SAFE ROUTES TO SCHOOL: PROGRAMMING AND INTERORGANIZATIONAL COLLABORATION IN MANCHESTER, MI

By

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ABSTRACT

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In response to negative childhood health trends and long-term decreases in pedestrian and bicycling activity to and from school, the federal initiative, Safe Routes to School (SRTS) has funded programming to address these problems on a national scope since 2002. Interorganizational partnerships, such as SRTS, have historically provided schools across the nation an opportunity to identify and address barriers in public health (Cornelius, 2010). In the interest of health and safety, SRTS leverages these relationships to identify factors that discourage students from engaging in walking and biking to school. By involving schools and communities, these partnerships facilitate increased programming in health and fitness, input collection, and grant writing processes. Encouraging national trends are showing positive outcomes for program objectives related to SRTS (McDonald et al., 2014). This thesis outlines the case study of the Manchester Community Schools SRTS program.

The research is based on survey data taken by the National Center for Safe Routes to School, Michigan Fitness Foundation, and eleven qualitative interviews conducted with involved partners that contributed to the success of the Manchester outcomes. The purpose of these interviews is to ascertain what roles and expertise were present throughout the stages of the program. The Manchester SRTS program demonstrates improved health and safety perceptions through effective interorganizational collaboration, relevant expertise and technical skills, and programmatic best practices that engage the community.

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CHAPTER 1 INTRODUCTION

Renewed interest in community built environments and fitness is saving lives through deliberate programmatic action (McDonald et al., 2014). Recent alarming trends have prompted nation-wide action in the interest of protecting vulnerable sections of the population, primarily in American youths. Chief parental concerns regarding the troubling realities of poor health in children and the precarious environments that discourage their physical activity have moved to the forefront of community priorities. Among these actions taken to combat undesirable outcomes in youth obesity and pedestrian accidents is the US Department of Transportation program, Safe Routes to School (SRTS).

This study focuses on survey data and interviews of participants in the Manchester (Michigan) Community Schools SRTS Program. These interviews provide a basis for ideal conditions of interorganizational relationships, roles, and best practices that facilitate successful outcomes in increased safety, walking, and biking in youth. The intent of this research is to contribute to a larger body of SRTS work, so that prospective grant applicant communities may have a better understanding of program readiness and essential program partners.

Significance

The qualitative interviews provide information that will inform program readiness and best interorganizational practices for future SRTS grant applicants. By recognizing effective interorganizational relationships and roles aligned with positive outcomes in fitness, safety, and grant awards, communities can look to this case study as a guide for best practices that can be adapted in their own context. Not only could this maximize SRTS grant application success, but should also provide a basis for program sustainability in the community.

Problem Statement

Obesity rates in the US, especially in youth, have risen to alarming rates in recent history. Dietary choices and lack of exercise has exacerbated this problem, all amidst built environment development patterns that unintentionally create barriers for active exercise and non-motorized transportation. This is captured in the high rates of children that no longer walk or bike to school daily. This lack of non-motorized transportation to and from school for children is a steady departure from mid-20th century travel behavior (American Association of State Highway and Transpiration Officials, 2013) and constructive exercise that supports positive learning outcomes (Centers for Disease Control and Prevention, 2010).

There is a clear intersection between health trends and socioeconomic conditions (Loptson, Muhajarine, and Ridalls 2012). Disadvantaged socioeconomic groups suffer disproportionately the negative health effects observed nationwide. Additionally, communities lacking in social opportunities and non-connective environments suffer the consequence of reduced civic interaction. These places are often beset with conditions of poverty and poor health trends. The intent of SRTS programming is to address points of not only health education and infrastructure, but also associated matters of equity and learning (National Center for Safe Routes to School). Finding more efficient ways of administering SRTS could address these issues.

This case study is ultimately designed to inform schools and communities in the state of Michigan and elsewhere on what constitutes an ideal programmatic format that encourages interorganizational collaboration and best practices that result in successful grant applications

and immediate measurable community improvements. To inform these best practices and community improvements as elements of success, a literature review was assembled based on relevant scholarly journal work and studies. Much of the work utilized drew from supportive studies of the benefits of nutrition and health in communities, effect of the built environment on health and safety, impact of Safe Routes to School programming, interorganizational collaboration, and disparities in grant attainment. This literature review informs the examination of relationships, roles, and best practices of the Manchester Community Schools case study. Gaps in the literature are explained by further discussion of interviews, survey data, and other organizational material from the program process.

Safe Routes to School

SRTS is a national initiative facilitated by the Department of Transportation. All fifty states and their departments of transportation are working in conjunction with the federal program. Between the years of 2007-2012, the federal government appropriated $1.2 billion for SRTS programming to provide programmatic and infrastructural improvements for almost 14,000 elementary and middle schools (McDonald et al., 2014, 153). The establishment of SRTS focused on the key objectives of increasing the number of all students walking and biking to and from school, reducing automobile emissions, and eliminating barriers for students to live more active lifestyles. The program has shown success in the objective of increasing active school travel in students, with sustained rises in walking and biking in participating schools (Stewart et al., 2014; Active Living Research, 2015).

The state of Michigan became an early and exemplary leader in the SRTS initiative, successfully completing a pilot program in 2005 that laid the foundation for expanded involvement with state-wide intuitions and partners (Hubsmith, 2006). During the tenure of the

program, substantial activity is evident. Between 2003 and 2016, over $31 million in grant money (Michigan Fitness Foundation) has been awarded to schools in virtually every setting and region in the state. The geographic reach and widespread participation introduces many implications for long-term change in non-motorized transportation and infrastructure.

Participating schools are eligible for infrastructural and non-infrastructural grant money to fund updates and programming. Recommendations based on the "four e's" of education, encouragement, enforcement, and engineering (Vogt et al., 2006) guide these the two main categories when formulating a community action plan. The engineering component encompasses infrastructural updates which include repairs or additions to sidewalks, crosswalks, and other built environment items that are intended to facilitate fitness and safety along routes that students utilize walking and biking to and from school. The other three e's of education, encouragement, and enforcement are related to non-infrastructural programs such as bike rodeos, pedestrian safety curriculum, regular walk to school day events, crossing guards or other activities that support SRTS objectives.

Challenges in American Health and Built Environment

One of the primary aims of the SRTS program is to enhance the built environment so that it maximizes safety and accessibility for pedestrians and cyclists. The built environment in conjunction with state laws and policies can play an effective role in reducing the number of barriers that are seen to be hazardous (Chriqui et al., 2012). The built environment significantly influences not only the amount of vigorous to moderate exercise that youth engage in on a weekly basis, but also the amount of time spent doing sedentary activities (Esliger et al., 2012). These problematic factors compounded with negative health outcomes disproportionately represented in specific racial groups (Kelly et al., 2007). The reality of inequity in health and

safety factors perpetuate parent misconceptions regarding the safety of non-motorized transportation (McDonald et al., 2009, 332). These misconceptions are paramount in realizing the travel behavior in American youth. This results in parents making the choice to drive their children to school rather than permitting students to engage in non-motorized transportation, such as biking or walking, to any extent.

The top concern that parents recently report, as reflected in The National Poll on Children's Health, is obesity in their children. In both 2014 and 2015 the poll reported that childhood obesity was the most common concern among parents regarding the health of their child. This concern is warranted when considering the data collected by the Centers for Disease Control and Prevention (CDC) cites a doubled rate of childhood obesity over the last 30 years and a combined child and adolescent obesity rate that was a third of that demographic group by 2012 (Centers for Disease Control and Prevention, 2015).

Strong evidence for growing trends in poor health with American youths can be observed (Karnik and Kanekar 2012). Childhood obesity is by many standards in a state of crisis in many developed nations, namely the United States. The fundamental problem is an "imbalance between caloric intake and calories utilized" (Karnic and Kanekar 2012, 2). Between the years 1999 and 2011, a steady increase in childhood obesity in the United States and other selected developed nations experienced a rise in youth aged 2-19 years old with Body Mass Index falling within the 95 percentile" (Karnic and Kanekar 2012). This means that more children reported heavier weights in proportion to their height. Environmental factors served as an essential component that contributed to this growing trend. Survey data revealed that the combination of lack of activity found at school, where the youth spent the majority of their daily time, paired with lack of accessibility to parks and other recreational facilities eliminated opportunities for

obese children to counter their excessive caloric intake with physical activity. This issue could be significantly addressed by expanded SRTS programming intertwined with curriculum and daily travel behavior.

The physical environment that families choose to live in play a large role in the amount of physical activity the children will largely engage in. A case study done in Saskatoon, Saskatchewan, traced the physical activity of children spread over a number of statistical factors including socioeconomic status and physical built environment in over 400 families (Loptson, Muhajarine, and Ridalls 2012). Although cultural perceptions and crime played a role in the overall daily physical activity of the monitored youth, neighborhoods featuring good connections with paths and recreational facilities promoted a more active lifestyle.

Health issues are also raised by the air pollution of excessive automobile use. By reducing the number of students that will use motorized transportation to travel to and from school, SRTS also addresses the problem of pollution emitted from automobile activity. Streets and routes that are congested with particulate emitting automobiles generate associated rates of health hindering respiratory problems (Buckeridge, 2002).

Community Perceptions and Education of Walking and Biking to School

Aside from its commitment to infrastructural changes to the built environment, SRTS is focused on the education of communities through programmatic activities. These programs not only identify and address gaps in pedestrian and cycling safety knowledge, but also work to improve perceptions and encourage healthier behaviors. Cultural attitudes and perceptions serve an important role in the behavior related to physical activity in children. Clear trends between positive attitudes with increased walking behavior is apparent in the study of how programmatic

support influences certain communities (Panter, van Sluijis, Griffin. 2010). Within some cultural contexts, the most important high probability predicators of physical activity in youth tends to be community and familial support systems. Predictors of active commuting can be characterized by parental attitudes and safety concerns and the presence of social support from parents and friends. When children receive peer and family support they are more likely to walk or cycle (Panter, van Sluijis, Griffin. 2010, 41).

The presence of SRTS programming has shown immediate positive effects in some locations in regional studies, which could signal an improvement in perceptions of walking and biking to school. The application of education and changes in the physical environment that occurred as a result of SRTS involvement resulted in a total decrease of child-involved collisions near infrastructural upgrades in a 47-school study based in California (McDonald et al., 2014). These positive outcomes had strong ties to the willingness of the communities to engage in SRTS education and encouragement programming.

Transportation Behavior and Trends

The US national average for students that walked and biked to school in 2009 numbered at 13% (Active Living Research, 2015). This is a dramatic decline from 1969, where nearly 48% walked or biked to school. In that same year (2009) it was reported that 2.2% of students biked to school. These are relatively low rates of non-motorized transportation when paired with long term transportation trends. The transportation habits of US citizens since 1980 show clear indicators that less non-motorized transportation is being utilized, while the percentage of the population that chooses to drive a private vehicle alone has consistently risen (AASHTO, 2013). The greatest disparities in automobile transportation in the US fall within the rural and suburban commuter population. Most notably, rural and town commuters comprise 28.1% of the total

population, yet account for 39.8% of the vehicle miles traveled (NRDC, 2013). In 2010, rural commuters spent on average $4,272 individually on vehicle based travel expenses, as opposed to their urban counterparts who spent an average of $2,180.

