of small communities, it is not surprising that small communities lack resources in education.

The enrollment rate in small communities is found to be the same as that of large communities. This does not support the literature review finding that small communities provide quality education to youth (Rogers, 1992) or that there is better school climate and student attitude in small communities (Hughes & Zelka, 1990). This discrepancy could be explained by the fact the different issues were being addressed and different definitions were used in the current study and in the previous studies.

The research results suggest that it might be true that limited resources of small communities make it difficult for school districts to provide quality programs for youth, yet small communities have achieved a greater high school graduation rate than large communities, although they do have a much lower percentage of higher degree holders than large communities. A plausible explanation for this is that community norm determines youth aspiration in small communities. For example, if farms are the main source of income in a small community and working on a farm requires only a high school diploma, graduating from high school may be the highest expectation of youth from both parents and community members.

Implications

This research suggests three issues to be addressed with regard to youth living environment in small and large communities. First, when dealing with problems of dropout rate, at-risk children rate, and enrollment rate, small communities and large communities should be treated the same. A second implication is youth programs should be created in small communities, where a major disadvantage for youth is lack of resources. As for large communities, on the other hand, available resources should be used to better serve the needs of youth. The third implication comes from the finding that small communities have a greater high school graduation rate, but a much lower advanced degree holder rate. This would suggest that options should be provided for kids who do not aspire to higher education and help maximize the number of youth in small communities who can benefit from higher education.

Recommendations

This study was undertaken using an existing database developed by the National Center for Educational Statistics. The database does not include some important aspects of youth development, such as social and emotional development. These can be reflected by certain major social problems that youth experience, such as substance use and abuse, juvenile delinquency, and teenage suicide, as pointed out by Sarafino and Armstrong (1986). The database also lacks data on student achievement. Therefore, further studies are recommended to examine youth living environment, in terms of youth problems and attitudes in combination with their academic achievement and their adaptation to adult lives in the future, and to study

how the sizes of communities affect the overall development of youth, including social, cognitive, and emotional development.

In doing such research, appropriate instruments need to be developed to capture the real picture of youth life for data collection. In addition, multiple data collection methods are recommended, such as interviews, focus groups, document reviews, and surveys.

Based on the results of the current research study, it is also recommended that studies be conducted to explore the best possible ways to use the abundant resources available in large communities to benefit the healthy development of youth. Future study might also shed some light on what policy makers and/or funding sources can do to help small school districts survive in the context of consolidation into larger school districts.

Appendix A

Protocol Clearance From the Human Subjects Institutional Review Board

Human Subjects Institutional Review Board

Kalamazoo, Michigan 49008-3899
616 387-8293

WESTERN MICHIGAN UNIVERSITY

Date: August 20, 1995**To:** Huilan Yang**From:** Richard Wright, Chair**Re:** HSIRB Project Number 95-08-17

Richard A. Wright

This letter will serve as confirmation that your research project entitled "Comparison of large and small communities in Michigan regarding youth living environment" has been approved under the exempt category of review by the Human Subjects Institutional Review Board. The conditions and duration of this approval are specified in the Policies of Western Michigan University. You may now begin to implement the research as described in the application.

Please note that you must seek specific approval for any changes in this design. You must also seek reapproval if the project extends beyond the termination date. In addition if there are any unanticipated adverse reactions or unanticipated events associated with the conduct of this research, you should immediately suspend the project and contact the Chair of the HSIRB for consultation.

The Board wishes you success in the pursuit of your research goals.

Approval Termination: August 20, 1996

xc: Charles Warfield, EDLD

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