In response to these negative trends, there are efforts to design places that have greater capacity for non-motorized choices and behaviors. This can be seen in the microcosm of some university campuses that prioritize higher densities and connectivity to promote greater health and quality of living (Havlick, 2004). These environments feature high numbers of walkers and bikers as a primary means of transportation. In larger urban contexts, cities that offer more opportunities to walk or bike experience far less traffic fatalities with bikers and walkers (Alliance for Biking and Walking, 2016). Most notable among these settings is Boston, MA, which has the highest percentage of commuters that travel by foot or bicycle and have the least number of traffic fatalities per 10,000 pedestrian commuters.

Interorganizational Relationships

Though the US Department of Transportation administers federal money to all fifty states, SRTS relies heavily on interorganizational relationships to be successful. The state Department of Transportation is ultimately responsible for awarding communities with grants. Leading up to the grant application, state and local organizations collaborate to formulate appropriate solutions within the objectives of SRTS. These interorganizational relationships have translated into many different partnerships that offer a variety of services. The modus operandi of interorganizational relationships lends itself to SRTS, as government policies aiming to strengthen communities and foster social justice have historically operated as such (Cornelius, 2010).

There are advantages for local entities on a public or private level to engage in interorganizational relationships, especially when considering financial constraints. These relationships can provide services adequately when the right balance of partners is established (Brown, 1998). Standard partnerships that communities often seek come in the form of universities that offer wide ranges of expertise (Rubin, 2000) or local health organizations, providing relevant knowledge and programming (Zahner, 2005). When schools are involved with reform initiatives or other improvement programs, partnerships are generally needed to conduct the process. These partnerships can sometimes prove to be counter-productive, unless there is meaningful buy-in with the local community and are engaged in direct decision making (Kowalski, 2010).

Research Questions

In respect to the literature review, there are questions that this research is focused on concerning the Manchester Community Schools SRTS Program. They primarily examine the interorganizational relationships involved with the execution of the process. The individuals involved with the qualitative interviews were approached because of their direct involvement in the decision-making process and because of their specific expertise used while conducting the program. The interviews conducted with the participants revolved around three main questions:

1. Who are the essential organizations in an effective Safe Routes to School Program and what roles are they responsible for?
2. What expertise or technical skills are relevant to competently carry out a successful Safe Routes to School program?
3. How should best practices be used in order to engage the community in sustainable and effective Safe Routes to School programming?

Introduction of Case Study

This thesis observes the SRTS program in Manchester, MI and how it leveraged its close interorganizational partnerships to produce a successful process in grant awards and increased physical activity within its schools. The schools directly examined in the Village of Manchester are Klager Elementary and Manchester Middle School. The common objective of SRTS and the community to increase walking and biking in students served as a core mission in the many partners of this initiative. This community demonstrates how SRTS programming can operate effectively, and also draws connections to greater community involvement and fitness efforts through public input and institutional action.

Background and Context

The Village of Manchester, MI is a small rural community of 2,091 residents (2010 US Census), situated between the Metropolitan Statistical Areas of Ann Arbor and Jackson. It is affiliated with a regional cohort of communities that make up the 5 Healthy Towns Foundation (5HF). This fitness alliance is joined by the towns of Chelsea, Dexter, Grass Lake, and Stockbridge (Figure 1). The 5HF, originally known as the Chelsea Wellness Center, works closely with these communities to encourage and produce positive health outcomes aligned with their mission "to cultivate improvements in personal and community wellness" (5Healthytowns.org). In Manchester, the buildings of Klager Elementary School and Manchester Middle School (Figure 2) were selected to work with 5HF and other partners to participate in SRTS. Both of these schools are within a mile radius of the downtown area, with a density area of 933 residents per square mile (2010 US census).

Figure 1: Regional view of 5 Healthy Towns Scope, Google Maps

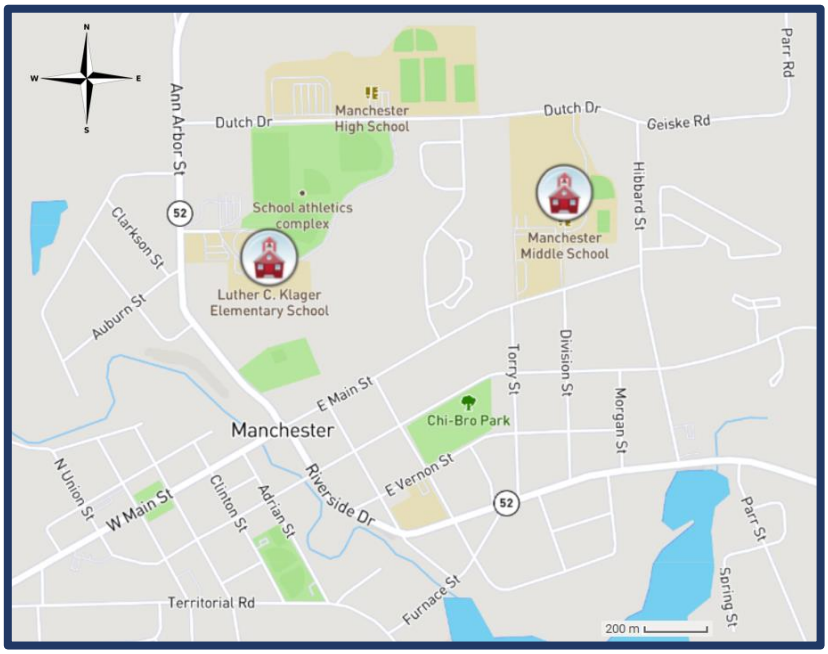

Figure 2: The Village of Manchester, MI and SRTS campuses, Google Maps

Rationale of Community Selection for Case Study

The Village of Manchester is a regional leader in SRTS programming and fitness outcomes, making it an ideal candidate for research concerning SRTS best practices. The

Community Investment Manager for the 5HF, Matt Pegouskie, works closely with the Village of Manchester on a wide range of health and fitness projects, notably SRTS. In an interview with Pegouskie, he characterized Manchester as "resilient and resourceful" and that they "really increased walkability by adopting things like a complete streets ordinance, put bike paths in, a shared-rails to trail, and connected the farmer's market" (M. Pegouskie, personal communication, February 3, 2017). Pegouskie strengthens the case for Manchester as a leader through a regional-wide survey conducted by 5HF as a part of their Health Improvement Plan (HIP). In this 2010 survey, parents from schools in the Washtenaw County were asked if their child walked or biked to school at least once a week. The survey revealed that only 7% of students walked or biked at least once a week. The same survey was conducted in 2015 and "Manchester rose from the 7% to 21%. The (other 5HF schools that participated) two only rose to 14%" for students that walked or biked to school at least once a week (M. Pegouskie, personal communication, February 3, 2017).

Manchester Community Schools also used their interorganizational partnerships in a way that produced immediate positive outcomes for increased fitness within the community. Manchester SRTS experienced programmatic success, and also emerged as a highly regarded and recommended case study from professional individuals working closely with the project in the field.

Adrianna Jordan, the regional Michigan Fitness Foundation coordinator during the time of the Manchester SRTS grant writing process, continues to hear high praise of the program from relationships sustained through the foundation. Jordan stated that "peripherally I hear about its success through former colleagues and maintain friendships within Chelsea Wellness Center… 5HF deserves a high amount of accolades for pushing fitness with that community and they

understand the grant process really makes it successful" (A. Jordan, personal communication, February 24, 2017). Jordan served in a highly involved role concerning the grant writing process that is explained further in chapter four.

CHAPTER 2 APPLICATION

Interorganizational Partners

The Manchester SRTS program is an ideal case study when examining the relationships and roles of interorganizational partners. As with all state of Michigan SRTS programs, MDOT acted as the overseeing entity for all programming and grants. As the contracted fitness organization, MFF also acted in their conventional role as a fitness and grant consultant with the community as well. The involvement of MFF is an added advantage for participating Michigan communities, as many states interact directly with their DOT rather than with an established fitness foundation. Additional institutional and local organizations elevated Manchester standing as an exemplary model for SRTS programming. Figure 3 outlines the way in which the 5HF was able to work with the village and school district in order to provide important services, while also acting as an intermediary organization between local and institutional partners such as MDOT, MFF, and Michigan State University.

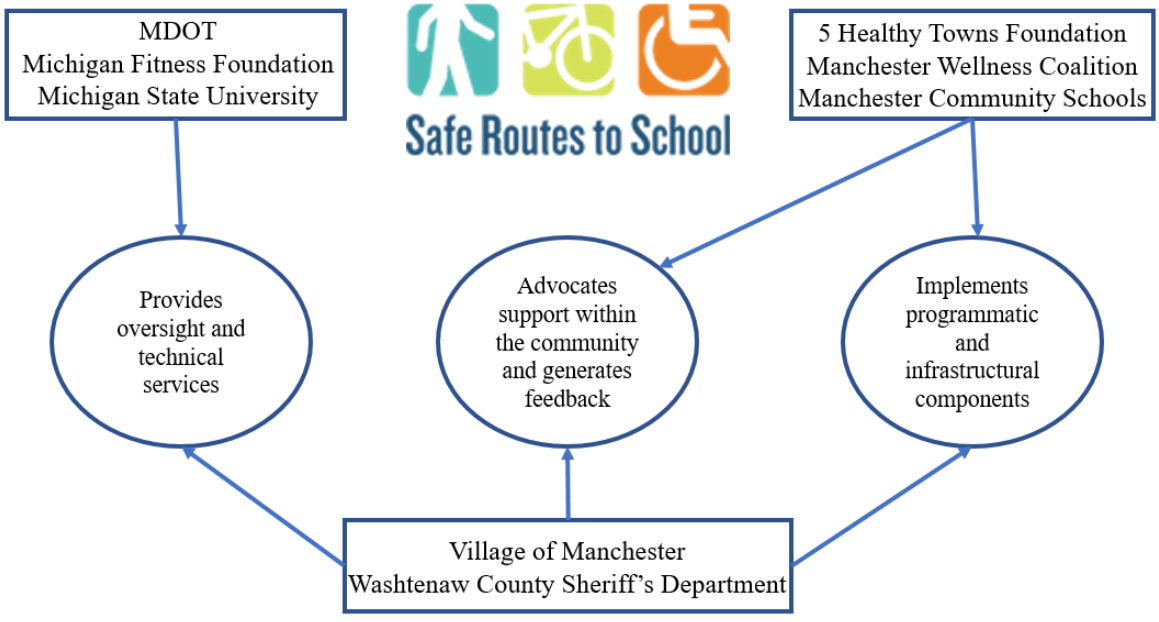

Figure 3: Interorganizational Partner Roles. MFF SRTS logo

Michigan Department of Transportation

MDOT is the major presiding transportation entity in the state of Michigan. Its mission is to provide "the highest quality integrated transportation services for economic benefit and improved quality of life" (Michigan Department of Transportation). Since SRTS is a federal grant, MDOT is charged with the responsibility of administering money and resources in a block grant fashion. All grant applications must ultimately gain approval from MDOT in order for programming to take place. To ensure that schools and communities have the best opportunity to achieve the objectives of SRTS and procure a successful grant application process, MDOT contracts the MFF to directly consult and collaborate with participants.

Michigan Fitness Foundation

The function of the MFF extends much further than SRTS programming. The foundation is involved with a wide range of health-related causes that mainly, but not exclusively, center on fitness and nutrition. Their mission is "to inspire active lifestyles and healthy food choices through education, environmental changes, community events and policy leadership" (Michigan Fitness.org). In 2014 alone, the MFF endorsed 429 health fitness events with over 1,300 Michigan K-12 Schools and Pre-schools. In that same year, they played a large role in training over 1,580 individuals for best practices in carrying out programs like SRTS.

A total of four regional coordinators are assigned to different regions of the state to work with stakeholders throughout the process. Adrianna Jordan, who now owns and operates a planning firm, served as the regional coordinator for the Manchester program. MFF maximizes their reach with SRTS by partnering with institutions like Michigan State University. By seeking

out a well-established academic institution such as MSU, the MFF brings an expanded repertoire of skills sets and expertise to its selected community participants.

Five Healthy Towns Foundation

The 5HF, originally under the name of the Chelsea Wellness Center, began as an effort by the Saint Joseph Mercy Health Systems Hospital in Chelsea to initiate healthy related programming within their service area. A commitment of $25 million established the foundation in 2009. Since that time, the foundation adopted the its present name to reflect its scope of service that extends to Chelsea, Dexter, Grass Lake, Manchester, and Stockbridge. In order to better service the health needs of its constituents, wellness centers were created in all of the five towns. “The 5HF is committed to providing opportunities to people of all ages to eat better and move more, connect with people in healthy ways. Create a culture of health and wellness” (M. Pegouskie, personal communication, February 3, 2017). The foundation also provides support catered to the needs and vision of the communities they serve.

Manchester Community Schools

The Manchester Community Schools District houses three primary education buildings in Klager Elementary School, Manchester Middle School, and Manchester High School. The district features 1,056 total students, 62 teachers, and 57 support staff (2016 Manchester Community Schools District Improvement Plan).

The Village of Manchester

Administrative duties in the Village of Manchester are primarily carried by the village manager, Jeff Wallace, but it also features a full-time clerk and treasurer. The responsibilities of any engineering or infrastructure approvals mainly are under the jurisdiction of the manager.

With the SRTS infrastructure component of the grant, Wallace served as the main contact in working with the steering committee and MDOT in advising potential changes and recommendations concerning the built environment.

The municipal government is instrumental in organizing efforts to directly affect conditions that promote walking and biking in Manchester. The village government established a shared use walk and bike trail plan. The measures outlined in the plan connected a pair of parks to the pre-existing sidewalks and provided for more connective pedestrian functions between the residential neighborhoods and downtown areas. These newly-paved paths designated space for walkers and cyclists, with bright yellow barriers that deter motorized traffic from entering the pedestrian zones.

Washtenaw County Sheriff's Department

Manchester does not have a police department of its own, but is served by the Washtenaw Sheriff's Department. The Sheriff's Department is served by 350 staff members over 5 divisions and 25 local governments. As a part of its liaison to the Village of Manchester, the department designates Sgt. Paul Cook as the presiding officer for law enforcement in the municipality.

Manchester Mirror

The Village of Manchester is served by an online and print, community member owned newspaper called the Manchester Mirror. Published online Monday and in print on Wednesday, it is available free of charge to Manchester residents. The newspaper apprises community members to when SRTS programming takes place and serves as a way to report and document various milestones in the in the process.

Michigan State University

The School of Planning, Construction, and Design (SPDC) and the College of Engineering at MSU are the two primary sources of professionals that the MFF works with to provide expanded services and expertise for participating SRTS communities. Faculty and student landscape architects and urban planners from the SPDC provide a professional link between stakeholders and involved organizations. By aiding in the organization of meetings, public input sessions, and action plan recommendations, the SPDC guides the community into securing fundable programs and infrastructural updates through SRTS.

The College of Engineering works closely with MDOT and municipal authorities to provide technical assistance in the drafting and finalizing of key infrastructural changes funded by SRTS. Engineers and students from the MSU College of Engineering evaluate the built environment based on field observations and public input, which then translate into preliminary blue print drafts that are presented to the community and local steering committee. Adjustments to those plans are made based on comments from the local stakeholders and are included in a final action plan report. In the case of Manchester, MSU had an added local liaison and input source through the 5HF.

CHAPTER 3 METHODS

This research utilizes two key data collection sources, one of which is the parent and student surveys conducted during the Manchester SRTS program. As a part of the SRTS process, participating schools are required to complete parent and student surveys regarding their travel behaviors and perceptions of safety along routes going to and from school. Surveys for Manchester SRTS were administered during September of 2013. Parents are able to complete surveys through the National Center for Safe Routes to School, where the results are stored on a database. The student surveys are administered with the help of the Michigan Fitness Foundation, as they facilitate the questionnaires by giving students the opportunity to log their responses during the school day through an online format.

The second primary source of data is from qualitative interviews from personal communications. The case study of the Manchester Community Schools provides for an opportunity for an examination of what interorganizational interactions create positive outcomes and measurable community improvements in Safe Routes to School programming. The Manchester program serves as a unique case study that integrates localized fitness advocates and community groups to build internal support for key objectives. These interorganizational interactions are observed through qualitative interviews with all the local, institutional, and municipal entities involved. These participants and stakeholders represent the basic structure of program organization and provide procedural insight covering the before, during, and after stages of the Manchester Community School Safe Routes to Schools Program. Interviewees were chosen based on their direct involvement in the SRTS process. They represent all of the major organizations that were present throughout SRTS Manchester. The questions posed to the interviewees ascertain their prior collaboration with the program partnerships, organizational

interest in Safe Routes to School, contributions to program execution and implementation, and the triumphs and challenges they experienced as a participant in the program. These questions are intended to identify what best practices should be used when orchestrating a Safe Routes to School program on a community level, and to serve as a basis for future Safe Routes to School readiness instruments.

To inform this thesis regarding the SRTS Manchester case study, the researcher spoke with ten participants involved with the project (IRB #: x16-1608e). These participants represented a wide range of local and institutional partners that were instrumental in the planning and implementation of the SRTS program in Manchester. Digital voice recordings and email correspondences captured the interview data used in the research. Further information was provided through newspaper articles, meeting materials, and reports produced by partners.

CHAPTER 4 RESULTS

Parent and Student Surveys

The Manchester Community Schools responses resulted in perceptions and travel behavior choices consistent with perceptions by the acting partners interviewed. Klager Elementary had 43 parents that contributed their insight to the surveys. Parents from the elementary school reported that 50% of students arrived in the morning by family vehicle and only decreased to 40% (Figure 4) in the afternoon. Walking levels were comparatively lower, with only 12% doing so in the morning and increased to 15% (Figure 4) in the afternoon. Results for biking were lower still with a level of 2% in the morning and 3% (Figure 4) in the afternoon.

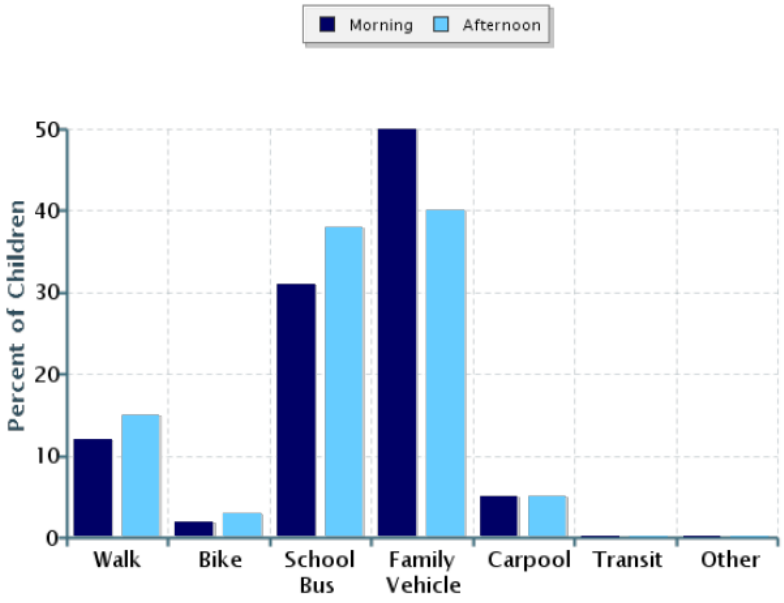

Figure 4: Mode of Transportation for Klager Elementary Students, Parent Survey

Manchester Middle School had 24 participants in their survey. Since the middle school had a fewer respondents, the results were tabulated by number of students rather than the percentage of students traveling. Parents from the middle school had very similar results as the

elementary school, as non-motorized transportation served as the most frequent mode of travel for students. Instead of family vehicle, the school bus proved to be the most common choice for middle school student parents, with 10 students reporting in the morning and 8 in the afternoon (Figure 5). Walking remained consistent throughout the day, with 5 students doing so in the morning and afternoon (Figure 10). Only 1 parent reported their student biked to school, doing so in the morning and afternoon (Figure 5).

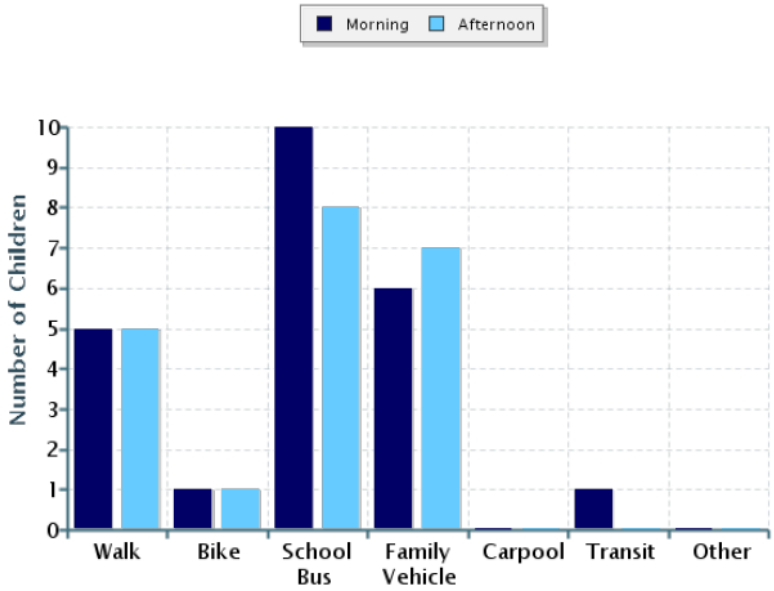

Figure 5: Mode Transportation of Manchester Middle School Students, Parent Survey

The parent survey also gathers information regarding parent perceptions of potentially dangerous elements along walking and biking routes. Parents are asked to report reasons for not allowing their student to walk or bike to school. The most common reason for not allowing their student to walk or bike to school for Klager Elementary parents was distance, with 85% reporting it as a factor (Figure 6). The next most common factors related to traffic and infrastructure. Specifically, traffic related reasons of speed of traffic along the route and amount of traffic along the route were the factors reported at 60% and 50% respectively (Figure 6). The

lack of sidewalks also played an equally important role, as 50% of parents claimed that factor influenced their decision (Figure 6).

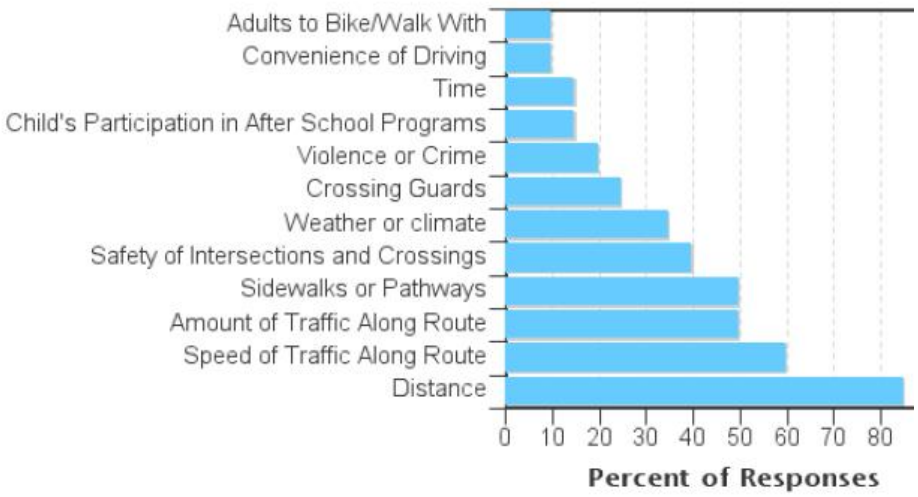

Figure 6: Reasons for not allowing students to bike or walk to school. Klager Elementary

Parents from Manchester Middle School shared distance as a major factor, but also perceived weather or climate to be an equally influential reason. A total of 12 parents cited these reasons, making them the most common (Figure 7). The next major reasons were the amount of traffic along the route, safety of intersections and crossings, and speed of traffic along the route (Figure 7) with 8 parents reporting these responses.

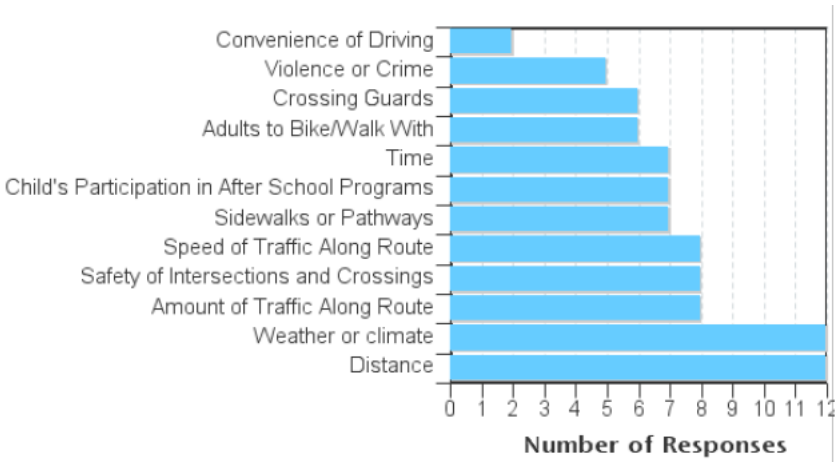

Figure 7: Reasons for not allowing students to bike or walk to school. Manchester Middle School

A total of 74 students from Klager Elementary School and 82 from Manchester Middle School participated in the student surveys. The questions were intended to identify student preferences and perceptions of walking and biking to school. One of the questions asked students what their preferred mode of travel would be if they had a choice. Students were able to answer multiple responses. Although 28% and 38% of students from Klager Elementary School said they would like to walk and bike respectively (Figure 8), the most common answer was for their parents to drive at 40%.

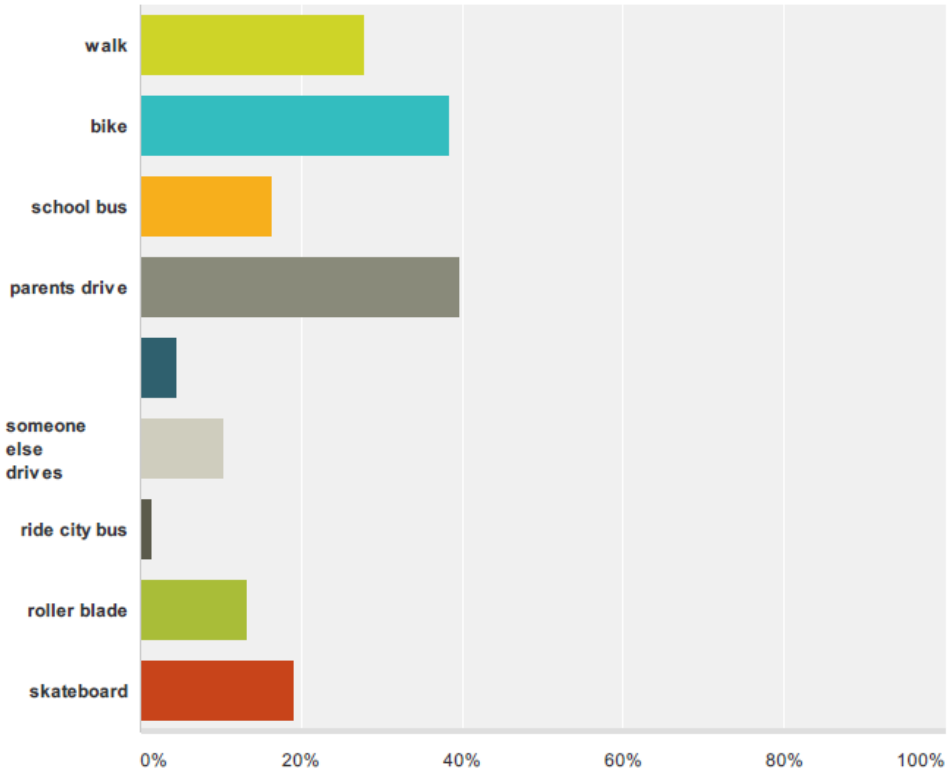

Figure 8: Klager Elementary Student Travel Preferences

The most common response for Manchester Middle School students was also for their parents to drive at 58% (Figure 9), where 32% and 30% stated that they would like to walk and bike respectively.

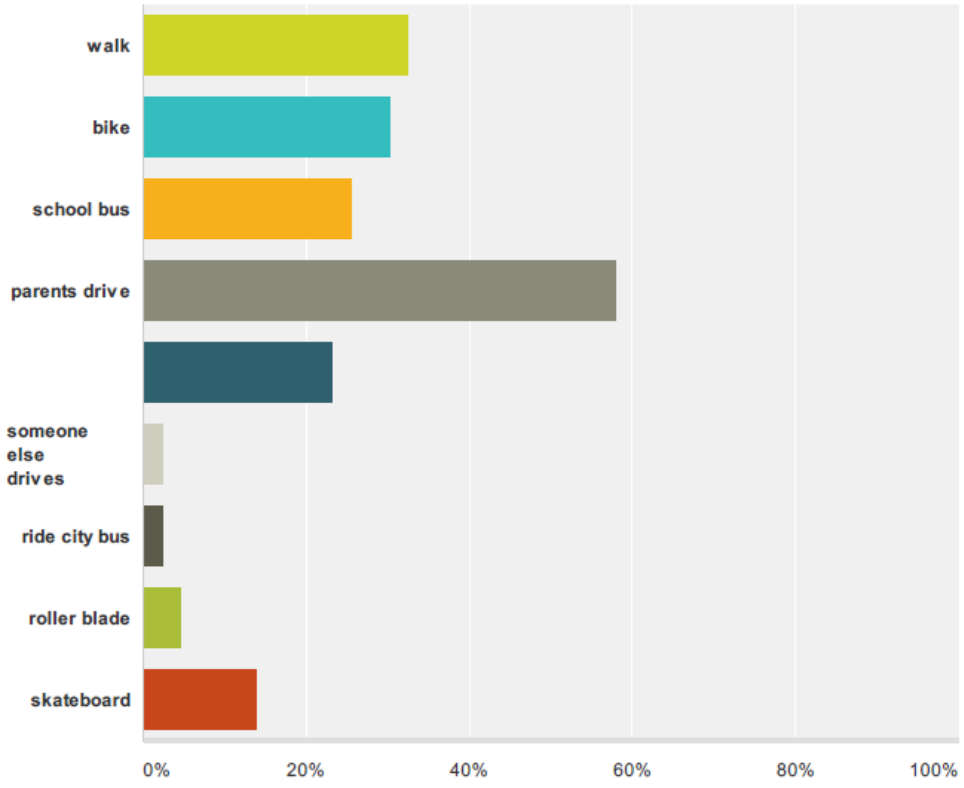

Figure 9: Manchester Middle School Student Travel Preferences

Students were also asked about their attitudes specifically toward walking and biking as an exercise. Three of the topics addressed concerned whether walking and biking was fun or boring, safe or unsafe, healthy or unhealthy. Klager Elementary students had an overall positive perception of walking. All of the students responded that walking was healthy and 74% thought it was fun (Figure 10). The safety of walking reported slightly lower, with 68% indicated they thought it was safe.

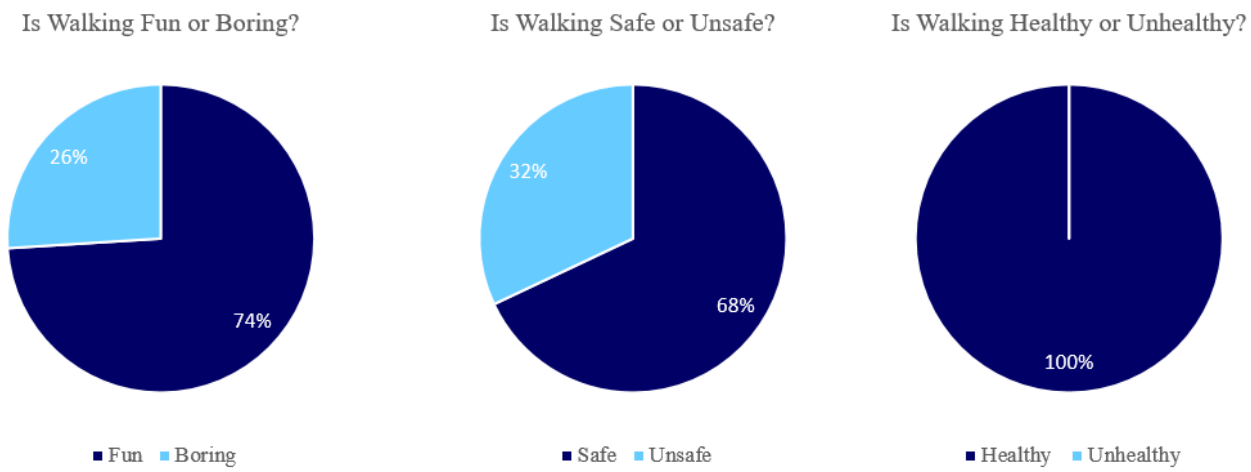

Figure 10: Klager Elementary Student Perception of Walking (Percentages are Rounded)

Klager Elementary students also had a positive perception of biking. All but 1% of the respondents indicated that biking was healthy, while 96% and 66% of students felt that biking was fun and safe respectively (Figure 11).

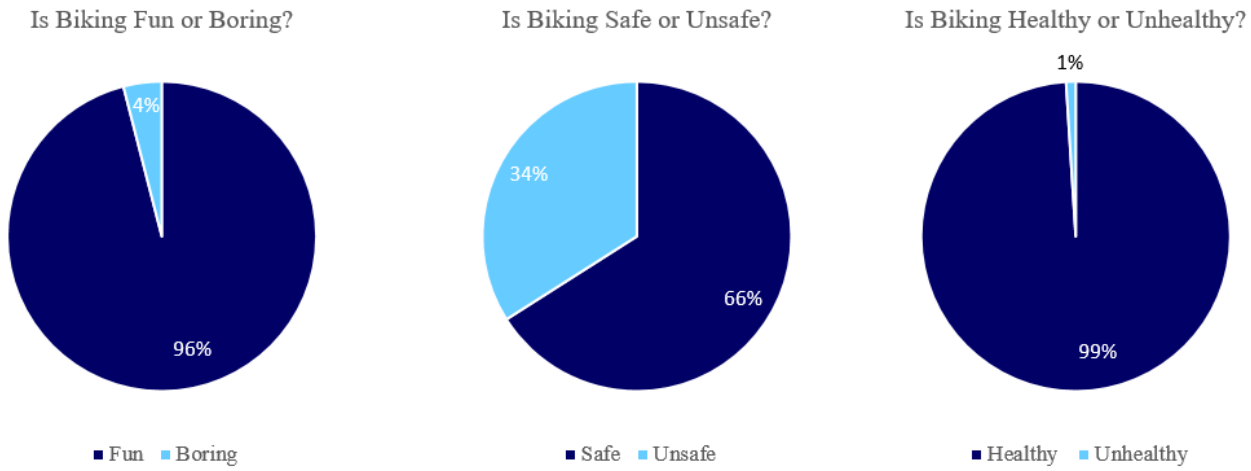

Figure 11: Klager Elementary Student Perception of Biking (Percentages are Rounded)

Manchester Middle School students had similar attitudes toward walking and biking. Their overall response was positive for both walking and biking. Once again, students reported unanimously that walking was a healthy exercise (Figure 12). Students also perceived walking to be fun and safe, with 81% responding in the affirmative.

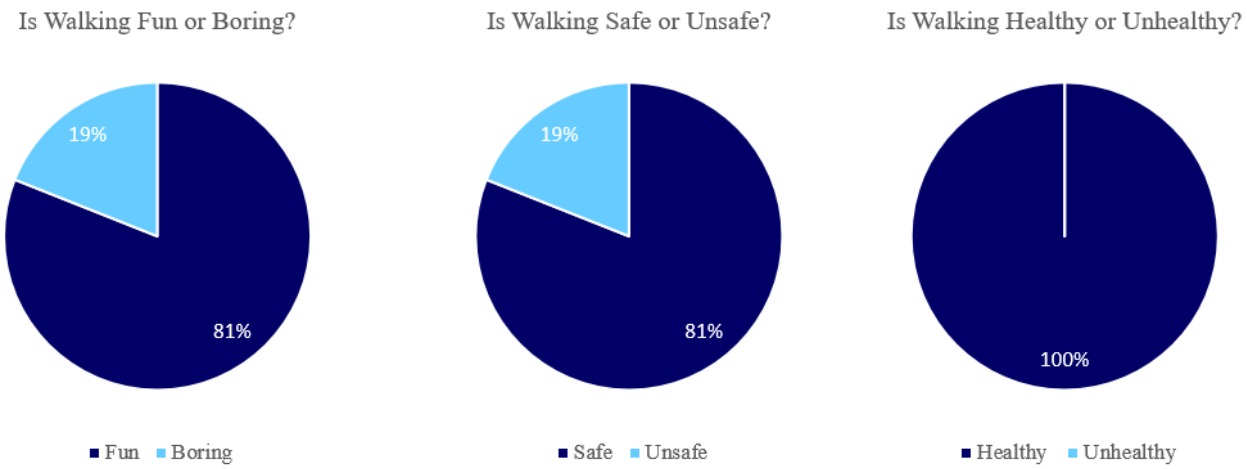

Figure 12: Manchester Middle School Student Perceptions of Walking (Percentages are Rounded)

Manchester Middle School students also responded unanimously that biking was healthy as well (Figure 13). Biking was perceived to be fun and safe, with 95% and 71% indicating so respectively.

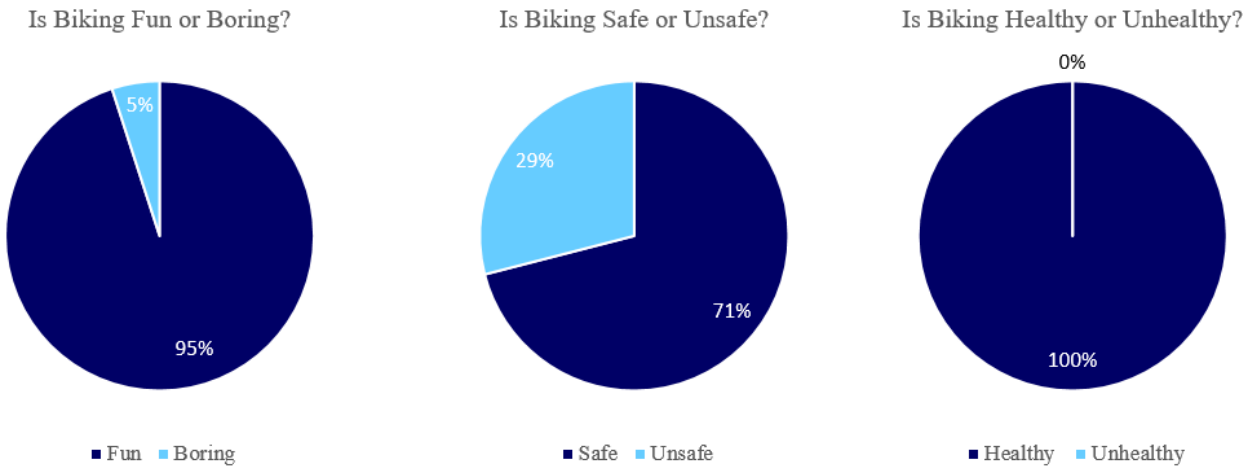

Figure 13: Manchester Middle School Student Perceptions of Biking (Percentages are Rounded)

Students from both schools were additionally asked if they would walk or bike to school if the route was improved to make them feel safer. Klager Elementary students were mostly open to the idea of walking and biking to school in light of improvements, with only 12% indicating that they would not do so.

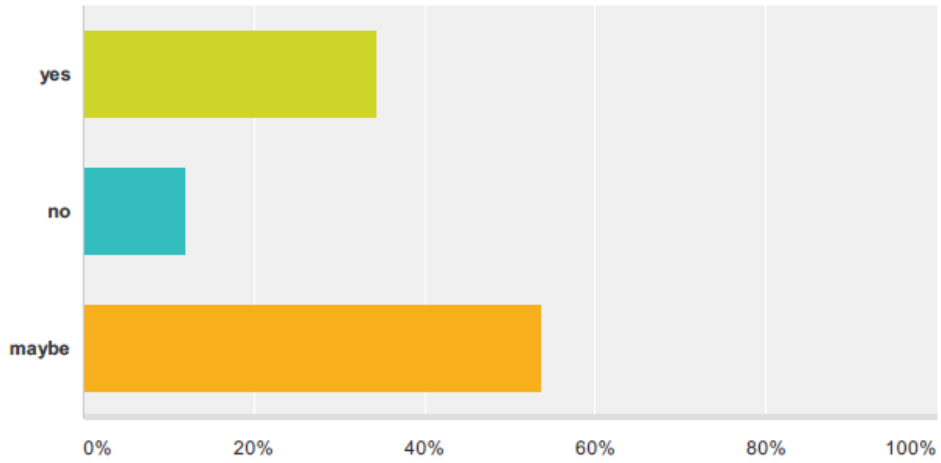

Figure 14: Klager Elementary, Would you walk or bike to school if the route to your school was improved so you felt safer?

Manchester Middle School students tended to be less responsive to the prospect of walking and biking to school with improvements. Although 35% of students said they would, respondents stating that they might or would not equally reported at 32.5%.

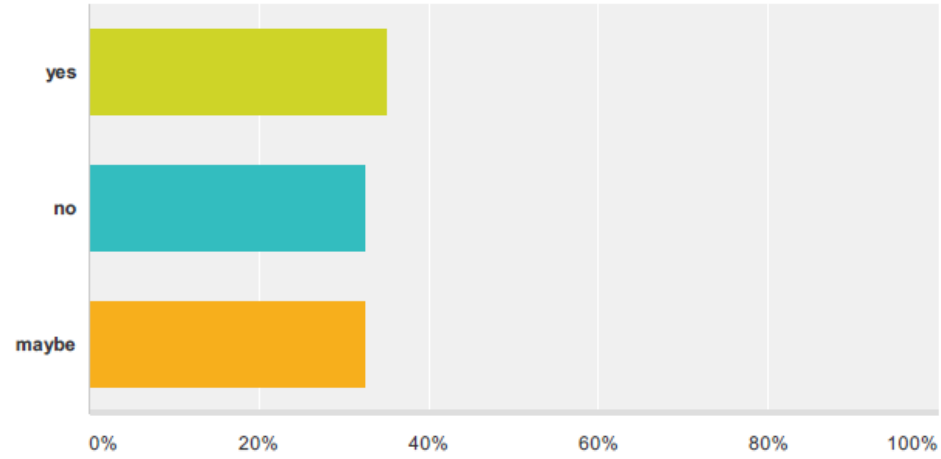

Figure 15: Manchester Middle School, Would you walk or bike to school if the route to your school was improved so you felt safer?

The data provided serves to demonstrate a few characterizations concerning walking and biking behavior and perceptions of Manchester Middle School and Klager Elementary School parents and students. Both parents and students have concerns about the safety of walking and

biking to school. These safety concerns affect parent and student decisions on whether they choose to engage in walking and biking.

Where the students and parents have differing attitudes toward walking and biking, is evident in the level of students whom wish to walk and bike but do not have a choice in that matter. This disconnect is seen in both schools, as they had levels of non-motorized transportation to and from school that hovered over 80% of the travel choices. What the student survey revealed, was that not only do students perceive walking and biking to be fun, safe, and healthy, but also a portion of the student respondents stated that they would engage in non-motorized transportation, given the presence of safety improvements along the route. This fact necessitated the need to ascertain further information regarding the primary routes students would walk or bike to school. With the collection of closely observed pictures and publicly provided data from the walking audit, the project is able to move closer to making recommendations targeted at achieving SRTS objectives.

Interview Results

Overall positive perceptions of walking and biking in Manchester increased from pre-SRTS programming to post-SRTS programming. From the interviews conducted (IRB #: x16-1608e; i053086), the number of participants reporting that there was little to no walking and biking by Manchester students decreased and the number participants reporting active or very active walking activity increased (Figures 16 and 17). The number of participants reporting a fair amount of biking also increased.

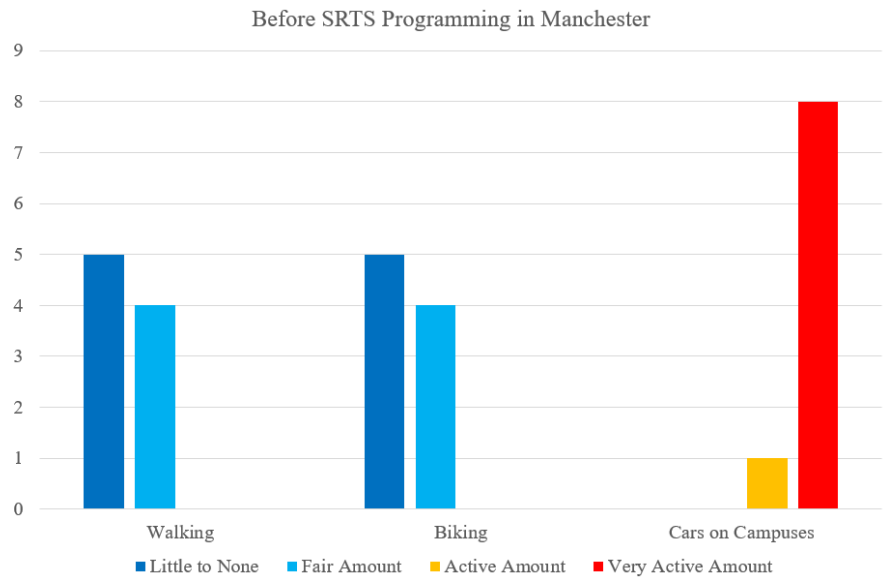

Figure 16: Interview Responses Regarding Pre-SRTS Conditions

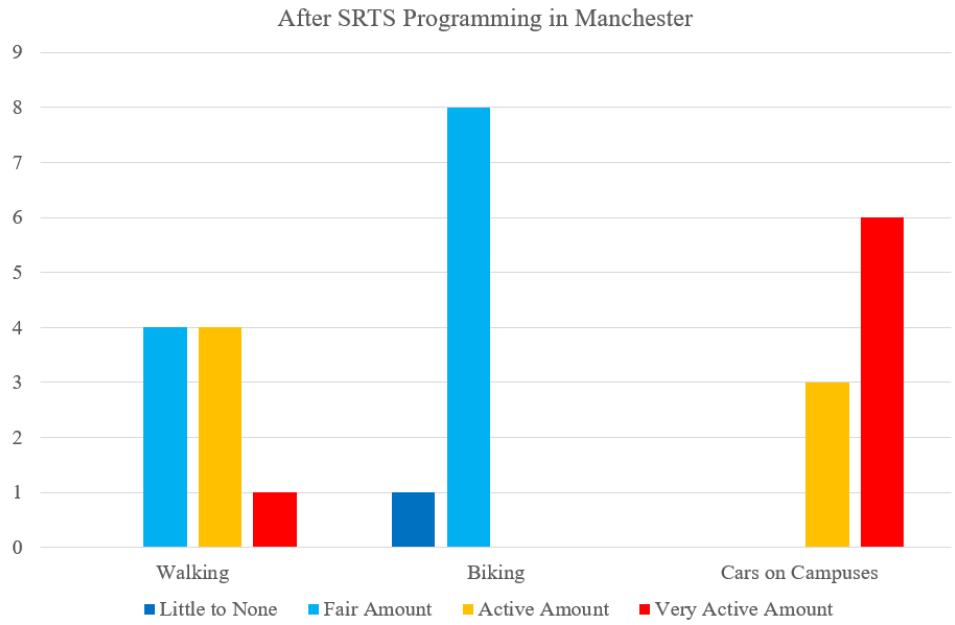

Figure 17: Interview Responses Regarding Post-SRTS Conditions

In addition to the perception of interviewees that low levels of biking and walking existed, they expressed a general feeling that school campuses had a disproportionally high number of automobiles during drop off and pick up times. Marsha Chartrand, who is a contributor to the Manchester Mirror and grandparent of a student attending Manchester

Community Schools described the amount of traffic around school campuses as “huge, I mean really huge in little ‘ol Manchester… we get huge traffic jams” (M. Chartrand, personal communication, February 20, 2017).

Perceptions of general student safety also experienced a positive change in the opinion of the stakeholders interviewed. Where 56% of those interviewed stated that students were “safe” before SRTS, most felt that students were “very safe” at 67% after SRTS programming (Figure 18).

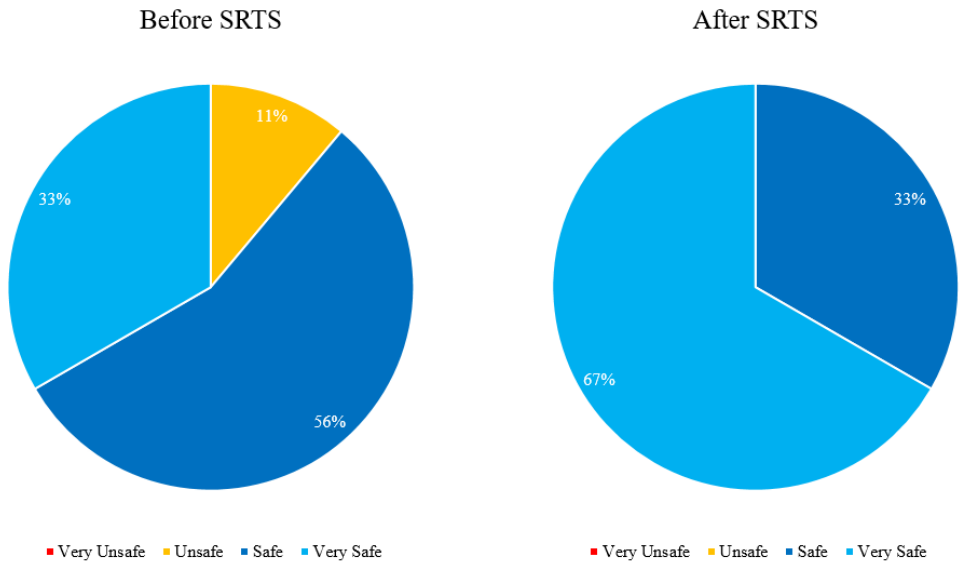

Figure 18: Perception of Student Safety Before and After SRTS Programming

Overall, the majority of the interviewees stated that they felt the program was "very successful" at 56% (Figure 19). Of those interviewed, no person stated that they felt the program was unsuccessful, as others reported that they felt neutral or that it was successful.

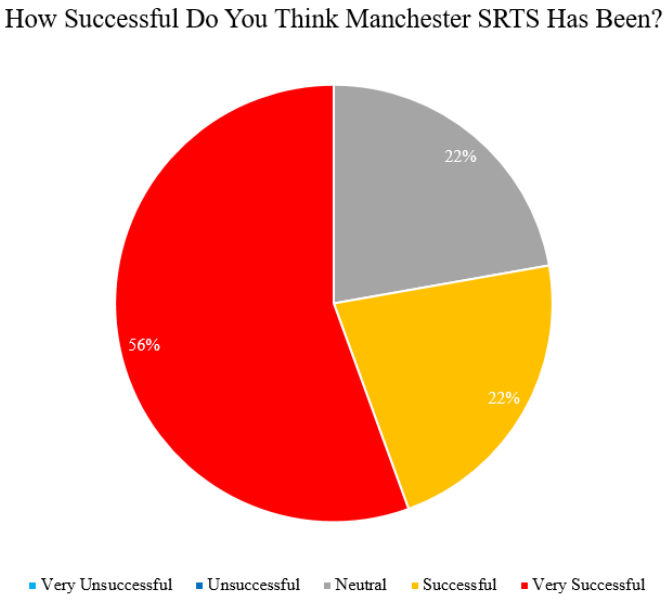

Figure 19: Perception of SRTS Manchester Success

Michigan Fitness Foundation

Since the MFF is contracted through MDOT as the presiding health organization, they have a major interest in seeing a successful process occur. The MFF assigns a regional coordinator to each school that participates in the state of Michigan. Adrianna Jordan served as the operations coordinator in the case of Manchester and stated that "as the umbrella organization we have a huge stake in the success of the program" (A. Jordan, personal communication, February 24, 2017). Jordan originally became aware of SRTS in its early stages as a planner working in California and carried her knowledge of its mission into her vital role at the MFF.

As the grant coordinator, Jordan was responsible for "reviewing the grant to ensure that it was feasible within the federal guidelines for Safe Routes to School at the beginning of the process" (A. Jordan, personal communication, February 24, 2017). Among the duties that Jordan assisted Manchester with included informing the local partners what the grant would essentially encompass, what programs they would be eligible for, and what details they would need to include in the grant application. "Basically I was the master editor of the grant. We often use the analogy of ping-pong when we talk about the grant coordinator's interaction with the communities because they would send in a draft and we would send it back marked up and they would take the comments and revise their draft application. We would revise it, and then maybe submit" (A. Jordan, personal communication, February 24, 2017).

With her prior experience with MDOT and the SRTS grant writing process, Jordan ensured that Manchester would have the best possible opportunity to have their application approved. "We didn't want them to submit their grant until it was at its strongest point to actually get in award" (A. Jordan, personal communication, February 24, 2017). Manchester received full programming and infrastructure grants for both Klager Elementary and Manchester Middle School. Jordan stated that the biggest accomplishment of the process was how the "players involved worked very well together, combined with the community support. They got all of the programming that they wanted" (A. Jordan, personal communication, February 24, 2017).

Five Healthy Towns Foundation

SRTS is aligned with the objectives of 5HF and provides for added value to their foundation funding. Ruth VanBogelen serves as a 5HF board of trustee member and is also a community volunteer with the Manchester program. VanBogelen stated that SRTS is a strong

example of "programs that we can invest in" and that "makes our contribution even bigger. We see the value in that" (R. VanBogelen, personal communication, 2017, February 17). Pegouskie also regarded SRTS programming in its compatibility with not just foundation objectives, but also its ability to partner with outside organizations. SRTS is a "natural fit for the foundation to partner with communities, school districts, MSU, and the Michigan Fitness Foundation, in order for our parents, students, and neighbors to walk and bike to safely and have fun doing so, developing life-long habits of physical activity" (M. Pegouskie, personal communication, February 3, 2017).

Pegouskie became aware of SRTS through his former position at the City of Novi, MI and brought knowledge of the process with him to 5HF. His expertise was enhanced by gaining certification in the state of Michigan as a complete streets trainer. In addition to this skill set, Pegouskie provided services by writing "all the grant application narratives to MDOT, participating in all of the walking audits, taking pictures, managing the grant portal, securing surveys, taking care of all the paper work" (M. Pegouskie, personal communication, February 3, 2017). In his view, the biggest success in Manchester was the fact that all programmatic efforts happened even "without shiny new sidewalks. It is really a testament to the coalition and the schools working with the village" (M. Pegouskie, personal communication, February 3, 2017). He also noted that "it will be our biggest award when it is done, almost $400,000. We've received a million dollars in grants over three years with all our towns and everything that is happening". Pegouskie also works closely with the Manchester Wellness Coalition to determine other programmatic objectives of the community.

Michigan State University

In addition to the foundation involvement, Manchester utilized MSU and its School of Planning, Design, and Construction (SPDC) to coordinate the overall planning process. The involvement of MSU into the project had a seamless integration, as the 5HF served as the local intermediary by making crucial contacts.

With this close local contact, MSU was able to maximize services by gaining more public input and better understanding of unique local needs and vision. The coordinated efforts of MSU SPDC and the College of Engineering work with the public to provide direct professional expertise based on direct local input (Figure 20).

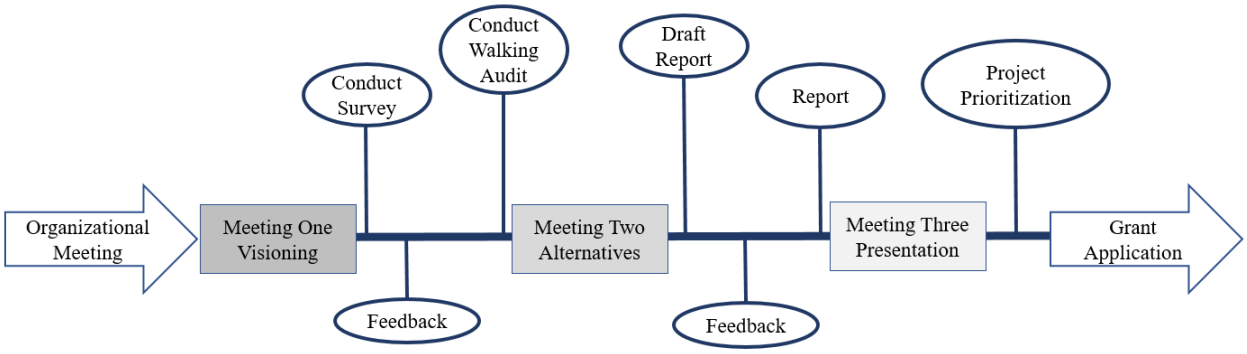

Figure 20: MSU SRTS Process

The College of Engineering, along with representatives from the SPDC Landscape Architecture Program, provided important information and recommendations for the infrastructural aspects of the project. One particularly useful practice is the use of Photo Shop to visualize landscape designs. By presenting renderings of the built environment from a before and after perspective, stakeholders and the public are able to visually assess the recommendations and are given the opportunity to make suggestions or approve of the overall direction (Figure 21).

Figure 21: MSU Before/After Imaging, Location at the corner of Ockrow St. in Manchester. Photo Credit: MSU SPDC

Urban planners from the SPDC are responsible for making recommendations on a health and fitness programmatic level. Planners take public input into consideration and make a series of program recommendations based on three tenants of SRTS. These programs are aimed at education, encouragement, and enforcement. From these recommendations, the schools are able to determine what they are interested in pursuing and work with the planners to go forward with the accepted recommendations that are included in a final report.

Walking Audit

In order to identify barriers that affect student safety when walking and biking to school, a walking audit was conducted with Manchester teachers, students, and community members. The audit was facilitated and aided by 5HF and MSU. Participants broke into separate groups that documented potentially dangerous features of priority routes that students take to and from school campuses. The items of interest were documented through photos and accompanied with

notes taken by participants. Once the walking audit was completed, the groups reconvened and had an open discussion regarding their findings.

Community Input Meetings and Programming

As a result of these organization and public meetings, Manchester enacted a series of programs with the intent of increasing walking and biking to and from school with students at Manchester Middle School and Klager Elementary School. The programs that the Manchester SRTS Committee chose to institute consisted of Walk to School Wednesdays (Figure 22), International Walk to School Day (Figure 23), a Bike Rodeo (Figure 24), and a series of incentive programs. It is important to discuss the nature of these programs and how Manchester administered them within their own community context successfully.

Figure 22: The Manchester High School marching band leads students in a Walk to School Wednesday event in Manchester. Photo Credit: Manchester Mirror

The most frequent program that Manchester has enacted is a regular event called Walk to School Wednesdays. Students are called upon to walk or bike to school on designated Wednesdays during the school year. For students that live too far away from campus, a remote

drop off system is used where parents can give their children an opportunity to walk to school by gathering them with peers and walking the remaining distance to campus. The approach that Manchester creates is unique, in that it incorporates different themes throughout the year and involves the high school students as well. The Manchester High School marching band is utilized to lead the children in a walking parade at some points in the year to rally community support and raise additional awareness to the event. During certain holiday seasons, students are encouraged to wear different festive costumes while they walk to school.

Figure 23: International Walk to School Day 2013. Photo Credit: Manchester Mirror

A Bike Rodeo was also implemented as a part of SRTS Manchester. This is when students take part in an event that offers instruction in safe biking behavior and encourages the use of helmets. By running students through a series of biking scenarios, education of good cyclist behavior and basic procedures are learned. The SRTS grant covers the expense of the helmets, which are given to the student participants to protect and encourage increased biking within the community. The Manchester SRTS program also worked with regional cyclist advocates such as the Ann Arbor Bicycle Touring Society and Programs to Educate All Cyclists

(PEAC) from Ypsilanti, MI to assist specifically with cycling related events such as the bike rodeos.

Figure 24: Bike Rodeo in Manchester. Photo: Ann Arbor Bicycle Touring Society. Photo Credit: Manchester Mirror

It is important to note the networks that exist within the Manchester community that supplement activities related to SRTS. The 5HF Manchester Coalition plays a large role in getting adults on board and setting a good example for students. The coalition spearheaded a couch-to-5K program with high school-aged students and also a virtual fitness tracking competition among adult professionals in the community. By demonstrating physically active behavior with adults, it is hoped that younger children follow the example.

Infrastructure

At the time of the study, the major SRTS infrastructure (e.g. designated sidewalks and crossings) had not been built. However, significant infrastructure improvements did occur since the SRTS programming, including the completion of a main street bridge project (Figure 25), and a number of sidewalks were fixed by the Village government. Despite the lack of major

infrastructure implementation, positive programmatic indicators are evident. With infrastructure and programs combined, Manchester is set to receive over $350,000 in grant awards through SRTS (M. Pegouskie, personal communication, February 3, 2017).

Figure 25: Manchester main street bridge with updated sidewalks. Photo Credit: Adam Jenks

Manchester Community Schools

The two participating schools of Klager Elementary and Manchester Middle School found programmatic support through administrators and teaching faculty alike. Superintendent Cherie Vannatter sees a number of items that SRTS achieves in Manchester, stating that it provides for "safe ways for students to come to school and aid them in a healthier lifestyle… We are seeing improvements around the community every year and I am very happy with that" (C. Vannatter, personal communication, February 23, 2017). As the head of the school district, Vannatter stood as an advocate by encouraging the program with building administrators, teachers, and writing letters of support for SRTS.

Vannatter was also responsible for finding a committed teacher to act as the coordinator of the program. Klager Elementary teacher Kathy O'Mara serves this role, planning special events and rallying support for the program through her close relationships with the students as an educator within the school district. Principal of Klager Elementary, Karin Villarreal praised the efforts of O'Mara, noting the value of having a committed teacher in the program and her ability to get kids "excited" about events (K. Villarreal, personal communication, March 3, 2017). Jennifer Mayes, Principal at Manchester Middle School, also had high praise, stating "(Kathy) is incredibly enthusiastic and energetic about getting together to walk. I think that attracts students" (J. Mayes, personal communication, March 17, 2017).

Vannatter sees the program as a successful one, and in her opinion the greatest accomplishments have been that "kids are very excited and motivated to walk. Before we started this (SRTS) I stood and counted over 200 cars, when we only have around 350 kids (at Klager Elementary), it was crazy!" (C. Vannatter, personal communication, February 23, 2017). Vannatter has every intention of continuing SRTS by her part, remarking that continued funding for a coordinator will be important in making it sustainable.

The Village of Manchester

Jeff Wallace maintained an imperative role as the village manager in the process and stated that the interest of his department in SRTS was "to encourage a healthier community... trying to get our community more active" (J. Wallace, personal communication, March 15, 2017). SRTS came to the attention of Wallace through the Michigan Association of Planning event "Transportation Bonanza," held in Lansing. As the village manager, Wallace already experienced working with transportation enhancement programs, sidewalk adjustments, ADA compliance matters and many other infrastructural projects. "I've been dealing with sidewalks

and ADA ramps. Making our downtown ADA compliant. I end up being the guy that gets the contacts out there. I have been here a long time and I wear a lot of different hats" (J. Wallace, personal communication, March 15, 2017). During the grant writing process, he leant his expertise in advising what infrastructure updates should take place and stated that he was involved with every part, including the walking audits.

In the perspective of Wallace, the greatest accomplishment of the program has been the heightened "awareness of not only people that have children walking to school but also of the people along the routes there. They see the kids walking now" (J. Wallace, personal communication, March 15, 2017). Wallace even suggested that traffic congestion is alleviated to a certain degree on days where high amounts of participation takes place from special events related to SRTS. Wallace found that the greatest challenge encountered was "Changing attitudes. It's hard to change people's attitudes. How many kids are still riding the bus? Parents have to get up earlier and that's harder. Usually both parents work, that makes it harder for us to get higher numbers" (J. Wallace, personal communication, March 15, 2017).

Washtenaw County Sheriff's Department

The Washtenaw County Sheriff's Office is the responsible law enforcement entity in the Village of Manchester and consequently the avenue by which the SRTS enforcement component is run. Sgt. Paul Cook has been involved with SRTS Manchester in this respect and is the main contact for anything related to enforcement programs. Although Cook did not take part in the early stages of SRTS, he has served as a valuable overseer of the Walk to School Wednesday events, ensuring the safety of walkers by participating in the events. "The Sheriff's Office provides a presence in the bike/walk to school days" (P. Cook, Email, February 28, 2017). Not only does Cook participate directly with programmatic events and enforcement, but also has an

intimate knowledge of the area and community with over twenty-two years of service in Washtenaw County.

The Manchester Mirror

Media presence plays a key role in the advertising and wide-scale coordination of SRTS programing in Manchester. The editor, Sara Swanson, is responsible for making sure "weekly articles promoting Safe Routes to School "Walk to School Wednesdays" special events like "National Bike to School Day" and the bike rodeo" are run in the online and print newspaper format (S. Swanson, Email, February 23, 2017). Swanson is also a member of the Manchester Wellness Coalition and is involved with community garden projects, making the Manchester Mirror an ideal conduit to spread health related awareness around the village. Swanson and Marsha Chartrand (also a contributor to the Manchester Mirror) take photos of events and contribute regular write-ups to the paper. "Other than social media, we are one of the only ways of getting information out to the community. One of our goals is to use our reach to promote community programs like SRTS" (S. Swanson, Email, February 23, 2017).

Chartrand stated that in her view the greatest accomplishment of the program has been "getting kids more aware of being able to walk to school and how to do it safely. Kids are very excited about it even if they just get a pencil (for participation), whatever it takes. Kids can feel better about themselves… We are working to make a safer and more walkable community. We want to alleviate obesity in kids and adults" (M. Chartrand, personal communication, February 20, 2017).

CHAPTER 5 DISCUSSION

This final chapter will discuss conclusions regarding the most important components of the study. It will also cover limitations of the research, implications for future study, and application of best practices. This section will conclude with a discussion regarding findings from the survey and final commentary of SRTS Manchester.

Importance of Interorganizational Collaboration and Roles

SRTS programming provides an opportunity for schools and communities to bring in a wide range of organizations in order to work for the common objective of increased positive health outcomes. When school districts work closely with municipal government, a disconnect can sometimes result in poor decisions regarding the built environment and access to key services is closed. By bringing in relevant stakeholders and advocates, the potential for costly and misinformed decision-making diminishes and lines of communications are strengthened.

Manchester serves as an example of interorganizational collaboration resulting in prioritized projects and successful outcomes. Through interview data and programmatic actions, Manchester demonstrates conditions that have shown to increase fitness and decrease pedestrian injuries through strong community buy-in (McDonald et al., 2014). By creating a culture of shared interests and explicit roles, organizations and stakeholders involved with Manchester SRTS were able to work toward their own interests while producing a successful common outcome in increased fitness with community youth and grant awards.

Necessity of Local Champion

The importance of having a local champion to carry out sustainable SRTS objectives is imperative. Manchester is able to designate champions working in a number of community

capacities, namely Manchester SRTS Coordinator Kathy O'Mara, who works directly with students as a teacher and a promotor for sustained programmatic activity. "The schools really promote the value to kids. The teachers know what motivates kids… [Kathy] comes up with something once a month" (R. VanBogelen, personal communication, 2017, February 17). O'Mara mentioned that working closely with students is "helpful with my presence. I have more time with the kids and that means that I can promote the program more." (K. O'Mara, personal communication, 2017, February 10).

Limitations

There are a number of limitations that are present within this study. The first subject is the safety of the Village of Manchester. Compared to the rest of the state of Michigan, Manchester crime rates are considerably lower when safety considerations are accounted for. General crime rates are lower than the state and national averages in Manchester. The village carries 10 crimes per square mile versus 28 and 32.85 in state and national respectively (2015 FBI Crime Statistics). Even when taking parent safety concerns into consideration from the survey data, personal interviews with organizational partners revealed an overall favorable perception of student safety within the community and near school campuses, as no interviewee responded that they thought student safety was "unsafe."

The second limitation is the size of the community in focus. In terms of census classification, Manchester is a rural community with under 2,500 residents. Further considerations need to be accounted for when SRTS programming operates within an urban setting or a more suburban, urban cluster (UC) context. The higher service demands of an extended built environment and larger population will likely require a larger scale approach to engineering and programming recommendations.

The built environment is also a considerable limitation, as not all of the infrastructural upgrades were completed in Manchester at the time of the research. The effect of this component should be measured at a future juncture, if optimal assessment is to be performed based on past SRTS evaluation noted in the literature review. However, it is noteworthy to mention that infrastructural changes did occur in the form of the main street bridge updates, which serves as a primary connection in the downtown area of Manchester to the surrounding residential neighborhoods. Improved sidewalks, bridge upgrades, and crosswalk markings were added.

Further research is needed to ascertain the sustainability and effectiveness of SRTS programming in Manchester once infrastructural improvements are in place. There are clear benefits to positive walkability outcomes with sidewalks and crosswalks in place. It is probable infrastructural improvements will have an effect on the Manchester SRTS program based on prior studies with such upgrades (McDonald et al., 2014).

Implications for Program Readiness and Prospective Schools

By looking to the Manchester SRTS program, other Michigan communities can follow the example by seeking out and securing similar partnerships that existed in the case study. A health and fitness champion should be a pre-requisite for any school district considering pursuit of a SRTS program and grant. Future participants can model their own process after the Manchester program to assign responsibilities and contacts. Identification of specific field experts can provide relevant and constructive expertise to the interdisciplinary nature of the program. Among these vital experts, the process should involve civil engineers, landscape architects, educators, fitness professionals, local municipal government officials and urban planners. By bringing in these areas of expertise, the program will be ready to provide

communities and schools with effective information in order to constructively participate in the public input process.

Conclusions on Manchester Safe Routes to School Program and Recommendations

For prospective SRTS communities, it is critical to have a local champion from within the schools that the program is targeting, whether it be teacher or parent. Manchester certainly demonstrates the proper application of community and familial support proven to increase fitness in youths (Panter, van Sluijis, Griffin. 2010). In the case of Manchester, the presence of a teacher as the coordinator provided a daily contact point for students involved with programming.

The continued success of SRTS programming is also predicated on the efforts and presence of local fitness advocates and professionals. With the incorporation of fitness personnel and professional best practices, programs yield positive trends in health (Zahner, 2005) and in academics (Centers for Disease Control and Prevention, 2010). The SRTS grant has enabled Manchester to make short-term gains in programming and infrastructure, which based on the literature, should encourage increased outcomes in walking and biking (McDonald et al., 2014). However, more important is the action of organizations such as 5HF to continue efforts to promote fitness and health on a personal and local basis in order to provide long-term resources to invested community members.

By interviewing individuals that participated in active roles and represented interorganizational partnerships identified in the Manchester SRTS program, there are measurable indicators that show increased active transport to and from school and improved perceptions regarding general safety. The overall assessment in the opinion of the interviewees was that it was at least “successful,” accounting for 78% of the sample. No participant

interviewed claimed that the program was “unsuccessful” to any degree. Captured in these conversations, was the view that the program did increase walking and biking to and from school. While no participant claimed that there was at least an active amount of walking before SRTS, almost half of the participants stated that there was at least an active amount after the programming had taken place. Although the number of participants did not report as favorably with bicycle use, there was an overall opinion that biking did increase to a degree after the programming. The perception of safety also increased, as the number of participants that reported conditions being at least safe changed from 88% before programming to 100% after.

With the analysis of surveys generated from the National Center for Safe Routes to School and Michigan Fitness Foundation in addition to the eleven qualitative interviews conducted (x16-1608e; i053086) with directly involved Manchester SRTS participants, review of the original research questions can be done. After considering the literature review, three essential research questions formed the basis for the thesis investigation: who are the essential organizations in an effective SRTS program and what roles are they responsible for?; what expertise or technical skills are relevant to competently carry out a successful SRTS program?; how should best practices be used in order to engage the community in sustainable and effective SRTS programming?

Observed with the Manchester SRTS program, a set of essential organizations can be identified. Institutional partners such as the MFF and MSU were able to work alongside local organizations with direct and sustained community contact. Manchester Community Schools acted as an anchor to leverage student and teacher relationships in order to develop relevant and successful programming. Manchester possessed the added benefit of 5HF, which acted as a health organization with intimate and long-term involvement with the Village of Manchester

government and community members at large. Manchester was able to carry out items related to enforcement with their relationship with the Washtenaw Sheriff's Department and the oversight of Sgt. Paul Cook.

Specific expertise and skills played an important role in the execution of the program. The combination of MFF and 5HF allowed for the application of extensive fitness knowledge. The involvement of Matt Pegouskie not only addressed this need, but also introduced an individual with complete streets certification that helped align fitness and infrastructural objectives. Both foundations also worked very closely with stakeholders to maximize the effectiveness of their grant application. In conjunction with the programmatic items tied to the grant, Kathy O'Mara acted as local champion in rallying support for SRTS events from within the schools. With relevance to infrastructure, Jeff Wallace provided knowledge of the municipal process to carry out updates and work with MDOT for future built environment improvements related to SRTS.

A relationship between municipal officials and health professionals also created an opportunity to implement best practices related to the objectives of SRTS. With the enforcement of a complete streets ordinance, adjustments to the built environment have proven to increase pedestrian activity (Havlick, 2004). The presence of the Manchester Wellness Center through 5HF, provides a sustainable contact point for continued SRTS programming and extensions to other fitness activities in the community. Events such as the Bike Rodeo done with partnerships involving PEAC and Walk to School Wednesdays with local participation from the high school marching band, create a culture of local buy-in and encouragement that is needed to increase SRTS objectives (Panter, van Sluijis, Griffin. 2010). Based on these practices, walkability and achievable outcomes related to SRTS objectives should increase.

Identification of interorganizational partners, expertise and technical skills, and programmatic best practices found in Manchester provide prospective participants with demonstrable positive SRTS outcomes. A well-established and sustained localized environment of interorganizational collaboration and community support is critical to the success of present and future initiatives that support common objectives. Even in the absence of local fitness foundations, future communities participating in SRTS should look to the Manchester model to help identify appropriate advocates and professionals.

APPENDIX

APPENDIX

Survey Instrument

Michigan State University IRB #: x16-1608e; i053086

You are being asked to participate in a thesis study on the process of the Manchester Community Schools Safe Routes to School Program. As a participant, you will be asked to answer a series of questions about your involvement in the program, your perspective of walking and biking in Manchester, and what changes you have observed. This survey will take approximately 20-30 minutes to complete. You must be at least 18 years old to participate in the study.

Participation in this thesis study is completely voluntary. You have the right to say no. You may change your mind at any time and withdraw. You may choose not to answer specific questions or to stop participating at any time. Refusal to participate will not involve any penalty or loss of benefits that are otherwise entitled to the participant.

If you have concerns or questions about this study, such as scientific issues, how to participate in any part of it, or to report an injury, please contact the Michigan State University Human Research Protection Program at irb@msu.edu or call (517) 355-1855. Adam Jenks is the investigator and can be reached at jenksada@msu.edu.

Your verbal consent means that you voluntarily agree to participate in this thesis research study.

Would you like to participate in this study?

If yes, continue with survey If no, do not continue with survey

1. **What interest does your organization or department have in Safe Routes to School?**

   (open ended)

2. **How would you describe the following for Manchester Community Schools and its students before Safe Routes to School?**

   2a. Walking to/from school- (1) little to none (2) a fair amount (3) an active amount (4) a very active amount

2b. Biking to/from school- (1) little to none (2) a fair amount (3) an active amount (4) a very active amount

2c. Cars on school campuses before/after school- (1) little to none (2) a fair amount (3) an active amount (4) a very active amount

2d. General student safety traveling to/from school- (1) very unsafe (2) unsafe (3) safe (4) very safe

3. **Can you give an example before Safe Routes to School?** (open ended)
4. **How did the Safe Routes to School program come to your attention?** (open ended)
5. **Prior to Safe Routes to School, had you worked with the involved partners in other programs or projects?**

5a. If yes, about how many combined total programs or projects had you worked on with other involved partners?

6. **What knowledge or technical skills did you contribute to the process?** (open ended)
7. **What methods or media outlets did you use to publicize meetings or programmatic events?** (open ended)
8. **Safe Routes to School features many programs that focus on education, encouragement, and enforcement. What was done to:** (open ended)

-educate students and community members about active walking and biking lifestyles and traffic safety?

-encourage students to walk and bike to school?

-enforce traffic safety and Safe Routes to School programs?

9. **What was your role in the implementation of the programmatic aspects of Manchester Safe Routes to School?** (open ended)

-Walk to School Day

-Bike Rodeo

-Walk to School Wednesdays

-Any other related programs

10. **What infrastructural aspects of Safe Routes to School the process were implemented?** (open ended)

-Bike Racks

-Sidewalks

-Traffic Signs

-Crosswalk Markings

-Other Physical Improvements

11. **How were you involved with or contributed to the preparation of the grant writing process?** (open ended)
12. **What was the greatest accomplishment with the Safe Routes to School process?** (open ended)
13. **What was the greatest challenge or setback that you encountered through the Safe Routes to School process?** (open ended)
14. **Are you or your organization planning on staying involved with the Manchester Safe Routes to School Program in the future?**

14a. If yes, how will you or your organization be involved with the process going forward?

14b. If no, why is it no longer necessary for you or your organization to be a part of the program?

15. **How would you describe the following for Manchester Community Schools and its students after Safe Routes to School?**

    15a. Walking to/from school- (1) little to none (2) a fair amount (3) an active amount (4) a very active amount

    15b. Biking to/from school- (1) little to none (2) a fair amount (3) an active amount (4) a very active amount

    15c. Cars on school campuses before/after school- (1) little to none (2) a fair amount (3) an active amount (4) a very active amount

    15d. General student safety traveling to/from school- (1) very unsafe (2) unsafe (3) safe (4) very safe

16. **Can you give an example of one of the activities after Safe Routes to School?**

17. **From the following options, how successful do you think the Manchester Safe Routes to School Program has been?**

    (1) very unsuccessful (2) unsuccessful (3) neutral (4) successful (5) very successful

Are there any other notable impacts or observations that you would like to share about the Manchester Safe Routes to School Program? (open ended)

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